Vogtle Electric Generating Plant

Unit 1 and Unit 2

Individual Plant Examination of External Events

Volume 1

November 1, 1995

TABLE OF CONTENTS

Volume 1

LIST OF TABLES

Table

LIST OF FIGURES

Figure

1. EXECUTIVE SUMMARY

1.1 BACKGROUND AND OBJECTIVES

On August 8, 1985, the Nuclear Regulatory Commission (NRC) issued a policy statement stipulating the need for a systematic examination of all nuclear power plants for plant-specific severe accident vulnerabilities. In response to the policy statement, the NRC staff presented a plan for closure of severe accident issues (SECY-88-147) containing six major elements, one of which requires examination of existing plants for severe accident vulnerabilities. In fulfillment of NRC Generic Letter (GL) 88-20, "Individual Plant Examination for Severe Accident Vulnerabilities - 10 CFR 50.54(f)," Georgia Power Company (GPC) submitted to the NRC on December 23, 1992, an Individual Plant Examination (IPE) for Vogtle Electric Generating Plant (VEGP) Units 1 and 2 to evaluate internal events.

On June 28, 1991, the NRC issued Supplement 4 to Generic Letter 88-20 to request that each licensee conduct an Individual Plant Examination for External Events (IPEEE). To establish format and content guidelines for submitting IPEEE results, the NRC issued NUREG-1407, "Procedural and Submittal Guidance for the Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities."

This document contains the results of the IPEEE performed for GPC's VEGP Units 1 and 2. The VEGP IPEEE addresses the following objectives, which are similar to the objectives of the internal event IPE:

- Meet the requirements of GL 88-20 and Supplement 4.
- Develop an understanding of severe accident behavior at VEGP.
- Realistically estimate the frequency of core damage and fission-product release.
- Provide management with the necessary information and tools to facilitate prudent decision making regarding potential modifications to plant design or operations.

The IPEEE information has been presented using the standard table of contents given in Table C.1 of NUREG-1407.

1.2 PLANT FAMILIARIZATION

VEGP is a two-unit site consisting of Westinghouse 4 loop pressurized light water reactors with a core thermal power rating of 3565 MWt. The turbine generators are supplied by the General Electric Company and are rated at 1210 MWe. The plant is located approximately 26 mi south-southeast of Augusta, Georgia, on the Savannah River. It is jointly owned by its operator

Georgia Power Company, the Municipal Electric Authority of Georgia, Oglethorpe Power Corporation, and the City of Dalton. Commercial operation for Unit 1 was declared on May 31, 1987, and for Unit 2 on May 20, 1989.

1.3 OVERALL METHODOLOGY

The IPEEE program for VEGP involved a careful analysis of the plant documentation. To the extent possible, information gained during the internal events IPE for VEGP was used for the IPEEE. In addition, walkdowns of the plant were performed and documented to verify as-built configuration with regard to external events. Differences were identified between Units 1 and 2.

The VEGP IPEEE analysis was conducted by staff personnel with significant probabilistic risk assessment (PRA) experience, fire protection experience, seismic experience, engineering staff personnel with VEGP-specific experience, the VEGP staff, outside seismic consultants, and personnel from PLG, Inc., and Westinghouse, Inc. The Peer Review Group, as defined by NUREG-1404 and referred to as the Independent Review Group (IRG), was formed to review the internal fires IPEEE process, as well as specific portions of the analysis. This group consisted of site personnel and representation from the corporate office. An outside expert consultant was used for the seismic peer review.

The VEGP IPEEE analysis is divided into three major categories of external hazards: seismic, fire, and a category referred to as "other" which includes high winds, floods, transportation and nearby facility accidents, and other external hazards.

The seismic hazard was addressed by performing a seismic margin assessment (SMA) in accordance with the guidelines of Electric Power Research Institute NP-6041. The internal fires IPEEE was accomplished by performing a fire PRA which addressed both the Level I and Level II analyses. The progressive screening approach described in NUREG-1407 was used to identify potential vulnerabilities at VEGP caused by high winds, floods, and transportation and nearby facility accidents. The methodology for each hazard is detailed in chapters 3, 4, and 5.

1.4 SUMMARY OF MAJOR FINDINGS

The major finding from this examination is that VEGP has no fundamental weaknesses or vulnerabilities to severe accident risk in regard to the external events related to seismic, fire, high winds, floods, transportation and nearby facility accidents, and other external hazards.

Based on the results of the SMA evaluations described in chapter 3 of this report, along with the conservative seismic design of the plant, VEGP has a high-confidence-low-probability-of-failure (HCLPF) capacity of 0.3 g peak ground acceleration.

The thoroughness of the design and construction process for VEGP, as well as the high level of conservatism inherent in the design and qualification of structures and equipment. Dr. John Reed, who served as the independent peer reviewer for the VEGP SMA, stated the following in a letter documenting this walkdown of VEGP:

> My general impression of Plant Vogtle is that it is very seismically rugged. This plant is one of the most rugged nuclear power plants I have ever inspected.

The peak ground motion (safe shutdown earthquake) at VEGP is 0.20 g. Deeply embedded structures, which include the containment, used a deconvolution technique with a scaling factor of 1.5. Consequently, these structures are designed to a 0.3 g pga. Therefore, the concrete containment and containment internal structures were screened out at a HCLPF capacity of at least 0.3 g pga. Containment performance was evaluated and no seismically induced functional failures were identified.

The fire-induced core damage frequencies (CDFs) for VEGP were found to be 1.01E-5 per year. This represents a fire risk contribution that is less than 23 percent of the internal events CDF of 4.45E-5 for VEGP.

The fire PRA provides meaningful insights to the relative risk for various areas at VEGP. The portions of the plant with the highest risks at VEGP are switchgear rooms, the control room, the lower (train A) cable spreading room, the train B electrical penetration room, and the east-west corridor/cable chase on level A of the control building. Containment performance for fire initiators was conservatively evaluated, and it was determined that the sequences are similar to the internal events. The conclusion is that fire events do not pose any unique threat to containment performance, and containment performance is not significantly different than that identified in the IPE report plant damage states.

The review of the VEGP-specific hazard data and licensing bases regarding high winds, floods, transportation and nearby facility accidents, and other external hazards, was accomplished by a review of the pertinent sections of the VEGP Final Safety Analysis Report. Because both units of VEGP were granted operating licenses within the last 10 years, and based on the NRC Safety Evaluation Report NUREG-1137, using the Standard Review Plan, NUREG-0800, this determination of conformance was a straightforward verification. The conclusion of this review is that VEGP conforms to the SRP (NUREG-75/087) criteria, which was the predecessor SRP to NUREG-0800.

2. EXAMINATION DESCRIPTION

2.1 INTRODUCTION

The Vogtle Electric Generating Plant Individual Plant Examination of External Events (IPEEE) was performed to identify and resolve plant-specific severe accident issues arising from external events. Southern Nuclear Operating Company conducted the IPEEE in full compliance with the guidelines set by Nuclear Regulatory Commission Generic Letter (GL) 88-20, Supplement 4 (Reference 2-1) and supporting material. This section provides information documenting conformance of the study with GL 88-20 requirements and supporting material, the general methodology, and the information assembly.

2.2 CONFORMANCE WITH GENERIC LETTER 88-20 AND SUPPORTING MATERIAL

Generic Letter (GL) 88-20 (Reference 2-1) includes several sections, enclosures, and appendixes. The information in GL 88-20 can be categorized as follows:

- Regulatory information requests.
- Guidance on how to examine certain aspects of analysis.
- Criteria for reporting sequences.
- Information relative to the Nuclear Regulatory Commission's (NRC's) perspectives on accident management plans and decay heat removal vulnerabilities.

Supplement 4 to GL 88-20 (Reference 2-2) requested that each licensee conduct an Individual Plant Examination for External Events (IPEEE). NUREG-1407 (Reference 2-3) provides the procedural and submittal guidance for the IPEEE.

Similar to the purpose of the Individual Plant Examination (IPE) Report, Supplement 4 of GL 88-20 requested each utility to perform an IPEEE for the purpose of:

- Developing an appreciation of severe accident behavior.
- Understanding the most likely severe accident sequences that could occur.
- Gaining a more quantitative understanding of the overall probabilities of core damage and fission product releases.
- Reducing the overall probabilities of core damage and fission product releases.

However, NUREG-1407 indicated the external initiators could not necessarily be treated in the same manner as internal initiators because of the possible differences in sources and treatment of uncertainties of estimates of core-damage frequencies. The NRC staff endorsed certain methods for evaluating external hazards which do not produce estimates of core damage frequencies. Such methods were utilized for the seismic and other, non-fire, external events.

Technical adequacy of the IPEEE is assured by a combination of the following:

- Use of information from reliable documents.
- Use of knowledgeable individuals.

- Peer reviews performed by the independent seismic consultant and the Independent Review Group (IRG).

Southern Nuclear Operating Company (SNC) has invested substantial personnel and financial resources in performing the Vogtle Electric Generating Plant (VEGP) IPEEE. A core staff of SNC personnel who are thoroughly knowledgeable about probabilistic risk assessment (PRA), the plant design, and the specific external hazards were involved in the conduct and review of the IPEEE. Other SNC personnel from the plant and General Office were extensively involved in various aspects of the IPEEE. Southern Company Services, Inc., was the prime contractor of the seismic margin assessment (SMA) project (see section 3.1.1.3 of this report for SMA team qualifications). PLG, Inc., had the lead responsibility for the internal fire portion of the IPEEE. Westinghouse was the prime contractor for the IPE and served as an interface to assure proper utilization of the IPE model with the fire analysis.

Georgia Power Company's Plant Hatch Unit 1 SMA was performed as part of the Unresolved Safety Issue (USI) A-46 and Electric Power Research Institute (EPRI) SMA project (Reference 2-5), which included reviews by the NRC Seismic Design Margins Working Group, NRC staff, an NRC peer review group composed of industry experts, and an NRC consultant involved in the USI A-46 programs. Georgia Power Company's VEGP was able to take advantage of this expertise in completing the VEGP SMA.

As stated above, PLG had the lead responsibility for the internal fire portion of the IPEEE. Three of the four fire PRAs covered in the NRC's Fire Risk Scoping Study were performed by PLG. The qualifications of the two principal PLG staff involved with the VEGP fire IPEEE are presented below:

Donald J. Wakefield

Donald J. Wakefield is a PLG partner and senior consultant with extensive experience in risk analysis of nuclear power plants. He has served as principal investigator and task leader for the risk assessment of several U.S. plants. Wakefield has a B.S. degree in engineering mathematics and an M.S. degree in nuclear engineering, both of which were earned at the University of California at Berkeley.

Wakefield specializes in systems analysis and Level I plant modeling in PRAs, and has served as an instructor for several PRA courses. He provided the PLG expertise in developing/analyzing the Sequoyah and Watts Bar PRA plant models to satisfy the IPE. Wakefield was the project manager for the Salem PRA update and principal investigator for a mini-PRA of the modular gas-cooled reactor. He recently served as principal investigator for the Beaver Valley Units 1 and 2 PRA performed to satisfy NRC IPE requirements. Wakefield was formerly a task leader in charge of Level I plant modeling and seismic analysis for the Diablo Canyon PRA, which included external events. He served as a task leader for the systems analysis and human factors analysis of the Three Mile Island (TMI) Unit 1 PRA project and consulted with GPUN for enhancements to the TMI Unit 1 PRA models to satisfy IPE requirements. Wakefield authored a report on the PRA approach to the systems interaction issue for EPRI. He provides technical direction for the development of PLG's RISKMAN PRA software. Wakefield served as principal investigator in charge of conversion of a fault-tree-linking PRA plant model for a pressurized water reactor to an event tree with boundary conditions model. He extended the converted model to accommodate fires and seismic events.

Wakefield is a substantial contributor to 5-year high-temperature gas-cooled reactor risk assessment study. He developed numerous improvements to severe accident consequence computer programs for the high-temperature gas-cooled reactor (HTGR). Wakefield quantified uncertainties in severe accident source terms and dose assessment for the HTGR, the first such assessment ever accomplished for any reactor type. He developed a procedure for prioritizing HTGR safety research programs using PRA and formulated the initial set of research recommendations. Wakefield prepared test specifications to implement research recommendations.

Wakefield is a member of the American Nuclear Society, Tau Beta Pi, and Phi Beta Kappa. He received the Regents Fellowship at the University of California in 1974 and the Department of Engineering Certificate Award in 1973..

Vincent S. Ho

Vincent S. Ho is a consultantat at PLG with extensive experience in fire risk analysis, flooding analysis, PRA, risk management, nuclear criticality analysis, operator actions analysis, computer software development, and artificial intelligence applications. He holds a B.S. degree in mechanical engineering, an M.S. degree in nuclear engineering, and a a Ph.D. in nuclear engineering from the University of California at Los Angeles (U.C.L.A). He also performed graduate work for an M.B.A. degree at U.C.L.A.

Ho has direct experience in risk analysis of nuclear, chemical, and weapon facilities. At PLG, he has worked on spatial interactions analyses, fire risk analyses, flood risk analyses, shutdown probabilistic safety assessments, and system analyses for power and production reactors. Ho has worked on fire risk analysis and transportation risk analysis for nuclear weapon handling facilities. He has served as a consultant to EPRI and to various utilities in the areas of fire PRAs, IPEEE, and COMPBRN IIIe applications.

Ho was previously a member of the Risk Management and Safety Group at The Ralph M. Parsons Company. He performed systems hazards analysis, fire risk analysis, and failure mode and effects analysis for chemical weapon demilitarization facilities. Ho performed fire risk management, cost/risk benefit analysis, and software development for nuclear weapons assembly and high explosive handling facilities. He performed criticality safety analysis using Keno 5A-PC for low-level radioactive waste handling facilities. Ho performed fire protection system risk management analysis for a transuranic waste handling facility.

As a research engineer at U.C.L.A., Ho developed the fire risk computer code COMPBRN, which has become the central tool in the nuclear industry for performing a fire PRA. He participated in an EPRI working group for the development of the Alternative Fire-Induced Vulnerability

Evaluation (FIVE) Methodology. Ho participated in the design of risk-based in-space fire experiments to investigate the behavior of combustion in microgravity conditions. He performed a dynamic operation actions analysis for the Inherently Safe Fast Reactors (ISFRs) and developed a rule-based expert system to diagnose causes of transients for the ISFRs. Ho developed a conceptual design of an in-space magnetohydrodynamic nuclear power generation station.

Ho is councilor for the Southern California Chapter of the Society for Risk Analysis. He is on the Organizing Committee for the International Conference on Probabilistic Safety and Management. Ho is a member of the Editorial Board for the Journal of Reliability Engineering and System Safety, the American Nuclear Society, and the National Fire Protection Association. Ho received fellowships from Southern California Edison, the Institute of Nuclear Power Operations, the U.C.L.A. Anderson Graduate School of Management, and the U.C.L.A. Engineering Department.

2.3 GENERAL METHODOLOGY

The Individual Plant Examination of External Events (IPEEE) consists of three separate analyses: seismic, fire, and "other" analyses.

This section provides a brief description of the methodology used in performing these analyses.

2.3.1 SEISMIC

VEGP has chosen to address IPEEE seismic by performing a seismic margin assessment (SMA) per the Electric Power Research Institute (EPRI) Seismic Margin Assessment Methodology, EPRI NP-6041 (Reference 2-4). In NUREG-1407 (Reference 2-3), the NRC states that the EPRI SMA methodology is an acceptable methodology for resolution of IPEEE seismic. The SMA methodology, as applied to VEGP, consists of the following steps:

1. Selection of the seismic margin assessment team.

2. Preparatory work prior to the walkdown:

- Assemble VEGP seismic design documents for review by the seismic review teams (SRTs).

- Select success paths and identify associated support systems and their components.

- Define seismic demand.

- Assess the seismic margin of soils.

- Prescreen structures and equipment (per tables 2-3 and 2-4 of the SMA methodology).

- Pre-walkdown.

3. Low ruggedness relay review.

4. Seismic capability walkdowns.

5. SMA work:

   - Structural capability evaluations.

   - Equipment and subsystem capacity evaluations.

6. Documentation.

One preferred and one alternate path capable of achieving and maintaining a safe-shutdown condition for at least 72 hours following a seismic margin earthquake (SME) were selected for each unit. One path on each unit is capable of mitigating a small-break loss-of-coolant accident (LOCA); therefore, no walkdown was performed to evaluate the potential for a small-break LOCA and, thus, a small-break LOCA was assumed.

Since VEGP is a soil site, soils issues including liquefaction, settlement, and slope instability were evaluated for the SME.

A pre-walkdown was conducted prior to the seismic capability walkdown. The objective of this brief walkdown was to locate items on the safe shutdown equipment list (SSEL) and to identify any requirements to support the seismic capability walkdowns such as scaffolding, radiation work permits, etc. The SSEL components were examined briefly during the pre-walkdown to identify any potential seismic margin evaluation problems that would prompt a review of the selected success paths.

The seismic capability walkdown for SSEL components was performed per the requirements of the SMA methodology. Every item on the walkdown list was inspected and evaluated, and a walkdown data sheet was completed for each item. The walkdown concentrated on the following areas: seismic capacity versus demand, screening caveats, anchorage, seismic spatial interaction, and flooding.

A review of equipment qualification (EQ) data was performed to ensure that no low-ruggedness relays were installed at VEGP. Since VEGP is defined as a focused-scope IPEEE plant, a full-scale relay chatter review was not required.

2.3.2 FIRE

The fire analysis employs a scenario-based PRA approach that meets the requirements of NUREG-1407 to systematically and successively evaluate fire and smoke hazards and their associated risk impact to VEGP. The major steps of the VEGP fire IPEEE are summarized as follows:

Phase 1: Spatial Interactions Analysis

1. Information Gathering and Data Collection
2. Identification of Plant Locations and Qualitative Screening
3. Development of Location Scenarios
4. Quantitative Screening of Location Scenarios

Phase 2: Detailed Analysis

5. Development and Analysis of Subscenarios
6. Sensitivity/Uncertainty Analysis

7. Containment Performance Evaluation
8. Resolution of the FRSS and Other Safety Issues

2.3.3 OTHER

The progressive screening approach described in NUREG-1407 was used to identify potential vulnerabilities at VEGP caused by high winds, floods, and transportation and nearby facility accidents. The progressive screening approach consists of the following steps:

1. Review of VEGP-specific hazard data and licensing bases.

2. Identification of significant changes since issuance to the VEGP operating license regarding the following:

    - Military and industrial facilities within 5 miles of VEGP.

    - Onsite storage or other activities involving hazardous materials.

    - Transportation.

    - Developments that could affect the original design conditions.

3. Determination of whether the VEGP design meets the 1975 Standard Review Plan criteria.

4. Determination of whether the hazard frequency is acceptably low (not required for VEGP).

5. Performance of a bounding analysis (not required for VEGP).

6. Performance of a probabilistic risk assessment (not required for VEGP).

The other issue for external flooding is Generic Letter 89-22 (Reference 2-5) in which the NRC adopted the latest National Weather Service probable maximum precipitation (PMP) criteria for future plants. The footnote to this Generic Letter states that VEGP fully meets the new PMP criteria.

In conclusion, VEGP design basis for external flooding satisfies the Standard Review Plan criteria and Generic Letter 89-22. No potential vulnerabilities were identified with regard to external flooding.

2.4 INFORMATION ASSEMBLY

Efforts were made to obtain information from controlled documents to provide traceability. Individual Plant Examination (IPE) analysts extracted information significant to the development of the Individual Plant Examination of External Events (IPEEE) from appropriate sources and documented the information. The seismic analysis followed documentation procedures required by the guidelines of Electric Power Research Institute (EPRI) NP-6041 (Reference 2-4). The fire and other analyses are documented in proceduralized work packages requiring independent verification.

For the identification of significant changes, such as plant design, since the issuance of the Vogtle Electric Generating Plant (VEGP) operating license, design change administrative controls provide procedures for the preparation of safety and hazard evaluations regarding seismic concerns, fire concerns, high winds, and external floods. In addition to the design change administrative controls, the IPEEE proceduralized site walkdowns provide a reasonable assurance that no design changes of this type are unreviewed against the Standard Review Plan. The plant walkdowns are summarized below:

Date: October 1992 - April 1993.

Scope: Unit 1 non-outage related equipment on the SSEL.

Date: March 1993.

Scope: Non-outage related equipment on the Safe Shutdown Equipment List (SSEL).

Date: August 1993.

Scope: High winds, external floods, and transportation and nearby facilities.

Date: September 1993.

Scope: Unit 2 non-outage related equipment on the SSEL.

Date: January 1994.

Scope: Gain an early appreciation for the spatial interactions of hazards and equipment, confirm the information that had been gathered in the Location Characteristics Tables, inspect the amount and location of transient hazards, and verify potential propagation paths of the most accessible fire zones in Units 1 and 2.

Date: May 1995.

Scope: Confirm the results of the quantitative screening, screen and verify propagation pathways that were retained from the qualitative evaluation of credible propagation pathways, identify ignition sources and combustible loadings location, collect detailed spatial information of the safety-related plant equipment and cable raceways, inspect the amount and location of possible transient hazards, and develop subscenarios for the detailed analysis.

To ensure the VEGP IPE is based on the as-built, as-operated, as-maintained condition of the plant, specific steps were integrated into the VEGP IPE process. Work packages generated during the VEGP IPEEE process received an independent technical review prior to approval. During the development of each calculation, the originator stated any assumptions made. Independent Review Group members who reviewed the IPEEE fire report included experienced site and corporate representatives from selected plant departments who are familiar with the plant's day-to-day operations, analysis, and design. An expert consultant provided the peer review for the seismic margin assessment.

REFERENCES

2-1. USNRC, Generic Letter No. 88-20, "Individual Plant Examination for Severe Accident Vulnerabilities - 10 CFR 50.54(f)," November 23, 1988.

2-2. USNRC, Generic Letter No. 88-20, Supplement No. 4, "Individual Plant Examination of External events (IPEEE) for Severe Accident Vulnerabilities - 10 CFR 50.54(f)" June 28, 1991.

2-3. USNRC, NUREG-1407, "Procedural and Submittal Guidance for the Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities," June 1991.

2-4. "A Methodology for Assessment of Nuclear Power Plant Seismic Margin," NP-6041, Electric Power Research Institute, Palo Alto, CA, October 1988.

2-5. Electric Power Research Institute, NP-6041-SL, (Revision 1),"A Methodology for Assessment of Nuclear Power Plant Seismic Margin" Palo Alto, CA, August 1991.

2-6. USNRC, Generic Letter No. 89-22, "Potential for Increased Roof Loads and Plant Area Flood Runoff Depth at Licensed Nuclear Power Plants Due to Recent Change in Probable Maximum Precipitation Criteria Developed by the National Weather Service," October 19, 1989.

3. SEISMIC ANALYSIS

This section presents a summary of the results of the Vogtle Electric Generating Plant (VEGP) Units 1 and 2 Seismic Margin Assessment (SMA) for resolution of the seismic portion of Nuclear Regulatory Commission (NRC) Generic Letter (GL) 88-20, Supplement 4 (Reference 3-1), entitled "Individual Plant Examination of External Events (IPEEE) for Severe Accident." The NRC categorizes VEGP as a focused-scope plant in GL 88-20.

VEGP consists of two units, each of which is a Westinghouse Electric Corporation four-loop, pressurized water reactor (PWR). Commercial operation of Unit 1 began in 1987 and Unit 2 in 1989.

The SMA review level earthquake (RLE) for VEGP is a 0.3 g peak ground acceleration (pga) NUREG/CR-0098 (Reference 3-2) spectrum. VEGP structures and equipment were designed for a safe shutdown earthquake (SSE) defined by a Regulatory Guide 1.60 (Reference 3-3) spectrum tied to a pga of 0.2 g. However, due to conservatisms applied to the demand and/or evaluation techniques, most of the Seismic Category I structures and equipment were designed and qualified for a 0.3 g pga capacity.

VEGP used a thorough quality control program to ensure that the plant was constructed in accordance with the design requirements. In addition, a number of finalization programs were implemented prior to plant operation to ensure the adequacy of the as-built condition of the plant for areas such as hazards, raceway separation from hot pipes and equipment, equipment qualification, seismic separation, etc.

The thoroughness of the design and construction process for VEGP, as well as the high level of conservatism inherent in the design and qualification of structures and equipment, were highly evident to the seismic review teams (SRTs) as well as the independent reviewer, Dr. John Reed. He served as the independent peer reviewer for the VEGP SMA, and stated the following in a letter documenting his walkdown of the VEGP (Reference 3-4):

> My general impression of Plant Vogtle is that it is very seismically rugged. This plant is one of the most rugged nuclear power plants I have ever inspected.

Based on the results of the SMA evaluations described in this report, along with the conservative seismic design of the plant, VEGP has a high-confidence-low-probability-of-failure (HCLPF) capacity of at least 0.3 g pga pending resolution of open items described in Appendixes 3.J and 3.K.

3.0 METHODOLOGY SELECTION

3.0.1 OVERALL APPROACH

Vogtle Electric Generating Plant has chosen to address IPEEE-Seismic by performing an SMA per the Electric Power Research Institute (EPRI) Seismic Margin Assessment (SMA) methodology (Reference 3-5). In NUREG-1407 (Reference 3-6), the NRC states that the EPRI SMA methodology is an acceptable methodology for resolution of IPEEE-Seismic. The SMA methodology, as applied to VEGP, consists of the following steps:

1. Selection of the seismic margin assessment team.
2. Preparatory work prior to the walkdown:
   - Assemble VEGP seismic design documents for review by the SRTs.
   - Select success paths and identify associated support systems and their components.
   - Define seismic demand.
   - Assess the seismic margin of soils.
   - Prescreen structures and equipment (per tables 2-3 and 2-4 of the SMA methodology).
   - Pre-walkdown.
3. Low ruggedness relay review.
4. Seismic capability walkdowns.
5. SMA work:
   - Structural capability evaluations.
   - Equipment and subsystem capacity evaluations.
6. Documentation.

One preferred and one alternate path capable of achieving and maintaining a safe shutdown condition for at least 72 hours following a seismic margin earthquake (SME) were selected for each unit. One path on each unit is capable of mitigating a small-break loss-of-coolant accident (LOCA); therefore, no walkdown was performed to evaluate the potential for a small-break LOCA and, thus, a small-break LOCA was assumed.

Since VEGP is a soil site, soils issues including liquefaction, settlement, and slope instability were evaluated for the SME.

A pre-walkdown was conducted prior to the seismic capability walkdown. The objective of this brief walkdown was to locate items on the safe shutdown equipment list (SSEL) and to identify any requirements to support the seismic capability walkdowns such as scaffolding, radiation work permits, etc. The SSEL components were examined briefly during the pre-walkdown to identify any potential seismic margin evaluation problems that would prompt a review of the selected success paths.

The seismic capability walkdown for SSEL components was performed per the requirements of the SMA methodology. Every item on the walkdown list was inspected and evaluated, and a walkdown data sheet was completed for each item. The walkdown concentrated on the following areas: seismic capacity versus demand, screening caveats, anchorage, seismic spatial interaction, and flooding.

A review of equipment qualification (EQ) data was performed to ensure that no low-ruggedness relays were installed at VEGP. Since VEGP is defined as a focused-scope IPEEE plant, a full-scale relay chatter review was not required.

3.0.2 SCREENING CRITERIA

The screening criteria summarized in tables 2-3 and 2-4 of the SMA methodology (Reference 3-5) were used as the basis of screening for the SME. Table 2-3 summarizes the civil structure screening criteria, and table 2-4 summarizes the equipment and subsystem screening criteria. In addition, Appendix A of the SMA methodology, which provides the basis for these screening tables, was reviewed and used to ensure proper interpretation of the SMA screening tables. As explained in the SMA methodology, prescreening is used to exclude from further review those items that are determined to be seismically rugged based on experience and judgment. Prescreening allows more effort to be expended on those items for which concern exists involving seismic ruggedness. All items were walked down or, if necessary, drawings were reviewed to ensure seismic ruggedness, even if the items were screened out during the prescreening process.

The notes given in tables 2-3 and 2-4 of the SMA methodology under the column of 5-percent-damped peak spectral acceleration greater than 0.8 g were used as the screening criteria. Satisfying these notes for the appropriate type of structures, equipment, or subsystems provides a HCLPF capacity of at least 0.3 g pga for those items. Discussion of those items that were prescreened is included in section 3.1.1.5. Items that were not initially prescreened and which required additional assessment to determine their appropriate HCLPF value are provided in section 3.1.4.

3.1 SEISMIC MARGINS METHOD

3.1.1 REVIEW OF PLANT INFORMATION, SCREENING, AND WALKDOWN

3.1.1.1 General Plant Description

3.1.1.1.1 Site Location and Area

Vogtle Electric Generating Plant (VEGP) is located on the southwest side of the Savannah River, approximately 23 river miles upstream from the intersection of the Savannah River and U.S. Highway 301. The site is in the eastern sector of Burke County, Georgia, and is across the river from Barnwell County, South Carolina (figure 3.1-1). The VEGP site is directly across the Savannah River from the Department of Energy Savannah River Plant. The 3169-acre site is owned by Georgia Power Company (GPC) and the co-owners. The plant location and layout is shown in figures 3.1-1 through 3.1-5.

3.1.1.1.2 Site Topography

The VEGP site is situated on the south bank of the Savannah River in Burke County, Georgia, approximately 26 mi southeast of the city of Augusta. The area is part of the Atlantic Coastal Plain province and is characterized by mature river valley topography. The elevation of the site varies from approximately 90 to 225 ft above mean sea level (msl). The site topography is characterized by rolling hills and ridges dissected by tributaries of the Savannah River. Steep cliffs have formed along the south side of the Savannah River as a result of the steady southward migration of the main river channel. In contrast, the north bank is an extensive area of swampy lowland. This low area is outside the plant boundary. The nominal finished grade elevation is 220 ft.

3.1.1.1.3 Site Geology and Seismology

At the VEGP site, the depth of bedrock below the plant site is approximately 950 ft. The explored depth at the site indicates an overburden which may be divided into three distinct soil strata. The upper sand stratum consists of loose to dense sands and clayey sands. The clay-bearing stratum consists of very hard, sandy, clay marl. The lower sand stratum consists of clean to silty, medium- to fine-grained dense sands. The marl layer acts as an aquilude separating the regional aquifer, confined beneath the marl, from the shallow water table existing in the deposits above the marl. The auxiliary building, nuclear service cooling water (NSCW) towers, and instrumentation cavity of the containment are supported on the marl stratum. All the other power block structures are supported on compacted backfill.

There are no indications of major or active faulting at or near the site, nor is there any record of nearby seismic epicenters. There are no other geological hazards that could affect site safety.

The region of the U.S. in which the site lies is one of low earthquake activity, generally of low to moderate intensity. The exception to this was the 1886 Charleston, South Carolina, earthquake, whose epicenter was 104 mi from the site. Reports indicate that at the site this shock would have had an intensity of VI and no greater than VII on the Modified Mercalli Intensity Scale. No earthquake epicenters have been recorded within 50 mi of the site and none with an intensity greater than VI within a 100-mile radius. The maximum credible site intensity is VI-VII to VII. A safe shutdown earthquake (SSE) site intensity of VII-VIII is chosen. This intensity is associated with approximately 0.2 g peak horizontal acceleration.

The site geologic features are shown in figures 3.1-6 through 3.1-9.

3.1.1.1.4 Nuclear Steam Supply System

The nuclear steam supply system (NSSS) for each of the VEGP units is a four-loop PWR. Westinghouse Electric Corporation is the designer and supplier of these units. The turbine-generator gross generator output is 1210 MWe. The containment for each of the VEGP units is a steel-lined, prestressed, post-tensioned concrete cylinder with a hemispherical dome. Commercial operation of Unit 1 began in 1987 and Unit 2 began in 1989.

3.1.1.1.5 Structures

Class 1 structures include the containments, auxiliary building, fuel handling building, control building, diesel generator buildings, auxiliary feedwater (AFW) pumphouses, NSCW towers and valve houses, and diesel fuel storage tank pumphouses. These structures are shown in figures 3.1-4 and 3.1-5.

Containment Building

The containment building encloses the reactor and the reactor coolant system (RCS) as well as portions of the reactor auxiliary systems and engineered safeguard systems. The containment building ensures that leakage of radioactive material to the environment, following a postulated accident, will not exceed 10 CFR 100 (Reference 3-7) guidelines. Leaktightness is provided by a steel membrane liner on the inside face of the containment. Biological shielding and protection from external missiles is provided by the concrete shell.

The containment building is required to sustain, without loss of essential functions, the effects of natural phenomena in addition to the effects of normal operating and postulated accident conditions.

Shielding is provided in conjunction with other safety systems to preclude a post-accident site dose greater than 10 CFR 100 guidelines and to preclude normal operating doses from exceeding 10 CFR 20 (Reference 3-8) limits.

The containment building is a pressure vessel consisting of a vertical cylindrical wall, covered by a hemispherical dome, and founded on a flat, circular base mat. The inside diameter is 140 ft, and the distance from the top of the base mat filler slab to the springline is 156 ft. The cylinder and dome are prestressed reinforced concrete. The base mat is reinforced concrete.

The tendon gallery is a circular corridor attached to the bottom of the base mat to provide access for installation and inspection of the inverted U-shaped tendons. The access shaft provides access from grade level to the tendon gallery. The tendon gallery and access shaft are reinforced concrete structures analyzed and designed in compliance with the requirements of DC-1000-C (Reference 3-9) for Seismic Category I structures.

The liner plate is a steel membrane anchored to the inside face of the containment building to provide a leaktight barrier. The stiffened liner plate system also serves as a form for the cylinder and dome concrete replacement. The penetration assemblies are pipe sleeves welded to the liner to provide for penetration through the concrete and liner of electrical or mechanical systems. The polar crane brackets consist of built-up steel sections cantilevered from the inside face of the containment shell and anchored into the concrete.

Analysis and design are in accordance with the guidelines of DC-2101 (Reference 3-9). Penetration assemblies include the mechanical and electrical penetration sleeves, the caps on the spare mechanical penetrations, and the sleeves for the personnel lock, the escape lock, and the fuel transfer tube penetration sleeve.

Auxiliary Building

The auxiliary building is a Seismic Category I multistory structure of reinforced concrete, steel, and concrete blocks designed to house the radioactive waste treatment facilities; heat exchangers; pumps; hot machine shop; cask handling crane; heating, ventilating, and air-conditioning (HVAC) facilities; and other associated equipment. The facility is designed to withstand natural phenomena, including earthquakes and tornadoes in addition to the effects of accident conditions, including internal flooding.

The auxiliary building is a seven-story reinforced concrete structure partially embedded in soil. Three stories are above grade level and four are subterranean. The auxiliary building is a bearing wall, shear wall structure. Concrete floor slabs and beams span between walls. Occasionally, concrete columns are used to support the floor slabs. All lateral loads applied to the structure are resisted by shear walls.

Except for Level 2 and Level 3 slabs and isolated areas where conventional shoring is used, a permanent steel framing metal decking system is used for forming. The steel framing beams are left in place for supporting piping, cable trays, and duct.

Fuel Handling Building

The fuel handling building is a Seismic Category I structure common to both Units 1 and 2. It is designed to house the new fuel storage area, cask storage pit and washdown area, and two spent fuel pools–one for each reactor. This building is designed for limited air leakage. The principal functions are:

- To receive, store, and protect new fuel.
- To receive, store, and protect spent fuel.
- To prepare spent fuel for shipment.

The fuel handling building is a seven-story reinforced concrete structure partially embedded in soil. The building has a center section which houses two spent fuel storage pools, a new fuel storage area, fuel transfer canals, a cask loading and washdown area, and two penetration areas that surround the Units 1 and 2 containment buildings. The height is approximately 69 ft above grade and 60 ft below grade. A portion of access shaft No. 2 is part of the fuel handling building.

The vertical load resisting elements consist of an integrated framing system of bearing walls and reinforced concrete beams. The outside perimeter walls and spent fuel pool walls are the main shear-resisting elements of the structure.

The building is designed to be independent of any other structure.

Control Building

The control building is a Seismic Category I structure. The building houses the control equipment, upper and lower cable spreading components, electrical and mechanical penetrations, batteries, switchgear, communication and associated equipment, computers, plant laboratories, decontamination facilities, personnel access and facilities, central security, remote shutdown facilities, isolation valves for main steam line and main feedwater line, and safety-related air-conditioning equipment. The facility is also designed to withstand natural phenomena, including earthquakes (SSE and OBE) and tornadoes.

The primary function of the control building is to provide structural integrity (protection of equipment), shielding requirements, and leaktightness.

The control building is a six-story reinforced concrete structure, with two stories below grade. The structure is approximately 128 ft high with an embedment below grade of approximately 47 ft. The plan dimensions are approximately 523 ft by 166 ft below grade. The building has shear walls designed to resist lateral seismic forces in each direction. The floor and roof systems are of one-way and two-way slab construction, and act as diaphragms contributing to the rigidity of the structure.

Diesel Generator Building

The diesel generator building is designed to house the diesel generators (DGs) and generator auxiliary support systems. The buildings, openings, and appurtenances are designed to withstand natural phenomena, such as earthquakes, tornadoes, and floods, and concurrent effects of normal and accident conditions. There is one diesel generator building for each unit.

The diesel generator building is a two-story, reinforced concrete, box-type structure. The building houses two generator units which are separated by a 2-ft-thick concrete barrier wall. The air intake and exhaust systems are provided with protection against tornado missiles. Each generator is serviced by an overhead bridge crane.

Auxiliary Feedwater Pumphouses

The auxiliary feedwater (AFW) pumphouse is designed to house the AFW pumps and auxiliary support systems. The pumphouse structure is designed to withstand natural phenomena such as earthquakes and tornadoes in addition to concurrent effects of both normal and accident conditions. The building ventilation requirements are provided for heat removal during a loss of all ac power accident.

The AFW pumphouse is a one-story, reinforced concrete, box-type structure. A minimum thickness of 24 in. of concrete is provided for the walls, and 21 in. of concrete is provided for the roof to protect against missile penetration. A minimum 30-in.-thick base slab is provided to transfer equipment and dead loads to the foundation.

Reinforced concrete partition walls are provided to separate the electric-driven pumps, turbine-driven pump, and other related equipment.

Nuclear Service Cooling Water

Each nuclear service cooling water (NSCW) tower comprises a cooling tower superstructure and a below-grade storage basin. The cooling tower contains the fans and internal equipment required to cool the heated nuclear service cooling water, and the basin provides a cooling water storage supply under the worst meteorological conditions with no makeup water supply.

The NSCW valve house adjacent to the tower serves as a transition structure which protects the piping, valves, and electrical supply running from the NSCW tunnels into the tower.

The cooling tower and storage basin structure is a reinforced concrete cylindrical shell with a 9-ft-thick base mat and a 2-ft-thick flat roof deck. The overall height above grade (to the top of the fan stacks) is approximately 47 ft and below grade (to the bottom of the base mat) is approximately 90 ft. The interior diameter of the cylindrical shell is 88 ft. The shell wall is 3 ft thick above elevation 155 ft 5 1/2 in. and 5 ft thick below. At grade elevation, large rectangular openings (typically 8 ft wide by 12 ft high) in the exterior wall are provided around the perimeter of the towers for air intake. Inside the cooling tower, two deep 2-ft 3-in.-thick cross-wall beams divide the superstructure into four separate cells. Four large circular openings in the roof slab are provided for air discharge from each of the four cells. Surrounding each opening is a concrete stack, which houses an air circulation fan. Two levels of concrete beams are provided within the tower superstructure to support the tower asbestos fill, spray nozzles, eliminator panels, and other internals necessary to distribute and cool the incoming hot water and reduce pluming of vapor. In order to retain any possible splashing water, a concrete splash pad and wall surround the tower at grade. The concrete splash pad is separated from the tower wall by a 1/2-in. gap. The splash wall is located 12 ft from the shell and extends the full height of the air intake openings plus a minimum of 12 in. above. A concrete buttress is provided on the exterior shell wall below grade to enclose the four pump wells.

The valve house is an irregularly shaped, reinforced concrete structure whose roof is approximately 14 ft above grade and whose base mat top is approximately 14 ft below grade to match that of the NSCW tunnels. The valve house adjoins the tower at the buttress area and is separated from it by a 5 1/2-in. seismic separation gap. There is also a 5 1/2-in. seismic separation gap between the valve house and the splash ring, and between the valve house and the NSCW tunnel. The wall adjacent to the tower is circular and serves as a replacement for the splash ring wall which it interrupts. To protect the pumps, the Seismic Category I piping and the electrical supply to the tower, a series of tornado missile protection concrete barriers extend over the top of the buttress and splash ring area and are supported off the valve house structure.

Diesel Fuel Oil Storage Tank Pumphouse

The diesel fuel oil storage tank pumphouse is designed to house the nozzles, gauges, drains, and pump mount systems. The pumphouse, openings, and appurtenances are designed to withstand natural phenomena, such as wind, earthquakes, and tornadoes, in addition to concurrent effects of normal and accident conditions.

The diesel fuel oil storage tank pumphouse is a one-story, reinforced concrete, box-type structure buried in the earth.

The concrete end walls are formed to span over the diesel fuel storage tank located below, and the end walls are supported on isolated foundation pads. There is at least a 3-in. separation between the bottom of the concrete members and the exterior surface of the storage tank.

3.1.1.2 <u>Plant Design Basis</u>

3.1.1.2.1 Seismic Input

This section describes the methods and parameters by which the SSE ground motion is applied to the VEGP site and structures. VEGP Seismic Category I structures are divided into two groups:

1. **Deeply Embedded Structures**

- Containment and interior structures.
- Auxiliary building.
- Control building.
- Fuel handling building.
- Nuclear service cooling towers.

See figure 3.1-10 for a detailed illustration of these structures:

2. **Shallow/Surface-Mounted Structures**

- AFW pumphouse.
- Condensate storage tanks (CSTs).
- Diesel generator building.
- Reactor makeup water tank.
- Refueling water storage tank (RWST).

The control point input location is defined as the elevation at which the ground motion is applied and monitored during the analysis procedure. For VEGP, the finished grade nominal elevation (220 ft) was used for the deeply embedded structures. For the shallow-embedded structures, the control point is defined as the elevation at the base of a structure's foundation.

The peak ground motion at the VEGP site is defined as 0.20 g peak ground acceleration (pga) for SSE and 0.12 g pga for the operating basis earthquake (OBE) events. The shape of the ground response spectra conforms to Regulatory Guide 1.60 (Reference 3-3). Figure 3.1-11 provides the VEGP safe shutdown earthquake horizontal free-field ground response spectrum (GRS) that corresponds to the Regulatory Guide 1.60 shape.

To account for spatial variation of ground motion, a deconvolution technique was used for the deeply embedded structures. With a finite-element model, the corresponding time history was computed at the elevations of the deeply embedded structures obtained through a deconvolution analysis of the design time history specified at the finished grade level (i.e., elevation 220 ft 0 in. The associated in-structure response spectra (IRS) were calculated at different elevations of the Seismic Category I structures. These IRS were multiplied by a 1.5 scaling factor. The scaling was done to ensure that the free-field ground response spectra of the foundation level of the deeply embedded structures would not be less than 60 percent of the design free-field ground motion at grade.

A synthetic time history of the design free-field ground motion has 18 seconds of motion. This time history has been shown to envelop the Regulatory Guide 1.60 record.

3.1.1.2.2 Development of In-Structure Response Spectra

General

This section provides the methodology used in the development of the floor response spectra at VEGP. In addition, some history of the development of the VEGP response spectra is provided.

Safety-related structures (Seismic Category I) are divided into two primary types of buildings as mentioned in section 3.1.1.2.1: deeply embedded and shallow surface mounted.

Scope of Floor Spectra Generation

Floor response spectra for Seismic Category I structures were developed using the time-history analysis. Both the horizontal and vertical floor response spectra are computed from the time-history motions at the various floors or other important locations. The set of spectra at each mass point/ floor elevation includes one horizontal and one vertical response for SSE and OBE events. The two orthogonal horizontal responses at each mass point were combined and enveloped to produce one horizontal spectra. Regulatory Guide 1.61 (Reference 3-10) damping values were used in generating the floor response spectra. Also, the floor response spectra were computed at the frequency intervals suggested in Regulatory Guide 1.122 (Reference 3-11). Figure 3.1-12 provides an example of the VEGP horizontal floor response spectrum. Table 3.1.1-1 provides a listing of the peak floor accelerations of selected structures and elevations.

History of Nuclear Regulatory Commission Requirements and Final Safety Analysis Report Commitments

VEGP design methods are based on the Standard Review Plan (SRP) (Reference 3-12), in effect in 1977 and 1978, during which time the VEGP design methods evolved from discussions held during meetings with the Nuclear Regulatory Commission (NRC). The concerns expressed by the NRC staff in these meetings were addressed by Georgia Power Company (GPC), and VEGP committed to multiply the envelope IRS for the deeply embedded Seismic Category I structures by a scaling factor of 1.5, consistent with the SRP acceptance criteria.

The NRC accepted the seismic design methods on the scaling factor, subject to the completion of a confirmatory study and a sensitivity study.

The confirmatory study addressed the NRC staff's concerns on comparing the results of the two methods of soil-structure interaction (SSI) analyses. The sensitivity study provided the justification for applying the deconvolved control motions at the foundation levels of deeply embedded Seismic Category I structures.

The time history at the base of the idealized soil profile is obtained through deconvolution analysis of the design-time history specified at finished grade level, using appropriate soil properties. The time history thus obtained is applied at the base of the SSI system with appropriate soil properties for SSI analysis. The resulting time-history responses are used to generate the IRS at selected floor elevations. The analysis is performed with consideration given to the variation of soil parameters as indicated above using appropriate cutoff frequencies such that the acceleration profile in the free field is realistic.

The envelope IRS are developed by enveloping the response spectra obtained by considering the variation of soil properties. The envelope IRS curves are multiplied by the scaling factor of 1.5, the basis of which is described in the following paragraph.

Response spectra corresponding to the free-field time-history motions calculated at the elevations of Seismic Category I structural foundations were generated. Considering the variation of soil properties, envelope response spectra for each Seismic Category I foundation level were developed. The enveloped response spectra thus obtained in the free field at the foundation levels of deeply embedded Seismic Category I structures were then compared with 60 percent of the ground design response spectra. A scaling factor of 1.5 was selected so that when the envelope response spectra curves are multiplied by the scaling factor, the 60-percent design spectra curves are essentially enveloped. Figure 3.1-13 provides an example of the comparison plots.

Mathematical Model Types

Response motions were obtained from the time-history analysis of the structures due to each of the three orthogonal earthquake components under OBE and SSE events.

The three component earthquake effects were combined using the square root of the sum of the squares (SRSS) of the applicable maximum codirectional responses in conformance with Regulatory Guide 1.92 (Reference 3-13).

The seismic system analyses of the containment building and other major Seismic Category I structures are performed using a response time-history method.

Soil Properties

The in-situ soil properties at VEGP consist mainly of three distinct soil strata:

1. Upper sand stratum includes the sands and clayey sands, varying from loose to dense, to a depth of 75 to 90 ft below nominal grade.

2. The clay-bearing stratum (marl) is a very hard, sandy, calcareous clay approximately 65 ft thick.

3. The lower sand stratum is composed of dense sands.

Generally, the structures located within the power block area are founded upon select sand backfill materials, compacted to 97 percent of the maximum density. Also, in some areas, lean concrete was used in lieu of backfill for the foundation material. Figure 3.1-10 shows the cross-section of the excavation of the deeply embedded structures.

Variability of Soil Conditions

Soil properties such as shear moduli, Poisson's ratios, and densities for the various soil strata were established from the soils investigation and additional soil testing to establish the dynamic properties of compacted backfill. The strain dependency of shear moduli and damping ratios for compacted sand backfill, clay marl-bearing stratum, and the lower sand stratum were based on the standard curves proposed by Seed and Idriss (Reference 3-14) with appropriate modifications to account for the in-situ soil conditions and backfill characteristics.

Strain-dependent shear moduli were used in the analysis. To account for the variation in soil properties, shear moduli with upper-bound values equal to 1.5 multiplied by the mean values and lower-bound values equal to the mean values divided by 1.5 were used in the analysis. In general, the soil properties are nonlinear in character. Therefore, an iterative process was used to obtain equivalent linear properties which are strain dependent. The methods generally used for such an analysis are included in the computer program FLUSH (Reference 3-15).

In the analyses for the vertical component of the earthquake, the soil properties for the layers below the water table are based on the iterated strain-dependent soil properties or a compression wave velocity of 5000 ft/s, whichever is greater. This is consistent with the assumption that, in saturated soils, the compression wave would travel with the compression wave velocity of the soil medium or the compression wave velocity of water, whichever is greater.

The SRP states that modeling methods for implementing the SSI analysis should include both the half-space and finite boundaries approaches. The VEGP SSI analysis used the finite-element method for deeply embedded structures and the half-space method for shallow-embedded structures. Composite modal damping was used in the analysis procedure to account for damping in different elements of the model of a coupled system.

Structural Models

Structural Assumptions and Modeling

Seismic Category I structures were analyzed using dynamic analysis consisting of finite-element and lumped-mass models.

The structural models included the effects of SSI.

Generally, deeply embedded structures were modeled with a finite-element subgrade, which included the properties of the various soil column layers. As noted earlier, the input motion was input at the surface free field and, using deconvolution, was characterized at the foundation elevation of each deeply embedded structure. Figure 3.1-14 provides a typical model used to represent the SSI for the deeply embedded analyses.

Shallow-embedded structures were generally analyzed as lumped-mass models. SSI consisted of the computed stiffness and radiation damping coefficients for a layered soil column. Figure 3.1-15 provides a lumped-mass model of the diesel generator building.

Two-dimensional SSI models were created with common nodes in the two orthogonal directions. This allowed the matching of the two-dimensional soil models to the three-dimensional structural models. Figure 3.1-16 provides a representation of the soil structure interface to a structural model.

Deeply Embedded Structures

The finite-element method is used for structures having deep embedment to account for embedment effects and the effects of structure-to-structure interaction. The analytical model is provided with transmitting boundaries both on the left and right sides. The model consists of two types of elements:

1. Displacement-compatible isoparametric quadrilateral elements (solid elements).

2. Linear-bending elements (beam elements).

Usage of transmitting boundaries, elements, and analytical techniques are prescribed by Lysmer (Reference 3-16), using the computer program FLUSH to perform the analysis.

The dynamic analysis performed using the computer program FLUSH is two dimensional, and any three-dimensional analysis is an approximation. The procedure for computing the three-dimensional response of the structures using a two-dimensional soil model is described below. This procedure combines a two-dimensional finite-element representation of soil with a three-dimensional representation of structures.

First, a three-dimensional lumped-mass model of the structure is created and expressed in the form of stiffness and mass matrices. A two-dimensional model of the soil with the structure removed is then prepared with common nodes in contact with structural nodes.

The structure nodes associated with the common nodes have degrees of freedom only in the plane of the soil model in order that the FLUSH program can be executed. The reduction of degrees of freedom of the structure common nodes is accomplished through a mathematical transformation. There is no requirement that the degrees of freedom for the remaining structure nodes be reduced.

After the common degrees of freedom have been made compatible both in the structure and in the soil, then the total soil-structure system is assembled in global matrices and the solution is accomplished by FLUSH, as in a standard finite-element problem.

The response of the structure nodes that are not associated with the common nodes is in three orthogonal directions due to excitation in any one direction; hence, the codirectional responses due to both the horizontal earthquakes and vertical earthquake can be obtained directly. This approach inherently accounts for the torsional effects in the structure.

In the soil finite-element model, the side-transmitting boundaries are located three elements away from the structures. This is consistent with the FLUSH program recommendations. The bottom boundary for the FLUSH model is taken so that it is at least at a depth equal to one-half the model dimension of the base mat below that base mat level. Figure 3.1-17 provides the subgrade model, indicating the location of the boundary elements.

Six mathematical models are employed in the analysis of deeply embedded structures as shown in figure 3.1-18. The first is an east-west model which includes the auxiliary building. The second is also an east-west model which consists of the Unit 2 containment, the fuel handling building, and the Unit 1 containment, as shown in figure 3.1-19. The effect of the diesel generator buildings on the response of the containment is accounted for by modeling their inertial properties with structural layers in the soil finite-element model. The third is an east-west model which includes the control building. The fourth is a north-south model which includes the auxiliary building, Unit 1 containment, the control building, and the turbine building. Since the turbine building is a non-Category I structure, it is only necessary to consider its effect on adjacent Seismic Category I structures.

Therefore, it is sufficient to model the turbine building as a structural layer in the soil finite-element model with proper inertial properties, without modeling the superstructure. The fifth is also a north-south model which includes the auxiliary building, the fuel handling building, the control building, and the turbine building. The sixth is a model which includes a nuclear service cooling tower.

Lumped-Mass Models for Shallow-Embedded Structures

Shallow-embedded structures and deeply embedded structures have different methods of modeling for the dynamic seismic analysis. For structures that have shallow embedment, the lumped parameter method was used to represent the SSI. For structures that are deeply embedded, the finite-element method was used to represent the SSI. In both the methods, the buildings were modeled using beam elements and lumped masses.

For structures founded on the ground surface or having shallow embedment, the lumped parameter approach is used to represent the SSI. Strain-dependent soil properties are used in the computation of the impedances. Soil-layering effects were also considered.

Buried Structures

Buried structures are surrounded by soil around their perimeters and essentially move with the ground. The response of the structure is the same as that of the ground. As an added conservatism, the seismic response spectra for the Seismic Category I tunnels were developed from the free-field response spectra by multiplying them by a factor of 1.25.

Coupling Between Rotations and Translations

For deeply embedded structures, foundation rocking and translation effects are accounted for through modeling the soil around the structures as finite elements. A response time-history analysis method is used for the analysis of deeply embedded structures.

Torsional Coupling With Translation

The NRC requested that all safety-related structures, systems, and components be designed to resist a static seismic torsional moment not less than that required by the Uniform Building Code (Reference 3-17). To accommodate this request, the following methodology was used.

The seismic analyses of the structures were performed on the three-dimensional structure models that account for the eccentricities between the centers of mass and the centers of rigidity of the structures. The accelerations obtained from these analyses at all levels were first calculated. Then, in the design, the actual eccentricity was increased by 5 percent of the maximum plan dimension at that level, and the design static seismic torsional moment was computed as the product of the augmented eccentricity and the story shear. This applies to the two orthogonal horizontal directions.

A three-dimensional lumped-parameter model of the structure with soil springs was used to compute the torsional spectra. The structure model accounts for the eccentricities between the centers of mass and the centers of rigidity of the structure. The translational as well as the rotational stiffness and inertial characteristics were modeled. The foundation impedances consist of three translational (two horizontal and one vertical) and three rotational (two rocking and one torsional) springs and are based on the mean soil properties.

The model was analyzed for the design horizontal ground motion time history conforming to the Regulatory Guide 1.60 horizontal response spectra applied in the free field at the foundation level of the structure. The base shear computed from this analysis, multiplied by 5 percent of the maximum plan dimension at the foundation level, yields the incremental static torsional moment (T_s) at that level.

Then, a torsional ground motion time-history conforming to the Regulatory Guide 1.60 horizontal response spectra was applied again in the free field at the foundation level of the structure. The maximum dynamic torsional moment (T_d) at the base of the structure was computed from this dynamic analysis.

The magnitude of the torsional ground motion was adjusted so that T_d at the base of the structure resulting from the torsional ground motion analysis is equal to the T_s resulting from the 5-percent eccentricity. The resulting time-history response from the torsional degree of freedom of the base node would then represent the torsional response of the base mat. Multiplying this by the distance along the north-south/east-west direction of the extreme point in the building to the lumped-mass node would give the maximum possible additional east-west/north-south horizontal time-history response of the floor. From this, the additional horizontal IRS were computed.

The torsional responses of the nodes at different levels of the building from the torsional ground motion analysis were used with the respective extreme point distances along the north-south/east-west direction to compute the additional horizontal IRS at these levels.

The amplification of the torsional response of the structure as a function of height tends to be smaller than the amplification of the horizontal response of the structure. Therefore, as an added conservatism, the torsional input ground motion is increased so that the ratio between the maximum torsional acceleration at a given node (caused by the torsional ground motion) to the maximum horizontal acceleration at the node (caused by the horizontal ground motion) is maintained the same as at the foundation level of the structure.

The computed additional horizontal IRS to account for the torsional ground motion effects were added absolutely to the horizontal IRS before the broadening of the peaks and smoothing of the curves were performed. The peaks of the response spectra resulting from the addition of these two spectra are then broadened and the curves smoothed to arrive at the final design IRS for the horizontal direction.

Peak Broadening of Floor Response Spectra

The effects of parameter variations on floor response spectra are accounted for by broadening the peaks associated with each structural frequency by ± 15 percent.

Confirmatory and Sensitivity Study of Seismic Input

In the confirmatory study, the response spectra calculated from the finite-element method of SSI using the VEGP design procedure were compared with those obtained using the impedance (half space) method to confirm that the VEGP seismic design methods are founded on conservative design bases. The objective of the sensitivity study was to demonstrate that the deconvolution procedure in conjunction with the specification of the control motion (based on Regulatory Guide 1.60 response spectra), at the grade level in the free field, is applicable for the VEGP site.

The NRC also requested that the seismic analysis include consideration of torsional moment no less than that required by the Uniform Building Code (to account for the seismic wave propagation effects), in addition to the effects resulting from the eccentricity between the center of mass and center of rigidity at each level.

For the confirmatory study, the containment building and the control building were analyzed to compute the IRS using the VEGP design procedure for the finite-element method of SSI analysis of deeply embedded structures, applying the control motion at the finished grade level in the free field. This included the multiplication of the envelope IRS by a scaling factor of 1.5. The calculated response spectra were compared with those obtained from the impedance (half-space) method, wherein the control motion was applied at the foundation levels of the structures in the free field. The comparison showed that, in general, the response spectra from the VEGP design procedure and those from the impedance method exhibited similar characteristics in terms of accelerations and frequencies, despite the fact that there are differences in the methods of modeling and analysis.

For the sensitivity study, a series of ground response studies were performed to determine the variation of ground motion with depth at the VEGP site. Recorded seismic rock motions were used to establish bedrock motions, which were then propagated upward through the site soils from the underlying bedrock. Recorded seismic motions on soil deposits with generally similar characteristics to those at the VEGP site were deconvolved through the soil profile. The computed responses from these two procedures were compared with each other and with the results of the seismic motions used in the VEGP design, namely the Regulatory Guide 1.60 design spectra applied at the grade level in free field and the motions at the foundation levels obtained by the deconvolution procedure.

The good agreement between the response spectra obtained from the analyses of the actual recorded earthquake motions and the response spectra obtained by the deconvolution of the Regulatory Guide 1.60 response spectra supports the use of the later spectra and motions obtained by deconvolution for the VEGP design.

Figures 3.1-20 and 3.1-21 provide the floor response spectra for the 261-ft elevation of the containment internals. Figure 3.1-22 provides the containment model and a listing of the natural frequencies of the confirmatory analysis of the containment structure.

Shallow-Mounted Structure

Figures 3.1-23 and 3.1-24 provide the floor response spectra for the 254-ft elevation of the diesel generator building. Figure 3.1-25 provides a listing of the SSI natural frequencies for the diesel generator building.

3.1.1.2.3 Design and Analysis of Structures

The structures at VEGP are designed in accordance with detailed design criteria (DC) such as DC-1000-C, DC-1000-M, and DC-1000-E (Reference 3-9) for civil, mechanical, and electrical design. These criteria present the general requirements and guidelines used in the design of Seismic Category I and II structures. The intent of these design criteria is to indicate pertinent information and to refer to appropriate documents for further guidance. For example, the civil and structural design criteria (DC-1000-C) considers such factors as the environment, continuous power generation, and public safety. In addition, specific design criteria were furnished for buildings, structures, supports, equipment, etc. For example, DC-2108 is the design criteria for the auxiliary building. This criteria furnishes specific guidance on the design of the auxiliary building as well as providing references to other applicable design criteria that were required to support the design effort.

Structural steel design and analysis was performed per the American Institute of Steel Construction (AISC) Manual of Steel Construction, Seventh Edition (Reference 3-18). Concrete structures were designed and analyzed in accordance with the American Concrete Institute (ACI) Building Code Requirements for Reinforced Concrete Structures, ACI 318-71 (Reference 3-19).

The computation and application of earthquake loads for Seismic Category II structures and components not specifically mentioned in the detailed design criteria followed the method outlined in section 2312 of the 1976 Edition of the Uniform Building Code (Reference 3-17). Since VEGP is located in seismic Zone 2, the coefficient 'Z" used to compute the total lateral force is equal to three-eighths.

Seismic Category I Structures and Components

Seismic Category I structures and components are defined as those necessary to ensure the integrity of the reactor coolant pressure boundary, the capability to shut down the reactor and to maintain it in a safe shutdown condition, and the capability to prevent or mitigate the consequences of accidents that could result in potential offsite exposures. Seismic Category I structures and components are designed to withstand the appropriate seismic loads and other applicable loads (internal and external) without loss of function. Seismic Category I structures are sufficiently isolated or protected from Category II structures to ensure their integrity is maintained at all times.

Seismic Category I structures are listed below:

- Containment building.
- Containment internal structures.
- Auxiliary building.
- Control building.
- Fuel handling building.
- NSCW towers and valve houses.
- Diesel generator building.

- CSTs and valve enclosure.
- RWST.
- Reactor makeup water storage tank.
- AFW pumphouse.
- Diesel fuel oil storage tank pumphouse.
- Category I tunnels.

Designing for Soil Loading

The design procedures for computing soil pressures under earthquake conditions are based on the analysis of dynamic pressures in dry, cohesionless materials. The analysis is further simplified by Seed and Whitman (Reference 3-20) to provide a more useful design procedure. In computing the design lateral pressure, consideration was given to the increase in lateral soil pressure due to the surcharge load caused by the adjacent structures and the temporary construction loading conditions resulting from transportation of equipment (for example, nuclear steam supply system transporters) and cranes (for example, Lampson crane and tower crane). The active, at-rest, and passive pressures used for the static condition were modified to include inertia effects (dynamic increments or decrements) due to earthquake motions. The structural effect of the differential settlement between various structures is negated by seismic gaps that serve to isolate the structures. However, consideration is given to piping, electrical conduits, and other systems that pass from one structure to another. These systems were designed to accommodate differential movements or to resist the loads imposed by such movements. Actual differential settlements are monitored to ensure that design differential settlements are not exceeded.

Combining Seismic Loads for Design

In the response spectrum modal analysis, the responses due to different modes were combined using a criteria that is in conformance with Regulatory Guide 1.92 (Reference 3-13). Total structural response from the two separate lateral and the vertical analyses is obtained by combining the applicable values from each lateral analysis with those from vertical analysis according to the SRSS criterion and is in conformance with Regulatory Guide 1.92. Due to the inherent difficulty in using the SRSS method in certain engineering applications, the equivalent "component factor method" was also used. In computing the vertical and horizontal seismic loads for structures, 100 percent of movable equipment loads and 25 percent of the total occupancy live load (i.e., that imposed by code on a square-foot basis) were considered in combination with total dead load.

Seismic Category II/I Design Considerations

The Seismic Category II structures adjacent to Seismic Category I structures are the turbine building, radwaste structures, tunnels, and equipment building. These structures were analyzed to demonstrate that under the SSE loading, they will not collapse onto the Seismic Category I structures, as specified in DC-1005.

Seismic Analysis Techniques

The magnitude of the seismic acceleration is established on the basis of the dynamic response characteristics of the component. Components that can be adequately characterized as a single-degree-of-freedom system were designed for accelerations associated with their natural frequency. Seismic acceleration values used for design of multi-degree-of-freedom systems, which may be in the resonance region of the amplified response spectra curves, are the peak acceleration values multiplied by a factor of 1.5, unless a lower factor is justified. In lieu of using the peak acceleration value, the fundamental frequency may be calculated and the corresponding acceleration value may be used. In this case, the calculated frequency must be higher than the frequency related to the peak acceleration; otherwise, the peak acceleration value was used in design. For systems and components that have fundamental frequencies of 33 Hz or greater, the zero period acceleration (ZPA) was taken as the seismic acceleration value at that frequency.

Design Loading

The Seismic Category I structures were designed to withstand the loads resulting from piping and equipment. These include loads due to reactions and thermal effects under normal operating or shutdown conditions and accident conditions, including postulated pipe breaks. In addition, the loads imparted to the structure under OBE and SSE conditions were also considered.

Equipment Qualification Considerations

Special consideration was given to the design of steel platforms and miscellaneous steel beams supporting Seismic Category I equipment to define a conservative seismic input criteria for equipment qualification (EQ) and to ensure consistency with the assumptions made in the equipment seismic qualification program, such as boundary conditions used in the analysis, mounting conditions used in testing, and required response spectra and/or required input motion levels.

Welded connections consider fatigue provisions outlined in Appendix B of the AISC Manual of Steel Construction (Reference 3-18).

Embedded Steel, Anchor Bolts, and Concrete Expansion Anchors

Typically, embedded steel was designed generically to furnish high structural capacity. The actual design loads were compared to the embedded steel capacity. Embedded steel plates typically consist of 1-in.-thick steel plates with welded studs or round bars with plates to anchor the plate into the concrete wall or floor. Standard anchor bolts are of A36, SA36, A193, SA193, or A449 material. Expansion bolt use was minimized by providing an abundance of steel embeds in walls and floors. Where used, the expansion boits were installed properly and designed in accordance with a design criteria that addressed embedment, spacing, and edge distance.

Typical Design Details

The buildings and structures were analyzed using finite-element analyses for major structures and buildings and hand calculations for simpler structures. Where possible, common details were established for embedded plates, anchor bolts, steel frames around openings, miscellaneous pads, miscellaneous supports, and other structural items. To make these items generic, conservative designs were furnished that envelope worst cases. Therefore, very seismically rugged details are typical for VEGP. Few structures or pieces of equipment are anchored by anything other than welds or cast-in-place anchor bolts. (Refer to section 3.1.4.6 for additional discussion of equipment anchorage.)

Review of Design

As part of the design process, several self-initiated design reviews/audits were performed for VEGP. As part of this process, a finalization program (FP) was implemented to ensure the plant was built in accordance with the design and that proper tolerances and spacings were provided. The following is a brief description of key areas of the program:

FP-1— ALARA

The As Low As Reasonably Achievable (ALARA) program provided verification that the physical configuration of the plant was consistent with the as-analyzed configuration of radiation shielding and radioactive piping and components. In addition, a systematic as-built review of the plant was performed to ensure that blowdown vent areas required for pressure relief corresponded to the configurations assumed in subcompartment pressure-temperature and EQ analyses. This walkdown was performed according to nuclear discipline desk instructions. This plan was applicable to Units 1 and 2 and was implemented prior to fuel load in each unit.

FP-2—Hazards

This program was developed to assure that the as-built configuration of the plant was in agreement with the design requirements concerning hazards such as missiles, flooding, jet impingement barriers, and Seismic Category II/I interactions. This was accomplished by a walkdown in which the design and zone-of-influence drawings were used to evaluate the as-built condition.

FP-3—Fire Protection

This program provided the guidelines for performing a walkdown which verified the VEGP fire protection features. The program verified that the systems and features were designed in accordance with applicable criteria and installed in accordance with the design documents. This program was intended to provide assurance that commitments to comply with various fire protection requirements, including NRC criteria as described in the text and figures of the Fire Protection Program, VEGP FSAR (Reference 3-21), were met by the installed configuration.

FP-4—Raceway Separation From Hot Pipes/Equipment

This program consisted of a walkdown to verify that electrical raceways and equipment were located an adequate distance from hot pipes and equipment to allow for pipe growth and movement.

FP-5—Electrical Raceway Walkdown

This program provided verification that separation distances required between raceways from different separation groups were provided. Where the required separation was not provided, the actual configuration was analyzed to determine acceptability. Unacceptable configurations were corrected using enclosures or fire barriers. The program also included verification of vertical cable supports to the requirements of the construction specification.

FP-6—Cable Separation

This program consisted of a walkdown to verify that cable separation in selected multitrain panels was provided to ensure that prior to operations, cable separation criteria for Class 1E cables had been met.

FP-7—NRC IE Bulletin 79-14, Stress Reconciliation

To ensure that the installed piping systems analysis was valid, NRC IE Bulletin 79-14 (Reference 3-22) required that all operating nuclear power facilities and all nuclear facilities under construction inspect and verify that the seismic analysis and current design criteria are compared to the design documents that were used as input to the latest seismic analysis. Identified deviations were resolved prior to fuel loading.

Finalization of piping stress analysis evaluations required completion of the following tasks:

- Verification of conformance of design calculations to current project and supplier documents, including the conformance of design changes.
- As-built reconciliation to the final design documents.

FP-8—Pipe Break Restraints

This program provided verification that all pipe break restraints (PBRs) had been properly located in relation to the postulated pipe rupture. This walkdown was also performed to verify the final number and locations of PBRs, and a combination of PBRs with pipe supports.

FP-9—Structural Integrated Verification and Evaluation

This program consisted of a walkdown that augmented the structural integrated verification and evaluation (STRIVE) program by identifying loads from significant field-routed items and verifying locations of other load applications in selected areas of the plant. The data collected was incorporated into the STRIVE calculations and used in various analyses to verify that the stresses were within allowables for selected structural steel components and end connections.

FP-10—Equipment Qualification

This program provided verification of the adequacy of the installed condition versus the qualified condition of selected safety-related equipment. The seismic qualification walkdown included verification that the equipment as installed in the field was consistent with the details of the seismic qualification report.

FP-11—Heavy Loads

Drawings were prepared for each overhead heavy load handling system of safety-related components in the projection of the load paths. The walkdowns assured that all safety-related components were adequately evaluated. This program is included in FP-2.

FP-13—Area Turnover Walkdowns

These walkdowns applied to all construction activities required to support an area turnover to nuclear operations with respect to construction completion. The criteria for these walkdowns were specified by construction procedures.

FP-14—Seismic Separation Finalization Program

This program consisted of a walkdown to ensure that safety-related components were installed with adequate physical clearances to preclude potential physical interaction during a seismic event, unless justification was provided that any potential seismic interaction was acceptable. This walkdown applied to Units 1 and 2.

FP-15—Security Barriers

A security barrier walkdown was performed to ensure that the integrity of the vital area and protected area boundaries were in accordance with the commitments made and the physical security contingency plan for VEGP.

Readiness Review

In preparation for NRC review/audit for obtaining the operating license for VEGP, a detailed readiness review was performed which covered all design considerations. Since VEGP is a new vintage nuclear plant, the NRC review was extensive and detailed. Based on the review of calculations, drawings, and plant walkdowns discussed above, it can be stated that VEGP is a very seismically rugged plant.

3.1.1.2.4 Subsystems and Their Supports

The electrical raceway system consists of various types of cable trays, bus ducts, and conduits. The individual raceway supports are attached to the building structure with structural supports. The configuration of the supports depends on the number of trays, bus ducts, or conduits; distance from the walls, floor, and structural steel members; and space limitations. This includes adequate embeds, surface-mounted plates, embedded strut channels, and beams to which the supports are attached.

The design of Seismic Category I electrical raceway supports was based on a standard support spacing of 8 ft. Where spacing between supports exceeds 8 ft, consideration was given, on a case-by-case basis, to the tributary load on the supports and the ability of the tray to span more than 8 ft. See figures 3.1-26 through 3.1-29 for typical raceway support details and photos. The design and construction of Seismic Category I duct work generally conforms to the requirements specified in ANSI N509-1980 (Reference 3-23).

The minimum duct wall thickness is 18 gauge to ensure reliability of the weld. Radius elbows, where used, have a centerline radius of 1.5 multiplied by the width or diameter of the duct in the plane of the bend. Transverse joints were gasketed, seal-welded flange, butt welded, or in accordance with Sheet Metal and Air Conditioning Contractors National Association (SMACNA) (Reference 3-24) high-pressure duct construction standards. Longitudinal seams were either all welded, seal welded, mechanical, or in accordance with SMACNA high-pressure duct construction standards. Whenever longitudinal seams were welded, the welds were not at or near a corner of the duct, but were placed at the midpoint of the shorter and/or longer side of duct. Longitudinal seam welds were permitted at the corner of the duct for shop fabricated elbows and offsets. This included both radius and square (mitered) vaned elbows.

Ducts are attached to the building structures with structural supports. Several types of supports were used depending on the number of ducts, distance from wall, floor, structural steel members, and space limitations. This included adequate embeds, surface-mounted plates, embedded strut channels, and beams to which the supports were attached. (See figures 3.1-30, 3.1-31, and 3.1-32 for typical HVAC duct support details and photos.)

The design of supports was based on a standard support spacing of 8 ft. Where spacing between supports exceeds 8 ft, consideration was given to the tributary load on the support and the ability of the duct to span more than 8 ft, on a case-by-case basis.

Special considerations were given to the design of HVAC ducts and duct supports at the locations of Seismic Category I tornado dampers and any other duct-mounted Seismic Category I components. This was done to define a conservative seismic input criteria for EQ, and at the same time be consistent with the assumptions made in the equipment seismic qualification program, such as boundary conditions used in the analysis, mounting conditions used in testing, and required response spectra and required input motion levels.

In general, hangers and supports for Seismic Category II piping, cable tray, and ducting in Seismic Category I buildings are designed to maintain their structural integrity under the postulated earthquake conditions.

For the analysis of electrical cable trays, tray supports, HVAC ducts, and duct supports, the modal response spectrum analysis method or the equivalent static load method was used. Damping for the raceway system and supports was based on extensive seismic testing. Conduit and bus duct support damping was based on conventional damping as specified in DC-1000-C.

Proper installation and clearances for the raceway system and supports was verified by FP-4 (Raceway Separation from Hot Pipes/Equipment), FP-5 (Electrical Raceway Walkdown), FP-6 (Cable Separation), and FP-14 (Seismic Separation Finalization Program) of the VEGP finalization program, as described in section 3.1.1.2.3. A review of drawings, calculations, and IPEEE walkdown results has demonstrated that the raceway systems and supports are seismically rugged.

3.1.1.2.5 Mechanical Equipment and Piping

Seismic Category I safety-related mechanical equipment and piping is qualified to withstand the effects of seismic loads resulting from the OBE and the SSE, considering the full range of normal and accident loadings. Seismic Category I mechanical equipment was qualified using analysis, testing, or some combination of the two. Structural analysis without testing was used if structural integrity alone could ensure the intended design function. Equipment under this category includes tanks, vessels, heat exchangers, filters, passive valves, piping, and ductwork. Dynamic analysis without testing was used to qualify heavy machinery too large to be tested. These components include pumps, turbines, generators, fans, and diesel engines. Dynamic testing was used for components with mechanisms that must change position to perform their required safety function. These components include electric motor valve operators, valve limit switches, and other similar devices. A combination of analysis, static testing, and dynamic testing was used for seismic qualification of complex equipment. This includes standby DGs, turbine-driven AWF pumps, main steam and main feedwater isolation valves, and other active valves.

The guidance provided in the ASME Boiler and Pressure Vessel Code, Section III (Reference 3-25), was followed in the design of safety-related Seismic Category I mechanical equipment to ensure the structural integrity of the pressure boundary components. For the analysis of piping systems, the floor response spectra for the specific level of the appropriate building was used as seismic input.

When performing a piping seismic analysis, one or more of the following methods of seismic analysis was used:

- Dynamic Analysis Method.

  The piping system is idealized as a mathematical model consisting of lumped masses connected by massless elastic members. Analysis to determine internal piping stresses and support loads was by time-history analysis or response spectrum, which utilizes the natural periods, mode shapes, and appropriate damping factors of the particular system.

- Modified Spectrum Method.

  The piping system is idealized as a series of individual piping spans. These spans are limited by two mutually perpendicular restraints normal to the pipe at each change of direction, concentrated masses, and all extended masses and at a maximum spacing on straight runs of piping determined by dynamic calculations based on a modified spectrum curve. The applicable building spectrum is modified so that the flexible side of the peak remains constant at the peak spectral acceleration for decreasing frequencies. Charts and tables showing maximum span lengths and restraint forces for pipes in various building elevations were then developed by performing dynamic analysis.

- Equivalent Static Load Method.

  The piping system is idealized as a mathematical model connected by elastic members. The load distribution, equal to 1.7 multiplied by the appropriate peak spectral acceleration multiplied by the system mass, is applied as three directional distributed loadings. Static analysis was used to determine internal piping stresses and support loads; results of the three directions are combined by the square root of sum of squares (SRSS) method. This method is limited to small bore (nominal diameter 2 in. and smaller), nonnuclear steam supply system piping.

- Main Steam and Feedwater Static Seismic Analysis Criteria.

  Main steam piping from the anchors to the high-pressure turbine and feedwater piping from the seismic anchors to the 6th point heaters were designed using static seismic analysis. Static forces in two perpendicular horizontal directions (0.2 g SSE and 0.08 g OBE) and the vertical direction (0.13 g SSE and 0.08 g OBE) were applied to the piping system, including various concentrated masses. The SRSS method was used to combine the three directional forces and stresses.

When using the response spectrum method of analysis, a normal cutoff frequency that corresponds to the rigid range of the floor spectra (33 Hz) was used to ensure that a sufficient number of modes had been used to adequately describe the response of the piping systems.

Where analytical methods of analysis do not produce results of a significant confidence level, or where analysis appears undesirable, dynamic testing of equipment was used to ensure functional integrity; however, the general approach employed in the dynamic analysis of Seismic Category I systems and components is based on the response spectrum technique where applicable.

Valves were treated with utmost consideration in the analysis of the piping systems. The information on weight, dimension, center of gravity, and end preparation of the valves was obtained from the available project vendor drawings. If such information was not available, current vendor catalogues and/or comparable data were used. Allowable nozzle loads (where applicable) are identified in the valve specification.

Valve operators were typically seismically tested. The valve bodies were typically qualified by analysis. Operability of the valve assembly (operator and body) was demonstrated by a static pull test. The valve assembly was operated while a static load equivalent to the seismic load was applied.

Safety-related mechanical equipment was qualified in accordance with DC-1005, which specifies various codes and standards, including IEEE 344-75 (Reference 3-26) and Regulatory Guide 1.100 (Reference 3-27). After equipment was qualified, the results of this qualification effort were documented in Equipment Qualification Data Packages (EQDPs). The EQDPs contain the following seismic-related information:

1. References, including seismic qualification reports.

2. Master listing of Seismic and Dynamic Qualification Summary.

3. Seismic and Dynamic Qualification Evaluation of Equipment - Balance of Plant (BOP) and NSSS.

4. Calculations referenced.

5. Equipment Qualification Design Change Verification.

6. Miscellaneous information including correspondence and evaluations. Also, documentation of the anchorage evaluation of the equipment is included in Equipment Mounting Condition Data Sheets (EMCDS).

The finalization program, as described in section 3.1.1.2.3, included FP-7 (NRC IE Bulletin 79-14 Stress Reconciliation), FP-8 (Pipe Break Restraints), FP-10 (Equipment Qualification), FP-12 (N-Stamp Plating Documentation and Certification), and FP-14 (Seismic Separation Finalization Program) which verified that the installation and clearances (boundary conditions) were in agreement/compliance with the seismic qualification. See figures 3.1-33, 3.1-34, and 3.1-35 for typical pipe support photos.

3.1.1.2.6 Electrical and Control Equipment

The seismic qualification and documentation procedures used for safety-related equipment and their supports are in conformance with IEEE Standard 344-1975. Seismic Category I safety-related electrical equipment is qualified to withstand the effects of seismic loads resulting from the OBE and the SSE, considering the full range of normal and accident loadings. Testing is the preferred method to qualify equipment. Dynamic as well as static test approaches were used to ensure structural integrity and operability of electrical equipment.

Analysis using mathematical modeling techniques correlated to tests performed on similar equipment or structures, verified analytical approaches, and/or combined analysis and testing were also used to qualify equipment.

Seismic qualification of electrical and control equipment was done under the guidance of Appendix QG (DC-1005). This document provided details on how to meet the intent of IEEE 344-75 and NRC Regulatory Guide 1.100. Triaxial seismic qualification (testing and analyses) was the standard method for qualification and exceptions had to be justified. Normal test programs tested entire panels with required safety functions monitored. Anchorage details different from the testing configuration had to be evaluated and the results documented in the EQDPs (section I-EMCDS). (See section 3.1.1.2.5 for a description of EQDPs.) Typical equipment anchorage is with cast-in-place bolts or welding to embedded steel as described in section 3.1.4.6.

3.1.1.2.7 Seismic Spatial Interaction

Seismic Category I structures are sufficiently isolated from non-Seismic Category I structures, or they are analyzed to ensure that their structural integrity is maintained. Non-Category I systems, equipment, and components installed in Seismic Category I structures whose failures could result in loss of required safety function are either separated by distance or barrier from the affected structure, system, equipment, or component, or are designed together with their anchorages to maintain their structural integrity.

Seismic Category I systems (e.g., piping, cable tray, conduits, and HVAC ducting) which run between structures on separate foundations, were designed for structure-to-structure relative displacements due to seismic excitation. In addition, the relative displacements between containment building and containment internal structure were considered.

A structure-to-structure seismic gap of 5 1/2 in. separates all Seismic Category I structures. For any attachments (e.g., systems and/or supports) made to the exterior of a structure, which cross the seismic gap, a horizontal separation of 5 1/2 in. was maintained between the attachment and the adjacent structure, including steel platforms and systems and/or supports. A separation of 3 in. was maintained in the vertical direction. This includes consideration of the relative settlement between buildings. Any exception from this criteria required a case-by-case evaluation by Engineering.

Gaps between Seismic Category I equipment, Seismic Category II structures/equipment and Seismic Category I equipment, piping system and/or raceway system interaction with Seismic Category I equipment, and interaction of piping systems and raceway systems with each other or structures, was evaluated as part of the finalization program for VEGP. FP-4 (Raceway Separation from Hot Pipes/Equipment), FP-7 (NRC 1E Bulletin 79-14 Stress Reconciliation), and FP-14 (Seismic Separation Finalization Program) were implemented to verify that interaction is not a concern at VEGP. The finalization program involved walkdowns to verify and evaluate gaps. In addition, FP-2 verified that Seismic Category II/I interactions had been addressed. The VEGP finalization program is described in section 3.1.1.2.3.

3.1.1.3 Qualifications of Seismic Margin Assessment Team

The Seismic Review Team (SRT) members represent the personnel responsible for applying experience and judgment in the implementation of the Electric Power Research Institute (EPRI) Seismic Margin Assessment (SMA) methodology (Reference 3-5). SRT members for VEGP represent many years of formal and practical experience in the field of structural and seismic design and analysis. The combined qualifications of the SRT members easily meets the requirements of the SMA methodology.

A brief summary of the qualifications of each SRT member is given below:

Farook Chandiwala

Mr. Chandiwala is a senior engineer in the Consulting and Testing Services (CATS) Department at SCS. He is currently assigned as a seismic EQ engineer in Nuclear Technical Services, performing reviews of vendor test and analysis reports and seismic calculations, and updating EQ revision packages. He earned a B.S. and M.S. in structural engineering from the University of New Mexico, Albuquerque. Mr. Chandiwala has more than 28 years' experience in structural analysis and design of structures, modeling of reactor building for dynamic analysis (including reactor and its internals) lumped mass representation used in state-of-the-art computer programs, piping stress analysis and support design, and equipment qualification. He developed a manual outlining criteria for the design of Class I HVAC ducts, which was the first of its kind in the nuclear industry. He has worked for several leading consulting firms and utilities, and has experience on various nuclear power plants throughout the country, including boiling water reactors (BWRs) and PWRs. Mr. Chandiwala has successfully completed the SQUG and IPE Add-on Walkdown Training Course and is a registered Professional Engineer in the State of California.

Phillip W. Garrett

Mr. Garrett is a principal engineer in the CATS Department at SCS. He has a B.S. in civil engineering from Auburn University and an M.S. in civil engineering from the University of Alabama at Birmingham. Mr. Garrett possesses more than 16 years' experience in structural analysis and design of structures for electric utilities. He has developed expertise in the areas of vibration analysis and modal testing, including in-situ vibration and modal testing of fans, motors, pumps, and structures. Mr. Garrett also has extensive experience in the seismic analysis of civil structures and subsystems, and seismic qualification of equipment. He is a registered Professional Engineer in the State of Alabama.

Billy R. Goforth, Jr.

Mr. Goforth is a project engineer in the CATS Department at SCS. He holds a B.S. and an M.S. in structural engineering from the University of Alabama at Birmingham. Mr. Goforth has more than 22 years' experience in the structural analysis and design of structures for electric utilities, and has performed work for many plants in the Southern electric system, including all three nuclear sites. Mr. Goforth has extensive experience performing seismic analysis as well as review and approval of vibration and modal testing of equipment, supports, foundations, and structures. He has worked in his current position for several years providing and approving seismic qualification of Class 1E equipment. Mr. Goforth's experience includes modern plants which meet Standard Review Plan requirements, as well as older SQUG plants. Mr. Goforth has successfully completed the SQUG and IPE Add-on Walkdown Training Course and is a registered Professional Engineer in the States of Alabama and Georgia.

Ping Hsu

Dr. Hsu is a principal engineer in the CATS Department at SCS. He has a B.S. in civil engineering from the National Cheng Kung University in Taiwan, an M.S. in applied mechanics from the Asian Institute of Technology in Thailand, and a Ph.D. in civil engineering from the University of Iowa. Dr. Hsu has more than 20 years' experience in the analysis and design of structures and equipment for nuclear power plants. Specifically, he has extensive experience in the structural dynamics and seismic analysis of civil structures, subsystems, and building foundations. He has provided technical expertise in the review and approval of qualification for Class 1E equipment. In addition, Dr. Hsu has extensive experience in seismic re-analysis of ASME piping systems in support of the snubber optimization program at VEGP. While serving as a field supervisor at VEGP for 2 years, Dr. Hsu worked on numerous maintenance issues such as snubber surveillance testing, piping vibration trouble-shooting, plant modifications, small bore piping and tubing reanalysis, Seismic Category II/I evaluations, and fatigue studies of mechanical components. Dr. Hsu has successfully completed the SQUG and IPE Add-on Walkdown Training Course and is a registered Professional Engineer in the State of Alabama.

Thomas B. Lantrip

Mr. Lantrip is a senior engineer in the CATS Department at SCS. He holds a B.S. in civil engineering from the University of Alabama and has completed graduate coursework at the University of Alabama at Birmingham and the University of California. Mr. Lantrip has more than 11 years' experience in structural analysis and design of structures for electric utilities, including extensive experience in seismic analysis of nuclear power plant structures and seismic qualification of equipment. He has expertise in the areas of vibration analysis and modal analysis testing of rotating equipment, balancing of high-speed machinery, and in-situ strain testing for nuclear and nonnuclear operating equipment and facilities. Mr. Lantrip has successfully completed the SQUG and IPE Add-on Walkdown Training Course and is a registered Professional Engineer in the State of Alabama.

Donald P. Moore

Mr. Moore is a consulting engineer in the CATS Department at SCS. He has a B.S. in civil engineering from the University of Alabama and an M.S. in engineering from University of Alabama at Birmingham. In addition to being an SRT member, Mr. Moore served as the technical director for the Hatch SMA/A-46 project with responsibility for all technical/seismic aspects of the project. Mr. Moore has more than 23 years' experience in the field of structural engineering with specific emphasis on structural dynamics. He has worked on a broad range of structural engineering activities, including design of structures for nuclear and fossil power plants; seismic analysis and design of structures and supports; analysis and design of foundations for rotating equipment such as coal crushers, fans, and pumps; reviewing and approving seismic qualification reports for seismic Class 1 equipment; solving structural vibration problems in operating power plants; and developing and implementing the structural dynamic testing capabilities for SCS. He is also an active member of several ASCE, ACI, and ASME committees that relate to structural dynamics and structural code activities. He was a peer reviewer for the SQUG Walkdown Screening and Seismic Evaluation course, a technical reviewer of EPRI report TR-102180 entitled, "Guidelines for Estimation or Verification of Equipment Natural Frequency," and has been a member of the SQUG Steering Group since 1993. Mr. Moore has successfully completed the SQUG and IPE Add-on Walkdown Training Course and is a registered Professional Engineer in the State of Alabama.

Keith D. Wooten

Mr. Wooten is the USI A-46/IPEEE-Seismic Program Manager for the Hatch, Farley, and Vogtle nuclear plants. He earned a B.S. in civil engineering from Auburn University and an MBA from the University of Alabama at Birmingham. In addition to being the program manager, Mr. Wooten also served as an SRT member for the Farley, Hatch, and VEGP A-46 and IPEEE walkdowns. Mr. Wooten has more than 13 years' experience in the analysis, design, and construction of structures and components for large industrial and nuclear facilities, which includes an extensive knowledge of Plant Hatch and its design and analysis basis and requirements. He has successfully completed the SQUG and IPE Add-on Walkdown Training Course and is a registered Professional Engineer in the State of Alabama.

3.1.1.4 Qualifications of Systems Engineers

The VEGP mechanical systems engineers developed the SSEL and assisted the SRT as required. The VEGP electrical engineers worked with the mechanical systems engineers to develop the SSEL and assisted the SRT as required The systems engineers for the VEGP IPEEE project possess considerable experience in the design and analysis of mechanical and electrical systems for nuclear power plants and easily meet the requirements of the SMA methodology. A brief summary of the qualifications of the VEGP systems engineers is given below.

Stephen W. Ashworth

Mr. Ashworth is a senior engineer at SCS. He has a B.S. in physics and a B.M.E. in mechanical engineering from the Georgia Institute of Technology. Mr. Ashworth has more than 11 years' experience with mechanical systems for nuclear power plants, including more than 9 years' experience with VEGP. Mr. Ashworth's experience includes systems design, construction support, startup testing, operational support, and design modifications. This experience includes extensive knowledge of design basis requirements and engineering analysis of system operation. Mr. Ashworth has successfully completed the SQUG/IPEEE systems training course and is a registered Professional Engineer in the State of Georgia.

Thad E. Harkins

Mr. Harkins is a senior engineer in the Nuclear Plant Support-Electrical Engineering Department at SCS. He has a B.S. in electrical engineering from Mississippi State University. Mr. Harkins has more than 16 years' experience in the design, testing, and construction of plant systems for nuclear facilities, including extensive knowledge of VEGP and its design and analysis basis and requirements. Mr. Harkins has successfully completed the SQUG/IPEEE systems training course.

Teresa A. Tompkins

Ms. Tompkins is an engineer in the CATS Department at SCS. She earned a B.S. in mechanical engineering from Purdue University. While assigned to the engineering support group for VEGP, Ms. Tompkins served as a systems engineer during development of the VEGP SSEL. She has more than 3 years' experience in power plant engineering and is a registered Engineer-In-Training.

3.1.1.5 Seismic Margin Walkdown

3.1.1.5.1 Walkdown Preparation

Prior to the walkdown, the SSEL was established for VEGP Units 1 and 2. Based on the SSEL, plant design information, such as location drawings, typical anchorage design, pertinent equipment data, and other system-related data, was assembled and reviewed by the SRT members.

A pre-walkdown was also performed to facilitate the walkdown. Several of the SRT members had a working knowledge of the plant layout and plant design basis. In addition, this pre-walkdown provided an opportunity for the plant operations staff to assess the needs of the SRTs. Also, an equipment outage schedule was established for coordination of SRT inspections to equipment that was considered sensitive.

To facilitate the walkdown, walkdown packages were prepared in advance for each item on the SSEL. Each walkdown package contained, as a minimum, the equipment location drawings, equipment layout drawings, and the Screening Evaluation Work Sheet (SEWS) form. Since VEGP's design is well documented, most packages contained anchorage details, concrete reinforcing details, equipment qualification data, and applicable design calculations.

Prior to the walkdown, a drawing review was conducted to confirm that an adequate load path to the floor slab existed for all anchored components. This review ensured that embedded plates were designed with adequate anchorage, and also ensured that equipment pads were properly reinforced and that the equipment pads were tied to the floor slab with reinforcing bars.

3.1.1.5.2 Equipment Walkdown Procedures

The seismic capability walkdown for SSEL components was performed per the requirements of the SMA methodology. Every item on the walkdown list was inspected and evaluated, and a walkdown data sheet was completed for each item. The walkdown concentrated on the following areas: seismic capacity versus demand, screening caveats, anchorage, seismic spatial interaction, and flooding. SEWS forms from Appendix F of the SMA methodology were used for the seismic capability walkdown.

The seismic demand was based on the SME GRS, with a review level earthquake (RLE) equal to 0.3 g pga. The SME is discussed in section 3.1.3. The SMA capacity versus demand check was essentially performed by screening tables 2-3 and 2-4 in the SMA methodology.

Equipment anchorage was inspected and evaluated as required by the SMA methodology. The anchorage section of the SEWS addresses the requirements of the SMA. Information was provided to the SRTs for each anchored component, including a summary of how the equipment anchorage was originally analyzed (e.g., by analysis or seismic simulation testing, and the anchorage type and configuration used in the analysis). These data were compared with the installed anchorage configuration by the SRT. If, in the judgment of the SRT, the installed equipment anchorage was similar enough to the analyzed anchorage condition, or the anchorage was acceptable by comparison with similar anchored components, then the anchorage was considered adequate and no further evaluation was required. Equipment anchorage at VEGP is discussed in more detail in section 3.1.4.6.

Where components were welded or attached by other means to embedded plates or channels, the embedded item was evaluated using existing drawings. The stiffness and strength of the component base was also evaluated to ensure that a sufficient load path existed. Equipment pads were checked by reviewing the drawings to ensure that they were constructed of reinforced concrete and that the pad was adequately anchored to the floor slab.

Seismic spatial interaction effects were also evaluated during the walkdown for all components, including proximity, Seismic Category II/I, and flooding. Proximity refers to the potential adverse effect realized when the seismic motion of one component causes it to impact with another component or structure. Seismic Category II/I is the potential impact of a Category II supported component on a Category I component.

3.1.1.5.3 Subsystem Walkdown Procedures

The SMA methodology states that piping systems have HCLPF capacities in excess of 0.5 g pga subject to a walkdown of representative safety-related piping. A walkdown of representative safety-related piping systems was performed as part of the seismic capability walkdown. (The walkdown methodology and results are discussed in section 3.1.1.6.10.)

The SMA methodology also requires a walkdown of representative HVAC ducting systems. Since there is very little ducting associated with HVAC systems on the SSEL and because of the relatively small scope, all HVAC ducting associated with SSEL components was evaluated. In addition, any HVAC system component, including ducting, in the vicinity of SSEL components was evaluated for potential seismic interaction.

According to the SMA methodology, all HVAC systems have a HCLPF capacity of at least 0.3 g pga. As recommended by the SMA methodology, HVAC ducting, within the scope described above, was evaluated to ensure that:

- Equipment and subsystem supports are adequately anchored.
- Ducting that spans between buildings is adequately designed to accommodate relative displacements.
- No other failure modes exist.

The results of this walkdown and evaluation are summarized in section 3.1.1.6.11.

Cable and conduit raceways are, in general, judged to have a HCLPF capacity of at least 0.3 g pga by the SMA methodology. An inspection of sample raceway systems is also recommended by the SMA methodology. The inspection and evaluation methodology and results are summarized in section 3.1.1.6.12.

3.1.1.5.4 Walkdown Results

The Unit 1 seismic review SSEL includes 637 components requiring a walkdown inspection and evaluation. The Unit 2 seismic review SSEL includes 631 components. Appendixes 3.A and 3.B of this report contain copies of the seismic review SSEL for Units 1 and 2, respectively. The results of the seismic capability walkdown for each component are shown on the Screening Verification Data Sheets (SVDS). The SVDS contain a summary of the data recorded on the SEWS form for each component in the areas of seismic capacity versus demand, screening caveats, anchorage, and seismic spatial interaction. The last data column is an overall summary of the component. A "Y" in the last column (equipment) indicates that this component is screened out at a HCLPF capacity of at least 0.3 g pga, while an "N" in the last column indicates that additional analysis or modification is required to demonstrate a HCLPF capacity of at least 0.3 g pga. These items are discussed further in section 3.1.4.5. The SVDS for Units 1 and 2, respectively, are included in 3.xes C and 3.D of this report.

3.1.1.6 Prescreened Structures and Equipment

Many items were prescreened from further review or from a detailed SMA, based on their seismic ruggedness to withstand earthquake forces at the focus-scope seismic HCLPF level of 0.3 g. This prescreening was accomplished using the criteria in tables 2-3 and 2-4 of the SMA methodology, in conjunction with the VEGP SMA walkdown. Items that were prescreened from the VEGP SMA at a HCLPF level of at least 0.3 g are described in the following subsections.

3.1.1.6.1 Concrete Containment

The containment consists of a prestressed reinforced concrete cylinder and hemispherical dome supported on a flat, conventionally reinforced concrete base mat. The cylinder and dome are 3 ft-9-in. thick. The inside face of the containment is lined with steel plates welded together to form a leaktight barrier. The containment is prestressed using post-tensioned, two-way, ungrouted tendons. Based on table 2-3 of the SMA methodology, the concrete containment can be screened out at the 0.3 g level. As discussed in section 3.1.1.2.2, deeply embedded structures at VEGP, including the containment and containment penetrations, are designed for a 0.3 g pga seismic event. Therefore, the concrete containment is screened out at a HCLPF capacity of at least 0.3 g pga.

3.1.1.6.2 Containment Internal Structures

Containment internal structures refer to those concrete or steel structures inside the containment pressure boundary which support the RCS components and related piping systems and equipment. The SMA methodology states that containment internal structures can be screened out if they are designed to a 0.1-g level or greater. The VEGP internal structures are designed to a 0.3-g level as described in section 3.1.1.2.2, along with a postulated LOCA. Based on a review of typical neat line drawings, reinforcing drawings, structural steel drawings, and miscellaneous steel drawings (bolts, embedded steel, etc.), it has been determined that the design details conform to good engineering practice and that the structures are seismically rugged. Therefore, the containment internal structures are screened out with a HCLPF capacity of 0.3 g pga, based on the design criteria being greater than the screening criteria.

3.1.1.6.3 Shear Walls, Footings, and Containment Shield Walls

All of the SSEL components are housed in Seismic Category I structures that are designed for an SSE level of at least 0.2 g pga as described in section 3.1.1.2.1; this exceeds the value of 0.1 g required by the SMA methodology to prescreen these structures. These structures also comply with the requirements set by the ACI 318-71 Building Code (Reference 3-19). Additional information regarding the design and analysis of structures is given in section 3.1.1.2.3. Based on a review of typical neat line drawings, reinforcing drawings, structural steel drawings, and miscellaneous steel drawings (bolts, embedded steel, etc.), it has been determined that the design details conform to good engineering practice and that the structures are seismically rugged. These structures are adequate for a HCLPF capacity of at least 0.3 g pga based on SMA guidelines and the SRT review.

3.1.1.6.4 Seismic Category I Concrete and Steel Frame Structures

Seismic Category I buildings, excluding the containment, which is addressed in section 3.1.1.6.1, include the auxiliary building, fuel handling building, control building, diesel generator building, AFW pumphouses, NSCW towers and valve houses, and diesel fuel storage tank pumphouses. These structures have been designed to at least 0.2 g pga as described in section 3.1.1.2.1. This exceeds the value of 0.1 g pga required by the SMA methodology to prescreen these structures. Based on a review of typical neat line drawings, reinforcing drawings, structural steel drawings, and miscellaneous steel drawings (bolts, embedded steel, etc.), the SRT has determined that the design details conform to good engineering practice and that the structures are seismically rugged. Additional information regarding the design and analysis of structures is provided in section 3.1.1.2.3. Based on the SMA methodology and SRT review, these structures are screened for a HCLPF capacity of at least 0.3 g pga.

3.1.1.6.5 Dams, Levees, and Dikes

At VEGP, no safety-related structures can be affected by floods and flood waves. All safety-related structures have a grade elevation of 220-ft msl, which is well above the design flood stages for VEGP. The design flood stages at the plant site are approximately 138-ft msl without wave runup and, with wave runup, the water may reach as high as 165-ft msl, based on the probable maximum precipitation (PMP) envelopes for the Savannah River drainage basin above the VEGP site. Furthermore, if the valley storage effect between the upstream Clark Hill Dam and the VEGP site is taken into account, this results in a lower flood peak and lower flood stage.

There are no dams, levees, or dikes at VEGP. Major dams upstream of the VEGP site are designed such that a seismic event will not cause failure of these structures. However, as part of the original plant design, a conservative, domino-type failure of the upstream dams was assumed to evaluate the effect of the flood stage at the plant site. The guidance provided in Regulatory Guide 1.59 (Reference 3-28) was considered in the evaluation of potential dam failures.

There are 14 dams on the Savannah River and its tributaries above the VEGP site. The Hartwell and Clark Hill Dams are major dams immediately upstream of the plant site. A profile of the river is shown in figures 3.1-36 and 3.1-37, along with a list of locations for various dams.

The VEGP site is considered a dry site, because even if Clark Hill Dam failed due to a seismic event coincident with probable maximum flooding (PMF), the flood wave would dissipate substantially due to valley storage before it reached the plant site. In this event, no primary source of makeup water would be affected; thus, plant safety would not be compromised.

The flow analysis of potential dam failure was performed as part of the original plant design and is summarized in section 2.4.4.2 of the VEGP FSAR. This analysis used the unsteady, flow Tennessee Valley Authority computer program, Simulated Open Channel Hydraulics (SOCH) (Reference 3-29) and assumed roughness values (i.e., Manning's values), to produce hydrograph stages. These Manning's values produced flood stages close to those observed, as discussed in paragraph 2.4.4.3 of the FSAR. To determine the routing of the dam failure surge, the hydrograph for the standard project flood (SPF), in combination with the failure of the upstream dams as described in the above paragraph, was developed (see figure 3.1-38). The resulting dam failure hydrograph gives the peak stage an elevation of 141 ft msl and a discharge of 980,000 ft^3/s. Considering the wind wave and runup effects, the stage at the river pump station would reach elevation 152 ft msl, and would reach 168 ft msl on the natural slope along the plant side of the river.

Based on the absence of dams, levees, and dikes at the VEGP site, along with the results of a conservative evaluation of the flood stages from upstream domino-type dam failures, dams, levees, and dikes are prescreened for the SMA at a HCLPF capacity of at least 0.3 g pga.

3.1.1.6.6 Nuclear Steam Supply System Primary Coolant System and Supports

The NSSS consists of four similar heat transfer loops connected in parallel to the reactor pressure vessel. Each loop contains a reactor coolant pump (RCP), steam generator (SG), and associated piping and valves. In addition, the system includes a pressurizer, pressurizer relief and safety valves, interconnecting piping, and instrumentation for operational control. The system is designed to withstand a combined loading condition consisting of a 0.3 g pga seismic event (as described in section 3.1.1.2.1) and a large-break LOCA. Based on this loading condition, the NSSS primary coolant system and piping are screened for a HCLPF capacity of at least 0.3 g pga.

3.1.1.6.7 Reactor Internals

For the faulted loading conditions, the reactor internals are designed for a large-break LOCA and a 0.3 g pga level earthquake, as described in section 3.1.1.2. Based on the proprietary nature of reactor internal designs, no recommendation is provided in the screening criteria for the reactor internals. Because of the earthquake design level of 0.3 g pga and the design envelope of various severe loading conditions, including LOCA, the reactor internals are screened for a HCLPF capacity of at least 0.3 g pga.

3.1.1.6.8 Control Rod Drive Housings and Mechanism

The support system for the control rod drive mechanism (CRDM) provides lateral restraint to limit CRDM deflections due to seismic or pipe break loadings. Horizontal support is provided by lateral tension tie rods which are pinned to the refueling cavity wall. The screening criteria recommends that the control rod drive (CRD) housing have lateral support to obtain a HCLPF level of at least 0.3 g pga. In addition, the VEGP CRDM was designed for a 0.3 g pga level earthquake as described in section 3.1.1.2.2. Therefore, the CRD housings and mechanisms are screened out at a HCLPF capacity of at least 0.3 g pga.

3.1.1.6.9 Diaphragms

The floor systems used in the Seismic Category I structures at VEGP are designed to support dead loads, equipment loads, laydown loads, piping loads, live loads, and vertical seismic loads. Additionally, floor systems are designed to resist moments caused by tornado loads on adjacent exterior walls and the horizontal shear caused by lateral seismic forces. Reinforcement in the diaphragms was detailed to produce ductile-type behavior. Load paths around cutouts in slabs were considered in the design and detailing of the reinforcement. Based upon these design parameters and the requirements of the SMA methodology, the diaphragms are adequate for a HCLPF capacity of at least 0.3 g pga.

3.1.1.6.10 Piping

The SMA methodology states that piping systems in nuclear power plants have HCLPF capacities in excess of 0.5 g subject to a walkdown of representative safety-related piping. A walkdown of various piping systems was conducted by several SRTs during the VEGP seismic capability walkdown. This walkdown concentrated on the following items as outlined in the SMA methodology:

- Nonductile joints–VEGP Seismic Category I piping is welded and does not contain any threaded or Victaulic or other mechanical friction-type connections on pressurized piping. Some vents and drains have threaded fittings but are well supported and are not a seismic concern. Non-Category I fire protection piping does contain threaded and Victaulic friction-type fittings. The fire protection system was designed for seismic loads or was seismically tested. The SRT screened fire protection piping at a HCLPF capacity of 0.3 g pga for seismic interaction, as described in section 3.1.4.10.

- Cast iron pipe–Cast iron pipe is not used for Seismic Category I piping at VEGP.
- Branch lines–Branch lines from Seismic Category I piping were found to have adequate flexibility.
- Piping connections–The connections of pipe into equipment anchor points at VEGP were constructed such that excessive nozzle loads would not occur.
- Valves–Valves observed during the piping walkdown had adequate clearance to avoid interaction with structures, components, or other subsystems. Additionally, active valves on the SSEL were inspected during the seismic capability walkdown. Valve interaction concerns were addressed as specified in section 3.1.4.5.
- Multiple support failure–Seismic Category I piping supports are seismically designed. No potentially weak supports were identified during the walkdown.
- Vibration isolation systems on equipment–No problems were identified with the flexibility of piping systems attached to equipment with vibration isolation systems.
- Piping across seismic gaps–Piping details across seismic gaps observed during the walkdown were designed with adequate flexibility to accommodate building motions. Pipe sleeves provide adequate gaps for piping movement. The gaps were generally filled with a ductile foam-type material. This configuration was observed throughout the plant.
- Seismic interaction–Potentially greater displacement could occur as a result of the increased seismic load of the SME on the piping in shallow-embedded structures. No conditions were identified during the walkdown where these larger displacements would cause a problem.

The SMA methodology states that, based on numerous probability risk assessments (PRAs), it is assumed that the SME will not cause a large-break LOCA. The results of the SMA piping walkdown serve to reinforce the assumption that a large-break LOCA will not occur at VEGP for the level of the SME under consideration. No case was found that indicated a potential for a large-break LOCA.

Based on the walkdown results described above, VEGP Seismic Category I piping is considered satisfactory for a HCLPF capacity of 0.3 g pga or greater. Buried piping is addressed in section 3.1.4.9.

3.1.1.6.11 HVAC Ducting and Dampers

The seismic capability walkdown of HVAC equipment on the SSEL is described in section 3.1.1.5. Nozzle loads associated with ducting were considered in that evaluation. HVAC ducting and dampers are attached to the building structures with structural supports. Support anchorage consists of welded and bolted connections. Appendix A of the SMA methodology states that reviews of damage reports for major earthquakes have not indicated ducting to be a problem in itself. HCLPF capacities for ducting are estimated to exceed 0.5 g pga. The VEGP walkdown did not document any seismic concerns for ducting. (For additional design information, see section 3.1.1.2.4.) Therefore, it has been determined that the ducting, dampers, and supports have a HCLPF capacity of at least 0.3 g pga.

3.1.1.6.12 Cable Trays

The raceway system, including cable trays, conduits, and supports, was determined to be seismically rugged based on a sampling walkdown and a review of Appendix A of the SMA methodology by the SRTs. The design of Seismic Category I supports was based on a standard support spacing of 8 ft. The standard cable tray support system consisted of the tray being clamped to a Unistrut support arm by Z-clips or an angle bolted to the tray and Unistrut arm. The Unistrut arm was welded to a structural tube arm. The arm was welded or bolted to a structural tube column. The column was then attached to the structure with cast in place bolts or welded to embedded plate. For additional design information, see section 3.1.1.2.4. Based on the raceway walkdown and review of Appendix A of the SMA methodology, the SRT determined that the raceway system at VEGP has a HCLPF capacity of at least 0.3 g pga.

TABLE 3.1.1-1

PEAK GROUND ACCELERATIONS OF MAJOR SEISMIC CATEGORY I STRUCTURES

Node	SSE Acceleration (g)		OBE Acceleration (g)	
	Horizontal	Vertical	Horizontal	Vertical
Containment internals				
169 ft 0 in (base mat)	0.21	0.38	0.14	0.23
261 ft 0 in	0.50	0.50	0.35	0.35
Containment shell				
169 ft 0 in (base mat)	0.21	0.38	0.14	0.23
258 ft 0 in	0.31	0.41	0.22	0.27
361 ft 0 in. (spring line)	0.45	0.43	0.30	0.29
Auxiliary Bldg.				
119 ft 3 in (base mat)	0.20	0.28	0.12	0.18
220 ft 0 in	0.28	0.30	0.18	0.20
288 ft 3 in (roof)	0.38	0.35	0.24	0.22
Control Bldg.				
180 ft 0 in (base mat)	0.26	0.40	0.17	0.24
220 ft 0 in	0.29	0.41	0.19	0.25
280 ft 0 in (roof)	0.73	0.88	0.53	0.69
Fuel Handling Bldg.				
160 ft 0 in (base mat)	0.24	0.38	0.16	0.24
220 ft 0 in	0.39	0.42	0.25	0.29
288 ft 2 in(roof)	0.60	0.48	0.41	0.33
Diesel Generator Bldg.				
219 ft 0 in (base mat)	0.26	0.30	0.16	0.19
274 ft 0 in	0.34	0.32	0.21	0.19

3.1.2 SYSTEMS ANALYSIS

This section includes a detailed description of the SMA success paths and their development, including the selection of the SSEL components associated with each path. This section includes a description of the major systems included on the success paths.

Information and descriptions supplied in this section apply to both Units 1 and 2, unless specifically noted otherwise.

3.1.2.1 Methodology and Assumptions

The SSEL for VEGP Units 1 and 2 was developed in response to seismic IPEEE requirements set by NRC GL 88-20, Supplement No. 4 (Reference 3-1), and NUREG-1407 (Reference 3-6). As such, the seismic margins methodology was used to identify two procedural based success paths and compile the list of frontline and support equipment required for shutdown.

With the exception of containment integrity and isolation, only safety functions which preclude core damage and lead to a stable plant condition are included. Specifically, the four key functions are reactivity control, reactor coolant system (RCS) pressure control, RCS inventory control, and decay heat removal (DHR).

Path success is defined as the ability to achieve and maintain a stable hot or cold shutdown condition during a 72-hour period following the IPEEE review level earthquake (RLE).

Offsite power is assumed to be lost and unrecoverable for the entire 72-hour timeframe. However, any adverse effects resulting from offsite power being available must be taken into account. At least one success path must have the capability to mitigate a small-break LOCA, up to an equivalent 1-in.-diameter break.

Where possible, equipment redundancy is provided in both success paths for high reliability against nonseismic failures and out-of-service conditions.

Because of the nonseismic design of the instrument air system, it is assumed that instrument air is lost and unavailable for the entire 72-hour timeframe. However, any adverse effects from the air system being available must be taken into account.

Piping and equipment, nonseismic or seismic, that is not specifically included in the success paths is considered to be lost and unavailable, except for possible adverse effects resulting from its availability.

Main steam piping and systems downstream of the main steam isolation valves (MSIVs) are not included in either success path and are assumed to fail, resulting in a possible steam line isolation and automatic closure of the MSIVs.

If offsite power is lost during the seismic event, an indirect reactor trip will occur. However, because no credit can be taken for a loss of offsite power (LOSP), certain reactor trip system automatic trips are retained to protect against seismically induced transients without LOSP. These include reactor trips due to pressurizer low or high pressure, pressurizer high level, steam generator (SG) low-low water level, reactor coolant pump (RCP) undervoltage or underfrequency, power range high neutron flux/rate, safety injection (SI) actuation, and manual trip.

Safeguards actuations which are available, if needed, include SI, containment isolation, containment ventilation isolation, control room isolation, steam line isolation, feedwater isolation, and automatic auxiliary feedwater (AFW) start. Emergency diesel generator (DG) start and load sequencing is also available.

Some items are included on the SSEL which are not assumed to function, but which must remain intact to preserve fluid integrity of safety systems (e.g., the RCPs, the turbine-driven AFW pump, the containment spray pumps, and the spent fuel pool heat exchangers). However, not all of these items require a seismic capability walkdown evaluation; see section 3.1.2.2.2 for further discussion.

The SSEL lists only certain types of equipment and components, as shown in table 3.1.2-1. However, the full scope of the IPEEE review includes associated piping, ductwork, raceways, structures, etc.

3.1.2.2 Success Path Selection

3.1.2.2.1 Process

This section provides a general description of the process used in choosing the success paths and associated equipment for the SSEL. The process was performed based on review of the SMA methodology, as modified by GL 88-20, Supplement No. 4, and NUREG-1407. The study performed for the Catawba Nuclear Station (Reference 3-30) was also reviewed for insights into an SMA applied to a PWR plant.

The starting point for the SSEL was a review of the VEGP IPE PRA (Reference 3-31) results. Sequences from the IPE PRA were reviewed to determine possible success paths for the IPEEE set of assumptions. Knowledge of the conservatisms in the VEGP seismic design led to an emphasis on paths that are as diverse as possible and are fully compatible with established procedures, without undue concern about the potential for seismic vulnerability of the selected components. Based on review of the SMA methodology, NUREG-1407, and the IPE PRA, it was decided that diversity in the type of shutdown cooling would be desirable. Therefore, sequences were categorized into those that used AFW for SG cooling and those that used feed-and-bleed cooling.

Preliminary reviews were performed to determine whether hot shutdown could be maintained for 72 hours in the IPEEE scenario utilizing condensate storage tank (CST) inventory without relying on RHR for shutdown cooling. However, as discussed in section 3.1.2.5.8, there was not sufficient assurance that the time requirement could be met with the assumed failure of nonseismic piping connected to the CSTs. It was decided that inclusion of this nonseismic piping into the IPEEE review scope, or alternative methods of makeup, would not be cost effective.

From review of the SMA methodology recommendations, emergency boration (utilizing the boric acid transfer pumps) was not selected as a possible alternate method of reactivity control for the IPEEE scenarios; therefore, the associated equipment was not considered for the SSEL.

Several activities were performed to better understand the equipment requirements for feed-and-bleed cooling. Westinghouse background information and sensitivity studies were reviewed. Data from the VEGP IPE PRA was also reviewed for feed-and-bleed scenarios. Finally, specific computer analyses were performed as discussed below to determine the required emergency core cooling system (ECCS) pumps and configurations to prevent core damage with acceptable margin.

Analyses were performed by Southern Nuclear Operating Company (SNC) using the Modular Accident Analysis Program (MAAP) (Reference 3-32) computer code for specific configurations and assumptions. The principle objective was to determine whether feed-and-bleed cooling, without centrifugal charging pumps (CCPs) available, would meet IPE acceptance criteria for maximum cladding temperature. It was concluded that performance would be marginally acceptable if both power-operated relief valves (PORVs) were opened. It was decided that this configuration should not be used in the feed-and-bleed success path to eliminate dependence on requiring both PORVs to operate in this one path. Computer results are documented in SNC calculations PSA-V-95-027 through 030 (Reference 3-33). These calculations also predict containment pressure.

Initial success path logic diagrams (SPLDs) were constructed based on the IPE PRA sequences and the above described analyses. Major support equipment was selected using the VEGP IPE PRA dependency matrix along with drawing reviews and review of the SMA methodology.

Further refinement of the success paths was accomplished by detailed review of piping and instrumentation diagrams (P&IDs), along with plant procedures. At this point in the process, the scenarios were discussed with a designated senior reactor operator (SRO) qualified operations superintendent. Input from operations personnel was extremely valuable in ensuring that the selected equipment and flow paths were compatible with the desired scenarios and operating procedures/training.

Equipment for the SSEL was compiled as discussed in section 3.1.2.5. A preliminary list was submitted to the VEGP Operations Department for review. Meetings were later held with both Operations and Training Departments to walk through the success paths and discuss the equipment selection. No major changes to the success paths resulted from the meeting, but minor issues were resolved and incorporated into the SSEL. Appendix 3.I includes a memo from the VEGP Operations Department which documents their review of the SSEL.

Using the guidance in the SMA methodology, an SPLD was constructed and is shown in figure 3.1-39. This SPLD includes paths A and B, and illustrates the major functions that lead from the IPEEE RLE to a long-term safe shutdown condition. Elements that are in series are used in both paths.

3.1.2.2.2 General Notes

The Unit 1 SSEL was developed for the VEGP Unit 1 design as it existed on January 1, 1993, prior to the 1R4 outage. The Unit 2 SSEL was developed for the VEGP Unit 2 design as it existed on July 1, 1993, prior to the 2R3 outage.

To compile the list of components for the SSEL, a set of P&IDs was highlighted to indicate the piping, equipment, and instruments necessary for the success paths. From this scoping of components, those components which are not considered to be "inherently rugged" (utilizing the SMA methodology) and which must function in the success paths were selected for inclusion in the SSEL. After selection of the mechanical and instrumentation and control (I&C) components, the associated electrical components were identified for inclusion in the SSEL.

From the highlighted P&IDs, tanks and heat exchangers which must remain intact to maintain the integrity of a fluid boundary were also included on the SSEL. In general, tanks and large heat exchangers require a walkdown because of a concern that these large, passive items could move because of anchorage failure and could dislodge relatively small attached lines.

In many cases, air-, solenoid-, and hydraulic-operated valves which need only to stroke to their fail-safe position were included in the SSEL. These valves do not require any power or control; it is only necessary to ensure, via the seismic capability walkdown, that the valves themselves are capable of stroking. Safety valves or relief valves that are expected to lift because the pressure is postulated to exceed the valve setpoint during a given shutdown scenario are included in the SSEL.

Where 2/3 or 2/4 logic is employed for required systems, all instrument channels are normally included in the SSEL, even though seismic failure of one channel may not cause loss of function.

For IPEEE purposes, HVAC systems are needed only to provide essential cooling to support the operation of frontline systems, to ensure control room habitability, and for containment heat removal (CHR). HVAC systems are not required for mitigation of radiological consequences; therefore, HVAC functions, such as maintaining control room or auxiliary building pressure differential, are not required. Similarly, it is not necessary to ensure the performance of high efficiency particulate air (HEPA) filters in filtration and exhaust units as long as cooling is not obstructed; electrical heaters that provide moisture control for charcoal filters are not required to function, nor are the associated indicators and alarms. Room heaters are also not required.

3.1.2.2.3 Nonseismic Failures and Human Actions

Within a given success path, there is a high degree of redundancy of components so as to ensure that each success path is highly reliable. In general, each success path includes two trains of components where such components are train oriented. Thus, failure of a path due to a failure of a single active component or a single operator error is highly unlikely. Similarly, it is not generally possible for a limited condition of operation (LCO) allowed by Technical Specifications to render a path inoperable for any significant time period.

As previously described, the two success paths are chosen to be as functionally diverse as feasible. By necessity, many components and systems are used in both paths; these include systems such as emergency electrical power, cooling water systems, and HVAC systems, as well as many frontline components. However, because of the redundancy within each path, it is possible that one path can utilize active components that are physically different from active components used in the other path, with only a few exceptions.

In both paths, it is necessary that the reactor control rods can be inserted, as designed, upon reactor trip to quickly bring the reactor to a subcritical state.

The refueling water storage tank (RWST) is a single component which is used in both success paths with no redundancy. However, this tank is not an active component and is highly reliable. RWST inventory is used in path A as a supply source for safety-grade charging; in this case, only a small portion of the total RWST inventory is required to be used. In path B, RWST inventory is used in a feed-and-bleed injection mode.

As described in section 3.1.2.5.8, CST 001 is used in success path A and is not redundant. However, this tank is not an active component and is highly reliable. It is possible that this tank can be out of service for a short period of time; however, CST 002 generally would be available in this instance and would be aligned to the AFW pumps. Although not included in the SSEL, CST 002 is physically similar to CST 001. In any case, path B can be used without reliance on the CST.

During normal power operation, normal letdown is in service and excess letdown is isolated. However, because it is possible that under certain circumstances excess letdown could be in service, isolation valve HV-8154 is included on the SSEL as described in section 3.1.2.5.3. Only one isolation valve is included because these valves fail closed and it is judged that, given the likelihood of excess letdown being in operation, one valve would provide sufficient assurance of isolation capability.

As described in section 3.1.2.5.4, RWST isolation valve HV-8806 is not included in the SSEL. This valve is only closed during the cold-leg recirculation phase of path B, and it is judged that the check valve downstream of this valve provides sufficient assurance against backflow to the RWST.

Three fail-closed steam generator blow down (SGBD) isolation valves are located in the seismic portion of the SGBD line for each SG. Only one SGBD isolation valve is included in the SSEL for each SG. Failure of an isolation valve to stroke closed would only result in possible continued blowdown from one SG.

Containment isolation valves are discussed in section 3.1.5. Containment isolation is outside the scope of methodology provided by the SMA methodology. As discussed in section 3.1.5, the approach taken is to ensure a credible barrier exists for those penetrations which could form a significant release path. Criteria have been established which provide for reliable isolation capability following an RLE.

3.1.2.3 Success Path Description

3.1.2.3.1 Primary Success Path

The primary success path utilizes shutdown equipment and operational sequences in as normal a manner as possible. A key feature of this path is the assumed availability of AFW. This path does not assume the presence of a small-break LOCA. Components in the SSEL which are used exclusively in this path are designated as path A components.

Following a reactor trip, at least one motor-driven AFW pump is used to maintain SG levels, and secondary steam is relieved by the atmospheric relief valves (ARVs). Due to an LOSP, the RCPs are not operable, and natural circulation is required for removal of heat from the primary system.

After plant conditions have stabilized at hot standby, a cooldown to hot or cold shutdown can be accomplished. A centrifugal charging pump (CCP) is available for establishing a safety-grade charging path (utilizing HV-0190A/B) to allow for RCS shrinkage during cooldown and for increasing RCS boron concentration. The CCP draws from the RWST, and RCS inventory is controlled by balancing charging make-up with RCS shrinkage during cooldown. Additionally, safety-grade letdown through the reactor head vent is available, if needed for use with charging, to increase boron concentration and for inventory control. RCP seal injection is established using manual valves 1208-U6-152/151 to preclude the occurrence of a seal LOCA.

With loss of instrument air, the pressurizer sprays will not be available, and a PORV must be used, as necessary, to maintain RCS pressure control. During cooldown, the accumulators are prevented from discharging excessive coolant and nitrogen into the RCS by utilizing vent valves to vent off the nitrogen overpressure. When RCS pressure and temperature have been sufficiently reduced, at least one train of residual heat removal (RHR) is placed into service in the closed loop mode for long-term DHR. RHR flow is controlled by manual valves 1205-U6-019/020.

The primary path SSEL for Unit 1 is included as Appendix 3.E of this report, and the primary path SSEL for Unit 2 is included as Appendix 3.F.

3.1.2.3.2 Alternate Success Path

The alternate success path uses bleed and feed as a diverse method of heat removal. AFW is assumed to be unavailable in this scenario. It is assumed that a small-break LOCA may have occurred during the seismic event. Components in the SSEL which are used in this path exclusively are designated as path B components.

Following the reactor trip, the SGs are initially available for heat removal until secondary side dryout. Main steam is relieved by the main steam safety valves during this time (ARVs are not included in this path), and natural circulation is maintained.

After SG levels have dropped below 29 percent wide range, SI is actuated if it has not already occurred. At least one ECCS train, utilizing a CCP, SI pump, and RHR pump, is actuated in the injection mode, drawing from the RWST. No credit is taken for accumulators. At least one PORV is opened to create a bleed path from the RCS. Injection continues until low-low RWST level, after which switchover is made to cold-leg recirculation. Cold-leg recirculation is continued as a long-term method of heat removal.

The alternate path SSEL for Unit 1 is included as Appendix3. G of this report, and the alternate path SSEL for Unit 2 is included as Appendix 3.H.

3.1.2.4 <u>Systems Description</u>

The following sections contain brief descriptions of the major systems included in the primary and alternate success paths described above. Not all of the available functions provided by these systems are required for the SMA. The method in which these systems are used for the SMA success paths is described in sections 3.1.2.3 and 3.1.2.5.

3.1.2.4.1 Reactor Trip System

The reactor trip system automatically maintains operation of the reactor within a safe region by shutting down the reactor whenever the limits of the region are approached. The safe-operating region is defined by several considerations, such as mechanical/hydraulic limitations on equipment and heat transfer phenomena. Therefore, the reactor trip system maintains surveillance on process variables that are directly related to equipment mechanical limitations, such as pressure and pressurizer water level (to prevent water discharge through safety valves and uncovering heaters), and also on variables that directly affect the heat transfer capability of the reactor (e.g., flow and reactor coolant temperatures). Still other parameters used in the reactor trip system are calculated from various process variables. In any event, whenever a direct process or calculated variable exceeds a setpoint, the reactor is shut down to protect against either gross damage to fuel cladding or loss of system integrity, which could lead to release of radioactive fission products into the containment.

The following systems comprise the reactor trip system:

- Process instrumentation and control system.
- Nuclear instrumentation system.
- Solid-state logic protection system.
- Reactor trip switchgear.
- Manual actuation circuit.

3.1.2.4.2 Reactor Coolant System

The RCS consists of four similar heat transfer loops connected in parallel to the reactor pressure vessel. Each loop contains an RCP, SG, and associated piping and valves. In addition, the system includes a pressurizer, pressurizer relief and safety valves, interconnecting piping, and instrumentation necessary for operational control. All of these components are located in the containment building.

During operation, the RCS transfers heat that is generated in the core to the SGs, where steam is produced to drive the turbine-generator. Borated demineralized water is circulated in the RCS at a flowrate and temperature that are consistent with achieving the reactor core thermal-hydraulic performance. The water serves as a neutron moderator and reflector, and also serves as a solvent for the neutron absorber used in chemical shim control.

The RCS pressure boundary provides a barrier against the release of radioactivity generated within the reactor and is designed to ensure a high degree of integrity throughout the life of the plant. RCS pressure is controlled by the use of the pressurizer, wherein water and steam are maintained at saturation conditions by electrical heaters and water sprays. Steam can be formed (by the heaters) or condensed (by the pressurizer spray) to minimize pressure variations due to contraction and expansion of the reactor coolant. Spring-loaded safety valves and PORVs connected to the pressurizer provide for steam discharge from the RCS. Discharged steam is piped to the pressurizer relief tank, where the steam is condensed and cooled by mixing with water.

3.1.2.4.3 Chemical and Volume Control System

The chemical and volume control system (CVCS) provides the following services to the RCS:

- Maintains programmed water level in the pressurizer (i.e., maintains required water inventory in the RCS).

- Maintains seal water injection flow to the RCPs.
- Controls reactor coolant water chemistry conditions, activity level, and soluble chemical neutron absorber concentration and makeup.
- Provides injection flow to the RCS following actuation of the safety injection system (SIS).
- Provides a means for filling, draining, and pressure testing the RCS.

3.1.2.4.4 Safety Injection System

The ECCS is an important engineered safety feature actuation system (ESFAS) which includes a collection of fluid system components described as the SIS. The primary function of the SIS is to provide emergency core cooling in the event of a LOCA resulting from a break in the primary RCS. The SIS also provides emergency boration in the event of a steam line or feed line break accident resulting from a break in the secondary system. Portions of the SIS, which are actuated by the ESFAS, include these components:

- RHR/low-head SI pumps in both trains.
- Charging pumps/high-head SI pumps in both trains.
- Air-operated isolation valves.
- MOVs including 8808A, 8808B, 8808C, and 8808D for the accumulators.

3.1.2.4.5 Residual Heat Removal System

The RHR system transfers heat from the RCS to the NSCW system via the component cooling water (CCW) system to reduce the temperature of the reactor coolant to the cold shutdown temperature at a controlled rate during the second part of normal plant cooldown and maintains this temperature until the plant is started up again. Parts of the RHR system also serve as part of the ECCS for accident mitigation.

3.1.2.4.6 Containment Spray System

During the injection phase of operation, the containment spray system pumps draw water from the RWST and spray it into the containment through nozzles mounted high above the operating deck. As the spray droplets fall, they absorb heat from the containment atmosphere. Since the water comes from the RWST, the entire heat capacity of the spray from the RWST temperature to the temperature of the containment atmosphere is available for energy absorption. During the recirculation phase of post-accident operation, water is drawn from the sump and sprayed into the containment atmosphere.

3.1.2.4.7 Main Steam System

The main steam system includes the following major components:

- Main steam piping from the SG outlet steam nozzles to the main turbine stop valves.
- Two MSIVs and two MSIV bypass valves per main steam line.
- Main steam safety valves.
- Power-operated ARVs.

The main steam lines deliver a total steam flow of 15.92E6 lb/h from the secondary side of the four SGs. Each of the main steam lines from the SGs is anchored at the containment wall and has sufficient flexibility to accommodate thermal expansion. Main steam safety valves are provided with sufficient rated capacity to prevent steam pressure from exceeding 110 percent of the main steam system design pressure:

- Following a turbine trip without a reactor trip and with main feedwater flow maintained.
- Following a turbine trip with a delayed reactor trip and with loss of main feedwater flow.

Five safety valves are provided per main steam line for VEGP. The lowest set pressure is 1185 psig and the highest set pressure is 1235 psig. The main steam supply system safety valves are located in the safety-related portion of the main steam piping upstream of the MSIVs and outside the containment.

The SG power-operated ARVs provide a means for plant cooldown by discharging steam to the atmosphere when either the condenser, the condenser circulating water pumps, or the steam dump is not available. Under such circumstances, the relief valves, in conjunction with the AFW system, allow the plant to be cooled down at a cooldown rate of 50°F/h from the pressure setpoint of the lowest set safety valves down to the point in which the RHR system can assume the burden of heat removal. RHR operations are initiated when the RCS hot-leg temperature has reached 350°F and primary coolant pressure is less than or equal to 400 psig.

Each PORV is located outside the containment and upstream of the MSIV, in the safety-related portion of the main steam line associated with each SG, to permit valve operation following all accident conditions, including those which could result in closure of the MSIVs. The function of the main steam isolation system is to limit blowdown to one SG in the event of a steam line break.

The main steam isolation system consists of two quick-acting gate valves in series in each main steam line and two associated quick-acting globe-type MSIV bypass valves with associated actuators and instrumentation. These valves are located outside the containment building, as close to the containment as practical, and are downstream from the SG safety valves and the ARV. The isolation system provides positive shutoff with minimum leakage during postulated line severance conditions either upstream or downstream from the valves.

3.1.2.4.8 Auxiliary Feedwater System

The AFW system automatically provides feedwater for the removal of reactor core decay heat so that no damage to the reactor core occurs following a loss of main feedwater from a condition of full power to the point in which reactor coolant temperature stabilizes and the RHR system may be placed in operation. Tne automatic initiating circuits are powered from the emergency buses. The motor-driven pumps are automatically sequenced on the emergency DGs.

The AFW system consists of two mctor-driven pumps, one steam turbine-driven pump, and piping, valves, instruments, and controls. Each motor-driven pump feeds two SGs through individual motor-operated flow control valves.

The preferred water source for the AFW system is the CST, which is Seismic Category I.

3.1.2.4.9 Main Feedwater System

The condensate and feedwater system supplies the SGs with heated feedwater in a closed-steam cycle using regenerative feedwater heating.

The main portion of the feedwater flow is deaerated condensate that is pumped from the main condenser hotwells by the condensate pumps. The main condenser hotwells receive makeup from the condensate tank. This stream passes, in sequence, through the condensate filter demineralizer system, the three trains of low-pressure heaters, each train consisting of a No. 1, 2, and 3 low-pressure heater; two trains of low-pressure heaters, each train consisting of a No. 4 and 5 low-pressure heater; the parallel SG feedwater pumps; the two trains of high-pressure heaters, each train consisting of a No. 6 high-pressure heater; control and isolation valves; and on into the four SGs. The balance of the feedwater flow is provided by the drains from the moisture separators, the reheaters, and No. 6, 5, and 4 heaters and is collected into a drain tank and pumped into the feedwater pump suction stream by the heater drain pumps.

Each of the four main 16-in. feedwater lines to the four SGs contains a feedwater flow element, a main feedwater control valve, a main feedwater bypass control valve, a power-operated main feedwater isolation valve (MFIV), and a tilting disc check valve. Feedwater is also supplied to the SGs through the bypass feedwater lines which branch from the main feedwater lines between the respective MFRVs and MFIVs. Each of the bypass feedwater lines contains a bypass feedwater isolation valve (BFIV), tilting disc check valves, an AFW connection, and a chemical injection connection.

3.1.2.4.10 Nuclear Service Cooling Water System

The NSCW system provides cooling water for the containment coolers, control building essential chiller condensers, various ESFAS pump coolers, standby DG jacket water coolers, and the CCW and auxiliary component cooling water (ACCW) heat exchangers. The NSCW system transfers the heat removed from these systems to the ultimate heat sink.

3.1.2.4.11 Component Cooling Water System

The CCW system provides cooling for the spent fuel pool (SFP) during all plant operating modes and for the RHR system during normal shutdown and emergency conditions. The CCW system also serves as an intermediate system or barrier between the RCS and the NSCW system, which is open to the atmosphere.

3.1.2.4.12 Diesel Generator System

The standby power supply for each safety-related load group consists of one DG complete with its accessories and fuel storage and transfer systems. The diesel generator system is capable of supplying essential loads necessary to reliably and safely shut down and isolate the reactor. Each DG is rated at 7000 kW for continuous operation and 7700 kW for a short-term (2-h) period every 24 h. Voltage and frequency recovery characteristics meet or exceed the requirements of Regulatory Guide 1.9 (Reference 3-34). One DG is connected exclusively to a single 4.16-kV safety feature bus of a load group. Each unit has two 4.16-kV Class 1E trains, and safety-related equipment on both trains is similar. The trains are redundant and, for each unit, one train is adequate to satisfy minimum engineered safety features (ESFs) demand caused by a LOCA and a simultaneous loss of preferred power supply. DGs are electrically isolated from each other. Physical separation for fire and missile protection is provided between the DGs, since they are housed in separate rooms of the Seismic Category I diesel generator building. Power and control cables for the DGs and associated switchgear are routed to maintain physical separation.

Ratings for DG sets are determined on the basis of nameplate rating, pump pressure and flow conditions, or motor brake horsepower. The continuous rating of the DG is based on the maximum total load required at any time. The DG is capable of operation at less than full load for extended periods.

3.1.2.4.13 Piping Penetration and Filter Exhaust System

The piping penetration area filtration and exhaust system maintains a negative pressure in the piping penetration area and filters the exhaust from the negative pressure boundary. The system consists of two exhaust filtration units, each consisting of a moisture eliminator, a heating coil, two high efficiency particulate air (HEPA) filter banks, a charcoal filter, and a fan. Each unit is rated at 16,000 ft^3/min at 16-in.-water gauge static pressure.

3.1.2.4.14 Control Room Heating, Ventilation, and Air-Conditioning System

The control room emergency ventilation and air-conditioning system is capable of maintaining the control room atmosphere in a condition suitable for prolonged occupancy throughout the duration of any one of several postulated accidents.

The control room emergency HVAC system is capable of automatic and manual transfer from its normal operating mode to the emergency modes. Radiation detectors and control equipment are provided at plant locations as necessary to ensure the appropriate operation of the system.

A single active failure of any component of the control room emergency HVAC system, assuming an LOSP, does not impair the system's ability to function. Each train of the control room HVAC system is connected to a separate and independent Class 1E power supply. The control room emergency HVAC system is designed to remain functional during and after a SSE. All air ducts and their supports above the control room suspended ceiling, as well as the ceiling itself, are Seismic Category I.

3.1.2.4.15 Control Building Essential Safety Function Electrical Equipment Room HVAC System

The control building safety feature electrical equipment room HVAC system provides a proper environment and temperature for electrical equipment and maintenance personnel during normal conditions and postulated accident conditions. Each train of the safety features electrical equipment room HVAC system is powered from a separate and independent Class 1E power system. The system minimizes the accumulation of hydrogen gas within the battery rooms.

3.1.2.4.16 Containment Heat Removal Systems

The functional performance objective of the containment heat removal (CHR) system as an ESFAS is to reduce the containment temperature and pressure following a LOCA or main steam line break (MSLB) accident inside the containment by removing thermal energy from the containment atmosphere. These cooling systems also serve to limit offsite radiation levels by reducing the pressure differential between the containment atmosphere and the external environment, thereby diminishing the driving force for leakage of fission products from the containment to the atmosphere. The CHR systems include the containment cooling system and the containment spray system. The containment cooling system also functions during normal operation to maintain a suitable atmosphere for the equipment located within the containment.

3.1.2.4.17 Essential Chilled Water

The essential chilled water system provides chilled water to the cooling coils of the various ESF areas, such as the battery rooms, switchgear rooms, control rooms, ESF pump rooms, penetration areas, and the spent fuel pool heat exchanger and pump rooms. The air handling units for the ESF areas, which operate during power generation, have two sets of cooling coils, one of which is served by the normal chilled water system, while the other is supplied by the essential chilled water system. During normal plant operation, chilled water to the air handling unit is supplied by the normal chilled water system, and during accident conditions, chilled water is supplied by the essential chilled water system. Air handling units serving areas which are only required following an accident, such as SI and containment spray pump rooms, are provided only with cooling coils supplied by the essential chilled water system.

The essential chilled water system consists of two independent trains, each of which is a closed-loop system. Major components for each of the two independent trains include a centrifugal chilled water refrigeration machine (chiller), a full-capacity chilled water pump, expansion tank, and a nonsafety-related, normally isolated chemical addition subsystem.

3.1.2.5 Safe Shutdown Equipment List Component Selection

3.1.2.5.1 Reactor Trip System

As stated in section 3.1.2.1, an indirect reactor trip will occur if an LOSP occurs during the seismic event. However, in the event offsite power is not lost, equipment and instrumentation is included in the SSEL to provide automatic reactor trips for protection against seismically induced transients. Reactor trips which are not included are source-range high neutron flux, intermediate-range high neutron flux, overtemperature delta temperature (OTDT), overpressure delta temperature (OPDT), and coolant loop low flow. These trips are not included because other available trips provide protection for credible events that could be caused by the earthquake.

It is possible that the earthquake could cause a loss of power to an RCP motor, which would result in low-loop flow. However, the RCP undervoltage and underfrequency reactor trips remain available for this situation. The low loop flow trip would only be needed for a mechanical RCP problem such as a shearing of the shaft. Page A-163 of the SMA methodology states that "all pumps have HCLPF capacities of at least 0.3 g peak ground acceleration (pga)." (Reference 3-5) In addition, page A-93 states that the "capacities of the supports for reactor pressure vessels, RCPs, and PWR SGs and pressurizers, are conservatively greater than 0.5 g pga." For VEGP, based on the method in which the original seismic demand was determined for the deeply embedded structures, the RCP was designed for an equivalent ground motion of at least 0.3 g pga as part of the original plant design. Based on the SMA methodology and the original plant design level, it can be concluded that shearing of the shaft is not a credible event for the RCP caused by an IPEEE seismic event. Extending this logic to other possible mechanical RCP problems, it is concluded that the low-loop flow reactor trip is not required.

3.1.2.5.2 Reactor Coolant System

RCPs will not be functional with an assumed LOSP.

RCS wide-range pressure and temperature instrumentation is included to provide indication of critical RCS parameters. Wide-range pressure also provides an interlock for opening the RHR suction valves.

The SGs are used in path A to transfer heat to the main steam system. In path B, the SGs are used initially as a heat sink until the secondary sides dry out.

The pressurizer PORV block valves are included since they may be closed during operation because of a leaking PORV and must have the capability to reopen to allow use of the PORV.

The pressurizer heaters are not used in either success path. For path A, a cooldown may be accomplished to maintain an adequate subcooling margin. As stated in section 3.1.2.3.1, the pressurizer sprays may not be available due to possible loss of the instrument air system, and a PORV is used for RCS pressure control. RCS pressure is not postulated to increase to the setpoint of the pressurizer safety valves and, therefore, the safety valves are not included on the SSEL.

Reactor coolant that is discharged from a PORV may fill the pressurizer relief tank (PRT) and require the rupture discs to rupture. There is no credible mechanism during the earthquake that can prevent the rupture discs from functioning as required and, thus, are not included on the SSEL. It is acceptable for piping and components downstream of the PORVs, including the PRT and rupture discs, to fail during the earthquake. Any reactor coolant released from the PORVs will remain inside the containment.

Pressurizer level transmitter LT-462 is not part of the reactor trip logic and is not included on the SSEL.

RCS loop elbow flow transmitters (FT-414, etc.) are not included on the SSEL since the loop low flow reactor trip is not required, as discussed in section 3.1.2.5.1. Similarly, the loop remote temperature detectors (RTDs) (TE-411A1, TE-411B, etc.) are not included since the OPDT and OTDT reactor trips are not required.

The reactor vessel and reactor head assembly must function during or following the earthquake to allow insertion of all control rods upon a reactor trip signal.

The cold overpressure protection system (COPS) is not included in the SSEL for protection of the reactor vessel. During a controlled cooldown below 350°F following the earthquake, it is assumed that operations personnel will manually ensure that the RCS is operated within acceptable pressure/temperature limits.

3.1.2.5.3 Chemical and Volume Control System

Normal letdown can be isolated by closure of the orifice isolation valves or automatically on SI at the containment isolation valves. No credit is taken for the function or integrity of the normal letdown line downstream of the containment isolation valves. Excess letdown isolation valve HV-8154 is included in the SSEL in case excess letdown is in service.

The regenerative heat exchanger is not needed to provide a heat transfer function, but is included for integrity of the normal letdown line upstream of the isolation valves and integrity of the train A safety-grade charging flow.

As stated in section 3.1.2.3.1, path A utilizes a CCP to establish safety-grade charging; charging is through the regenerative heat exchanger if train A is in service, and is accomplished through the boron injection tank (BIT) if train B is in service (Unit 2 does not have a BIT, but it does have the equivalent injection line). Safety-grade charging requires that at least one MOV on the suction line from the RWST (LV-112D/E) be opened, and that at least one MOV on the suction line from the volume control tank (VCT) be closed (LV-112B/C). The VCT itself is not needed and is not included on the SSEL. However, it is possible that instrument air and normal charging could be in service following the earthquake. It is important that a failure of the VCT not lead to starvation and failure of a CCP. Therefore, VCT level transmitters are included to monitor the VCT for possible failure and loss of inventory and to preclude a failure of the transmitters that could give a "false high" indication.

To establish train A safety-grade charging, it is necessary to open or ensure open the following valves downstream of CCP A: HV-8508A, HV-8509B, HV-8116, HV-0190A, and HV-8105. It is also necessary to shut the following valves: HV-8110, HV-8485A and HV-8106. All of these valves are included in the SSEL for path A except HV-8509B; this valve is already open during normal operation and is not required to change state for this scenario. Flow transmitter FT-0138 is included in the SSEL for indication of train A safety-grade charging flow.

To establish train B safety-grade charging, it is necessary to open or ensure open the following valves downstream of CCP B: HV-8508B, HV-8509A, HV-0190B, and HV-8801B. It is also necessary to shut the following valves: HV-8111A, HV-8111B, HV-8485B, HV-8105, and 1208-U6-153. All of these valves are included in the SSEL for path A except HV-8509A; this valve is already open during normal operation and is not required to change state for this scenario.

In conjunction with the above, RCP seal injection can be established for path A without instrument air available by throttling open valve 1208-U6-152 for train A and valve 1208-U6-151 for train B. Flow transmitters FT-142/143/144/145 are used for this purpose. (These components are included in the SSEL.) As stated in section 3.1.2.3.1, the capability for seal injection is provided in path A to preclude seal failure and the possibility of a resulting small-break LOCA. RCP seal leakoff piping is not included and may be assumed to fail; the relatively small resulting flow into containment does not threaten RCS inventory or containment integrity. The positive displacement (PD) charging pump is not required to function for either path.

Path B (bleed and feed) utilizes a SI actuation; therefore, MOVs in the CVCS which automatically actuate on SI and are required for the injection flow are included on the SSEL. MOVs that are not included on the SSEL include HV-8146/8147 (charging isolation to RCS), HV-8438 (charging discharge isolation), HV-8924 (CCP/SIP suction cross connect), HV-8509A/B (CCP alternate miniflow isolation), and HV-8471A/B (CCP suction isolation). As stated in section 3.1.2.3.1, cold-leg recirculation is continued as a long-term method of heat removal for path B. Therefore, components that are required exclusively for hot-leg recirculation are not included in the SSEL.

3.1.2.5.4 Safety Injection System

The RWST is required in both success paths; path A uses the RWST as the supply for charging flow, and path B uses the RWST as the initial supply for SI flow. Level transmitters are included in the SSEL for indication of the RWST level. The sludge-mixing pump associated with the RWST could be in operation at the time of the earthquake; therefore, valves HV-10957 and HV-10958 are included in the SSEL for assurance that they can stroke closed and protect RWST inventory.

The SI pumps function to provide injection flow in path B. The pumps are not required to function in path A; however, they connect to the RWST and are required to preserve the integrity of the fluid boundary. The SI pump miniflow valves (HV-8813, HV-8814, HV-8920) must function for path B; during transition to cold-leg recirculation, these valves must close as a permissive for opening valves HV-8804A/B.

Flow transmitters FT-0918/0922 provide positive indication of SI pump flow for path B. Flow transmitter FT-0917 provides indication of CCP flow through the BIT line during SI, and train B provides safety-grade charging flow indication for path A.

As stated in section 3.1.2.1, the solenoid valves (HV-8875A-H, HV-0943A/B) which vent nitrogen from the accumulators are required to function in path A to prevent discharge of excessive coolant and nitrogen into the RCS during cooldown and depressurization. This is required because there is no assurance that power will be available for closing all of the accumulator discharge MOVs. Consequently, these MOVs (HV-8808A/B/C/D) are not relied upon and, therefore, are not included in the SSEL. The nitrogen piping is not required to maintain its integrity; it is only necessary to create a vent path.

The accumulators are not required in path B because only a small-break LOCA is postulated. While in a bleed-and-feed configuration, the functioning ECCS pumps provide sufficient injection flow to prevent core damage.

RWST isolation MOV HV-8806 to the SI pump suction is normally open; this valve is closed when reconfiguring to cold-leg recirculation to ensure there is no backflow to the RWST. The valve is in series with a check valve which is inherently rugged from an IPEEE-seismic standpoint and will also prevent backflow to the RWST. Therefore, for IPEEE purposes, closure of HV-8806 is considered unnecessary, and this valve is not included in the SSEL. Although operations personnel are procedurally directed to close this valve for cold-leg recirculation, it is judged that failure of this valve to close will not prevent operations personnel from successfully accomplishing a cold-leg recirculation configuration.

Several MOVs in the SI system are operated only while reconfiguring to hot-leg recirculation, including HV-8809A/B, HV-8840, HV-8821A/B, HV-8802A/B and HV-8835. However, for IPEEE purposes, hot-leg recirculation is not necessary to be accomplished for either success path. Therefore, these valves are not included in the SSEL. Operations personnel are procedurally directed to reconfigure to hot-leg recirculation approximately 11 hours after a loss of primary coolant, such as would occur in path B; however, if these MOVs are found to be inoperable following the earthquake, operations personnel would reconfigure to cold-leg recirculation. Hot-leg recirculation is not required for the scenario in path B because only a small-break LOCA, equivalent to a 1-in.-diameter pipe, is postulated to occur on the cold-leg side of the RPV. A small break of this size will not lead to conditions resulting in boron precipitation, for which hot-leg recirculation is necessary. A larger leak path is created by opening one or more PORVs when establishing bleed-and-feed cooling; however, this bleed path is on the hot-leg side and will not create conditions necessary for boron precipitation.

Other MOVs in the SI system, which are not included in the SSEL, include HV-8923A/B (SI pump suction isolation). These valves are normally open and remain open except to isolate a pump in the event of a passive failure in the common portion of the SI pump suction header (not postulated for IPEEE), or to realign pump suction piping.

3.1.2.5.5 Residual Heat Removal System

The RHR system is used in both success paths, although it is used in different configurations. Consequently, most of the components of the RHR system are included in the IPEEE scope. RHR components that are not listed in the SSEL include the suction vent valves (HV-10465 and HV-10466) and suction relief valves (PSV-8708A/B); because it is not postulated that these valves will be required to actuate under the scenarios of either success path, they are not listed on the SSEL.

Manual valves 1205-U6-019/020 are included in the SSEL for regulating RHR heat exchanger flow since instrument air may not be available.

Flow transmitters FT-0618/0619 are included in the SSEL for indication of RHR flow. Level transmitters LT-0764/0765 are included for indication of containment sump level.

3.1.2.5.6 Containment Spray System

The containment spray system is principally used to reduce post-accident containment atmosphere iodine concentrations and to reduce post-accident containment pressure. Page 3-9 of the SMA methodology states, "Only systems whose function is to prevent severe core damage from occurring, and their support systems, are evaluated; accident consequence mitigation systems are not in the scope of a seismic margin evaluation." Also, the VEGP IPE shows that the containment spray system is not needed to prevent containment pressure from exceeding the containment failure pressure. Therefore, the containment spray system is not required to function for IPEEE scope and is not assumed to operate in either success path.

Containment pressure transmitters PT-0934/0935/0936 are included in the SSEL for indication of containment pressure and for safeguards actuation.

3.1.2.5.7 Main Steam System

All four main steam ARVs are included in the SSEL for path A. One main steam safety valve per steam line is included for path B.

SG blowdown lines are included in IPEEE scope up to and including isolation valves HV-7603A/B/C/D. The isolation valves will close on automatic AFW start. SG blowdown sample isolation valves are not included in the SSEL, although the piping and tubing from the blowdown line connection to the sample isolation valve is included in the IPEEE scope. The flow through the sample line in the event of a rupture of the sample lines immediately downstream of the isolation valves ranges between 4 to 6 gal/min). From FSAR table 10.4.9-2, the required SG make-up for loss of normal feedwater is approximately 510 gal/min. From FSAR table 10.4.9-3, the flow from one motor-driven AFW pump (supplying two SGs) is approximately 550 gal/min. Thus, there is an approximate 40-gal/min margin. The loss through two blowdown sample lines, assuming the sample isolation valves fail to close, would be approximately 12 gal/min or less. Therefore, there is sufficient margin to accommodate the blowdown sample loss.

SG level transmitters and pressure transmitters are all included for monitoring SG parameters and for input to safeguards actuation systems.

3.1.2.5.8 Auxiliary Feedwater System

An initial review of CST inventory indicated that the combined storage of both CSTs would be sufficient to maintain SG cooling using AFW for at least 72 hours, provided that both tanks were initially at normal water level. However, nonseismic piping connects to the CSTs at a level above the required VEGP Technical Specifications (Reference 3-35) minimum level; failure of this piping during an earthquake could drain the CSTs to near the Technical Specifications level. The review indicated that the combined inventory at Technical Specifications minimum values does not provide sufficient assurance that SG cooling can be maintained for 72 hours without some form of makeup to the CSTs. Therefore, RHR system operation in the closed-loop mode is assumed to be necessary for long-term DHR in path A. Given that a transition to RHR will be necessary sometime during the path A scenario, only one CST is needed to provide the AFW supply until RHR operation is initiated. Therefore, CST 001 is included in the SSEL, along with level instrumentation (LT-5111).

For path A, either of the two motor-driven AFW pumps is capable of providing sufficient AFW flow for SG cooling until RHR can be placed in service. Flow transmitters and MOVs that provide AFW flow indication and control are included in the SSEL. The pump miniflow lines and components up through the miniflow orifices are also included in IPEEE scope.

3.1.2.5.9 Main Feedwater System

Main feedwater (MFW) piping that connects to the SGs is included in the SSEL, up to the MFIVs and BFIVs, to preclude loss of SG or AFW inventory, and also ensure the MFIVs and BFIVs can stroke closed following the earthquake to prevent the possibility of overfilling the SGs or flooding the main steam lines.

3.1.2.5.10 Nuclear Service Cooling Water System

There are three NSCW system pumps in each train; however, only two pumps in each train are required and are therefore included in the SSEL. In the event of a nonseismic failure of one of the two pumps, the other train is available. Failure of the standby pump does not threaten NSCW fluid boundary integrity because a check valve at the pump discharge will prevent backflow.

Pump discharge pressure transmitters (PT-1602/1603/1636/1637/1608/1609) are not included in the SSEL; if these transmitters fail so as to auto-start the standby pump, the system will accommodate temporary three-pump operation until an operator can stop the third pump.

The NSCW pump discharge MOVs and NSCW tower MOVs are required to operate after an LOSP and are included in the SSEL.

The NSCW return flow transmitters FIT-1640A/1641A are included in the SSEL to provide positive indication of system operation and assurance that there are no major system leaks following the earthquake.

Pressure transmitters PT-11741/11742 will close the NSCW cooling tower spray MOVs and bypass MOVs on low NSCW pressure. Failure of these transmitters during the earthquake could cause the MOVs to close and impair system operation; therefore, they are included in the SSEL.

Some of the heat exchangers cooled by NSCW are not required to function from a heat transfer standpoint in either success path. However, to preserve the integrity of the NSCW fluid boundary, all of these heat exchangers are included in the SSEL.

The NSCW transfer pumps are not assumed to operate in either success path. The NSCW basin will provide sufficient inventory without makeup for system operation during the 72-hour time frame of the IPEEE scenarios.

3.1.2.5.11 Component Cooling Water System

There are three CCW pumps in each train, but only two are required to operate. The standby pump in each train is not assumed to function.

Pump discharge pressure transmitters (PT-1852 through 1857) are not included in the SSEL; if these transmitters fail so as to auto-start the standby pump, the system will accommodate temporary three-pump operation until an operator can stop the third pump.

The CCW surge tank low-low level switches (LSLL-1852/1853/1854/1855) are included in the SSEL to preclude switch failure that could stop the CCW pumps.

Flow transmitters FT-1876/1877 are included in the SSEL to provide positive indication of system operation and assurance that there are no major system leaks following the earthquake. The spent fuel pool heat exchanger is cooled by CCW, but it is not required to function from a heat transfer standpoint. However, this heat exchanger is included in the SSEL to preserve the integrity of the CCW fluid boundary.

3.1.2.5.12 Diesel Generator System

The DG fuel oil storage tanks are included in the SSEL, along with one transfer pump per train. Day tank level switches (LSL-9020/9021 and LSH-9020/9021) are included and allow the transfer pump to automatically fill the day tank. Recirculation piping from the day tank to the storage tank is also included in the IPEEE review.

Both DG air start receiver skids are included in the SSEL. Even though each receiver has capacity for several starts, the air piping downstream of the receivers is connected and loss of integrity of one receiver could bleed off the air in the other receiver.

3.1.2.5.13 Piping Penetration Filtration and Exhaust System

Dampers PV-2550B/2551B allow a bleed-off flow from the filtration and exhaust units to maintain a pressure differential in the rooms served by the system. With the system in operation, these dampers are throttled to achieve the required pressure differential, but they restrict bleed-off flow to ensure sufficient cooling flow is recirculated through the system. The system is normally shut down during power operation. For IPEEE purposes, these dampers are not required to function because, following the RLE, they will either be in the fail-closed position or will stroke to the operating position; neither of these positions impairs the system's ability to perform its cooling function.

To operate successfully, the system must be isolated from the normal HVAC system when in use. Therefore, isolation dampers HV-12604/5/6/7 are included in SSEL.

3.1.2.5.14 Control Room HVAC System

Isolation dampers HV-12162/12163/12799A/B are not required to function to provide essential cooling; therefore, they are not included in the SSEL.

To operate successfully, the system must be isolated from the normal HVAC system when in use; therefore, isolation dampers HV-12146/7/8/9 are included in SSEL.

Flow switches FSL-12045/6 prevent more than one train from running at a time. Failure of the flow switches could prevent either train from running; therefore, these switches are included in the SSEL.

Temperature controllers TIC-12124/5 are required to control essential chilled water flow to the cooling units; therefore, these controllers are included in the SSEL.

3.1.2.5.15 Control Building Engineered Safety Features Electrical Equipment Room HVAC System

Isolation dampers that only actuate for fire events are not included in the SSEL because these events are not postulated in the IPEEE scenarios. One battery room exhaust fan is required to operate for each train and is included in the SSEL.

3.1.2.5.16 Containment Heat Removal Systems

The VEGP IPE examined containment cooling requirements for prevention of core damage or containment failure. As stated in the IPE Success Criteria Notebook for LOCAs (see Reference 3-31), the containment cooling units are not required if at least one RHR heat exchanger is available during recirculation. At least two containment cooling units are required to prevent containment failure if the RHR heat exchanger is not available. For the IPEEE scenarios, two containment coolers for each train (1501-A7-001/002/003/004-000) are functionally included in the SSEL, along with the RHR heat exchangers.

To further demonstrate the acceptability of two operating containment coolers for IPEEE purposes, computer analyses were performed on containment pressure for the path B scenario. The results show that containment pressure remains safely below the IPE lower-bound estimated containment failure pressure of 127 psia. The analyses were run for a time frame that was long enough to clearly indicate that containment pressure had peaked and was in a long-term downward trend.

3.1.2.5.17 Essential Chilled Water

FISL-22425/6 provides flow permissives to the ESFAS chillers and are included in the SSEL. TDC-4170/4193 are included in the SSEL because they provide a control function to the NSCW regulating valves.

Essential chilled water is supplied to numerous safety-related room coolers. All of the chilled water heat exchangers are included in the SSEL to preserve the fluid integrity of the system. In addition, coolers that supply cooling to rooms with essential electrical equipment, such as motor control centers (MCCs), switchgear, and panels, are required to be functional for the IPEEE scenarios; associated electrical power and control instrumentation is included for these coolers. Pump room coolers that supply cooling to rooms that do not contain heat-sensitive electrical equipment are not required to be functional.

3.1.2.5.18 Miscellaneous Heating Ventilation and Air-Conditioning

Outside air dampers for the diesel generator buildings are temperature controlled and fail open. Even though these dampers are normally open, they are included on the SSEL because there is a possibility that, during periods of low outside air temperature, they could be closed and would have to stroke open to accomplish their safety function. Each DG cooling fan is 50-percent capacity, so two cooling fans per train are required. The DGs will not continue to run without adequate cooling. Overcooling is not a concern.

The AFW motor-driven pumps are not water cooled and the rooms contain electrical equipment; thus, the supply fans and associated instrumentation must function for these rooms and are included on the SSEL.
Essential electrical cables in tunnels that are not naturally ventilated require cooling; therefore, the associated fans and instrumentation are included on the SSEL.

3.1.2.5.19 Non-Class 1E Instruments

The SSEL is composed almost entirely of safety-related components which utilize Class 1E electrical circuits (for those components that require electrical power). However, there are a few instruments included in the SSEL which utilize non-Class 1E circuits. All of these instruments, which are listed below, are powered through process control cabinets having both primary and alternate sources of power. The primary is type/category D2, as defined in FSAR table 7.5.2-1, for post-accident monitoring instrumentation. These instruments provide the control room staff information that allows them to monitor the performance of plant safety systems and other systems. The primary source is via non-Class 1E battery-backed inverters (uninterruptible power supplies), and the secondary source is via non-Class 1E 480-V-ac MCCs which can be manually loaded onto the DG following an LOSP. These instruments are classified as a cold shutdown condition, and were selected for inclusion in the SSEL based on discussions with VEGP Nuclear Operations.

Tag Number	Description
FIT-1640A/1641A	NSCW Return Flow
FT-1876/1877	CCW Flow
FT-0138	CCP A Flow
FT-0142 through 0145	Seal Injection Flow
LT-0112/0185	VCT Level

3.1.2.5.20 Communications and Lighting

The communications and lighting requirements necessary to shut down under LOSP conditions were reviewed. The plant emergency operating procedures were used to determine those areas of the plant deemed necessary to dispatch operations personnel. The primary means of communication is via sound-powered jacks designated for shutdown purposes, and lighting is provided by the essential and emergency lighting systems.

The essential and emergency lighting transformers and distribution panels for these areas are included on the SSEL.

Sound-powered communications is enveloped under the category of conduit and raceway, which is inherently seismically rugged, and is therefore not included in the SSEL.

3.1.2.5.21 Plant Procedures

During the postulated IPEEE scenarios, SSEL equipment is operated using existing plant operating procedures. Various procedures may be used depending on the actual circumstances; however, there are certain key procedures that play a major role in ushering the plant from the initiating event to a hot or cold shutdown condition. These procedures are listed below for each success path. Other existing procedures may be used, as necessary, to ensure proper operation of the support equipment.

Success Path A Key Procedures

19000 - Reactor Trip or Safety Injection
19001 - Reactor Trip Response
19002 - Natural Circulation Cooldown
13009 - CVCS Reactor Makeup Control System
12006 - Unit Cooldown to Cold Shutdown
13011 - Residual Heat Removal System

Success Path B Key Procedures

19000 - Reactor Trip or Safety Injection
19001 - Reactor Trip Response
19200 - Critical Safety Function Status Trees
19231 - Response to Loss of Secondary Heat Sink
19013 - Transfer to Cold-Leg Recirculation
19014 - Transfer to Hot-Leg Recirculation (hot-leg recirculation is not required for the success path; this procedure will direct that cold-leg recirculation be maintained should the hot-leg recirculation alignment not be attained.)

3.1.2.6 Relay Chatter Evaluation

3.1.2.6.1 Purpose and Scope

Generic Letter 88-20, Supplement No. 4, requires an assessment of relay chatter effects in accordance with the scope and procedures described in NUREG-1407. Table 3.1 of NUREG-1407 identifies VEGP as a 0.3 g focused-scope plant; the primary purpose of this section is to reduce the level of review effort, mainly in the relay chatter area, for plants having a lower hazard or higher design basis. Section 3.2.4.2 of NUREG-1407 requires that focused scope, non-A-46 plants such as VEGP locate and evaluate only low-seismic-ruggedness relays (bad actor list). These relays are identified in Appendix E of EPRI NP-7148-SL (Reference 3-36). Low-ruggedness relays must be assumed to chatter during a seismic event. If low-ruggedness relays are identified, any adverse effects on success path components must be identified and addressed.

In addition to locating any bad actor relays which might affect the performance of the success paths, it is necessary to ensure there are no seismic interactions between plant components that could potentially produce relay chatter which could jeopardize the success paths.

3.1.2.6.2 Methodology

In lieu of reviewing only the equipment listed in the SSEL, all safety-related (Class 1E) equipment and panels were reviewed for low-ruggedness relays.

The principal method for identifying these relays was a review of the EQDPs for safety-related (Q) panels and other Class 1E equipment. Westinghouse document WCAP 8687 (Reference 3-37) was also checked for those relays that may be located in Westinghouse-supplied equipment. This method was considered viable because the VEGP Equipment Qualification (EQ) program consists of well documented test results maintained in the EQDPs from the inception of VEGP construction. These EQDPs are continuously updated to include all safety-related equipment modifications. The EQDPs are considered design documents and have been successfully audited by the NRC on several occasions. Sections E, G, and H of the EQDPs were reviewed for the bad actor relays. The contents of these EQDP sections are shown below.

- Section E–Seismic Summary Sheets and Required Response Spectra Curves.

  This section provides details on the seismic qualification of equipment and occasionally lists equipment-mounted parts. This list is useful for checking for the presence of bad actor relays.

- Section G–Maintenance/Replacement Information.

  This section contains qualified life and maintenance/replacement information on equipment; in addition, it generally contains a list of equipment-mounted parts which, if not included in Section E, is used to identify the presence of any bad actor relays.

- Section H–Equipment Qualification Design Change Signoff Form.

  This section provides a brief description of all design modifications made to equipment from its original configuration. Modification documents identified for such design changes, specifically design change packages, Requests for engineering assistance, etc., were obtained and checked for the existence of bad actor relays.

Generally, sections E and G contain a list of parts in the equipment, which was used to screen for the bad actor relays. Section H identifies documents providing the design and modification history. Table 3.1.2-2 of this report lists EQDP sections and design and modification history documents that were reviewed.

3.1.2.6.3 Results of Low-Ruggedness Relay Review

Results of the screening for low-ruggedness relays in safety-related equipment are shown in table 3.1.2-2 of this report. Based on this review, it is concluded that there are no low-ruggedness relays used in safety-related applications at VEGP.

3.1.2.6.4 Seismic Interaction

It is possible that relay chatter involving other than low-ruggedness relays could occur because of seismic interaction between equipment, inadequate equipment anchorage, or Seismic Category II/I concerns. The potential for such mechanisms is evaluated as part of the seismic capability walkdown effort for the equipment listed on the SSEL. To help ensure there are no adverse effects to the success paths from seismic interactions involving non-SSEL safety-related equipment, a review was performed to identify Class 1E electrical equipment and panels that were not initially included in the SSEL. A list of the identified equipment is given in table 3.1.2-3 of this report. Each piece of equipment on this list was reviewed to determine whether it contains relays and, if so, whether the relays could have any adverse effect on SSEL component circuits or systems operation. On this basis, all but three items were screened out; items which did not meet the above criteria were added to the SSEL and are listed below.

Tag Number	Equipment Description
1604-Q5-PCG	BOP Control Panel
1531-B7-002-000	CBCR Chil Rm Vent Fan Train A
1531-B7-004-000	CBCR Chil Rm Vent Fan Train B

3.1.2.6.5 Adverse Impact From Other Components

The above discussions have dealt primarily with possible relay chatter from Class 1E circuits. It is also necessary to ensure that relay chatter from non-Class 1E circuits does not result in unacceptable adverse impact to the success paths.

Non-Class 1E instruments and associated components that are included in the SSEL are discussed in section 3.1.2.5.19 and have been specifically reviewed for the presence of low-ruggedness relays. This was accomplished by reviewing the associated elementary diagrams to determine the types of relays that are used in these circuits.

To assess the impact from non-SSEL, non-Class 1E components, a broad review of system P&IDs was performed to identify any components which could have an adverse impact on the success paths. The identified components are listed in table 3.1.2-4 of this report and include Class 1E, as well as non-Class 1E, components. The list also contains some SSEL valves; these valves do not require power and are included in the SSEL only to ensure that they can physically stroke to their fail-safe position and are included in table 3.1.2-4 because the associated circuitry is not required to be functional for SSEL purposes.

Items in table 3.1.2-4 of this report that utilize Class 1E circuits can be eliminated from concern based on the discussions in sections 3.1.2.6.2 through 3.1.2.6.4. The remainder of the items in table 3.1.2-4 have been reviewed to determine whether it is possible that relay chatter could result in an undesired state. A disposition is shown for each item in the table to indicate the rationale used. Based on the review, relay chatter will not cause any of these items to unacceptably impact the success paths.

TABLE 3.1.2-1

KEY TO SSEL EQUIPMENT CLASSES

NUMBER	TYPES OF EQUIPMENT
00	Other
01	Motor Control Centers
02	Low-Voltage Metal Clad Switchgear
03	Medium-Voltage Metal Clad Switchgear
04	Transformers
05	Horizontal Pumps
06	Vertical Pumps
07	Air-Operated Valves
08a	Motor-Operated Valves
08b	Solenoid-Operated Valves
08c	Electrohydraulically Operated Valves
09	Fans and Air Handlers
11	Chillers
12	Air Compressors
13	Motor Generators
14	Distribution Panels
15	Batteries and Racks
16	Battery Chargers and Inverters
17	Engine Generators
18	Instrument Racks
19	Local Instruments and Temperature Sensors
20	Control and Instrumentation Panels
21	Tanks and Heat Exchangers
22	Automatic Transfer Switches
23	Wall-Mounted Contactors, Transmitters, Power Supplies, etc.
24	Strainers and Filters
25	Control Rod Drive Assemblies
26	Traveling Screens and Sluice Gates

TABLE 3.1.2-2 (SHEET 1 OF 4)

LOW-RUGGEDNESS RELAY REVIEW

EQDP	DOCUMENTS REVIEWED	LOW-RUGGEDNESS RELAYS
X3AC01	EQDP PG E20 - E23	NONE
	EQDP PG G5 - G12, G25 - G33	NONE
	FECO E-18-B, REV. 7 DRWGS 1X3D-BD-K04B-6; 1X3D-BD-K04D-5; 1X3D-BD-K04F-5	NONE
	FECO E-24-B, REV. 3 DRWGS 1X3D-BD-K04A-6; 1X3D-BD-K04C-5; 1X3D-BD-K04E-5	NONE
	FECO E-25-B, REV. 0	NONE
	FECO E-27-B, REV. 0	NONE
	FECO E-28-B, REV. 0	NONE
	FECO E-125-B, REV. 3	NONE
	REA 1-86-419	NONE
	REA 1-86-424	NONE
	EFCRB-478P	NONE
	EFCRB-479P	NONE
X3AC02	EQDP PG E14, E15, E69, E82, E88	NONE
	EQDP PG G2 - G5	NONE
	CCP B20042E	NONE
	FECO E-131-B, REV. 2	NONE
	DCP 88-V1N0079-0-1	NONE
X3AC03	EQDP PG E10 - E39	NONE
	EQDP PG G23, G30, G53	NONE
	CCP B10053E	NONE
	CCP B10307M	NONE

TABLE 3.1.2-2 (SHEET 2 OF 4)

LOW-RUGGEDNESS RELAY REVIEW

EQDP	DOCUMENTS REVIEWED	LOW-RUGGEDNESS RELAYS
	FECO E-8-B, REV. 4	NONE
	FECO E-9-B, REV. 4	NONE
	FECO E-168-B, REV. 0, 1, 2	NONE
	DCP 87-V1E0160-0-2 & ABNs	NONE
X3AD02	EQDP PG G11, G12, G14, G15,	NONE
	EQDP PG G34, G35, G37, G38	NONE
	FECO E-259-B, REV 0, SHT 2	NONE
	FECO E-260-B, REV 0, SHT 2	NONE
	FECO E-261-B, REV 0, SHT 1	NONE
X3AD03	EQDP PG E13 - E15	NONE
	EQDP PG G3 - G8	NONE
	FECO E-194-B, REV. 0	NONE
	FECO E-208-B, REV. 1	NONE
	FECO E-209-B, REV. 2	NONE
	FECO E-206-B, REV. 1	NONE
	FECO E-207-B, REV. 1	NONE
X3AE01	EQDP PG E13, E14	NONE
X3AE03	EQDP PG G2	NONE
	CCP B20011E	NONE
	1X3AE03-365, SHT 8-2	NONE - SITE CONFIRMS RELAYS ARE STRUTHERS/DUNN
	DCP 93-V1N0003, B/M (2 SHTS)	NONE
	FECO E-273-B, REV. 0	FECO CANCELED

TABLE 3.1.2-2 (SHEET 3 OF 4)

LOW-RUGGEDNESS RELAY REVIEW

EQDP	DOCUMENTS REVIEWED	LOW-RUGGEDNESS RELAYS
	FECO E-274-B, REV. 0	FECO CANCELED
X3AE06	EQDP PG E34	NONE
	FECO E-275-B, REV. 0	FECO CANCELED
	FECO E-276-B, REV. 0	FECO CANCELED
X3AE08	EQDP PG E48, E49, E71, E76	NONE
	EQDP PG G1A - G8	NONE
	FECO E-29-B, E-30-B TELECON W/ UNITED CONTROLS	NONE
	FECO E-246-B, REV. 0	NONE
	LTRS BG 31976, BV 9619	NONE
	DRWGS 1X3AE08-170-5, 41-4	NONE
X3AF01	EQDP PG E8 - E13, E43 - E49	NONE
	EQDP PG G2 - G6	NONE
	FECO E-237-B. REV. 1	NONE
	FECO E-238-B. REV. 1	NONE
	FECO E-262-B, REV. 1	NONE
	FECO E-263-B, REV. 1	NONE
	FECO E-264-B, REV. 2	NONE
	FECO E-265-B, REV. 1	NONE
	DCP 87-VCE-0043-1-1	NONE
X4AK01	EQDP PG E471 - E484	NONE
	EQDP PG G-56, G-58	NONE - SEE NEXT 2 DOCUMENTS

TABLE 3.1.2-2 (SHEET 4 OF 4)

LOW-RUGGEDNESS RELAY REVIEW

EQDP	DOCUMENTS REVIEWED	LOW-RUGGEDNESS RELAYS
	ASSOC PUBS MANUAL 76021/76024	NONE
	COOPER FAX D/- 2/25/93	NONE
X5AA04	EQDP PG E28 - E31	NONE
	EQDP PG G1 - G2	NONE
X5AA05	EQDP PG G5 - G7	NONE
X5AB01	EQDP PG E52 - E55	NONE
	FECO J-18-B, LAST SHEET, REV. 0	NONE
	FECO J-19-B, REV. 0	NONE - PANEL A1500V7006RWN IS IN ABANDONED RADWASTE BLDG
	FECO J-34-B, SHTS 1, 38	NONE
WCAP 8687 SUPP 2, APP A4 VOL 1, REV 0	TABLE 1, SHT 89	NONE
VOL 2, REV 0	TABLE 1, SHT 47	NONE

TABLE 3.1.2-3

CLASS 1E EQUIPMENT INITIALLY NOT INCLUDED IN THE SSEL

Tag Number	Equipment Description
1302-P5-AFP	Auxiliary Feedwater TD Panel
1302-P5-AFT	Auxiliary Feedwater Turbine Control Panel
1513-H7-001-000	Elec H2 Recomb Encl Arrangement
1513-H7-002-000	Elec H2 Recomb Encl Arrangement
1513-P5-ERA	Elec H2 Recomb Control Panel - Train A
1513-P5-ERB	Elec H2 Recomb Control Panel - Train B
1513-P5-HMA	Cont H2 Monitoring Panel Train A
1513-P5-HMB	Cont H2 Monitoring Panel Train B
1516-B7-001-000	CTB Post-LOCA Cavity Purge Unit
1516-B7-002-000	CTB Post-LOCA Cavity Purge Unit
1531-B7-002-000	CBCR Chil Rm Vent Fan - Train A
1531-B7-004-000	CBCR Chil Rm Vent Fan - Train B
1532-B7-001-000	CBSF Battery Rm Exhaust Fan - Train A
1532-B7-002-000	CBSF Battery Rm Exhaust Fan - Train B
1562-N7-001-000	CB Elec Penetration Filter Unit
1562-N7-002-000	CB Elec Penetration Filter Unit
1593-U7-001-000	Aux FW Pump House Unit Htr Panel
1604-Q5-PCG	BOP Control Panel
1609-P5-CB1	Contaiment Ventilation Isolation Block Switch Enclosure
1609-P5-CB2	Contaiment Ventilation Isolation Block Switch Enclosure
1612-P5-TRA	Thermocouple Ref Junction A
1816-U3-019	Local Control Station LR01
1542-N7-001-000	FHB Post-Accident Filter Exhaust Unit
1542-N7-002-000	FHB Post-Accident Filter Exhaust Unit

TABLE 3.1.2-4 (SHEET 1 OF 4)

POTENTIAL ADVERSE IMPACT FROM NON-SSEL COMPONENTS

Tag Number	Undesired State	Disposition
HV-8145	Open	OK - MCB handswitch, no relays.
PV-0455B/C	Open	OK - Solid state.
1-1201-P5-PHC	Heaters On	May come on; however, no immediate adverse effect and operator can turn off.
HV-8103A/B/C/D	Closed	Class 1E
HV-8146	Closed	Class 1E
HV-8149A/B/C	Open	OK - Momentary actuation only, no concern.
HV-8154	Open	OK - Via handswitch.
HV-8098	Open	Valve may open; however, no immediate adverse effect and operator can respond. Reactor head letdown still possible with valve open.
HV-8109	Open	Valve may open; however, no immediate adverse effect. Only a problem if downstream piping ruptures; operator has time to respond due to large inventory of RWST.
1-1208-P6-001	Running	OK - Interlock with valve limit switch, will not start.
HV-8471A/B	Closed	Class 1E
HV-8509A/B	Closed	Class 1E
HV-8438	Closed	Class 1E

TABLE 3.1.2-4 (SHEET 2 OF 4)

POTENTIAL ADVERSE IMPACT FROM NON-SSEL COMPONENTS

Tag Number	Undesired State	Disposition
HV-8924	Closed	Class 1E
HV-8843	Open	OK - Momentary actuation only, no concern.
HV-8882	Open	OK - Momentary actuation only, no concern.
HV-8879A/B/C/D	Open	OK - Momentary actuation only, no concern.
HV-8890A/B	Open	Class 1E, power lock out.
HV-8823	Open	Class 1E
HV-8888	Open	Class 1E
HV-8923A/B	Closed	Class 1E
HV-8821A/B	Closed	Class 1E
HV-8802A/B	Open	Class 1E, power lock out.
HV-8840	Open	Class 1E, power lock out.
HV-8809A/B	Closed	Class 1E, power lock out.
HV-8806	Closed	Class 1E, power lock out.
HV-8835	Closed	Class 1E, power lock out.
HV-10957	Open	Class 1E
HV-10958	Open	Class 1E
HV-10465	Open	OK - MCB handswitch, no relays.
HV-10466	Open	OK - MCB handswitch, no relays.

TABLE 3.1.2-4 (SHEET 3 OF 4)

POTENTIAL ADVERSE IMPACT FROM NON-SSEL COMPONENTS

Tag Number	Undesired State	Disposition
HV-0606	Closed	OK - Solid state.
HV-0607	Closed	OK - Solid state.
FV-0618	Open	OK - Solid state.
FV-0619	Open	OK - Solid state.
HV-1806	Closed	Class 1E
HV-1822	Closed	Class 1E
HV-1807	Closed	Class 1E
HV-1823	Closed	Class 1E
HV-7603A/B/C/D	Open	Class 1E
PV-2550B	Open	Class 1E
PV-2551B	Open	Class 1E
HV-12736	Closed	OK - Momentary actuation only, no concern.
HV-12721	Closed	OK - Momentary actuation only, no concern.
HV-12713B	Closed	OK - Momentary actuation only, no concern.
HV-12753B	Closed	OK - Momentary actuation only, no concern.
HV-12713A	Closed	OK - Momentary actuation only, no concern.
HV-12753A	Closed	OK - Momentary actuation only, no concern.

TABLE 3.1.2-4 (SHEET 4 OF 4)

POTENTIAL ADVERSE IMPACT FROM NON-SSEL COMPONENTS

Tag Number	Undesired State	Disposition
HV-12742	Closed	Class 1E
HV-12727	Closed	Class 1E
HV-12748	Open	Class 1E
HV-12749	Open	Class 1E
TV-12094A/B/C/D	Closed	Class 1E
TV-12095A/B/C/D	Closed	Class 1E
TV-12086/A	Closed	Class 1E
TV-12099/A	Closed	Class 1E
TV-12096/A	Closed	Class 1E
TV-12098/A	Closed	Class 1E
TV-12097/A	Closed	Class 1E
TV-12085/A	Closed	Class 1E

3.1.3 ANALYSIS OF STRUCTURE RESPONSE

The review level earthquake (RLE) for the IPEEE is a NUREG CR-0098 (Reference 3-2) Median Soil Spectrum with a 0.3 g peak ground acceleration (pga) for VEGP Units 1 and 2, per NUREG-1407 (Reference 3-6).

The original soil structure interaction (SSI) analysis discussed in section 3.1.1.2.2 accounted for the deconvolution of the free-field ground motion to the base of those structures founded deep within the cut or excavation. In order to resolve the NRC's concerns regarding the amount of reduction of ground motion with depth, the in-structure response spectra (IRS) for these deeply embedded structures were increased by a factor of 1.5, essentially multiplying the safe shutdown earthquake (SSE) of 0.20 g pga by a factor of 1.5, which would meet or exceed the RLE of 0.3 g for VEGP in the frequency range of interest (i.e., greater than or equal to 2 Hz). Figure 3.1-40 provides a plot of the VEGP design spectrum multiplied by 1.5 versus the NUREG CR-0098 RLE ground spectrum. Therefore, the seismic safety-related equipment and anchorage in these structures was designed with a high-confidence-low-probability-of-failure (HCLPF) capacity of at least 0.3 g pga and are considered qualified to the RLE level.

For shallow surface-mounted structures, such as the diesel generator building, the IRS were conservatively scaled up by a factor of 1.5 for use in the IPEEE program. Because VEGP is a soil site, more realistic scaling factors, as described in section 4 of the SMA methodology (Reference 3-5), were not developed because of difficulties associated with determining the modal damping and differences in the shape of SSE ground response spectrum shape to that of NUREG CR-0098 spectrum shape. In addition, the horizontal floor spectra represents the envelope of the two orthogonal horizontal responses, which would also complicate a more realistic scaling technique.

A plot of the Regulatory Guide 1.60 (Reference 3-3) design spectrum for which VEGP was designed versus the NUREG CR-0098 soil site design spectrum is provided in figure 3.1-41. Comparison of the two curves indicates a maximum factor of 1.5 in the frequency range of interest (i.e., greater than or equal to 2 Hz). Figure 3.1-41 demonstrates that a scaling factor of 1.5 multiplied by the amplitude of the shallow-mounted structures IRS would provide a conservative RLE level IRS.

3.1.3.1 Equipment Capacity and Design Methodology

VEGP is conservatively designed, and design methodology is established to ensure that this conservatism is properly implemented. For efficiency and expedience within the SMA, floor response spectra for the shallow embedded structures were factored up by 1.5 to bring the seismic response to 0.3 g pga. As part of the design criteria used in the original equipment anchorage design, a static equivalent method was followed to conservatively and consistently anchor Seismic Category I equipment and components.

This procedure closely relied on the original design methodology and design calculations for VEGP. The original civil design methodology followed design criteria DC-1000-C (Reference 3-9) for use of the static equivalent load method or analysis.

The procedure provides the following methods:

- The response spectra generated in the deeply embedded structures envelopes the RLE levels of response at 0.3 g pga. Therefore, for flexible or rigid equipment, the seismic margin response is enveloped by the original design response. For flexible equipment, the static equivalent procedure includes a factor of 1.5 multiplied by the peak floor response acceleration, when the natural frequency is not determined. For SMA, the 1.5 factor to account for multimode effects is not required; therefore, an additional margin of safety is provided.

- For the shallow-embedded structures, the original demand pga equals 0.2 g. If the equipment to be analyzed is flexible and the static equivalent method is used, then the peak acceleration multiplied by a factor from 1.0 to 1.5 could have been used. For those cases, wherein the equipment is rigid, the ZPA could have been used.

- A review of representative calculations within the shallow surface-mounted structures demonstrates that an additional margin of capacity versus demand exceeds the 0.2 g pga demand by a value of 1.5.

3.1.3.2 Additional Conservatisms on Anchorage Design

The design of equipment anchorage at VEGP mainly consists of welded anchorage to embedded plates in the walls, floors, or ceilings of the plant. These connections are typically standard types used throughout the plant locations. These typical details are generally designed for the higher seismic response locations within the plant. (Shallow surface structures at VEGP are typically low-aspect buildings with respect to height-to-base dimensions.) The shallow structures have lower response accelerations than the taller, deeply embedded structures.

The response spectra generated at all Seismic Category I structures within the plant account for the rotational effects of the extreme edges of the floors and base slabs. Therefore, equipment located closer to the centroid of rigidity of a building, for a particular floor elevation, would not explicitly require the response obtained through the generation of the floor spectra. The floor response spectra represents the maximum response values for an entire floor or elevation.

Per table 3.7.B.1-1 of the VEGP FSAR (Reference 3-21), the original damping of 3 percent was used for equipment anchorage evaluations for an SSE. The SMA methodology requires a more realistic damping of 5 percent for most equipment.

3.1.4 EVALUATION OF SEISMIC CAPACITIES OF COMPONENTS AND PLANT

3.1.4.1 Masonry Walls

There are no masonry walls in Seismic Category I structures at VEGP.

3.1.4.2 Control Room Ceiling

The VEGP control room ceilings consist of suspended-module type, with integral light fixture units. Ceilings are rod hung for vertical support, with a lateral restraint provided by a threaded rod with a turnbuckle at all four corners to provide lateral seismic restraint. (See figure 3.1-42.)

Light fixture supports consist of a vertical threaded rod attached to structural channels that are welded to the building steel.

The light fixture is safety wired at each corner. Documentation of a seismic qualification test report, which documents the test spectra to envelop the required seismic demand at the frequency range of interest, has been reviewed by the IPEEE seismic capability engineers.

Lens covers for the light fixtures have two spring-loaded locks on one edge and are hinged on the opposite edge. Spring-loaded locks must be pushed opposite each other to allow opening of the lens covers; lens covers are safety wired at the hinge end.

An additional inspection of components in the ceiling was conducted as part of the seismic capability walkdown, and based on this inspection and the documentation reviewed, the Seismic Review Team (SRT) screened out the control room ceiling at a HCLPF capacity of at least 0.3 g peak ground acceleration (pga).

3.1.4.3 Turbine Building

The VEGP turbine building is a steel-framed structure enclosed with a reinforced concrete roof and metal siding. Its trussed rigid frame structure above the turbine deck level, and the braced frames below the turbine deck level, reduce the side sway and maintain stability. The building has three floors and a basement. The floors are reinforced concrete or steel grating. The building's foundation system consists of a mat foundation which also supports the turbine pedestal. As part of the original design requirements described in the FSAR (Reference 3-21), the turbine building has no intended safety function and hence is designated as a Seismic Category II structure. As such, it has been designed to withstand wind and a lateral static load of 0.15 g for earthquake as part of the normal operating conditions. An equivalent lateral static load of 0.15 g for the VEGP turbine building is greater than the recommended loading specified in the Uniform Building Code, 1976 Edition (Reference 3-17). The design allowables for loading combinations associated with the normal operating conditions are in accordance with AISC Part I (Reference 3-18).

Since the turbine building is situated within the vicinity of the Seismic Category I control building, the turbine building has also been evaluated to ensure that the safety-related functions of the nearby Seismic Category I building will not be compromised and reactor safe shutdown will not be prevented during extreme environment conditions including tornado, safe shutdown earthquake (SSE), and the probable maximum precipitation (PMP) loading conditions. The SSE response spectra used in the evaluation are based on the VEGP ground response spectra (GRS) provided in the FSAR. The pga for the SSE is established as 0.2 g at the free field. Review of the original design and analysis calculations reveals that a response spectrum analysis of a fixed-based, three-dimensional, finite-element model of the turbine building was performed using 7-percent critical damping for bolted steel structures from Regulatory Guide 1.62 (Reference 3-38). The free-field ground response spectra loadings were applied directly at the base of the building. The criteria used to demonstrate the structural integrity was, in general, in accordance with the allowables given in AISC Part II. The original analysis concluded that the VEGP turbine building would withstand the postulated SSE loading without compromising the safety functions of nearby Seismic Category I structures and equipment. However, further review of the calculations revealed that several vertical lateral bracing members between the columns failed to meet the individual member capacities under AISC Part II. The structural integrity of these members was demonstrated by assuring that the total unit capacities of the affected panels, consisting of either pairs of K- or X-bracing systems, exceeded the sum of the tension and compression loads of the members. This alternate procedure verifies the overall structural stability provided that a proper load transfer mechanism is established.

There is no SSEL equipment located in the turbine building; however, because of the spatial interaction potential between this building and the nearby control building, an assessment of the VEGP turbine building for IPEEE was performed.

The guidance for an assessment of Seismic Category II structures for an IPEEE RLE up to a pga of 0.3 g is given in table 2-3 of the SMA methodology (Reference 3-5). Footnote k of table 2-3 specifies that no evaluation of a Seismic Category II structure is required provided it is capable of meeting the 1985 Uniform Building Code (Reference 3-39), Zone 4, requirements. As indicated in this section, the VEGP turbine building was designed for an equivalent lateral static load of 0.15 g. In general, this meets the overall design demand for the 1985 Uniform Building Code, Zone 4, except that the 1985 Uniform Building Code requires distribution of the inertia effect be carried out in a manner that ensures the proper distribution of loads to the upper structural components of the building. Therefore, an alternate screening methodology was adopted for efficient assessment. The alternate screening methodology is based on the guidance given in table 2-3 of the SMA methodology for screening Category I structures. Under this guidance, a detailed evaluation of structures is not required if the structure was designed for an SSE of 0.1 g or greater.

To ensure adequate ductility and structural resilience of the turbine building, a determination of the lowest pga for the turbine building was performed not taking credit for the redistribution of the panel systems as discussed above. Results of the study showed that the weakest link of the structural components was the bracing members between column lines T13 and T14 along column line TA below elevation 220 ft. The pga for the weakest link was determined to be 0.123 g, which exceeds the 0.1 g screening level for Category I structures. The construction details for floor beams, columns, connections, bracings, and roof systems were reviewed to assure load transfer during seismic events. The construction details for the roof structure, floor beams, columns, braces, concrete floors, and column anchorages were reviewed and found to be acceptable according to AISC recommendations and industry practice.

Based on the assessment described above, the VEGP turbine building meets the design requirements for an SSE load of at least 0.1 g pga and, therefore, has a HCLPF of at least 0.3 g pga.

3.1.4.4 Soils Evaluation

This section covers the SMA of the soil-related issues identified in section 7 and Appendix C of the SMA methodology; i.e., soil liquefaction, settlement, and slope instability. When performing the SMA of these soil-related issues, the following guidelines, as described in the SMA methodology, were followed:

1. The SME is conservatively specified as described in section 3.1.1.2.

2. The response analysis for soil-related issues to the SME is median centered.

3. The soil strength or capacity assessment for a given response (e.g., shear stresses required to cause liquefaction) is conservatively selected.

3.1.4.4.1 Evaluation of Liquefaction Potential

Based on the seismic considerations described in the VEGP FSAR, the SSE was conservatively determined to be of an approximate magnitude of 7.5, and the number of equivalent stress cycles was taken to be 30 in the liquefaction analysis.

As a result of the original plant design and analysis for the Preliminary Safety Analysis Report (Reference 3-40), the in-situ upper sand stratum was determined to be susceptible to liquefaction when subjected to the maximum SSE acceleration of 0.2 g and, therefore, was removed to an approximate elevation of 130 to 135 ft msl in the power block area. Select sand and silty sand compacted to 97 percent of the maximum density, as determined by ASTM D 1557 (Reference 3-41), was backfilled from the top of the marl stratum to the design elevation of the various power block structures, with the exception of an area north of the turbine building.

The liquefaction potential of the compacted backfill in the power block area was evaluated and is discussed in detail in Bechtel Power Corporation's "Report on Foundation Investigation." (Reference 3-42) The analysis was done using the cyclic strength data, shown in figure 3.1-43, obtained from the cyclic triaxial tests on specimens of compacted backfill. The equivalent uniform or average shear stress for the sand backfill was then calculated using 65 percent of the maximum shear stress computed by the finite-element analysis of the underlying soil system. The procedure of using average shear stresses, as recommended by Seed and Idriss (Reference 3-43), is commonly used in liquefaction studies. The factor of safety against liquefaction potential was calculated by comparing the cyclic shear stress causing liquefaction in 30 cycles for a relative density of 80 percent, against the average shear stress induced by the SSE. Use of a relative density of 80 percent is conservative based on the available tests done in 1978 by geological engineers (Reference 3-44), which indicate that the relative densities of sands with 4.2 to 4.8 percent fines compacted to 97 percent of the maximum density (set by ASTM D 1557) are 96 to 100 percent. As a result, the analysis concluded that for VEGP the factor of safety against liquefaction is on the order of 1.9 to 2.0 for the SSE. This relatively high factor of safety was found to be in agreement with the observed satisfactory performance of fills compacted to such high densities as stated in Bechtel's "Report on Foundation Investigation." (Reference 3-42)

The area north of the turbine building was compacted to an average of 95 percent of the maximum density, as determined by ASTM D 1557. However, this area has no effect on safety-related structures, since all Seismic Category I structures are located away from this area and do not rely on this material for a load-bearing foundation.

Review of the available soil test data and the associated evaluations on various soil issues indicates that the cyclic shear strength of compacted backfill with underlying dense sand will not lower significantly as the level of earthquake increases. The SMA methodology permits the use of scaling for the SMA with limits specified. A summary of the evaluation of these limits is provided below:

1. The pga of the SME is less than twice the SSE.

2. The seismic-induced soil stresses are significantly below their ultimate strength capacity.

3. The magnitude of the SME is not significantly different from that of the SSE.

4. The site response derived from the SME is similar to that derived from the SSE.

5. There are no nonlinear effects of the structures that could affect the earth pressure or shear stress under earthquake loading.

Therefore, the scaling approach was used in evaluating the liquefaction potential attributable to the SME of 0.3 g pga. Site seismicity considerations described in the VEGP FSAR were first reviewed for determination of the appropriate and yet conservative magnitude of the SME at VEGP (i.e., 0.3 g pga). The Modified Mercalli Intensity (MMI) scale for the SSE was evaluated to range between VII and VIII, which agrees with the scale read from the Neumann's curve given in figure 2-10 of the Bechtel Topical Report BC-TOP-4-A (Reference 3-45). Using the same curve, the equivalent MMI scale for the SME ranged between VIII and IX. Based on the available literature (see References 3-46, 3-47, and 3-48) on the correlation between the MMI scale and the magnitude of an earthquake, an earthquake magnitude of approximately 6 1/4 is appropriate for the SME at VEGP. For additional conservatism, a magnitude of 6 3/4 was selected for use in the liquefaction analysis. Consequently, an associated equivalent stress cycle of 10 was obtained from table C-2 of the SMA methodology. It is expected that lower magnitude and stress cycles associated with the SME, when compared with those for the SSE, will yield higher cyclic strength against liquefaction. This position is consistent with the guidelines given in the SMA methodology.

The average shear stress caused by the SSE was developed by using a finite-element analysis of the soil system consisting of the compacted backfill, marl, and clay-bearing stratum. The resulting shear stress distribution versus depth of the soil was then multiplied by 1.5, a ratio of the SME and SSE, to obtain the average shear distribution in response to the VEGP SME. Alternately, the average shear stress for the SME was computed by following the procedure recommended by Seed and Idriss (Reference 3-43) and was compared with the results from the FSAR analysis (i.e., finite-element analysis). This study shows that the use of a linear factor of 1.5 is reasonable and is therefore justified in the subsequent liquefaction analysis.

Based on the above discussions, the factor of safety against liquefaction potential for the SME is evaluated with the following input:

1. The magnitude of the SME is selected to be 6 3/4.

2. The equivalent soil-shear stress cycles associated with a 6 3/4 magnitude earthquake is assumed to be 10.

3. The equivalent soil-shear stress cycles used in FSAR/PSAR is 30.

4. The soil-cyclic shear stress induced during earthquake events is assumed to be in linear relationship with the peak ground accelerations.

5. The cyclic strength of the backfill is shown in figure 3.1-43. A new modified curve is also included in the same figure to reflect the additional test results on the cleaner sand during the FSAR borrow investigation.

Three approaches are used to estimate the factor of safety against liquefaction:

a) Evaluation based on figure 3.1-43, for cyclic strength of backfill material.

FS = (1.9 to 2.0) x (SSE pga)/(SME pga) x (Stress Ratio @10 cycles/Stress Ratio @ 30 cycles)

= (1.9 to 2.0) x (0.2g/0.3g) x (0.153/0.137)

= 1.41 to 1.49

b) Evaluation based on the new curve (see figure 3.1-43) from cyclic strength data of the borrow investigation performed following the PSAR investigation.

FS = (1.9 to 2.0) x (SSE pga)/(SME pga) x (Stress Ratio @ 10 cycles/Stress Ratio @ 30 cycles)

= (1.9 to 2.0) x (0.2g/0.3g) x (0.164/0.137)

= 1.52 to 1.60

c) As a basis for comparison, the relationship between cyclic stress ratio and number of cycles required to cause liquefaction, as shown in figure 56 of the EPRI report entitled "Ground Motions and Soil Liquefaction During Earthquakes," by Seed and Idriss (Reference 3-49), is adopted to compute the effect of the stress cycles on the factor of safety. From this figure, the stress ratios are 1.13 for 10 cycles and 0.89 for 30 cycles. Hence,

FS = (1.9 to 2.0) x (SSE pga)/(SME pga) x (Stress Ratio @ 10 cycles/Stress ratio @ 30 cycles)

= (1.9 to 2.0) x (0.2g/0.3g) x (1.13/0.89)

= 1.61 to 1.69

Based on the above evaluation, the factor of safety against soil liquefaction potential at the SME is approximately 1.5 and, therefore, soil liquefaction is screened out at a HCLPF capacity of at least 0.3 g pga.

3.1.4.4.2 Stability of Slopes

Surcharge loadings, such as buildings on the top of a slope, will affect the slope's stability. To prevent loss of bearing capacity for the structure foundation and to ensure slope stability, buildings at VEGP are located at a sufficient distance away from the top of the slope. Therefore, slope stability will not affect safety-related buildings and components, and is screened out without further assessment at a HCLPF capacity of 0.3 g pga.

3.1.4.4.3 Evaluation of Ground Settlement

The seismic-induced soil volumetric strains due to compaction and reconsolidation of the soil system underneath Seismic Category I structures during and after an earthquake event were determined to be primarily from the compacted backfill at VEGP. The marl below the backfill is essentially a hard clay layer, which will not be significantly affected by the earthquake loading. The lower sand stratum is very dense and is under a very high effective confining pressure and, therefore, would not have a significant effect when subjected to earthquake loading up to 0.3 g pga. The resulting ground settlement computed from the SSE-induced volumetric strains was found to be approximately 0.16 in. using the triaxial test results (see Reference 3-50). It can be concluded that the ground settlement attributable to the onset of excessive pore water pressure during the VEGP SME is on the order of 0.25 in., which is judged to be insignificant when compared to the total differential settlements ranging from 0.5 in. to 1.0 in. used for plant design. Therefore, ground settlement is screened out at a HCLPF capacity of at least 0.3 g pga.

A review of the plant layout revealed that the only vulnerable areas that could be impacted by settlement and differential settlement are buried structures and piping penetrations. All Seismic Category I buildings are separated by at least a 3-in. gap; therefore, they would not be significantly affected by the SME-induced settlement. Section 3.1.4.9 addresses the effects of settlement and differential settlement on buried structures and piping penetrations. The result of this assessment concluded that a HCLPF capacity of at least 0.3 g pga exists for these plant components.

3.1.4.5 Equipment Capacity Evaluations

Equipment on the SSEL was screened in accordance with the guidelines in table 2-4 and Appendix A of the SMA methodology at the SME level of 0.3 g pga. During the seismic capacity walkdowns, the EQDPs, design drawings, construction records, test reports, and anchorage calculations were reviewed and used to supplement the evaluation. The SEWS in Appendix F of the SMA methodology, along with additional guidance offered by the Senior Seismic Review Advisory Panel were provided to document the SRT's walkdown observations and screening conclusions. The capacity evaluation included a check for seismic capacity, anchorage (if applicable), and seismic spatial interaction for each component on the SSEL. Effects of spray, flooding, and cascade onto equipment caused by possible pipe or vessel rupture were also considered. The total number of components evaluated is 637 for Unit 1 and is 631 for Unit 2.

As discussed in section 3.1.2.6, an evaluation of relay chatter was not required at VEGP because there are no low ruggedness or "bad actor" relays installed in equipment on the SSEL. However, potential impact effects from adjacent plant components on the SSEL equipment were evaluated as part of the walkdown effort.

Components that could not be screened out at a HCLPF capacity of at least 0.3 g pga during the walkdowns were designated as open items and were evaluated during the SMA portion of the program. An open item simply indicates that a component could not be screened out during the field walkdown and required further evaluation. Appendixes 3.J and 3.K of this report list the equipment ID number, equipment class, equipment description, plant area, and a description of the open item for Units 1 and 2, respectively. Equipment that was only subject to potential interaction from the overhead light fixtures was not individually listed. However, overhead light fixtures located in all areas of the plant which contain SSEL equipment will be inspected and modified as required to ensure that the light fixtures were secured from falling during a seismic event. The resolutions to these open items are largely complete and included physical modifications, maintenance actions, or revisions to plant practices, and were relatively simple and inexpensive. Several open items remain open, but are planned for closure by August 1, 1996.

These items have not yet been closed for reasons including plant status required to accomplish the work and level of resources required to accomplish the work.

The NSSS primary coolant system, NSSS supports, reactor internals, control rod drive housings and mechanism, pressure vessels, and HVAC ducting and dampers were all screened out for a HCLPF capacity of at least 0.3 g, based on the screening guidelines of table 2-4 of the SMA methodology as described in section 3.1.1.6.

Representative distribution systems such as the Seismic Category I piping, cable trays, and electrical conduits were reviewed visually by each SRT during the walkdown and were found to meet all requirements of the SMA methodology and, therefore, have a HCLPF capacity of at least 0.3 g pga as described in section 3.1.1.6.

Buried structures and piping, including the diesel fuel storage tanks, buried electrical duct banks, and Seismic Category I tunnels, were evaluated for the effects of ground shaking and differential displacements at penetrations into buildings and structures. This evaluation shows that buried structures and piping have a HCLPF capacity of at least 0.3 g pga as described in section 3.1.4.9.

3.1.4.6 Equipment Anchorage Evaluation

Equipment anchorage and mounting was evaluated as part of the VEGP walkdown and SMA. Preliminary and post-walkdown evaluations of the anchorage calculations contained in the design calculations, EQDPs, and field change notices revealed considerable margins of safety with respect to the design loadings. In keeping with the construction methodology, the anchorage details within VEGP are very conservatively designed and are well detailed for seismic events.

As described earlier in section 3.1.3, equivalent static methods were originally used to design the anchorage for the Category I equipment. For equipment located in the deeply embedded structures, the original design procedure accounted for a seismic demand level equal to 0.3 g pga. For equipment located in shallow surface structures, the original design procedure provided for a HCLPF capacity equal to 0.3 g pga via a design practice that included additional margins of safety and conservatism. In addition, the SRTs evaluated each component's anchorage according to both their own experience and engineering judgment supported by the original design calculations of similar anchorage installed in the deeply embedded structures.

The VEGP anchorage was very conservatively designed and much of it involved the use of welded connections to embedded plates in the floors, wall, and ceilings. Embedded plates or inserts were normally attached to the concrete through cast-in-place headed studs or bolts that were attached to the back of the embedded item. The plates and embeds were analyzed for load capacities from original construction. Each insert plate has a unique number and the cumulative loadings are maintained as part of the configuration management at VEGP. Figure 3.1-44 provides some of the typical embedded plate details used at VEGP.

Mechanical equipment was normally anchored to a reinforced concrete pad attached to the floor with embedded bolts directly into the concrete, or via a steel skid or sole plate. Figure 3.1-45 shows some of the typical detailing of the equipment foundations. These details are more than adequate anchorage for the required seismic demand.

Electrical equipment was typically welded to embedded steel plates on the floor, wall, or ceiling. Figures 3.1-46 and 3.1-47 provide some of the typical embedded steel, reinforcement, and concrete pad details for electrical equipment.

Expansion anchors were occasionally used within the VEGP; however, when used, the capacities of the expansion anchors were designed to a lower bound capacity value obtained in design criteria DC-1000-C (Reference 3-9). Expansion anchor types at VEGP were limited to a few manufacturers. The allowables for expansion anchors were obtained by collecting the capacities of the selected expansion anchors and by producing a lower bound envelope that would be conservative, no matter which expansion anchor type was used. Figure 3.1-48 provides one of the typical Maxi-Bolt installation details used at VEGP.

This report includes photographs of equipment that was walked down at VEGP during the Units 1 and 2 SMA walkdowns. The photographs provide a representative sample of the various equipment anchorage details at VEGP. For mechanical equipment, see figures 3.1-49 through 3.1-51; for electrical equipment, see figures 3.1-52 through 3.1-64; and for instruments and racks, see figures 3.1-65 through 3.1-66.

3.1.4.7 Overhead Light Fixtures

Overhead light fixtures in the Seismic Category I areas were installed to meet Seismic II/I requirements during the original construction of the plant. Typically, the light fixtures are suspended by threaded rods from the ceilings or structural members. These rods have combinations of hooks and loops at the ends, which permit quick disconnect and removal of light fixtures for maintenance. To prevent the rods from dislodging from the open hooks during a seismic event, safety screws were used at the jaw openings to complete closed loops. Typical design details used in the Category I areas are shown in figure 3.1-67. The hooks and loops of the support rods were attached to the embedded plates, Unistruts, or steel members. The types of anchorage used included welding, Nelson studs, stud nuts, and Unistrut bolts.

During the seismic capacity walkdown, the SRTs observed that several hooks did not contain screws to close the hooks or the screws were not properly engaged. A full inspection of light fixtures was performed for Unit 1, whereas only sampling cases were inspected to verify that similar situations existed for Unit 2. In lieu of additional analyses to determine a HCLPF capacity of the various as-found conditions and modified as required, the light fixtures in all areas of the plant that contain success path equipment will be inspected to ensure the open hooks are properly closed by screws to meet the original design requirements. This inspection will be completed by August 1, 1996. However, in areas where success path equipment is sparse, the principles of separation by distance and/or by barrier may be applied to the overhead lights in determining support requirements to avoid unnecessary cost. Based on this commitment, the seismic interaction concern for the overhead flexible light fixtures is resolved.

3.1.4.8 Internal Flooding

VEGP was designed such that flooding caused by a failure of any system, equipment, or component during normal operation or post-accident conditions will not result in the failure of either train of an essential safety-related system to perform its function unless justified by engineering. The flooding analysis, which was performed as part of the original plant design, assessed the flooding that results from the pipe or equipment whose postulated failure gives the maximum fluid discharge into the room or area being analyzed. The effects of flooding are negated by the location of safety-related systems, drains, and various barriers (watertight doors and watertight penetrations).

Watertight doors were used to prevent flooding of safety-related equipment if other simpler means were not feasible (e.g., curbed doorways). Seismic gaps between safety-related buildings are protected by curbs at least 6 in. high, and waterstops between floors and walls preclude flood water from entering the gaps and prevent water from spreading to adjacent rooms or lower levels via vertical chases or stairwells. These design features were installed to divert flooding water from areas containing Class 1E MCCs, switchgear, batteries, control panels, etc.

Penetrations through walls of safety-related rooms or areas are designed to withstand the design flood levels on either side of the walls to prevent leakage through the penetration. Penetrations that do not increase flood levels on either side of walls, by means of communication, were not required to be sealed against water. Penetrations through floors that are sealed were reviewed for weepage or were made watertight.

Based on information derived from the IPEEE seismic walkdown, tanks and piping in areas with SSEL equipment are well supported and will not pose a flooding concern. In addition, as part of the finalization program, FP-2 (Hazards) addressed flooding at VEGP. FP-2 involved walkdowns of VEGP to ensure the as-built condition of the plant did not pose flooding concerns that had not been addressed by design. Therefore, based on IPEEE walkdowns, previous FP-2 walkdowns, and the fact that VEGP was designed such that flooding in areas that were not evaluated as part of the IPEEE walkdown cannot spread to these areas, internal flooding issues have been adequately addressed to ensure a HCLPF capacity of at least 0.3 g pga.

3.1.4.9 Buried Structures and Piping

This section addresses the SMA evaluation of buried structures and piping that are part of the selected safe shutdown paths. These structures include buried pipelines associated with the DG fuel oil system, buried pipelines at the NSCW transfer pumps, electrical conduit duct banks, and the Seismic Category I tunnels for both units of the plant. The buried fuel storage tanks are screened out based on the screening guidelines provided in the SMA methodology, except for the associated piping connections. The assessment of the piping connections was performed as a part of the seismic margin walkdown, and therefore is not discussed in this section.

3.1.4.9.1 Buried Piping

The Seismic Category I buried pipes at VEGP include the diesel fuel oil lines from the diesel fuel oil tank to the DG fuel oil day tank and the NSCW transfer lines as described in DC-2144-B, Revision 4 (Reference 3-9). These pipelines are designed for loading conditions including dead, live, thermal, and earthquake loads. These lines are also protected from tornado-generated loads. The stresses due to dead, live, thermal, and pressure loads were combined with stresses from seismic loads and seismic-induced differential movement of the buildings. The piping system margins were determined using the stress limits of the ASME Boiler and Pressure Vessel Code, section III, Class 3 piping (Reference 3-25). As part of the original plant design requirements in DC-2144-B, Revision 4, the buried pipes were founded in the Category I backfill region that is not susceptible to the effects of liquefaction of the adjacent in-situ soil stratum under the SSE conditions. As concluded in section 3.1.4.4, the Category I backfill has been verified to have a HCLPF capacity of at least 0.3 g pga against the onset of liquefaction. Therefore, the buried pipes at VEGP are not required to consider the effects of major soil displacements resulting from potential liquefaction as well as from slope instabilities.

All buried pipes are ductile steel (e.g., SA312 TP304L) and are joined by butt welds. A total of 19 buried pipelines are installed for each unit at VEGP. Pipe sizes vary from 2 in. to 6 in. in diameter. Bends and elbows are used in the pipe sections between building penetrations to satisfy plant design requirements. Lengths of pipe sections between bends and elbows are designed for sufficient flexibility to accommodate the effects of seismic waves due to ground shaking. At building penetrations, pipes are routed in such a manner to provide adequate flexibility to absorb the relative movements between the buried pipe and the building. For example, U-loops or L-shaped configurations are commonly used inside a guard pipe to accommodate differential displacements at the pipe/penetration juncture resulting from building seismic displacement and differential settlement between the soil and the building. Guard pipes are made of sections of larger diameter pipes and are attached to the building wall to protect the buried pipes from overburden soil pressure and also to provide conduit space for pipe routings. A guard pipe may accommodate more than one pipeline. In the absence of guard pipes at penetrations, buried pipes were evaluated using the theory of beams on elastic foundation (see Reference 3-51) to ensure the stress margin was consistent with the other buried pipes. Typical pipe details at the building penetrations are shown in figure 3.1-68.

The effects of seismic waves passing through buried pipes were evaluated for the SME. To demonstrate seismic margin, a straight section of 6-in. buried pipe, free from the influence of bends, elbows, and building penetrations, was subjected to the effects of three types of seismic waves (i.e., compression, shear, and Rayleigh waves). The 6-in. pipe was selected because of its relatively high stiffness and large pipe diameter. In the stress analysis, high stiffness and large pipe diameter will yield a slightly higher bending stress and axial stress, respectively, due to seismic load and the internal pressure. The wave apparent velocities used in the original design analysis were adopted for conservatism and are shown in the table below. Stresses from these three types of waves were first computed using the procedure described in the original design calculations. This procedure was developed based on the Bechtel Topical Report, BC-TOP-4-A (Reference 3-45), and was found to be consistent with the guidelines recommended in the ASCE report, "Seismic Response of Buried Pipes and Structural Components" (Reference 3-52), on the seismic analysis of buried pipes. The stresses due to the three types of seismic waves were combined by the SRSS method. Considering the results in the ASCE report and the results of the original calculations (References 3-53, 3-54, and 3-55), the stress components due to the dead and live loads were found to be insignificant in comparison with those from seismic waves. Therefore, these stress components were ignored in determining the total stress of the pipe. The total stress due to the SME was calculated to be 21,870 psi. To demonstrate the seismic margin, the calculated total stress was checked against the allowable stress of the pipe material (i.e., 2.4 S_h). For SA-312 TB304L, the allowable stress is 37,680 psi. Therefore, the stress ratio for the SME against the allowable is 21,870/37,680 or 0.58. The stresses at the other pipes with smaller diameters were also found to be well within the material allowable stress for the SMA.

Wave Properties of the Backfill

	OBE	SSE	SME
Compression Wave Apparent Velocity, C_P (fps)	6700	6700	6700
Shear Wave Apparent Velocity, C_S	1800	1800	1800
Rayleigh Wave Apparent Velocity, C_R	1800	1800	1800
Maximum Compression Wave Particle Velocity, V_P (ips)	3.6	6.0	7.2
Maximum Shear Wave Particle Velocity, V_S	7.2	12.0	14.4
Maximum Rayleigh Wave Particle Velocity, V_R	7.2	12.0	14.4
Maximum Compression Wave Particle Acceleration, A_P (ips^2)	46.37	77.28	115.92
Maximum Shear Wave Particle Acceleration, A_S	46.37	77.28	115.92
Maximum Rayleigh Wave Particle Acceleration, A_R	46.37	77.28	115.92

The stress level for the same pipe subjected to the governing operating basis earthquake (OBE) effect was found to be approximately 11,227 psi obtained from the original pipe stress calculation (Reference 3-53). This gives a stress ratio 0.596 of the OBE allowable stress based on 1.2 times S_h. The S_h value for SA-312 TB304L material at the design temperature is 15,700 psi. A similar stress ratio was also found for other buried lines (References 3-54 and 3-55). A stress safety margin against the OBE was calculated to be 1.678. The stress safety margin is equal to the OBE allowable stress divided by the calculated stress. The seismic wave effect of the SME is approximately 2 times the OBE; however, the allowable stress used for the SME is 2 times the OBE allowable stress. Therefore, the stress ratio for the SME is approximately equal to the OBE stress ratio. As shown in the above stress evaluations for the OBE, the reserved stress safety margin of 1.678 will also be applicable to the SME. It is noted that the 2.0 factor was derived based on the shear wave velocity ratio between the SME and the OBE. The justification for using the shear velocity was that the shear wave contributes the most significant portion of the total stress.

Stresses for the buried short pipes with bends and elbows were evaluated during the original FSAR design and analysis effort. A review of several sample calculations (References 3-53, 3-54, and 3-55) showed that the total pipe stresses, including the effects of seismic waves and the internal pressure loads, were well within the design allowables for the governing OBE cases. The reserved stress safety margins in these short sections of buried pipes would also be applicable to the SME demand.

The safety margins discussed above were based on the results of elastic analyses. Higher safety margins can be demonstrated by inelastic analyses or the use of higher allowable stresses permitted by the latest codes. The limits of these inelastic analyses would be the strain limits provided in the ASCE report "Guidelines for Seismic Design of Oil and Gas Line System" (Reference 3-56).

Considering the flexibilities inherent with the pipe routing configurations, the significant safety margins in the seismic margin analysis, and additional safety margin expected from inelastic analysis, the Seismic Category I buried pipes at VEGP are demonstrated to have a HCLPF capacity of at least 0.3 g pga.

3.1.4.9.2 Buried Electrical Conduit Duct Banks

Seismic Category I electrical conduits at VEGP are typically routed through buried tunnels when passing between buildings. However, there are situations wherein conduits are routed in buried electrical duct banks. These buried electrical duct banks are rows of 4-in.-diameter nonmetallic PVC conduits encased in solid reinforced concrete sections. Cables are pulled inside conduits between equipment. The reinforced concrete is buried in the Category I backfill and is not affected by soil slopes at the boundary of the backfill. Thus, the buried electrical duct banks will not experience the major soil displacements resulting from liquefaction and soil instability. For the SMA, the integrity of safety-related cables inside the buried duct banks was not evaluated in detail; instead, the structural integrity of their encasing reinforced concrete was evaluated for the effects of the SME. It is the judgment of the SRT that there would be sufficient slack in the cables to accommodate any relative movements from ground shaking and settlement.

As with the buried piping, the solid reinforced concrete sections are conservatively designed and analyzed for various loading conditions, including the effects of the ground shaking due to an SSE. The same procedure for the buried piping analysis was used to calculate the forces and moments caused by the seismic effects. The concrete sections adjacent to buildings are not designed to restrain movements at the ends of the concrete sections. The forces and moments of the concrete sections were calculated using the equations developed by Hetenyi for beams on elastic foundations (Reference 3-51). These forces and moments were used to determine the reinforcing requirements and to verify the concrete shear capacity. Review of the original design calculation (Reference 3-57) indicates that the forces and moments due to the SSE are not significant and, in most cases, the minimum reinforcing requirements as specified by the ACI Code (Reference 3-19) are sufficient to meet the load requirements. Typically, a No. 5 reinforcing bar is placed at the top and bottom of the concrete section, spaced at 8 in. minimum to 12 in. maximum on center (Reference 3-58). This same design was also verified to be capable of withstanding traffic loads above ground (see Reference 3-57). Also, a review of typical conduit installation details shows that cables are either looped or supported at a sufficient distance from the point wherein cables enter the duct banks.

Based on the judgment that there is sufficient slack in the cables to accommodate the displacement anticipated during an earthquake event and that there is still a reserve safety margin in the strength capacity of the concrete sections, the buried electrical conduit duct bank should be able to withstand the SME without damage to the cables. It is the judgment of the SRT that the electrical conduit duct banks and cables have a HCLPF capacity of at least 0.3 g pga.

3.1.4.9.3 Seismic Category I Electrical Tunnels

Buried electrical tunnels are provided to facilitate routing of the electrical raceway, conduits, and cables between buildings and structures. The tunnels are rectangular, box-shaped, reinforced concrete structures. The depth of burial ranges from 0 ft at the AFW tunnel to 26 ft at the DG electrical tunnel. As part of the original design requirements, Category I tunnels are located in the Category I backfill and away from soil slopes; therefore, they are not required to consider the effects of gross displacements due to liquefaction and slope instability. All tunnels are separated from adjacent structures by seismic gaps. The typical seismic gap is 5 1/2 in., but not less than 2 in. There are 11 Seismic Category I tunnels for each unit. Four governing tunnel configurations were chosen for detailed analysis to evaluate the effects of seismically induced stresses and displacements: the NSCW Unit 1, DG piping Unit 2, AFW Unit 1, and turbine electric Units 1 and 2. All other tunnels have less critical combinations of section length between bends and unit soil contact area and would therefore have a lesser impact on seismic loads than those tunnel configurations analyzed.

As part of the original design effort, the effects of earthquake ground motion on buried Category I tunnels were evaluated for the following loading conditions, in the absence of liquefaction and soil instability:

1. Axial tension and compression due to traveling seismic waves.

2. Shear and bending due to traveling seismic waves.

3. Strain caused by dynamic differential movement at connections and bends.

The analytical procedures for evaluating these effects are similar to those used in the buried piping evaluation and are described in the Bechtel Topical Report (Reference 3-45). For very long structures, the procedures were based on the assumption that there was no relative motion between the flexible structure and the ground. Seismic stresses in the tunnel were estimated from the calculated strains and curvature in the surrounding soil due to the passage of seismic waves. For short structures, to account for possible slippage between the tunnel and the soil, the calculated axial stresses were proportionately less than those assuming that strains in the tunnel equal to the maximum soil strains. The effects of bends were evaluated using procedures based on equations for beams on elastic foundations. The calculated seismic stresses were combined with stresses from other loading conditions, including pressure and soil surcharge loads.

The detailed methodology, assumptions, and computations for evaluating the tunnels are provided in the VEGP design calculations (Reference 3-59), and the results of the evaluation are summarized below.

1. Calculated seismically induced strain in the long-leg portion of all tunnels under OBE and SSE conditions is less than the cracking strain of concrete. However, even if the concrete were to crack, all tunnel cross-sections are adequately reinforced with well distributed rebars such that strain would be distributed along the length of the tunnel. The maximum ground strain for the SSE was calculated to be 5.24×10^{-4} in./in. Assuming that this maximum soil strain could be transferred to a cracked tunnel section, the average rebar strain would be far less than the yield strain of the steel, approximately 2.0×10^{-3} in./in. The safety margin was calculated to be 3.82 against yielding of the steel. Based on this abundant safety margin, the SRT concludes that the tunnel section can withstand the maximum soil strain due to the SME without causing the steel to yield.

2. At bends, the calculated strain due to axial force and bending moment was found to exceed the cracking strain of concrete in several instances. However, using the reduced bending moment due to the cracked section, the rebar did not yield.

3. The calculated maximum displacement of the tunnels relative to the soil at free ends and at bends under both OBE and SSE conditions was 1.17 in., which is considerably less than the minimum 2-in. gap provided. The SRT judges that the minimum 2-in. gap at the free ends is sufficient to absorb the SME-induced displacements.

Based on the above observations reached in the OBE and SSE analyses, the Seismic Category I electrical tunnels are demonstrated to have sufficient design margin without the added benefit of a detailed SSI analysis. Because an SSI analysis would show an even higher design margin, the SRTs judge that the VEGP Seismic Category I buried tunnels have been demonstrated to possess a HCLPF capacity of at least 0.3 g pga.

3.1.4.10 Seismic-Fire Interaction

The seismic-fire interaction evaluation for the VEGP IPEEE addressed the following potential interaction concerns:

- Seismically induced fires.
- Seismic actuation of fire suppression systems.

- Seismic degradation of fire suppression systems.

A summary of the evaluation for each of these concerns is given below.

3.1.4.10.1 Seismically Induced Fires

All hydrogen or other flammable gas or liquid-storage vessels in areas with safe shutdown or safety-related equipment was designed and anchored for Seismic II/I considerations. Areas with equipment containing significant amounts of combustible liquids have containment curbing to preclude inadvertent flows to surrounding areas and drainage systems. As part of the VEGP finalization program described in section 3.1.1.2.3, FP-2 (Hazards) and FP-3 (Fire Protection) consisted of plant walkdowns to verify that the as-built configuration of the plant agreed with the design bases. In addition, there were no potential seismically induced fire concerns identified by the SRTs during the seismic capability walkdown in areas containing SSEL components. Therefore, seismically induced fires are not a concern at VEGP for a HCLPF capacity of 0.3 g pga.

3.1.4.10.2 Seismic Actuation of Fire Suppression Systems

The VEGP water suppression system is a normally dry system. Preaction sprinkler system operation is designed to be initiated by an electric fire detection device and the melting of a fusible link. The fire detection sensor detects fire and releases a tripping device to open the preaction valve, thus supplying water under pressure to fill and pressurize the system. This section addresses the possibility that seismically induced relay chatter could potentially result in inadvertent actuation of the preaction valve, thereby flooding the system.

The sealed preaction sprinkler system heads are passive components and will only open upon a rise of ambient temperature to the melting point of the fusible links on sealed sprinkler heads. Therefore, even if the sprinkler system is flooded, the sprinkler heads will not open in the absence of heat generated by a fire, which is required to melt the fusible links. Inadvertent manual or automatic operation of the preaction valve is detected by a system-actuated alarm. In the unlikely event that inadvertent operation of a sprinkler head did occur, the effect would be minimized through the following design features:

- Drip-proof, totally enclosed, or weather-protected type II motors are installed on safety-related pumps.
- Safety-related electrical cable design allows water spray on cables in trays without electrical cable faulting.

- Safe shutdown equipment in sprinklered areas is mounted on pads and is protected with covers, shields, or watertight enclosures. Concrete floors surrounding the pads are sloped to floor drains at low points.

Therefore, inadvertent actuation of the fire protection systems would not result in any deleterious effects to SSEL components at a HCLPF capacity of 0.3 g pga.

3.1.4.10.3 Seismic Degradation of Fire Suppression Systems

The purpose of this section is to verify that fire suppression systems have been structurally installed in accordance with good industrial practice and have been reviewed for seismic considerations such that suppression system piping and components will not fall and damage safe shutdown components. It is also unlikely that leaking or cascading of the suppressant will result.

The VEGP Unit 1 fire protection piping is seismically designed at the plant SSE level meeting strict support stiffness and piping deflection criteria. The Unit 2 fire protection piping is a more flexible system which includes sway bracing. In order to verify the adequacy of the Unit 2 piping, three test segments of actual piping systems were shake tested by ANCO Engineers, Inc. (Reference 3-60). These test assemblies were subjected to dynamic loadings equivalent to five OBEs, after several scaling earthquakes to include the effects of fatigue, and one SSE. Each test assembly was hydrostatically tested before and after the first OBE test to demonstrate functionality. Finally, each of the test assemblies was subjected to dynamic loadings equivalent to 1.2 times SSE and 1.4 times SSE. The adequacy of the Units 1 and 2 fire water piping systems for Seismic II/I considerations was documented and accepted by the NRC in Section 9 of NUREG-1137 (Reference 3-61). In addition, the seismic ruggedness of the fire suppression system piping and components in areas containing SSEL components were evaluated by the SRTs during the seismic capability walkdown. Therefore, the VEGP fire suppression system is considered adequate with respect to Seismic II/I considerations at a HCLPF capacity of 0.3 g pga.

3.1.5 ANALYSIS OF CONTAINMENT PERFORMANCE

Generic Letter 88-20, Supplement No. 4, requires an evaluation of containment performance for external events that "should be directed toward a systematic examination of whether there are sequences that involve containment failure modes distinctly different from those found in the IPE internal events evaluation or contribute significantly to the likelihood of functional failure of the containment (i.e., loss of containment barrier independent of core melt)." (Reference 3-1) NUREG-1407 states that the "analyses performed for internal events IPE should be used to determine the scope of systems for the examination." (Reference 3-6)

As described in section 3.1.2.5.16, equipment to prevent containment pressure from exceeding failure pressure is functionally included in the Safe Shutdown Equipment List (SSEL). In addition, containment penetrations have been reviewed for isolation capability within the context of IPEEE scenarios as described below.

Containment penetrations listed in VEGP FSAR (Reference 3-21) table 6.2.4-1 were reviewed to determine whether there could be a significant release path to the environment following a review level earthquake (RLE). Consistent with the criteria stated in the VEGP IPE Containment Isolation System Notebook (see Reference 3-31), containment penetrations less than 2 in. in diameter are considered too small to release a significant amount of fission products to the environment. Containment penetrations larger than 2 in. were reviewed to determine whether a credible barrier will be available following the RLE. For those penetrations in which the containment isolation valves are not already functionally included on the SSEL or for which no other credible barrier exists, the associated containment isolation valve(s) are included on the SSEL for containment isolation purposes (12000-series line numbers).

Table 3.1.5-1 of this report presents a listing of the containment isolation valves from FSAR table 6.2.4-1 which are 2 in. or larger and are not manual valves. A disposition code is listed for each valve to indicate whether the valve is included on the SSEL, or to indicate the rationale for exclusion from the SSEL. The approach taken is that a valve may be excluded if another credible barrier exists, such as a closed system inside containment in which the system has been included in the IPEEE review scope. Also, a check valve is categorized as "inherently rugged" for IPEEE purposes and is considered to be a credible barrier for this review. Consistent with the SMA methodology, passive valves (i.e., valves that are not required to change state) are not included in the SSEL.

For conservatism, certain containment isolation valves that are less than 2 in. in size are included on the SSEL, where the penetration is associated with a potentially significant contamination source. These valves were selected by engineering judgment and include HV-12976, HV-12977, HV-3502, HV-8220, HV-3514, HV-3508, and HV-7150.

Pending resolution of open items described in Appendixes 3.J and 3.K, all of the containment isolation valves included on the SSEL were demonstrated to possess a HCLPF capacity of at least 0.3 g pga.

TABLE 3.1.5-1 (SHEET 1 OF 5)

CONTAINMENT ISOLATION VALVE SCREENING FOR SSEL

Penetration Number	Valve Number	Disposition
1	HV-3006A	1
	HV-3006B	1
	PV-3000	1
	PSV-3001	1
	PSV-3002	2
	PSV-3003	2
	PSV-3004	2
	PSV-3005	2
	HV-3009	2
	HV-13005B	1
	HV-13005A	1
2	HV-3016A	1
	HV-3016B	1
	PV-3010	1
	PSV-3011	1
	PSV-3012	2
	PSV-3013	2
	PSV-3014	2
	PSV-3015	2
	HV-3019	2
	HV-13007A	1
	HV-13007B	1
3	HV-3026A	1
	HV-3026B	1
	PV-3020	1
	PSV-3021	1
	PSV-3022	2
	PSV-3023	2
	PSV-3024	2
	PSV-3025	2
	HV-13008A	1
	HV-13008B	1

TABLE 3.1.5-1 (SHEET 2 OF 5)

CONTAINMENT ISOLATION VALVE SCREENING FOR SSEL

Penetration Number	Valve Number	Disposition
4	HV-3036A	1
	HV-3036B	1
	PV-3030	1
	PSV-3031	1
	PSV-3032	2
	PSV-3033	2
	PSV-3034	2
	PSV-3035	2
	HV-13006A	1
	HV-13006B	1
7	HV-7603A	1
8	HV-7603B	1
9	HV-7603C	1
10	HV-7603D	1
18	HV-5229	1
19	HV-5228	1
20	HV-5230	1
21	HV-5227	1
28	HV-1978	3
	HV-1979	3
29	HV-1974	3
	HV-1975	3
30	HV-8835	4
31	HV-8802B	5
32	HV-8801A	1
	HV-8801B	1

TABLE 3.1.5-1 (SHEET 3 OF 5)

CONTAINMENT ISOLATION VALVE SCREENING FOR SSEL

Penetration Number	Valve Number	Disposition
33	HV-8802A	5
34	HV-9001B	4, 5
35	HV-9001A	4, 5
36	HV-8811B	1
37	HV-8811A	1
38	HV-9002B	5
39	HV-9002A	5
40	HV-27901	4, 5
43	HV-2134	2, 4
44	HV-2138	2
45	HV-2135	2, 4
46	HV-2139	2
48	HV-8160	1
	HV-8152	1
49	HV-8100	3
	HV-8112	3
50	HV-8105	1
56	HV-8840	4, 5
57	HV-8809A	4
58	HV-8809B	4

TABLE 3.1.5-1 (SHEET 4 OF 5)

CONTAINMENT ISOLATION VALVE SCREENING FOR SSEL

Penetration Number	Valve Number	Disposition
59	HV-8701A	1
	PSV-8708A	5
60	HV-8702A	1
	PSV-8708B	5
63	HV-8028	4
77	HV-7699	3
	HV-7136	3
78	HV-780	3
	HV-781	3
80	HV-9385	4
81	HV-9378	4
83	HV-2626A	5
	HV-2627A	5
	HV-2626B	3
	HV-2627B	3
84	HV-2628A	5
	HV-2629A	5
	HV-2628B	3
	HV-2629B	3
91	HV-1809	2, 4
92	HV-1807	2, 4
93	HV-1806	2, 4
94	HV-1808	2, 4
95	HV-1831	2

TABLE 3.1.5-1 (SHEET 5 OF 5)

CONTAINMENT ISOLATION VALVE SCREENING FOR SSEL

Penetration Number	Valve Number	Disposition
96	HV-1823	2
97	HV-1830	2
98	HV-1822	2
100	HV-2624A	6
	HV-2624B	6
101	HV-15198	1
102	HV-15197	1
103	HV-15199	1
104	HV-15196	1

Disposition Code	Description
1	Already functionally included on SSEL for one or both success paths.
2	Closed system inside containment which does not communicate with either RCS or containment atmosphere, and the system is included in IPEEE review.
3	Included in SSEL for containment isolation function only.
4	In series with check valve.
5	Valve is closed and fails closed.
6	In series with other reliable containment isolation valve.

3.2 UNRESOLVED SAFETY ISSUE A-45, GI-131, AND OTHER SEISMIC SAFETY ISSUES

3.2.1 UNRESOVLED SAFETY ISSUE A-45: SHUTDOWN DECAY HEAT REMOVAL REQUIREMENTS

The decay heat removal (DHR) capability has been described and evaluated in section 3.4.3 of the Vogtle Electric Generating Plant (VEGP) Individual Plant Examination Report. This section discusses the seismic capability of the systems that comprise DHR at VEGP.

As stated in this report, the high-confidence-low-probability-of-failure capacity for VEGP Units 1 and 2 meets the 0.3 g pga review level earthquake requirement for a focused-scope plant as specified in NUREG-1407 (Reference 3-6), pending completion of plant modifications as described in section 3.1.4.5. This includes the components that comprise the DHR system as documented in Appendixes C and D. Thus, Unresolved Safety Issue A-45, with regard to seismic risk at VEGP, is considered closed.

3.2.2 GI-131: POTENTIAL SEISMIC INTERACTION INVOLVING THE MOVABLE IN-CORE FLUX MAPPING SYSTEM USED IN WESTINGHOUSE PLANTS

VEGP has addressed this concern by the installation of a stiffener and four anchor assemblies. This work has been completed, and the NRC has inspected, accepted, and closed the Construction Deficiency Report 85-83 (Reference 3-62) in Inspection Report 424/86/103. The system was also walked down as part of the Internal Plant Examination of External Events evaluation with no issues noted. Thus, GI-131 is considered closed.

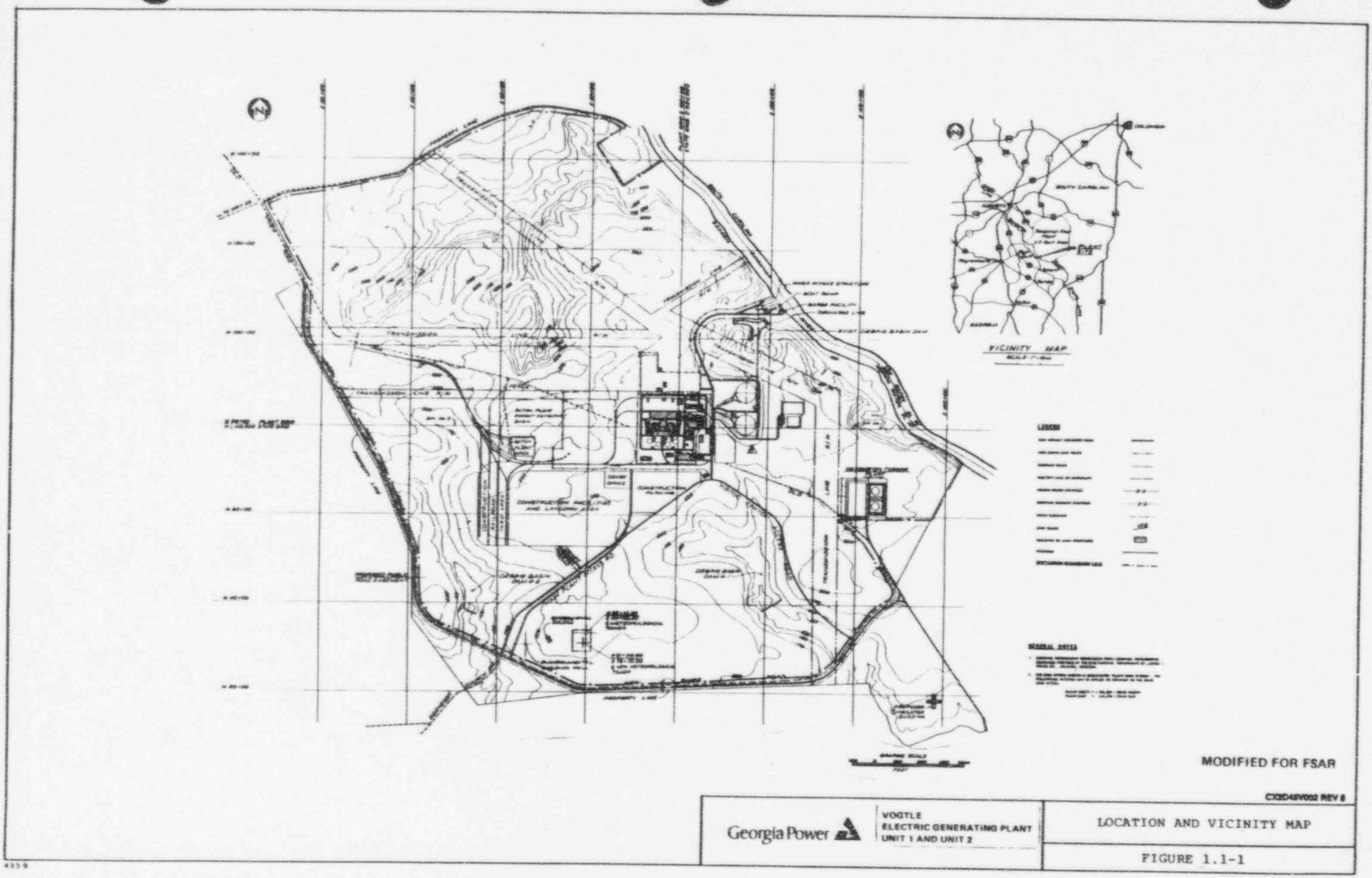
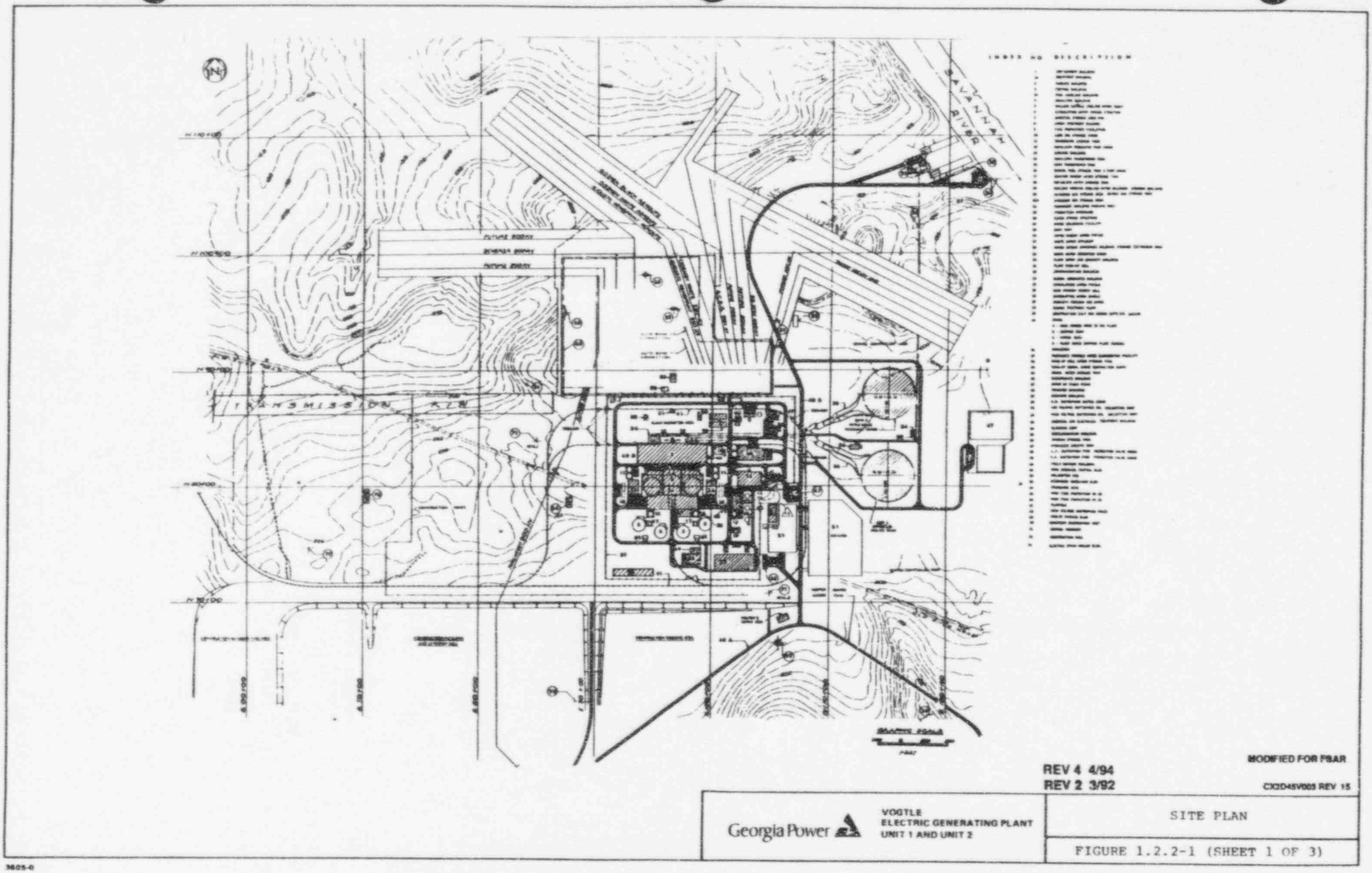
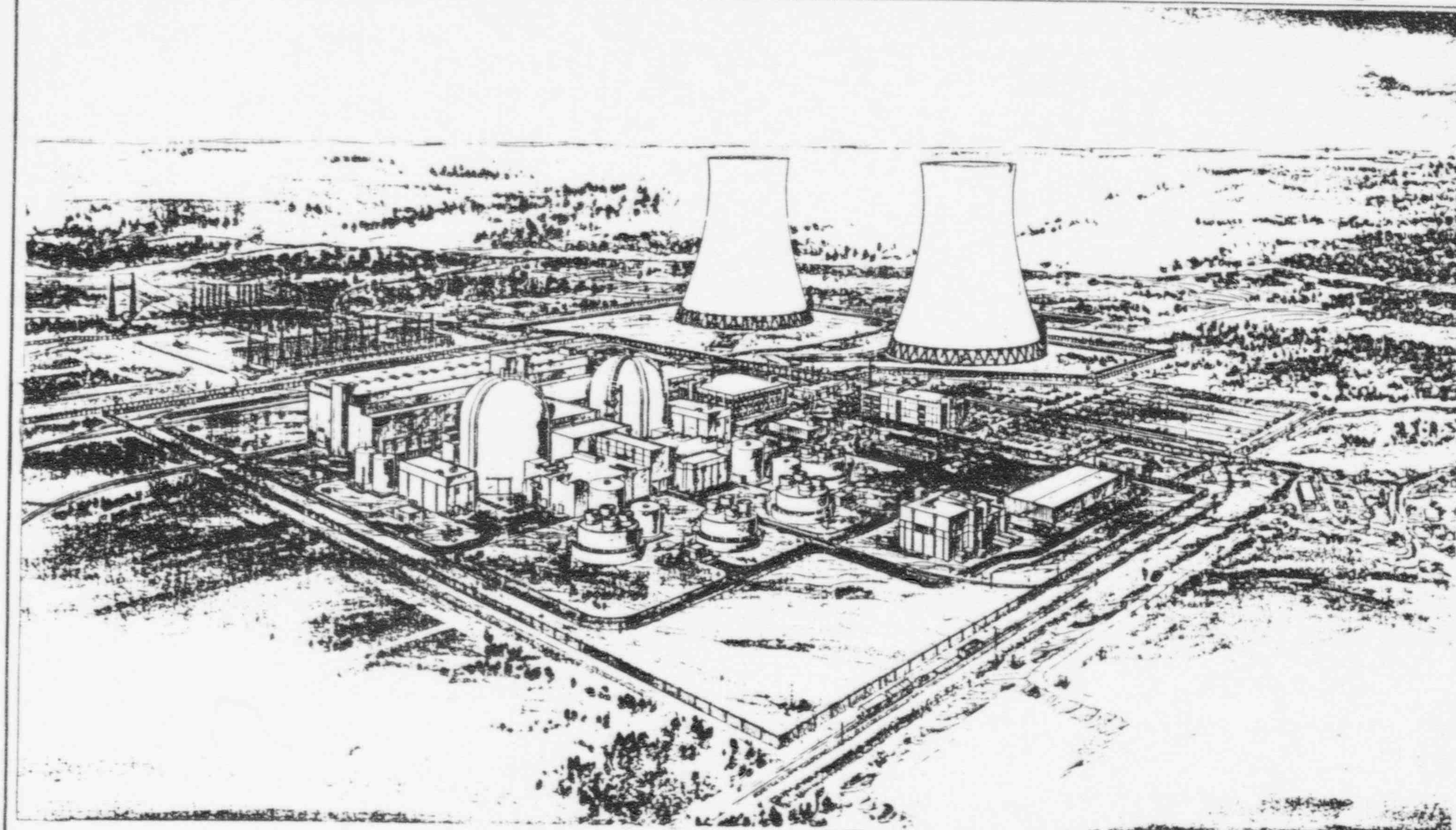


Figure 3.1-1 Location and Vicinity Map



3605-0

Figure 3.1-2 Site Plan



Georgia Power	VOGTLE ELECTRIC GENERATING PLANT UNIT 1 AND UNIT 2	LOCATION AND ORIENTATION OF BUILDINGS
		FIGURE 1.2.2-1 (SHEET 3 OF 3)

433-9

Figure 3.1-3 Location and Orientation of Buildings

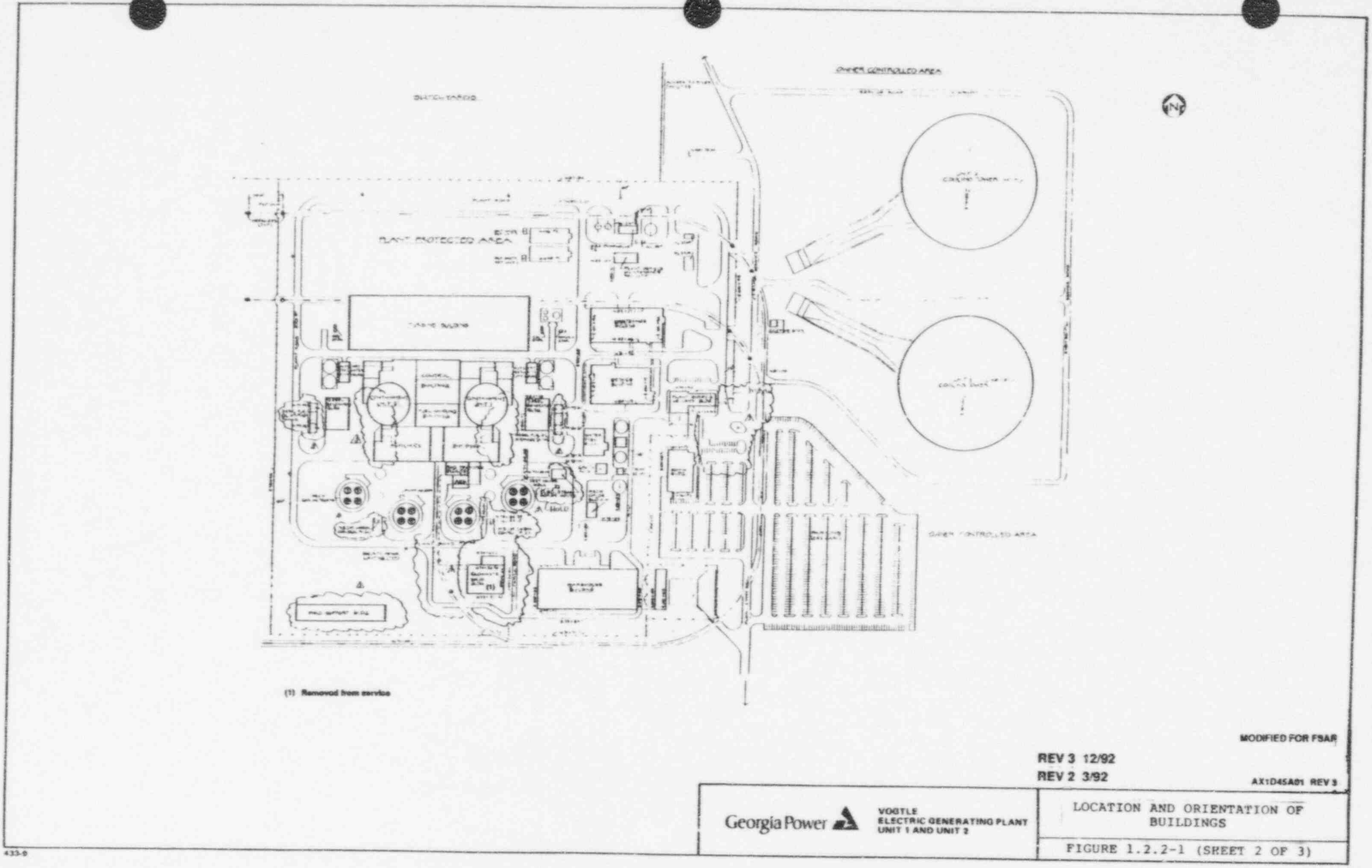


Figure 3.1-4 Location and Orientation of Buildings

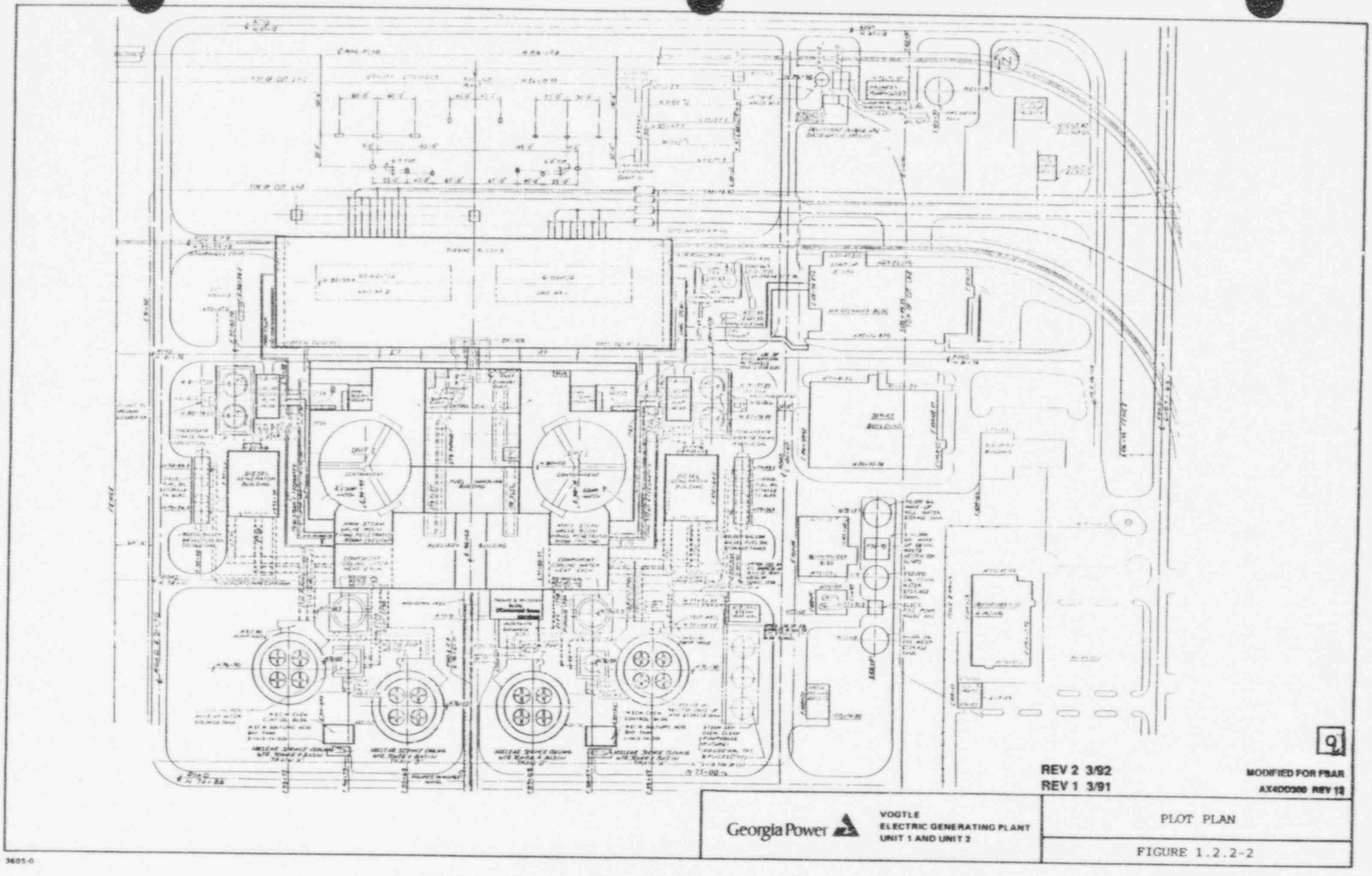
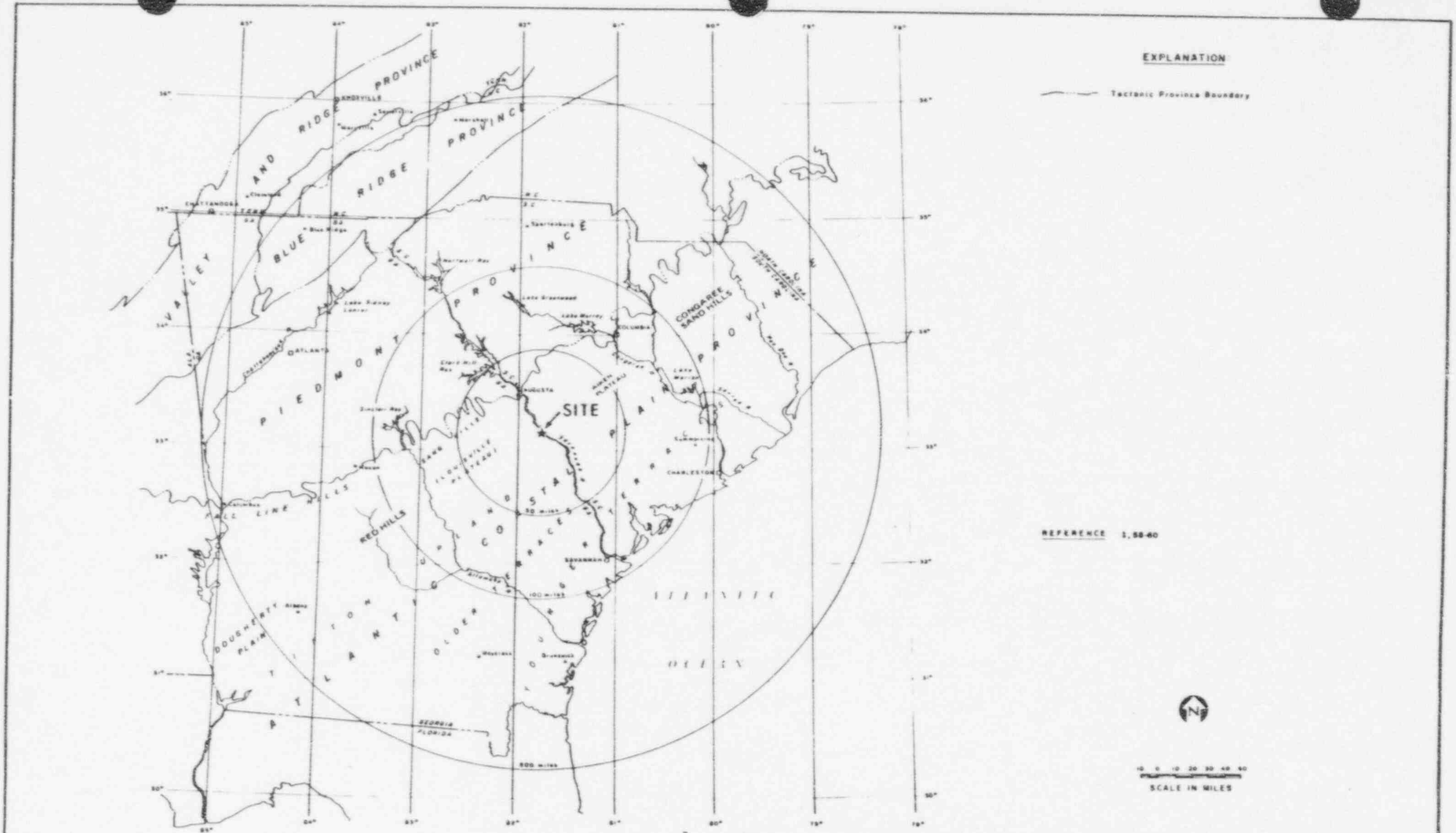
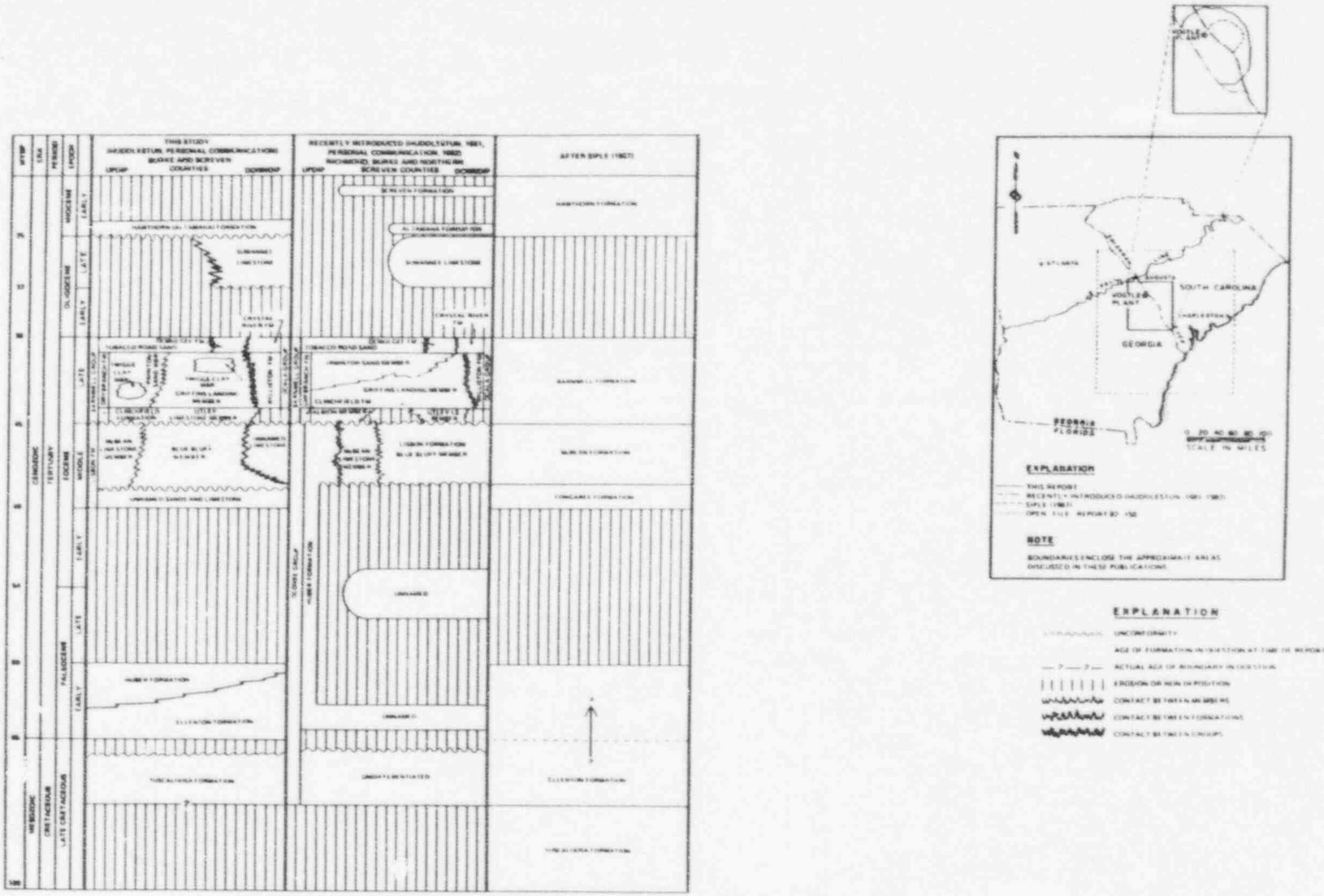


Figure 3.1-5 Plot Plan



Georgia Power	VOGTLE ELECTRIC GENERATING PLANT UNIT 1 AND UNIT 2	REGIONAL GENERALIZED PHYSIOGRAPHIC MAP
		FIGURE 2.5.1-1

Figure 3.1-6 Regional Generalized Physiographic Map



REFERENCES: 28, 34, 36, 61, 62

Georgia Power

VOGTLE
ELECTRIC GENERATING PLANT
UNIT 1 AND UNIT 2

STRATIGRAPHIC
CORRELATION CHART

FIGUPE 2.5.1-2

Figure 3.1-7 Stratigraphic Correlation Chart

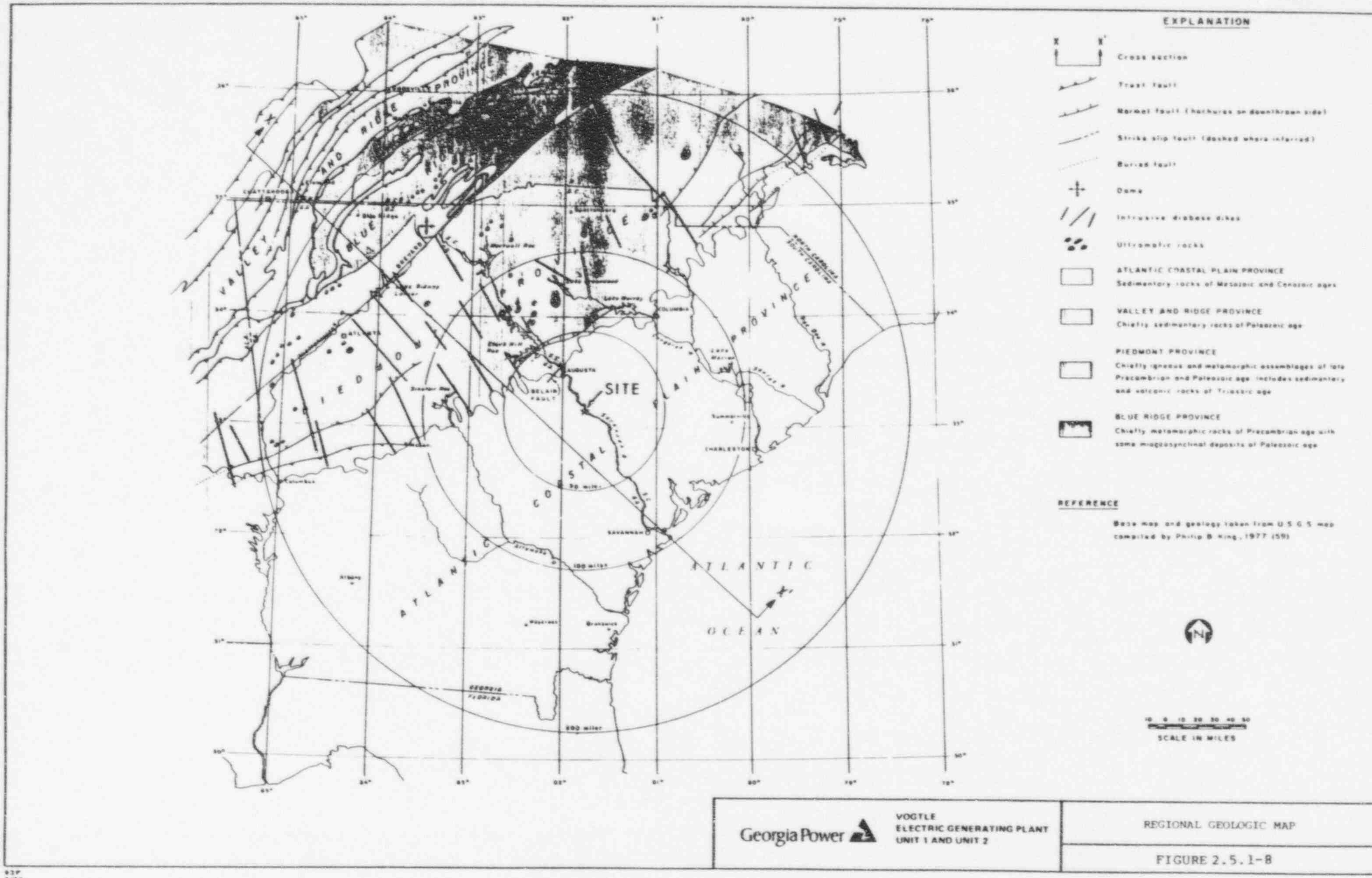


Figure 3.1-8 Regional Geologic Map

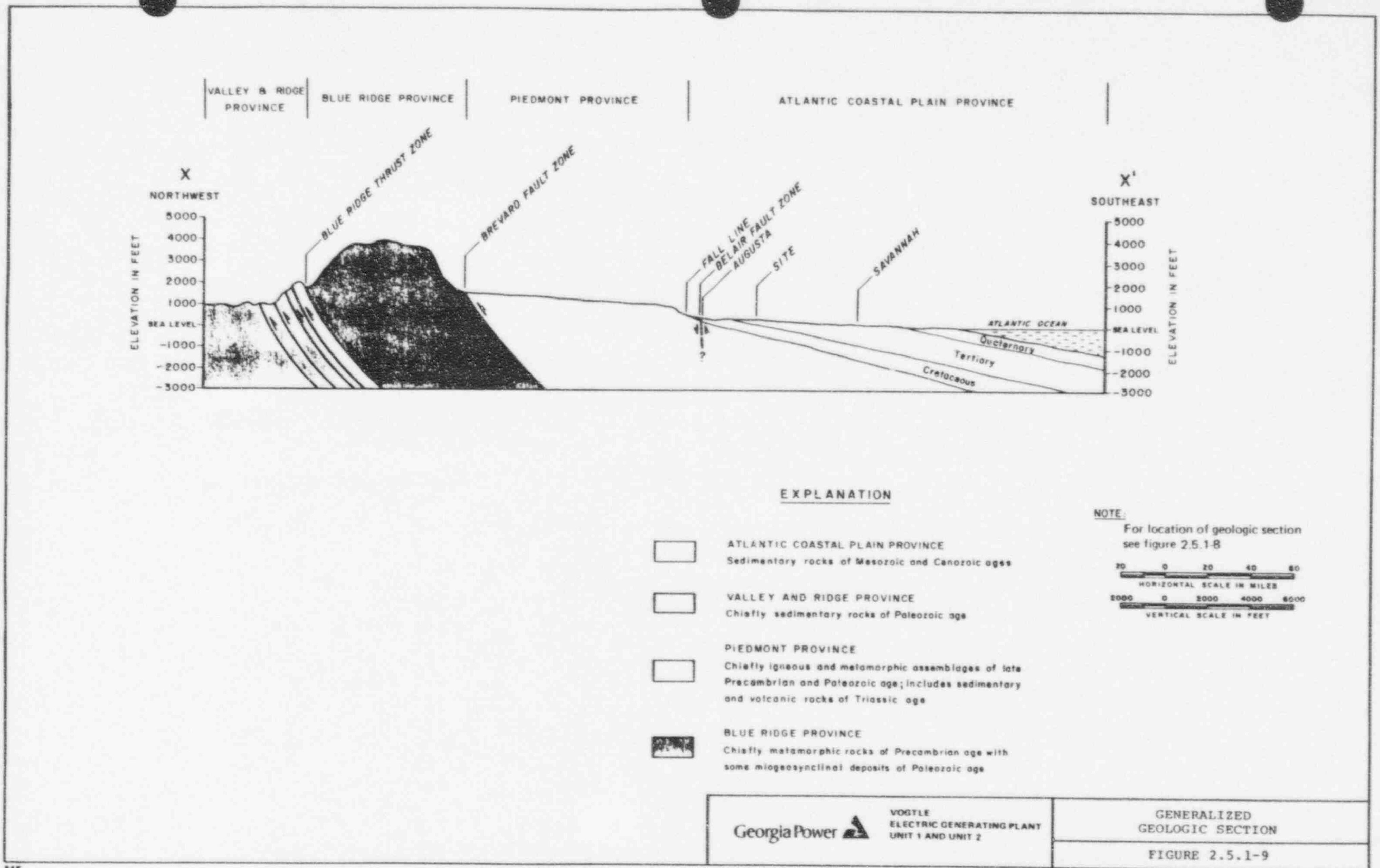


Figure 3.1-9 Generalized Geologic Section

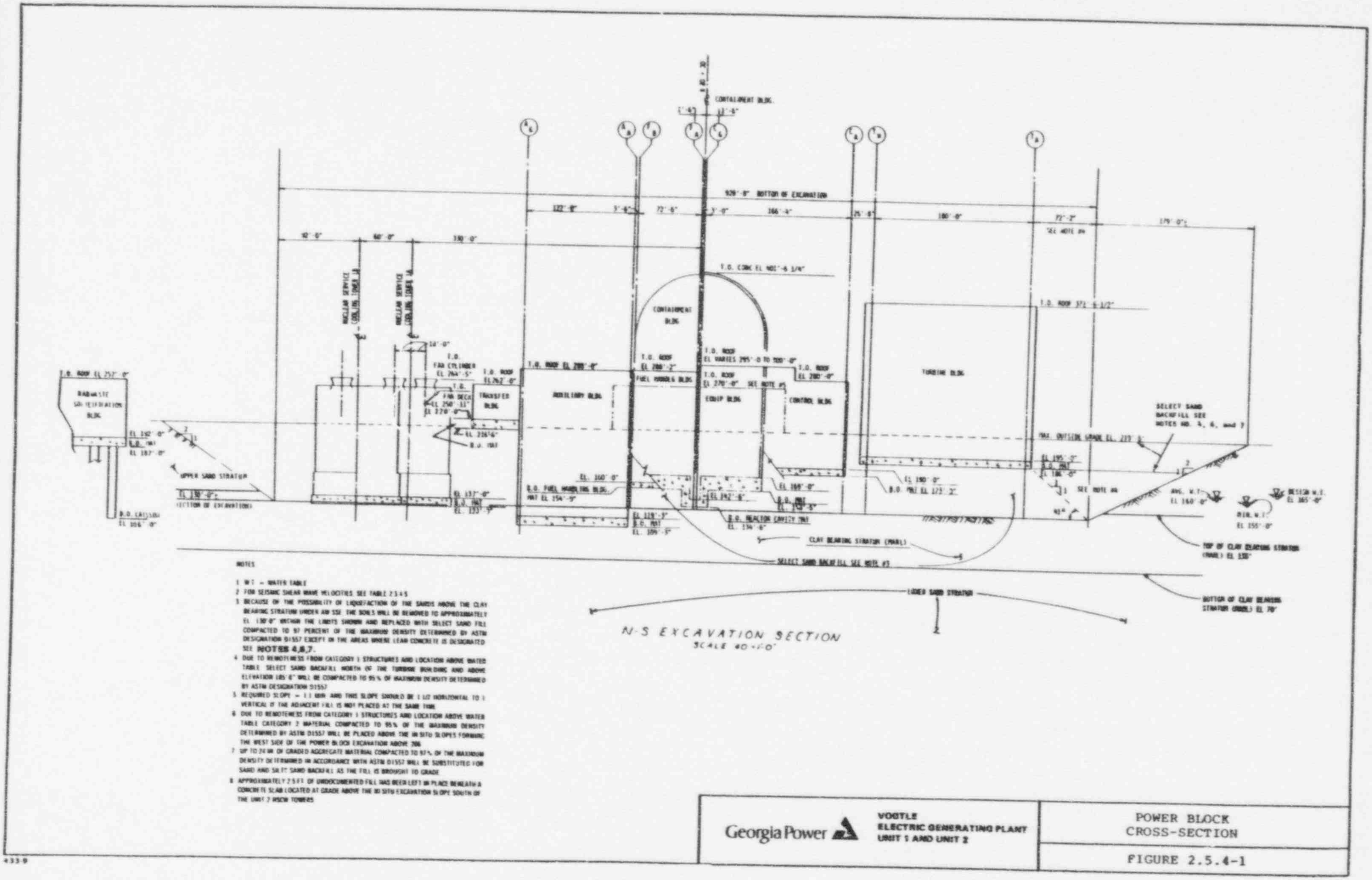
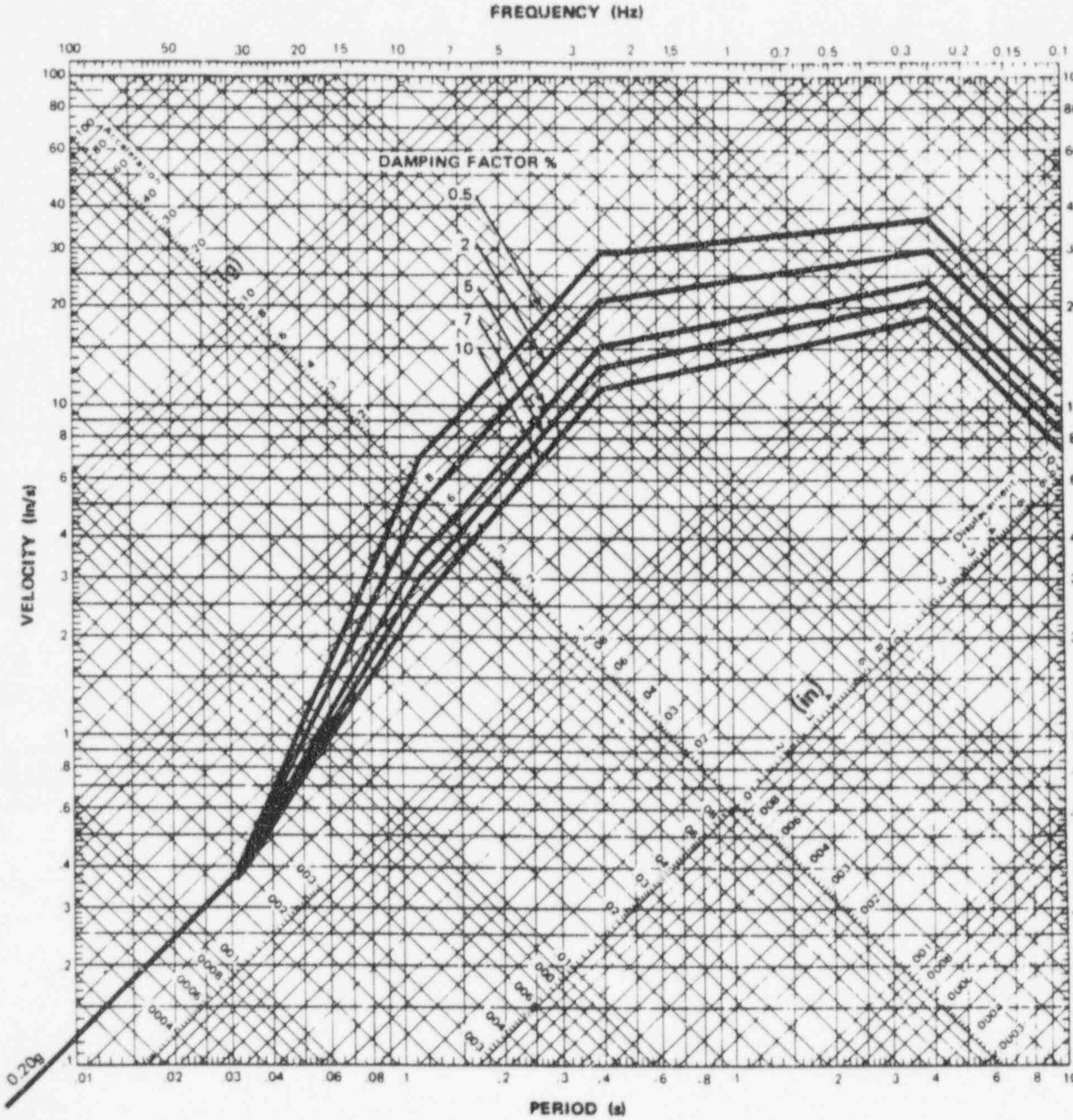


Figure 3.1-10 Power Block Cross-Section



Georgia Power

VOGTLE
ELECTRIC GENERATING PLANT
UNIT 1 AND UNIT 2

SAFE SHUTDOWN EARTHQUAKE
HORIZONTAL RESPONSE SPECTRA

FIGURE 3.7.B.1-1

099
2/80

Figure 3.1-11 Safe Shutdown Earthquake Horizontal Response Spectra

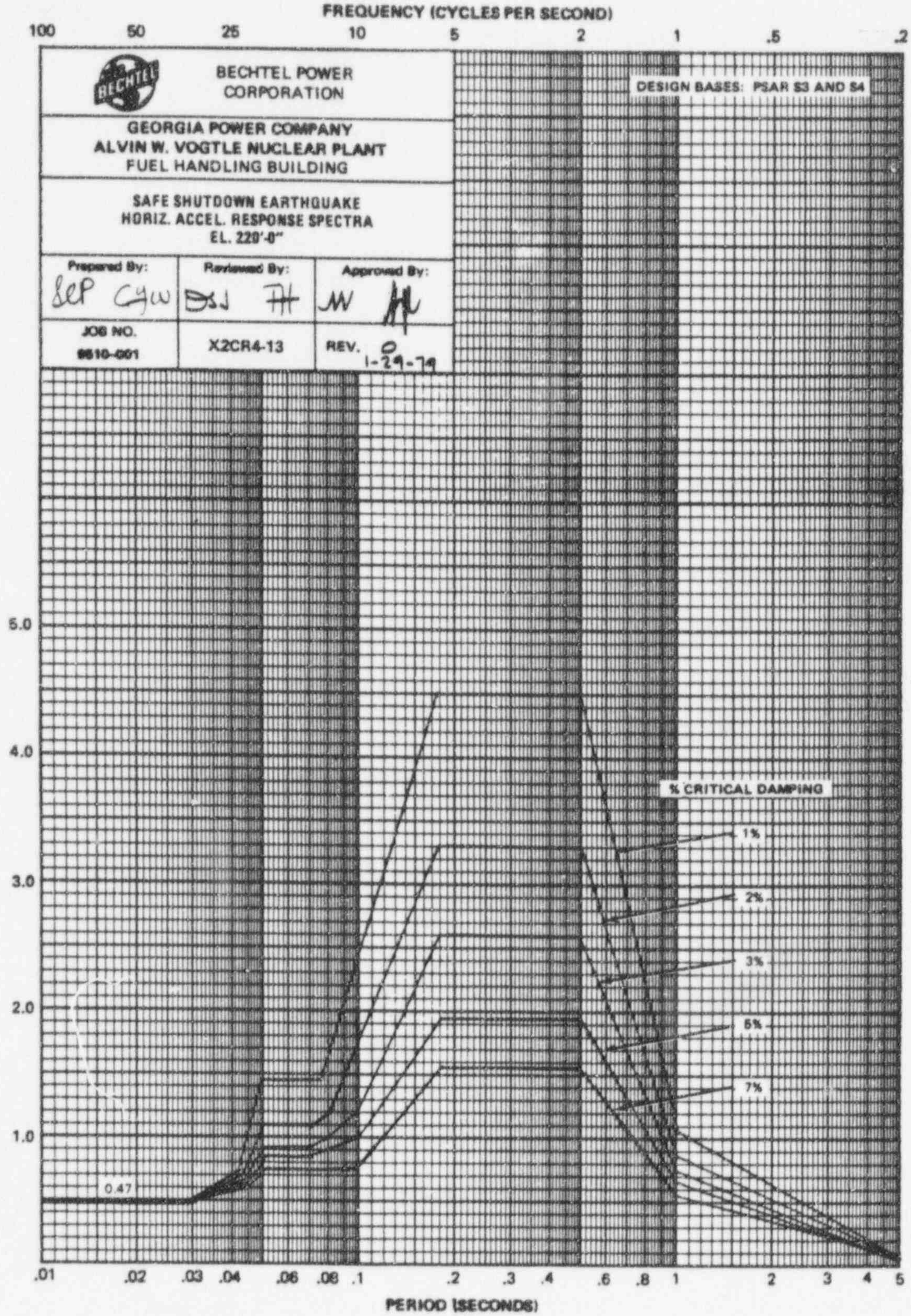
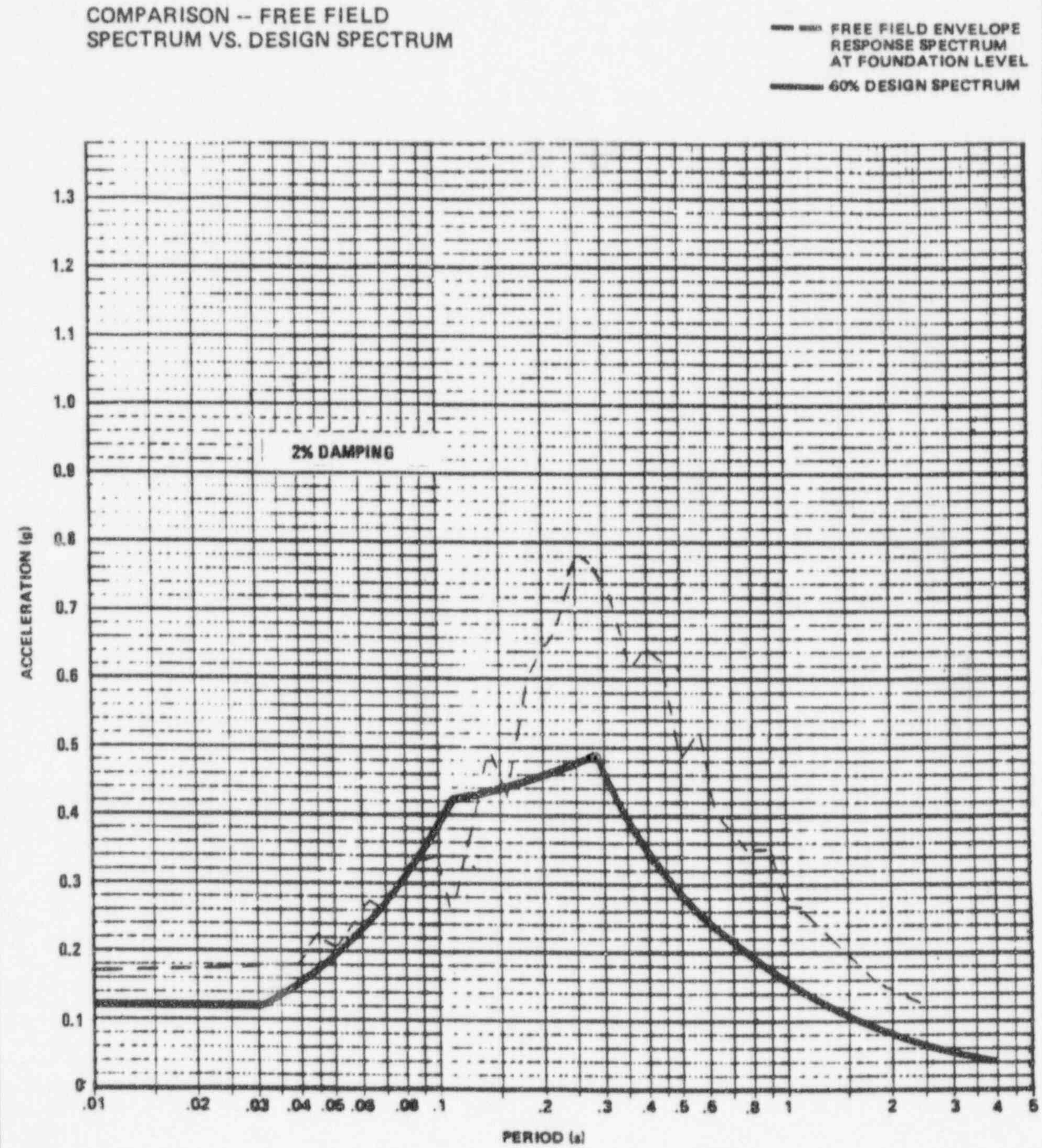


Figure 3.1-12 Safe Shutdown Earthquake Horizontal Acceleration Response Spectra, Elevation 220 ft 0 in.



Georgia Power	VOGTLE ELECTRIC GENERATING PLANT UNIT 1 AND UNIT 2	CONTROL BUILDING el 173 ft 0 in., SSE VERTICAL FIGURE 3.7.B.2-22

268
9/81

Figure 3.1-13 Control Building, Elevation 173 ft 0 in., SSE Vertical

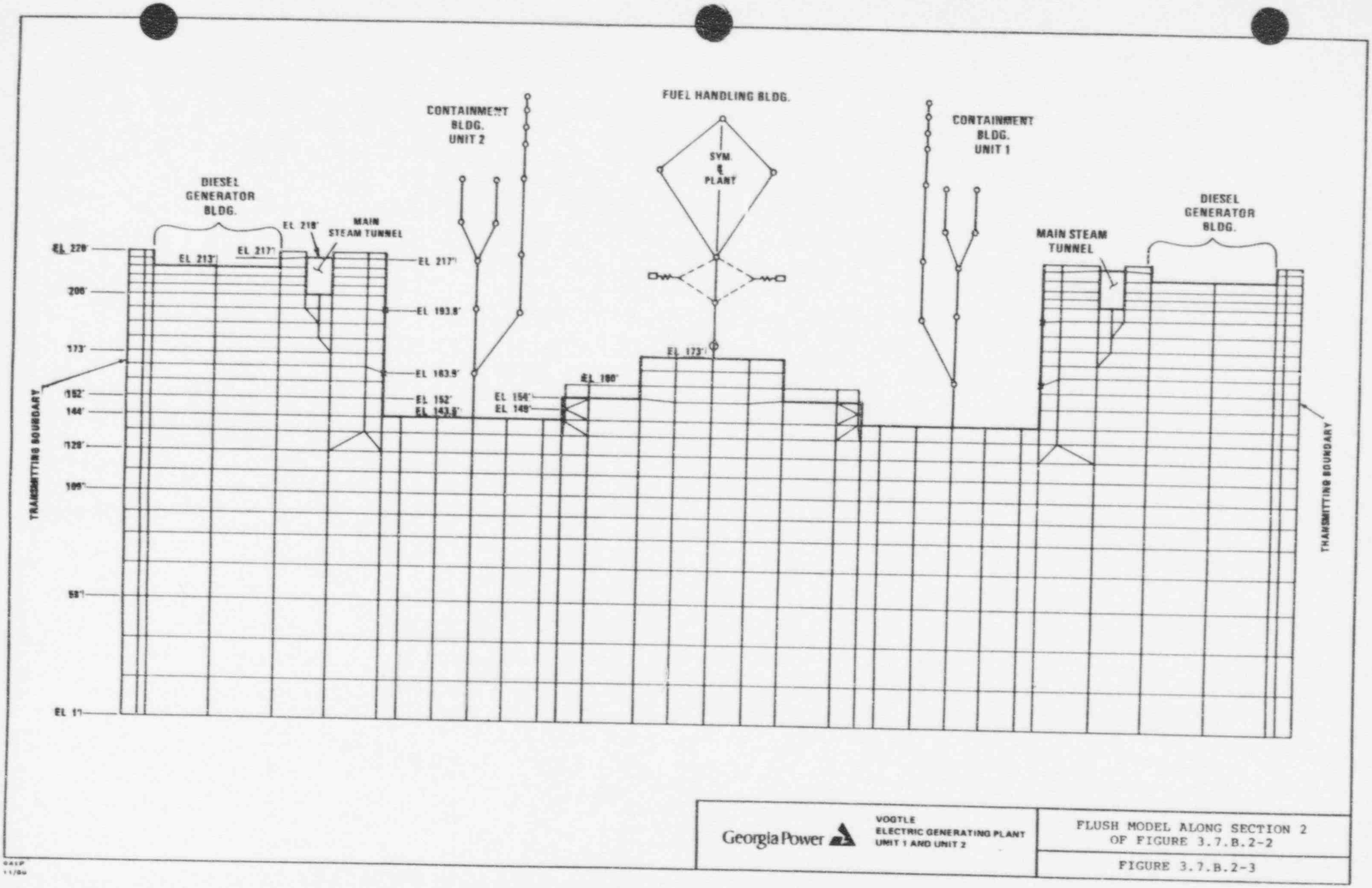
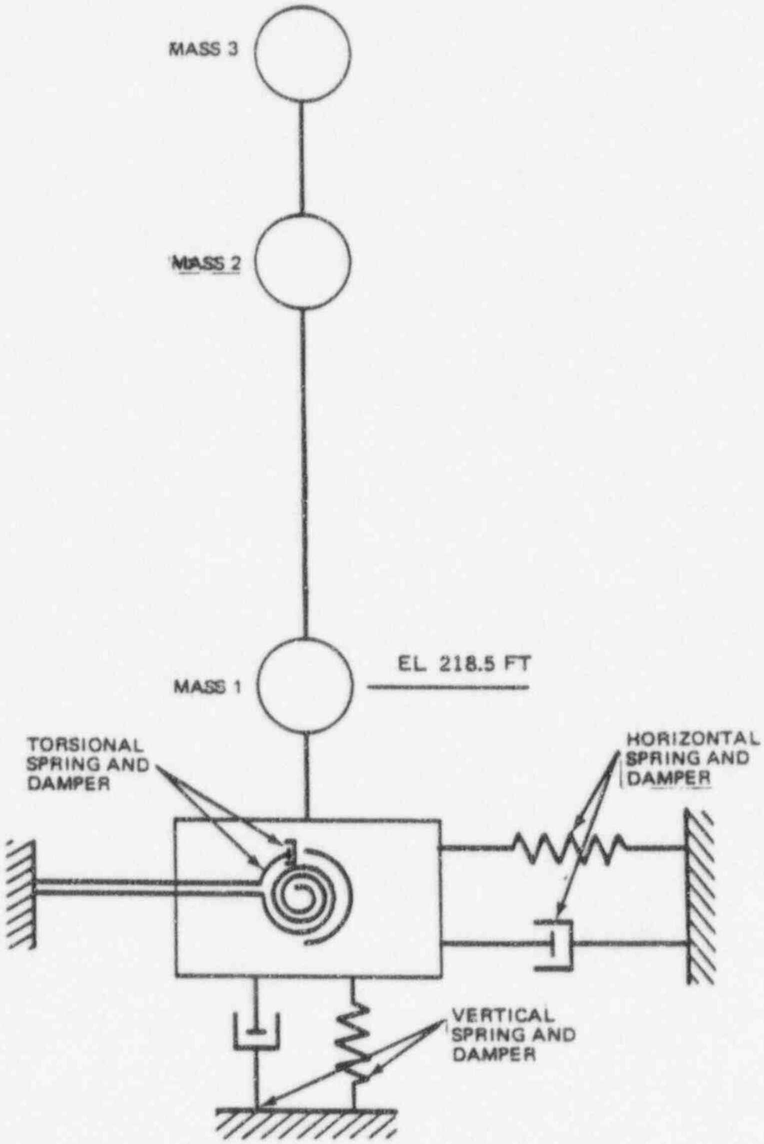


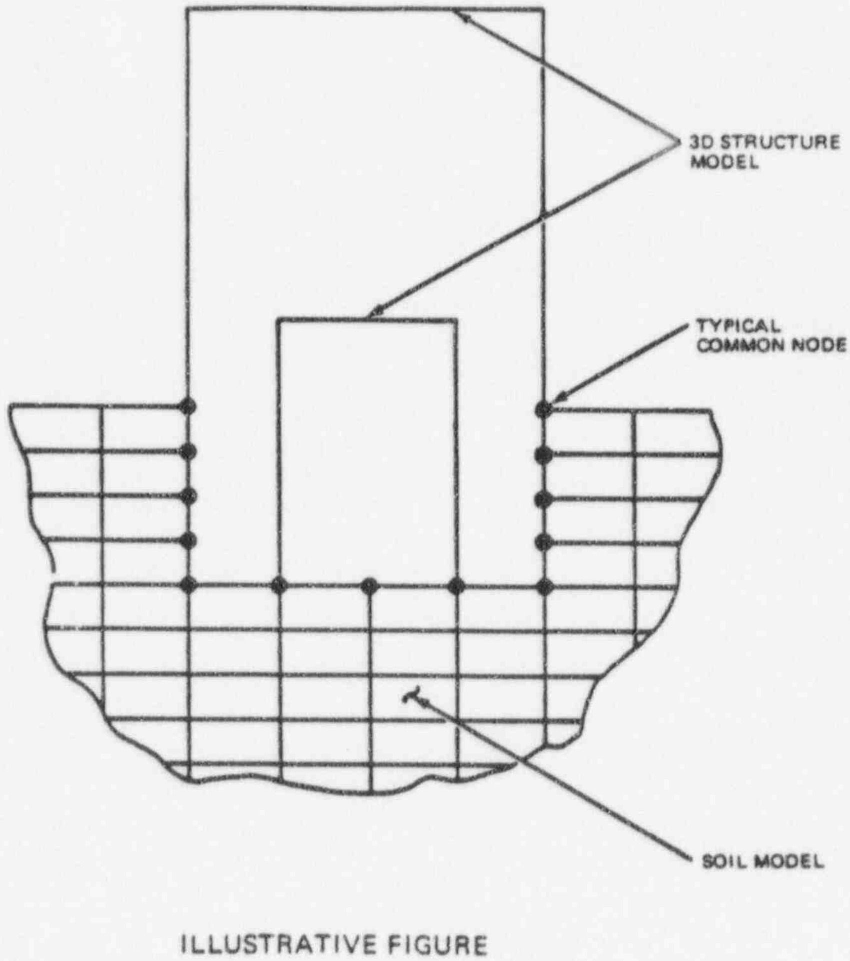
Figure 3.1-14 Flush Model Along Section Two



THE MODEL SHOWN IS TWO DIMENSIONAL FOR CLARITY. THE ACTUAL MODEL USED IS THREE DIMENSIONAL, WITH 6 (3 TRANSLATIONAL AND 3 ROTATIONAL) DEGREES OF FREEDOM PER NODE.

Georgia Power	VOGTLE ELECTRIC GENERATING PLANT UNIT 1 AND UNIT 2	LUMPED PARAMETER MODEL OF DIESEL GENERATOR BUILDING FIGURE 3.7.B.2-1

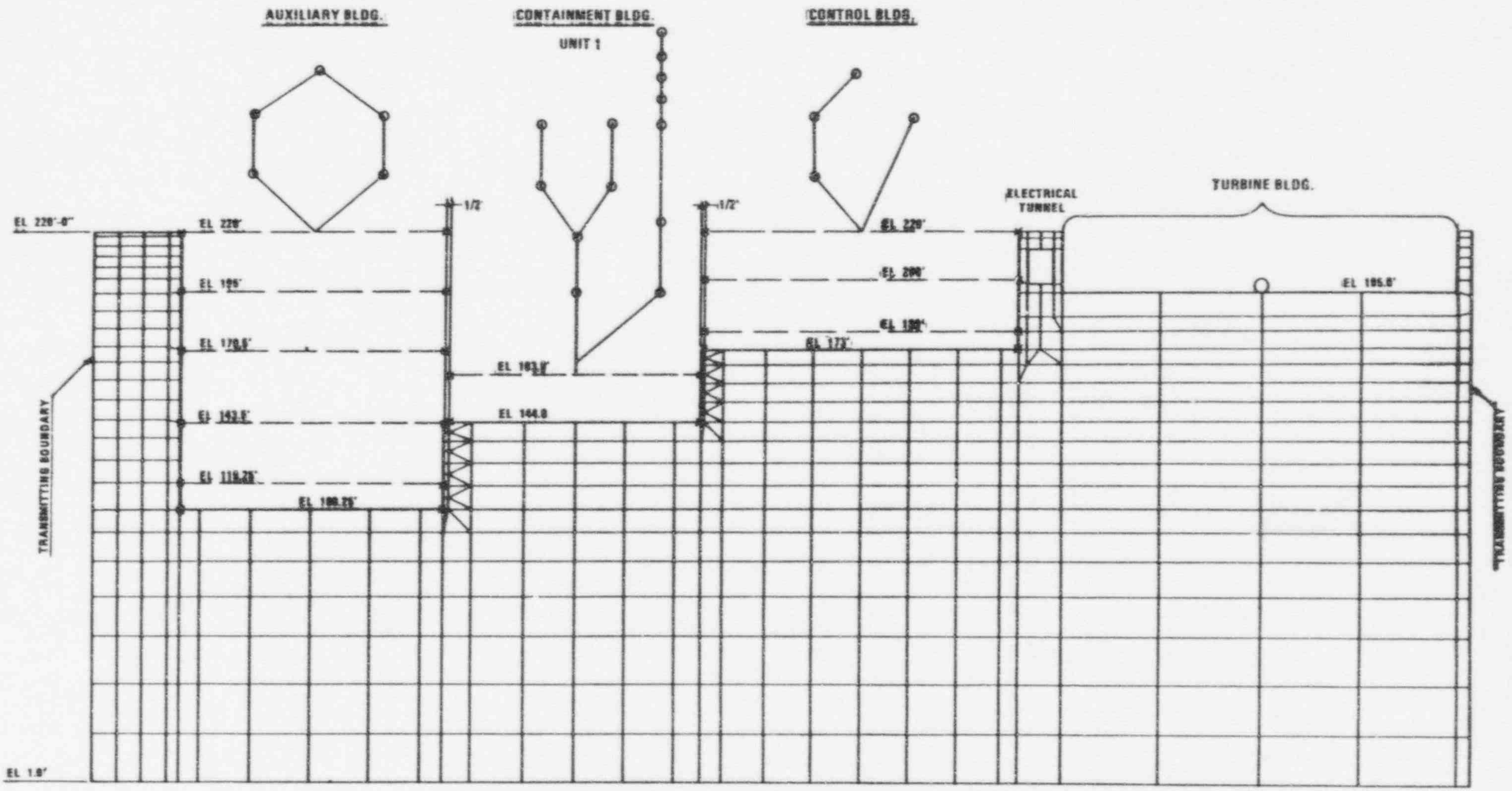
Figure 3.1-15 Lumped Parameter Model of Diesel Generator Building



Georgia Power	VOGTLE ELECTRIC GENERATING PLANT UNIT 1 AND UNIT 2	SOIL-STRUCTURE INTERACTION MODEL COMMON NODES FIGURE 3.7.B.2-28

039
11/84

Figure 3.1-16 Soil-Structure Interaction Model Common Nodes



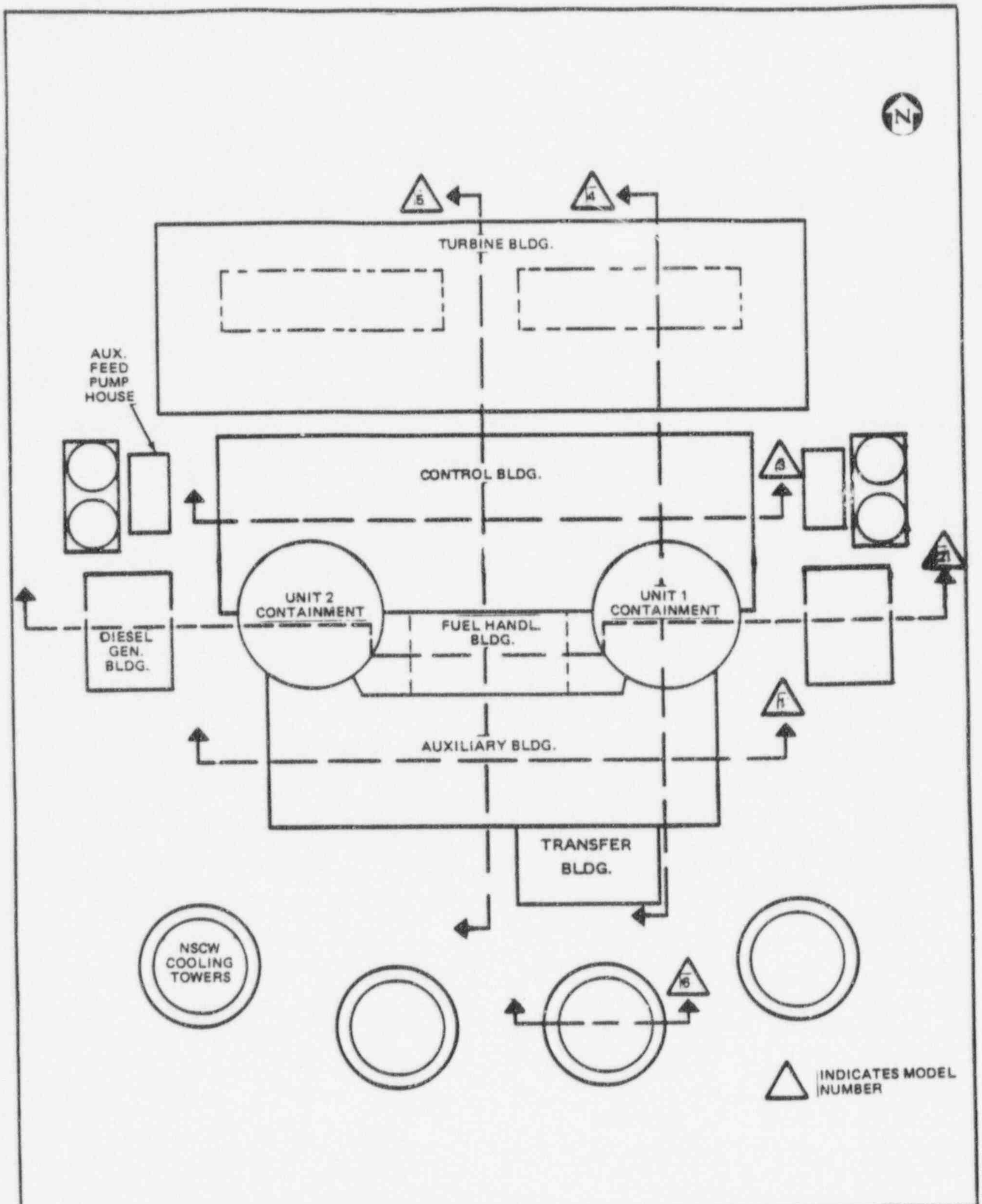
Georgia Power

VOGTLE
ELECTRIC GENERATING PLANT
UNIT 1 AND UNIT 2

FLUSH MODEL ALONG SECTION 4
OF FIGURE 3.7.B.2-2

FIGURE 3.7.B.2-4

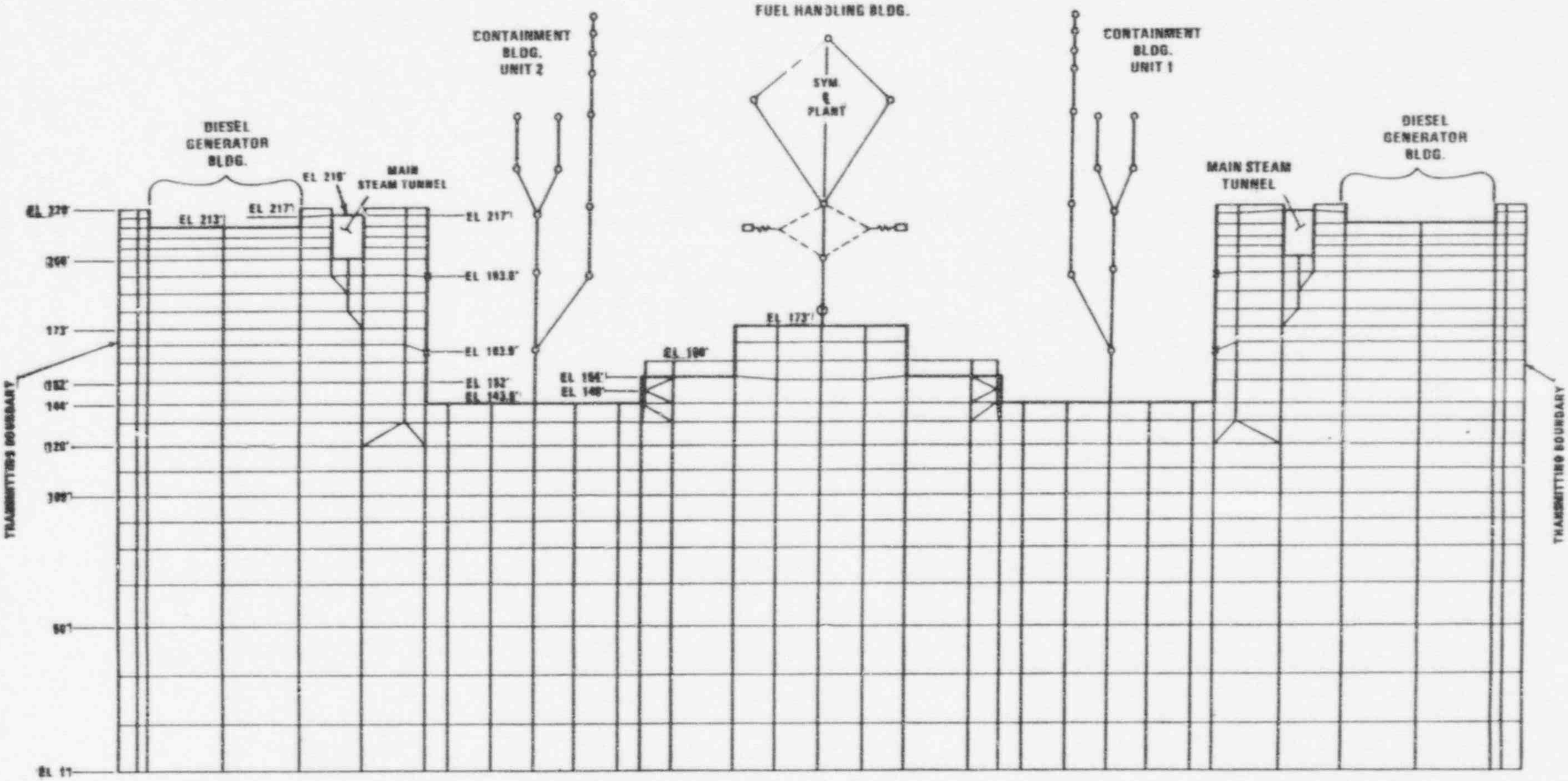
Figure 3.1-17 FLUSH Model Along Section Four



Georgia Power VOGTLE ELECTRIC GENERATING PLANT UNIT 1 AND UNIT 2	POWER BLOCK PLAN VIEW SHOWING SECTIONS FOR FINITE ELEMENT SOIL-STRUCTURE INTERACTION FLUSH MODELS
	FIGURE 3.7.B.2-2

040
11780

Figure 3.1-18 Power Block Plan View Showing Sections for Finite Element Soil-Structure Interaction FLUSH Models



Georgia Power	VOGTLE ELECTRIC GENERATING PLANT UNIT 1 AND UNIT 2	FLUSH MODEL ALONG SECTION 2 OF FIGURE 3.7.B.2-2
		FIGURE 3.7.B.2-3

Figure 3.1-19 FLUSH Model Along Section Two

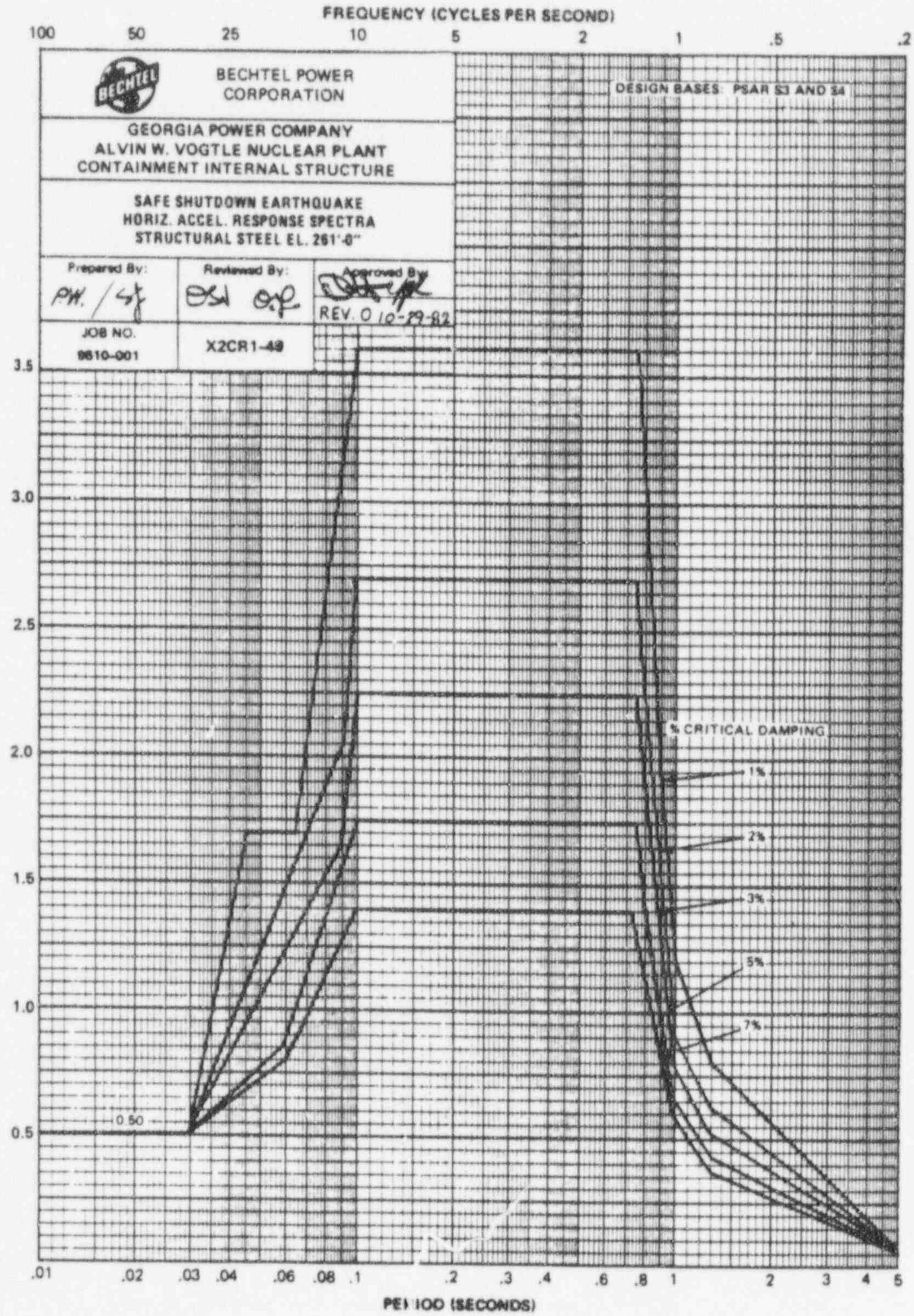


Figure 3.1-20 Safe Shutdown Earthquake Horizontal Acceleration Response Spectra, Elevation 261 ft 0 in.

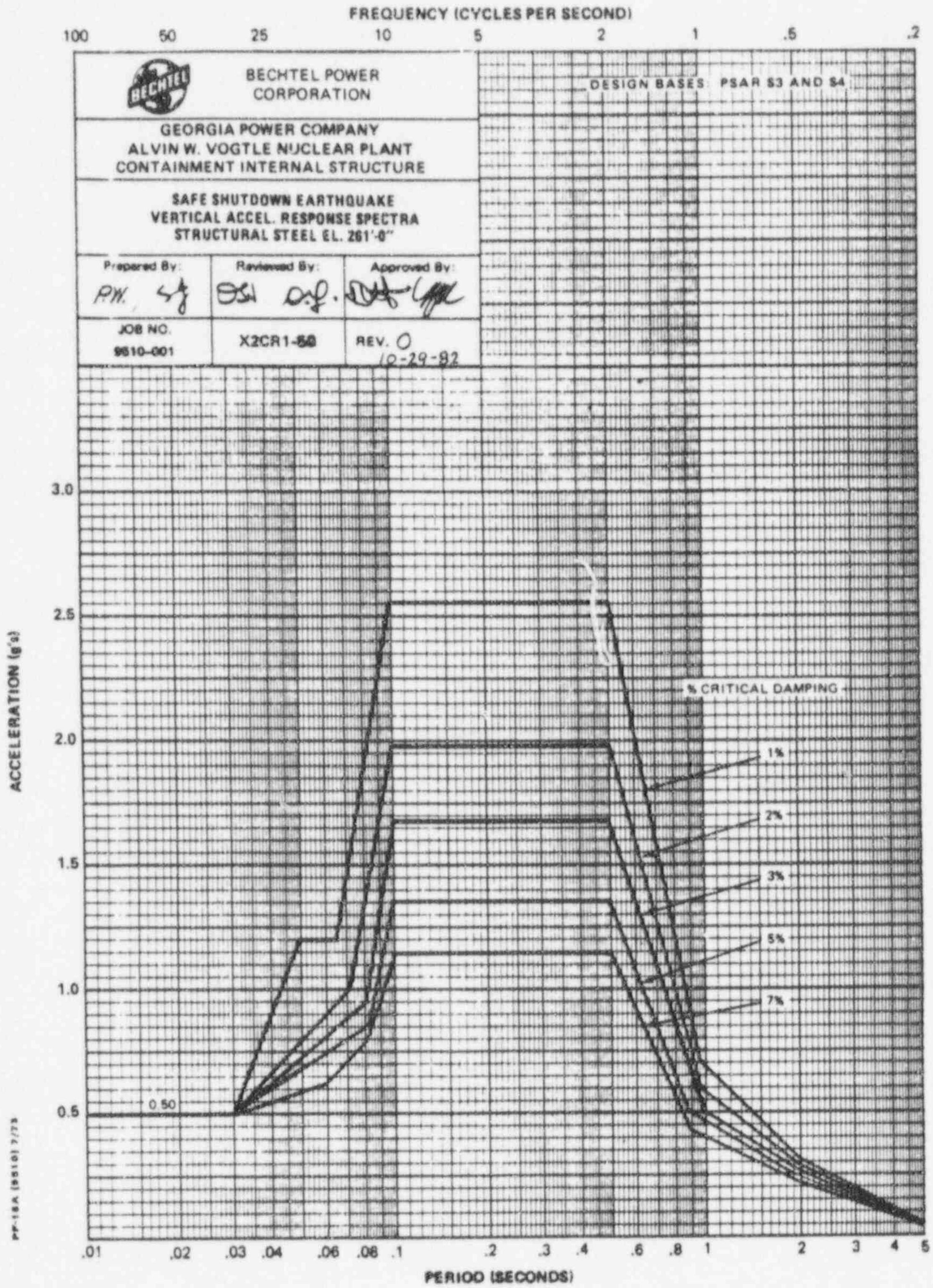
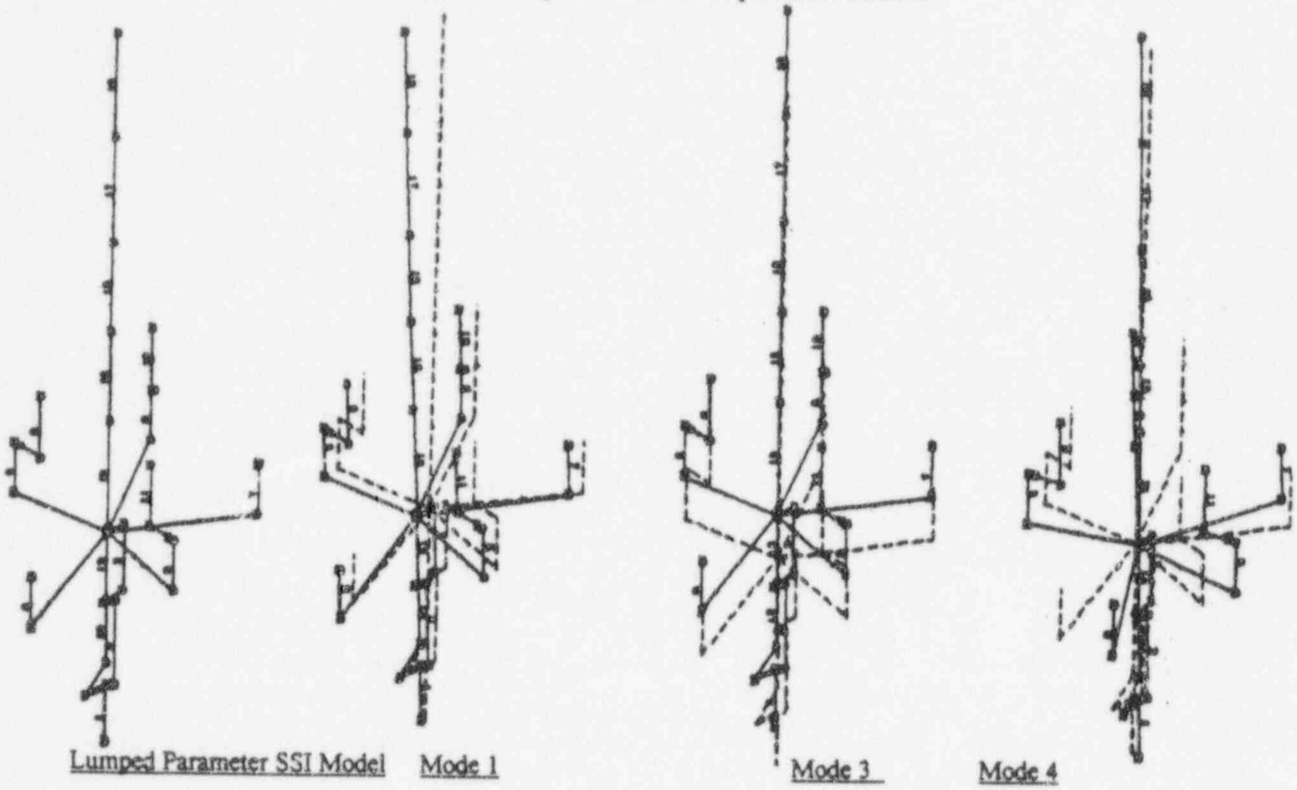


Figure 3.1-21 Safe Shutdown Earthquake Vertical Acceleration Response Spectra, Structural Steel, Elevation 261 ft 0 in.

Containment Lumped Mass Comparison Model



Mode Number	Frequency (Hz.)	Mode Description
1	1.66	Soil - Rocking about E-W axis
2	1.67	Soil - Rocking about N-S axis
3	3.25	Soil - Translation Vertical
4	3.39	Soil - Rotation
5	4.18	Soil - Translation East-West
6	4.21	Soil - Translation North-South
7	8.59	Internal Structure North-South
8	9.17	Internal Structure East-West
9	11.50	Local Structure
10	12.89	Shell Structure North-South
11	12.99	Shell Structure East- West
12	14.82	Local Structure

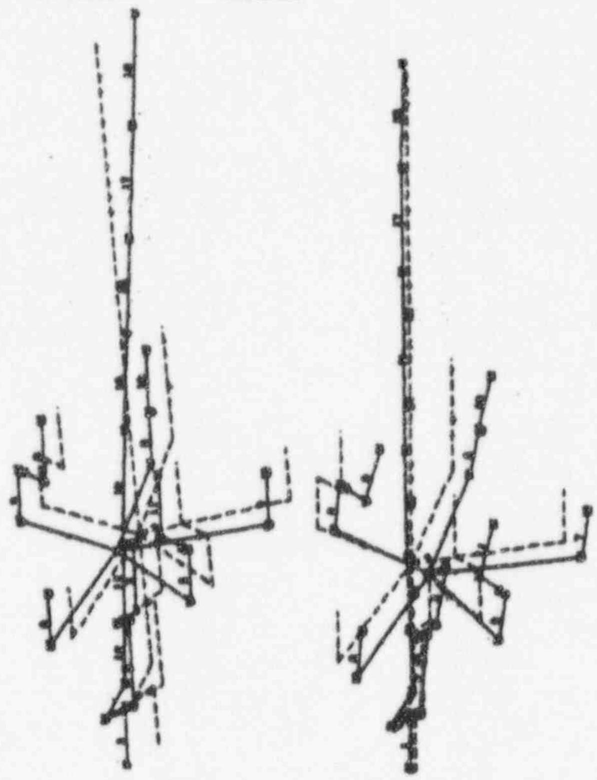


Figure 3.1-22 Containment Lumped-Mass Comparison Model

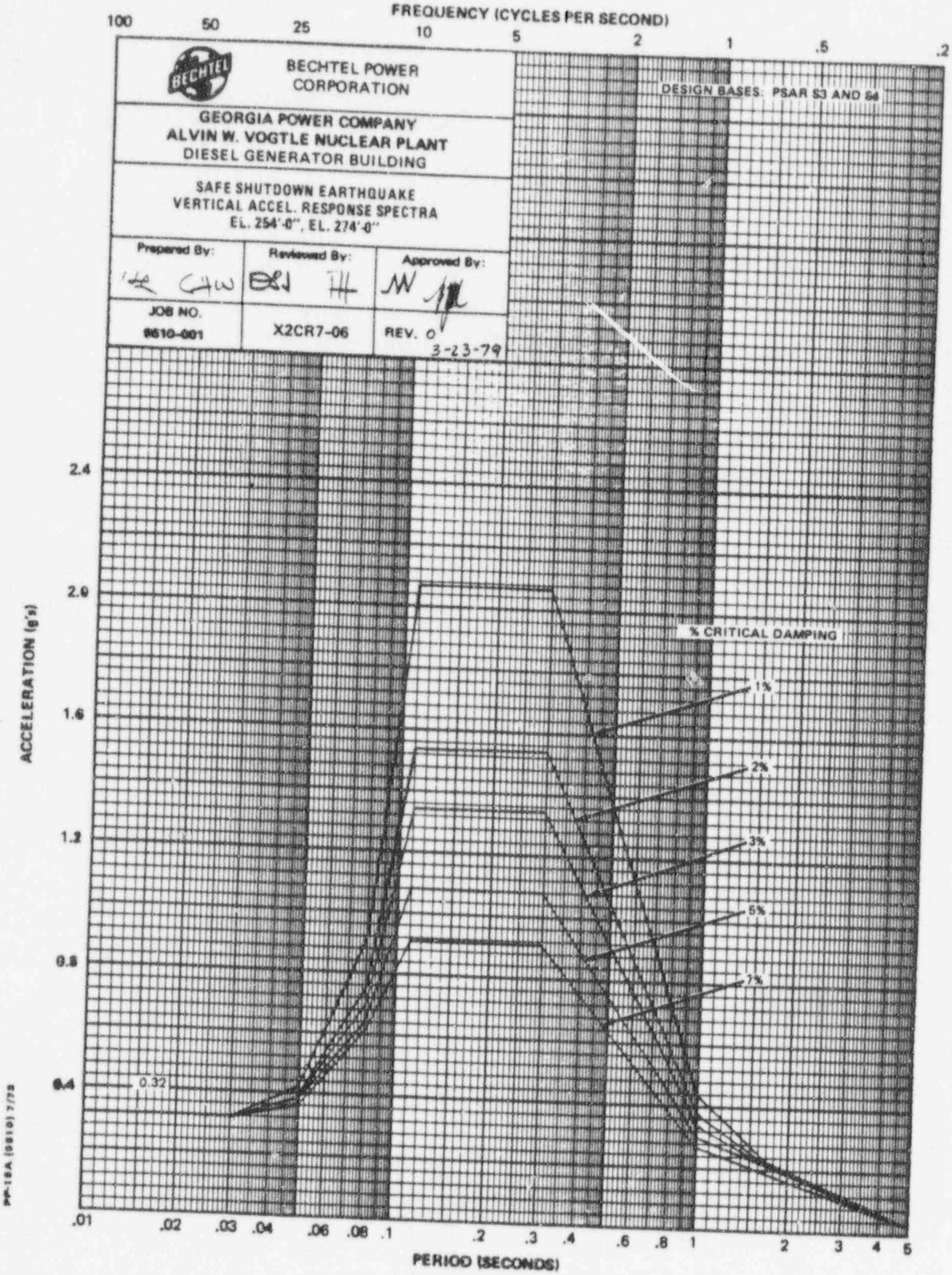


Figure 3.1-23 Safe Shutdown Earthquake Vertical Acceleration Response Spectra, Elevation 254 ft 0 in., Elevation 274 ft 0 in.

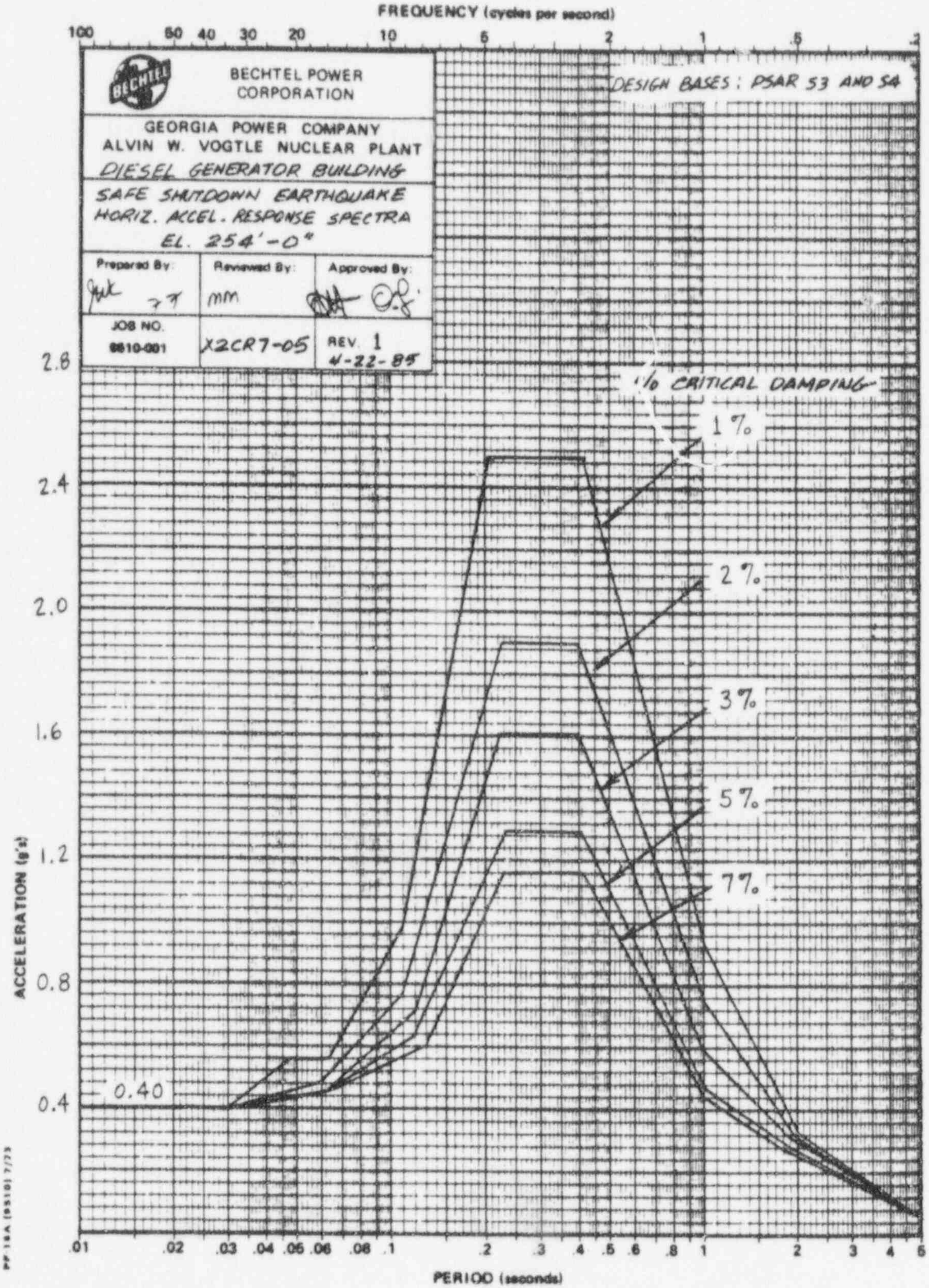
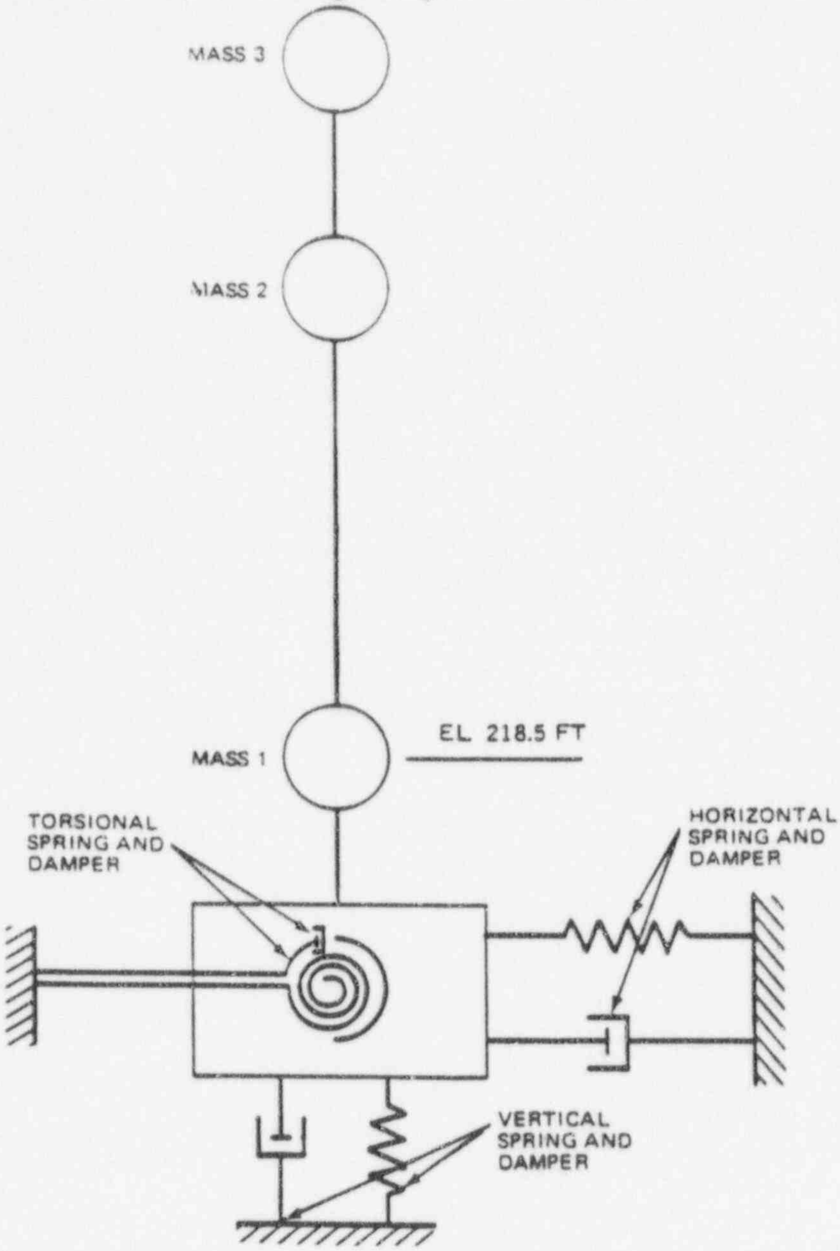


Figure 3.1-24 Safe Shutdown Earthquake Horizontal Acceleration Response Spectra, Structural Steel, Elevation 254 ft 0 in.

Diesel Generator Building Lumped Mass Model



Mode Number	Frequency (Hz.)	Mode Description
1	3.24	Soil - Rocking East-West
2	3.52	Soil - Rocking North-South
3	4.65	Soil - Translation Vertical
4	5.75	Torsion
5	6.86	Translation East-West
6	6.95	Translation North-South
7	14.15	Structure East-West

Figure 3.1-25 Diesel Generator Building Lumped-Mass Model

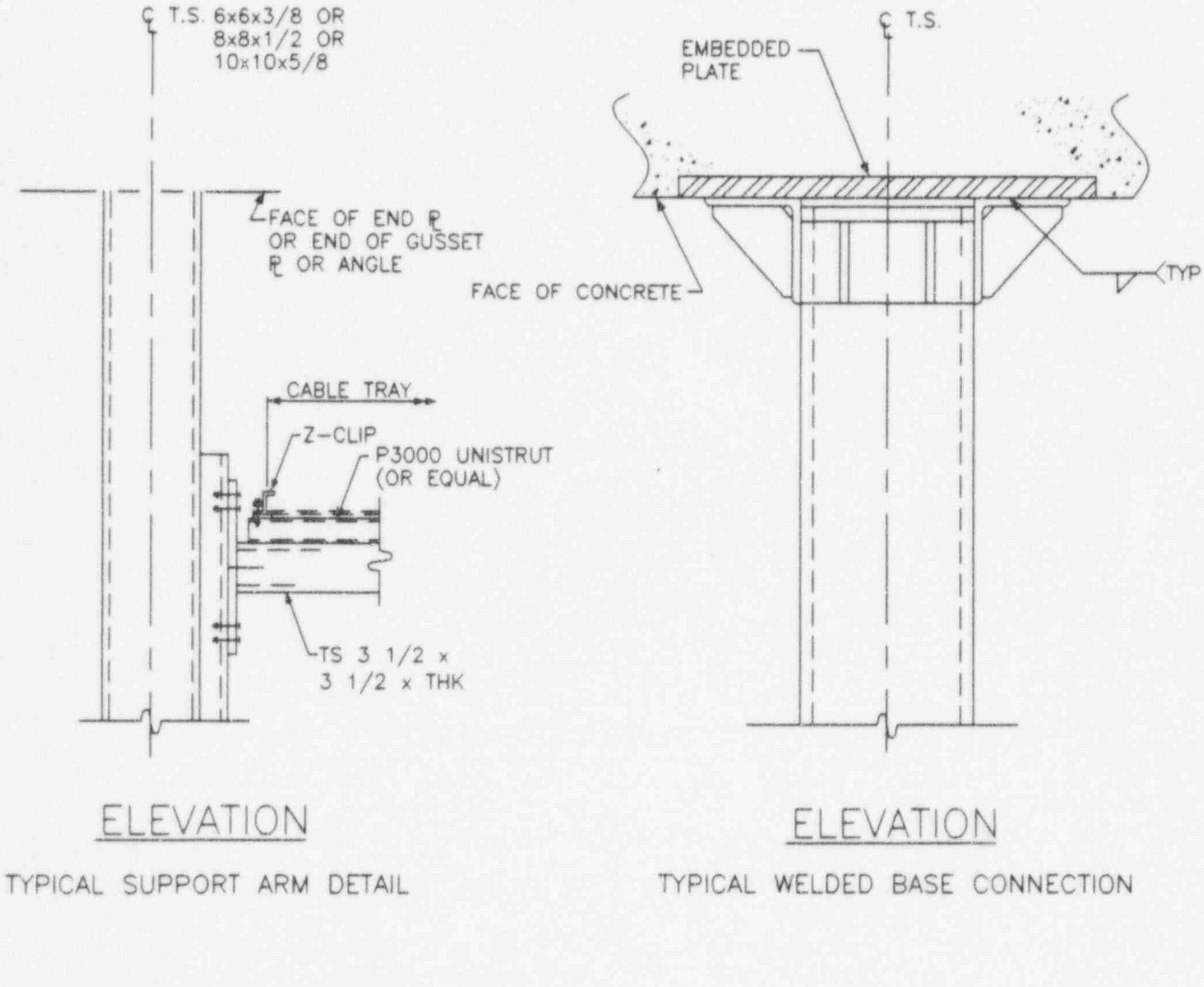


Figure 3.1-26 Typical Details for Cable Tray Supports

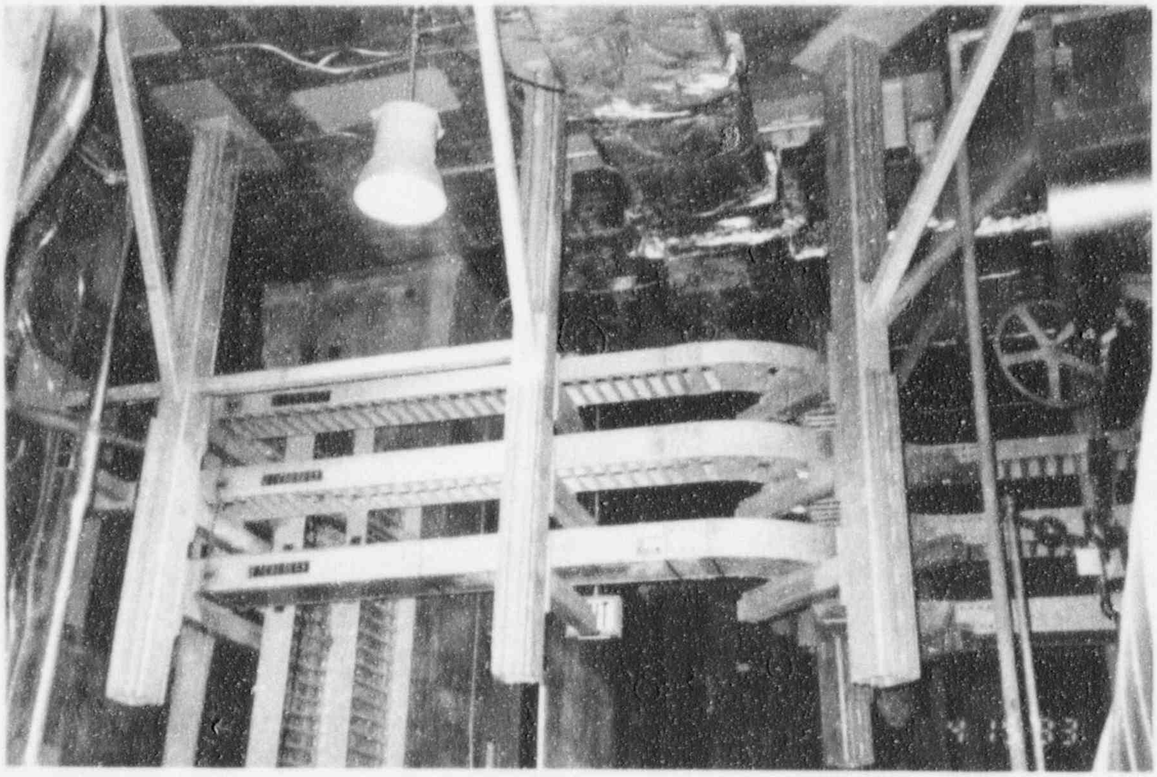


Figure 3.1-27 Typical Raceway Supports

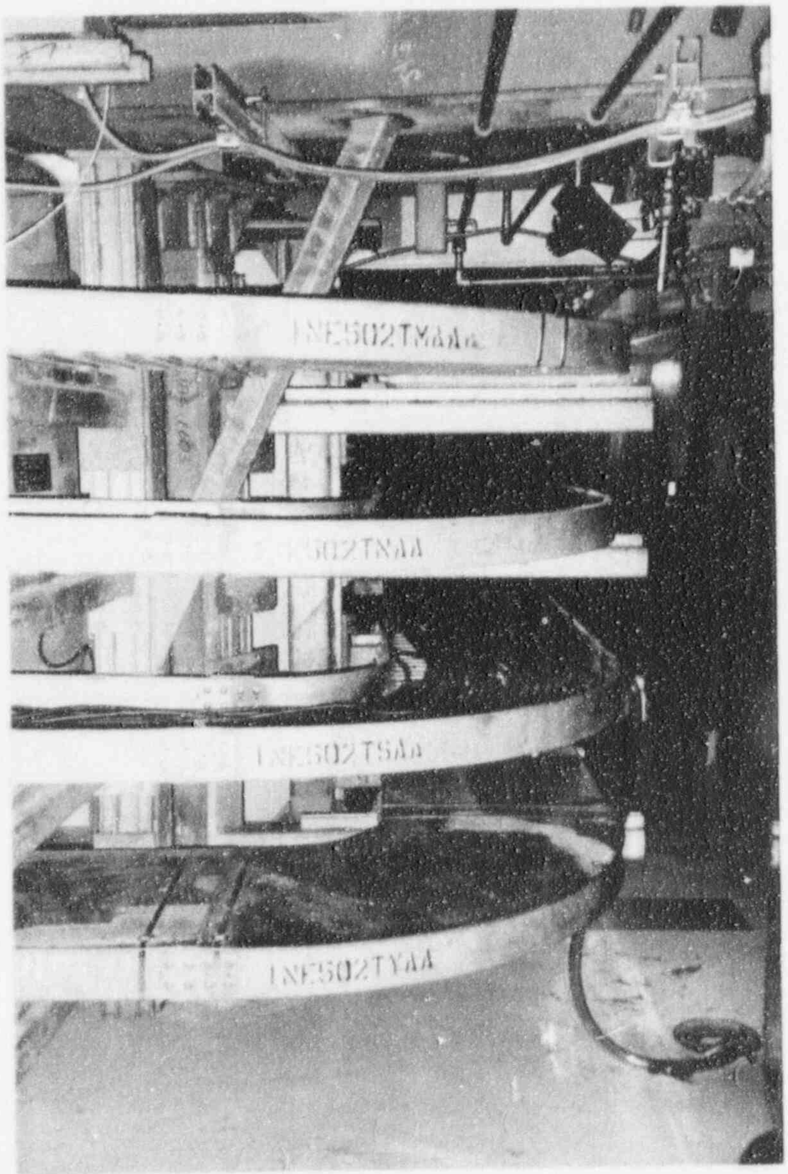


Figure 3.1-28 Typical Raceway Supports

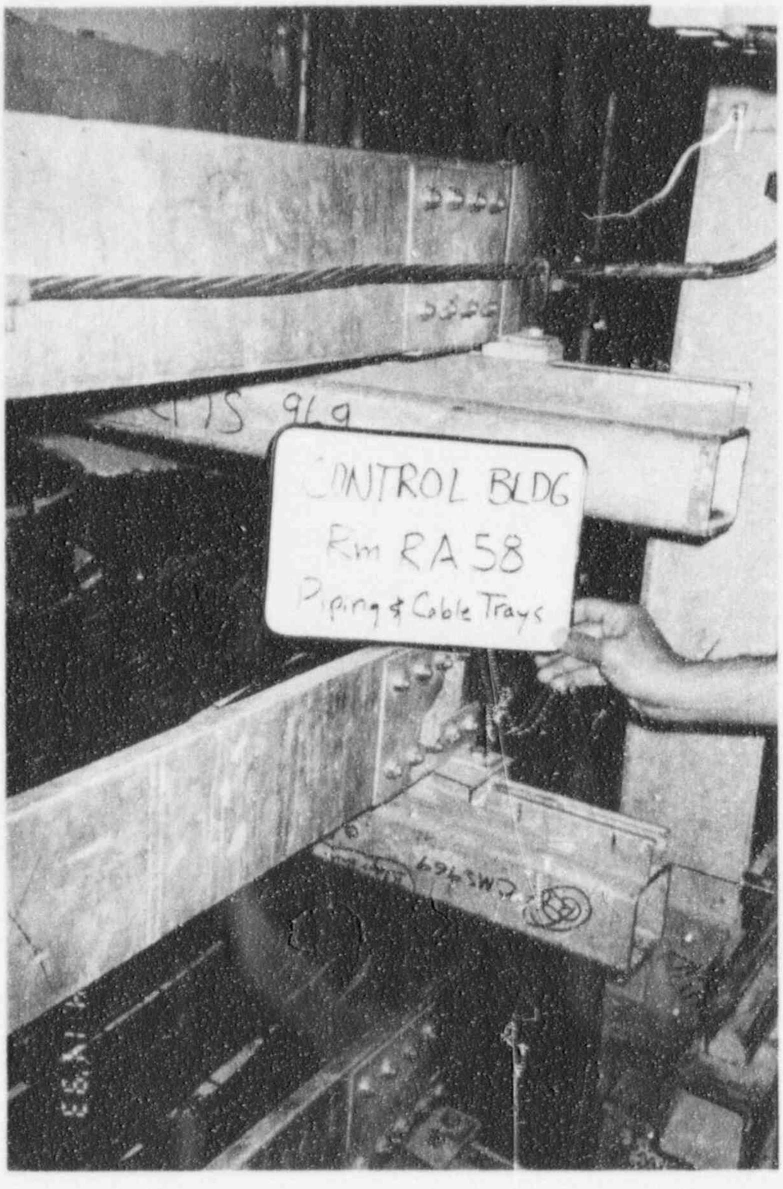


Figure 3.1-29 Typical Raceway Supports

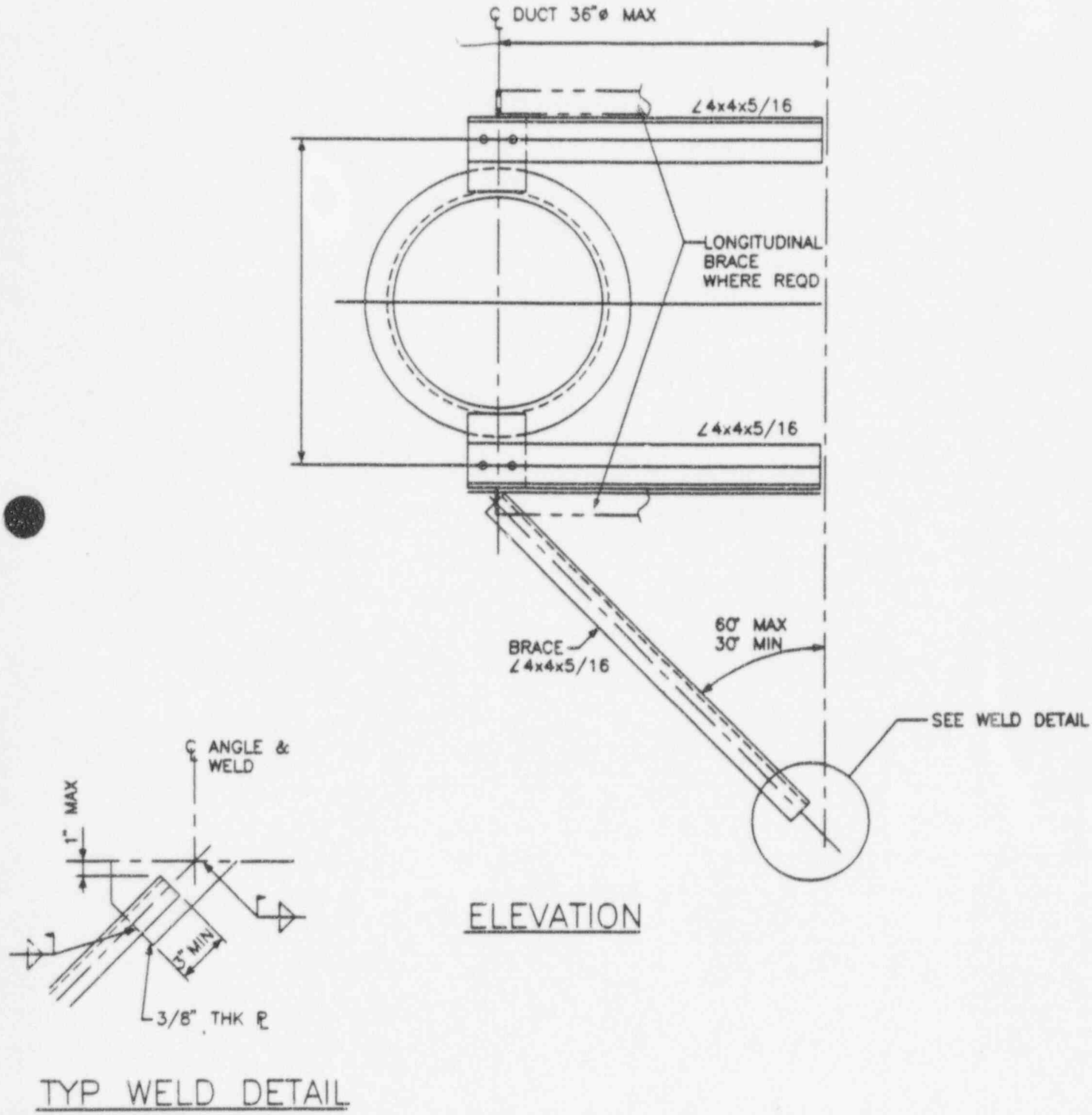


Figure 3.1-30 Typical Round Ducting Support

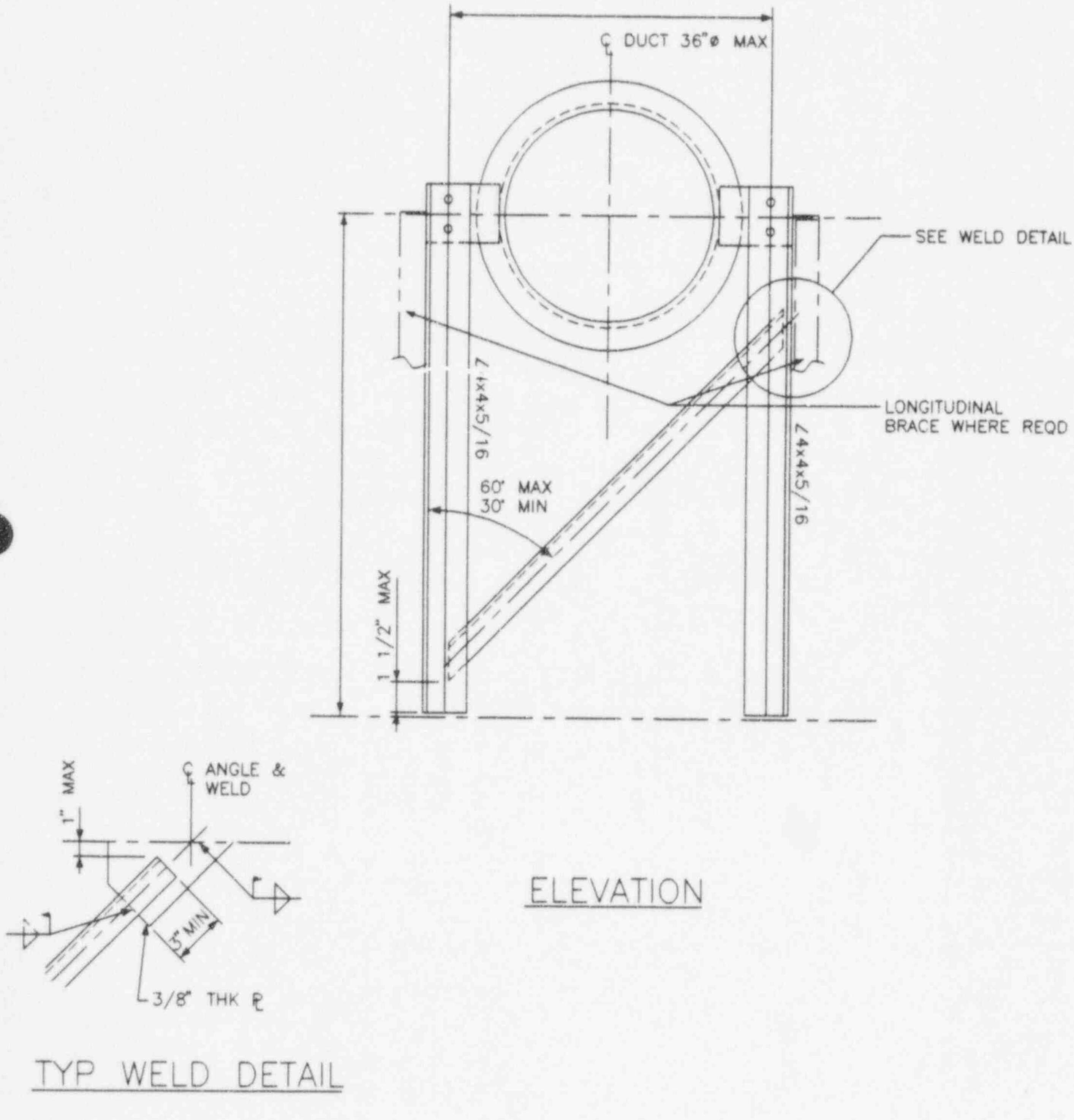


Figure 3.1-31 Typical Round Ducting Support

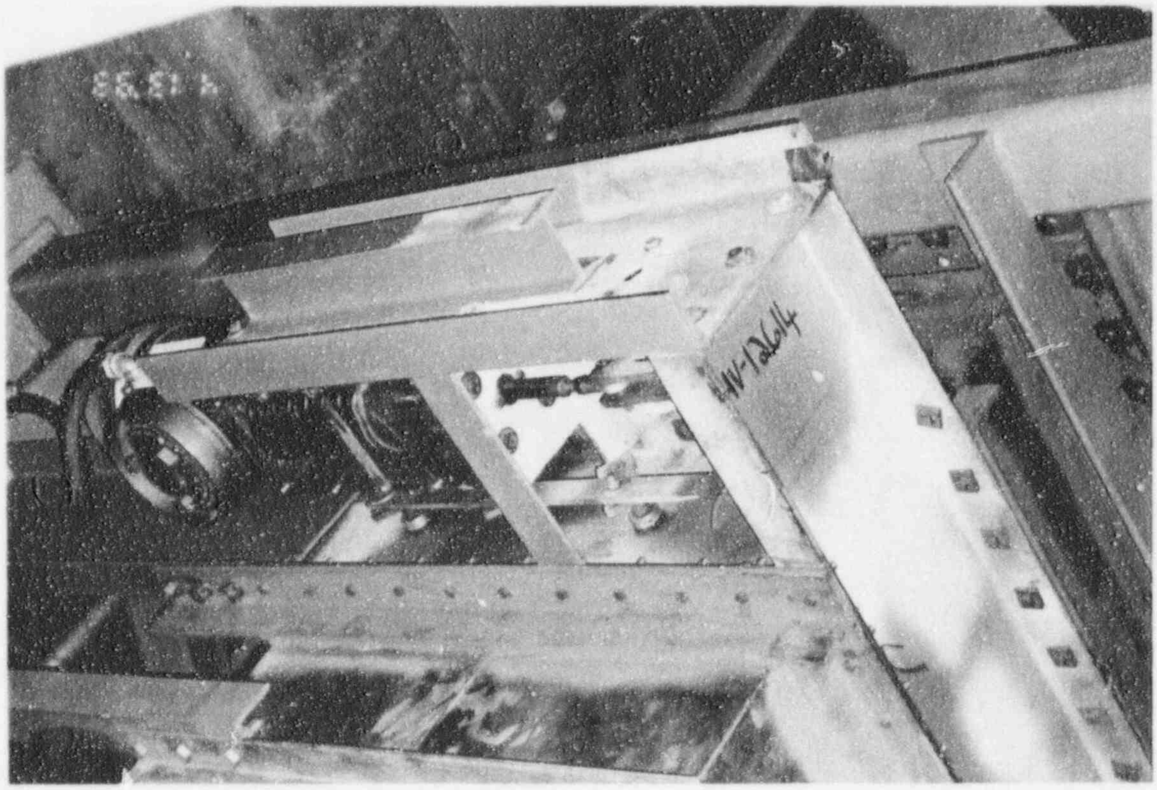
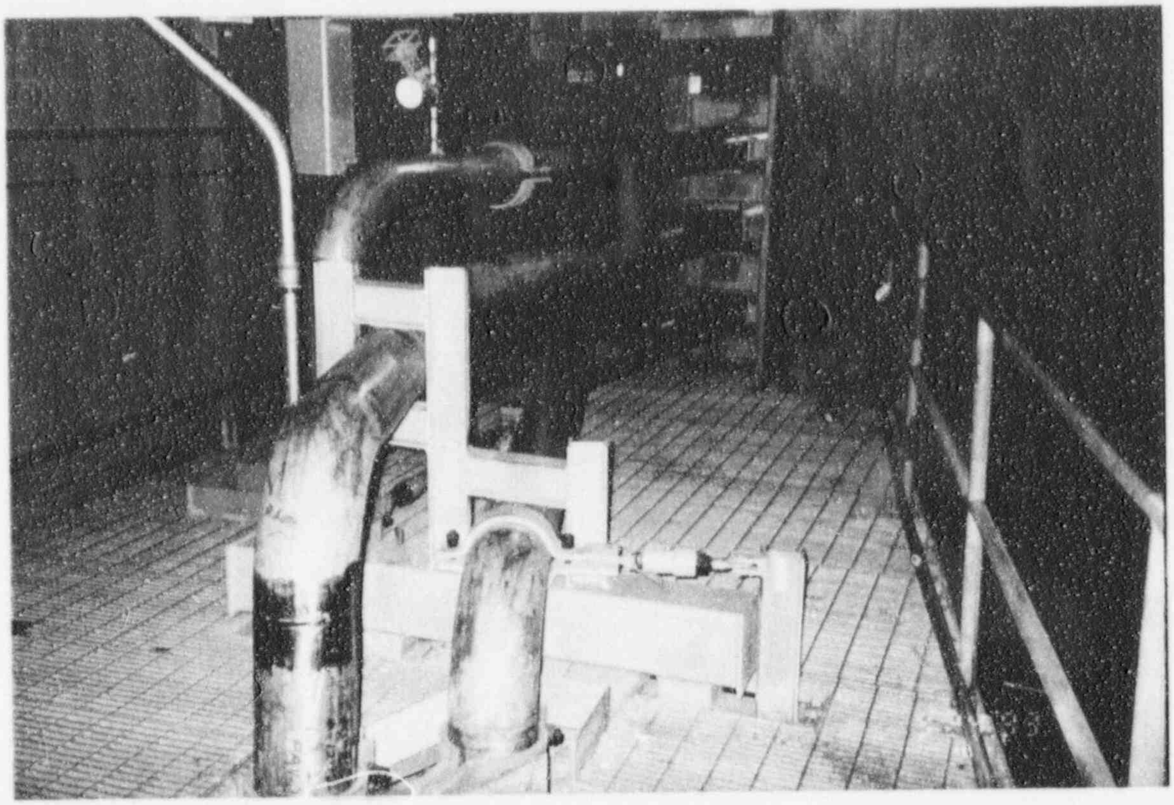
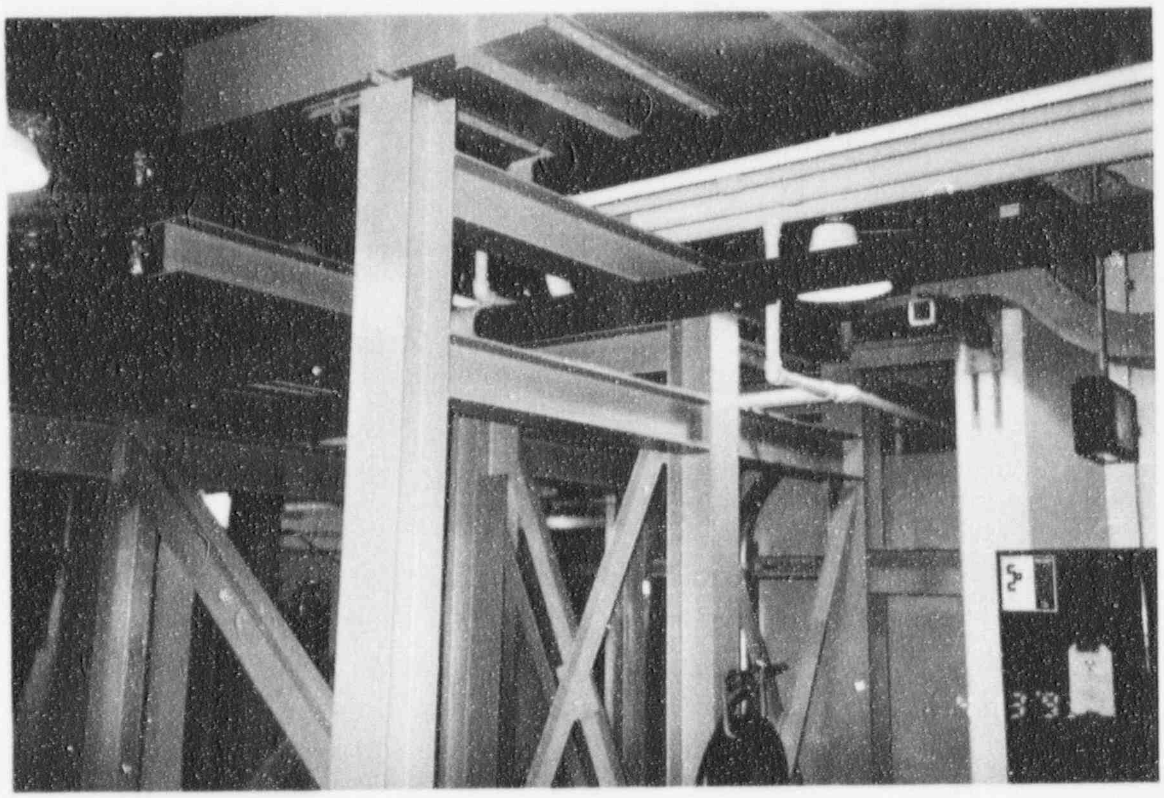


Figure 3.1-32 Typical HVAC Damper and Ducting Support





Figures 3.1-33 and 3.1-34 Typical Pipe Supports

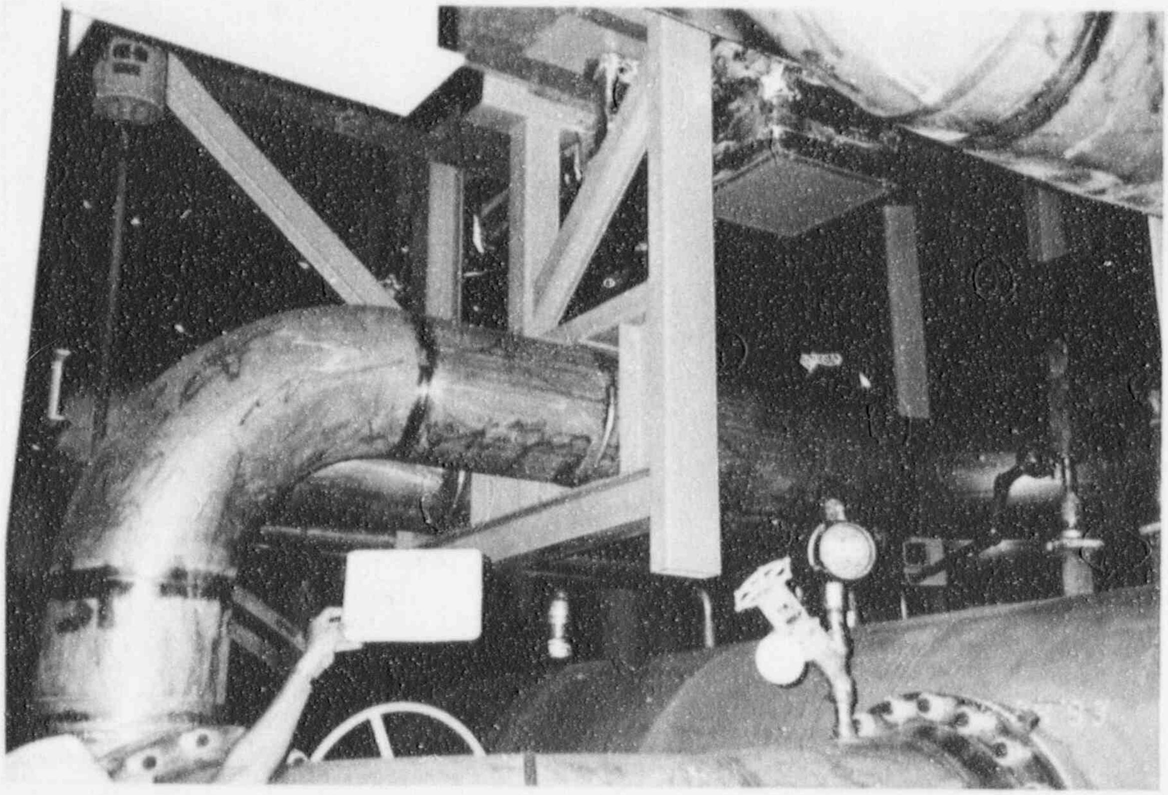
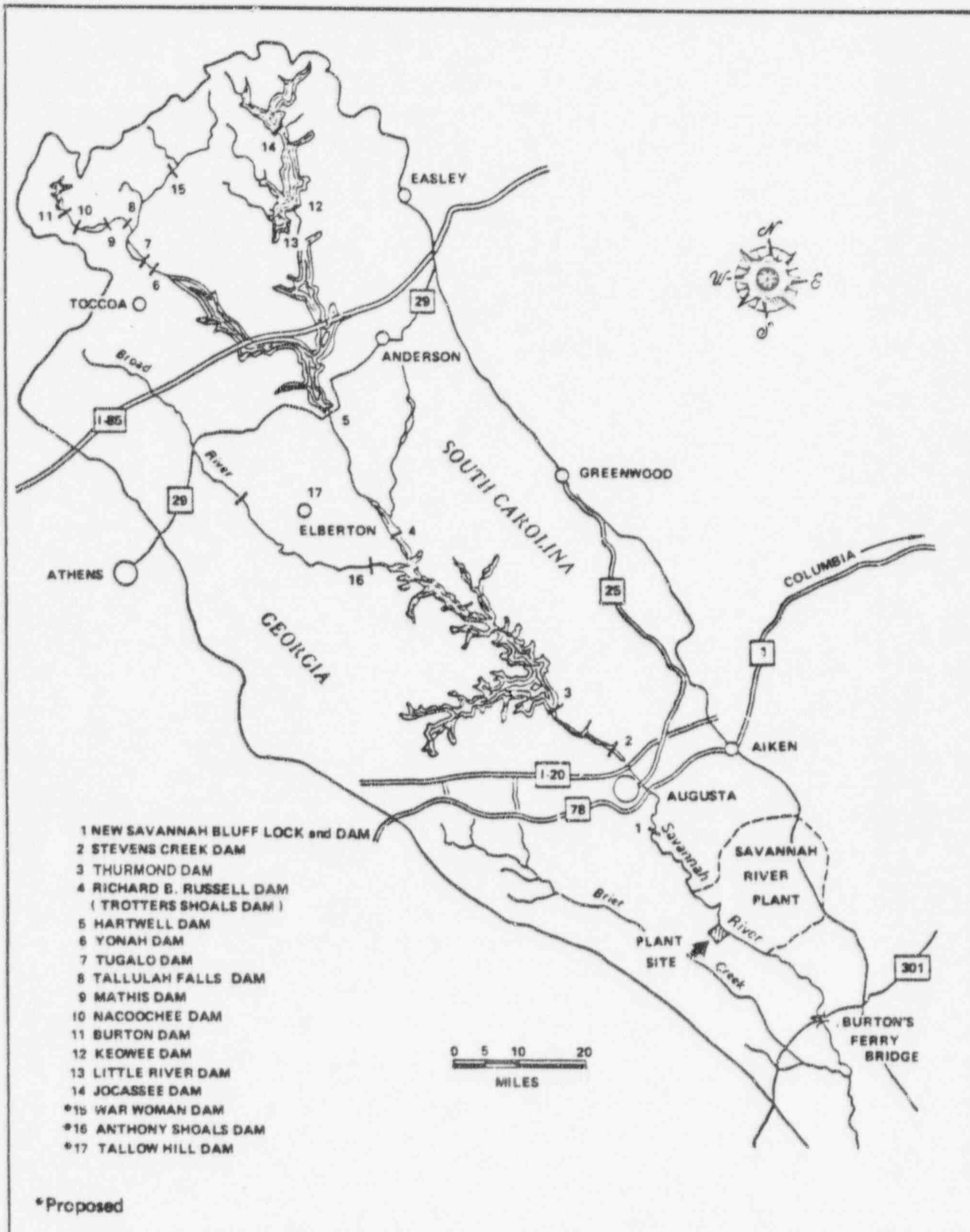


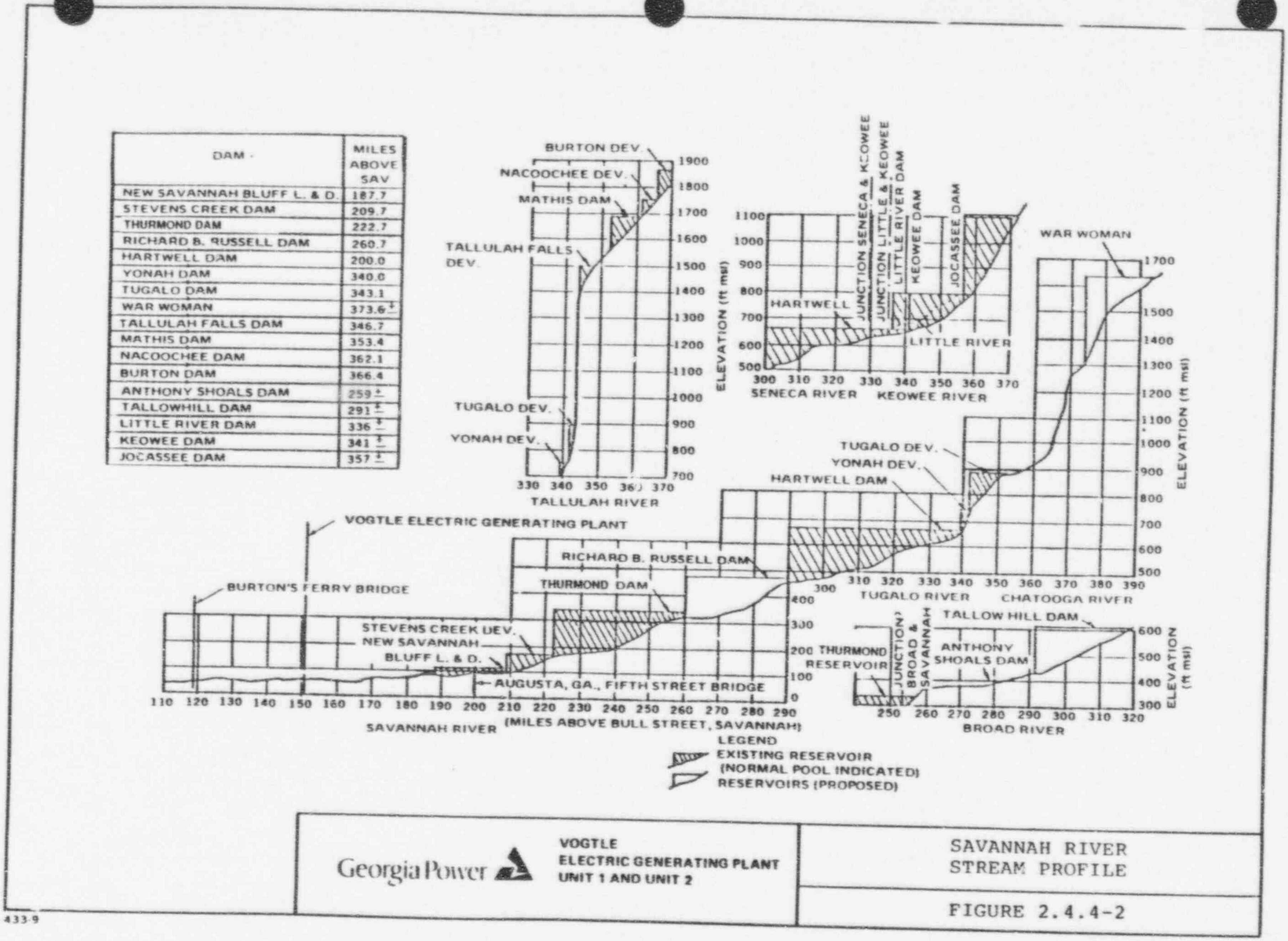
Figure 3.1-35 Typical Pipe Supports



Georgia Power	VOGTLE ELECTRIC GENERATING PLANT UNIT 1 AND UNIT 2	LOCATION OF DAMS ON THE SAVANNAH RIVER FIGURE 2.4.4-1

433-9

Figure 3.1-36 Location of Dams on the Savannah River



DAM	MILES ABOVE SAV
NEW SAVANNAH BLUFF L. & D.	187.7
STEVENS CREEK DAM	209.7
THURMOND DAM	222.7
RICHARD B. RUSSELL DAM	260.7
HARTWELL DAM	200.0
YONAH DAM	340.0
TUGALO DAM	343.1
WAR WOMAN	373.6±
TALLULAH FALLS DAM	346.7
MATHIS DAM	353.4
NACOOCHEE DAM	362.1
BURTON DAM	366.4
ANTHONY SHOALS DAM	259±
TALLOWHILL DAM	291±
LITTLE RIVER DAM	336±
KEOWEE DAM	341±
JOCASSEE DAM	357±

433-9

Figure 3.1-37 Savannah River Stream Profile

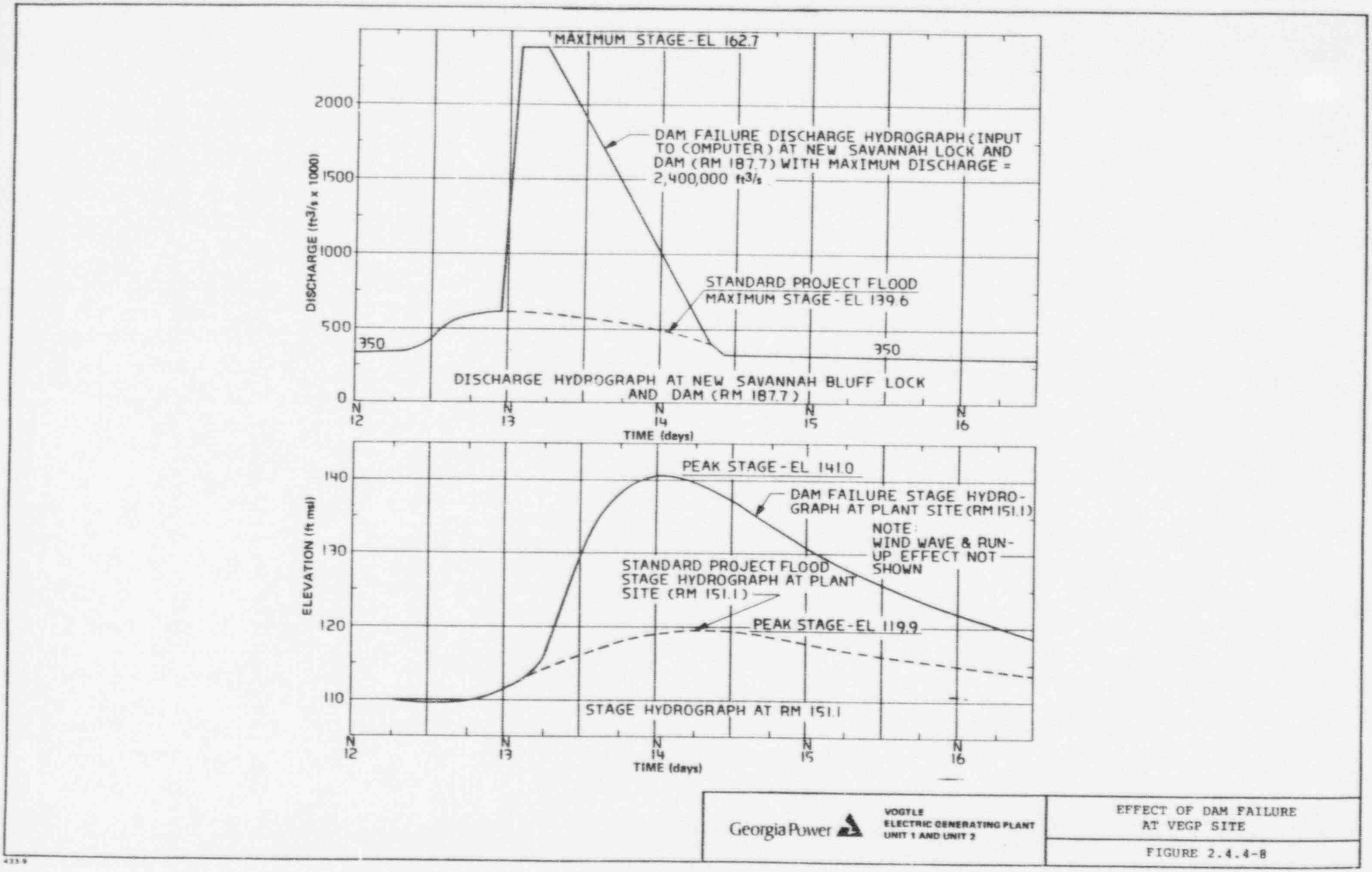


Figure 3.1-38 Effect of Dam Failure at VEGP Site

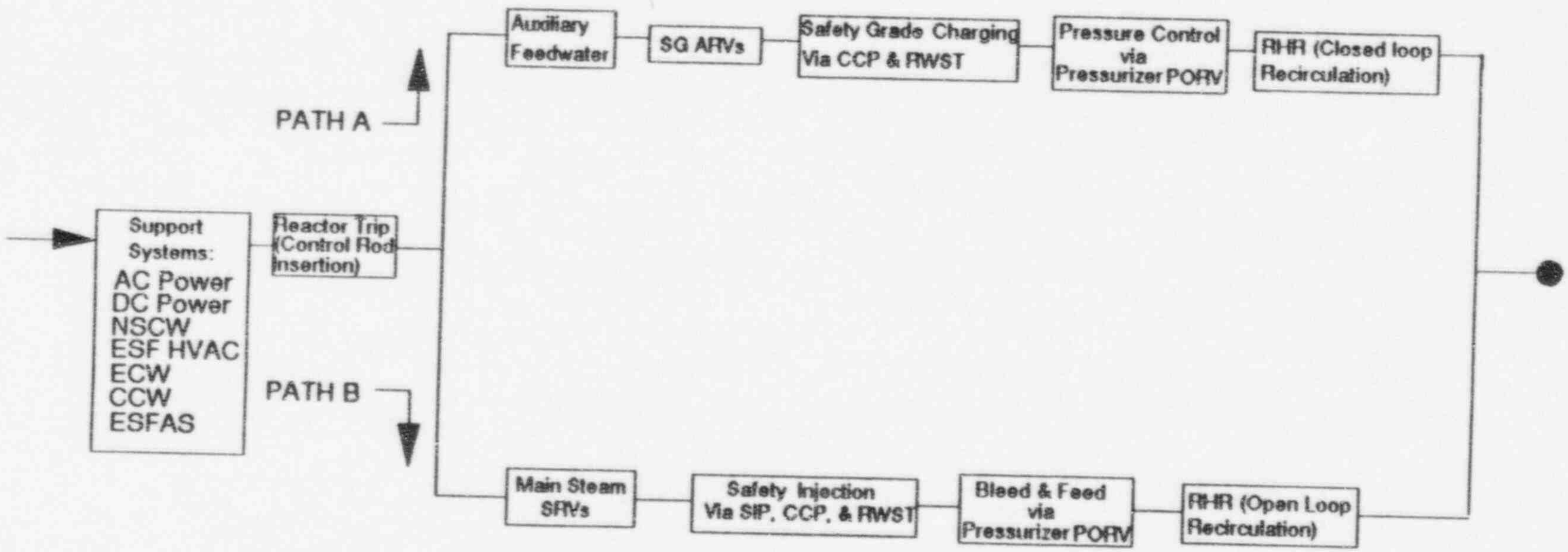


Figure 3.1-39 Success Path Logic Diagram

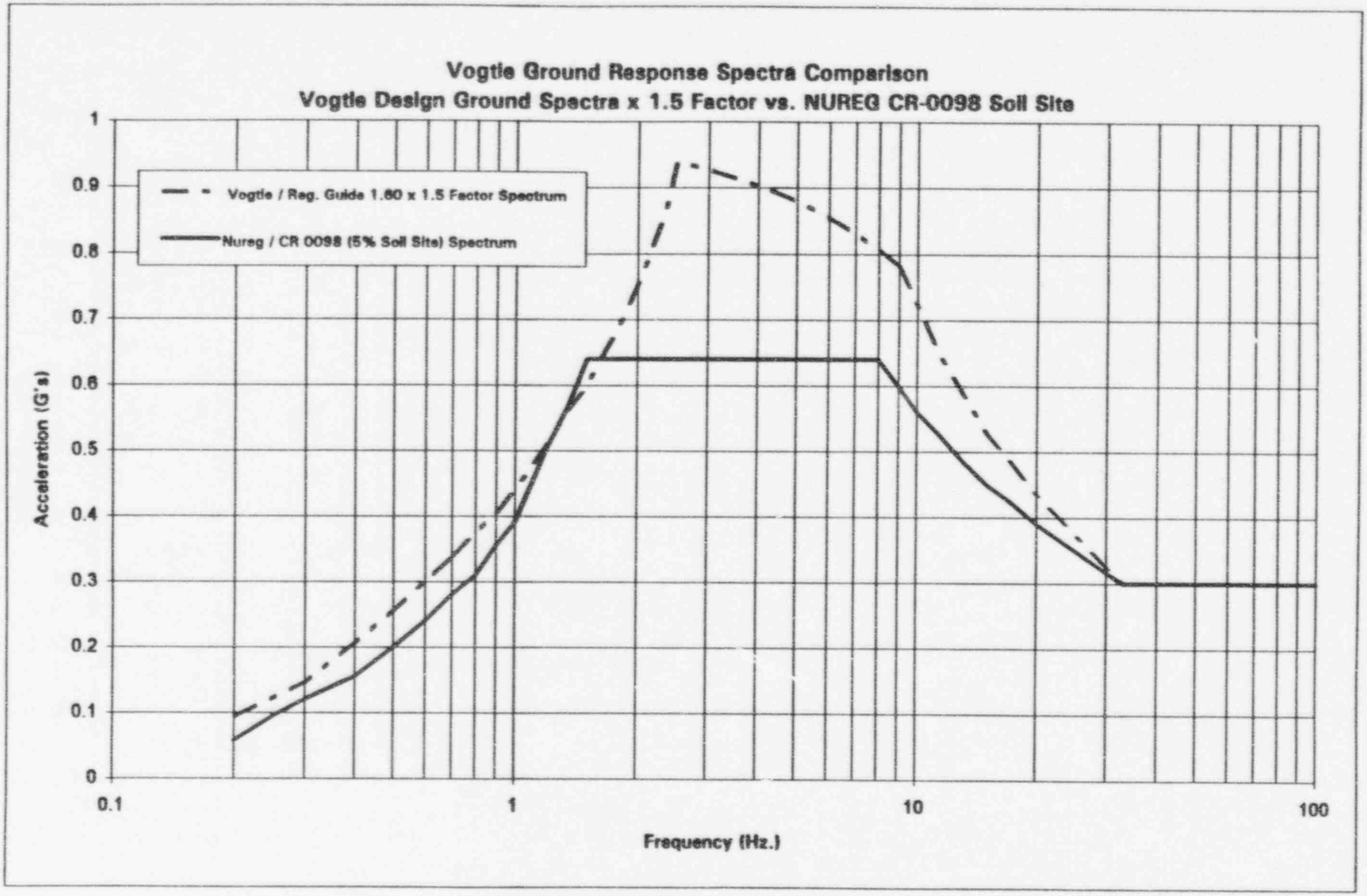


Figure 3.1-40 Vogtle Ground Response Spectra Comparison, Vogtle Design Ground Spectra x 1.5 Factor vs. NUREG CR-0098 Soil Site

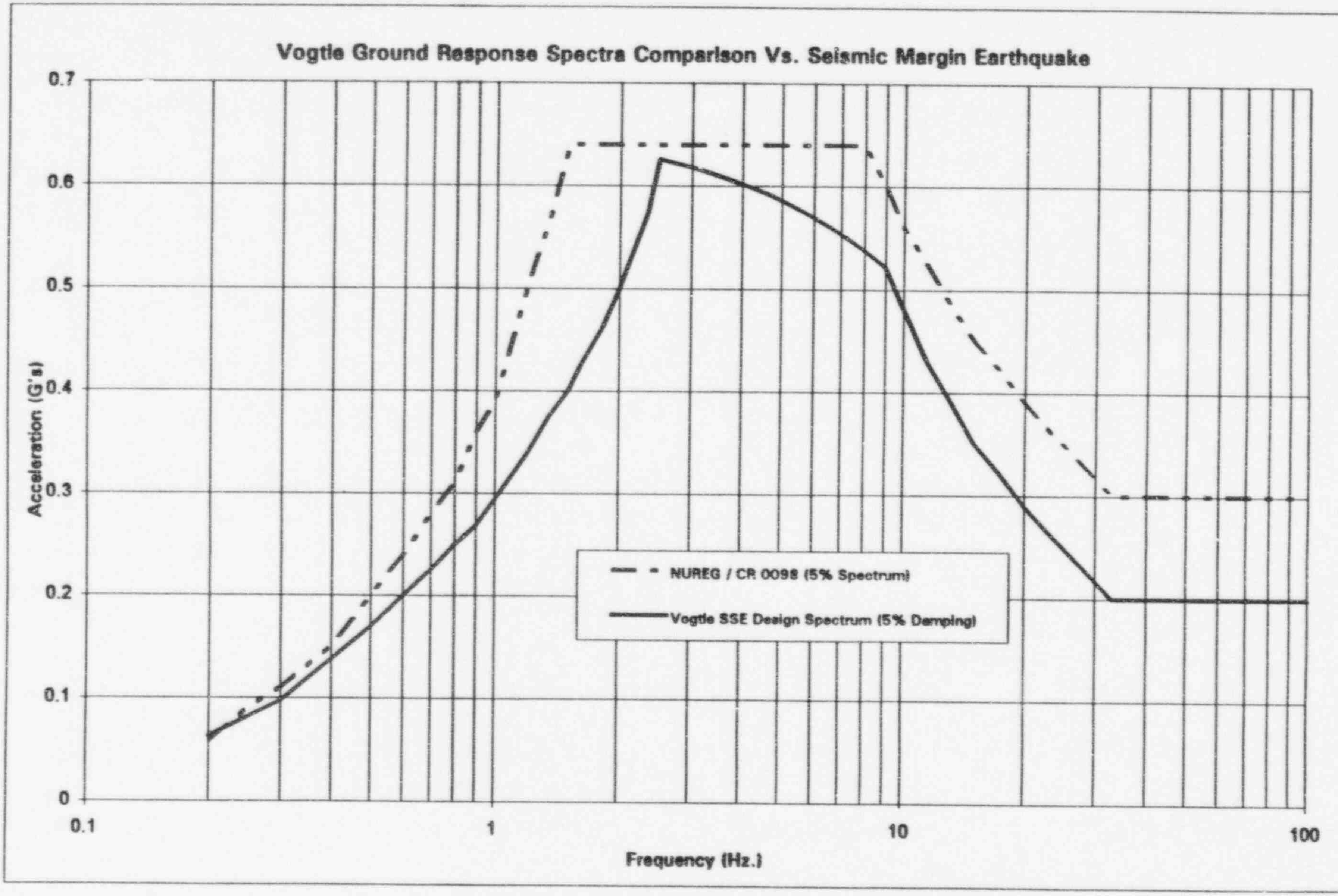


Figure 3.1-41 Vogtle Ground Response Spectra Comparison vs. Seismic Margin Earthquake

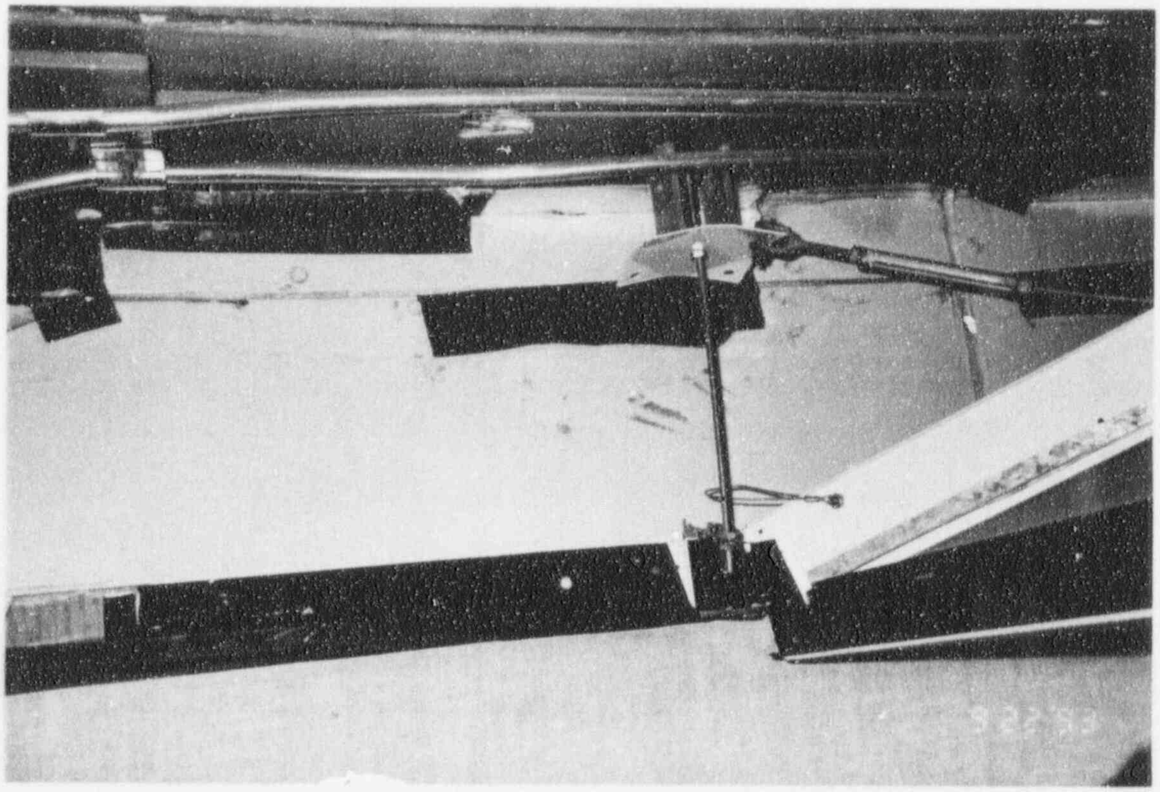
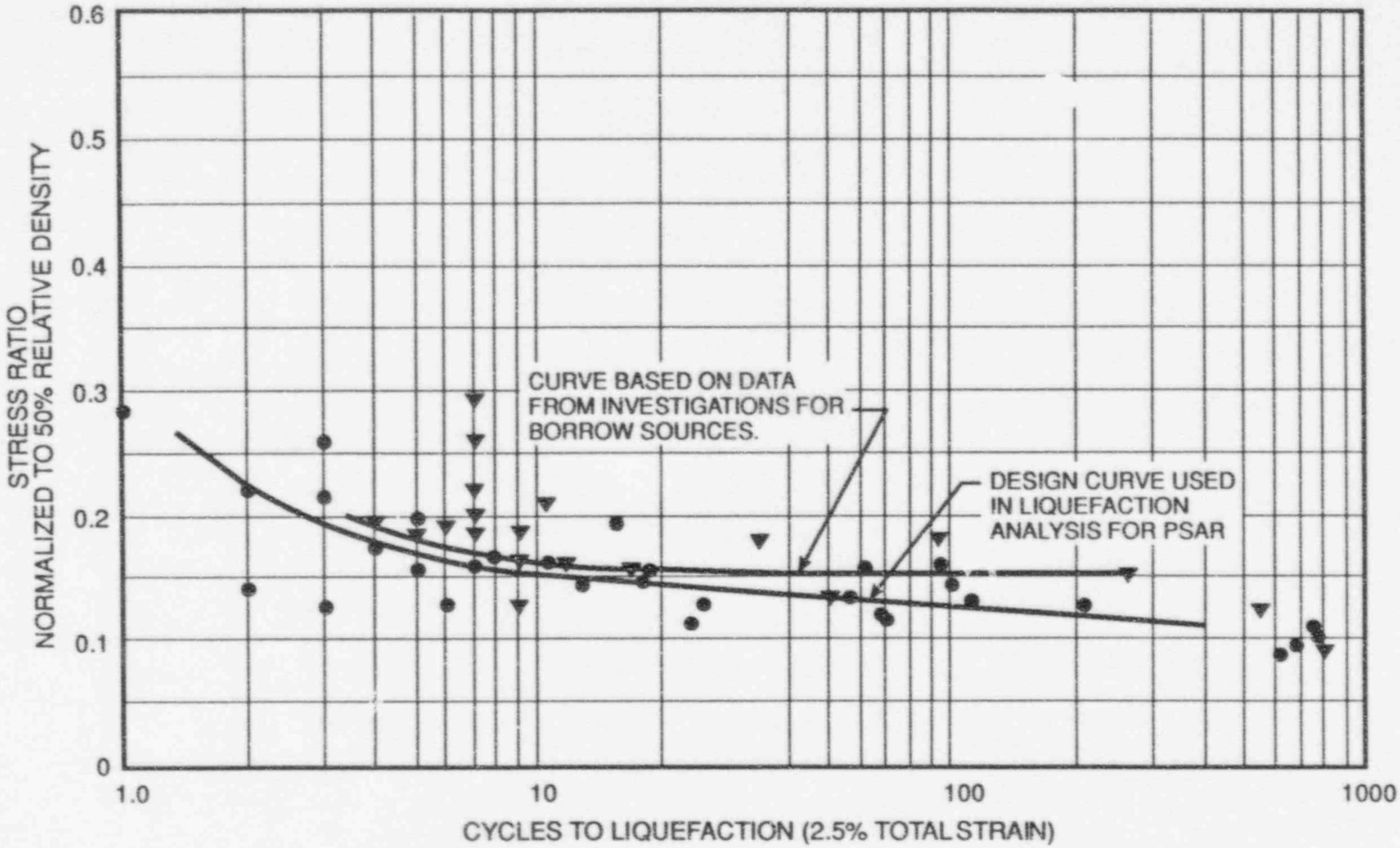


Figure 3.1-42 Typical Control Room Ceiling Detail



NOTES:

▼ DATA OBTAINED DURING INVESTIGATIONS FOR BORROW SOURCES.

● DATA OBTAINED DURING PSAR INVESTIGATIONS.

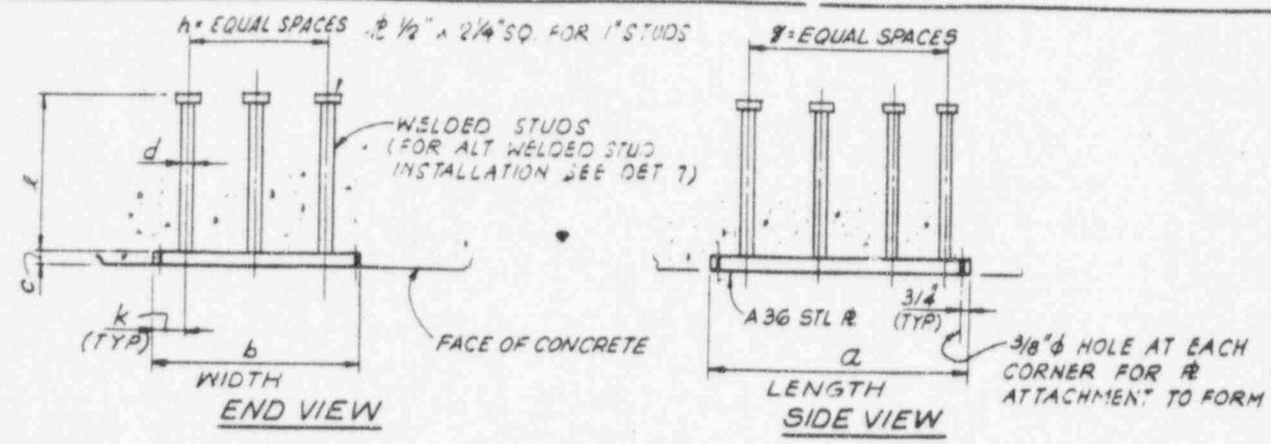
Nc	Stress Ratio (Based on investigations for borrow sources)
7	0.17
10	0.164
30	0.154

Georgia Power	VOGTLE ELECTRIC GENERATING PLANT UNIT 1 AND UNIT 2	CYCLIC TRIAXIAL TEST DATA NORMALIZED TO 50-PERCENT RELATIVE DENSITY FIGURE 3.1.4.4

Figure 3.1-43 Cyclic Triaxial Test Data Normalized to 50-Percent Relative Density

INSERT PLATE

DETAILS



NOTE: FOR INSERT PLATES IN SLABS SEE DETAIL 2 BELOW

SCHEDULE

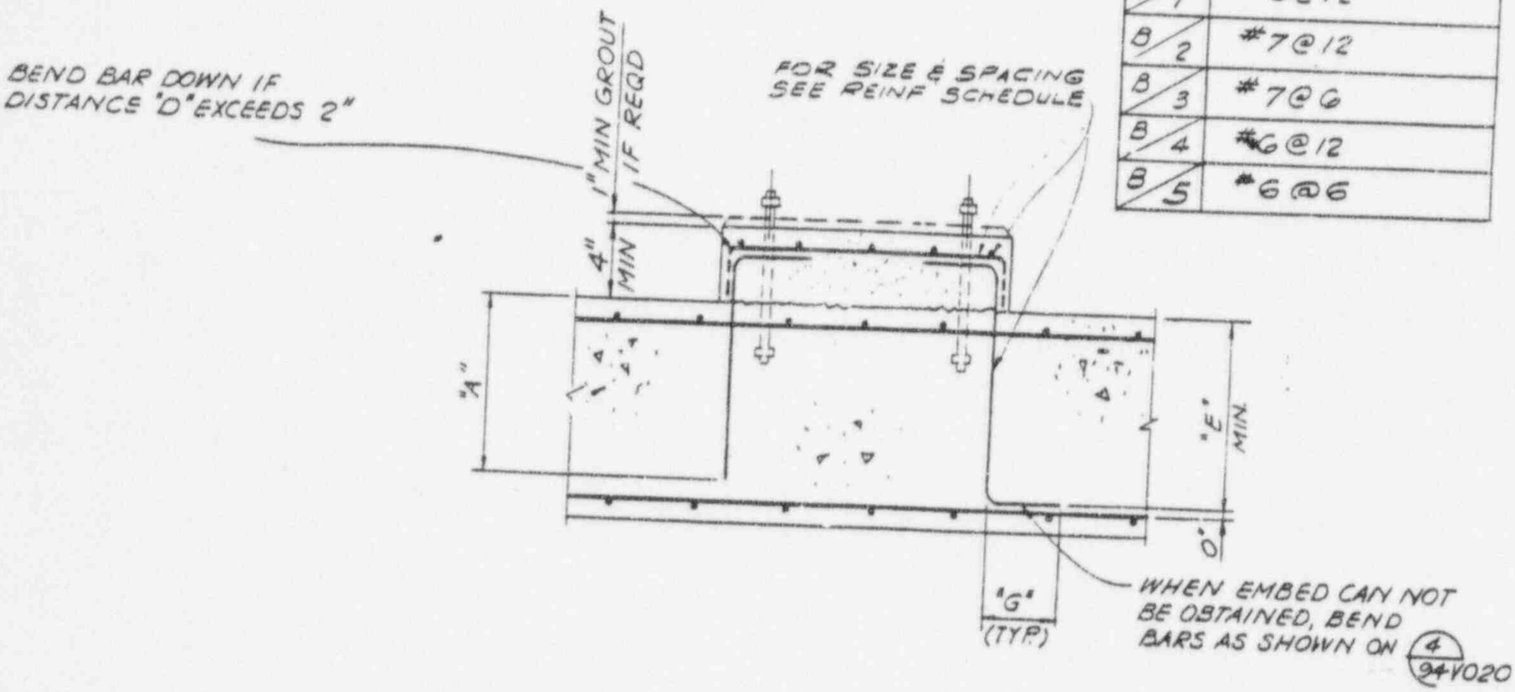
TYPE MARK	PLATE LENGTH a	PLATE WIDTH b	PLATE THICK c	WELDED STUDS DIAMETER d	WELDED STUDS LENGTH ℓ**	WELDED STUDS NUMBER REQUIRED	WELDED STUDS SPACES g	WELDED STUDS SPACES h	WELDED STUDS DIM. k	REMARKS
A	SEE DETAIL (1)									
B	1'-0"	1'-0"	3/4"	3/4"	0'-8"	4	1	1	2"	SEE *NOTE BELOW
C	3'-0"	1'-0"	1"	3/4"	0'-8"	10	4	1	2"	
D	1'-8"	1'-0"	1"	3/4"	0'-8"	6	2	1	2"	
E	1'-8"	1'-8"	1¼"	3/4"	0'-8"	9	2	2	2"	
F	2'-4"	1'-8"	1"	7/8"	0'-8"	12	3	2	2"	
G	SAME AS TYPE "C"									
H	1'-0"	1'-0"	1"	7/8"	0'-8"	4	1	1	3"	
J	5'-0"	1'-0"	1"	3/4"	0'-8"	10	4	1	2"	
K	4'-0"	0'-10"	3/4"	3/4"	0'-8"	8	3	1	2"	
L	4'-0"	1'-0"	1"	3/4"	0'-8"	10	4	1	2"	
M	2'-0"	1'-0"	1"	3/4"	0'-8"	6	2	1	2"	
N	1'-4"	1'-0"	1"	3/4"	0'-8"	6	2	1	2"	
P	1'-10"	1'-0"	1⅛"	7/8"	0'-8"	8	3	1	2"	
Q	2'-0"	1'-4"	1¼"	7/8"	0'-8"	12	3	2	2"	
R	2'-4"	1'-6"	1⅜"	7/8"	0'-8"	12	3	2	2"	
S	3'-0"	1'-9"	1¼"	1"	0'-10½"	15	4	2	2"	
T	3'-6"	1'-9"	1⅜"	1"	0'-10½"	18	5	2	2"	
X	SEE DETAIL (3)									
Y	SEE DETAIL (2)									
U	SAME AS TYPE "P"									SEE *NOTE BELOW
V	SAME AS TYPE "Q"									
W	SAME AS TYPE "R"									
Z	SAME AS TYPE "B"									
SS	3'-0"	1'-9"	1⅜"	1"	0'-10½"	20	4	3	3"	
AA	SEE DETAIL (5)									
TT	2'-4"	1'-0"	1"	7/8"	0'-8"	8	3	1	2"	
XX	SAME AS TYPE "F"									

* NOTE: FOR INSERT PLATES USING A36 THREADED RODS W/NUTS IN LIEU OF WELDED STUDS SEE DWG AX2D94V017.

** ℓ = LENGTH AFTER WELD. LENGTH TOLERANCE FOR STUDS 3/4", 7/8" & 1"ϕ MAY BE +1/16", -1/8" AFTER WELDING, OR PER MANUFACTURER'S TOLERANCES.

Figure 3.1-44 Typical Insert Plate Details

REINFORCING SCHEDULE	
SECT/NO	REINF BAR & DOWEL SIZE & SPACING
B/1	#5@12
B/2	#7@12
B/3	#7@6
B/4	#6@12
B/5	#6@6



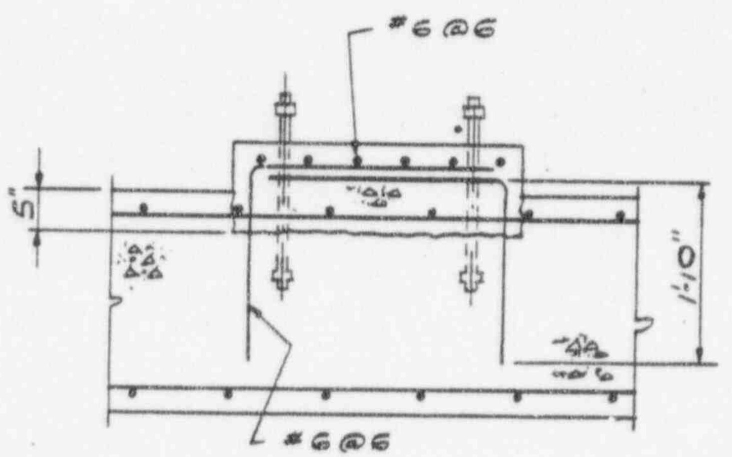
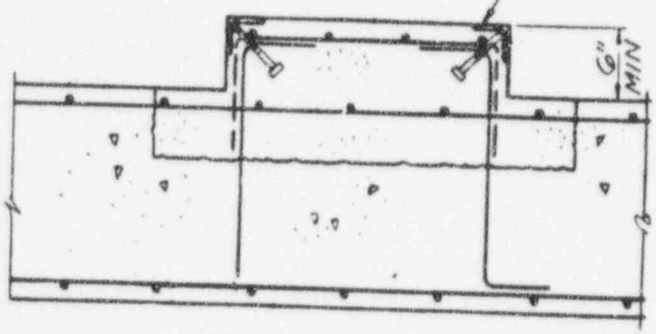


Figure 3.1-45 Typical Mechanical Equipment Pad and Anchor Bolt Detail



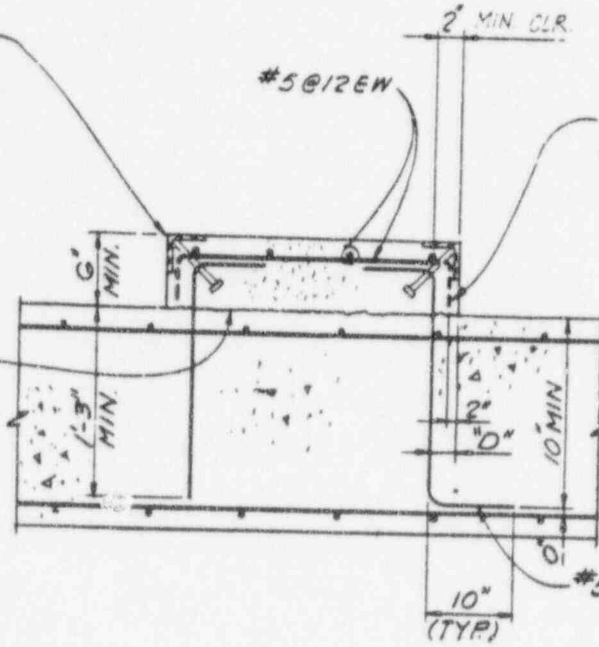


Figure 3.1-46 Typical Electrical Equipment Pad and Embedded Member, and Reinforcing Details

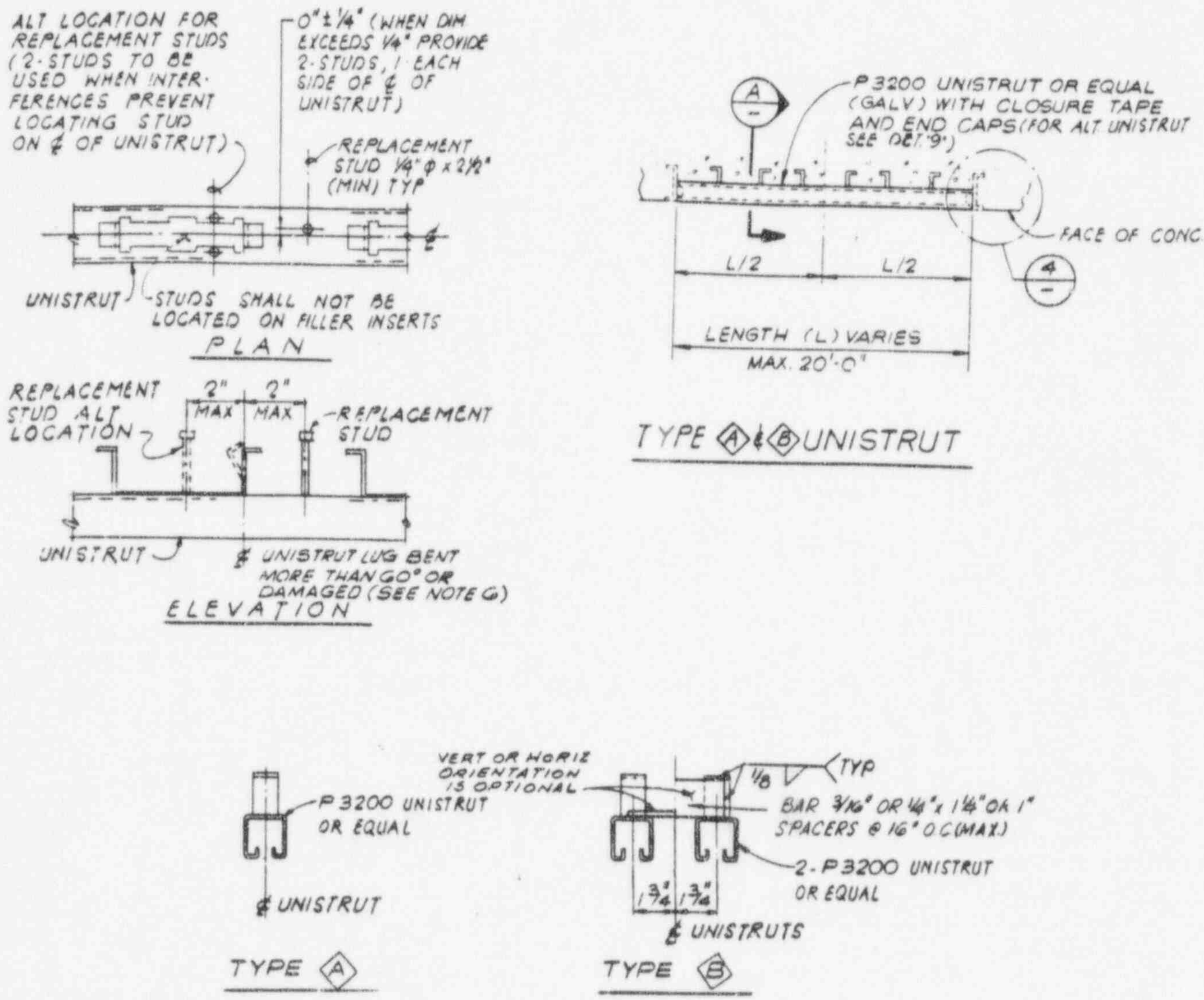
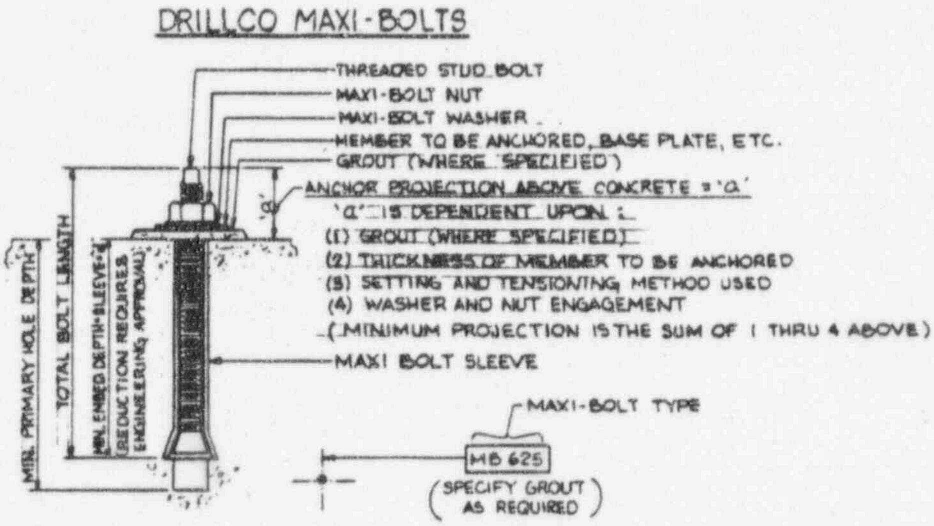


Figure 3.1-47 Typical Embedded Strut Connection Details



MAXI-BOLT TYPE	STUD DIA. (IN.)	EMBED='d' (IN.)	MIN. PRIMARY HOLE DEPTH (IN.)	BASE LENGTH OF MAXI-BOLT (IN.) (FOR REF. ONLY)	
MB375	3/8	4 1/2	5 1/2	6	
MB500	1/2	6	7	8 1/4	SHALL BE INCREASED IN ONE INCH INCREMENTS TO MAKE UP TOTAL BOLT LENGTH.
MB625	5/8	7 1/2	8 1/2	10	
MB750	3/4	9 1/4	10 3/4	13 1/2	
MB1000	1	12 1/2	14 1/2	16 1/2	
MB1250	1 1/4	16	18	20	

Figure 3.1-48 Typical "Maxi-Bolt" Detail Installation Drawing

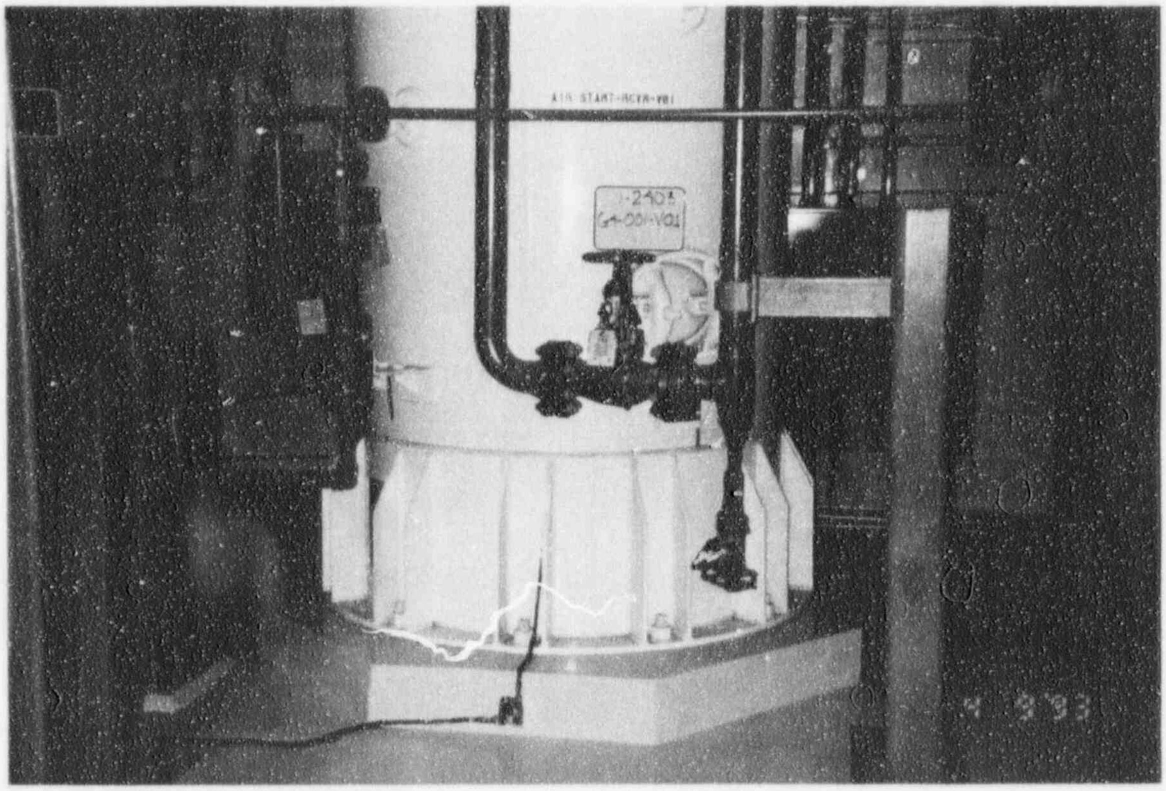
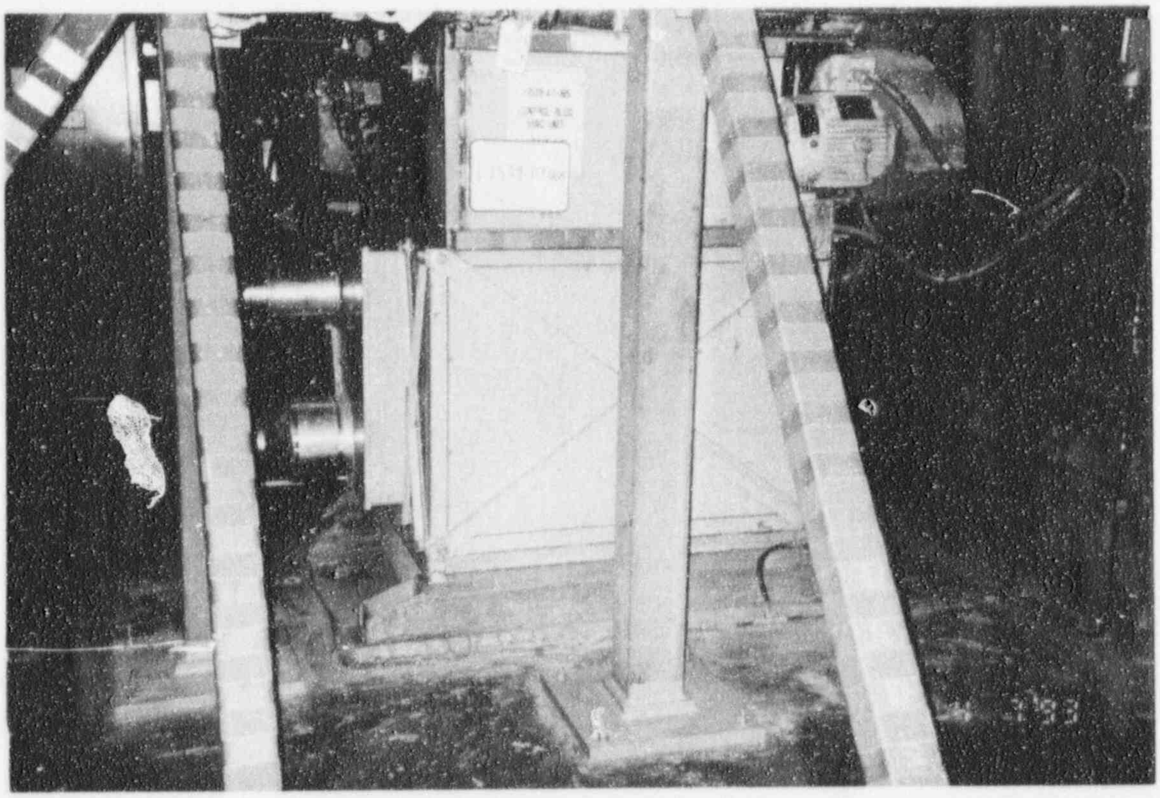


Figure 3.1-49 Bolted Anchorage for the Diesel Generator Air Start Receiver Tank (1-2403-G4-001-V01)



Figures 3.1-50 and 3.1-51 Bolted Anchorage for the Control Bldg. Normal AC Room ESF Air Conditioning Unit (1-1539-A7-005-000)

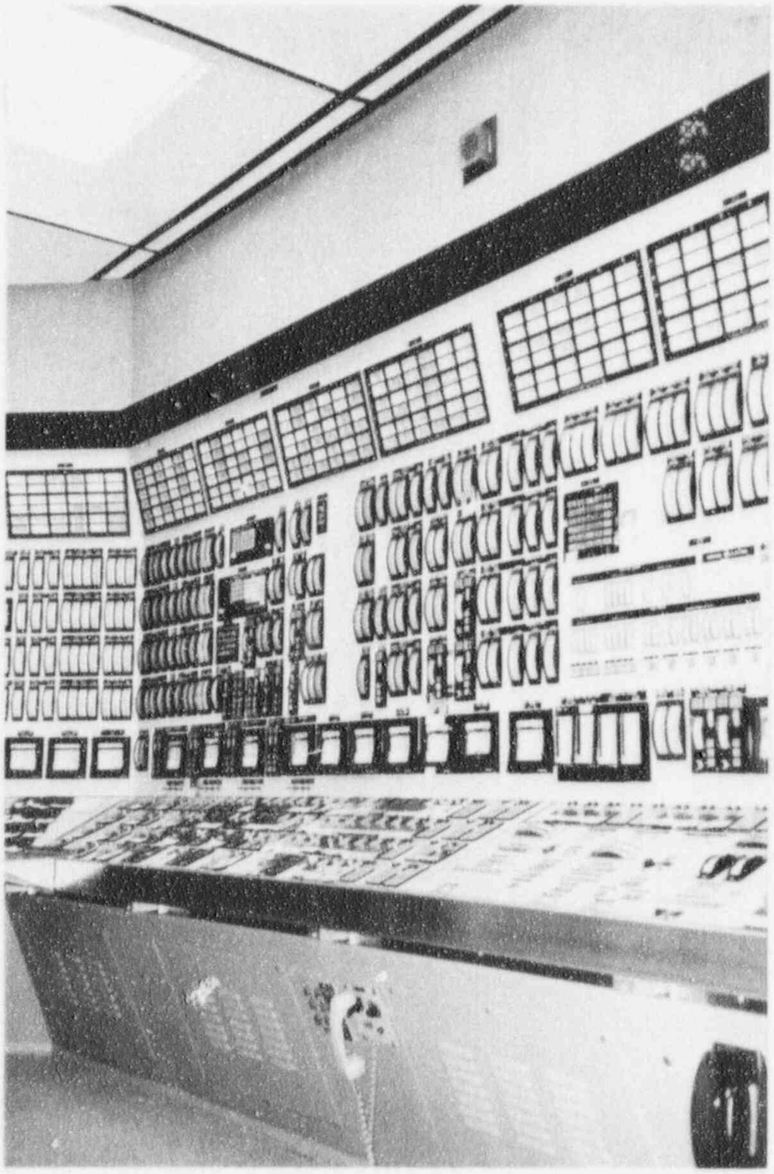


Figure 3.1-52 Welded Anchorage for the Control Room Panel Benchboard (1-1601-Q5-MCB)

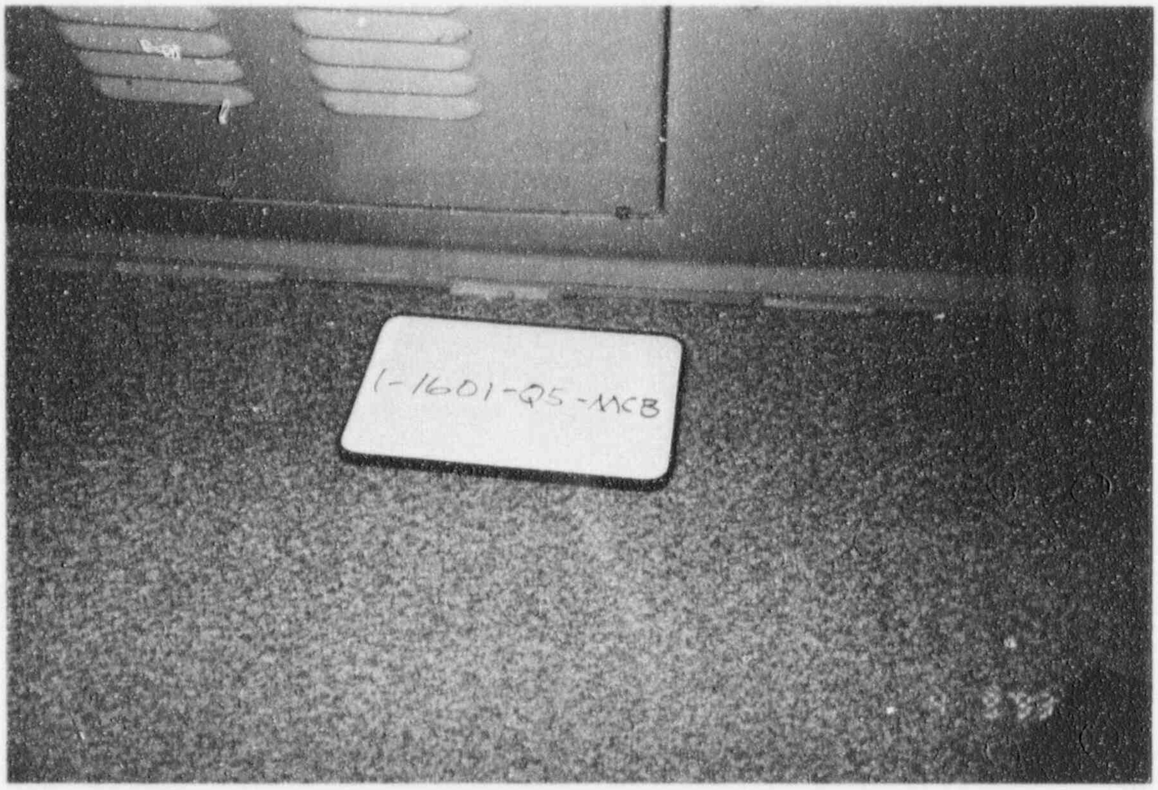
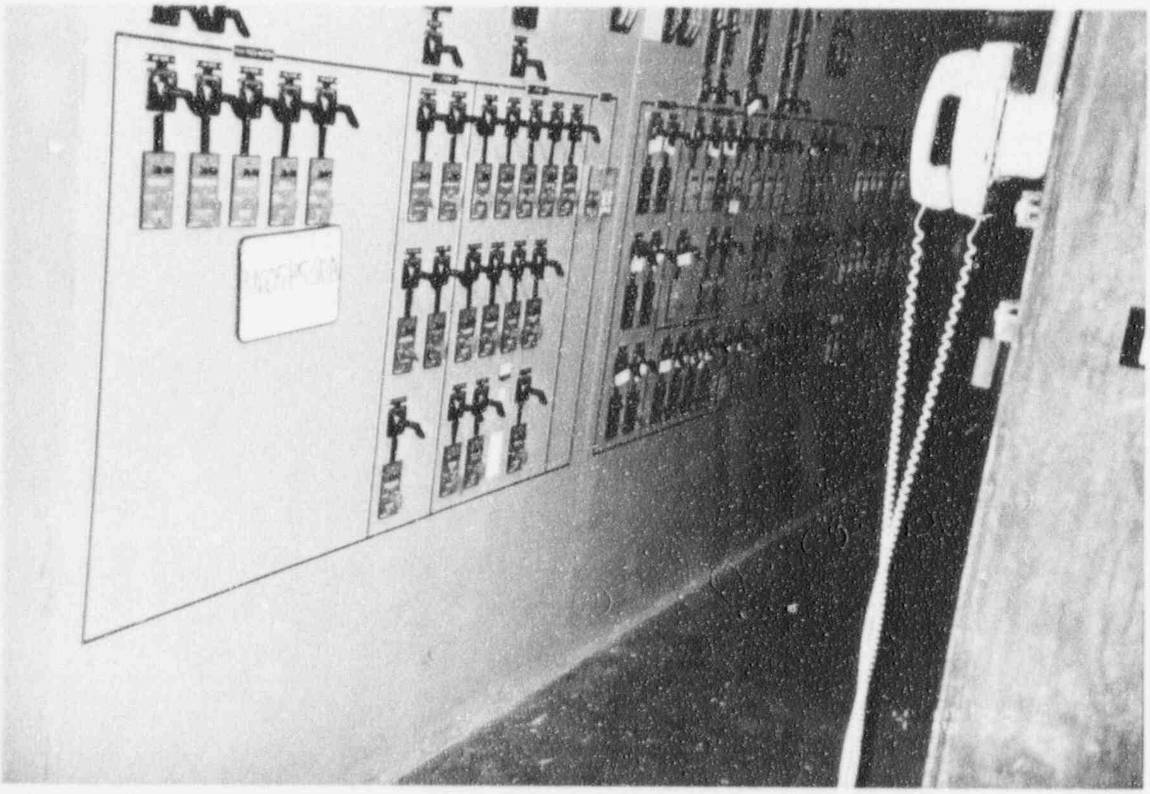


Figure 3.1-53 Welded Anchorage for the Control Room Panel Benchboard (1-1601-Q5-MCB)



Figures 3.1-54 and 3.1-55 Welded Anchorage of the Shutdown Panel Train A Motor Control Center (1-1605-P5-SDA)

Figure 3.1-56 Welded Anchorage of the 480-V MOT Control Center Switchgear 1BBA (1-1805-S3-BBA)

Figure 3.1-57 Welded Anchorage of the 480-V MOT Control Center Switchgear 1BBA (1-1805-S3-BBA)

Figure 3.1-58 Welded Anchorage for the Main Control Board
Termination Cabinet (2-1601-U3-T05)

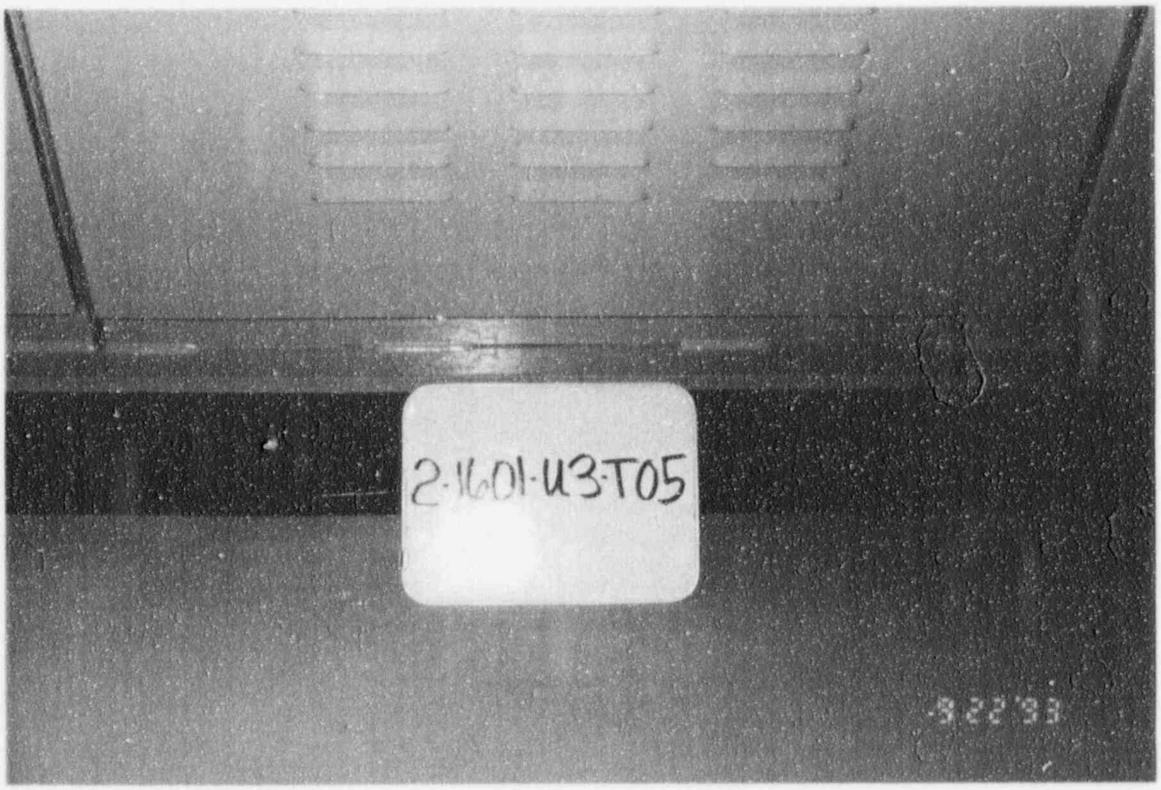


Figure 3.1-59 Welded Anchorage for the Main Control Board Termination Cabinet (2-1601-U3-T05)

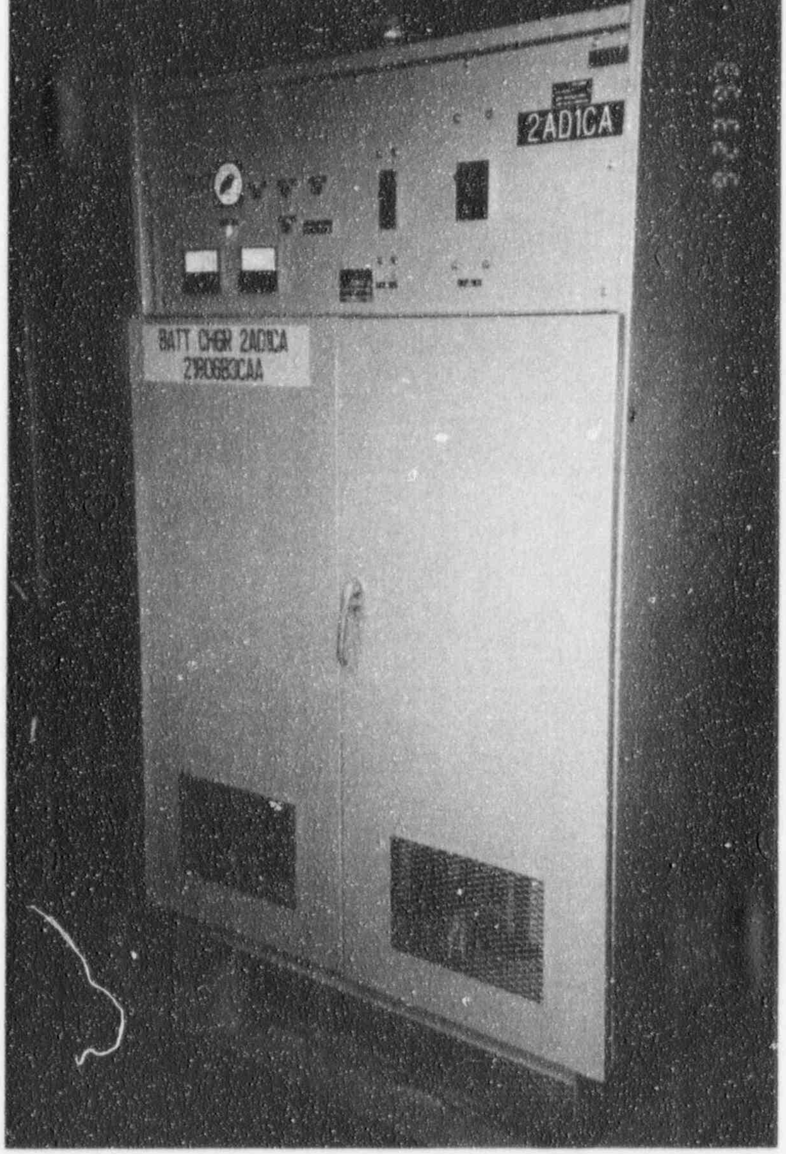
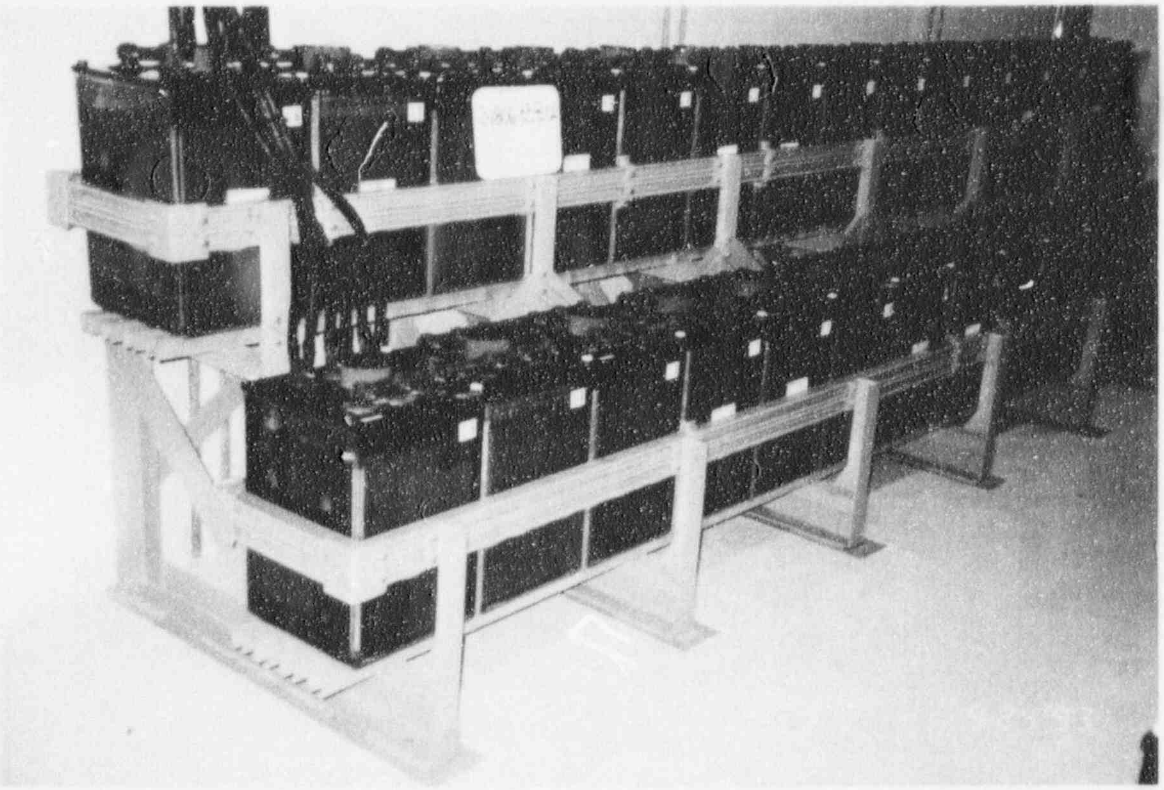
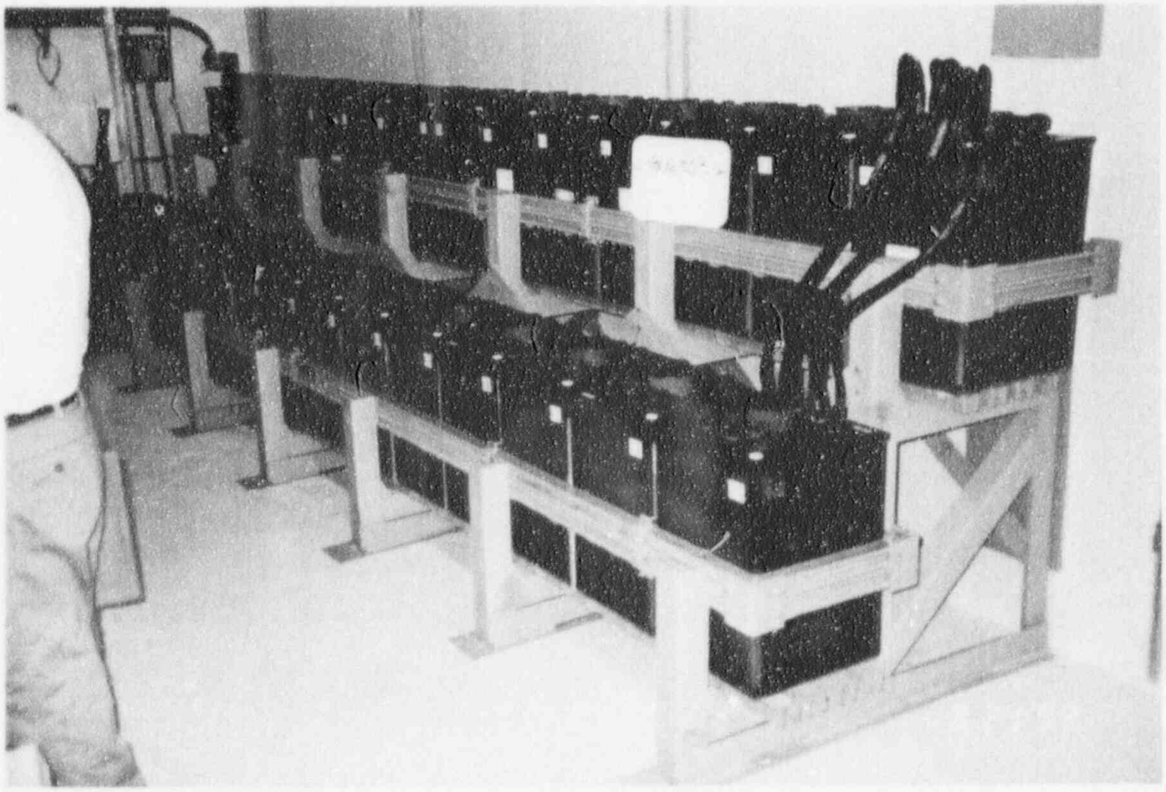


Figure 3.1-60 Welded Anchorage for Battery Charger 2AD1CA
(2-1806-B3-CAA)





Figures 3.1-61 and 3.1-62 Welded Anchorage for 125-V-dc Battery 2AD1B (2-1806-B3-BYA)

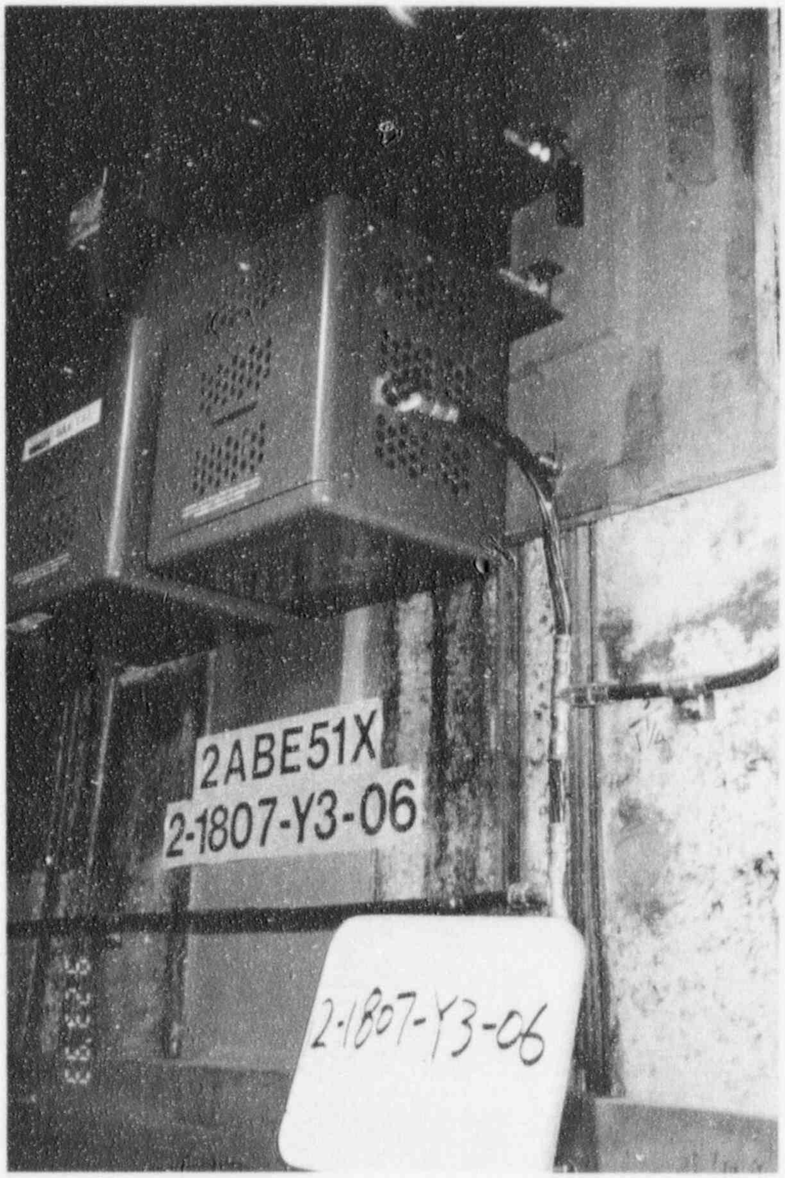


Figure 3.1-63 Anchorage for Regulated Transformer 2ABE51X
(2-1807-Y3-06)

Figure 3.1-64 Anchorage for Regulated Transformer 2ABE51X
(2-1807-Y3-06)

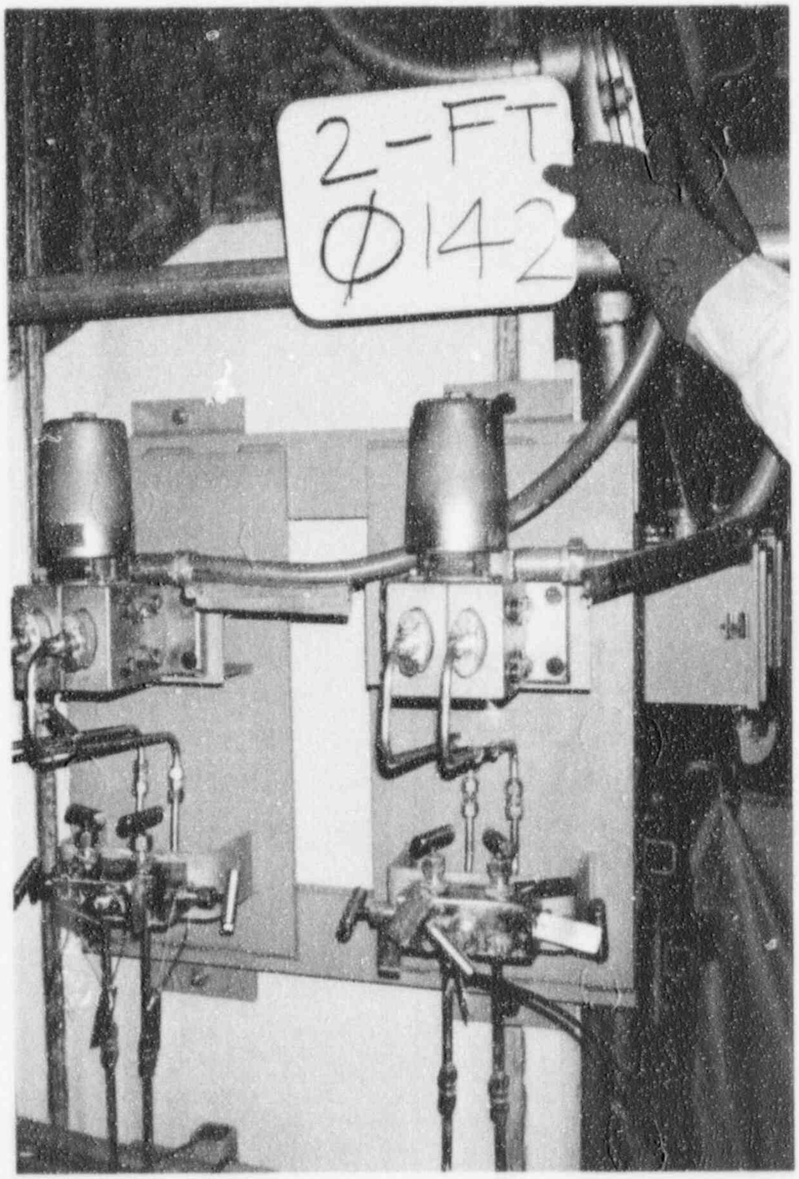


Figure 3.1-65 Bolted and Welded Anchorage on Flow Transmitters for Reactor Coolant Pump No. 4 Seal Injection Flow (2-FT-0142)

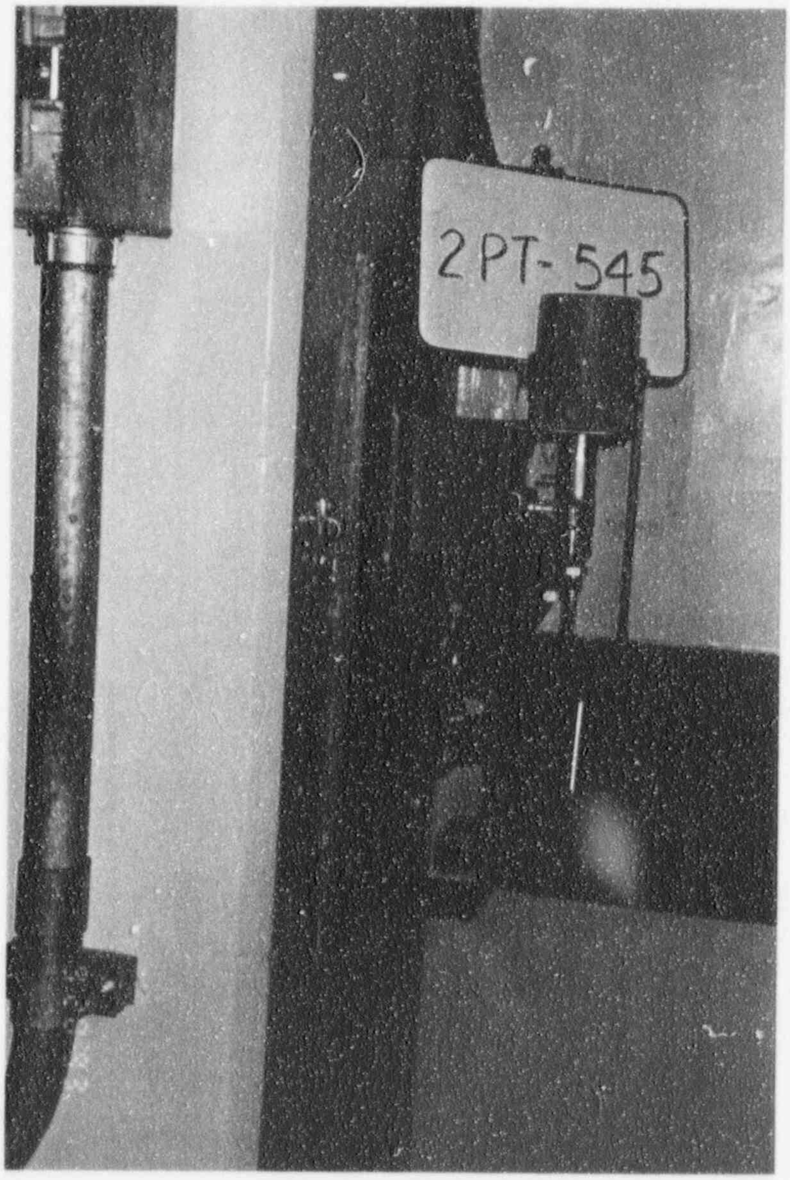
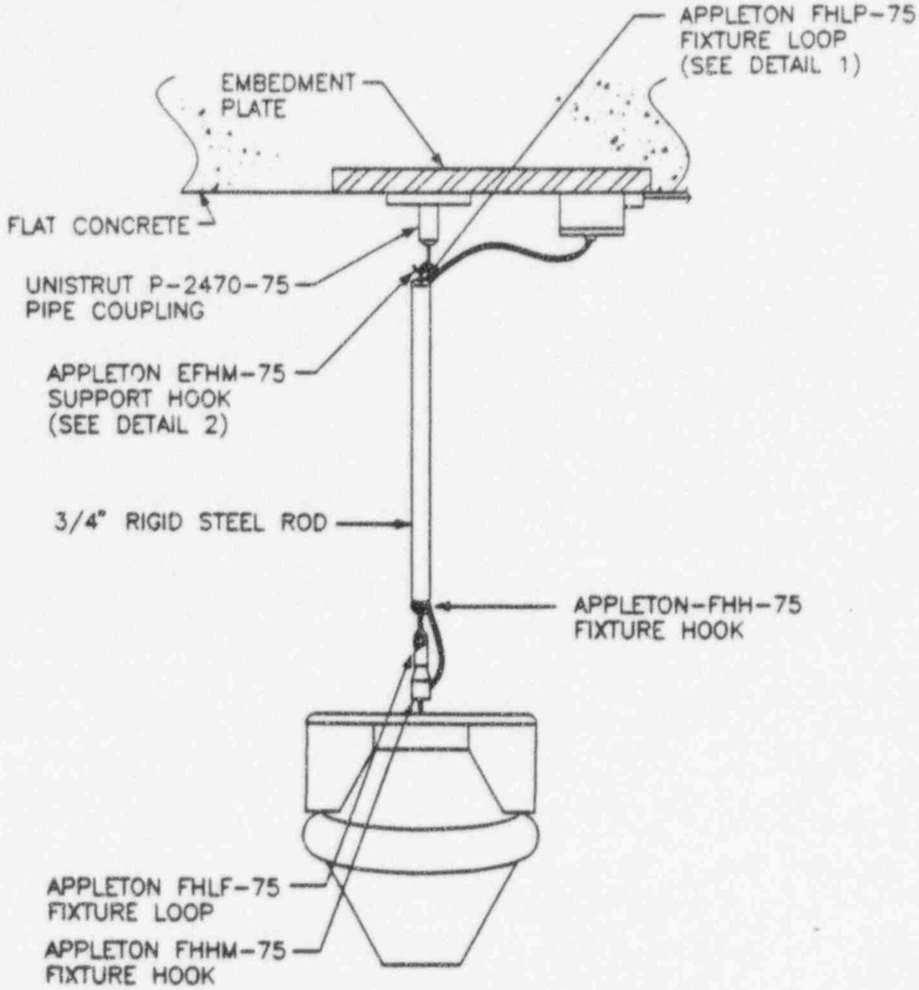


Figure 3.1-66 Bolted and Welded Anchorage for Pressure Transmitter on Steam Generator No. 4 (2-PT-0545)



ELEVATION

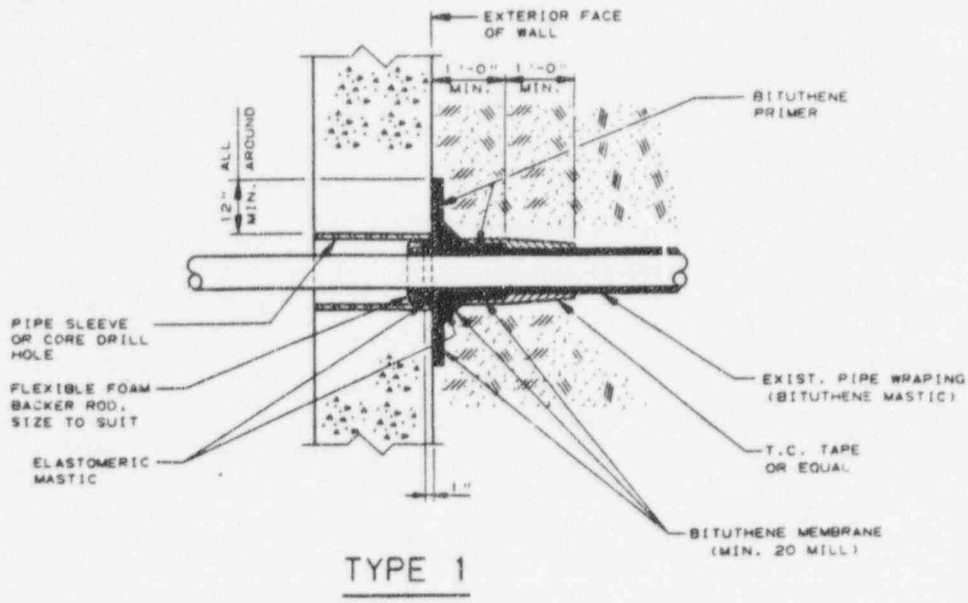
FHLF

DETAIL 1

EFHM

DETAIL 2

Figure 3.1-67 Typical Light Fixture Support



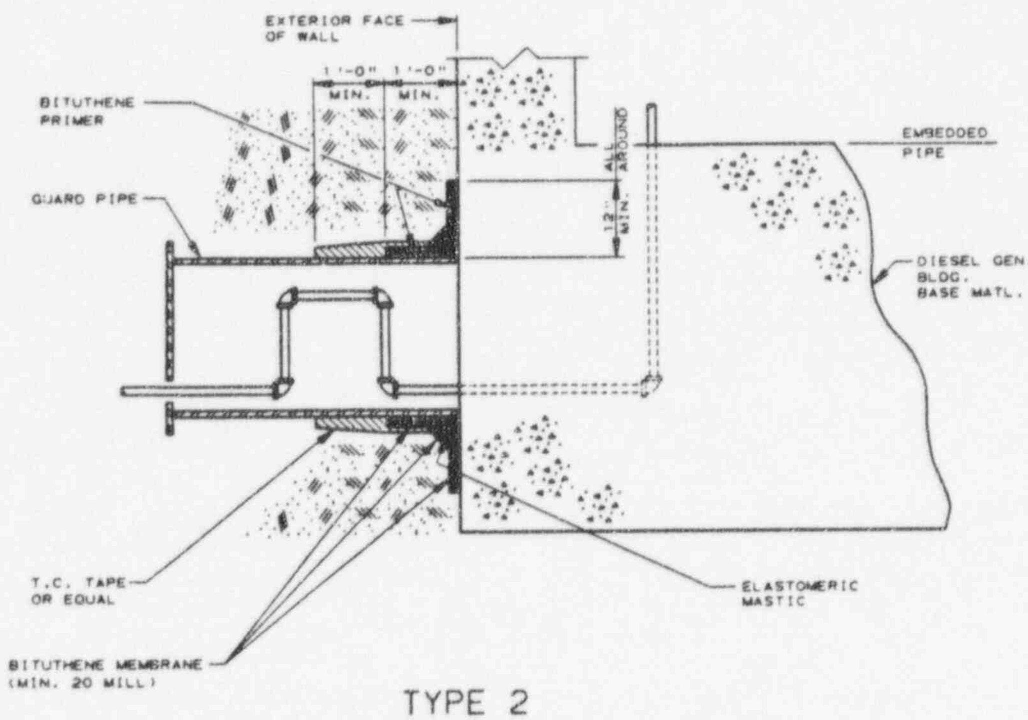
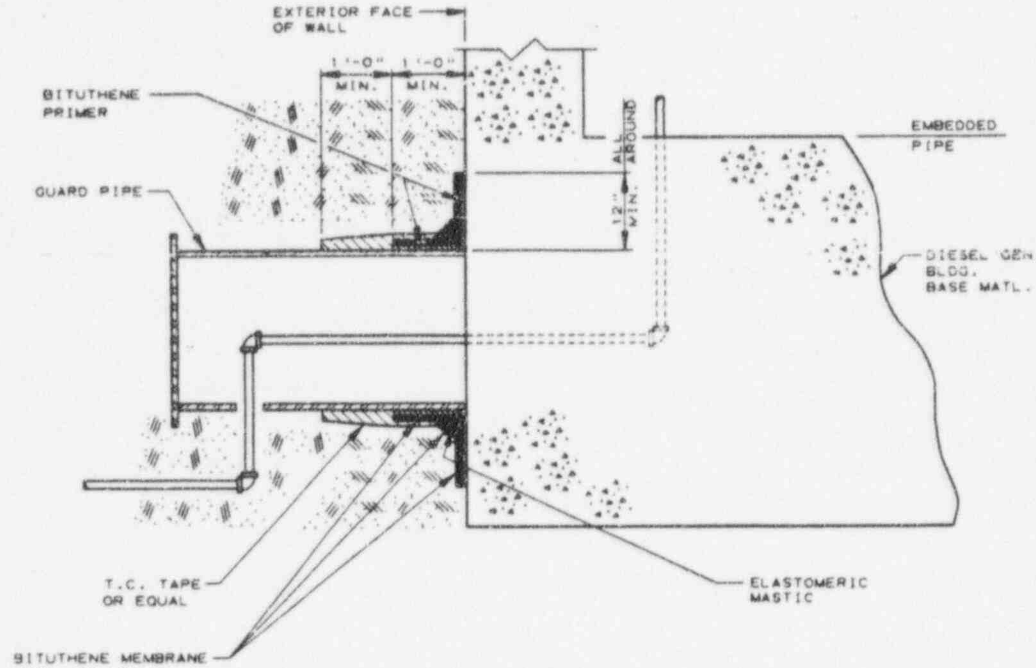
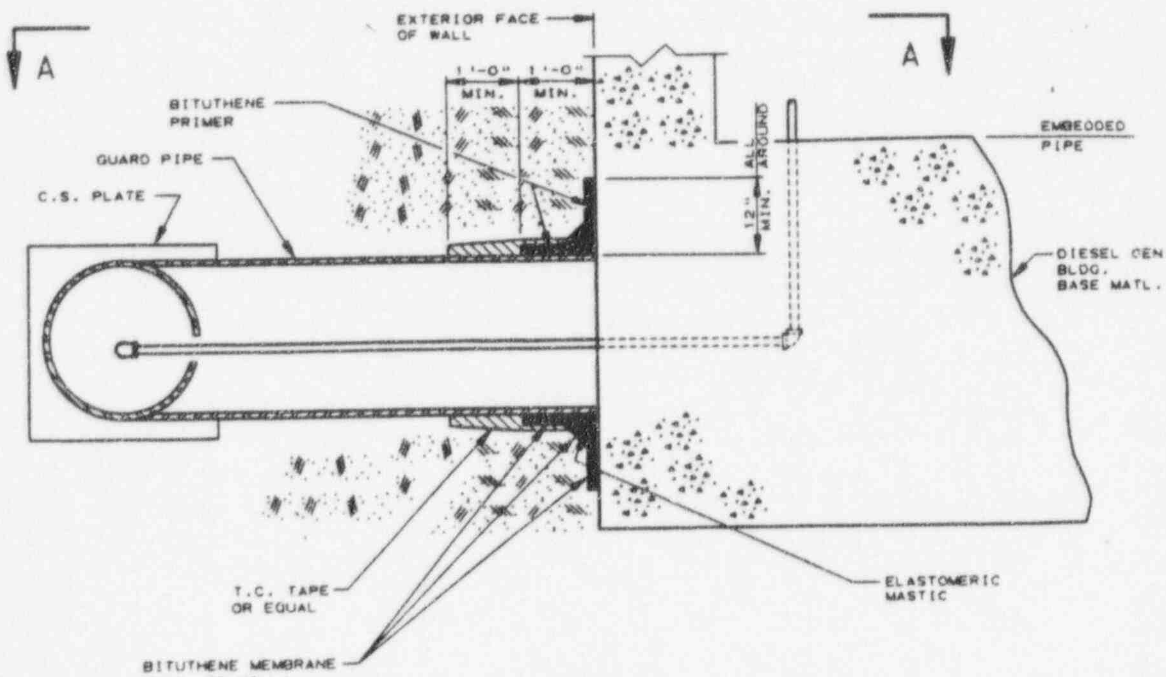


Figure 3.1-68 Penetration Details of Safety-Related Buried Piping Entering Category I Structures (Sheet 1 of 3)

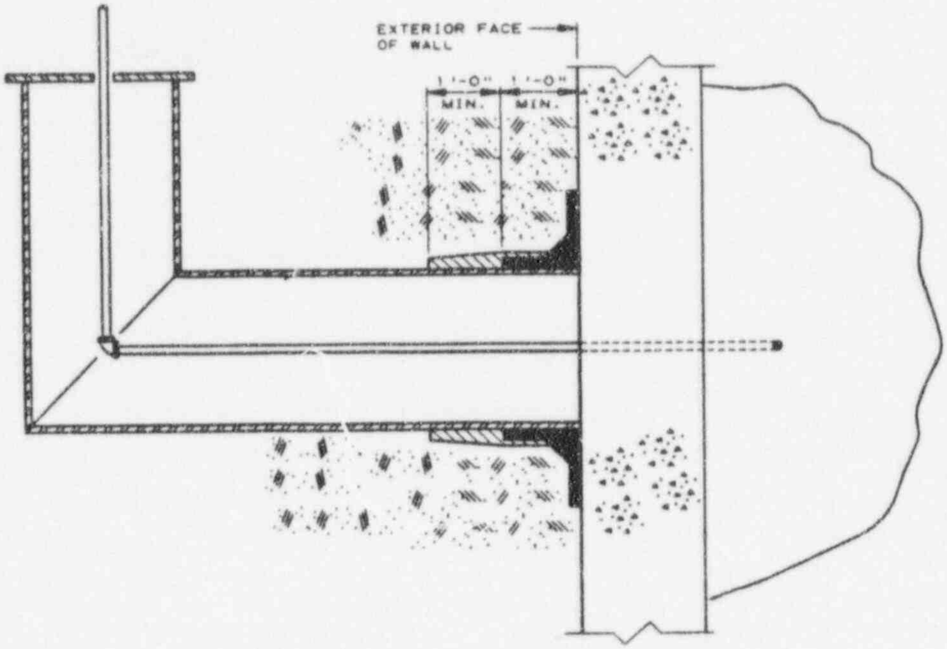


TYPE 3

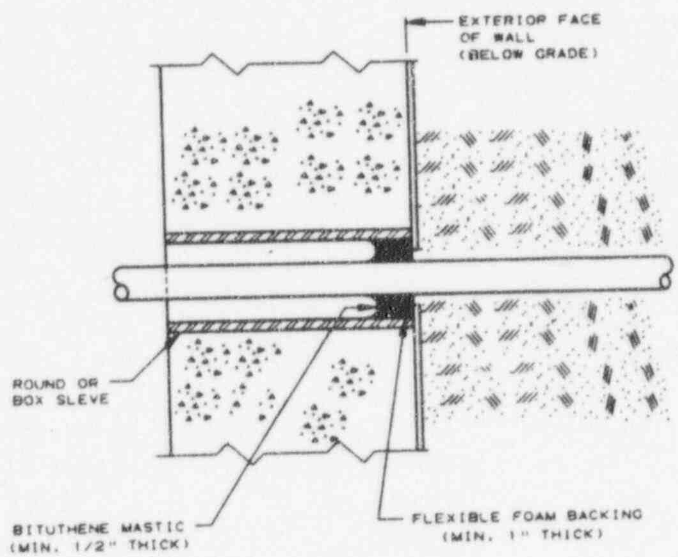


TYPE 4

Figure 3.1-68 Penetration Details of Safety-Related Buried Piping Entering Category I Structures (Sheet 2 of 3)



VIEW A-A



TYPE 5

Figure 3.1-68 Penetration Details of Safety-Related Buried Piping Entering Category I Structures (Sheet 3 of 3)

REFERENCES

3-1. USNRC, Generic Letter 88-20, Supplement No. 4, "Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities - 10 CFR 50.54(f)," June 1991.

3-2. USNRC, NUREG CR-0098, "Development of Criteria for Seismic Review of Selected Nuclear Power Plants," May 1978.

3-3. USNRC, Regulatory Guide 1.60, "Design Response Spectra for Seismic Design of Nuclear Power Plants," 1973.

3-4. Letter from Dr. John Reed, Jack R. Benjamin & Associates, Inc., to Mr. Keith D. Wooten, Southern Company Services, Inc., Vogtle Units 1 and 2 Seismic Evaluation Peer Review, JBA Project No. 191-020, Plant Walkdown Status Report, January 10, 1994.

3-5. Electric Power Research Institute, NP-6041-SL, "A Methodology for Assessment of Nuclear Power Plant Seismic Margin," Rev. 1, August 1991.

3-6. USNRC, NUREG-1407, "Procedural and Submittal Guidance for the Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities," June 1991.

3-7. Code of Federal Regulations, 10 CFR 100 (Title 10, Part 100), "Reactor Site Criteria."

3-8. Code of Federal Regulations, 10 CFR 20 (Title 10, Part 20), "Standard for Protection Against Radiation."

3-9. VEGP Unit 1 and Unit 2 Design Manual.

3-10. USNRC, Regulatory Guide 1.61, "Damping Values for Seismic Design of Nuclear Power Plants," 1973.

3-11. USNRC, Regulatory Guide 1.22, "Development of Floor Design Response Spectra for Seismic Design of Floor Supported Equipment or Components," 1976.

3-12. USNRC, Standard Review Plan, Office of Nuclear Reactor Regulation, November 24, 1975.

3-13. USNRC, Regulatory Guide 1.92, "Combining Modal Responses and Spatial Components in Seismic Response Analysis," Rev. 1, 1976.

3-14. Seed, H.B., and Idriss, I.M., "Soil Moduli and Damping Factors for Dynamic Response Analysis," Report No. EERC 70-10, Earthquake Engineering Research Center, University of California, Berkeley, December 1970.

3-15. FLUSH computer program, "A Public Domain Computer Program for Approximate 3-D Analysis of Soil-Structure Interaction Problems," Report No. EERC 75-30, Earthquake Engineering Research Center, University of California, Berkeley, 1975.

3-16. Lysmer, J., et al., "Efficient Finite-Element Analysis of Seismic Structure Soil-Structure Interaction," Report No. EERC 75-34, Earthquake Engineering Research Center, University of California, Berkeley, November 1975.

3-17. Uniform Building Code, International Conference of Building Officials, Whittier, CA, 1976 Edition.

3-18. American Institute of Steel Construction, Manual of Steel Construction, Seventh Edition, New York, 1970.

3-19. American Concrete Institute, Standard 318-71, Building Code Requirements for Reinforced Concrete, including 1974 Supplement, Detroit, MI.

3-20. Seed, H.B., and Whitman, R.V., "Design of Earth Retaining Structures for Dynamic Loads," American Society of Civil Engineers, Specialty Conference for Soil Mechanics and Foundation Division, 1970.

3-21. VEGP Final Safety Analysis Report, Southern Nuclear Operating Company.

3-22. USNRC, IE Bulletin 79-14, "Seismic Analysis for As-built Safety-Related Piping Systems," July 1, 1979.

3-23. American National Standards Institute, Standard N509-1980, "Nuclear Power Plant Air Cleaning Units and Components."

3-24. Sheet Metal and Air Conditioning Contractors' National Association, High-Pressure Duct Construction Standards.

3-25. American Society of Mechanical Engineers, Boiler and Pressure Vessel Code, Section III.

3-26. Institute of Electrical and Electronics Engineers, Standard 344-1975, "IEEE Recommended Practices for Seismic Qualification of Class 1E Equipment for Nuclear Power Generating Stations."

3-27. USNRC, Regulatory Guide 1.100, "Seismic Qualification of Electric Equipment for Nuclear Power Plants."

3-28. USNRC, Regulatory Guide 1.59, "Design Basis Floods for Nuclear Power Plants," Rev. 2, August 1977.

3-29. Tennessee Valley Authority, Computer Program Code Simulated Open Channel Hydraulics (SOCH), Transient Flow Mathematical Model, January 1972.

3-30. NTS Engineering, Electric Power Research Institute, NP-6359, "Seismic Margin Assessment of the Catawba Nuclear Station," April 1989.

3-31. VEGP Internal Plant Examination (IPE), Southern Nuclear Operating Company.

3-32. VEGP Modular Accident Analysis Program (MAAP).

3-33. Southern Nuclear Operating Company, Calculations PSA-V-95-027 through PSA-V-95-030.

3-34. USNRC, Regulatory Guide 1.9, "Selection, Design, and Qualification of Diesel Generator Units Used as Standby (Onsite) Electric Power System at Nuclear Power Plants."

3-35. VEGP Technical Specifications.

3-36. Electric Power Research Institute, NP-7148-SL, "Procedure for Evaluating Nuclear Power Plant Relay Seismic Functionality," December 1990.

3-37. Westinghouse Electric Corporation document WCAP 8687.

3-38. USNRC, Regulatory Guide 1.62, "Manual Initiations of Protective Actions."

3-39. Uniform Building Code, International Conference of Building Officials, Whittier, CA, 1985 Edition.

3-40. VEGP Preliminary Safety Analysis Report.

3-41. American Society for Testing and Materials, Standard D 1557, "Standard Test Methods for Moisture Density Relations of Soils and Soil-Aggregate Mixtures Using 10-lb (4.54 kg) Rammer and 18 in (457 mm) Drop."

3-42. Bechtel Power Corporation, Report on Foundation Investigation, Alvin W. Vogtle Nuclear Project, July 1974.

3-43. Seed, H. B., and Idriss, I. M., "Simplified Potential for Evaluating Soil Liquefaction Potential," Journal of the Soil Mechanics and Foundations Division of the ASCS, Vol. 97, No. SM 9, September 1971.

3-44. Bechtel Power Corporation, Report on Dynamic Properties for Compacted Backfill, February 1978.

3-45. Bechtel Power Corporation, Topical Report BC-TOP-4-A,, "Seismic Analysis of Structures and Equipment for Nuclear Power Plant," San Francisco, CA, November 1974.

3-46. Hansen, R.J., "Seismic Design for Nuclear Power Plants," The M.I.T. Press, Cambridge, MA.

3-47. Das, B.M., "Fundamentals of Soil Dynamics," Elsevier, NY 1983.

3-48. Wiegel, R.L., "Earthquake Engineering," Prentice-Hall, Englewood Cliffs, NJ.

3-49. Seed, H.B., and Idriss, I.M., "Ground Motions and Soil Liquefaction During Earthquakes," Electric Power Research Institute, 1982.

3-50. VEGP Calculation X2CF-S-037.

3-51. Hetenyi, M., "Beams on Elastic Foundations," The University of Michigan Press, 1946.

3-52. American Society of Civil Engineers, "Seismic Response of Buried Pipes and Structural Components," Report by the Seismic Analysis Committee of the ASCE Nuclear Structures and Materials Committee, 1983.

3-53. VEGP Pipe Stress Calculation X4CP-7163 BB.

3-54. VEGP Pipe Stress Calculation X4CP-7162 BB.

3-55. VEGP Pipe Stress Calculation 1X4CP-7292 B.

3-56. American Society of Civil Engineers, "Guidelines for Seismic Design of Oil and Gas Line System," Committee on Gas and Liquid Fuel Lifelines of the Technical Council on Lifeline Earthquake Engineering, 1984.

3-57. VEGP Design Calculation X3CD13.5.

3-58. VEGP Design Drawing CX3DF002, Detail 7.

3-59. VEGP Design Calculation X2CD 13.1, Seismic Wave Propagation Effect on Category I Tunnels.

3-60. VEGP Document 2X4AX03-5871-1, Rev. 1, "Dynamic Testing of Flexibly Supported Fire Protection Systems - Vogtle Unit 2," ANCO Engineers, Inc., June 1987.

3-61. USNRC, NUREG-1137, Supplement No. 7, "Safety Evaluation Report Related to the Operation of Vogtle Electric Generating Plant, Units 1 and 2," January 1988.

3-62. USNRC, "Construction Deficiency Report 85-83," Inspection Report 424/86/103.

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
01000	00	1-1201-B6-001	STEAM GENERATOR 1	CTB	183'-0"	14AB
01001	00	1-1201-B6-002	STEAM GENERATOR 2	CTB	183'-0"	14BB
01002	00	1-1201-B6-003	STEAM GENERATOR 3	CTB	183'-0"	14CB
01003	00	1-1201-B6-004	STEAM GENERATOR 4	CTB	183'-0"	14DB
01033	18	1-1201-P5-TIA	RVLIS TRANSMITTER RACK TRAIN A	AUX	180'-0"	RB04
01034	18	1-1201-P5-TIB	RVLIS TRANSMITTER RACK TRAIN B	FB	180'-0"	RB08
01008	00	1-1201-V6-001	REACTOR VESSEL	CTB	183'-0"	14AB
01009	00	1-1201-V6-002	PRESSURIZER	CTB	183'-0"	14DA
02000	06	1-1202-P4-001	NSCW TRAIN A PUMP NO. 1	NSCT	220'-0"	R103
02001	06	1-1202-P4-002	NSCW TRAIN B PUMP NO. 2	NSCT	220'-0"	R203
02002	06	1-1202-P4-003	NSCW TRAIN A PUMP NO. 3	NSCT	220'-0"	R103
02003	06	1-1202-P4-004	NSCW TRAIN B PUMP NO. 4	NSCT	220'-0"	R203
02004	09	1-1202-W4-001-F01	NSCT FAN NO. 1	NSCT	250'-0"	R105
02005	09	1-1202-W4-001-F02	NSCT FAN NO. 2	NSCT	250'-0"	R108
02006	09	1-1202-W4-001-F03	NSCT FAN NO. 3	NSCT	250'-0"	R106
02036	09	1-1202-W4-001-F04	NSCT FAN NO. 4	NSCT	250'-0"	R106
02007	09	1-1202-W4-002-F01	NSCT FAN NO. 1	NSCT	250'-0"	R205
02008	09	1-1202-W4-002-F02	NSCT FAN NO. 2	NSCT	250'-0"	R208
02009	09	1-1202-W4-002-F03	NSCT FAN NO. 3	NSCT	250'-0"	R206
02037	09	1-1202-W4-002-F04	NSCT FAN NO. 4	NSCT	250'-0"	R206
03000	21	1-1203-E4-001	CCW HEAT EXCHANGER	AUX	245'-0"	R203
03001	21	1-1203-E4-002	CCW HEAT EXCHANGER	AUX	245'-0"	R202
03002	05	1-1203-P4-001	CCW PUMP NO. 1	AUX	195'-0"	RA05
03003	05	1-1203-P4-002	CCW PUMP NO. 2	AUX	195'-0"	RA03
03004	05	1-1203-P4-003	CCW PUMP NO. 3	AUX	195'-0"	RA05
03005	05	1-1203-P4-004	CCW PUMP NO. 4	AUX	195'-0"	RA03
03008	21	1-1203-T4-001	CCW SURGE TANK	AUX	245'-0"	R203
03009	21	1-1203-T4-002	CCW SURGE TANK	AUX	245'-0"	R202
04000	05	1-1204-P6-003	SI PUMP A	AUX	180'-0"	RB15
04001	05	1-1204-P6-004	SI PUMP B	AUX	180'-0"	RB19

LINE NO.	CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	BUILDING	ELEV	ROOM
(1)	(2)	(3)	(4)	(5)	(6)	(7)
04002	21	1-1204-T4-001	REFUELING WATER STORAGE TANK	RWST	220'-0"	SOUTH OF AUX
04003	21	1-1204-V6-001	BORON INJECTION TANK	AUX	180'-0"	RB11
05000	21	1-1205-E6-001	RHR HEAT EXCHANGER A	AUX	119'-3"	RC90
05001	21	1-1205-E6-002	RHR HEAT EXCHANGER B	AUX	143'-6"	RC91
05002	05	1-1205-P6-001	RHR PUMP A	AUX	119'-3"	RD48
05003	05	1-1205-P6-002	RHR PUMP B	AUX	119'-3"	RD49
05004	00	1-1205-U6-019	MANUAL RHR THROTTLING GATE VALVE WITH REACH ROD	AUX	143'-6"	RC90
05005	00	1-1205-U6-020	MANUAL RHR THROTTLING GATE VALVE WITH REACH ROD	AUX	143'-6"	RC91
06000	21	1-1208-E6-001	REGENERATIVE HEAT EXCHANGER	CTB	183'0"	14AB
06004	05	1-1208-P6-002	CCP A	AUX	143'-6"	RC115
06005	05	1-1208-P6-003	CCP B	AUX	143'-6"	RC118
06006	00	1-1208-U6-151	MANUAL SEAL INJECTION VALVE WITH REACH ROD	AUX	143'-6"	RC119
06007	00	1-1208-U6-152	MANUAL SEAL INJECTION VALVE WITH REACH ROD	AUX	143'-6"	RC114
06008	00	1-1208-U6-153	MANUAL CCP DISCH ISO VLV WITH REACH ROD	AUX	143'-6"	RC112
07002	21	1-1213-E6-001	SPENT FUEL PIT HEAT EXCH A	AUX	195'-0"	RA53
07013	21	1-1213-E6-002	SPENT FUEL PIT HEAT EXCH B	FB	200'-0"	RA07
07003	21	1-1217-E4-001	ACCW HEAT EXCHANGER	AUX	220'-0"	R105
07004	21	1-1217-E4-002	ACCW HEAT EXCHANGER	AUX	220'-0"	R104
09001	05	1-1302-P4-002	AFW MOTOR DRIVEN PUMP B	AFWP HOUSE	220'-0"	R102
09002	05	1-1302-P4-003	AFW MOTOR DRIVEN PUMP A	AFWP HOUSE	220'-0"	R101
09003	21	1-1302-V4-001	CONDENSATE STORAGE TANK NO. 1 (CST)	CST NO. 1	220'-0"	
21000	18	1-1407-P5-SGS	SGB ISOL SOLENOID RACK	AUX	180'-0"	RB07
10000	20	1-1500-Q5-HVC	HVAC PANEL	CONTROL	220'-0"	R163
10001	20	1-1500-V7-001-CBA	LOCAL CB HVAC PANEL TRAIN A	CONTROL	220'-0"	R163
10002	20	1-1500-V7-001-CBB	LOCAL CB HVAC PANEL TRAIN B	CONTROL	220'-0"	R163
10003	09	1-1501-A7-001-000	CTB COOLING UNIT & MOTOR	CTB	220'-0"	14A1
10004	09	1-1501-A7-002-000	CTB COOLING UNIT & MOTOR	CTB	220'-0"	14A1
10005	09	1-1501-A7-003-000	CTB COOLING UNIT & MOTOR	CTB	220'-0"	14D1

Report Date/Time: 10-24-95 / 07:08:44
Data Base File Name/Date/Time: VEGP1R2.DBF / 04/06/95 / 10:07:42
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	BUILDING	ELEV	ROOM
(1)	(2)	(3)	(4)	(5)	(6)	(7)
10006	09	1-1501-A7-004-000	CTB COOLING UNIT & MOTOR	CTB	220'-0"	14D1
10139	09	1-1531-B7-002-000	CBCR CHILLER ROOM VENT FAN	CONTROL	260'-0"	R320
10140	09	1-1531-B7-004-000	CBCR CHILLER ROOM VENT FAN	CONTROL	260'-0"	R312
10017	09	1-1531-N7-001-000	CBCR FILTER UNIT	CONTROL	260'-0"	R321
10018	09	1-1531-N7-002-000	CBCR FILTER UNIT	CONTROL	260'-0"	R312
10033	09	1-1532-A7-001-000	CBSF ELEC EQUIP RM AC UNIT	CONTROL	180'-0"	RB60
10034	09	1-1532-A7-002-000	CBSF ELEC EQUIP RM AC UNIT	CONTROL	180'-0"	RB62
10035	09	1-1532-B7-001-000	BATTERY RM EXHAUST FAN & MOTOR	CONTROL	180'-0"	RB55
10036	09	1-1532-B7-002-000	BATTERY RM EXHAUST FAN & MOTOR	CONTROL	180'-0"	RB49
10039	09	1-1539-A7-001-000	CB AUX RELAY RM ESF A/C UNIT	CONTROL	200'-0"	RA82
10040	09	1-1539-A7-002-000	CB AUX RELAY RM ESF A/C UNIT	CONTROL	240'-0"	R226
10041	09	1-1539-A7-005-000	CB NORMAL AC RM ESF A/C UNIT	CONTROL	260'-0"	R325
10042	09	1-1539-A7-006-000	CB ELEC EQUIP RM ESF A/C UNIT	CONTROL	260'-0"	R322
10045	09	1-1540-B7-001-000	DIESEL POWER CABLE TUNNEL EXHAUST FAN UNIT	TUNNEL	195'-0"	1T4A @ DGB
10046	09	1-1540-B7-002-000	DIESEL POWER CABLE TUNNEL EXHAUST FAN UNIT	TUNNEL	180'-0"	1T4B @ DGB
10047	09	1-1540-B7-003-000	NSCW TOWER CABLE TUNNEL EXHAUST FAN UNIT	TUNNEL	220'-0"	1T5A @ NSCW
10048	09	1-1540-B7-004-000	NSCW TOWER CABLE TUNNEL EXHAUST FAN UNIT	TUNNEL	220'-0"	1T5B @ NSCW
10049	09	1-1540-B7-005-000	AUX BLDG TRAIN A TUNNEL SUPPLY FAN UNIT	AUX	245'-0"	R212
10054	09	1-1555-A7-001-000	ELEC SWGR AND MCC ROOM COOLER A (1AB15)	AUX	119'-3"	RD79
10055	09	1-1555-A7-002-000	ELEC SWGR AND MCC ROOM COOLER B (1BB16)	AUX	245'-0"	R212
10056	09	1-1555-A7-003-000	ELEC SWGR AND MCC ROOM COOLER A (1ABD)	AUX	180'-0"	RB13
10057	09	1-1555-A7-004-000	ELEC SWGR AND MCC ROOM COOLER B (1BBD)	AUX	180'-0"	RB17
10058	09	1-1555-A7-005-000	ELEC SWGR AND MCC ROOM COOLER A (1ABB)	AUX	220'-0"	R118
10059	09	1-1555-A7-006-000	ELEC SWGR AND MCC ROOM COOLER B (1BBB)	AUX	220'-0"	R116
10078	09	1-1561-E7-001-000	PIPING PENETRATION AREA COOLER	AUX	245'-0"	R210
10079	09	1-1561-E7-002-000	PIPING PENETRATION AREA COOLER	AUX	245'-0"	R210
10080	09	1-1561-N7-001-000	PIPING PENETRATION ROOM FILTRATION AND EXHAUST UNIT	AUX	245'-0"	R210
10081	09	1-1561-N7-002-000	PIPING PENETRATION ROOM FILTRATION AND EXHAUST UNIT	AUX	245'-0"	R209

LINE NO.	CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	BUILDING	ELEV	ROOM
(1)	(2)	(3)	(4)	(5)	(6)	(7)
10090	09	1-1566-B7-001-000	DG A BLDG ESF SUPPLY FAN NO. 1	DG	255'-0"	R208
10091	09	1-1566-B7-002-000	DG B BLDG ESF SUPPLY FAN NO. 2	DG	255'-0"	R203
10092	09	1-1566-B7-003-000	DG A BLDG ESF SUPPLY FAN NO. 3	DG	255'-0"	R208
10093	09	1-1566-B7-004-000	DG B BLDG ESF SUPPLY FAN NO. 4	DG	255'-0"	R203
10098	11	1-1592-C7-001	CB ESSENTIAL CHILLER	CONTROL	260'-0"	R320
10099	11	1-1592-C7-002	CB ESSENTIAL CHILLER	CONTROL	260'-0"	R313
10100	05	1-1592-P7-001	ESSENTIAL CHILLED WATER PUMP	CONTROL	260'-0"	R320
10101	05	1-1592-P7-002	ESSENTIAL CHILLED WATER PUMP	CONTROL	260'-0"	R313
10102	21	1-1592-T7-001	ESSENTIAL CHILLED WATER EXPANSION TANK	CONTROL	260'-0"	R316
10103	21	1-1592-T7-002	ESSENTIAL CHILLED WATER EXPANSION TANK	CONTROL	260'-0"	R313
10110	09	1-1593-B7-001	AFW PUMP A SUPPLY FAN & MOTOR	AFWP HOUSE	220'-0"	R101
10111	09	1-1593-B7-002	AFW PUMP B SUPPLY FAN & MOTOR	AFWP HOUSE	220'-0"	R102
13000	20	1-1601-Q5-MCB	MAIN CONTROL BOARD	CONTROL	220'-0"	R163
13001	20	1-1601-U3-T03	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA44
13002	20	1-1601-U3-T04	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R225
13003	20	1-1601-U3-T05	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA44
13004	20	1-1601-U3-T06	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R225
13005	20	1-1601-U3-T07	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA44
13006	20	1-1601-U3-T08	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R225
13007	20	1-1601-U3-T10	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R225
13008	20	1-1601-U3-T11	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA44
13009	20	1-1601-U3-T14	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R225
13010	20	1-1601-U3-T15	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA44
13011	20	1-1601-U3-T19	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA44
13012	20	1-1601-U3-T20	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R225
13013	20	1-1601-U3-T27	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA44
14000	20	1-1602-P5-NDA	EXCORE NUC DET PREAMPS PNL-A	CONTROL	180'-0"	RB78
14001	20	1-1602-P5-NDB	EXCORE NUC DET PREAMPS PNL-B	CONTROL	180'-0"	RB65
14002	18	1-1602-Q5-NIR	NUCLEAR INST RACKS	CONTROL	220'-0"	R163
15000	20	1-1604-Q5-PC1	PROCESS CONTROL GROUP 1	CONTROL	220'-0"	R163

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
15001	20	1-1604-Q5-PC2	PROCESS CONTROL GROUP 2	CONTROL	220'-0"	R163
15002	20	1-1604-Q5-PC3	PROCESS CONTROL GROUP 3	CONTROL	220'-0"	R163
15003	20	1-1604-Q5-PC4	PROCESS CONTROL GROUP 4	CONTROL	220'-0"	R163
15013	20	1-1604-Q5-PCG	BOP CONTROL PANEL 1	CONTROL	220'-0"	R163
15004	20	1-1604-Q5-PCP	MISC SYS/EQPT PANEL	CONTROL	220'-0"	R163
15005	20	1-1604-Q5-PP1	BOP PROTECTION CH 1 PANEL	CONTROL	220'-0"	R163
15006	20	1-1604-Q5-PP2	BOP PROTECTION CH 2 PANEL	CONTROL	220'-0"	R163
15007	20	1-1604-Q5-PP3	BOP PROTECTIO CH 3 PANEL	CONTROL	220'-0"	R163
15008	20	1-1604-Q5-PP4	BOP PROTECTIUN CH 4 PANEL	CONTROL	220'-0"	R163
15009	20	1-1604-Q5-PS1	PROCESS I&C PROTECT I	CONTROL	220'-0"	R163
15010	20	1-1604-Q5-PS2	PROCESS I&C PROTECT II	CONTROL	220'-0"	R163
15011	20	1-1604-Q5-PS3	PROCESS I&C PROTECT III	CONTROL	220'-0"	R163
15012	20	1-1604-Q5-PS4	PROCESS I&C PROTECT IV	CONTROL	220'-0"	R163
16000	20	1-1605-C5-ASI	ALTERNATE SHDN IND EAGLE 21 CAB	CONTROL	240'-0"	R230
16001	20	1-1605-P5-SDA	SHUTDOWN PANEL TRN A	CONTROL	200'-0"	RA75
16002	20	1-1605-P5-SDB	SHUTDOWN PANEL TRN B	CONTROL	200'-0"	RA43
16003	20	1-1605-Q5-SPA	SOLID STATE PROT SYS CAB-TRN A	CONTROL	220'-0"	R163
16004	20	1-1605-Q5-SPB	SOLID STATE PROT SYS CAB-TRN B	CONTROL	220'-0"	R163
16005	20	1-1605-Q5-SPC	SOLID STATE PROT SYS CAB-TRN C	CONTROL	220'-0"	R153
16006	20	1-1605-Q5-SPD	SOLID STATE PROT SYS CAB-TRN D	CONTROL	220'-0"	R163
16007	20	1-1605-Q5-STA	SAFEGUARD TEST CAB-TRN A	CONTROL	220'-0"	R163
16008	20	1-1605-Q5-STB	SAFEGUARD TEST CAB-TRN B	CONTROL	220'-0"	R163
21001	20	1-1606-S6-002	REACTOR TRIP SWITCHGEAR	CONTROL	180'-0"	RB71
21002	20	1-1620-Q5-ESF	BOP ESF PANEL	CONTROL	220'-0"	R163
17000	20	1-1623-D5-001	REMOTE PROCESSING UNIT A CAB 1	CONTROL	200'-0"	RA48
17001	20	1-1623-D5-002	REMOTE PROCESSING UNIT A CAB 2	CONTROL	200'-0"	RA48
17002	20	1-1623-D5-003	REMOTE PROCESSING UNIT B CAB 1	CONTROL	240'-0"	R230
17003	20	1-1623-D5-004	REMOTE PROCESSING UNIT B CAB 2	CONTROL	240'-0"	R230
17004	20	1-1623-D5-006A	DISPLAY PROCESSING UNIT A	CONTROL	200'-0"	RA48
17005	20	1-1623-D5-006B	DISPLAY PROCESSING UNIT B	CONTROL	240'-0"	R230

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
17006	20	1-1623-P5-NFA	NEUTRON FLUX PRE-AMPS TRAIN A	CONTROL	183'-0"	RB78
17007	20	1-1623-P5-NFB	NEUTRON FLUX PRE-AMPS TRAIN B	CONTROL	183'-0"	RB65
18000	03	1-1804-S3-A02	4160V SWITCHGEAR 1AA02	CONTROL	200'-0"	RA48
18001	03	1-1804-S3-A03	4160V SWITCHGEAR 1BA03	CONTROL	200'-0"	RA50
18002	01	1-1805-S3-ABA	480V MOT CONTROL CTR 1ABA	CONTROL	260'-0"	R325
18003	01	1-1805-S3-ABB	480V MOT CONTROL CTR 1ABB	AUX	220'-0"	R118
18004	01	1-1805-S3-ABC	480V MOT CONTROL CTR 1ABC	CONTROL	180'-0"	RB76
18005	01	1-1805-S3-ABD	480V MOT CONTROL CTR 1ABD	AUX	143'-6"	RC109
18006	01	1-1805-S3-ABE	480V MOT CONTROL CTR 1ABE	CONTROL	180'-0"	RB79
18007	01	1-1805-S3-ABF	480V MOT CONTROL CTR 1ABF	DG	220'-0"	R103
18008	02	1-1805-S3-B01	480V SWITCHGEAR 1NB01	CONTROL	180'-0"	RB68
18009	02	1-1805-S3-B04	480V SWITCHGEAR 1AB04	CONTROL	180'-0"	RB76
18010	02	1-1805-S3-B05	480V SWITCHGEAR 1AB05	CONTROL	180'-0"	RB76
18011	02	1-1805-S3-B06	480V SWITCHGEAR 1BB06	CONTROL	180'-0"	RB61
18012	02	1-1805-S3-B07	480V SWITCHGEAR 1BB07	CONTROL	180'-0"	RB61
18013	02	1-1805-S3-B10	480V SWITCHGEAR 1NB10	CONTROL	180'-0"	RB50
18014	02	1-1805-S3-B15	480V SWITCHGEAR 1AB15	AUX	119'-3"	RD105
18015	02	1-1805-S3-B16	480V SWITCHGEAR 1BB16	AUX	245'-0"	R207
18016	01	1-1805-S3-BBA	480V MOT CONTROL CTR 1BBA	CONTROL	260'-0"	R322
18017	01	1-1805-S3-BBB	480V MOT CONTROL CTR 1BBB	AUX	220'-0"	R116
18018	01	1-1805-S3-BBC	480V MOT CONTROL CTR 1BBC	CONTROL	180'-0"	RB61
18019	01	1-1805-S3-BBD	480V MOT CONTROL CTR 1BBD	AUX	180'-0"	RB16
18020	01	1-1805-S3-BBE	480V MOT CONTROL CTR 1BBE	CONTROL	200'-0"	RA77
18021	01	1-1805-S3-BBF	480V MOT CONTROL CTR 1BBF	DG	220'-0"	R101
18022	02	1-1805-S3-NBR	480V MCC 1NBR	CONTROL	180'-0"	RB50
18023	02	1-1805-S3-NBS	480V MCC 1NBS	CONTROL	180'-0"	RB68
18052	23	1-1805-S3-RHR1A	STARTER/RHR HV-8701B	CONTROL	180'-0"	RB55
18053	23	1-1805-S3-RHR2A	STARTER/RHR HV-8702A	CONTROL	180'-0"	RB48
18054	16	1-1805-Y3-IC5	RHR ISO VLV INVERTER	CONTROL	180'-0"	RB55
18055	16	1-1805-Y3-ID6	RHR ISO VLV INVERTER	CONTROL	180'-0"	RB48

Report Date/Time: 10-24-95 / 07:08:44
Data Base File Name/Date/Time: VEGP1R2.DBF / 04/06/95 / 10:07:42
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
19001	15	1-1806-B3-BN3	125 VDC BATTERY 1ND3AB	CONTROL	280'-0"	R409
19002	15	1-1806-B3-BYA	125 VDC BATTERY 1AD1B	CONTROL	180'-0"	RB54
19003	15	1-1806-B3-BYB	125 VDC BATTERY 1BD1B	CONTROL	180'-0"	RB49
19004	15	1-1806-B3-BYC	125 VDC BATTERY 1CD1B	CONTROL	180'-0"	RB56
19005	15	1-1806-B3-BYD	125 VDC BATTERY 1DD1B	CONTROL	180'-0"	RB44
19006	16	1-1806-B3-CAA	BATTERY CHARGER 1AD1CA	CONTROL	180'-0"	RB52
19007	16	1-1806-B3-CAB	BATTERY CHARGER 1AD1CB	CONTROL	180'-0"	RB52
19008	16	1-1806-B3-CBA	BATTERY CHARGER 1BD1CA	CONTROL	180'-0"	RB47
19009	16	1-1806-B3-CBB	BATTERY CHARGER 1BD1CB	CONTROL	180'-0"	RB47
19010	16	1-1806-B3-CCA	BATTERY CHARGER 1CD1CA	CONTROL	180'-0"	RB55
19011	16	1-1806-B3-CCB	BATTERY CHARGER 1CD1CB	CONTROL	180'-0"	RB55
19012	16	1-1806-B3-CDA	BATTERY CHARGER 1DD1CA	CONTROL	180'-0"	RB48
19013	16	1-1806-B3-CDB	BATTERY CHARGER 1DD1CB	CONTROL	180'-0"	RB48
19014	14	1-1806-Q3-DA1	125 VDC DISTR. PANEL 1AD11	CONTROL	180'-0"	RB52
19015	14	1-1806-Q3-DA2	125 VDC DISTR. PANEL 1AD12	CONTROL	180'-0"	RB52
19016	14	1-1806-Q3-DB1	125 VDC DISTR. PANEL 1BD11	CONTROL	200'-0"	RB36
19017	14	1-1806-Q3-DB2	125 VDC DISTR. PANEL 1BD12	CONTROL	200'-0"	RB47
19018	14	1-1806-Q3-DC1	125 VDC DISTR. PANEL 1CD11	CONTROL	200'-0"	RB55
19019	14	1-1806-Q3-DD1	125 VDC DISTR. PANEL 1DD11	CONTROL	200'-0"	RB48
19020	01	1-1806-S3-DCA	125 VDC MCC 1AD1M	CONTROL	200'-0"	RB52
19021	01	1-1806-S3-DCB	125 VDC MCC 1BD1M	CONTROL	200'-0"	RB47
19022	01	1-1806-S3-DCC	125 VDC MCC 1CD1M	CONTROL	200'-0"	RB84
19000	02	1-1806-S3-DN3	125 VDC SWITCHGEAR 1ND3A	CONTROL	280'-0"	R408
19023	02	1-1806-S3-DSA	125 VDC SWITCHGEAR 1AD1	CONTROL	200'-0"	RB52
19024	02	1-1806-S3-DSB	125 VDC SWITCHGEAR 1BD1	CONTROL	200'-0"	RB47
19025	02	1-1806-S3-DSC	125 VDC SWITCHGEAR 1CD1	CONTROL	200'-0"	RB55
19026	02	1-1806-S3-DSD	125 VDC SWITCHGEAR 1DD1	CONTROL	200'-0"	RB48
18024	14	1-1807-Q3-VI1	120 VAC VITAL PANEL 1AY1A	CONTROL	180'-0"	RB52
18025	14	1-1807-Q3-VI2	120 VAC VITAL PANEL 1BY1B	CONTROL	180'-0"	RB47
18026	14	1-1807-Q3-VI3	120 VAC VITAL PANEL 1CY1A	CONTROL	180'-0"	RB55

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
18027	14	1-1807-Q3-VI4	120 VAC VITAL PANEL 1DY1B	CONTROL	180'-0"	RB48
18028	14	1-1807-Q3-VI5	120 VAC VITAL DIST PANEL 1AY2A	AUX	220'-0"	R118
18029	14	1-1807-Q3-VI6	120 VAC VITAL DIST PANEL 1BY2B	AUX	220'-0"	R116
18030	14	1-1807-Q3-VN1	120 VAC ESSENT PANEL 1NY1N	CONTROL	180'-0"	RB53
18031	14	1-1807-Q3-VN2	120 VAC ESSENT PANEL 1NY2N	CONTROL	180'-0"	RB53
18032	14	1-1807-Q3-VN4	120 VAC ESSENT PANEL 1NY4N	CONTROL	260'-0"	R322
18033	04	1-1807-Y3-01	REGULATED XFMR 1ABC09X	CONTROL	180'-0"	RB52
18034	04	1-1807-Y3-02	REGULATED XFMR 1BBA07X	CONTROL	180'-0"	RB47
18035	04	1-1807-Y3-03	REGULATED XFMR 1ABA07X	CONTROL	180'-0"	RB52
18036	04	1-1807-Y3-04	REGULATED XFMR 1BBC09X	CONTROL	180'-0"	RB61
18037	04	1-1807-Y3-05	REGULATED XFMR 1BBC42X	CONTROL	180'-0"	RB61
18038	04	1-1807-Y3-06	REGULATED XFMR 1ABE51X	CONTROL	180'-0"	RB79
18039	16	1-1807-Y3-I2	ESSENTIAL AC INVERTER 1ND3I2	CONTROL	180'-0"	RB53
18040	16	1-1807-Y3-I3	ESSENTIAL AC INVERTER 1ND3I3	CONTROL	180'-0"	RB53
18041	16	1-1807-Y3-I4	ESSENTIAL AC INVERTER 1ND3I4	CONTROL	260'-0"	R322
18042	16	1-1807-Y3-IA1	VITAL AC INVERTER 1AD1I1	CONTROL	180'-0"	RB52
18043	16	1-1807-Y3-IA11	VITAL AC INVERTER 1AD1I11	AUX	220'-0"	R118
18044	16	1-1807-Y3-IB12	VITAL AC INVERTER 1BD1I12	AUX	220'-0"	R116
18045	16	1-1807-Y3-IB2	VITAL AC INVERTER 1BD1I2	CONTROL	180'-0"	RB47
18046	16	1-1807-Y3-IC3	VITAL AC INVERTER 1CD1I3	CONTROL	180'-0"	RB55
18047	16	1-1807-Y3-ID4	VITAL AC INVERTER 1DD1I4	CONTROL	180'-0"	RB48
18048	04	1-1807-Y3-RX11	REGULATED XFMR 1ABC20X	CONTROL	180'-0"	RB76
18049	04	1-1807-Y3-RX12	REGULATED XFMR 1BBC20X	CONTROL	180'-0"	RB61
18050	04	1-1807-Y3-RX7	REGULATED XFMR 1BBB40X	AUX	180'-0"	R116
18051	04	1-1807-Y3-RX8	REGULATED XFMR 1ABB40X	AUX	180'-0"	R118
22000	14	1-1808-Q3-L12	ESSENTIAL LTG DIST PANEL 1NLP12	AUX	195'-0"	RA22
22001	14	1-1808-Q3-L19	ESSENTIAL LTG DIST PANEL 1NLP19	AUX	143'-6"	RC98
22002	14	1-1808-Q3-L29	EMERGENCY LTG DIST PANEL 1NLP29	CONTROL	220'-0"	R149
22003	14	1-1808-Q3-L32	EMERGENCY LTG DIST PANEL 1NLP32	CONTROL	220'-0"	R149
22004	14	1-1808-Q3-L47	EMERGENCY LTG DIST PANEL 1NLP47	DG	220'-0"	R101

LINE NO.	CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	BUILDING	ELEV	ROOM
(1)	(2)	(3)	(4)	(5)	(6)	(7)
22005	14	1-1808-Q3-L50	EMERGENCY LTG DIST PANEL 1NLP50	DG	220'-0"	R103
22006	04	1-1808-T3-003	LTG DIST XFMR 1NBR11X	AUX	195'-0"	RA22
22007	04	1-1808-T3-053	LTG DIST XFMR 1NBS14X	AUX	143'-6"	RC98
22008	04	1-1808-T3-103	LTG ISOLATION XFMR 1ABC23X	CONTROL	220'-0"	R149
22009	04	1-1808-T3-104	LTG ISOLATION XFMR 1BBC23X	CONTROL	220'-0"	R149
22010	04	1-1808-T3-105	LTG ISOLATION XFMR 1ABF13X	DG	220'-0"	R103
22011	04	1-1808-T3-106	LTG ISOLATION XFMR 1BBF13X	DG	220'-0"	R101
20000	20	1-1816-U3-001	AUXILIARY RELAY PANEL A	CONTROL	200'-0"	RA45
20001	20	1-1816-U3-002	AUXILIARY RELAY PANEL N-A	CONTROL	200'-0"	RA45
20002	20	1-1816-U3-003	AUXILIARY RELAY PANEL B	CONTROL	240'-0"	R226
20003	20	1-1816-U3-004	AUXILIARY RELAY PANEL N-B	CONTROL	240'-0"	R226
20004	20	1-1816-U3-005	ISOLATION DEVICE PANEL AB	CONTROL	220'-0"	R163
20005	20	1-1816-U3-006	ISOLATION DEVICE PANEL B-C	CONTROL	220'-0"	R163
20006	20	1-1816-U3-007	ELECTRICAL AUXILIARY BOARD	CONTROL	220'-0"	R163
20007	20	1-1816-U3-009	ISOLATION DEVICE PANEL C	CONTROL	220'-0"	R163
20008	20	1-1816-U3-010	ISOLATION DEVICE PANEL	CONTROL	220'-0"	R163
20009	20	1-1816-U3-014	AUXILIARY RELAY PANEL	CONTROL	200'-0"	RA45
20010	20	1-1816-U3-015	AUXILIARY RELAY PANEL	CONTROL	240'-0"	RA226
20011	20	1-1816-U3-017	AUXILIARY RELAY PANEL	CONTROL	200'-0"	RA45
20012	20	1-1816-U3-018	AUXILIARY RELAY PANEL	CONTROL	200'-0"	RA50
20013	20	1-1816-U3-020	ISOLATION DEVICE PANEL	CONTROL	220'-0"	R163
20014	20	1-1816-U3-021	ISOLATION DEVICE PANEL	CONTROL	220'-0"	R163
21003	20	1-1821-U3-001	SF SEQUENCER BOARD TRAIN A	CONTROL	200'-0"	RA48
21004	20	1-1821-U3-002	SF SEQUENCER BOARD TRAIN B	CONTROL	200'-0"	RA50
21005	20	1-1823-Q5-BPS	SYSTEM STATUS MONITOR PANEL	CONTROL	220'-0"	R163
21006	03	1-1825-S3-1AAA	13800V RCP SWITCHGEAR 1AAA	CONTROL	200'-0"	RA64
21007	03	1-1825-S3-1BAB	13800V RCP SWITCHGEAR 1BAB	CONTROL	200'-0"	RA64
21008	03	1-1825-S3-1CAC	13800V RCP SWITCHGEAR 1CAC	CONTROL	200'-0"	RA54
21009	03	1-1825-S3-1DAD	13800V RCP SWITCHGEAR 1DAD	CONTROL	200'-0"	RA54
11002	17	1-2403-G4-001	DIESEL GENERATOR A	DG	220'-0"	R103

Report Date/Time: 10-24-95 / 07:08:44
Data Base File Name/Date/Time: VEGP1R2.DBF / 04/06/95 / 10:07:42
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
11003	24	1-2403-G4-001-F01	DG INTAKE AIR FILTER	DG	255'-0"	R210
11004	24	1-2403-G4-001-F02	DG EXHAUST AIR SILENCER	DG	255'-0"	R209
11005	21	1-2403-G4-001-V01	DG AIR START RECEIVER	DG	220'-0"	R103
11006	21	1-2403-G4-001-V02	DG AIR START RECEIVER	DG	220'-0"	R103
11007	17	1-2403-G4-002	DIESEL GENERATOR B	DG	220'-0"	R101
11008	24	1-2403-G4-002-F01	DG INTAKE AIR FILTER	DG	255'-0"	R205
11009	24	1-2403-G4-002-F02	DG EXHAUST AIR SILENCER	DG	255'-0"	R204
11010	21	1-2403-G4-002-V01	DG AIR START RECEIVER	DG	220'-0"	R101
11011	21	1-2403-G4-002-V02	DG AIR START RECEIVER	DG	220'-0"	R101
11012	06	1-2403-P4-001	DIESEL FUEL OIL TRANSFER PUMP	DFOST	211'-6"	RA01
11013	06	1-2403-P4-003	DIESEL FUEL OIL TRANSFER PUMP	DFOST	211'-6"	RA03
11014	20	1-2403-P5-DG1	DG 1A GEN CTL PNL	DG	220'-0"	R103
11015	20	1-2403-P5-DG2	DG 1A ENG CTL PNL	DG	220'-0"	R103
11016	20	1-2403-P5-DG3	DG 1B GEN CTL PNL	DG	220'-0"	R101
11017	20	1-2403-P5-DG4	DG 1B ENG CTL PNL	DG	220'-0"	R101
11018	20	1-2403-T3-NGA	DG 1A NEUTRAL GND CABINET	DG	220'-0"	R103
11019	20	1-2403-T3-NGB	DG 1B NEUTRAL GND CABINET	DG	220'-0"	R101
11020	21	1-2403-T4-001	DIESEL FUEL OIL STORAGE TANK	DFOST	211'-6"	RA01
11021	21	1-2403-T4-002	DIESEL FUEL OIL STORAGE TANK	DFOST	211'-6"	RA03
11022	21	1-2403-T4-003	DIESEL FUEL OIL DAY TANK	DG	220'-0"	R104
11023	21	1-2403-T4-004	DIESEL FUEL OIL DAY TANK	DG	220'-0"	R102
02010	07	1-CV-9446	NSCT BLOWDOWN ISO AOV	NSCT	220'-0"	R102
02011	07	1-CV-9447	NSCT BLOWDOWN ISO AOV	NSCT	220'-0"	R202
05006	19	1-FIS-0610	RHR PUMP A FLOW TO MINIFLOW VALVE	AUX	119'-3"	RD121
05007	19	1-FIS-0611	RHR PUMP B FLOW TO MINIFLOW VALVE	AUX	119'-3"	RD53
02012	19	1-FIT-1640A	NSCW RETURN FLOW	NSCT	195'-0"	TUNNEL 1T2A
02013	19	1-FIT-1641A	NSCW RETURN FLOW	NSCT	195'-0"	TUNNEL 1T2B
10019	19	1-FSL-12045	INTERLOCK FLOW SWTCH CNTL BLD..CLOSES ON LOW AIR	CONTROL	260'-0"	R320

LINE NO.	CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	BUILDING	ELEV	ROOM
(1)	(2)	(3)	(4)	(5)	(6)	(7)
10020	19	1-FSL-12046	INTERLOCK FLOW SWTCH CNTL BLD..CLOSES ON AIR-FLO	CONTROL	260'-0"	R313
06010	19	1-FT-0138	CCP A FLOW	AUX	143'-6"	RC114
06011	19	1-FT-0142	RCP 4 SEAL INJ FLOW	FB	200'-0"	RA10
06012	19	1-FT-0143	RCP 3 SEAL INJ FLOW	FB	200'-0"	RA10
06013	19	1-FT-0144	RCP 2 SEAL INJ FLOW	AUX	195'-0"	RA09
06014	19	1-FT-0145	RCP 1 SEAL INJ FLOW	AUX	195'-0"	RA09
06045	19	1-FT-0406	REACTOR HEAD LETDOWN LINE FLOW	CTB	183'-0"	RB03
06046	19	1-FT-0407	REACTOR HEAD LETDOWN LINE FLOW	CTB	183'-0"	RB03
05008	19	1-FT-0618	RHR A FLOW	AUX	119'-3"	RD121
05009	19	1-FT-0619	RHR B FLOW	AUX	143'-6"	RD53
04004	19	1-FT-0917	FLOW THROUGH BIT	AUX	180'-0"	RB11
04005	19	1-FT-0918	SIP A FLOW	AUX	180'-0"	RB15
04006	19	1-FT-0922	SIP B FLOW	AUX	180'-0"	RB19
02014	19	1-FT-1802	NSCW FLOW TO CB ESS CHILLER	CONTROL	260'-0"	R320
02015	19	1-FT-1803	NSCW FLOW TO CB ESS CHILLER	CONTROL	260'-0"	R313
03010	19	1-FT-1876	CCW A FLOW	AUX	195'-0"	RA05
03011	19	1-FT-1877	CCW B FLOW	AUX	195'-0"	RA04
10104	19	1-FT-22425	ECW FLOW	CONTROL	260'-0"	R320
10105	19	1-FT-22426	ECW FLOW	CONTROL	260'-0"	R313
09004	19	1-FT-5150	AFW FLOW TO SG 4	AUX	195'-0"	RA17
09005	19	1-FT-5151	AFW FLOW TO SG 2	CONTROL	200'-0"	RA62
09006	19	1-FT-5152	AFW FLOW TO SG 1	AUX	195'-0"	RA10
09007	19	1-FT-5153	AFW FLOW TO SG 3	CONTROL	200'-0"	RA56
09008	19	1-FT-5154	AFW B FLOW TO MINIFLOW VALVE	AFWP HOUSE	220'-0"	R101
09009	19	1-FT-5155	AFW A FLOW TO MINIFLOW VAVLE	AFWP HOUSE	220'-0"	R101
05010	08a	1-FV-0610	RHR PUMP A MINIFLOW MOV	AUX	143'-6"	RC90
05011	08a	1-FV-0611	RHR PUMP B MINIFLOW MOV	AUX	143'-6"	RC91
09010	08a	1-FV-5154	AFW PUMP B MINIFLOW MOV	AFWP HOUSE	220'-0"	R102
09011	08a	1-FV-5155	AFW PUMP A MINIFLOW MOV	AFWP HOUSE	220'-0"	R101

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
06015	08b	1-HV-0190A	CCP A SAFETY GRADE CHARGING SOLENOID OP VLV	AUX	195'-0"	RA09
06016	08b	1-HV-0190B	CCP B SAFETY GRADE CHARGING SOLENOID OP VLV	AUX	143'-6"	RC119
06047	08b	1-HV-0442A	REACTOR HEAD LETDOWN LINE CONTROL SOV	CTB	183'-0"	RB03
06048	08b	1-HV-0442B	REACTOR HEAD LETDOWN LINE CONTROL SOV	CTB	183'-0"	RB03
12005	07	1-HV-0780	NORMAL CTB SUMP PUMP DISCHARGE AOV	CTB	198'-0"	RB10
12006	07	1-HV-0781	NORMAL CTB SUMP PUMP DISCHARGE AOV	AUX	195'-0"	RA09
04007	08b	1-HV-0943A	ACCUMULATOR NITROGEN HDR VENT--SOLENOID OPERATED VALVE	CTB	180'-0"	RB10
04008	08b	1-HV-0943B	ACCUMULATOR NITROGEN HDR VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB10
04009	07	1-HV-10957	RWST TO SLUDGE MIXING PUMP SUCTION AOV	RWST	220'-0"	R101
04010	07	1-HV-10958	RWST TO SLUDGE MIXING PUMP SUCTION AOV	RWST	220'-0"	R101
02016	08a	1-HV-11600	NSCW PUMP 1 DISCHARGE MOV	NSCT	220'-0"	R103
02017	08a	1-HV-11606	NSCW PUMP 3 DISCHARGE MOV	NSCT	220'-0"	R103
02018	08a	1-HV-11607	NSCW PUMP 2 DISCHARGE MOV	NSCT	245'-0"	R203
02019	08a	1-HV-11613	NSCW PUMP 4 DISCHARGE MOV	NSCT	245'-0"	R203
10112	C8a	1-HV-12005	AFW PUMP HOUSE AIR SUPPLY DAMPER	AFWP HOUSE	220'-0"	R102
10113	08a	1-HV-12006	AFW PUMP HOUSE AIR SUPPLY DAMPER	AFWP HOUSE	220'-0"	R101
10094	08a	1-HV-12050	DG A AIR SUPPLY DAMPER FOR FAN NO. 1	DG	255'-0"	R208
10095	08a	1-HV-12051	DG A AIR SUPPLY DAMPER FOR FAN NO. 3	DG	255'-0"	R208
10096	08a	1-HV-12053	DG A AIR SUPPLY DAMPER FOR FAN NO. 2	DG	255'-0"	R203
10097	08a	1-HV-12054	DG A AIR SUPPLY DAMPER FOR FAN NO. 4	DG	255'-0"	R203
10021	08a	1-HV-12128	CBCR FILTER UNIT AIR SUPPLY DAMPER	CONTROL	220'-0"	R143
10022	08a	1-HV-12129	CBCR FILTER UNIT AIR SUPPLY DAMPER	CONTROL	220'-0"	R143
10023	08a	1-HV-12130	CBCR FILTER UNIT AIR RETURN DAMPER	CONTROL	220'-0"	R143
10024	08a	1-HV-12131	CBCR FILTER UNIT AIR RETURN DAMPER	CONTROL	220'-0"	R143
10025	07	1-HV-12146	CBCR NORMAL AIR SUPPLY DAMPER	CONTROL	240'-0"	R233
10026	07	1-HV-12147	CBCR NORMAL AIR SUPPLY DAMPER	CONTROL	240'-0"	R233
10027	07	1-HV-12148	CBCR NORMAL AIR RETURN DAMPER	CONTROL	240'-0"	R233
10028	07	1-HV-12149	CBCR NORMAL AIR RETURN DAMPER	CONTROL	240'-0"	R233

LINE NO.	CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	BUILDING	ELEV	ROOM
(1)	(2)	(3)	(4)	(5)	(6)	(7)
10082	07	1-HV-12604	PPG PENETRATION NORMAL RETURN AIR ISOLATION DAMPER	AUX	245'-0"	R209
10083	07	1-HV-12605	PPG PENETRATION NORMAL AIR SUPPLY ISOLATION DAMPER	AUX	245'-0"	R209
10084	07	1-HV-12606	PPG PENETRATION NORMAL AIR SUPPLY ISOLATION DAMPER	AUX	245'-0"	R209
10085	07	1-HV-12607	PPG PENETRATION NORMAL RETURN AIR ISOLATION DAMPER	AUX	245'-0"	R209
10086	08c	1-HV-12614	PPG PEN FILTRATION AND EXHAUST UNIT SUCTION DAMPER	AUX	245'-0"	R210
10087	08c	1-HV-12616	PPG PEN FILTRATION AND EXHAUST UNIT SUCTION DAMPER	AUX	245'-0"	R209
12021	08b	1-HV-12976	CTB AIR RADIATION MONITOR INLET SOV	AUX	180'-0"	RB08
12022	08b	1-HV-12977	CTB AIR RADIATION MONITOR OUTLET SOV	AUX	180'-0"	RB08
08000	07	1-HV-13005A	INBOARD MSIV BYPASS AOV--SG 1	AUX	220'-0"	R108
08001	07	1-HV-13005B	OUTBOARD MSIV BYPASS AOV--SG 1	AUX	220'-0"	R108
08002	07	1-HV-13006A	INBOARD MSIV BYPASS AOV--SG 4	AUX	220'-0"	R108
08003	07	1-HV-13006B	OUTBOARD MSIV BYPASS AOV--SG 4	AUX	220'-0"	R108
08004	07	1-HV-13007A	INBOARD MSIV BYPASS AOV--SG 2	CONTROL	220'-0"	R123
08005	07	1-HV-13007B	OUTBOARD MSIV BYPASS AOV--SG 2	CONTROL	220'-0"	R123
08006	07	1-HV-13008A	INBOARD MSIV BYPASS AOV--SG 3	CONTROL	220'-0"	R122
08007	07	1-HV-13008B	OUTBOARD MSIV BYPASS AOV--SG 3	CONTROL	220'-0"	R122
07005	07	1-HV-15196	BFIV FOR SG 1	AUX	195'-0"	RA11
07006	07	1-HV-15197	BFIV FOR SG 2	CONTROL	200'-0"	RA56
07007	07	1-HV-15198	BFIV FOR SG 3	CONTROL	200'-0"	RA56
07008	07	1-HV-15199	BFIV FOR SG 4	AUX	195'-0"	RA12
02020	08a	1-HV-1668A	NSCW SPRAY VALVE	NSCT	195'-0"	R102
02021	08a	1-HV-1668B	NSCW TOWER BYPASS MOV	NSCT	220"-0"	R102
02022	08a	1-HV-1669A	NSCW SPRAY VALVE	NSCT	195'-0"	R202
02023	08a	1-HV-1669B	NSCW TOWER BYPASS MOV	NSCT	220'-0"	R202
12007	08a	1-HV-1974	ACCW RETURN FROM RCP COOLERS MOV	CTB	198'-0"	R101
12008	08a	1-HV-1975	ACCW RETURN FROM RCP COOLERS MOV	AUX	195'-0"	RA12
12009	08a	1-HV-1978	ACCW SUPPLY TO RCP COOLERS MOV	CTB	198'-0"	R101

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
12010	08a	1-HV-1979	ACCW SUPPLY TO RCP COOLERS MOV	AUX	195'-0"	RA12
12015	07	1-HV-2626B	NORMAL CTB PURGE SUPPLY & EQUALIZING AOV	CTB	220'-0"	R101
12016	07	1-HV-2627B	NORMAL CTB PURGE SUPPLY & EQUALIZING AOV	CONTROL	220'-0"	R125
12017	07	1-HV-2628B	NORMAL CTB PURGE EXHAUST & EQUALIZING AOV	CTB	220'-0"	R101
12018	07	1-HV-2629B	NORMAL CTB PURGE EXHAUST & EQUALIZING AOV	CONTROL	220'-0"	R117
08008	08c	1-HV-3006A	INBOARD MSIV--SG 1	AUX	220'-0"	R108
08009	08c	1-HV-3006B	OUTBOARD MSIV--SG 1	AUX	220'-0"	R108
08010	08c	1-HV-3016A	INBOARD MSIV--SG 2	CONTROL	220'-0"	R123
08011	08c	1-HV-3016B	OUTBOARD MSIV--SG 2	CONTROL	220'-0"	R123
08012	08c	1-HV-3026A	INBOARD MSIV--SG 3	CONTROL	220'-0"	R123
08013	08c	1-HV-3026B	OUTBOARD MSIV--SG 3	CONTROL	220'-0"	R123
08014	08c	1-HV-3036A	INBOARD MSIV--SG 4	AUX	220'-0"	R108
08015	08c	1-HV-3036B	OUTBOARD MSIV--SG 4	AUX	220'-0"	R108
12023	07	1-HV-3502	HOT LEG SAMPLE & GFF DET AOV	FB	180'-0"	RA10
12024	07	1-HV-3508	PRESSURIZER LIQUID SAMPLE AOV	FB	180'-0"	RA10
12025	07	1-HV-3514	PRESSURIZER STEAM SAMPLE AOV	FB	180'-0"	RA10
09012	08a	1-HV-5132	AFW PUMP B DISCHARGE MOV	CONTROL	195'-0"	RA56
09013	08a	1-HV-5134	AFW PUMP B DISCHARGE MOV	CONTROL	195'-0"	RA56
09014	08a	1-HV-5137	AFW PUMP A DISCHARGE MOV	AUX	195'-0"	RA12
09015	08a	1-HV-5139	AFW PUMP A DISCHARGE MOV	AUX	195'-0"	RA12
07009	08c	1-HV-5227	MFIV FOR SG 1	AUX	195'-0"	RA11
07010	08c	1-HV-5228	MFIV FOR SG 2	CONTROL	200'-0"	RA56
07011	08c	1-HV-5229	MFIV FOR SG 3	CONTROL	200'-0"	RA56
07012	08c	1-HV-5230	MFIV FOR SG 4	AUX	195'-0"	RA12
12019	07	1-HV-7136	REACTOR COOLANT DRAIN TANK PUMP DISCHARGE AOV	FB	200'-0"	RA10
12026	07	1-HV-7150	RCDT VENT AOV	FB	180'-0"	RA10
08016	07	1-HV-7603A	SG 1 BLOWDOWN ISOLATION AOV	AUX	180'-0"	RB08
08017	07	1-HV-7603B	SG 2 BLOWDOWN ISOLATION AOV	AUX	180'-0"	RB08
08018	07	1-HV-7603C	SG 3 BLOWDOWN ISOLATION AOV	AUX	180'-0"	RB08

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
08019	07	1-HV-7603D	SG 4 BLOWDOWN ISOLATION AOV	AUX	180'-0"	RB08
12020	07	1-HV-7699	REACTOR COOLANT DRAIN TANK PUMP DISCHARGE AOV	CTB	183'-0"	RB07
01010	08a	1-HV-8000A	PORV BLOCK VALVE	CTB	220'-0"	R110
01011	08a	1-HV-8000B	PORV BLOCK VALVE	CTB	220'-0"	R110
06041	08b	1-HV-8095A	REACTOR HEAD LETDOWN LINE ISOLATION SOV	CTB	183'-0"	RB02
06042	08b	1-HV-8095B	REACTOR HEAD LETDOWN LINE ISOLATION SOV	CTB	183'-0"	RB02
06043	08b	1-HV-8096A	REACTOR HEAD LETDOWN LINE ISOLATION SOV	CTB	183'-0"	RB02
06044	08b	1-HV-8096B	REACTOR HEAD LETDOWN LINE ISOLATION SOV	CTB	183'-0"	RB02
12003	08a	1-HV-8100	EXCESS LETDOWN & SEAL WATER LEAKOFF ISOLATION MOV	AUX	195'-0"	RA09
06017	08a	1-HV-8105	CHARGING TO REGEN HX MOV	AUX	195'-0"	RA09
06018	08a	1-HV-8106	CHARGING DISCHARGE MOV	AUX	195'-0"	RA09
06019	08a	1-HV-8110	CCP A & B COMMON MINIFLOW MOV	AUX	180'-0"	RB25
06020	08a	1-HV-8111A	CCP A MINIFLOW MOV	AUX	143'-6"	RC114
06021	08a	1-HV-8111B	CCP B MINIFLOW MOV	AUX	143'-6"	RC119
12004	08a	1-HV-8112	EXCESS LETDOWN & SEAL WATER LEAKOFF ISOLATION MOV	CTB	180'-0"	RB03
06022	08a	1-HV-8116	CCP A SAFETY GRADE CHARGING ISO MOV	AUX	195'-0"	RA09
06023	07	1-HV-8149A	LETDOWN ISOLATION AOV	CTB	183'-0"	RB03
06024	07	1-HV-8149B	LETDOWN ISOLATION AOV	CTB	183'-0"	RB03
06025	07	1-HV-8149C	LETDOWN ISOLATION AOV	CTB	183'-0"	RB03
06026	07	1-HV-8152	LETDOWN ISOLATION AOV	AUX	195'-0"	RA09
06027	07	1-HV-8154	EXCESS LETDOWN ISOLATION AOV	CTB	183'-0"	RB03
06028	07	1-HV-8160	LETDOWN ISOLATION AOV	CONTROL	220'-0"	R163
06029	08a	1-HV-8485A	CCP A DISCHARGE ISO MOV	AUX	143'-6"	RC114
06030	08a	1-HV-8485B	CCP B DISCHARGE MOV	AUX	143'-6"	RC119
06031	08a	1-HV-8508A	CCP A ALT. MINIFLOW MOV	AUX	143'-6"	RC114
06032	08a	1-HV-8508B	CCP B ALT. MINIFLOW MOV	AUX	143'-6"	RC119
05012	08a	1-HV-8701A	RCS TO RHR PUMP A SUCTION MOV	CTB	180'-0"	RB03
05013	08a	1-HV-8701B	RCS TO RHR PUMP A SUCTION MOV	CTB	180'-0"	RB02

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
05014	08a	1-HV-8702A	RCS TO RHR PUMP B SUCTION MOV	CTB	180'-0"	RB03
05015	08a	1-HV-8702B	RCS TO RHR PUMP B SUCTION MOV	CTB	180'-0"	RB03
05016	08a	1-HV-8716A	RHR TRAIN A TO RCS HOT LEG ISOLATION MOV	AUX	119'-0"	RD48
05017	08a	1-HV-8716B	RHR TRAIN B TO RCS HOT LEG ISOLATION MOV	AUX	119'-0"	RD49
04011	08a	1-HV-8801A	BIT DISCHARGE TO RCS MOV	AUX	195'-0"	RA13
04012	08a	1-HV-8801B	BIT DISCHARGE TO RCS MOV	AUX	195'-0"	RA13
05018	08a	1-HV-8804A	RHR TO CCP SUCTION HEADER MOV	AUX	143'-6"	RC90
05019	08a	1-HV-8804B	RHR TO SIP SUCTION HEADER MOV	AUX	143'-6"	RC91
04013	08a	1-HV-8807A	CCP/SIP SUCTION HEADER CROSS-CONNECT MOV	AUX	180'-0"	RB15
04014	08a	1-HV-8807B	CCP/SIP SUCTION HEADER CROSS-CONNECT MOV	AUX	180'-0"	RB19
05020	08a	1-HV-8811A	CTMT SUMP TO RHR PUMP A SUCTION MOV	AUX	143'-6"	RC105
05021	08a	1-HV-8811B	CTMT SUMP TO RHR PUMP B SUCTION MOV	AUX	143'-6"	RC09
05022	08a	1-HV-8812A	RWST TO RHR PUMP A SUCTION MOV	AUX	119'-0"	RD48
05023	08a	1-HV-8812B	RWST TO RHR PUMP B SUCTION MOV	AUX	119'-0"	RD49
04015	08a	1-HV-8813	SIP COMMON MINIFLOW MOV	AUX	180'-0"	RB19
04016	08a	1-HV-8814	SIP A MINIFLOW MOV	AUX	180'-0"	RB15
04017	08b	1-HV-8875A	ACCUMULATOR 1 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB03
04018	08b	1-HV-8875B	ACCUMULATOR 2 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB10
04019	08b	1-HV-8875C	ACCUMULATOR 3 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB10
04020	08b	1-HV-8875D	ACCUMULATOR 4 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB03
04021	08b	1-HV-8875E	ACCUMULATOR 1 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB03
04022	08b	1-HV-8875F	ACCUMULATOR 2 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB10
04023	08b	1-HV-8875G	ACCUMULATOR 3 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB10
04024	08b	1-HV-8875H	ACCUMULATOR 4 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB03
04025	08a	1-HV-8920	SIP B MINIFLOW MOV	AUX	180'-0"	RB19
06054	19	1-HY-0190A	I/P CONVERTER FOR HV-0190A	AUX	195'-0"	RA05

LINE NO.	CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	BUILDING	ELEV	ROOM
(1)	(2)	(3)	(4)	(5)	(6)	(7)
06055	19	1-HY-0190B	I/P CONVERTER FOR HV-0190B	AUX	143'-6"	RC119
06056	19	1-HY-0442A	I/P CONVERTER FOR HV-0442A	CONTROL	180'-0"	RB78
06057	19	1-HY-0442B	I/P CONVERTER FOR HV-0442B	CONTROL	180'-0"	RB74
04030	19	1-HY-0943A	I/P CONVERTER FOR HV-0943A	CONTROL	180'-0"	RB78
04031	19	1-HY-0943B	I/P CONVERTER FOR HV-0943B	CONTROL	180'-0"	RB74
12028	08b	1-HY-7150	SOLENOID VALVE FOR 1-HV-7150	FB	180'-0"	RA10
12027	08b	1-HY-7699	SOLENOID VALVE FOR 1-HV-7699	CTB	183'-0"	RB07
06049	08b	1-HY-8149A	SOLENOID VALVE FOR 1-HV-8149A	CTB	183'-0"	RB03
06050	08b	1-HY-8149B	SOLENOID VALVE FOR 1-HV-8149B	CTB	183'-0"	RB03
06051	08b	1-HY-8149C	SOLENOID VALVE FOR 1-HV-8149C	CTB	183'-0"	RB03
06052	08b	1-HY-8154	SOLENOID VALVE FOR 1-HV-8154	CTB	183'-0"	RB03
06053	08b	1-HY-8160	SOLENOID VALVE FOR 1-HV-8160	CTB	220'-0"	R163
11024	19	1-LSH-9020	F.O. DAY TANK 3 LEVEL	DG	220'-0"	R1102
11025	19	1-LSH-9021	F.O. DAY TANK 4 LEVEL	DG	220'-0"	R1104
11026	19	1-LSL-9020	F.O. DAY TANK 3 LEVEL	DG	220'-0"	R1102
11027	19	1-LSL-9021	F.O. DAY TANK 4 LEVEL	DG	220'-0"	R1104
03012	19	1-LSLL-1852	CCW SURGE TK 1 LEVEL	AUX	245'-0"	R203
03013	19	1-LSLL-1853	CCW SURGE TK 2 LEVEL	AUX	245'-0"	R202
03014	19	1-LSLL-1854	CCW SURGE TK 1 LEVEL	AUX	245'-0"	R203
03015	19	1-LSLL-1855	CCW SURGE TK 2 LEVEL	AUX	245'-0"	R202
06033	19	1-LT-0112	VCT LEVEL	AUX	195'-0"	RA30
06034	19	1-LT-0185	VCT LEVEL	AUX	195'-0"	RA30
01012	19	1-LT-0459	PRESSURIZER LEVEL	CTB	183'-0"	RB02
01013	19	1-LT-0460	PRESSURIZER LEVEL	CTB	183'-0"	RB02
01014	19	1-LT-0461	PRESSURIZER LEVEL	CTB	183'-0"	RB02
08020	19	1-LT-0501	SG 1 WIDE RANGE LEVEL	CTB	183'-0"	RB03
08021	19	1-LT-0502	SG 2 WIDE RANGE LEVEL	CTB	183'-0"	RB10
08022	19	1-LT-0503	SG 3 WIDE RANGE LEVEL	CTB	183'-0"	RB10
08023	19	1-LT-0504	SG 4 WIDE RANGE LEVEL	CTB	183'-0"	RB03
08024	19	1-LT-0517	SG 1 NARROW RANGE LEVEL	CTB	220'-0"	R102

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
08025	19	1-LT-0518	SG 1 NARROW RANGE LEVEL	CTB	220'-0"	R101
08026	19	1-LT-0519	SG 1 NARROW RANGE LEVEL	CTB	220'-0"	R101
08027	19	1-LT-0527	SG 2 NARROW RANGE LEVEL	CTB	220'-0"	R101
08028	19	1-LT-0528	SG 2 NARROW RANGE LEVEL	CTB	220'-0"	R101
08029	19	1-LT-0529	SG 2 NARROW RANGE LEVEL	CTB	220'-0"	R101
08030	19	1-LT-0537	SG 3 NARROW RANGE LEVEL	CTB	220'-0"	R101
08031	19	1-LT-0538	SG 3 NARROW RANGE LEVEL	CTB	220'-0"	R101
08032	19	1-LT-0539	SG 3 NARROW RANGE LEVEL	CTB	220'-0"	R101
08033	19	1-LT-0547	SG 4 NARROW RANGE LEVEL	CTB	220'-0"	R101
08034	19	1-LT-0548	SG 4 NARROW RANGE LEVEL	CTB	220'-0"	R101
08035	19	1-LT-0549	SG 4 NARROW RANGE LEVEL	CTB	220'-0"	R101
08064	19	1-LT-0551	SG 1 NARROW RANGE LEVEL	CTB	220'-0"	R101
08065	19	1-LT-0552	SG 2 NARROW RANGE LEVEL	CTB	220'-0"	R101
08066	19	1-LT-0553	SG 3 NARROW RANGE LEVEL	CTB	220'-0"	R101
08067	19	1-LT-0554	SG 4 NARROW RANGE LEVEL	CTB	220'-0"	R101
05024	19	1-LT-0764	CNMT EMERGENCY SUMP LEVEL	CTB	183'-0"	RB03
05025	19	1-LT-0765	CNMT EMERGENCY SUMP LEVEL	CTB	183'-0"	RB03
04026	19	1-LT-0990	RWST LEVEL	RWST	220'-0"	R101
04027	19	1-LT-0991	RWST LEVEL	RWST	220'-0"	R101
04028	19	1-LT-0992	RWST LEVEL	RWST	220'-0"	R101
04029	19	1-LT-0993	RWST LEVEL	RWST	220'-0"	R101
09016	19	1-LT-5111	CST NO. 1 LEVEL CONDENSATE STORAGE TANK	CST NO. 1	220'-0"	
06035	08a	1-LV-0112B	VCT DISCHARGE ISOLATION MOV	AUX	195'-0"	RA26
06036	08a	1-LV-0112C	VCT DISCHARGE ISOLATION MOV	AUX	195'-0"	RA26
06037	08a	1-LV-0112D	CCP SUCTION FROM RWST MOV	AUX	143'-6"	RC113
06038	08a	1-LV-0112E	CCP SUCTION FROM RWST MOV	AUX	143'-6"	RC120
14003	19	1-NE-0041	NIS DETECTOR--CH.1	CTB		
14004	19	1-NE-0042	NIS DETECTOR--CH.2	CTB		
14005	19	1-NE-0043	NIS DETECTOR--CH.3	CTB		
14006	19	1-NE-0044	NIS DETECTOR--CH.4	CTB		

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
08036	00	1-PSV-3001	MAIN STEAM SAFETY RELIEF VALVE	AUX	220'-0"	R108
08037	00	1-PSV-3011	MAIN STEAM SAFETY RELIEF VALVE	CONTROL	220'-0"	R123
08038	00	1-PSV-3021	MAIN STEAM SAFETY RELIEF VALVE	CONTROL	220'-0"	R123
08039	00	1-PSV-3031	MAIN STEAM SAFETY RELIEF VALVE	AUX	220'-0"	R108
06039	00	1-PSV-8510A	CCP A ALT MINIFLOW	AUX	143'-6"	RC114
06040	00	1-PSV-8510B	CCP B ALT MINIFLOW	AUX	143'-6"	RC119
01019	19	1-PT-0455	PRESSURIZER PRESSURE	CTB	183'-0"	RB03
01020	19	1-PT-0456	PRESSURIZER PRESSURE	CTB	183'-0"	RB02
01021	19	1-PT-0457	PRESSURIZER PRESSURE	CTB	183'-0"	RB02
01022	19	1-PT-0458	PRESSURIZER PRESSURE	CTB	183'-0"	RB02
08040	19	1-PT-0514	SG 1 PRESSURE	AUX	195'-0"	RA09
08041	19	1-PT-0515	SG 1 PRESSURE	AUX	195'-0"	RA09
08042	19	1-PT-0516	SG 1 PRESSURE	AUX	195'-0"	RA09
08043	19	1-PT-0524	SG 2 PRESSURE	CONTROL	200'-0"	RA62
08044	19	1-PT-0525	SG 2 PRESSURE	CONTROL	200'-0"	RA62
08045	19	1-PT-0526	SG 2 PRESSURE	CONTROL	200'-0"	RA62
08046	19	1-PT-0534	SG 3 PRESSURE	CONTROL	200'-0"	RA51
08047	19	1-PT-0535	SG 3 PRESSURE	CONTROL	220'-0"	RA51
08048	19	1-PT-0536	SG 3 PRESSURE	CONTROL	220'-0"	RA51
08049	19	1-PT-0544	SG 4 PRESSURE	AUX	220'-0"	R107
08050	19	1-PT-0545	SG 4 PRESSURE	AUX	220'-0"	R107
08051	19	1-PT-0546	SG 4 PRESSURE	AUX	220'-0"	R110
12000	19	1-PT-0934	CNMT PRESSURE	AUX	200'-0"	RA10
12001	19	1-PT-0935	CNMT PRESSURE	AUX	180'-0"	RB08
12002	19	1-PT-0936	CNMT PRESSURE	AUX	180'-0"	RB11
02024	19	1-PT-11741	NSCW SUPPLY TO PUMP MOTOR COOLERS	AUX	119'-3"	RD75
02025	19	1-PT-11742	NSCW SUPPLY TO PUMP MOTOR COOLERS	AUX	119'-3"	RD67
08052	19	1-PT-3000	SG 1 PRESSURE TO ARV TRANSMITTER	AUX	195'-0"	RA09
08053	19	1-PT-3010	SG 2 PRESSURE TO ARV TRANSMITTER	CONTROL	200'-0"	RA62
08054	19	1-PT-3020	SG 3 PRESSURE TO ARV TRANSMITTER	CONTROL	200'-0"	RA51

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
08055	19	1-PT-3030	SG 4 PRESSURE TO ARV TRANSMITTER	AUX	220'-0"	R107
01023	08b	1-PV-0455A	PRESSURIZER PORV	CTB	220'-0"	14D1
01024	08b	1-PV-0456A	PRESSURIZER PORV	CTB	220'-0"	R110
10088	08a	1-PV-2550A	PPG PEN FILTRATION AND EXHAUST UNIT DISCHARGE DAMPER	AUX	245'-0"	R210
10089	08a	1-PV-2551A	PPG PEN FILTRATION AND EXHAUST UNIT DISCHARGE DAMPER	AUX	245'-0"	R209
08056	08c	1-PV-3000	ATMOS. RELIEF VALVE--SG 1	AUX	245'-0"	R206
08057	08c	1-PV-3010	ATMOS. RELIEF VALVE--SG 2	CONTROL	220'-0"	R121
08058	08c	1-PV-3020	ATMOS. RELIEF VALVE--SG 3	CONTROL	220'-0"	R122
08059	08c	1-PV-3030	ATMOS. RELIEF VALVE--SG 4	AUX	220'-0"	R108
08060	19	1-PY-3000	SG 1 PRESSURE TO ARV CONTROLLER	AUX	245'-0"	R204
08061	19	1-PY-3010	SG 2 PRESSURE TO ARV CONTROLLER	CONTROL	200'-0"	RA60
08062	19	1-PY-3020	SG 3 PRESSURE TO ARV CONTROLLER	CONTROL	200'-0"	RA60
08063	19	1-PY-3030	SG 4 PRESSURE TO ARV CONTROLLER	AUX	245'-0"	R204
10106	19	1-TDC-4170	ECW COND/EVAP TEMP DIFF TO NSCW CONTROL VLV 1-TV-11740	CONTROL	260'-0"	R320
10107	19	1-TDC-4193	ECW COND/EVAP TEMP DIFF TO NSCW CONTROL VLV 1-TV-11675	CONTROL	260'-0"	R313
01025	19	1-TE-0413A	RCS HOT LEG TEMP--LOOP 1	CTB	183'-0"	RB02
01026	19	1-TE-0413B	RCS COLD LEG TEMP--LOOP 1	CTB	183'-0"	RB02
01027	19	1-TE-0423A	RCS HOT LEG TEMP--LOOP 2	CTB	183'-0"	RB02
01028	19	1-TE-0423B	RCS COLD LEG TEMP--LOOP 2	CTB	183'-0"	RB02
01029	19	1-TE-0433A	RCS HOT LEG TEMP--LOOP 3	CTB	183'-0"	RB02
01030	19	1-TE-0433B	RCS COLD LEG TEMP--LOOP 3	CTB	183'-0"	RB02
01031	19	1-TE-0443A	RCS HOT LEG TEMP--LOOP 4	CTB	183'-0"	RB02
01032	19	1-TE-0443B	RCS COLD LEG TEMP--LOOP 4	CTB	183'-0"	RB02
02026	19	1-TE-11641	NSCW A RETURN TO FAN 1 CONTROL	NSCT	220'-0"	R102
02027	19	1-TE-11642	NSCW A RETURN TO FAN 2 CONTROL	NSCT	220'-0"	R102
02028	19	1-TE-11643	NSCW A RETURN TO FAN 3 CONTROL	NSCT	220'-0"	R102
02038	19	1-TE-11644	NSCW A RETURN TO FAN 4 CONTROL	NSCT	220'-0"	R102
02029	19	1-TE-11646	NSCW B RETURN TO FAN 1 CONTROL	NSCT	220'-0"	R202

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
02030	19	1-TE-11647	NSCW B RETURN TO FAN 2 CONTROL	NSCT	220'-0"	R202
02031	19	1-TE-11648	NSCW B RETURN TO FAN 3 CONTROL	NSCT	220'-0"	R202
02039	19	1-TE-11649	NSCW B RETURN TO FAN 4 CONTROL	NSCT	220'-0"	R202
10029	19	1-TE-12124	CB CR RETURN AIR TEMP	CONTROL	260'-0"	R321
10030	19	1-TE-12125	CB CR RETURN AIR TEMP	CONTROL	260'-0"	R312
10037	19	1-TE-12725	ELEC EQUIP RM TEMP	CONTROL	180'-0"	RB49
10038	19	1-TE-12740	ELEC EQUIP RM TEMP	CONTROL	180'-0"	RB54
02032	19	1-TE-1668	NSCW A RETURN TO SPRAY/BYPASS VALVES	NSCT	220 -0"	R102
02033	19	1-TE-1669	NSCW B RETURN TO SPRAY/BYPASS VALVES	NSCT	220'-0"	R202
10043	19	1-TIC-13150	CB NORMAL A/C RM ESF A/C UNIT CONTROLLER	CONTROL	260'-0"	R325
10044	19	1-TIC-13152	CB ELEC EQUIP RM ESF A/C UNIT CONTROLLER	CONTROL	260'-0"	R325
10114	19	1-TIS-12005	AFW PUMP B ROOM SUPPLY FAN CONTROLLER	AFWP HOUSE	220'-0"	R102
10115	19	1-TIS-12006	AFW PUMP A ROOM SUPPLY FAN CONTROLLER	AFWP HOUSE	220'-0"	R101
10141	19	1-TIS-12300	CBCR CHILLER RM VENT FAN CONTROLLER	CONTROL	260'-0"	R312
10142	19	1-TIS-12303	CBCR CHILLER RM VENT FAN CONTROLLER	CONTROL	260'-0"	B320
10072	19	1-TISH-12200	ELECT SWGR & MCC RM A7001 COOLER CONTROLLER	AUX	119'-3"	RD105
10073	19	1-TISH-12201	ELECT SWGR & MCC RM A7002 COOLER CONTROLLER	AUX	245'-0"	R207
10074	19	1-TISH-12202	ELECT SWGR & MCC RM A7003 COOLER CONTROLLER	AUX	143'-6"	RC109
10075	19	1-TISH-12203	ELECT SWGR & MCC RM A7004 COOLER CONTROLLER	AUX	180'-0"	RB116
10076	19	1-TISH-12204	ELECT SWGR & MCC RM A7005 COOLER CONTROLLER	AUX	220'-0"	R117
10077	19	1-TISH-12205	ELECT SWGR & MCC RM A7006 COOLER CONTROLLER	AUX	220'-0"	R118
10116	19	1-TISH-22501	DIESEL POWER CABLE TUNNEL EXH FAN CONTROLLER	DG	220'-0"	
10050	19	1-TISH-22505	DIESEL POWER CABLE TUNNEL EXH FAN CONTROLLER	TUNNEL	220'-0"	1T4B @ DGB
10051	19	1-TISH-22509	TB & AB TRAIN A TUNNEL SUPPLY FAN CONTROLLER	CONTROL	180'-0"	RB41
10052	19	1-TISH-22516	NSCW TWR CABLE TUNN TRN A FAN CONTROLLER	TUNNEL	220'-0"	1T5A @ NSCW

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
10053	19	1-TISH-22519	NSCW TWR CABLE TUNN TRN B FAN CONTROLLER	TUNNEL	220'-0"	1T5B @ NSCW
02034	08c	1-TV-11675	NSCW TO ESSENTIAL CHILLER CONDENSER (E/H) CONTROL VLV	CONTROL	260'-0"	R313
02035	08c	1-TV-11740	NSCW TO ESSENTIAL CHILLER CONDENSER (E/H) CONTROL VLV	CONTROL	260'-0"	R320
10119	07	1-TV-12085	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101
10120	07	1-TV-12085A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101
10121	07	1-TV-12086	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103
10122	07	1-TV-12086A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103
10123	07	1-TV-12094A	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R208
10124	07	1-TV-12094B	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R208
10125	07	1-TV-12094C	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R208
10126	07	1-TV-12094D	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R208
10127	07	1-TV-12095A	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R209
10128	07	1-TV-12095B	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R209
10129	07	1-TV-12095C	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R209
10130	07	1-TV-12095D	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R209
10131	07	1-TV-12096	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103
10132	07	1-TV-12096A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103
10133	07	1-TV-12097	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103
10134	07	1-TV-12097A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103
10135	07	1-TV-12098	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101
10136	07	1-TV-12098A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101
10137	07	1-TV-12099	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101
10138	07	1-TV-12099A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101
10031	08c	1-TV-12124	ECW TEMPERATURE CONTROL VALVE (E/H)	CONTROL	260'-0"	R321
10032	08c	1-TV-12125	ECW TEMPERATURE CONTROL VALVE (E/H)	CONTROL	260'-0"	R312
10108	08c	1-TV-12725	ECW TO ESF ELEC EQUIP RM HVAC UNIT CONTROL VALVE	CONTROL	180'-0"	RB62
10109	08c	1-TV-12740	ECW TO ESF ELEC EQUIP RM HVAC UNIT CONTROL VALVE	CONTROL	180'-0"	RB60

LINE NO.	CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	BUILDING	ELEV	ROOM
(1)	(2)	(3)	(4)	(5)	(6)	(7)
02040	19	1-TY-11675	CONVERTER FOR TV-11675	CONTROL	260'-0"	R313
02041	19	1-TY-11740	CONVERTER FOR TV-11740	CONTROL	260'-0"	R320
10143	19	1-TY-12124A	CONVERTER FOR TV-12124	CONTROL	260'-0"	R321
10144	19	1-TY-12125A	CONVERTER FOR TV-12125	CONTROL	260'-0"	R312
10145	19	1-TY-12725A	CONVERTER FOR TV-12725	CONTROL	180'-0"	RB62
10146	19	1-TY-12740A	CONVERTER FOR TV-12740	CONTROL	180'-0"	RB60

APPENDIX B
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SEISMIC REVIEW SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

LINE NO.	CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	BUILDING	ELEV	ROOM
(1)	(2)	(3)	(4)	(5)	(6)	(7)
01000	00	2-1201-B6-001	STEAM GENERATOR 1	CTB	183'-0"	R102
01001	00	2-1201-B6-002	STEAM GENERATOR 2	CTB	183'-0"	R103
01002	00	2-1201-B6-003	STEAM GENERATOR 3	CTB	183'-0"	R104
01003	00	2-1201-B6-004	STEAM GENERATOR 4	CTB	183'-0"	R105
01033	18	2-1201-P5-TIA	RVLIS TRANSMITTER RACK TRAIN A	AUX	180'-0"	RB125
01034	18	2-1201-P5-TIB	RVLIS TRANSMITTER RACK TRAIN B	FB	180'-0"	RB06
01008	00	2-1201-V6-001	REACTOR VESSEL	CTB	183'-0"	RA01
01009	00	2-1201-V6-002	PRESSURIZER	CTB	183'-0"	RA07
02000	06	2-1202-P4-001	NSCW TRAIN A PUMP NO. 1	NSCT	220'-0"	R403
02001	06	2-1202-P4-002	NSCW TRAIN B PUMP NO. 2	NSCT	220'-0"	R303
02002	06	2-1202-P4-003	NSCW TRAIN A PUMP NO. 3	NSCT	220'-0"	R403
02003	06	2-1202-P4-004	NSCW TRAIN B PUMP NO. 4	NSCT	220'-0"	R303
02004	09	2-1202-W4-001-F01	NSCT FAN NO. 1	NSCT	250'-0"	R405
02005	09	2-1202-W4-001-F02	NSCT FAN NO. 2	NSCT	250'-0"	R408
02006	09	2-1202-W4-001-F03	NSCT FAN NO. 3	NSCT	250'-0"	R406
02036	09	2-1202-W4-001-F04	NSCT FAN NO. 4	NSCT	250'-0"	R407
02007	09	2-1202-W4-002-F01	NSCT FAN NO. 1	NSCT	250'-0"	R305
02008	09	2-1202-W4-002-F02	NSCT FAN NO. 2	NSCT	250'-0"	R308
02009	09	2-1202-W4-002-F03	NSCT FAN NO. 3	NSCT	250'-0"	R306
02037	09	2-1202-W4-002-F04	NSCT FAN NO. 4	NSCT	250'-0"	R307
03000	21	2-1203-E4-001	CCW HEAT EXCHANGER	AUX	245'-0"	R227
03001	21	2-1203-E4-002	CCW HEAT EXCHANGER	AUX	245'-0"	R226
03002	05	2-1203-P4-001	CCW PUMP NO. 1	AUX	195'-0"	RA98
03003	05	2-1203-P4-002	CCW PUMP NO. 2	AUX	195'-0"	RA96
03004	05	2-1203-P4-003	CCW PUMP NO. 3	AUX	195'-0"	RA98
03005	05	2-1203-P4-004	CCW PUMP NO. 4	AUX	195'-0"	RA96
03008	21	2-1203-T4-001	CCW SURGE TANK	AUX	245'-0"	R227
03009	21	2-1203-T4-002	CCW SURGE TANK	AUX	245'-0"	R226
04000	05	2-1204-P6-003	SI PUMP A	AUX	180'-0"	RB119
04001	05	2-1204-P6-004	SI PUMP B	AUX	180'-0"	RB117

Report Date/Time: 10-08-94 / 10:09:31
Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 09:55:04
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	BUILDING	ELEV	ROOM
(1)	(2)	(3)	(4)	(5)	(6)	(7)
04002	21	2-1204-T4-001	REFUELING WATER STORAGE TANK	RWST	220'-0"	SOUTH OF AUX
05000	21	2-1205-E6-001	RHR HEAT EXCHANGER A	AUX	119'-3"	RC25
05001	21	2-1205-E6-002	RHR HEAT EXCHANGER B	AUX	143'-6"	RC26
05002	05	2-1205-P6-001	RHR PUMP A	AUX	119'-3"	RD22
05003	05	2-1205-P6-002	RHR PUMP B	AUX	119'-3"	RD21
05004	00	2-1205-U6-019	MANUAL RHR THROTTLING GATE VALVE WITH REACH ROD	AUX	143'-6"	RC21
05005	00	2-1205-U6-020	MANUAL RHR THROTTLING GATE VALVE WITH REACH ROD	AUX	143'-6"	RC21
06000	21	2-1208-E6-001	REGENERATIVE HEAT EXCHANGER	CTB	183'0"	RB04
06004	05	2-1208-P6-002	CCP A	AUX	143'-6"	RC16
06005	05	2-1208-P6-003	CCP B	AUX	143'-6"	RC17
06006	00	2-1208-U6-151	MANUAL SEAL INJECTION VALVE WITH REACH ROD	AUX	143'-6"	RC18
06007	00	2-1208-U6-152	MANUAL SEAL INJECTION VALVE WITH REACH ROD	AUX	143'-6"	RC11
06008	00	2-1208-U6-153	MANUAL CCP DISCH ISO VLV WITH REACH ROD	AUX	143'-6"	RC09
07002	21	2-1213-E6-001	SPENT FUEL PIT HEAT EXCH A	AUX	195'-0"	RA91
07013	21	2-1213-E6-002	SPENT FUEL PIT HEAT EXCH B	FB	200'-0"	RA04
07003	21	2-1217-E4-001	ACCW HEAT EXCHANGER	AUX	220'-0"	R153
07004	21	2-1217-E4-002	ACCW HEAT EXCHANGER	AUX	220'-0"	R152
09001	05	2-1302-P4-002	AFW MOTOR DRIVEN PUMP B	AFWP HOUSE	220'-0"	R102
09002	05	2-1302-P4-003	AFW MOTOR DRIVEN PUMP A	AFWP HOUSE	220'-0"	R101
09003	21	2-1302-V4-001	CONDENSATE STORAGE TANK NO. 1 (CST)	CST NO. 1	220'-0"	YARD
21000	18	2-1407-P5-SGS	SGB ISOL SOLENOID RACK	AUX	180'-0"	RB130
10000	20	2-1500-Q5-HVC	HVAC PANEL	CONTROL	220'-0"	R164
10001	20	2-1500-V7-001-CBA	LOCAL CB HVAC PANEL TRAIN A	CONTROL	220'-0"	R164
10002	20	2-1500-V7-002-CBB	LOCAL CB HVAC PANEL TRAIN B	CONTROL	220'-0"	R164
10003	09	2-1501-A7-001-000	CTB COOLING UNIT & MOTOR	CTB	220'-0"	R301
10004	09	2-1501-A7-002-000	CTB COOLING UNIT & MOTOR	CTB	220'-0"	R301
10005	09	2-1501-A7-003-000	CTB COOLING UNIT & MOTOR	CTB	220'-0"	R301
10006	09	2-1501-A7-004-000	CTB COOLING UNIT & MOTOR	CTB	220'-0"	R301

Report Date/Time: 10-08-94 / 10:09:31
Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 09:55:04
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

APPENDIX B
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SEISMIC REVIEW SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
10139	09	2-1531-B7-002-000	CBCR CHILLER ROOM VENT FAN	CONTROL	260'-0"	R311
10140	09	2-1531-B7-004-000	CBCR CHILLER ROOM VENT FAN	CONTROL	260'-0"	R308
10017	09	2-1531-N7-001-000	CBCR FILTER UNIT	CONTROL	260'-0"	R311
10018	09	2-1531-N7-002-000	CBCR FILTER UNIT	CONTROL	260'-0"	R305
10033	09	2-1532-A7-001-000	CBSF ELEC EQUIP RM AC UNIT	CONTROL	180'-0"	RB16
10034	09	2-1532-A7-002-000	CBSF ELEC EQUIP RM AC UNIT	CONTROL	180'-0"	RB1[illegible]
10035	09	2-1532-B7-001-000	BATTERY RM EXHAUST FAN & MOTOR	CONTROL	180'-0"	RB33
10036	09	2-1532-B7-002-000	BATTERY RM EXHAUST FAN & MOTOR	CONTROL	180'-0"	RB32
10039	09	2-1539-A7-001-000	CB AUX RELAY RM ESF A/C UNIT	CONTROL	200'-0"	RA81
10040	09	2-1539-A7-002-000	CB AUX RELAY RM ESF A/C UNIT	CONTROL	240'-0"	R223
10041	09	2-1539-A7-005-000	CB NORMAL AC RM ESF A/C UNIT	CONTROL	260'-0"	R325
10045	09	2-1540-B7-001-000	DIESEL POWER CABLE TUNNEL EXHAUST FAN UNIT	TUNNEL	195'-0"	1T4A @ DGB
10046	09	2-1540-B7-002-000	DIESEL POWER CABLE TUNNEL EXHAUST FAN UNIT	TUNNEL	180'-0"	1T4B @ DGB
10047	09	2-1540-B7-003-000	NSCW TOWER CABLE TUNNEL EXHAUST FAN UNIT	TUNNEL	220'-0"	1T5A @ NSCW
10048	09	2-1540-B7-004-000	NSCW TOWER CABLE TUNNEL EXHAUST FAN UNIT	TUNNEL	220'-0"	1T5B @ NSCW
10049	09	2-1540-B7-005-000	AUX BLDG TRAIN A TUNNEL SUPPLY FAN UNIT	AUX	245'-0"	R221
10054	09	2-1555-A7-001-000	ELEC SWGR AND MCC ROOM COOLER A	AUX	119'-3"	RD02
10055	09	2-1555-A7-002-000	ELEC SWGR AND MCC ROOM COOLER B	AUX	245'-0"	R221
10056	09	2-1555-A7-003-000	ELEC SWGR AND MCC ROOM COOLER A	AUX	180'-0"	RB123
10057	09	2-1555-A7-004-000	ELEC SWGR AND MCC ROOM COOLER B	AUX	180'-0"	RB121
10058	09	2-1555-A7-005-000	ELEC SWGR AND MCC ROOM COOLER A	AUX	220'-0"	R149
10059	09	2-1555-A7-006-000	ELEC SWGR AND MCC ROOM COOLER B	AUX	220'-0"	R147
10078	09	2-1561-E7-001-000	PIPING PENETRATION AREA COOLER	AUX	245'-0"	R219
10079	09	2-1561-E7-002-000	PIPING PENETRATION AREA COOLER	AUX	245'-0"	R219
10080	09	2-1561-N7-001-000	PIPING PENETRATION ROOM FILTRATION AND EXHAUST UNIT	AUX	245'-0"	R219
10081	09	2-1561-N7-002-000	PIPING PENETRATION ROOM FILTRATION AND EXHAUST UNIT	AUX	245'-0"	R220
10090	09	2-1566-B7-001-000	DG A BLDG ESF SUPPLY FAN NO. 1	DG	255'-0"	R208
10091	09	2-1566-B7-002-000	DG B BLDG ESF SUPPLY FAN NO. 2	DG	255'-0"	R203

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
10092	09	2-1566-B7-003-000	DG A BLDG ESF SUPPLY FAN NO. 3	DG	255'-0"	R208
10093	09	2-1566-B7-004-000	DG B BLDG ESF SUPPLY FAN NO. 4	DG	255'-0"	R203
10098	11	2-1592-C7-001	CB ESSENTIAL CHILLER	CONTROL	260'-0"	R310
10099	11	2-1592-C7-002	CB ESSENTIAL CHILLER	CONTROL	260'-0"	R308
10100	05	2-1592-P7-001	ESSENTIAL CHILLED WATER PUMP	CONTROL	260'-0"	R310
10101	05	2-1592-P7-002	ESSENTIAL CHILLED WATER PUMP	CONTROL	260'-0"	R308
10102	21	2-1592-T7-001	ESSENTIAL CHILLED WATER EXPANSION TANK	CONTROL	260'-0"	R310
10103	21	2-1592-T7-002	ESSENTIAL CHILLED WATER EXPANSION TANK	CONTROL	260'-0"	R308
10110	09	2-1593-B7-001	AFW PUMP A SUPPLY FAN & MOTOR	AFWP HOUSE	220'-0"	R101
10111	09	2-1593-B7-002	AFW PUMP B SUPPLY FAN & MOTOR	AFWP HOUSE	220'-0"	R102
13000	20	2-1601-Q5-MCB	MAIN CONTROL BOARD	CONTROL	220'-0"	R164
13001	20	2-1601-U3-T03	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA23
13002	20	2-1601-U3-T04	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R224
13003	20	2-1601-U3-T05	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA23
13004	20	2-1601-U3-T06	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R224
13005	20	2-1601-U3-T07	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA23
13006	20	2-1601-U3-T08	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R224
13007	20	2-1601-U3-T10	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R224
13008	20	2-1601-U3-T11	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA23
13009	20	2-1601-U3-T14	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R224
13010	20	2-1601-U3-T15	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA23
13011	20	2-1601-U3-T19	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA23
13012	20	2-1601-U3-T20	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R224
13013	20	2-1601-U3-T27	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA23
14000	20	2-1602-P5-NDA	EXCORE NUC DET PREAMPS PNL-A	CONTROL	180'-0"	RB02
14001	20	2-1602-P5-NDB	EXCORE NUC DET PREAMPS PNL-B	CONTROL	180'-0"	RB19
14002	18	2-1602-Q5-NIR	NUCLEAR INST RACKS	CONTROL	220'-0"	R164
15000	20	2-1604-Q5-PC1	PROCESS CONTROL GROUP 1	CONTROL	220'-0"	R164
15001	20	2-1604-Q5-PC2	PROCESS CONTROL GROUP 2	CONTROL	220'-0"	R164
15002	20	2-1604-Q5-PC3	PROCESS CONTROL GROUP 3	CONTROL	220'-0"	R164

APPENDIX B
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SEISMIC REVIEW SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

LINE NO.	CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	BUILDING	ELEV	ROOM
(1)	(2)	(3)	(4)	(5)	(6)	(7)
15003	20	2-1604-Q5-PC4	PROCESS CONTROL GROUP 4	CONTROL	220'-0"	R164
15013	20	2-1604-Q5-PCG	BOP CONTROL PANEL 1	CONTROL	220'-0"	R164
15004	20	2-1604-Q5-PCP	MISC SYS/EQPT PANEL	CONTROL	220'-0"	R164
15005	20	2-1604-Q5-PP1	BOP PROTECTION CH 1 PANEL	CONTROL	220'-0"	R164
15006	20	2-1604-Q5-PP2	BOP PROTECTION CH 2 PANEL	CONTROL	220'-0"	R164
15007	20	2-1604-Q5-PP3	BOP PROTECTION CH 3 PANEL	CONTROL	220'-0"	R164
15008	20	2-1604-Q5-PP4	BOP PROTECTION CH 4 PANEL	CONTROL	220'-0"	R164
15009	20	2-1604-Q5-PS1	PROCESS I&C PROTECT I	CONTROL	220'-0"	R164
15010	20	2-1604-Q5-PS2	PROCESS I&C PROTECT II	CONTROL	220'-0"	R164
15011	20	2-1604-Q5-PS3	PROCESS I&C PROTECT III	CONTROL	220'-0"	R164
15012	20	2-1604-Q5-PS4	PROCESS I&C PROTECT IV	CONTROL	220'-0"	R164
16000	20	2-1605-C5-ASI	ALTERNATE SHDN IND EAGLE 21 CAB	CONTROL	240'-0"	R264
16001	20	2-1605-P5-SDA	SHUTDOWN PANEL TRN A	CONTROL	200'-0"	RA76
16002	20	2-1605-P5-SDB	SHUTDOWN PANEL TRN B	CONTROL	200'-0"	RA24
16003	20	2-1605-Q5-SPA	SOLID STATE PROT SYS CAB-TRN A	CONTROL	220'-0"	R164
16004	20	[illegible]1605-Q5-SPB	SOLID STATE PROT SYS CAB-TRN B	CONTROL	220'-0"	R164
16005	20	2-1605-Q5-SPC	SOLID STATE PROT SYS CAB-TRN C	CONTROL	220'-0"	R164
16006	20	2-1605-Q5-SPD	SOLID STATE PROT SYS CAB-TRN D	CONTROL	220'-0"	R164
16007	20	2-1605-Q5-STA	SAFEGUARD TEST CAB-TRN A	CONTROL	220'-0"	R164
16008	20	2-1605-Q5-STB	SAFEGUARD TEST CAB-TRN B	CONTROL	220'-0"	R164
21001	20	2-1606-S6-002	REACTOR TRIP SWITCHGEAR	CONTROL	180'-0"	RB07
21002	20	2-1620-Q5-ESF	BOP ESF PANEL	CONTROL	220'-0"	R164
17000	20	2-1623-D5-001	REMOTE PROCESSING UNIT A CAB 1	CONTROL	200'-0"	RA16
17001	20	2-1623-D5-002	REMOTE PROCESSING UNIT A CAB 2	CONTROL	200'-0"	RA16
17002	20	2-1623-D5-003	REMOTE PROCESSING UNIT B CAB 1	CONTROL	240'-0"	R264
17003	20	2-1623-D5-004	REMOTE PROCESSING UNIT B CAB 2	CONTROL	240'-0"	R264
17004	20	2-1623-D5-006A	DISPLAY PROCESSING UNIT A	CONTROL	200'-0"	RA16
17005	20	2-1623-D5-006B	DISPLAY PROCESSING UNIT B	CONTROL	240'-0"	R264
17006	20	2-1623-P5-NFA	NEUTRON FLUX PRE-AMPS TRAIN A	CONTROL	183'-0"	RB02
17007	20	2-1623-P5-NFB	NEUTRON FLUX PRE-AMPS TRAIN B	CONTROL	183'-0"	RB19

Report Date/Time: 10-08-94 / 10:09:31
Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 09:55:04
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	BUILDING	ELEV	ROOM
(1)	(2)	(3)	(4)	(5)	(6)	(7)
18000	03	2-1804-S3-A02	4160V SWITCHGEAR 1AA02	CONTROL	200'-0"	RA16
18001	03	2-1804-S3-A03	4160V SWITCHGEAR 1BA03	CONTROL	200'-0"	RA15
18002	01	2-1805-S3-ABA	480V MOT CONTROL CTR 1ABA	CONTROL	260'-0"	R325
18003	01	2-1805-S3-ABB	480V MOT CONTROL CTR 1ABB	AUX	220'-0"	R149
18004	01	2-1805-S3-ABC	480V MOT CONTROL CTR 1ABC	CONTROL	180'-0"	RB04
18005	01	2-1805-S3-ABD	480V MOT CONTROL CTR 1ABD	AUX	143'-6"	RC07
18006	01	2-1805-S3-ABE	480V MOT CONTROL CTR 1ABE	CONTROL	180'-0"	RB01
18007	01	2-1805-S3-ABF	480V MOT CONTROL CTR 1ABF	DG	220'-0"	R101
18008	02	2-1805-S3-B01	480V SWITCHGEAR 1NB01	CONTROL	180'-0"	RB14
18009	02	2-1805-S3-B04	480V SWITCHGEAR 1AB04	CONTROL	180'-0"	RB04
18010	02	2-1805-S3-B05	480V SWITCHGEAR 1AB05	CONTROL	180'-0"	RB04
18011	02	2-1805-S3-B06	480V SWITCHGEAR 1BB06	CONTROL	180'-0"	RB18
18012	02	2-1805-S3-B07	480V SWITCHGEAR 1BB07	CONTROL	180'-0"	RB18
18013	02	2-1805-S3-B10	480V SWITCHGEAR 1NB10	CONTROL	180'-0"	RB33
18014	02	2-1805-S3-B15	480V SWITCHGEAR 1AB15	AUX	119'-3"	RD104
18015	02	2-1805-S3-B16	480V SWITCHGEAR 1BB16	AUX	245'-0"	R223
18016	01	2-1805-S3-BBA	480V MOT CONTROL CTR 1BBA	CONTROL	260'-0"	R305
18017	01	2-1805-S3-BBB	480V MOT CONTROL CTR 1BBB	AUX	220'-0"	R147
18018	01	2-1805-S3-BBC	480V MOT CONTROL CTR 1BBC	CONTROL	180'-0"	RB18
18019	01	2-1805-S3-BBD	480V MOT CONTROL CTR 1BBD	AUX	180'-0"	RB122
18020	01	2-1805-S3-BBE	480V MOT CONTROL CTR 1BBE	CONTROL	200'-0"	RA79
18021	01	2-1805-S3-BBF	480V MOT CONTROL CTR 1BBF	DG	220'-0"	R103
18022	02	2-1805-S3-NBR	480V MCC 1NBR	CONTROL	180'-0"	RB33
18023	02	2-1805-S3-NBS	480V MCC 1NBS	CONTROL	180'-0"	RB14
18052	23	2-1805-S3-RHR1A	STARTER/RHR HV-8701B	CONTROL	180'-0"	RB26
18053	23	2-1805-S3-RHR2A	STARTER/RHR HV-8702A	CONTROL	180'-0"	RB31
18054	16	2-1805-Y3-IC5	RHR ISO VLV INVERTER	CONTROL	180'-0"	RB26
18055	16	2-1805-Y3-ID6	RHR ISO VLV INVERTER	CONTROL	180'-0"	RB31
19001	15	2-1806-B3-BN3	125 VDC BATTERY 1ND3AB	CONTROL	280'-0"	R406
19002	15	2-1806-B3-BYA	125 VDC BATTERY 1AD1B	CONTROL	180'-0"	RB27

APPENDIX B
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SEISMIC REVIEW SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

LINE NO.	CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	BUILDING	ELEV	ROOM
(1)	(2)	(3)	(4)	(5)	(6)	(7)
19003	15	2-1806-B3-BYB	125 VDC BATTERY 1BD1B	CONTROL	180'-0"	RB32
19004	15	2-1806-B3-BYC	125 VDC BATTERY 1CD1B	CONTROL	180'-0"	RB25
19005	15	2-1806-B3-BYD	125 VDC BATTERY 1DD1B	CONTROL	180'-0"	RB37
19006	16	2-1806-B3-CAA	BATTERY CHARGER 1AD1CA	CONTROL	180'-0"	RB29
19007	16	2-1806-B3-CAB	BATTERY CHARGER 1AD1CB	CONTROL	180'-0"	RB29
19008	16	2-1806-B3-CBA	BATTERY CHARGER 1BD1CA	CONTROL	180'-0"	RB36
19009	16	2-1806-B3-CBB	BATTERY CHARGER 1BD1CB	CONTROL	180'-0"	RB36
19010	16	2-1806-B3-CCA	BATTERY CHARGER 1CD1CA	CONTROL	180'-0"	RB26
19011	16	2-1806-B3-CCB	BATTERY CHARGER 1CD1CB	CONTROL	180'-0"	RB26
19012	16	2-1806-B3-CDA	BATTERY CHARGER 1DD1CA	CONTROL	180'-0"	RB31
19013	16	2-1806-B3-CDB	BATTERY CHARGER 1DD1CB	CONTROL	180'-0"	RB31
19014	14	2-1806-Q3-DA1	125 VDC DISTR. PANEL 1AD11	CONTROL	180'-0"	RB29
19015	14	2-1806-Q3-DA2	125 VDC DISTR. PANEL 1AD12	CONTROL	180'-0"	RB29
19016	14	2-1806-Q3-DB1	125 VDC DISTR. PANEL 1BD11	CONTROL	200'-0"	RB36
19017	14	2-1806-Q3-DB2	125 VDC DISTR. PANEL 1BD12	CONTROL	200'-0"	RB36
19018	14	2-1806-Q3-DC1	125 VDC DISTR. PANEL 1CD11	CONTROL	200'-0"	RB26
19019	14	2-1806-Q3-DD1	125 VDC DISTR. PANEL 1DD11	CONTROL	200'-0"	RB31
19020	01	2-1806-S3-DCA	125 VDC MCC 1AD1M	CONTROL	200'-0"	RB29
19021	01	2-1806-S3-DCB	125 VDC MCC 1BD1M	CONTROL	200'-0"	RB36
19022	01	2-1806-S3-DCC	125 VDC MCC 1CD1M	CONTROL	200'-0"	RB85
19000	02	2-1806-S3-DN3	125 VDC SWITCHGEAR 1ND3A	CONTROL	280'-0"	R407
19023	02	2-1806-S3-DSA	125 VDC SWITCHGEAR 1AD1	CONTROL	200'-0"	RB29
19024	02	2-1806-S3-DSB	125 VDC SWITCHGEAR 1BD1	CONTROL	200'-0"	RB36
19025	02	2-1806-S3-DSC	125 VDC SWITCHGEAR 1CD1	CONTROL	200'-0"	RB26
19026	02	2-1806-S3-DSD	125 VDC SWITCHGEAR 1DD1	CONTROL	200'-0"	RB31
18024	14	2-1807-Q3-VI1	120 VAC VITAL PANEL 1AY1A	CONTROL	180'-0"	RB29
18025	14	2-1807-Q3-VI2	120 VAC VITAL PANEL 1BY1B	CONTROL	180'-0"	RB36
18026	14	2-1807-Q3-VI3	120 VAC VITAL PANEL 1CY1A	CONTROL	180'-0"	RB26
18027	14	2-1807-Q3-VI4	120 VAC VITAL PANEL 1DY1B	CONTROL	180'-0"	RB31
18028	14	2-1807-Q3-VI5	120 VAC VITAL DIST PANEL 1AY2A	AUX	220'-0"	R149

Report Date/Time: 10-08-94 / 10:09:31
Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 09:55:04
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	BUILDING	ELEV	ROOM
(1)	(2)	(3)	(4)	(5)	(6)	(7)
18029	14	2-1807-Q3-VI6	120 VAC VITAL DIST PANEL 1BY2B	AUX	220'-0"	R147
18030	14	2-1807-Q3-VN1	120 VAC ESSENT PANEL 1NY1N	CONTROL	180'-0"	RB28
18031	14	2-1807-Q3-VN2	120 VAC ESSENT PANEL 1NY2N	CONTROL	180'-0"	RB28
18032	14	2-1807-Q3-VN4	120 VAC ESSENT PANEL 1NY4N	CONTROL	260'-0"	R305
18033	04	2-1807-Y3-01	REGULATED XFMR 1ABC09X	CONTROL	180'-0"	RB29
18034	04	2-1807-Y3-02	REGULATED XFMR 1BBA07X	CONTROL	180'-0"	RB36
18035	04	2-1807-Y3-03	REGULATED XFMR 1ABA07X	CONTROL	180'-0"	RB29
18036	04	2-1807-Y3-04	REGULATED XFMR 1BBC09X	CONTROL	180'-0"	RB36
18037	04	2-1807-Y3-05	REGULATED XFMR 1BBC42X	CONTROL	180'-0"	RB18
18038	04	2-1807-Y3-06	REGULATED XFMR 1ABE51X	CONTROL	180'-0"	RB01
18039	16	2-1807-Y3-I2	ESSENTIAL AC INVERTER 1ND3I2	CONTROL	180'-0"	RB28
18040	16	2-1807-Y3-I3	ESSENTIAL AC INVERTER 1ND3I3	CONTROL	180'-0"	RB28
18041	16	2-1807-Y3-I4	ESSENTIAL AC INVERTER 1ND3I4	CONTROL	260'-0"	R305
18042	16	2-1807-Y3-IA1	VITAL AC INVERTER 1AD1I1	CONTROL	180'-0"	RB29
18043	16	2-1807-Y3-IA11	VITAL AC INVERTER 1AD1I11	AUX	220'-0"	R149
18044	16	2-1807-Y3-IB12	VITAL AC INVERTER 1BD1I12	AUX	220'-0"	R147
18045	16	2-1807-Y3-IB2	VITAL AC INVERTER 1BD1I2	CONTROL	180'-0"	RB36
18046	16	2-1807-Y3-IC3	VITAL AC INVERTER 1CD1I3	CONTROL	180'-0"	RB26
18047	16	2-1807-Y3-ID4	VITAL AC INVERTER 1DD1I4	CONTROL	180'-0"	RB31
18048	04	2-1807-Y3-RX11	REGULATED XFMR 1ABC20X	CONTROL	180'-0"	RB04
18049	04	2-1807-Y3-RX12	REGULATED XFMR 1BBC20X	CONTROL	180'-0"	RB18
18050	04	2-1807-Y3-RX7	REGULATED XFMR 1BBB40X	AUX	180'-0"	R147
18051	04	2-1807-Y3-RX8	REGULATED XFMR 1ABB40X	AUX	180'-0"	R149
22000	14	2-1808-Q3-L12	ESSENTIAL LTG DIST PANEL 1NLP12	AUX	195'-0"	RA75
22001	14	2-1808-Q3-L19	ESSENTIAL LTG DIST PANEL 1NLP19	AUX	143'-6"	RC31
22002	14	2-1808-Q3-L29	EMERGENCY LTG DIST PANEL 1NLP29	CONTROL	220'-0"	R131
22003	14	2-1808-Q3-L32	EMERGENCY LTG DIST PANEL 1NLP32	CONTROL	220'-0"	R131
22004	14	2-1808-Q3-L47	EMERGENCY LTG DIST PANEL 1NLP47	DG	220'-0"	R103
22005	14	2-1808-Q3-L50	EMERGENCY LTG DIST PANEL 1NLP50	DG	220'-0"	R101
22006	04	2-1808-T3-003	LTG DIST XFMR 1NBR11X	AUX	195'-0"	RA75

LINE NO.	CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	BUILDING	ELEV	ROOM
(1)	(2)	(3)	(4)	(5)	(6)	(7)
22007	04	2-1808-T3-053	LTG DIST XFMR 1NBS14X	AUX	143'-6"	RC31
22008	04	2-1808-T3-103	LTG ISOLATION XFMR 1ABC23X	CONTROL	220'-0"	R131
22009	04	2-1808-T3-104	LTG ISOLATION XFMR 1BBC23X	CONTROL	220'-0"	R131
22010	04	2-1808-T3-105	LTG ISOLATION XFMR 1ABF13X	DG	220'-0"	R101
22011	04	2-1808-T3-106	LTG ISOLATION XFMR 1BBF13X	DG	220'-0"	R103
20000	20	2-1816-U3-001	AUXILIARY RELAY PANEL A	CONTROL	200'-0"	RA22
20001	20	2-1816-U3-002	AUXILIARY RELAY PANEL N-A	CONTROL	200'-0"	RA22
20002	20	2-1816-U3-003	AUXILIARY RELAY PANEL B	CONTROL	240'-0"	R223
20003	20	2-1816-U3-004	AUXILIARY RELAY PANEL N-B	CONTROL	240'-0"	R223
20004	20	2-1816-U3-005	ISOLATION DEVICE PANEL AB	CONTROL	220'-0"	R164
20005	20	2-1816-U3-006	ISOLATION DEVICE PANEL B-C	CONTROL	220'-0"	R164
20006	20	2-1816-U3-007	ELECTRICAL AUXILIARY BOARD	CONTROL	220'-0"	R164
20007	20	2-1816-U3-009	ISOLATION DEVICE PANEL C	CONTROL	220'-0"	R164
20008	20	2-1816-U3-010	ISOLATION DEVICE PANEL	CONTROL	220'-0"	R164
20009	20	2-1816-U3-014	AUXILIARY RELAY PANEL	CONTROL	200'-0"	RA22
20010	20	2-1816-U3-015	AUXILIARY RELAY PANEL	CONTROL	240'-0"	RA22
20011	20	2-1816-U3-017	AUXILIARY RELAY PANEL	CONTROL	200'-0"	RA22
20012	20	2-1816-U3-018	AUXILIARY RELAY PANEL	CONTROL	200'-0"	RA15
21003	20	2-1821-U3-001	SF SEQUENCER BOARD TRAIN A	CONTROL	200'-0"	RA16
21004	20	2-1821-U3-002	SF SEQUENCER BOARD TRAIN B	CONTROL	200'-0"	RA15
21005	20	2-1823-Q5-BPS	SYSTEM STATUS MONITOR PANEL	CONTROL	220'-0"	R164
21006	03	2-1825-S3-1AAA	13800V RCP SWITCHGEAR 1AAA	CONTROL	200'-0"	RA01
21007	03	2-1825-S3-1BAB	13800V RCP SWITCHGEAR 1BAB	CONTROL	200'-0"	RA01
21008	03	2-1825-S3-1CAC	13800V RCP SWITCHGEAR 1CAC	CONTROL	200'-0"	RA11
21009	03	2-1825-S3-1DAD	13800V RCP SWITCHGEAR 1DAD	CONTROL	200'-0"	RA11
11002	17	2-2403-G4-001	DIESEL GENERATOR A	DG	220'-0"	R101
11003	24	2-2403-G4-001-F01	DG INTAKE AIR FILTER	DG	255'-0"	R205
11004	24	2-2403-G4-001-F02	DG EXHAUST AIR SILENCER	DG	255'-0"	R204
11005	21	2-2403-G4-001-V01	DG AIR START RECEIVER	DG	220'-0"	R101
11006	21	2-2403-G4-001-V02	DG AIR START RECEIVER	DG	220'-0"	R101

APPENDIX B
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SEISMIC REVIEW SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
11007	17	2-2403-G4-002	DIESEL GENERATOR B	DG	220'-0"	R103
11008	24	2-2403-G4-002-F01	DG INTAKE AIR FILTER	DG	255'-0"	R210
11009	24	2-2403-G4-002-F02	DG EXHAUST AIR SILENCER	DG	255'-0"	R103
11010	21	2-2403-G4-002-V01	DG AIR START RECEIVER	DG	220'-0"	R103
11011	21	2-2403-G4-002-V02	DG AIR START RECEIVER	DG	220'-0"	R103
11012	06	2-2403-P4-001	DIESEL FUEL OIL TRANSFER PUMP	DFOST	211'-6"	RA01
11013	06	2-2403-P4-003	DIESEL FUEL OIL TRANSFER PUMP	DFOST	211'-6"	RA03
11014	20	2-2403-P5-DG1	DG 1A GEN CTL PNL	DG	220'-0"	R101
11015	20	2-2403-P5-DG2	DG 1A ENG CTL PNL	DG	220'-0"	R101
11016	20	2-2403-P5-DG3	DG 1B GEN CTL PNL	DG	220'-0"	R103
11017	20	2-2403-P5-DG4	DG 1B ENG CTL PNL	DG	220'-0"	R103
11018	20	2-2403-T3-NGA	DG 1A NEUTRAL GND CABINET	DG	220'-0"	R101
11019	20	2-2403-T3-NGB	DG 1B NEUTRAL GND CABINET	DG	220'-0"	R103
11020	21	2-2403-T4-001	DIESEL FUEL OIL STORAGE TANK	DFOST	211'-6"	RA01
11021	21	2-2403-T4-002	DIESEL FUEL OIL STORAGE TANK	DFOST	211'-6"	RA03
11022	21	2-2403-T4-003	DIESEL FUEL OIL DAY TANK	DG	220'-0"	R104
11023	21	2-2403-T4-004	DIESEL FUEL OIL DAY TANK	DG	220'-0"	R102
02010	07	2-CV-9446	NSCT BLOWDOWN ISO AOV	NSCT	206'-0"	R402
02011	07	2-CV-9447	NSCT BLOWDOWN ISO AOV	NSCT	206'-0"	R302
05006	19	2-FIS-0610	RHR PUMP A FLOW TO MINIFLOW VALVE	AUX	119'-3"	RD113
05007	19	2-FIS-0611	RHR PUMP B FLOW TO MINIFLOW VALVE	AUX	119'-3"	RD41
02012	19	2-FIT-1640A	NSCW RETURN FLOW	NSCT	195'-0"	TUNNEL 1T2A
02013	19	2-FIT-1641A	NSCW RETURN FLOW	NSCT	195'-0"	TUNNEL 1T2B
10019	19	2-FSL-12045	INTERLOCK FLOW SWTCH CNTL BLD..CLOSES ON LOW AIR	CONTROL	260'-0"	R276
10020	19	2-FSL-12046	INTERLOCK FLOW SWTCH CNTL BLD..CLOSES ON AIR-FLO	CONTROL	260'-0"	R254
06010	19	2-FT-0138	CCP A FLOW	AUX	143'-6"	RC11
06011	19	2-FT-0142	RCP 4 SEAL INJ FLOW	FB	200'-0"	RA01
06012	19	2-FT-0143	RCP 3 SEAL INJ FLOW	FB	200'-0"	RA01

Report Date/Time: 10-08-94 / 10:09:31
Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 09:55:04
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

APPENDIX B
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SEISMIC REVIEW SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
06013	19	2-FT-0144	RCP 2 SEAL INJ FLOW	AUX	195'-0"	RA103
06014	19	2-FT-0145	RCP 1 SEAL INJ FLOW	AUX	195'-0"	RA103
06045	19	2-FT-0406	REACTOR HEAD LETDOWN LINE FLOW	CTB	183'-0"	RB03
06046	19	2-FT-0407	REACTOR HEAD LETDOWN LINE FLOW	CTB	183'-0"	RB03
05008	19	2-FT-0618	RHR A FLOW	AUX	119'-3"	RD41
05009	19	2-FT-0619	RHR B FLOW	AUX	143'-6"	RD41
04004	19	2-FT-0917	CCP INJECTION FLOW	AUX	180'-0"	RA39
04005	19	2-FT-0918	SIP A FLOW	AUX	180'-0"	RB119
04006	19	2-FT-0922	SIP B FLOW	AUX	180'-0"	RB117
02014	19	2-FT-1802	NSCW FLOW TO CB ESS CHILLER	CONTROL	260'-0"	R310
02015	19	2-FT-1803	NSCW FLOW TO CB ESS CHILLER	CONTROL	260'-0"	R308
03010	19	2-FT-1876	CCW A FLOW	AUX	195'-0"	RA98
03011	19	2-FT-1877	CCW B FLOW	AUX	195'-0"	RA96
10104	19	2-FT-22425	ECW FLOW	CONTROL	260'-0"	R310
10105	19	2-FT-22426	ECW FLOW	CONTROL	260'-0"	R308
09004	19	2-FT-5150	AFW FLOW TO SG 4	AUX	195'-0"	RA61
09005	19	2-FT-5151	AFW FLOW TO SG 2	CONTROL	200'-0"	RA02
09006	19	2-FT-5152	AFW FLOW TO SG 1	AUX	195'-0"	RA102
09007	19	2-FT-5153	AFW FLOW TO SG 3	CONTROL	200'-0"	RA10
09008	19	2-FT-5154	AFW B FLOW TO MINIFLOW VALVE	AFWP HOUSE	220'-0"	R102
09009	19	2-FT-5155	AFW A FLOW TO MINIFLOW VAVLE	AFWP HOUSE	220'-0"	R101
05010	08a	2-FV-0610	RHR PUMP A MINIFLOW MOV	AUX	143'-6"	RC25
05011	08a	2-FV-0611	RHR PUMP B MINIFLOW MOV	AUX	143'-6"	RC26
09010	08a	2-FV-5154	AFW PUMP B MINIFLOW MOV	AFWP HOUSE	220'-0"	R102
09011	08a	2-FV-5155	AFW PUMP A MINIFLOW MOV	AFWP HOUSE	220'-0"	R101
06015	08b	2-HV-0190A	CCP A SAFETY GRADE CHARGING SOLENOID OP VLV	AUX	195'-0"	RA103
06016	08b	2-HV-0190B	CCP B SAFETY GRADE CHARGING SOLENOID OP VLV	AUX	143'-6"	RC18
06047	08b	2-HV-0442A	REACTOR HEAD LETDOWN LINE CONTROL SOV	CTB	183'-0"	RB03
06048	08b	2-HV-0442B	REACTOR HEAD LETDOWN LINE CONTROL SOV	CTB	183'-0"	RB03

LINE NO.	CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	BUILDING	ELEV	ROOM
(1)	(2)	(3)	(4)	(5)	(6)	(7)
12005	07	2-HV-0780	NORMAL CTB SUMP PUMP DISCHARGE AOV	CTB	198'-0"	RB10
12006	07	2-HV-0781	NORMAL CTB SUMP PUMP DISCHARGE AOV	AUX	195'-0"	RA103
04007	08b	2-HV-0943A	ACCUMULATOR NITROGEN HDR VENT--SOLENOID OPERATED VALVE	CTB	180'-0"	RB10
04008	08b	2-HV-0943B	ACCUMULATOR NITROGEN HDR VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB10
04009	07	2-HV-10957	RWST TO SLUDGE MIXING PUMP SUCTION AOV	RWST	220'-0"	R101
04010	07	2-HV-10958	RWST TO SLUDGE MIXING PUMP SUCTION AOV	RWST	220'-0"	R101
02016	08a	2-HV-11600	NSCW PUMP 1 DISCHARGE MOV	NSCT	220'-0"	R403
02017	08a	2-HV-11606	NSCW PUMP 3 DISCHARGE MOV	NSCT	220'-0"	R403
02018	08a	2-HV-11607	NSCW PUMP 2 DISCHARGE MOV	NSCT	245'-0"	R303
02019	08a	2-HV-11613	NSCW PUMP 4 DISCHARGE MOV	NSCT	245'-0"	R303
10112	08a	2-HV-12005	AFW PUMP HOUSE AIR SUPPLY DAMPER	AFWP HOUSE	220'-0"	R102
10113	08a	2-HV-12006	AFW PUMP HOUSE AIR SUPPLY DAMPER	AFWP HOUSE	220'-0"	R101
10094	08a	2-HV-12050	DG A AIR SUPPLY DAMPER FOR FAN NO. 1	DG	255'-0"	R209
10095	08a	2-HV-12051	DG A AIR SUPPLY DAMPER FOR FAN NO. 3	DG	255'-0"	R209
10096	08a	2-HV-12053	DG A AIR SUPPLY DAMPER FOR FAN NO. 2	DG	255'-0"	R208
10097	08a	2-HV-12054	DG A AIR SUPPLY DAMPER FOR FAN NO. 4	DG	255'-0"	R208
10021	08a	2-HV-12128	CBCR FILTER UNIT AIR SUPPLY DAMPER	CONTROL	220'-0"	R140
10022	08a	2-HV-12129	CBCR FILTER UNIT AIR SUPPLY DAMPER	CONTROL	220'-0"	R127
10023	08a	2-HV-12130	CBCR FILTER UNIT AIR RETURN DAMPER	CONTROL	220'-0"	R140
10024	08a	2-HV-12131	CBCR FILTER UNIT AIR RETURN DAMPER	CONTROL	220'-0"	R127
10025	07	2-HV-12146	CBCR NORMAL AIR SUPPLY DAMPER	CONTROL	240'-0"	R264
10026	07	2-HV-12147	CBCR NORMAL AIR SUPPLY DAMPER	CONTROL	240'-0"	R264
10027	07	2-HV-12148	CBCR NORMAL AIR RETURN DAMPER	CONTROL	240'-0"	R264
10028	07	2-HV-12149	CBCR NORMAL AIR RETURN DAMPER	CONTROL	240'-0"	R264
10082	07	2-HV-12604	PPG PENETRATION NORMAL RETURN AIR ISOLATION DAMPER	AUX	245'-0"	R220
10083	07	2-HV-12605	PPG PENETRATION NORMAL AIR SUPPLY ISOLATION DAMPER	AUX	245'-0"	R220
10084	07	2-HV-12606	PPG PENETRATION NORMAL AIR SUPPLY ISOLATION DAMPER	AUX	245'-0"	R220

APPENDIX B
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SEISMIC REVIEW SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

LINE NO.	CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	BUILDING	ELEV	ROOM
(1)	(2)	(3)	(4)	(5)	(6)	(7)
10085	07	2-HV-12607	PPG PENETRATION NORMAL RETURN AIR ISOLATION DAMPER	AUX	245'-0"	R220
10086	08c	2-HV-12614	PPG PEN FILTRATION AND EXHAUST UNIT SUCTION DAMPER	AUX	245'-0"	R219
10087	08c	2-HV-12616	PPG PEN FILTRATION AND EXHAUST UNIT SUCTION DAMPER	AUX	245'-0"	R220
12021	08b	2-HV-12976	CTB AIR RADIATION MONITOR INLET SOV	AUX	180'-0"	RB131
12022	08b	2-HV-12977	CTB AIR RADIATION MONITOR OUTLET SOV	AUX	180'-0"	RB131
08000	07	2-HV-13005A	INBOARD MSIV BYPASS AOV--SG 1	AUX	220'-0"	R159
08001	07	2-HV-13005B	OUTBOARD MSIV BYPASS AOV--SG 1	AUX	220'-0"	R159
08002	07	2-HV-13006A	INBOARD MSIV BYPASS AOV--SG 4	AUX	220'-0"	R159
08003	07	2-HV-13006B	OUTBOARD MSIV BYPASS AOV--SG 4	AUX	220'-0"	R159
08004	07	2-HV-13007A	INBOARD MSIV BYPASS AOV--SG 2	CONTROL	220'-0"	R123
08005	07	2-HV-13007B	OUTBOARD MSIV BYPASS AOV--SG 2	CONTROL	220'-0"	R123
08006	07	2-HV-13008A	INBOARD MSIV BYPASS AOV--SG 3	CONTROL	220'-0"	R122
08007	07	2-HV-13008B	OUTBOARD MSIV BYPASS AOV--SG 3	CONTROL	220'-0"	R122
07005	07	2-HV-15196	BFIV FOR SG 1	AUX	195'-0"	RA104
07006	07	2-HV-15197	BFIV FOR SG 2	CONTROL	200'-0"	RA09
07007	07	2-HV-15198	BFIV FOR SG 3	CONTROL	200'-0"	RA09
07008	07	2-HV-15199	BFIV FOR SG 4	AUX	195'-0"	RA105
02020	08a	2-HV-1668A	NSCW SPRAY VALVE	NSCT	195'-0"	R410
02021	08a	2-HV-1668B	NSCW TOWER BYPASS MOV	NSCT	220"-0"	R410
02022	08a	2-HV-1669A	NSCW SPRAY VALVE	NSCT	195'-0"	R310
02023	08a	2-HV-1669B	NSCW TOWER BYPASS MOV	NSCT	220'-0"	R310
12007	08a	2-HV-1974	ACCW RETURN FROM RCP COOLERS MOV	CTB	198'-0"	RB03
12008	08a	2-HV-1975	ACCW RETURN FROM RCP COOLERS MOV	AUX	195'-0"	RA105
12009	08a	2-HV-1978	ACCW SUPPLY TO RCP COOLERS MOV	CTB	198'-0"	RB03
12010	08a	2-HV-1979	ACCW SUPPLY TO RCP COOLERS MOV	AUX	195'-0"	RA105
12015	07	2-HV-2626B	NORMAL CTB PURGE SUPPLY & EQUALIZING AOV	CTB	220'-0"	R101
12016	07	2-HV-2627B	NORMAL CTB PURGE SUPPLY & EQUALIZING AOV	CONTROL	220'-0"	R125
12017	07	2-HV-2628B	NORMAL CTB PURGE EXHAUST & EQUALIZING AOV	CTB	220'-0"	R101

Report Date/Time: 10-08-94 / 10:09:31
Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 09:55:04
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

APPENDIX B
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SEISMIC REVIEW SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
12018	07	2-HV-2629B	NORMAL CTB PURGE EXHAUST & EQUALIZING AOV	CONTROL	220'-0"	R117
08008	08c	2-HV-3006A	INBOARD MSIV--SG 1	AUX	220'-0"	R159
08009	08c	2-HV-3006B	OUTBOARD MSIV--SG 1	AUX	220'-0"	R159
08010	08c	2-HV-3016A	INBOARD MSIV--SG 2	CONTROL	220'-0"	R123
08011	08c	2-HV-3016B	OUTBOARD MSIV--SG 2	CONTROL	220'-0"	R123
08012	08c	2-HV-3026A	INBOARD MSIV--SG 3	CONTROL	220'-0"	R123
08013	08c	2-HV-3026B	OUTBOARD MSIV--SG 3	CONTROL	220'-0"	R123
08014	08c	2-HV-3036A	INBOARD MSIV--SG 4	AUX	220'-0"	R159
08015	08c	2-HV-3036B	OUTBOARD MSIV--SG 4	AUX	220'-0"	R159
12023	07	2-HV-3502	HOT LEG SAMPLE & GFF DET AOV	FB	180'-0"	RA01
12024	07	2-HV-3508	PRESSURIZER LIQUID SAMPLE AOV	FB	180'-0"	RA01
12025	07	2-HV-3514	PRESSURIZER STEAM SAMPLE AOV	FB	180'-0"	RA01
09012	08a	2-HV-5132	AFW PUMP B DISCHARGE MOV	CONTROL	195'-0"	RA09
09013	08a	2-HV-5134	AFW PUMP B DISCHARGE MOV	CONTROL	195'-0"	RA09
09014	08a	2-HV-5137	AFW PUMP A DISCHARGE MOV	AUX	195'-0"	RA105
09015	08a	2-HV-5139	AFW PUMP A DISCHARGE MOV	AUX	195'-0"	RA105
07009	08c	2-HV-5227	MFIV FOR SG 1	AUX	195'-0"	RA104
07010	08c	2-HV-5228	MFIV FOR SG 2	CONTROL	200'-0"	RA09
07011	08c	2-HV-5229	MFIV FOR SG 3	CONTROL	200'-0"	RA09
07012	08c	2-HV-5230	MFIV FOR SG 4	AUX	195'-0"	RA105
12019	07	2-HV-7136	REACTOR COOLANT DRAIN TANK PUMP DISCHARGE AOV	FB	200'-0"	RA01
12026	07	2-HV-7150	RCDT VENT AOV	FB	180'-0"	RA01
08016	07	2-HV-7603A	SG 1 BLOWDOWN ISOLATION AOV	AUX	180'-0"	RB131
08017	07	2-HV-7603B	SG 2 BLOWDOWN ISOLATION AOV	AUX	180'-0"	RB131
08018	07	2-HV-7603C	SG 3 BLOWDOWN ISOLATION AOV	AUX	180'-0"	RB131
08019	07	2-HV-7603D	SG 4 BLOWDOWN ISOLATION AOV	AUX	180'-0"	RB131
12020	07	2-HV-7699	REACTOR COOLANT DRAIN TANK PUMP DISCHARGE AOV	CTB	183'-0"	RB10
01010	08a	2-HV-8000A	PORV BLOCK VALVE	CTB	238'-0"	R110
01011	08a	2-HV-8000B	PORV BLOCK VALVE	CTB	238'-0"	R110

LINE NO.	CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	BUILDING	ELEV	ROOM
(1)	(2)	(3)	(4)	(5)	(6)	(7)
06041	08b	2-HV-8095A	REACTOR HEAD LETDOWN LINE ISOLATION SOV	CTB	183'-0"	RB02
06042	08b	2-HV-8095B	REACTOR HEAD LETDOWN LINE ISOLATION SOV	CTB	183'-0"	RB02
06043	08b	2-HV-8096A	REACTOR HEAD LETDOWN LINE ISOLATION SOV	CTB	183'-0"	RB02
06044	08b	2-HV-8096B	REACTOR HEAD LETDOWN LINE ISOLATION SOV	CTB	183'-0"	RB02
12003	08a	2-HV-8100	EXCESS LETDOWN & SEAL WATER LEAKOFF ISOLATION MOV	AUX	195'-0"	RA103
06017	08a	2-HV-8105	CHARGING TO REGEN HX MOV	AUX	195'-0"	RA103
06018	08a	2-HV-8106	CHARGING DISCHARGE MOV	AUX	195'-0"	RA103
06019	08a	2-HV-8110	CCP A & B COMMON MINIFLOW MOV	AUX	180'-0"	RB115
06020	08a	2-HV-8111A	CCP A MINIFLOW MOV	AUX	143'-6"	RC11
06021	08a	2-HV-8111B	CCP B MINIFLOW MOV	AUX	143'-6"	RC18
12004	08a	2-HV-8112	EXCESS LETDOWN & SEAL WATER LEAKOFF ISOLATION MOV	CTB	198'-0"	RB03
06022	08a	2-HV-8116	CCP A SAFETY GRADE CHARGING ISO MOV	AUX	195'-0"	RA103
06023	07	2-HV-8149A	LETDOWN ISOLATION AOV	CTB	183'-0"	RB03
06024	07	2-HV-8149B	LETDOWN ISOLATION AOV	CTB	183'-0"	RB03
06025	07	2-HV-8149C	LETDOWN ISOLATION AOV	CTB	183'-0"	RB03
06026	07	2-HV-8152	LETDOWN ISOLATION AOV	AUX	195'-0"	RA103
06027	07	2-HV-8154	EXCESS LETDOWN ISOLATION AOV	CTB	183'-0"	RB03
06028	07	2-HV-8160	LETDOWN ISOLATION AOV	CTB	198'-0"	RB03
06029	08a	2-HV-8485A	CCP A DISCHARGE ISO MOV	AUX	143'-6"	RC11
06030	08a	2-HV-8485B	CCP B DISCHARGE MOV	AUX	143'-6"	RC18
06031	08a	2-HV-8508A	CCP A ALT. MINIFLOW MOV	AUX	143'-6"	RC11
06032	08a	2-HV-8508B	CCP B ALT. MINIFLOW MOV	AUX	143'-6"	RC18
05012	08a	2-HV-8701A	RCS TO RHR PUMP A SUCTION MOV	CTB	180'-0"	RB03
05013	08a	2-HV-8701B	RCS TO RHR PUMP A SUCTION MOV	CTB	180'-0"	RB02
05014	08a	2-HV-8702A	RCS TO RHR PUMP B SUCTION MOV	CTB	180'-0"	RB03
05015	08a	2-HV-8702B	RCS TO RHR PUMP B SUCTION MOV	CTB	180'-0"	RB03
05016	08a	2-HV-8716A	RHR TRAIN A TO RCS HOT LEG ISOLATION MOV	AUX	119'-0"	RD22
05017	08a	2-HV-8716B	RHR TRAIN B TO RCS HOT LEG ISOLATION MOV	AUX	119'-0"	RD21
04011	08a	2-HV-8801A	CCP INJECTION MOV	AUX	195'-0"	RA18

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
04012	08a	2-HV-8801B	CCP INJECTION MOV	AUX	195'-0"	RA18
05018	08a	2-HV-8804A	RHR TO CCP SUCTION HEADER MOV	AUX	143'-6"	RC25
05019	08a	2-HV-8804B	RHR TO SIP SUCTION HEADER MOV	AUX	143'-6"	RC26
04013	08a	2-HV-8807A	CCP/SIP SUCTION HEADER CROSS-CONNECT MOV	AUX	180'-0"	RB119
04014	08a	2-HV-8807B	CCP/SIP SUCTION HEADER CROSS-CONNECT MOV	AUX	180'-0"	RB117
05020	08a	2-HV-8811A	CTMT SUMP TO RHR PUMP A SUCTION MOV	AUX	143'-6"	RC124
05021	08a	2-HV-8811B	CTMT SUMP TO RHR PUMP B SUCTION MOV	AUX	143'-6"	RC01
05022	08a	2-HV-8812A	RWST TO RHR PUMP A SUCTION MOV	AUX	119'-0"	RD22
05023	08a	2-HV-8812B	RWST TO RHR PUMP B SUCTION MOV	AUX	119'-0"	RD21
04015	08a	2-HV-8813	SIP COMMON MINIFLOW MOV	AUX	180'-0"	RB117
04016	08a	2-HV-8814	SIP A MINIFLOW MOV	AUX	180'-0"	RB119
04017	08b	2-HV-8875A	ACCUMULATOR 1 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB03
04018	08b	2-HV-8875B	ACCUMULATOR 2 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB10
04019	08b	2-HV-8875C	ACCUMULATOR 3 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB10
04020	08b	2-HV-8875D	ACCUMULATOR 4 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB03
04021	08b	2-HV-8875E	ACCUMULATOR 1 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB03
04022	08b	2-HV-8875F	ACCUMULATOR 2 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB10
04023	08b	2-HV-8875G	ACCUMULATOR 3 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB10
04024	08b	2-HV-8875H	ACCUMULATOR 4 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB03
04025	08a	2-HV-8920	SIP B MINIFLOW MOV	AUX	180'-0"	RB117
06054	19	2-HY-0190A	I/P CONVERTER FOR HV-0190A	AUX	195'-0"	RA98
06055	19	2-HY-0190B	I/P CONVERTER FOR HV-0190B	AUX	143'-6"	RC19
06056	19	2-HY-0442A	I/P CONVERTER FOR HV-0442A	CONTROL	180'-0"	RB02
06057	19	2-HY-0442B	I/P CONVERTER FOR HV-0442B	CONTROL	180'-0"	RB10
04030	19	2-HY-0943A	I/P CONVERTER FOR HV-0943A	CONTROL	180'-0"	RB02
04031	19	2-HY-0943B	I/P CONVERTER FOR HV-0943B	CONTROL	180'-0"	RB10

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
12028	08b	2-HY-7150	SOLENOID VALVE FOR 2-HV-7150	FB	180'-0"	RA01
12027	08b	2-HY-7699	SOLENOID VALVE FOR 2-HV-7699	CTB	183'-0"	RB10
06049	08b	2-HY-8149A	SOLENOID VALVE FOR 2-HV-8149A	CTB	183'-0"	RB03
06050	08b	2-HY-8149B	SOLENOID VALVE FOR 2-HV-8149B	CTB	183'-0"	RB03
06051	08b	2-HY-8149C	SOLENOID VALVE FOR 2-HV-8149C	CTB	183'-0"	RB03
06052	08b	2-HY-8154	SOLENOID VALVE FOR 2-HV-8154	CTB	183'-0"	RB03
06053	08b	2-HY-8160	SOLENOID VALVE FOR 2-HV-8160	CTB	183'-0"	RB03
11024	19	2-LSH-9020	F.O. DAY TANK 3 LEVEL	DG	220'-0"	R102
11025	19	2-LSH-9021	F.O. DAY TANK 4 LEVEL	DG	220'-0"	R104
11026	19	2-LSL-9020	F.O. DAY TANK 3 LEVEL	DG	220'-0"	R102
11027	19	2-LSL-9021	F.O. DAY TANK 4 LEVEL	DG	220'-0"	R104
03012	19	2-LSLL-1852	CCW SURGE TK 1 LEVEL	AUX	245'-0"	R227
03013	19	2-LSLL-1853	CCW SURGE TK 2 LEVEL	AUX	245'-0"	R226
03014	19	2-LSLL-1854	CCW SURGE TK 1 LEVEL	AUX	245'-0"	R227
03015	19	2-LSLL-1855	CCW SURGE TK 2 LEVEL	AUX	245'-0"	R226
06033	19	2-LT-0112	VCT LEVEL	AUX	195'-0"	RA69
06034	19	2-LT-0185	VCT LEVEL	AUX	195'-0"	RA69
01012	19	2-LT-0459	PRESSURIZER LEVEL	CTB	183'-0"	RB02
01013	19	2-LT-0460	PRESSURIZER LEVEL	CTB	183'-0"	RB02
01014	19	2-LT-0461	PRESSURIZER LEVEL	CTB	183'-0"	RB02
08020	19	2-LT-0501	SG 1 WIDE RANGE LEVEL	CTB	183'-0"	RB03
08021	19	2-LT-0502	SG 2 WIDE RANGE LEVEL	CTB	183'-0"	RB10
08022	19	2-LT-0503	SG 3 WIDE RANGE LEVEL	CTB	183'-0"	RB10
08023	19	2-LT-0504	SG 4 WIDE RANGE LEVEL	CTB	183'-0"	RB03
08024	19	2-LT-0517	SG 1 NARROW RANGE LEVEL	CTB	220'-0"	R102
08025	19	2-LT-0518	SG 1 NARROW RANGE LEVEL	CTB	220'-0"	R101
08026	19	2-LT-0519	SG 1 NARROW RANGE LEVEL	CTB	220'-0"	R101
08027	19	2-LT-0527	SG 2 NARROW RANGE LEVEL	CTB	220'-0"	R101
08028	19	2-LT-0528	SG 2 NARROW RANGE LEVEL	CTB	220'-0"	R101
08029	19	2-LT-0529	SG 2 NARROW RANGE LEVEL	CTB	220'-0"	R101

LINE NO.	CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	BUILDING	ELEV	ROOM
(1)	(2)	(3)	(4)	(5)	(6)	(7)
08030	19	2-LT-0537	SG 3 NARROW RANGE LEVEL	CTB	220'-0"	R101
08031	19	2-LT-0538	SG 3 NARROW RANGE LEVEL	CTB	220'-0"	R101
08032	19	2-LT-0539	SG 3 NARROW RANGE LEVEL	CTB	220'-0"	R101
08033	19	2-LT-0547	SG 4 NARROW RANGE LEVEL	CTB	220'-0"	R101
08034	19	2-LT-0548	SG 4 NARROW RANGE LEVEL	CTB	220'-0"	R101
08035	19	2-LT-0549	SG 4 NARROW RANGE LEVEL	CTB	220'-0"	R101
08064	19	2-LT-0551	SG 1 NARROW RANGE LEVEL	CTB	220'-0"	R101
08065	19	2-LT-0552	SG 2 NARROW RANGE LEVEL	CTB	220'-0"	R101
08066	19	2-LT-0553	SG 3 NARROW RANGE LEVEL	CTB	220'-0"	R101
08067	19	2-LT-0554	SG 4 NARROW RANGE LEVEL	CTB	220'-0"	R101
05024	19	2-L -0764	CNMT EMERGENCY SUMP LEVEL	CTB	183'-0"	RB03
05025	19	2-LT-0765	CNMT EMERGENCY SUMP LEVEL	CTB	183'-0"	RB03
04026	19	2-LT-0990	RWST LEVEL	RWST	220'-0"	R101
04027	19	2-LT-0991	RWST LEVEL	RWST	220'-0"	R101
04028	19	2-LT-0992	RWST LEVEL	RWST	220'-0"	R101
04029	19	2-LT-0993	RWST LEVEL	RWST	220'-0"	R101
09016	19	2-LT-5111	CST NO. 1 LEVEL CONDENSATE STORAGE TANK	CST NO. 1	220'-0"	R103
06035	08a	2-LV-0112B	VCT DISCHARGE ISOLATION MOV	AUX	195'-0"	RA78
06036	08a	2-LV-0112C	VCT DISCHARGE ISOLATION MOV	AUX	195'-0"	RA78
06037	08a	2-LV-0112D	CCP SUCTION FROM RWST MOV	AUX	143'-6"	RC10
06038	08a	2-LV-0112E	CCP SUCTION FROM RWST MOV	AUX	143'-6"	RC19
14003	19	2-NE-0041	NIS DETECTOR--CH.1	CTB		
14004	19	2-NE-0042	NIS DETECTOR--CH.2	CTB		
14005	19	2-NE-0043	NIS DETECTOR--CH.3	CTB		
14006	19	2-NE-0044	NIS DETECTOR--CH.4	CTB		
08036	00	2-PSV-3001	MAIN STEAM SAFETY RELIEF VALVE	AUX	220'-0"	R159
08037	00	2-PSV-3011	MAIN STEAM SAFETY RELIEF VALVE	CONTROL	220'-0"	R123
08038	00	2-PSV-3021	MAIN STEAM SAFETY RELIEF VALVE	CONTROL	220'-0"	R123
08039	00	2-PSV-3031	MAIN STEAM SAFETY RELIEF VALVE	AUX	220'-0"	R159
06039	00	2-PSV-8510A	CCP A ALT MINIFLOW	AUX	143'-6"	RC11

Report Date/Time: 10-08-94 / 10:09:31
Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 09:55:04
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

APPENDIX B
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SEISMIC REVIEW SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
01019	19	2-PT-0455	PRESSURIZER PRESSURE	CTB	183'-0"	RB03
01020	19	2-PT-0456	PRESSURIZER PRESSURE	CTB	183'-0"	RB02
01021	19	2-PT-0457	PRESSURIZER PRESSURE	CTB	183'-0"	RB02
01022	19	2-PT-0458	PRESSURIZER PRESSURE	CTB	183'-0"	RB02
08040	19	2-PT-0514	SG 1 PRESSURE	AUX	195'-0"	RA103
08041	19	2-PT-0515	SG 1 PRESSURE	AUX	195'-0"	RA103
08042	19	2-PT-0516	SG 1 PRESSURE	AUX	195'-0"	RA103
08043	19	2-PT-0524	SG 2 PRESSURE	CONTROL	200'-0"	RA04
08044	19	2-PT-0525	SG 2 PRESSURE	CONTROL	200'-0"	RA02
08045	19	2-PT-0526	SG 2 PRESSURE	CONTROL	200'-0"	RA04
08046	19	2-PT-0534	SG 3 PRESSURE	CONTROL	200'-0"	RA14
08047	19	2-PT-0535	SG 3 PRESSURE	CONTROL	220'-0"	RA10
08048	19	2-PT-0536	SG 3 PRESSURE	CONTROL	220'-0"	RA14
08049	19	2-PT-0544	SG 4 PRESSURE	AUX	220'-0"	R155
08050	19	2-PT-0545	SG 4 PRESSURE	AUX	220'-0"	R155
08051	19	2-PT-0546	SG 4 PRESSURE	AUX	220'-0"	R157
12000	19	2-PT-0934	CNMT PRESSURE	FB	200'-0"	RA01
12001	19	2-PT-0935	CNMT PRESSURE	AUX	180'-0"	RB131
12002	19	2-PT-0936	CNMT PRESSURE	FB	180'-0"	RB01
02024	19	2-PT-11741	NSCW SUPPLY TO PUMP MOTOR COOLERS	AUX	119'-3"	RD06
02025	19	2-PT-11742	NSCW SUPPLY TO PUMP MOTOR COOLERS	AUX	119'-3"	RD11
08052	19	2-PT-3000	SG 1 PRESSURE TO ARV TRANSMITTER	AUX	195'-0"	RA103
08053	19	2-PT-3010	SG 2 PRESSURE TO ARV TRANSMITTER	CONTROL	200'-0"	RA02
08054	19	2-PT-3020	SG 3 PRESSURE TO ARV TRANSMITTER	CONTROL	200'-0"	RA10
08055	19	2-PT-3030	SG 4 PRESSURE TO ARV TRANSMITTER	AUX	220'-0"	R155
01023	08b	2-PV-0455A	PRESSURIZER PORV	CTB	238'-0"	R110
01024	08b	2-PV-0456A	PRESSURIZER PORV	CTB	238'-0"	R110
10088	08a	2-PV-2550A	PPG PEN FILTRATION AND EXHAUST UNIT DISCHARGE DAMPER	AUX	245'-0"	R219
10089	08a	2-PV-2551A	PPG PEN FILTRATION AND EXHAUST UNIT DISCHARGE DAMPER	AUX	245'-0"	R220

Report Date/Time: 10-08-94 / 10:09:31
Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 09:55:04
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	BUILDING	ELEV	ROOM
(1)	(2)	(3)	(4)	(5)	(6)	(7)
08056	08c	2-PV-3000	ATMOS. RELIEF VALVE--SG 1	AUX	245'-0"	R159
08057	08c	2-PV-3010	ATMOS. RELIEF VALVE--SG 2	CONTROL	220'-0"	R121
08058	08c	2-PV-3020	ATMOS. RELIEF VALVE--SG 3	CONTROL	220'-0"	R122
08059	08c	2-PV-3030	ATMOS. RELIEF VALVE--SG 4	AUX	220'-0"	R159
08060	19	2-PY-3000	SG 1 PRESSURE TO ARV CONTROLLER	AUX	245'-0"	R229
08061	19	2-PY-3010	SG 2 PRESSURE TO ARV CONTROLLER	CONTROL	200'-0"	RA06
08062	19	2-PY-3020	SG 3 PRESSURE TO ARV CONTROLLER	CONTROL	200'-0"	RA06
08063	19	2-PY-3030	SG 4 PRESSURE TO ARV CONTROLLER	AUX	245'-0"	R229
10106	19	2-TDC-4170	ECW TEMP DIFF CONTROL TO NSCW VLV TV-11740	CONTROL	260'-0"	R310
10107	19	2-TDC-4193	ECW TEMP DIFF CONTROL TO NSCW VLV TV-11675	CONTROL	260'-0"	R308
01025	19	2-TE-0413A	RCS HOT LEG TEMP--LOOP 1	CTB	183'-0"	RB02
01026	19	2-TE-0413B	RCS COLD LEG TEMP--LOOP 1	CTB	183'-0"	RB02
01027	19	2-TE-0423A	RCS HOT LEG TEMP--LOOP 2	CTB	183'-0"	RB02
01028	19	2-TE-0423B	RCS COLD LEG TEMP--LOOP 2	CTB	183'-0"	RB02
01029	19	2-TE-0433A	RCS HOT LEG TEMP--LOOP 3	CTB	183'-0"	RB02
01030	19	2-TE-0433B	RCS COLD LEG TEMP--LOOP 3	CTB	183'-0"	RB02
01031	19	2-TE-0443A	RCS HOT LEG TEMP--LOOP 4	CTB	183'-0"	RB02
01032	19	2-TE-0443B	RCS COLD LEG TEMP--LOOP 4	CTB	183'-0"	RB02
02026	19	2-TE-11641	NSCW A RETURN TO FAN 1 CONTROL	NSCT	220'-0"	R402
02027	19	2-TE-11642	NSCW A RETURN TO FAN 2 CONTROL	NSCT	220'-0"	R402
02028	19	2-TE-11643	NSCW A RETURN TO FAN 3 CONTROL	NSCT	220'-0"	R402
02038	19	2-TE-11644	NSCW A RETURN TO FAN 4 CONTROL	NSCT	220'-0"	R402
02029	19	2-TE-11646	NSCW B RETURN TO FAN 1 CONTROL	NSCT	220'-0"	R302
02030	19	2-TE-11647	NSCW B RETURN TO FAN 2 CONTROL	NSCT	220'-0"	R302
02031	19	2-TE-11648	NSCW B RETURN TO FAN 3 CONTROL	NSCT	220'-0"	R302
02039	19	2-TE-11649	NSCW B RETURN TO FAN 4 CONTROL	NSCT	220'-0"	R302
10029	19	2-TE-12124	CB CR RETURN AIR TEMP	CONTROL	260'-0"	R311
10030	19	2-TE-12125	CB CR RETURN AIR TEMP	CONTROL	260'-0"	R305
10037	19	2-TE-12725	ELEC EQUIP RM TEMP	CONTROL	180'-0"	RB32
10038	19	2-TE-12740	ELEC EQUIP RM TEMP	CONTROL	180'-0"	RB27

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
02032	19	2-TE-1668	NSCW A RETURN TO SPRAY/BYPASS VALVES	NSCT	220'-0"	R402
02033	19	2-TE-1669	NSCW B RETURN TO SPRAY/BYPASS VALVES	NSCT	220'-0"	R302
10043	19	2-TIC-13150	CB NORMAL A/C RM ESF A/C UNIT CONTROLLER	CONTROL	260'-0"	R325
10114	19	2-TIS-12005	AFW PUMP B ROOM SUPPLY FAN CONTROLLER	AFWP HOUSE	220'-0"	R102
10115	19	2-TIS-12006	AFW PUMP A ROOM SUPPLY FAN CONTROLLER	AFWP HOUSE	220'-0"	R101
10141	19	2-TIS-12300	CBCR CHILLER RM VENT FAN CONTROLLER	CONTROL	260'-0"	R311
10142	19	2-TIS-12303	CBCR CHILLER RM VENT FAN CONTROLLER	CONTROL	260'-0"	B308
10072	19	2-TISH-12200	ELECT SWGR & MCC RM A7001 COOLER CONTROLLER	AUX	119'-3"	RD104
10073	19	2-TISH-12201	ELECT SWGR & MCC RM A7002 COOLER CONTROLLER	AUX	245'-0"	R223
10074	19	2-TISH-12202	ELECT SWGR & MCC RM A7003 COOLER CONTROLLER	AUX	143'-6"	RC07
10075	19	2-TISH-12203	ELECT SWGR & MCC RM A7004 COOLER CONTROLLER	AUX	180'-0"	RB122
10076	19	2-TISH-12204	ELECT SWGR & MCC RM A7005 COOLER CONTROLLER	AUX	220'-0"	R149
10077	19	2-TISH-12205	ELECT SWGR & MCC RM A7006 COOLER CONTROLLER	AUX	220'-0"	R147
10116	19	2-TISH-22501	DIESEL POWER CABLE TUNNEL EXH FAN CONTROLLER	TUNNEL	220'-0"	@DG
10050	19	2-TISH-22505	DIESEL POWER CABLE TUNNEL EXH FAN CONTROLLER	TUNNEL	220'-0"	1T4B @ DGB
10051	19	2-TISH-22509	TB & AB TRAIN A TUNNEL SUPPLY FAN CONTROLLER	CONTROL	180'-0"	RC08
10052	19	2-TISH-22516	NSCW TWR CABLE TUNN TRN A FAN CONTROLLER	TUNNEL	220'-0"	1T5A @ NSCW
10053	19	2-TISH-22519	NSCW TWR CABLE TUNN TRN B FAN CONTROLLER	TUNNEL	220'-0"	1T5B @ NSCW
02034	08c	2-TV-11675	NSCW TO ESSENTIAL CHILLER CONDENSER (E/H) CONTROL VLV	CONTROL	260'-0"	R308
02035	08c	2-TV-11740	NSCW TO ESSENTIAL CHILLER CONDENSER (E/H) CONTROL VLV	CONTROL	260'-0"	R310
10119	07	2-TV-12085	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103
10120	07	2-TV-12085A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103
10121	07	2-TV-12086	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101

APPENDIX B
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SEISMIC REVIEW SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

LINE NO. (1)	CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	BUILDING (5)	ELEV (6)	ROOM (7)
10122	07	2-TV-12086A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101
10123	07	2-TV-12094A	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R209
10124	07	2-TV-12094B	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R209
10125	07	2-TV-12094C	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R209
10126	07	2-TV-12094D	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R209
10127	07	2-TV-12095A	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R208
10128	07	2-TV-12095B	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R208
10129	07	2-TV-12095C	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R208
10130	07	2-TV-12095D	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R208
10131	07	2-TV-12096	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101
10132	07	2-TV-12096A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101
10133	07	2-TV-12097	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101
10134	07	2-TV-12097A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101
10135	07	2-TV-12098	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103
10136	07	2-TV-12098A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103
10137	07	2-TV-12099	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103
10138	07	2-TV-12099A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103
10031	08c	2-TV-12124	ECW TEMPERATURE CONTROL VALVE (E/H)	CONTROL	260'-0"	R311
10032	08c	2-TV-12125	ECW TEMPERATURE CONTROL VALVE (E/H)	CONTROL	260'-0"	R305
10108	08c	2-TV-12725	ECW TO ESF ELEC EQUIP RM HVAC UNIT CONTROL VALVE	CONTROL	180'-0"	RB17
10109	08c	2-TV-12740	ECW TO ESF ELEC EQUIP RM HVAC UNIT CONTROL VALVE	CONTROL	180'-0"	RB16
02040	19	2-TY-11675	CONVERTER FOR TV-11675	CONTROL	260'-0"	R308
02041	19	2-TY-11740	CONVERTER FOR TV-11740	CONTROL	260'-0"	R310
10143	19	2-TY-12124A	CONVERTER FOR TV-12124	CONTROL	260'-0"	R311
10144	19	2-TY-12125A	CONVERTER FOR TV-12125	CONTROL	260'-0"	R305
10145	19	2-TY-12725A	CONVERTER FOR TV-12725	CONTROL	180'-0"	RB17
10146	19	2-TY-12740A	CONVERTER FOR TV-12740	CONTROL	180'-0"	RB16

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGPIR2.DBF / 10/08/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
01000	00	1-1201-B6-001	STEAM GENERATOR 1	CTB	183'-0"	14AB					Y	Y	Y	Y	Y	
01001	00	1-1201-B6-002	STEAM GENERATOR 2	CTB	183'-0"	14BB					Y	Y	Y	Y	Y	
01002	00	1-1201-B6-003	STEAM GENERATOR 3	CTB	183'-0"	14CB					Y	Y	Y	Y	Y	
01003	00	1-1201-B6-004	STEAM GENERATOR 4	CTB	183'-0"	14DB					Y	Y	Y	Y	Y	
01033	18	1-1201-P5-TIA	RVLIS TRANSMITTER RACK TRAIN A	AUX	180'-0"	RB04					Y	Y	Y	Y	Y	
01034	18	1-1201-P5-TIB	RVLIS TRANSMITTER RACK TRAIN B	FB	180'-0"	RB08					Y	Y	Y	Y	Y	
01008	00	1-1201-V6-001	REACTOR VESSEL	CTB	183'-0"	14AB					Y	Y	Y	Y	Y	
01009	00	1-1201-V6-002	PRESSURIZER	CTB	183'-0"	14DA					Y	Y	Y	Y	Y	
02000	06	1-1202-P4-001	NSCW TRAIN A PUMP NO. 1	NSCT	220'-0"	R103					Y	Y	Y	Y	Y	
02001	06	1-1202-P4-002	NSCW TRAIN B PUMP NO. 2	NSCT	220'-0"	R203					Y	Y	Y	Y	Y	
02002	06	1-1202-P4-003	NSCW TRAIN A PUMP NO. 3	NSCT	220'-0"	R103					Y	Y	Y	Y	Y	
02003	06	1-1202-P4-004	NSCW TRAIN B PUMP NO. 4	NSCT	220'-0"	R203					Y	Y	Y	Y	Y	
02004	09	1-1202-W4-001-F01	NSCT FAN NO. 1	NSCT	250'-0"	R105					Y	Y	Y	Y	Y	
02005	09	1-1202-W4-001-F02	NSCT FAN NO. 2	NSCT	250'-0"	R108					Y	Y	Y	Y	Y	
02006	09	1-1202-W4-001-F03	NSCT FAN NO. 3	NSCT	250'-0"	R106					Y	Y	Y	Y	Y	
02036	09	1-1202-W4-001-F04	NSCT FAN NO. 4	NSCT	250'-0"	R106					Y	Y	Y	Y	Y	
02007	09	1-1202-W4-002-F01	NSCT FAN NO. 1	NSCT	250'-0"	R205					Y	Y	Y	Y	Y	
02008	09	1-1202-W4-002-F02	NSCT FAN NO. 2	NSCT	250'-0"	R208					Y	Y	Y	Y	Y	
02009	09	1-1202-W4-002-F03	NSCT FAN NO. 3	NSCT	250'-0"	R206					Y	Y	Y	Y	Y	
02037	09	1-1202-W4-002-F04	NSCT FAN NO. 4	NSCT	250'-0"	R206					Y	Y	Y	Y	Y	
03000	21	1-1203-E4-001	CCW HEAT EXCHANGER	AUX	245'-0"	R203					Y	Y	Y	Y	Y	
03001	21	1-1203-E4-002	CCW HEAT EXCHANGER	AUX	245'-0"	R202					Y	Y	Y	Y	Y	
03002	05	1-1203-P4-001	CCW PUMP NO. 1	AUX	195'-0"	RA05					Y	Y	Y	Y	Y	
03003	05	1-1203-P4-002	CCW PUMP NO. 2	AUX	195'-0"	RA03					Y	Y	Y	Y	Y	
03004	05	1-1203-P4-003	CCW PUMP NO. 3	AUX	195'-0"	RA05					Y	Y	Y	Y	Y	
03005	05	1-1203-P4-004	CCW PUMP NO. 4	AUX	195'-0"	RA03					Y	Y	Y	Y	Y	
03008	21	1-1203-T4-001	CCW SURGE TANK	AUX	245'-0"	R203					Y	Y	Y	Y	Y	
03009	21	1-1203-T4-002	CCW SURGE TANK	AUX	245'-0"	R202					Y	Y	Y	Y	Y	

APPENDIX L
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP1R2.DBF / 10/08/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
04000	05	1-1204-P6-003	SI PUMP A	AUX	180'-0"	RB15					Y	Y	Y	Y	Y	
04001	05	1-1204-P6-004	SI PUMP B	AUX	180'-0"	RB19					Y	Y	Y	Y	Y	
04002	21	1-1204-T4-001	REFUELING WATER STORAGE TANK	RWST	220'-0"	SOUTH OF AUX					Y	Y	Y	Y	Y	
04003	21	1-1204-V6-001	BORON INJECTION TANK	AUX	180'-0"	RB11					Y	Y	Y	Y	Y	
05000	21	1-1205-E6-001	RHR HEAT EXCHANGER A	AUX	119'-3"	RC90					Y	Y	Y	Y	Y	
05001	21	1-1205-E6-002	RHR HEAT EXCHANGER B	AUX	143'-6"	RC91					Y	Y	Y	Y	Y	
05002	05	1-1205-P6-001	RHR PUMP A	AUX	119'-3"	RD48					Y	Y	Y	Y	Y	
05003	05	1-1205-P6-002	RHR PUMP B	AUX	119'-3"	RD49					Y	Y	Y	Y	Y	
05004	00	1-1205-U6-019	MANUAL RHR THROTTLING GATE VALVE WITH REACH ROD	AUX	143'-6"	RC90					Y	Y	NA	Y	Y	
05005	00	1-1205-U6-020	MANUAL RHR THROTTLING GATE VALVE WITH REACH ROD	AUX	143'-6"	RC91					Y	Y	NA	Y	Y	
06000	21	1-1208-E6-001	REGENERATIVE HEAT EXCHANGER	CTB	183'0"	14AB					Y	Y	Y	Y	Y	
06004	05	1-1208-P6-002	CCP A	AUX	143'-6"	RC115					Y	Y	Y	N	N	
06005	05	1-1208-P6-003	CCP B	AUX	143'-6"	RC118					Y	Y	Y	N	N	
06006	00	1-1208-U6-151	MANUAL SEAL INJECTION VALVE WITH REACH ROD	AUX	143'-6"	RC119					Y	Y	NA	Y	Y	
06007	00	1-1208-U6-152	MANUAL SEAL INJECTION VALVE WITH REACH ROD	AUX	143'-6"	RC114					Y	Y	NA	Y	Y	
06008	00	1-1208-U6-153	MANUAL CCP DISCH ISO VLV WITH REACH ROD	AUX	143'-6"	RC112					Y	Y	NA	Y	Y	
07002	21	1-1213-E6-001	SPENT FUEL PIT HEAT EXCH A	AUX	195'-0"	RA53					Y	Y	Y	Y	Y	
07013	21	1-1213-E6-002	SPENT FUEL PIT HEAT EXCH B	FB	200'-0"	RA07					Y	Y	Y	Y	Y	
07003	21	1-1217-E4-001	ACCW HEAT EXCHANGER	AUX	220'-0"	R105					Y	Y	Y	Y	Y	
07004	21	1-1217-E4-002	ACCW HEAT EXCHANGER	AUX	220'-0"	R104					Y	Y	Y	Y	Y	
09001	05	1-1302-P4-002	AFW MOTOR DRIVEN PUMP B	AFWP HOUSE	220'-0"	R102					Y	Y	Y	Y	Y	
09002	05	1-1302-P4-003	AFW MOTOR DRIVEN PUMP A	AFWP HOUSE	220'-0"	R101					Y	Y	Y	N	N	
09003	21	1-1302-V4-001	CONDENSATE STORAGE TANK NO. 1 (CST)	CST NO. 1	220'-0"						Y	Y	Y	Y	Y	
21000	18	1-1407-P5-SGS	SGB ISOL SOLENOID RACK	AUX	180'-0"	RB07					Y	Y	Y	Y	Y	
10000	20	1-1500-Q5-HVC	HVAC PANEL	CONTROL	220'-0"	R163					Y	Y	Y	N	N	

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP1R2.DBF / 10/08/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10001	20	1-1500-V7-001-CBA	LOCAL CB HVAC PANEL TRAIN A	CONTROL	220'-0"	R163					Y	Y	Y	Y	Y	
10002	20	1-1500-V7-001-CBB	LOCAL CB HVAC PANEL TRAIN B	CONTROL	220'-0"	R163					Y	Y	Y	Y	Y	
10003	09	1-1501-A7-001-000	CTB COOLING UNIT & MOTOR	CTB	220'-0"	14A1					Y	Y	Y	Y	Y	
10004	09	1-1501-A7-002-000	CTB COOLING UNIT & MOTOR	CTB	220'-0"	14A1					Y	Y	Y	Y	Y	
10005	09	1-1501-A7-003-000	CTB COOLING UNIT & MOTOR	CTB	220'-0"	14D1					Y	Y	Y	Y	Y	
10006	09	1-1501-A7-004-000	CTB COOLING UNIT & MOTOR	CTB	220'-0"	14D1					Y	Y	Y	Y	Y	
10139	09	1-1531-B7-002-000	CBCR CHILLER ROOM VENT FAN	CONTROL	260'-0"	R320					Y	Y	Y	Y	Y	
10140	09	1-1531-B7-004-000	CBCR CHILLER ROOM VENT FAN	CONTROL	260'-0"	R312					Y	Y	Y	Y	Y	
10017	09	1-1531-N7-001-000	CBCR FILTER UNIT	CONTROL	260'-0"	R321					Y	Y	Y	Y	Y	
10018	09	1-1531-N7-002-000	CBCR FILTER UNIT	CONTROL	260'-0"	R312					Y	Y	Y	Y	Y	
10033	09	1-1532-A7-001-000	CBSF ELEC EQUIP RM AC UNIT	CONTROL	180'-0"	RB60					Y	Y	Y	Y	Y	
10034	09	1-1532-A7-002-000	CBSF ELEC EQUIP RM AC UNIT	CONTROL	180'-0"	RB62					Y	Y	Y	Y	Y	
10035	09	1-1532-B7-001-000	BATTERY RM EXHAUST FAN & MOTOR	CONTROL	180'-0"	RB55					Y	Y	Y	Y	Y	
10036	09	1-1532-B7-002-000	BATTERY RM EXHAUST FAN & MOTOR	CONTROL	180'-0"	RB49					Y	Y	Y	Y	Y	
10039	09	1-1539-A7-001-000	CB AUX RELAY RM ESF A/C UNIT	CONTROL	200'-0"	RA82					Y	Y	Y	Y	Y	
10040	09	1-1539-A7-002-000	CB AUX RELAY RM ESF A/C UNIT	CONTROL	240'-0"	R226					Y	Y	Y	Y	Y	
10041	09	1-1539-A7-005-000	CB NORMAL AC RM ESF A/C UNIT	CONTROL	260'-0"	R325					Y	Y	Y	Y	Y	
10042	09	1-1539-A7-006-000	CB ELEC EQUIP RM ESF A/C UNIT	CONTROL	260'-0"	R322					Y	Y	Y	Y	Y	
10045	09	1-1540-B7-001-000	DIESEL POWER CABLE TUNNEL EXHAUST FAN UNIT	TUNNEL	195'-0"	1T4A @ DGB					Y	Y	Y	Y	Y	
10046	09	1-1540-B7-002-000	DIESEL POWER CABLE TUNNEL EXHAUST FAN UNIT	TUNNEL	180'-0"	1T4B @ DGB					Y	Y	Y	Y	Y	
10047	09	1-1540-B7-003-000	NSCW TOWER CABLE TUNNEL EXHAUST FAN UNIT	TUNNEL	220'-0"	1T5A @ NSCW					Y	Y	Y	Y	Y	
10048	09	1-1540-B7-004-000	NSCW TOWER CABLE TUNNEL EXHAUST FAN UNIT	TUNNEL	220'-0"	1T5B @ NSCW					Y	Y	Y	Y	Y	
10049	09	1-1540-B7-005-000	AUX BLDG TRAIN A TUNNEL SUPPLY FAN UNIT	AUX	245'-0"	R212					Y	Y	Y	Y	Y	
10054	09	1-1555-A7-001-000	ELEC SWGR AND MCC ROOM COOLER A (1AB15)	AUX	119'-3"	RD79					Y	Y	Y	Y	Y	

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP1R2.DBF / 10/08/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10055	09	1-1555-A7-002-000	ELEC SWGR AND MCC ROOM COOLER B (1BB16)	AUX	245'-0"	R212					Y	Y	Y	Y	Y	
10056	09	1-1555-A7-003-000	ELEC SWGR AND MCC ROOM COOLER A (1AB0)	AUX	180'-0"	RB13					Y	Y	Y	Y	Y	
10057	09	1-1555-A7-004-000	ELEC SWGR AND MCC ROOM COOLER B (1BB0)	AUX	180'-0"	RB17					Y	Y	Y	Y	Y	
10058	09	1-1555-A7-005-000	ELEC SWGR AND MCC ROOM COOLER A (1ABB)	AUX	220'-0"	R118					Y	Y	Y	Y	Y	
10059	09	1-1555-A7-006-000	ELEC SWGR AND MCC ROOM COOLER B (1BBB)	AUX	220'-0"	R116					Y	Y	Y	Y	Y	
10078	09	1-1561-E7-001-000	PIPING PENETRATION AREA COOLER	AUX	245'-0"	R210					Y	Y	Y	Y	Y	
10079	09	1-1561-E7-002-000	PIPING PENETRATION AREA COOLER	AUX	245'-0"	R210					Y	Y	Y	Y	Y	
10080	09	1-1561-N7-001-000	PIPING PENETRATION ROOM FILTRATION AND EXHAUST UNIT	AUX	245'-0"	R210					Y	Y	Y	Y	Y	
10081	09	1-1561-N7-002-000	PIPING PENETRATION ROOM FILTRATION AND EXHAUST UNIT	AUX	245'-0"	R209					Y	Y	Y	Y	Y	
10090	09	1-1566-B7-001-000	DG A BLDG ESF SUPPLY FAN NO. 1	DG	255'-0"	R208					Y	Y	Y	Y	Y	
10091	09	1-1566-B7-002-000	DG B BLDG ESF SUPPLY FAN NO. 2	DG	255'-0"	R203					Y	Y	Y	Y	Y	
10092	09	1-1566-B7-003-000	DG A BLDG ESF SUPPLY FAN NO. 3	DG	255'-0"	R208					Y	Y	Y	Y	Y	
10093	09	1-1566-B7-004-000	DG B BLDG ESF SUPPLY FAN NO. 4	DG	255'-0"	R203					Y	Y	Y	Y	Y	
10098	11	1-1592-C7-001	CB ESSENTIAL CHILLER	CONTROL	260'-0"	R320					Y	Y	Y	N	N	
10099	11	1-1592-C7-002	CB ESSENTIAL CHILLER	CONTROL	260'-0"	R313					Y	Y	Y	Y	Y	
10100	05	1-1592-P7-001	ESSENTIAL CHILLED WATER PUMP	CONTROL	260'-0"	R320					Y	Y	Y	Y	Y	
10101	05	1-1592-P7-002	ESSENTIAL CHILLED WATER PUMP	CONTROL	260'-0"	R313					Y	Y	Y	Y	Y	
10102	21	1-1592-T7-001	ESSENTIAL CHILLED WATER EXPANSION TANK	CONTROL	260'-0"	R316					Y	Y	Y	Y	Y	
10103	21	1-1592-T7-002	ESSENTIAL CHILLED WATER EXPANSION TANK	CONTROL	260'-0"	R313					Y	Y	Y	Y	Y	
10110	09	1-1593-B7-001	AFW PUMP A SUPPLY FAN & MOTOR	AFWP HOUSE	220'-0"	R101					Y	Y	Y	Y	Y	
10111	09	1-1593-B7-002	AFW PUMP B SUPPLY FAN & MOTOR	AFWP HOUSE	220'-0"	R102					Y	Y	Y	Y	Y	
13000	20	1-1601-Q5-MCB	MAIN CONTROL BOARD	CONTROL	220'-0"	R163					Y	Y	Y	N	N	
13001	20	1-1601-U3-T03	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA44					Y	Y	Y	Y	Y	

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP1R2.DBF / 10/08/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
13002	20	1-1601-U3-T04	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R225					Y	Y	Y	Y	Y	
13003	20	1-1601-U3-T05	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA44					Y	Y	Y	Y	Y	
13004	20	1-1601-U3-T06	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R225					Y	Y	Y	Y	Y	
13005	20	1-1601-U3-T07	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA44					Y	Y	Y	Y	Y	
13006	20	1-1601-U3-T08	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R225					Y	Y	Y	Y	Y	
13007	20	1-1601-U3-T10	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R225					Y	Y	Y	Y	Y	
13008	20	1-1601-U3-T11	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA44					Y	Y	Y	Y	Y	
13009	20	1-1601-U3-T14	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R225					Y	Y	Y	Y	Y	
13010	20	1-1601-U3-T15	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA44					Y	Y	Y	Y	Y	
13011	20	1-1601-U3-T19	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA44					Y	Y	Y	Y	Y	
13012	20	1-1601-U3-T20	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R225					Y	Y	Y	Y	Y	
13013	20	1-1601-U3-T27	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA44					Y	Y	Y	Y	Y	
14000	20	1-1602-P5-NDA	EXCORE NUC DET PREAMPS PNL-A	CONTROL	180'-0"	RB78					Y	Y	Y	Y	Y	
14001	20	1-1602-P5-NDB	EXCORE NUC DET PREAMPS PNL-B	CONTROL	180'-0"	RB65					Y	Y	Y	Y	Y	
14002	18	1-1602-Q5-NIR	NUCLEAR INST RACKS	CONTROL	220'-0"	R163					Y	Y	Y	N	N	
15000	20	1-1604-Q5-PC1	PROCESS CONTROL GROUP 1	CONTROL	220'-0"	R163					Y	Y	Y	Y	Y	
15001	20	1-1604-Q5-PC2	PROCESS CONTROL GROUP 2	CONTROL	220'-0"	R163					Y	Y	Y	Y	Y	
15002	20	1-1604-Q5-PC3	PROCESS CONTROL GROUP 3	CONTROL	220'-0"	R163					Y	Y	Y	Y	Y	
15003	20	1-1604-Q5-PC4	PROCESS CONTROL GROUP 4	CONTROL	220'-0"	R163					Y	Y	Y	Y	Y	
15013	20	1-1604-Q5-PCG	BOP CONTROL PANEL 1	CONTROL	220'-0"	R163					Y	Y	Y	Y	Y	
15004	20	1-1604-Q5-PCP	MISC SYS/EQPT PANEL	CONTROL	220'-0"	R163					Y	Y	Y	N	N	
15005	20	1-1604-Q5-PP1	BOP PROTECTION CH 1 PANEL	CONTROL	220'-0"	R163					Y	Y	Y	Y	Y	
15006	20	1-1604-Q5-PP2	BOP PROTECTION CH 2 PANEL	CONTROL	220'-0"	R163					Y	Y	Y	N	N	
15007	20	1-1604-Q5-PP3	BOP PROTECTION CH 3 PANEL	CONTROL	220'-0"	R163					Y	Y	Y	N	N	
15008	20	1-1604-Q5-PP4	BOP PROTECTION CH 4 PANEL	CONTROL	220'-0"	R163					Y	Y	Y	N	N	
15009	20	1-1604-Q5-PS1	PROCESS I&C PROTECT I	CONTROL	220'-0"	R163					Y	Y	Y	N	N	
15010	20	1-1604-Q5-PS2	PROCESS I&C PROTECT II	CONTROL	220'-0"	R163					Y	Y	Y	N	N	
15011	20	1-1604-Q5-PS3	PROCESS I&C PROTECT III	CONTROL	220'-0"	R163					Y	Y	Y	N	N	

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP1R2.DBF / 10/08/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
15012	20	1-1604-Q5-PS4	PROCESS I&C PROTECT IV	CONTROL	220'-0"	R163					Y	Y	Y	N	N	
16000	20	1-1605-C5-ASI	ALTERNATE SHDN IND EAGLE 21 CAB	CONTROL	240'-0"	R230					Y	Y	Y	Y	Y	
16001	20	1-1605-P5-SDA	SHUTDOWN PANEL TRN A	CONTROL	200'-0"	RA75					Y	Y	Y	Y	Y	
16002	20	1-1605-P5-SDB	SHUTDOWN PANEL TRN B	CONTROL	200'-0"	RA43					Y	Y	Y	Y	Y	
16003	20	1-1605-Q5-SPA	SOLID STATE PROT SYS CAB-TRN A	CONTROL	220'-0"	R163					Y	Y	Y	Y	Y	
16004	20	1-1605-Q5-SPB	SOLID STATE PROT SYS CAB-TRN B	CONTROL	220'-0"	R163					Y	Y	Y	Y	Y	
16005	20	1-1605-Q5-SPC	SOLID STATE PROT SYS CAB-TRN C	CONTROL	220'-0"	R163					Y	Y	Y	Y	Y	
16006	20	1-1605-Q5-SPD	SOLID STATE PROT SYS CAB-TRN D	CONTROL	220'-0"	R163					Y	Y	Y	Y	Y	
16007	20	1-1605-Q5-STA	SAFEGUARD TEST CAB-TRN A	CONTROL	220'-0"	R163					Y	Y	Y	N	N	
16008	20	1-1605-Q5-STB	SAFEGUARD TEST CAB-TRN B	CONTROL	220'-0"	R163					Y	Y	Y	N	N	
21001	20	1-1606-S6-002	REACTOR TRIP SWITCHGEAR	CONTROL	180'-0"	RB71					Y	Y	Y	Y	Y	
21002	20	1-1620-Q5-ESF	BOP ESF PANEL	CONTROL	220'-0"	R163					Y	Y	Y	N	N	
17000	20	1-1623-D5-001	REMOTE PROCESSING UNIT A CAB 1	CONTROL	200'-0"	RA48					Y	Y	Y	Y	Y	
17001	20	1-1623-D5-002	REMOTE PROCESSING UNIT A CAB 2	CONTROL	200'-0"	RA48					Y	Y	Y	Y	Y	
17002	20	1-1623-D5-003	REMOTE PROCESSING UNIT B CAB 1	CONTROL	240'-0"	R230					Y	Y	Y	Y	Y	
17003	20	1-1623-D5-004	REMOTE PROCESSING UNIT B CAB 2	CONTROL	240'-0"	R230					Y	Y	Y	Y	Y	
17004	20	1-1623-D5-006A	DISPLAY PROCESSING UNIT A	CONTROL	200'-0"	RA48					Y	Y	Y	Y	Y	
17005	20	1-1623-D5-006B	DISPLAY PROCESSING UNIT B	CONTROL	240'-0"	R230					Y	Y	Y	Y	Y	
17006	20	1-1623-P5-NFA	NEUTRON FLUX PRE-AMPS TRAIN A	CONTROL	183'-0"	RB78					Y	Y	Y	Y	Y	
17007	20	1-1623-P5-NFB	NEUTRON FLUX PRE-AMPS TRAIN B	CONTROL	183'-0"	RB65					Y	Y	Y	Y	Y	
18000	03	1-1804-S3-A02	4160V SWITCHGEAR 1AA02	CONTROL	200'-0"	RA48					Y	Y	Y	Y	Y	
18001	03	1-1804-S3-A03	4160V SWITCHGEAR 1BA03	CONTROL	200'-0"	RA50					Y	Y	Y	N	N	
18002	01	1-1805-S3-ABA	480V MOT CONTROL CTR 1ABA	CONTROL	260'-0"	R325					Y	Y	Y	Y	Y	
18003	01	1-1805-S3-ABB	480V MOT CONTROL CTR 1ABB	AUX	220'-0"	R118					Y	Y	Y	N	N	
18004	01	1-1805-S3-ABC	480V MOT CONTROL CTR 1ABC	CONTROL	180'-0"	RB76					Y	Y	Y	Y	Y	
18005	01	1-1805-S3-ABD	480V MOT CONTROL CTR 1ABD	AUX	143'-6"	RC109					Y	Y	Y	Y	Y	
18006	01	1-1805-S3-ABE	480V MOT CONTROL CTR 1ABE	CONTROL	180'-0"	RB79					Y	Y	Y	Y	Y	
18007	01	1-1805-S3-ABF	480V MOT CONTROL CTR 1ABF	DG	220'-0"	R103					Y	Y	Y	N	N	

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
18008	02	1-1805-S3-B01	480V SWITCHGEAR 1NB01	CONTROL	180'-0"	RB68					Y	Y	Y	Y	Y	
18009	02	1-1805-S3-B04	480V SWITCHGEAR 1AB04	CONTROL	180'-0"	RB76					Y	Y	Y	Y	Y	
18010	02	1-1805-S3-B05	480V SWITCHGEAR 1AB05	CONTROL	180'-0"	RB76					Y	Y	Y	Y	Y	
18011	02	1-1805-S3-B06	480V SWITCHGEAR 1BB06	CONTROL	180'-0"	RB61					Y	Y	Y	Y	Y	
18012	02	1-1805-S3-B07	480V SWITCHGEAR 1BB07	CONTROL	180'-0"	RB61					Y	Y	Y	Y	Y	
18013	02	1-1805-S3-B10	480V SWITCHGEAR 1NB10	CONTROL	180'-0"	RB50					Y	Y	Y	Y	Y	
18014	02	1-1805-S3-B15	480V SWITCHGEAR 1AB15	AUX	119'-3"	RD105					Y	Y	Y	Y	Y	
18015	02	1-1805-S3-B16	480V SWITCHGEAR 1BB16	AUX	245'-0"	R207					Y	Y	Y	Y	Y	
18016	01	1-1805-S3-BBA	480V MOT CONTROL CTR 1BBA	CONTROL	260'-0"	R322					Y	Y	Y	Y	Y	
18017	01	1-1805-S3-BBB	480V MOT CONTROL CTR 1BBB	AUX	220'-0"	R116					Y	Y	Y	N	N	
18018	01	1-1805-S3-BBC	480V MOT CONTROL CTR 1BBC	CONTROL	180'-0"	RB61					Y	Y	Y	Y	Y	
18019	01	1-1805-S3-BBD	480V MOT CONTROL CTR 1BBD	AUX	180'-0"	RB16					Y	Y	Y	N	N	
18020	01	1-1805-S3-BBE	480V MOT CONTROL CTR 1BBE	CONTROL	200'-0"	RA77					Y	Y	Y	N	N	
18021	01	1-1805-S3-BBF	480V MOT CONTROL CTR 1BBF	DG	220'-0"	R101					Y	Y	Y	N	N	
18022	02	1-1805-S3-NBR	480V MCC 1NBR	CONTROL	180'-0"	RB50					Y	Y	Y	Y	Y	
18023	02	1-1805-S3-NBS	480V MCC 1NBS	CONTROL	180'-0"	RB68					Y	Y	Y	Y	Y	
18052	23	1-1805-S3-RHR1A	STARTER/RHR HV-8701B	CONTROL	180'-0"	RB55					Y	Y	Y	Y	Y	
18053	23	1-1805-S3-RHR2A	STARTER/RHR HV-8702A	CONTROL	180'-0"	RB48					Y	Y	Y	Y	Y	
18054	16	1-1805-Y3-IC5	RHR ISO VLV INVERTER	CONTROL	180'-0"	RB55					Y	Y	Y	Y	Y	
18055	16	1-1805-Y3-ID6	RHR ISO VLV INVERTER	CONTROL	180'-0"	RB48					Y	Y	Y	N	N	
19001	15	1-1806-B3-BN3	125 VDC BATTERY 1ND3AB	CONTROL	280'-0"	R409					N	Y	Y	N	N	
19002	15	1-1806-B3-BYA	125 VDC BATTERY 1AD1B	CONTROL	180'-0"	RB54					Y	Y	Y	Y	Y	
19003	15	1-1806-B3-BYB	125 VDC BATTERY 1BD1B	CONTROL	180'-0"	RB49					Y	Y	Y	Y	Y	
19004	15	1-1806-B3-BYC	125 VDC BATTERY 1CD1B	CONTROL	180'-0"	RB56					Y	Y	Y	Y	Y	
19005	15	1-1806-B3-BYD	125 VDC BATTERY 1DD1B	CONTROL	180'-0"	RB44					Y	Y	Y	Y	Y	
19006	16	1-1806-B3-CAA	BATTERY CHARGER 1AD1CA	CONTROL	180'-0"	RB52					Y	Y	Y	Y	Y	
19007	16	1-1806-B3-CAB	BATTERY CHARGER 1AD1CB	CONTROL	180'-0"	RB52					Y	Y	Y	N	N	
19008	16	1-1806-B3-CBA	BATTERY CHARGER 1BD1CA	CONTROL	180'-0"	RB47					Y	Y	Y	Y	Y	

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP1R2.DBF / 10/08/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
19009	16	1-1806-B3-CBB	BATTERY CHARGER 1BD1CB	CONTROL	180'-0"	RB47					Y	Y	Y	Y	Y	
19010	16	1-1806-B3-CCA	BATTERY CHARGER 1CD1CA	CONTROL	180'-0"	RB55					Y	Y	Y	Y	Y	
19011	16	1-1806-B3-CCB	BATTERY CHARGER 1CD1CB	CONTROL	180'-0"	RB55					Y	Y	Y	Y	Y	
19012	16	1-1806-B3-CDA	BATTERY CHARGER 1DD1CA	CONTROL	180'-0"	RB48					Y	Y	Y	Y	Y	
19013	16	1-1806-B3-CDB	BATTERY CHARGER 1DD1CB	CONTROL	180'-0"	RB48					Y	Y	Y	Y	Y	
19014	14	1-1806-Q3-DA1	125 VDC DISTR. PANEL 1AD11	CONTROL	180'-0"	RB52					Y	Y	Y	Y	Y	
19015	14	1-1806-Q3-DA2	125 VDC DISTR. PANEL 1AD12	CONTROL	180'-0"	RB52					Y	Y	Y	Y	Y	
19016	14	1-1806-Q3-DB1	125 VDC DISTR. PANEL 1BD11	CONTROL	200'-0"	RB36					Y	Y	Y	Y	Y	
19017	14	1-1806-Q3-DB2	125 VDC DISTR. PANEL 1BD12	CONTROL	200'-0"	RB47					Y	Y	Y	Y	Y	
19018	14	1-1806-Q3-DC1	125 VDC DISTR. PANEL 1CD11	CONTROL	200'-0"	RB55					Y	Y	Y	Y	Y	
19019	14	1-1806-Q3-DD1	125 VDC DISTR. PANEL 1DD11	CONTROL	200'-0"	RB48					Y	Y	Y	Y	Y	
19020	01	1-1806-S3-DCA	125 VDC MCC 1AD1M	CONTROL	200'-0"	RB52					Y	Y	Y	Y	Y	
19021	01	1-1806-S3-DCB	125 VDC MCC 1BD1M	CONTROL	200'-0"	RB47					Y	Y	Y	Y	Y	
19022	01	1-1806-S3-DCC	125 VDC MCC 1CD1M	CONTROL	200'-0"	RB84					Y	Y	Y	Y	Y	
19000	02	1-1806-S3-DN3	125 VDC SWITCHGEAR 1ND3A	CONTROL	280'-0"	R408					Y	Y	Y	Y	Y	
19023	02	1-1806-S3-DSA	125 VDC SWITCHGEAR 1AD1	CONTROL	200'-0"	RB52					Y	Y	Y	Y	Y	
19024	02	1-1806-S3-DSB	125 VDC SWITCHGEAR 1BD1	CONTROL	200'-0"	RB47					Y	Y	Y	N	N	
19025	02	1-1806-S3-DSC	125 VDC SWITCHGEAR 1CD1	CONTROL	200'-0"	RB55					Y	Y	Y	Y	Y	
19026	02	1-1806-S3-DSD	125 VDC SWITCHGEAR 1DD1	CONTROL	200'-0"	RB48					Y	Y	Y	Y	Y	
18024	14	1-1807-Q3-VI1	120 VAC VITAL PANEL 1AY1A	CONTROL	180'-0"	RB52					Y	Y	Y	Y	Y	
18025	14	1-1807-Q3-VI2	120 VAC VITAL PANEL 1BY1B	CONTROL	180'-0"	RB47					Y	Y	Y	Y	Y	
18026	14	1-1807-Q3-VI3	120 VAC VITAL PANEL 1CY1A	CONTROL	180'-0"	RB55					Y	Y	Y	Y	Y	
18027	14	1-1807-Q3-VI4	120 VAC VITAL PANEL 1DY1B	CONTROL	180'-0"	RB48					Y	Y	Y	Y	Y	
18028	14	1-1807-Q3-VI5	120 VAC VITAL DIST PANEL 1AY2A	AUX	220'-0"	R118					Y	Y	Y	N	N	
18029	14	1-1807-Q3-VI6	120 VAC VITAL DIST PANEL 1BY2B	AUX	220'-0"	R116					Y	Y	Y	N	N	
18030	14	1-1807-Q3-VN1	120 VAC ESSENT PANEL 1NY1N	CONTROL	180'-0"	RB53					Y	Y	Y	Y	Y	
18031	14	1-1807-Q3-VN2	120 VAC ESSENT PANEL 1NY2N	CONTROL	180'-0"	RB53					Y	Y	Y	Y	Y	
18032	14	1-1807-Q3-VN4	120 VAC ESSENT PANEL 1NY4N	CONTROL	260'-0"	R322					Y	Y	Y	Y	Y	

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP1R2.DBF / 10/08/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
18033	04	1-1807-Y3-01	REGULATED XFMR 1ABC09X	CONTROL	180'-0"	RB52					Y	Y	Y	Y	Y	
18034	04	1-1807-Y3-02	REGULATED XFMR 1BBA07X	CONTROL	180'-0"	RB47					Y	Y	Y	Y	Y	
18035	04	1-1807-Y3-03	REGULATED XFMR 1ABA07X	CONTROL	180'-0"	RB52					Y	Y	Y	Y	Y	
18036	04	1-1807-Y3-04	REGULATED XFMR 1BBC09X	CONTROL	180'-0"	RB61					Y	Y	Y	Y	Y	
18037	04	1-1807-Y3-05	REGULATED XFMR 1BBC42X	CONTROL	180'-0"	RB61					Y	Y	Y	Y	Y	
18038	04	1-1807-Y3-06	REGULATED XFMR 1ABE51X	CONTROL	180'-0"	RB79					Y	Y	Y	Y	Y	
18039	16	1-1807-Y3-12	ESSENTIAL AC INVERTER 1ND3I2	CONTROL	180'-0"	RB53					Y	Y	Y	N	N	
18040	16	1-1807-Y3-13	ESSENTIAL AC INVERTER 1ND3I3	CONTROL	180'-0"	RB53					Y	Y	Y	Y	Y	
18041	16	1-1807-Y3-14	ESSENTIAL AC INVERTER 1ND3I4	CONTROL	260'-0"	R322					Y	Y	Y	Y	Y	
18042	16	1-1807-Y3-IA1	VITAL AC INVERTER 1AD1I1	CONTROL	180'-0"	RB52					Y	Y	Y	Y	Y	
18043	16	1-1807-Y3-IA11	VITAL AC INVERTER 1AD1I11	AUX	220'-0"	R118					Y	Y	Y	N	N	
18044	16	1-1807-Y3-IB12	VITAL AC INVERTER 1BD1I12	AUX	220'-0"	R116					Y	Y	Y	N	N	
18045	16	1-1807-Y3-IB2	VITAL AC INVERTER 1BD1I2	CONTROL	180'-0"	RB47					Y	Y	Y	Y	Y	
18046	16	1-1807-Y3-IC3	VITAL AC INVERTER 1CD1I3	CONTROL	180'-0"	RB55					Y	Y	Y	Y	Y	
18047	16	1-1807-Y3-ID4	VITAL AC INVERTER 1DD1I4	CONTROL	180'-0"	RB48					Y	Y	Y	Y	Y	
18048	04	1-1807-Y3-RX11	REGULATED XFMR 1ABC20X	CONTROL	180'-0"	RB76					Y	Y	Y	Y	Y	
18049	04	1-1807-Y3-RX12	REGULATED XFMR 1BBC20X	CONTROL	180'-0"	RB61					Y	Y	Y	Y	Y	
18050	04	1-1807-Y3-RX7	REGULATED XFMR 1BBB40X	AUX	180'-0"	R116					Y	Y	Y	Y	Y	
18051	04	1-1807-Y3-RX8	REGULATED XFMR 1ABB40X	AUX	180'-0"	R118					Y	Y	Y	Y	Y	
22000	14	1-1808-Q3-L12	ESSENTIAL LTG DIST PANEL 1NLP12	AUX	195'-0"	RA22					Y	Y	Y	Y	Y	
22001	14	1-1808-Q3-L19	ESSENTIAL LTG DIST PANEL 1NLP19	AUX	143'-6"	RC98					Y	Y	Y	Y	Y	
22002	14	1-1808-Q3-L29	EMERGENCY LTG DIST PANEL 1NLP29	CONTROL	220'-0"	R149					Y	Y	Y	Y	Y	
22003	14	1-1808-Q3-L32	EMERGENCY LTG DIST PANEL 1NLP32	CONTROL	220'-0"	R149					Y	Y	Y	Y	Y	
22004	14	1-1808-Q3-L47	EMERGENCY LTG DIST PANEL 1NLP47	DG	220'-0"	R101					Y	Y	Y	Y	Y	
22005	14	1-1808-Q3-L50	EMERGENCY LTG DIST PANEL 1NLP50	DG	220'-0"	R103					Y	Y	Y	Y	Y	
22006	04	1-1808-T3-003	LTG DIST XFMR 1NBR1[illegible]X	AUX	195'-0"	RA22					Y	Y	Y	Y	Y	
22007	04	1-1808-T3-053	LTG DIST XFMR 1NBS[illegible]4X	AUX	143'-6"	RC98					Y	Y	Y	Y	Y	
22008	04	1-1808-T3-103	LTG ISOLATION XFMR 1ABC23X	CONTROL	220'-0"	R149					Y	Y	Y	Y	Y	

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP1R2.DBF / 10/06/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION ------> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
22009	04	1-1808-T3-104	LTG ISOLATION XFMR 1BBC23X	CONTROL	220'-0"	R149					Y	Y	Y	Y	Y	
22010	04	1-1808-T3-105	LTG ISOLATION XFMR 1ABF13X	DG	220'-0"	R103					Y	Y	Y	Y	Y	
22011	04	1-1808-T3-106	LTG ISOLATION XFMR 1BBF13X	DG	220'-0"	R101					Y	Y	Y	Y	Y	
20000	20	1-1816-U3-001	AUXILIARY RELAY PANEL A	CONTROL	200'-0"	RA45					Y	Y	Y	Y	Y	
20001	20	1-1816-U3-002	AUXILIARY RELAY PANEL N-A	CONTROL	200'-0"	RA45					Y	Y	Y	Y	Y	
20002	20	1-1816-U3-003	AUXILIARY RELAY PANEL B	CONTROL	240'-0"	R226					Y	Y	Y	Y	Y	
20003	20	1-1816-U3-004	AUXILIARY RELAY PANEL N-B	CONTROL	240'-0"	R226					Y	Y	Y	Y	Y	
20004	20	1-1816-U3-005	ISOLATION DEVICE PANEL AB	CONTROL	220'-0"	R163					Y	Y	Y	N	N	
20005	20	1-1816-U3-006	ISOLATION DEVICE PANEL B-C	CONTROL	220'-0"	R163					Y	Y	Y	N	N	
20006	20	1-1816-U3-007	ELECTRICAL AUXILIARY BOARD	CONTROL	220'-0"	R163					Y	Y	Y	N	N	
20007	20	1-1816-U3-009	ISOLATION DEVICE PANEL C	CONTROL	220'-0"	R163					Y	Y	Y	N	N	
20008	20	1-1816-U3-010	ISOLATION DEVICE PANEL	CONTROL	220'-0"	R163					Y	Y	Y	N	N	
20009	20	1-1816-U3-014	AUXILIARY RELAY PANEL	CONTROL	200'-0"	RA45					Y	Y	Y	Y	Y	
20010	20	1-1816-U3-015	AUXILIARY RELAY PANEL	CONTROL	240'-0"	RA226					Y	Y	Y	Y	Y	
20011	20	1-1816-U3-017	AUXILIARY RELAY PANEL	CONTROL	200'-0"	RA45					Y	Y	Y	Y	Y	
20012	20	1-1816-U3-018	AUXILIARY RELAY PANEL	CONTROL	200'-0"	RA50					Y	Y	Y	Y	Y	
20013	20	1-1816-U3-020	ISOLATION DEVICE PANEL	CONTROL	220'-0"	R163					Y	Y	Y	Y	Y	
20014	20	1-1816-U3-021	ISOLATION DEVICE PANEL	CONTROL	220'-0"	R163					Y	Y	Y	N	N	
21003	20	1-1821-U3-001	SF SEQUENCER BOARD TRAIN A	CONTROL	200'-0"	RA48					Y	Y	Y	N	N	
21004	20	1-1821-U3-002	SF SEQUENCER BOARD TRAIN B	CONTROL	200'-0"	RA50					Y	Y	Y	N	N	
21005	20	1-1823-Q5-BPS	SYSTEM STATUS MONITOR PANEL	CONTROL	220'-0"	R163					Y	Y	Y	N	N	
21006	03	1-1825-S3-1AAA	13800V RCP SWITCHGEAR 1AAA	CONTROL	200'-0"	RA64					Y	Y	Y	N	N	
21007	03	1-1825-S3-1BAB	13800V RCP SWITCHGEAR 1BAB	CONTROL	200'-0"	RA64					Y	Y	Y	Y	Y	
21008	03	1-1825-S3-1CAC	13800V RCP SWITCHGEAR 1CAC	CONTROL	200'-0"	RA54					Y	Y	Y	N	N	
21009	03	1-1825-S3-1DAD	13800V RCP SWITCHGEAR 1DAD	CONTROL	200'-0"	RA54					Y	Y	Y	N	N	
11002	17	1-2403-G4-001	DIESEL GENERATOR A	DG	220'-0"	R103					Y	Y	Y	N	N	
11003	24	1-2403-G4-001-F01	DG INTAKE AIR FILTER	DG	255'-0"	R210					Y	Y	Y	Y	Y	
11004	24	1-2403-G4-001-F02	DG EXHAUST AIR SILENCER	DG	255'-0"	R209					Y	Y	Y	Y	Y	

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP1R2.DBF / 10/08/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO. (1)	EQUIP CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	Building (5)	EQUIPMENT Flr.Elv. (6)	LOCATION Rm. or Row/Col. (7)	Base Elev. (8)	<40'? (9)	Capacity Spectrum (10)	Demand Spectrum (11)	Cap. > Demand? (12)	Caveats OK? (13)	Anchor OK? (14)	Inter-act OK? (15)	Equip OK? (16)	Notes (17)
11005	21	1-2403-G4-001-V01	DG AIR START RECEIVER	DG	220'-0"	R103					Y	Y	Y	Y	Y	
11006	21	1-2403-G4-001-V02	DG AIR START RECEIVER	DG	220'-0"	R103					Y	Y	Y	Y	Y	
11007	17	1-2403-G4-002	DIESEL GENERATOR B	DG	220'-0"	R101					Y	Y	Y	N	N	
11008	24	1-2403-G4-002-F01	DG INTAKE AIR FILTER	DG	255'-0"	R205					Y	Y	Y	Y	Y	
11009	24	1-2403-G4-002-F02	DG EXHAUST AIR SILENCER	DG	255'-0"	R204					Y	Y	Y	Y	Y	
11010	21	1-2403-G4-002-V01	DG AIR START RECEIVER	DG	220'-0"	R101					Y	Y	Y	N	N	
11011	21	1-2403-G4-002-V02	DG AIR START RECEIVER	DG	220'-0"	R101					Y	Y	Y	N	N	
11012	06	1-2403-P4-001	DIESEL FUEL OIL TRANSFER PUMP	DFOST	211'-6"	RA01					Y	Y	Y	Y	Y	
11013	06	1-2403-P4-003	DIESEL FUEL OIL TRANSFER PUMP	DFOST	211'-6"	RA03					Y	Y	Y	Y	Y	
11014	20	1-2403-P5-DG1	DG 1A GEN CTL PNL	DG	220'-0"	R103					Y	Y	Y	N	N	
11015	20	1-2403-P5-DG2	DG 1A ENG CTL PNL	DG	220'-0"	R103					Y	Y	Y	N	N	
11016	20	1-2403-P5-DG3	DG 1B GEN CTL PNL	DG	220'-0"	R101					Y	Y	Y	N	N	
11017	20	1-2403-P5-DG4	DG 1B ENG CTL PNL	DG	220'-0"	R101					Y	Y	Y	N	N	
11018	20	1-2403-T3-NGA	DG 1A NEUTRAL GND CABINET	DG	220'-0"	R103					Y	Y	Y	Y	Y	
11019	20	1-2403-T3-NGB	DG 1B NEUTRAL GND CABINET	DG	220'-0"	R101					Y	Y	Y	Y	Y	
11020	21	1-2403-T4-001	DIESEL FUEL OIL STORAGE TANK	DFOST	211'-6"	RA01					Y	Y	NA	Y	Y	
11021	21	1-2403-T4-002	DIESEL FUEL OIL STORAGE TANK	DFOST	211'-6"	RA03					Y	Y	NA	Y	Y	
11022	21	1-2403-T4-003	DIESEL FUEL OIL DAY TANK	DG	220'-0"	R104					Y	Y	Y	Y	Y	
11023	21	1-2403-T4-004	DIESEL FUEL OIL DAY TANK	DG	220'-0"	R102					Y	Y	Y	Y	Y	
02010	07	1-CV-9446	NSCT BLOWDOWN ISO AOV	NSCT	220'-0"	R102					Y	Y	NA	Y	Y	
02011	07	1-CV-9447	NSCT BLOWDOWN ISO AOV	NSCT	220'-0"	R202					Y	Y	NA	Y	Y	
05006	19	1-FIS-0610	RHR PUMP A FLOW TO MINIFLOW VALVE	AUX	119'-3"	RD121					Y	Y	NA	Y	Y	
05007	19	1-FIS-0611	RHR PUMP B FLOW TC MINIFLOW VALVE	AUX	119'-3"	RD53					Y	Y	NA	Y	Y	
02012	19	1-FIT-1640A	NSCW RETURN FLOW	NSCT	195'-0"	TUNNEL 1T2A					Y	Y	NA	Y	Y	
02013	19	1-FIT-1641A	NSCW RETURN FLOW	NSCT	195'-0"	TUNNEL 1T2B					Y	Y	NA	Y	Y	
10019	19	1-FSL-12045	INTERLOCK FLOW SWTCH CNTL BLD..CLOSES ON LOW AIR	CONTROL	260'-0"	R320					Y	Y	NA	Y	Y	
10020	19	1-FSL-12046	INTERLOCK FLOW SWTCH CNTL BLD..CLOSES ON AIR-FLO	CONTROL	260'-0"	R313					Y	Y	NA	Y	Y	

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP1R2.DBF / 10/08/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
06010	19	1-FT-0138	CCP A FLOW	AUX	143'-6"	RC114					Y	Y	NA	Y	Y	
06011	19	1-FT-0142	RCP 4 SEAL INJ FLOW	FB	200'-0"	RA10					Y	Y	NA	Y	Y	
06012	19	1-FT-0143	RCP 3 SEAL INJ FLOW	FB	200'-0"	RA10					Y	Y	NA	Y	Y	
06013	19	1-FT-0144	RCP 2 SEAL INJ FLOW	AUX	195'-0"	RA09					Y	Y	NA	Y	Y	
06014	19	1-FT-0145	RCP 1 SEAL INJ FLOW	AUX	195'-0"	RA09					Y	Y	NA	Y	Y	
06045	19	1-FT-0406	REACTOR HEAD LETDOWN LINE FLOW	CTB	183'-0"	RB03					Y	Y	NA	N	N	
06046	19	1-FT-0407	REACTOR HEAD LETDOWN LINE FLOW	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
05008	19	1-FT-0618	RHR A FLOW	AUX	119'-3"	RD121					Y	Y	NA	Y	Y	
05009	19	1-FT-0619	RHR B FLOW	AUX	143'-6"	RD53					Y	Y	NA	Y	Y	
04004	19	1-FT-0917	FLOW THROUGH BIT	AUX	180'-0"	RB11					Y	Y	NA	Y	Y	
04005	19	1-FT-0918	SIP A FLOW	AUX	180'-0"	RB15					Y	Y	NA	Y	Y	
04006	19	1-FT-0922	SIP B FLOW	AUX	180'-0"	RB19					Y	Y	NA	Y	Y	
02014	19	1-FT-1802	NSCW FLOW TO CB ESS CHILLER	CONTROL	260'-0"	R320					Y	Y	NA	Y	Y	
02015	19	1-FT-1803	NSCW FLOW TO CB ESS CHILLER	CONTROL	260'-0"	R313					Y	Y	NA	Y	Y	
03010	19	1-FT-1876	CCW A FLOW	AUX	195'-0"	RA05					Y	Y	NA	Y	Y	
03011	19	1-FT-1877	CCW B FLOW	AUX	195'-0"	RA04					Y	Y	NA	Y	Y	
10104	19	1-FT-22425	ECW FLOW	CONTROL	260'-0"	R320					Y	Y	NA	Y	Y	
10105	19	1-FT-22426	ECW FLOW	CONTROL	260'-0"	R313					Y	Y	NA	Y	Y	
09004	19	1-FT-5150	AFW FLOW TO SG 4	AUX	195'-0"	RA17					Y	Y	NA	Y	Y	
09005	19	1-FT-5151	AFW FLOW TO SG 2	CONTROL	200'-0"	RA62					Y	Y	NA	Y	Y	
09006	19	1-FT-5152	AFW FLOW TO SG 1	AUX	195'-0"	RA10					Y	Y	NA	Y	Y	
09007	19	1-FT-5153	AFW FLOW TO SG 3	CONTROL	200'-0"	RA56					Y	Y	NA	Y	Y	
09008	19	1-FT-5154	AFW B FLOW TO MINIFLOW VALVE	AFWP HOUSE	220'-0"	R101					Y	Y	NA	Y	Y	
09009	19	1-FT-5155	AFW A FLOW TO MINIFLOW VAVLE	AFWP HOUSE	220'-0"	R101					Y	Y	NA	Y	Y	
05010	08a	1-FV-0610	RHR PUMP A MINIFLOW MOV	AUX	143'-6"	RC90					Y	Y	NA	Y	Y	
05011	08a	1-FV-0611	RHR PUMP B MINIFLOW MOV	AUX	143'-6"	RC91					Y	Y	NA	Y	Y	
09010	08a	1-FV-5154	AFW PUMP B MINIFLOW MOV	AFWP HOUSE	220'-0"	R102					Y	Y	NA	Y	Y	
09011	08a	1-FV-5155	AFW PUMP A MINIFLOW MOV	AFWP HOUSE	220'-0"	R101					Y	Y	NA	Y	Y	

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP1R2.DBF / 10/08/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO. (1)	EQUIP CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	<---------- Building (5)	EQUIPMENT Flr.Elv. (6)	LOCATION -----> Rm. or Row/Col. (7)	Base Elev. (8)	<40'? (9)	Capacity Spectrum (10)	Demand Spectrum (11)	Cap. > Demand? (12)	Caveats OK? (13)	Anchor OK? (14)	Inter-act OK? (15)	Equip OK? (16)	Notes (17)
06015	08b	1-HV-0190A	CCP A SAFETY GRADE CHARGING SOLENOID OP VLV	AUX	195'-0"	RA09					Y	Y	NA	Y	Y	
06016	08b	1-HV-0190B	CCP B SAFETY GRADE CHARGING SOLENOID OP VLV	AUX	143'-6"	RC119					Y	Y	NA	Y	Y	
06047	08b	1-HV-0442A	REACTOR HEAD LETDOWN LINE CONTROL SOV	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
06048	08b	1-HV-0442B	REACTOR HEAD LETDOWN LINE CONTROL SOV	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
12005	07	1-HV-0780	NORMAL CTB SUMP PUMP DISCHARGE AOV	CTB	198'-0"	RB10					Y	Y	NA	Y	Y	
12006	07	1-HV-0781	NORMAL CTB SUMP PUMP DISCHARGE AOV	AUX	195'-0"	RA09					Y	Y	NA	Y	Y	
04007	08b	1-HV-0943A	ACCUMULATOR NITROGEN HDR VENT--SOLENOID OPERATED VALVE	CTB	180'-0"	RB10					Y	Y	NA	Y	Y	
04008	08b	1-HV-0943B	ACCUMULATOR NITROGEN HDR VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB10					Y	Y	NA	Y	Y	
04009	07	1-HV-10957	RWST TO SLUDGE MIXING PUMP SUCTION AOV	RWST	220'-0"	R101					Y	Y	NA	Y	Y	
04010	07	1-HV-10958	RWST TO SLUDGE MIXING PUMP SUCTION AOV	RWST	220'-0"	R101					Y	Y	NA	Y	Y	
02016	08a	1-HV-11600	NSCW PUMP 1 DISCHARGE MOV	NSCT	220'-0"	R103					Y	Y	NA	Y	Y	
02017	08a	1-HV-11606	NSCW PUMP 3 DISCHARGE MOV	NSCT	220'-0"	R103					Y	Y	NA	Y	Y	
02018	08a	1-HV-11607	NSCW PUMP 2 DISCHARGE MOV	NSCT	245'-0"	R203					Y	Y	NA	Y	Y	
02019	08a	1-HV-11613	NSCW PUMP 4 DISCHARGE MOV	NSCT	245'-0"	R203					Y	Y	NA	Y	Y	
10112	08a	1-HV-12005	AFW PUMP HOUSE AIR SUPPLY DAMPER	AFWP HOUSE	220'-0"	R102					Y	Y	NA	Y	Y	
10113	08a	1-HV-12006	AFW PUMP HOUSE AIR SUPPLY DAMPER	AFWP HOUSE	220'-0"	R101					Y	Y	NA	Y	Y	
10094	08a	1-HV-12050	DG A AIR SUPPLY DAMPER FOR FAN NO. 1	DG	255'-0"	R208					Y	Y	NA	Y	Y	
10095	08a	1-HV-12051	DG A AIR SUPPLY DAMPER FOR FAN NO. 3	DG	255'-0"	R208					Y	Y	NA	Y	Y	
10096	08a	1-HV-12053	DG A AIR SUPPLY DAMPER FOR FAN NO. 2	DG	255'-0"	R203					Y	Y	NA	Y	Y	
10097	08a	1-HV-12054	DG A AIR SUPPLY DAMPER FOR FAN NO. 4	DG	255'-0"	R203					Y	Y	NA	Y	Y	
10021	08a	1-HV-12128	CBCR FILTER UNIT AIR SUPPLY DAMPER CONTROL		220'-0"	R143					Y	Y	NA	Y	Y	
10022	08a	1-HV-12129	CBCR FILTER UNIT AIR SUPPLY DAMPER CONTROL		220'-0"	R143					Y	Y	NA	Y	Y	

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VFGPIR2.DBF / 10/08/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10023	08a	1-HV-12130	CBCR FILTER UNIT AIR RETURN DAMPER	CONTROL	220'-0"	R143					Y	Y	NA	Y	Y	
10024	08a	1-HV-12131	CBCR FILTER UNIT AIR RETURN DAMPER	CONTROL	220'-0"	R143					Y	Y	NA	Y	Y	
10025	07	1-HV-12146	CBCR NORMAL AIR SUPPLY DAMPER	CONTROL	240'-0"	R233					Y	Y	NA	N	N	
10026	07	1-HV-12147	CBCR NORMAL AIR SUPPLY DAMPER	CONTROL	240'-0"	R233					Y	Y	NA	Y	Y	
10027	07	1-HV-12148	CBCR NORMAL AIR RETURN DAMPER	CONTROL	240'-0"	R233					Y	Y	NA	Y	Y	
10028	07	1-HV-12149	CBCR NORMAL AIR RETURN DAMPER	CONTROL	240'-0"	R233					Y	Y	NA	Y	Y	
10082	07	1-HV-12604	PPG PENETRATION NORMAL RETURN AIR ISOLATION DAMPER	AUX	245'-0"	R209					Y	Y	NA	Y	Y	
10083	07	1-HV-12605	PPG PENETRATION NORMAL AIR SUPPLY ISOLATION DAMPER	AUX	245'-0"	R209					Y	Y	NA	Y	Y	
10084	07	1-HV-12606	PPG PENETRATION NORMAL AIR SUPPLY ISOLATION DAMPER	AUX	245'-0"	R209					Y	Y	NA	Y	Y	
10085	07	1-HV-12607	PPG PENETRATION NORMAL RETURN AIR ISOLATION DAMPER	AUX	245'-0"	R209					Y	Y	NA	Y	Y	
10086	08c	1-HV-12614	PPG PEN FILTRATION AND EXHAUST UNIT SUCTION DAMPER	AUX	245'-0"	R210					Y	Y	NA	Y	Y	
10087	08c	1-HV-12616	PPG PEN FILTRATION AND EXHAUST UNIT SUCTION DAMPER	AUX	245'-0"	R209					Y	Y	NA	Y	Y	
12021	08b	1-HV-12976	CTB AIR RADIATION MONITOR INLET SOV	AUX	180'-0"	RB08					Y	Y	NA	Y	Y	
12022	08b	1-HV-12977	CTB AIR RADIATION MONITOR OUTLET SOV	AUX	180'-0"	RB08					Y	Y	NA	Y	Y	
08000	07	1-HV-13005A	INBOARD MSIV BYPASS AOV--SG 1	AUX	220'-0"	R108					Y	Y	NA	Y	Y	
08001	07	1-HV-13005B	OUTBOARD MSIV BYPASS AOV--SG 1	AUX	220'-0"	R108					Y	Y	NA	Y	Y	
08002	07	1-HV-13006A	INBOARD MSIV BYPASS AOV--SG 4	AUX	220'-0"	R108					Y	Y	NA	Y	Y	
08003	07	1-HV-13006B	OUTBOARD MSIV BYPASS AOV--SG 4	AUX	220'-0"	R108					Y	Y	NA	Y	Y	
08004	07	1-HV-13007A	INBOARD MSIV BYPASS AOV--SG 2	CONTROL	220'-0"	R123					Y	Y	NA	Y	Y	
08005	07	1-HV-13007B	OUTBOARD MSIV BYPASS AOV--SG 2	CONTROL	220'-0"	R123					Y	Y	NA	Y	Y	
08006	07	1-HV-13008A	INBOARD MSIV BYPASS AOV--SG 3	CONTROL	220'-0"	R122					Y	Y	NA	Y	Y	
08007	07	1-HV-13008B	OUTBOARD MSIV BYPASS AOV--SG 3	CONTROL	220'-0"	R122					Y	Y	NA	Y	Y	
07005	07	1-HV-15196	BFIV FOR SG 1	AUX	195'-0"	RA11					Y	Y	NA	N	N	
07006	07	1-HV-15197	BFIV FOR SG 2	CONTROL	200'-0"	RA56					Y	Y	NA	Y	Y	

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP1R2.DBF / 10/08/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO. (1)	EQUIP CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	<---------- Building (5)	EQUIPMENT Flr.Elv. (6)	LOCATION -----> Rm. or Row/Col. (7)	Base Elev. (8)	<40'? (9)	Capacity Spectrum (10)	Demand Spectrum (11)	Cap. > Demand? (12)	Caveats OK? (13)	Anchor OK? (14)	Inter-act OK? (15)	Equip OK? (16)	Notes (17)
07007	07	1-HV-15198	BFIV FOR SG 3	CONTROL	200'-0"	RA56					Y	Y	NA	Y	Y	
07008	07	1-HV-15199	BFIV FOR SG 4	AUX	195'-0"	RA12					Y	Y	NA	N	N	
02020	08a	1-HV-1668A	NSCW SPRAY VALVE	NSCT	195'-0"	R102					Y	Y	NA	Y	Y	
02021	08a	1-HV-1668B	NSCW TOWER BYPASS MOV	NSCT	220"-0"	R102					Y	Y	NA	Y	Y	
02022	08a	1-HV-1669A	NSCW SPRAY VALVE	NSCT	195'-0"	R202					Y	Y	NA	Y	Y	
02023	08a	1-HV-1669B	NSCW TOWER BYPASS MOV	NSCT	220'-0"	R202					Y	Y	NA	Y	Y	
12007	08a	1-HV-1974	ACCW RETURN FROM RCP COOLERS MOV	CTB	198'-0"	R101					Y	Y	NA	Y	Y	
12008	08a	1-HV-1975	ACCW RETURN FROM RCP COOLERS MOV	AUX	195'-0"	RA12					Y	Y	NA	Y	Y	
12009	08a	1-HV-1978	ACCW SUPPLY TO RCP COOLERS MOV	CTB	198'-0"	R101					Y	Y	NA	Y	Y	
12010	08a	1-HV-1979	ACCW SUPPLY TO RCP COOLERS MOV	AUX	195'-0"	RA12					Y	Y	NA	Y	Y	
12015	07	1-HV-2626B	NORMAL CTB PURGE SUPPLY & EQUALIZING AOV	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
12016	07	1-HV-2627B	NORMAL CTB PURGE SUPPLY & EQUALIZING AOV	CONTROL	220'-0"	R125					Y	Y	NA	Y	Y	
12017	07	1-HV-2628B	NORMAL CTB PURGE EXHAUST & EQUALIZING AOV	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
12018	07	1-HV-2629B	NORMAL CTB PURGE EXHAUST & EQUALIZING AOV	CONTROL	220'-0"	R117					Y	Y	NA	Y	Y	
08008	08c	1-HV-3006A	INBOARD MSIV--SG 1	AUX	220'-0"	R108					Y	Y	NA	Y	Y	
08009	08c	1-HV-3006B	OUTBOARD MSIV--SG 1	AUX	220'-0"	R108					Y	Y	NA	Y	Y	
08010	08c	1-HV-3016A	INBOARD MSIV--SG 2	CONTROL	220'-0"	R123					Y	Y	NA	N	N	
08011	08c	1-HV-3016B	OUTBOARD MSIV--SG 2	CONTROL	220'-0"	R123					Y	Y	NA	N	N	
08012	08c	1-HV-3026A	INBOARD MSIV--SG 3	CONTROL	220'-0"	R123					Y	Y	NA	N	N	
08013	08c	1-HV-3026B	OUTBOARD MSIV--SG 3	CONTROL	220'-0"	R123					Y	Y	NA	N	N	
08014	08c	1-HV-3036A	INBOARD MSIV--SG 4	AUX	220'-0"	R108					Y	Y	NA	Y	Y	
08015	08c	1-HV-3036B	OUTBOARD MSIV--SG 4	AUX	220'-0"	R108					Y	Y	NA	Y	Y	
12023	07	1-HV-3502	HOT LEG SAMPLE & GFF DET AOV	FB	180'-0"	RA10					Y	Y	NA	Y	Y	
12024	07	1-HV-3508	PRESSURIZER LIQUID SAMPLE AOV	FB	180'-0"	RA10					Y	Y	NA	Y	Y	
12025	07	1-HV-3514	PRESSURIZER STEAM SAMPLE AOV	FB	180'-0"	RA10					Y	Y	NA	Y	Y	
09012	08a	1-HV-5132	AFW PUMP B DISCHARGE MOV	CONTROL	195'-0"	RA56					Y	Y	NA	Y	Y	

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP1R2.DBF / 10/08/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<--------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
09013	08a	1-HV-5134	AFW PUMP B DISCHARGE MOV	CONTROL	195'-0"	RA56					Y	Y	NA	Y	Y	
09014	08a	1-HV-5137	AFW PUMP A DISCHARGE MOV	AUX	195'-0"	RA12					Y	Y	NA	Y	Y	
09015	08a	1-HV-5139	AFW PUMP A DISCHARGE MOV	AUX	195'-0"	RA12					Y	Y	NA	Y	Y	
07009	08c	1-HV-5227	MFIV FOR SG 1	AUX	195'-0"	RA11					Y	Y	NA	Y	Y	
07010	08c	1-HV-5228	MFIV FOR SG 2	CONTROL	200'-0"	RA56					Y	Y	NA	Y	Y	
07011	08c	1-HV-5229	MFIV FOR SG 3	CONTROL	200'-0"	RA56					Y	Y	NA	Y	Y	
07012	08c	1-HV-5230	MFIV FOR SG 4	AUX	195'-0"	RA12					Y	Y	NA	Y	Y	
12019	07	1-HV-7136	REACTOR COOLANT DRAIN TANK PUMP DISCHARGE AOV	FB	200'-0"	RA10					Y	Y	NA	Y	Y	
12026	07	1-HV-7150	RCDT VENT AOV	FB	180'-0"	RA10					Y	Y	NA	Y	Y	
08016	07	1-HV-7603A	SG 1 BLOWDOWN ISOLATION AOV	AUX	180'-0"	RB08					Y	Y	NA	Y	Y	
08017	07	1-HV-7603B	SG 2 BLOWDOWN ISOLATION AOV	AUX	180'-0"	RB08					Y	Y	NA	Y	Y	
08018	07	1-HV-7603C	SG 3 BLOWDOWN ISOLATION AOV	AUX	180'-0"	RB08					Y	Y	NA	Y	Y	
08019	07	1-HV-7603D	SG 4 BLOWDOWN ISOLATION AOV	AUX	180'-0"	RB08					Y	Y	NA	Y	Y	
12020	07	1-HV-7699	REACTOR COOLANT DRAIN TANK PUMP DISCHARGE AOV	CTB	183'-0"	RB07					Y	Y	NA	Y	Y	
01010	08a	1-HV-8000A	PORV BLOCK VALVE	CTB	220'-0"	R110					Y	Y	NA	Y	Y	
01011	08a	1-HV-8000B	PORV BLOCK VALVE	CTB	220'-0"	R110					Y	Y	NA	Y	Y	
06041	08b	1-HV-8095A	REACTOR HEAD LETDOWN LINE ISOLATION SOV	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
06042	08b	1-HV-8095B	REACTOR HEAD LETDOWN LINE ISOLATION SOV	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
06043	08b	1-HV-8096A	REACTOR HEAD LETDOWN LINE ISOLATION SOV	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
06044	08b	1-HV-8096B	REACTOR HEAD LETDOWN LINE ISOLATION SOV	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
12003	08a	1-HV-8100	EXCESS LETDOWN & SEAL WATER LEAKOFF ISOLATION MOV	AUX	195'-0"	RA09					Y	Y	NA	Y	Y	
06017	08a	1-HV-8105	CHARGING TO REGEN HX MOV	AUX	195'-0"	RA09					Y	Y	NA	Y	Y	
06018	08a	1-HV-8106	CHARGING DISCHARGE MOV	AUX	195'-0"	RA09					Y	Y	NA	Y	Y	
06019	08a	1-HV-8110	CCP A & B COMMON MINIFLOW MOV	AUX	180'-0"	RB25					Y	Y	NA	Y	Y	

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP1R2.DBF / 10/08/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
06020	08a	1-HV-8111A	CCP A MINIFLOW MOV	AUX	143'-6"	RC114					Y	Y	NA	Y	Y	
06021	08a	1-HV-8111B	CCP B MINIFLOW MOV	AUX	143'-6"	RC119					Y	Y	NA	Y	Y	
12004	08a	1-HV-8112	EXCESS LETDOWN & SEAL WATER LEAKOFF ISOLATION MOV	CTB	180'-0"	RB03					Y	Y	NA	Y	Y	
06022	08a	1-HV-8116	CCP A SAFETY GRADE CHARGING ISO MOV	AUX	195'-0"	RA09					Y	Y	NA	Y	Y	
06023	07	1-HV-8149A	LETDOWN ISOLATION AOV	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
06024	07	1-HV-8149B	LETDOWN ISOLATION AOV	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
06025	07	1-HV-8149C	LETDOWN ISOLATION AOV	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
06026	07	1-HV-8152	LETDOWN ISOLATION AOV	AUX	195'-0"	RA09					Y	Y	NA	Y	Y	
06027	07	1-HV-8154	EXCESS LETDOWN ISOLATION AOV	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
06028	07	1-HV-8160	LETDOWN ISOLATION AOV	CONTROL	220'-0"	R163					Y	Y	NA	Y	Y	
06029	08a	1-HV-8485A	CCP A DISCHARGE ISO MOV	AUX	143'-6"	RC114					Y	Y	NA	Y	Y	
06030	08a	1-HV-8485B	CCP B DISCHARGE MOV	AUX	143'-6"	RC119					Y	Y	NA	Y	Y	
06031	08a	1-HV-8508A	CCP A ALT. MINIFLOW MOV	AUX	143'-6"	RC114					Y	Y	NA	Y	Y	
06032	08a	1-HV-8508B	CCP B ALT. MINIFLOW MOV	AUX	143'-6"	RC119					Y	Y	NA	Y	Y	
05012	08a	1-HV-8701A	RCS TO RHR PUMP A SUCTION MOV	CTB	180'-0"	RB03					Y	Y	NA	Y	Y	
05013	08a	1-HV-8701B	RCS TO RHR PUMP A SUCTION MOV	CTB	180'-0"	RB02					Y	Y	NA	Y	Y	
05014	08a	1-HV-8702A	RCS TO RHR PUMP B SUCTION MOV	CTB	180'-0"	RB03					Y	Y	NA	Y	Y	
05015	08a	1-HV-8702B	RCS TO RHR PUMP B SUCTION MOV	CTB	180'-0"	RB03					Y	Y	NA	Y	Y	
05016	08a	1-HV-8716A	RHR TRAIN A TO RCS HOT LEG ISOLATION MOV	AUX	119'-0"	RD48					Y	Y	NA	Y	Y	
05017	08a	1-HV-8716B	RHR TRAIN B TO RCS HOT LEG ISOLATION MOV	AUX	119'-0"	RD49					Y	Y	NA	Y	Y	
04011	08a	1-HV-8801A	BIT DISCHARGE TO RCS MOV	AUX	195'-0"	RA13					Y	Y	NA	Y	Y	
04012	08a	1-HV-8801B	BIT DISCHARGE TO RCS MOV	AUX	195'-0"	RA13					Y	Y	NA	Y	Y	
05018	08a	1-HV-8804A	RHR TO CCP SUCTION HEADER MOV	AUX	143'-6"	RC90					Y	Y	NA	Y	Y	
05019	08a	1-HV-8804B	RHR TO SIP SUCTION HEADER MOV	AUX	143'-6"	RC91					Y	Y	NA	Y	Y	
04013	08a	1-HV-8807A	CCP/SIP SUCTION HEADER CROSS-CONNECT MOV	AUX	180'-0"	RB15					Y	Y	NA	Y	Y	

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP1R2.DBF / 10/08/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO. (1)	EQUIP CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	Building (5)	EQUIPMENT Flr.Elv. (6)	LOCATION Rm. or Row/Col. (7)	Base Elev. (8)	<40'? (9)	Capacity Spectrum (10)	Demand Spectrum (11)	Cap. > Demand? (12)	Caveats OK? (13)	Anchor OK? (14)	Inter-act OK? (15)	Equip OK? (16)	Notes (17)
04014	08a	1-HV-8807B	CCP/SIP SUCTION HEADER CROSS-CONNECT MOV	AUX	180'-0"	RB19					Y	Y	NA	Y	Y	
05020	08a	1-HV-8811A	CTMT SUMP TO RHR PUMP A SUCTION MOV	AUX	143'-6"	RC105					Y	Y	NA	Y	Y	
05021	08a	1-HV-8811B	CTMT SUMP TO RHR PUMP B SUCTION MOV	AUX	143'-6"	RC09					Y	Y	NA	Y	Y	
05022	08a	1-HV-8812A	RWST TO RHR PUMP A SUCTION MOV	AUX	119'-0"	RD48					Y	Y	NA	Y	Y	
05023	08a	1-HV-8812B	RWST TO RHR PUMP B SUCTION MOV	AUX	119'-0"	RD49					Y	Y	NA	Y	Y	
04015	08a	1-HV-8813	SIP COMMON MINIFLOW MOV	AUX	180'-0"	RB19					Y	Y	NA	Y	Y	
04016	08a	1-HV-8814	SIP A MINIFLOW MOV	AUX	180'-0"	RB15					Y	Y	NA	Y	Y	
04017	08b	1-HV-8875A	ACCUMULATOR 1 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB03					Y	Y	NA	Y		
04018	08b	1-HV-8875B	ACCUMULATOR 2 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB10					Y	Y	NA	Y	Y	
04019	08b	1-HV-8875C	ACCUMULATOR 3 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB10					Y	Y	NA	Y	Y	
04020	08b	1-HV-8875D	ACCUMULATOR 4 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
04021	08b	1-HV-8875E	ACCUMULATOR 1 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
04022	08b	1-HV-8875F	ACCUMULATOR 2 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB10					Y	Y	NA	Y	Y	
04023	08b	1-HV-8875G	ACCUMULATOR 3 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB10					Y	Y	NA	Y	Y	
04024	08b	1-HV-8875H	ACCUMULATOR 4 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
04025	08a	1-HV-8920	SIP B MINIFLOW MOV	AUX	180'-0"	RB19					Y	Y	NA	Y	Y	
06054	19	1-HY-0190A	I/P CONVERTER FOR HV-0190A	AUX	195'-0"	RA05					Y	Y	Y	Y	Y	
06055	19	1-HY-0190B	I/P CONVERTER FOR HV-0190B	AUX	143'-6"	RC119					Y	Y	Y	Y	Y	
06056	19	1-HY-0442A	I/P CONVERTER FOR HV-0442A	CONTROL	180'-0"	RB78					Y	Y	Y	Y	Y	
06057	19	1-HY-0442B	I/P CONVERTER FOR HV-0442B	CONTROL	180'-0"	RB74					Y	Y	Y	Y	Y	
04030	19	1-HY-0943A	I/P CONVERTER FOR HV-0943A	CONTROL	180'-0"	RB78					Y	Y	Y	Y	Y	
04031	19	1-HY-0943B	I/P CONVERTER FOR HV-0943B	CONTROL	180'-0"	RB74					Y	Y	Y		Y	

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP1R2.DBF / 10/08/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<--------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
12028	08b	1-HY-7150	SOLENOID VALVE FOR 1-HV-7150	FB	180'-0"	RA10					Y	Y	NA	Y	Y	
12027	08b	1-HY-7699	SOLENOID VALVE FOR 1-HV-7699	CTB	183'-0"	RB07					Y	Y	NA	N	N	
06049	08b	1-HY-8149A	SOLENOID VALVE FOR 1-HV-8149A	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
06050	08b	1-HY-8149B	SOLENOID VALVE FOR 1-HV-8149B	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
06051	08b	1-HY-8149C	SOLENOID VALVE FOR 1-HV-8149C	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
06052	08b	1-HY-8154	SOLENOID VALVE FOR 1-HV-8154	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
06053	08b	1-HY-8160	SOLENOID VALVE FOR 1-HV-8160	CTB	220'-0"	R163					Y	Y	NA	Y	Y	
11024	19	1-LSH-9020	F.O. DAY TANK 3 LEVEL	DG	220'-0"	R1102					Y	N	NA	Y	N	
11025	19	1-LSH-9021	F.O. DAY TANK 4 LEVEL	DG	220'-0"	R1104					Y	Y	NA	Y	Y	
11026	19	1-LSL-9020	F.O. DAY TANK 3 LEVEL	DG	220'-0"	R1102					Y	Y	NA	Y	Y	
11027	19	1-LSL-9021	F.O. DAY TANK 4 LEVEL	DG	220'-0"	R1104					Y	Y	NA	Y	Y	
03012	19	1-LSLL-1852	CCW SURGE TK 1 LEVEL	AUX	245'-0"	R203					Y	Y	NA	Y	Y	
03013	19	1-LSLL-1853	CCW SURGE TK 2 LEVEL	AUX	245'-0"	R202					Y	Y	NA	Y	Y	
03014	19	1-LSLL-1854	CCW SURGE TK 1 LEVEL	AUX	245'-0"	R203					Y	Y	NA	Y	Y	
03015	19	1-LSLL-1855	CCW SURGE TK 2 LEVEL	AUX	245'-0"	R202					Y	Y	NA	Y	Y	
06033	19	1-LT-0112	VCT LEVEL	AUX	19[illegible]'-0"	RA30					Y	Y	NA	Y	Y	
06034	19	1-LT-0185	VCT LEVEL	AUX	[illegible]45'-0"	RA30					Y	Y	NA	Y	Y	
01012	19	1-LT-0459	PRESSURIZER LEVEL	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
01013	19	1-LT-0460	PRESSURIZER LEVEL	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
01014	19	1-LT-0461	PRESSURIZER LEVEL	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
08020	19	1-LT-0501	SG 1 WIDE RANGE LEVEL	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
08021	19	1-LT-0502	SG 2 WIDE RANGE LEVEL	CTB	183'-0"	RB10					Y	Y	NA	Y	Y	
08022	19	1-LT-0503	SG 3 WIDE RANGE LEVEL	CTB	183'-0"	RB10					Y	Y	NA	Y	Y	
08023	19	1-LT-0504	SG 4 WIDE RANGE LEVEL	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
08024	19	1-LT-0517	SG 1 NARROW RANGE LEVEL	CTB	220'-0"	R102					Y	Y	NA	Y	Y	
08025	19	1-LT-0518	SG 1 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
08026	19	1-LT-0519	SG 1 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
08027	19	1-LT-0527	SG 2 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP1R2.DBF / 10/08/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
08028	19	1-LT-0528	SG 2 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	N	N	
08029	19	1-LT-0529	SG 2 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
08030	19	1-LT-0537	SG 3 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	N	N	
08031	19	1-LT-0538	SG 3 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
08032	19	1-LT-0539	SG 3 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
08033	19	1-LT-0547	SG 4 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
08034	19	1-LT-0548	SG 4 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	N	N	
08035	19	1-LT-0549	SG 4 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
08064	19	1-LT-0551	SG 1 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
08065	19	1-LT-0552	SG 2 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
08066	19	1-LT-0553	SG 3 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	N	N	
08067	19	1-LT-0554	SG 4 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
05024	19	1-LT-0764	CNMT EMERGENCY SUMP LEVEL	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
05025	19	1-LT-0765	CNMT EMERGENCY SUMP LEVEL	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
04026	19	1-LT-0990	RWST LEVEL	RWST	220'-0"	R101					Y	Y	NA	Y	Y	
04027	19	1-LT-0991	RWST LEVEL	RWST	220'-0"	R101					Y	Y	NA	Y	Y	
04028	19	1-LT-0992	RWST LEVEL	RWST	220'-0"	R101					Y	Y	NA	Y	Y	
04029	19	1-LT-0993	RWST LEVEL	RWST	220'-0"	R101					Y	Y	NA	Y	Y	
09016	19	1-LT-5111	CST NO. 1 LEVEL CONDENSATE STORAGE TANK	CST NO. 1	220'-0"						Y	Y	NA	Y	Y	
06035	08a	1-LV-0112B	VCT DISCHARGE ISOLATION MOV	AUX	195'-0"	RA26					Y	Y	NA	Y	Y	
06036	08a	1-LV-0112C	VCT DISCHARGE ISOLATION MOV	AUX	195'-0"	RA26					Y	Y	NA	Y	Y	
06037	08a	1-LV-0112D	CCP SUCTION FROM RWST MOV	AUX	143'-6"	RC113					Y	Y	NA	Y	Y	
06038	08a	1-LV-0112E	CCP SUCTION FROM RWST MOV	AUX	143'-6"	RC120					Y	Y	NA	Y	Y	
14003	19	1-NE-0041	NIS DETECTOR--CH.1	CTB							Y	Y	NA	Y	Y	
14004	19	1-NE-0042	NIS DETECTOR--CH.2	CTB							Y	Y	NA	Y	Y	
14005	19	1-NE-0043	NIS DETECTOR--CH.3	CTB							Y	Y	NA	Y	Y	
14006	19	1-NE-0044	NIS DETECTOR--CH.4	CTB							Y	Y	NA	Y	Y	

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP1R2.DBF / 10/08/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO. (1)	EQUIP CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	<--------- Building (5)	EQUIPMENT Flr.Elv. (6)	LOCATION -----> Rm. or Row/Col. (7)	Base Elev. (8)	<40'? (9)	Capacity Spectrum (10)	Demand Spectrum (11)	Cap. > Demand? (12)	Caveats OK? (13)	Anchor OK? (14)	Inter-act OK? (15)	Equip OK? (16)	Notes (17)
08036	00	1-PSV-3001	MAIN STEAM SAFETY RELIEF VALVE	AUX	220'-0"	R108					Y	Y	NA	Y	Y	
08037	00	1-PSV-3011	MAIN STEAM SAFETY RELIEF VALVE	CONTROL	220'-0"	R123					Y	Y	NA	Y	Y	
08038	00	1-PSV-3021	MAIN STEAM SAFETY RELIEF VALVE	CONTROL	220'-0"	R123					Y	Y	NA	Y	Y	
08039	00	1-PSV-3031	MAIN STEAM SAFETY RELIEF VALVE	AUX	220'-0"	R108					Y	Y	NA	Y	Y	
06039	00	1-PSV-8510A	CCP A ALT MINIFLOW	AUX	143'-6"	RC114					Y	Y	NA	Y	Y	
06040	00	1-PSV-8510B	CCP B ALT MINIFLOW	AUX	143'-6"	RC119					Y	Y	NA	Y	Y	
01019	19	1-PT-0455	PRESSURIZER PRESSURE	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
01020	19	1-PT-0456	PRESSURIZER PRESSURE	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
01021	19	1-PT-0457	PRESSURIZER PRESSURE	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
01022	19	1-PT-0458	PRESSURIZER PRESSURE	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
08040	19	1-PT-0514	SG 1 PRESSURE	AUX	195'-0"	RA09					Y	Y	NA	Y	Y	
08041	19	1-PT-0515	SG 1 PRESSURE	AUX	195'-0"	RA09					Y	Y	NA	Y	Y	
08042	19	1-PT-0516	SG 1 PRESSURE	AUX	195'-0"	RA09					Y	Y	NA	Y	Y	
08043	19	1-PT-0524	SG 2 PRESSURE	CONTROL	200'-0"	RA62					Y	Y	NA	Y	Y	
08044	19	1-PT-0525	SG 2 PRESSURE	CONTROL	200'-0"	RA62					Y	Y	NA	Y	Y	
08045	19	1-PT-0526	SG 2 PRESSURE	CONTROL	200'-0"	RA62					Y	Y	NA	Y	Y	
08046	19	1-PT-0534	SG 3 PRESSURE	CONTROL	200'-0"	RA51					Y	Y	NA	Y	Y	
08047	19	1-PT-0535	SG 3 PRESSURE	CONTROL	220'-0"	RA51					Y	Y	NA	Y	Y	
08048	19	1-PT-0536	SG 3 PRESSURE	CONTROL	220'-0"	RA51					Y	Y	NA	Y	Y	
08049	19	1-PT-0544	SG 4 PRESSURE	AUX	220'-0"	R107					Y	Y	NA	Y	Y	
08050	19	1-PT-0545	SG 4 PRESSURE	AUX	220'-0"	R107					Y	Y	NA	Y	Y	
08051	19	1-PT-0546	SG 4 PRESSURE	AUX	220'-0"	R110					Y	Y	NA	Y	Y	
12000	19	1-PT-0934	CNMT PRESSURE	AUX	200'-0"	RA10					Y	Y	NA	Y	Y	
12001	19	1-PT-0935	CNMT PRESSURE	AUX	180'-0"	RB08					Y	Y	NA	Y	Y	
12002	19	1-PT-0936	CNMT PRESSURE	AUX	180'-0"	RB11					Y	Y	NA	Y	Y	
02024	19	1-PT-11741	NSCW SUPPLY TO PUMP MOTOR COOLERS	AUX	119'-3"	RD75					Y	Y	NA	Y	Y	
02025	19	1-PT-11742	NSCW SUPPLY TO PUMP MOTOR COOLERS	AUX	119'-3"	RD67					Y	Y	NA	Y	Y	
08052	19	1-PT-3000	SG 1 PRESSURE TO ARV TRANSMITTER	AUX	195'-0"	RA09					Y	Y	NA	Y	Y	

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP1R2.DBF / 10/08/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- EQUIPMENT Building	LOCATION Flr.Elv.	-----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
08053	19	1-PT-3010	SG 2 PRESSURE TO ARV TRANSMITTER	CONTROL	200'-0"	RA62					Y	Y	NA	Y	Y	
08054	19	1-PT-3020	SG 3 PRESSURE TO ARV TRANSMITTER	CONTROL	200'-0"	RA51					Y	Y	NA	Y	Y	
08055	19	1-PT-3030	SG 4 PRESSURE TO ARV TRANSMITTER	AUX	220'-0"	R107					Y	Y	NA	Y	Y	
01023	08b	1-PV-0455A	PRESSURIZER PORV	CTB	220'-0"	1401					Y	Y	NA	Y	Y	
01024	08b	1-PV-0456A	PRESSURIZER PORV	CTB	220'-0"	R110					Y	Y	NA	Y	Y	
10088	08a	1-PV-2550A	PPG PEN FILTRATION AND EXHAUST UNIT DISCHARGE DAMPER	AUX	245'-0"	R210					Y	Y	NA	Y	Y	
10089	08a	1-PV-2551A	PPG PEN FILTRATION AND EXHAUST UNIT DISCHARGE DAMPER	AUX	245'-0"	R209					Y	Y	NA	Y	Y	
08056	08c	1-PV-3000	ATMOS. RELIEF VALVE--SG 1	AUX	245'-0"	R206					Y	Y	NA	N	N	
08057	08c	1-PV-3010	ATMOS. RELIEF VALVE--SG 2	CONTROL	220'-0"	R121					Y	Y	NA	Y	Y	
08058	08c	1-PV-3020	ATMOS. RELIEF VALVE--SG 3	CONTROL	220'-0"	R122					Y	Y	NA	Y	Y	
08059	08c	1-PV-3030	ATMOS. RELIEF VALVE--SG 4	AUX	220'-0"	R108					Y	Y	NA	Y	Y	
08060	19	1-PY-3000	SG 1 PRESSURE TO ARV CONTROLLER	AUX	245'-0"	R204					Y	Y	NA	N	N	
08061	19	1-PY-3010	SG 2 PRESSURE TO ARV CONTROLLER	CONTROL	200'-0"	RA60					Y	Y	NA	Y	Y	
08062	19	1-PY-3020	SG 3 PRESSURE TO ARV CONTROLLER	CONTROL	200'-0"	RA60					Y	Y	NA	Y	Y	
08063	19	1-PY-3030	SG 4 PRESSURE TO ARV CONTROLLER	AUX	245'-0"	R204					Y	Y	NA	N	N	
10106	19	1-TDC-4170	ECW COND/EVAP TEMP DIFF TO NSCW CONTROL VLV 1-TV-11740	CONTROL	260'-0"	R320					Y	Y	NA	Y	Y	
10107	19	1-TDC-4193	ECW COND/EVAP TEMP DIFF TO NSCW CONTROL VLV 1-TV-11675	CONTROL	260'-0"	R313					Y	Y	NA	Y	Y	
01025	19	1-TE-0413A	RCS HOT LEG TEMP--LOOP 1	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
01026	19	1-TE-0413B	RCS COLD LEG TEMP--LOOP 1	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
01027	19	1-TE-0423A	RCS HOT LEG TEMP--LOOP 2	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
01028	19	1-TE-0423B	RCS COLD LEG TEMP--LOOP 2	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
01029	19	1-TE-0433A	RCS HOT LEG TEMP--LOOP 3	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
01030	19	1-TE-0433B	RCS COLD LEG TEMP--LOOP 3	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
01031	19	1-TE-0443A	RCS HOT LEG TEMP--LOOP 4	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
01032	19	1-TE-0443B	RCS COLD LEG TEMP--LOOP 4	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
02026	19	1-TE-11641	NSCW A RETURN TO FAN 1 CONTROL	NSCT	220'-0"	R102					Y	Y	NA	Y	Y	

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
02027	19	1-TE-11642	NSCW A RETURN TO FAN 2 CONTROL	NSCT	220'-0"	R102					Y	Y	NA	N	N	
02028	19	1-TE-11643	NSCW A RETURN TO FAN 3 CONTROL	NSCT	220'-0"	R102					Y	Y	NA	N	N	
02038	19	1-TE-11644	NSCW A RETURN TO FAN 4 CONTROL	NSCT	220'-0"	R102					Y	Y	NA	N	N	
02029	19	1-TE-11646	NSCW B RETURN TO FAN 1 CONTROL	NSCT	220'-0"	R202					Y	Y	NA	Y	Y	
02030	19	1-TE-11647	NSCW B RETURN TO FAN 2 CONTROL	NSCT	220'-0"	R202					Y	Y	NA	Y	Y	
02031	19	1-TE-11648	NSCW B RETURN TO FAN 3 CONTROL	NSCT	220'-0"	R202					Y	Y	NA	Y	Y	
02039	19	1-TE-11649	NSCW B RETURN TO FAN 4 CONTROL	NSCT	220'-0"	R202					Y	Y	NA	Y	Y	
10029	19	1-TE-12124	CB CR RETURN AIR TEMP	CONTROL	260'-0"	R321					Y	Y	NA	Y	Y	
10030	19	1-TE-12125	CB CR RETURN AIR TEMP	CONTROL	260'-0"	R312					Y	Y	NA	Y	Y	
10037	19	1-TE-12725	ELEC EQUIP RM TEMP	CONTROL	180'-0"	RB49					Y	Y	NA	Y	Y	
10038	19	1-TE-12740	ELEC EQUIP RM TEMP	CONTROL	180'-0"	RB54					Y	Y	NA	Y	Y	
02032	19	1-TE-1668	NSCW A RETURN TO SPRAY/BYPASS VALVES	NSCT	220'-0"	R102					Y	Y	NA	Y	Y	
02033	19	1-TE-1669	NSCW B RETURN TO SPRAY/BYPASS VALVES	NSCT	220'-0"	R202					Y	Y	NA	Y	Y	
10043	19	1-TIC-13150	CB NORMAL A/C RM ESF A/C UNIT CONTROLLER	CONTROL	260'-0"	R325					Y	Y	NA	Y	Y	
10044	19	1-TIC-13152	CB ELEC EQUIP RM ESF A/C UNIT CONTROLLER	CONTROL	260'-0"	R325					Y	Y	NA	Y	Y	
10114	19	1-TIS-12005	AFW PUMP B ROOM SUPPLY FAN CONTROLLER	AFWP HOUSE	220'-0"	R102					Y	Y	NA	Y	Y	
10115	19	1-TIS-12006	AFW PUMP A ROOM SUPPLY FAN CONTROLLER	AFWP HOUSE	220'-0"	R101					Y	Y	NA	Y	Y	
10141	19	1-TIS-12300	CBCR CHILLER RM VENT FAN CONTROLLER	CONTROL	260'-0"	R312					Y	Y	Y	Y	Y	
10142	19	1-TIS-12303	CBCR CHILLER RM VENT FAN CONTROLLER	CONTROL	260'-0"	B320					Y	Y	Y	Y	Y	
10072	19	1-TISH-12200	ELECT SWGR & MCC RM A7001 COOLER CONTROLLER	AUX	119'-3"	RD105					Y	Y	NA	Y	Y	
10073	19	1-TISH-12201	ELECT SWGR & MCC RM A7002 COOLER CONTROLLER	AUX	245'-0"	R207					Y	Y	NA	Y	Y	
10074	19	1-TISH-12202	ELECT SWGR & MCC RM A7003 COOLER CONTROLLER	AUX	143'-6"	RC109					Y	Y	NA	Y	Y	

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP1R2.DBF / 10/08/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10075	19	1-TISH-12203	ELECT SWGR & MCC RM A7004 COOLER CONTROLLER	AUX	180'-0"	RB116					Y	Y	NA	Y	Y	
10076	19	1-TISH-12204	ELECT SWGR & MCC RM A7005 COOLER CONTROLLER	AUX	220'-0"	R117					Y	Y	NA	Y	Y	
10077	19	1-TISH-12205	ELECT SWGR & MCC RM A7006 COOLER CONTROLLER	AUX	220'-0"	R118					Y	Y	NA	Y	Y	
10116	19	1-TISH-22501	DIESEL POWER CABLE TUNNEL EXH FAN CONTROLLER	DG	220'-0"						Y	Y	NA	Y	Y	
10050	19	1-TISH-22505	DIESEL POWER CABLE TUNNEL EXH FAN CONTROLLER	TUNNEL	220'-0"	1T4B @ DGB					Y	Y	NA	Y	Y	
10051	19	1-TISH-22509	TB & AB TRAIN A TUNNEL SUPPLY FAN CONTROLLER	CONTROL	180'-0"	RB41					Y	Y	NA	Y	Y	
10052	19	1-TISH-22516	NSCW TWR CABLE TUNN TRN A FAN CONTROLLER	TUNNEL	220'-0"	1T5A @ NSCW					Y	Y	NA	Y	Y	
10053	19	1-TISH-22519	NSCW TWR CABLE TUNN TRN B FAN CONTROLLER	TUNNEL	220'-0"	1T5B @ NSCW					Y	Y	NA	Y	Y	
02034	08c	1-TV-11675	NSCW TO ESSENTIAL CHILLER CONDENSER (E/H) CONTROL VLV	CONTROL	260'-0"	R313					Y	Y	NA	Y	Y	
02035	08c	1-TV-11740	NSCW TO ESSENTIAL CHILLER CONDENSER (E/H) CONTROL VLV	CONTROL	260'-0"	R320					Y	Y	NA	Y	Y	
10119	07	1-TV-12085	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101					Y	Y	NA	Y	Y	
10120	07	1-TV-12085A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101					Y	Y	NA	Y	Y	
10121	07	1-TV-12086	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103					Y	Y	NA	Y	Y	
10122	07	1-TV-12086A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103					Y	Y	NA	Y	Y	
10123	07	1-TV-12094A	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R208					Y	Y	NA	Y	Y	
10124	07	1-TV-12094B	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R208					Y	Y	NA	Y	Y	
10125	07	1-TV-12094C	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R208					Y	Y	NA	Y	Y	
10126	07	1-TV-12094D	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R208					Y	Y	NA	Y	Y	
10127	07	1-TV-12095A	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R209					Y	Y	NA	Y	Y	
10128	07	1-TV-12095B	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R209					Y	Y	NA	Y	Y	
10129	07	1-TV-12095C	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R209					Y	Y	NA	Y	Y	
10130	07	1-TV-12095D	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R209					Y	Y	NA	Y	Y	
10131	07	1-TV-12096	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103					Y	Y	NA	Y	Y	

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP1R2.DBF / 10/08/94 / 10:08:24
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10132	07	1-TV-12096A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103					Y	Y	NA	Y	Y	
10133	07	1-TV-12097	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103					Y	Y	NA	Y	Y	
10134	07	1-TV-12097A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103					Y	Y	NA	Y	Y	
10135	07	1-TV-12098	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101					Y	Y	NA	Y	Y	
10136	07	1-TV-12098A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101					Y	Y	NA	Y	Y	
10137	07	1-TV-12099	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101					Y	Y	NA	Y	Y	
10138	07	1-TV-12099A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101					Y	Y	NA	Y	Y	
10031	08c	1-TV-12124	ECW TEMPERATURE CONTROL VALVE (E/H)	CONTROL	260'-0"	R321					Y	Y	NA	Y	Y	
10032	08c	1-TV-12125	ECW TEMPERATURE CONTROL VALVE (E/H)	CONTROL	260'-0"	R312					Y	Y	NA	Y	Y	
10108	08c	1-TV-12725	ECW TO ESF ELEC EQUIP RM HVAC UNIT CONTROL VALVE	CONTROL	180'-0"	RB62					Y	Y	NA	Y	Y	
10109	08c	1-TV-12740	ECW TO ESF ELEC EQUIP RM HVAC UNIT CONTROL VALVE	CONTROL	180'-0"	RB60					Y	Y	NA	Y	Y	
02040	19	1-TY-11675	CONVERTER FOR TV-11675	CONTROL	260'-0"	R313					Y	Y	Y	Y	Y	
02041	19	1-TY-11740	CONVERTER FOR TV-11740	CONTROL	260'-0"	R320					Y	Y	Y	Y	Y	
10143	19	1-TY-12124A	CONVERTER FOR TV-12124	CONTROL	260'-0"	R321					Y	Y	Y	Y	Y	
10144	19	1-TY-12125A	CONVERTER FOR TV-12125	CONTROL	260'-0"	R312					Y	Y	Y	Y	Y	
10145	19	1-TY-12725A	CONVERTER FOR TV-12725	CONTROL	180'-0"	R362					Y	Y	Y	Y	Y	
10146	19	1-TY-12740A	CONVERTER FOR TV-12740	CONTROL	180'-0"	RB60					Y	Y	Y	Y	Y	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
01000	00	2-1201-B6-001	STEAM GENERATOR 1	CTB	183'-0"	R102					Y	Y	Y	Y	Y	
01001	00	2-1201-B6-002	STEAM GENERATOR 2	CTB	183'-0"	R103					Y	Y	Y	Y	Y	
01002	00	2-1201-B6-003	STEAM GENERATOR 3	CTB	183'-0"	R104					Y	Y	Y	Y	Y	
01003	00	2-1201-B6-004	STEAM GENERATOR 4	CTB	183'-0"	R105					Y	Y	Y	Y	Y	
01033	18	2-1201-P5-TIA	RVLIS TRANSMITTER RACK TRAIN A	AUX	180'-0"	RB125					Y	Y	Y	Y	Y	
01034	18	2-1201-P5-TIB	RVLIS TRANSMITTER RACK TRAIN B	FB	180'-0"	RB06					Y	Y	Y	Y	Y	
01008	00	2-1201-V6-001	REACTOR VESSEL	CTB	183'-0"	RA01					Y	Y	Y	Y	Y	
01009	00	2-1201-V6-002	PRESSURIZER	CTB	183'-0"	RA07					Y	Y	Y	Y	Y	
02000	06	2-1202-P4-001	NSCW TRAIN A PUMP NO. 1	NSCT	220'-0"	R403					Y	Y	Y	Y	Y	
02001	06	2-1202-P4-002	NSCW TRAIN B PUMP NO. 2	NSCT	220'-0"	R303					Y	Y	Y	Y	Y	
02002	06	2-1202-P4-003	NSCW TRAIN A PUMP NO. 3	NSCT	220'-0"	R403					Y	Y	Y	Y	Y	
02003	06	2-1202-P4-004	NSCW TRAIN B PUMP NO. 4	NSCT	220'-0"	R303					Y	Y	Y	Y	Y	
02004	09	2-1202-W4-001-F01	NSCT FAN NO. 1	NSCT	250'-0"	R405					Y	Y	Y	Y	Y	
02005	09	2-1202-W4-001-F02	NSCT FAN NO. 2	NSCT	250'-0"	R408					Y	Y	Y	Y	Y	
02006	09	2-1202-W4-001-F03	NSCT FAN NO. 3	NSCT	250'-0"	R406					Y	Y	Y	Y	Y	
02036	09	2-1202-W4-001-F04	NSCT FAN NO. 4	NSCT	250'-0"	R407					Y	Y	Y	Y	Y	
02007	09	2-1202-W4-002-F01	NSCT FAN NO. 1	NSCT	250'-0"	R305					Y	Y	Y	Y	Y	
02008	09	2-1202-W4-002-F02	NSCT FAN NO. 2	NSCT	250'-0"	R308					Y	Y	Y	Y	Y	
02009	09	2-1202-W4-002-F03	NSCT FAN NO. 3	NSCT	250'-0"	R306					Y	Y	Y	Y	Y	
02037	09	2-1202-W4-002-F04	NSCT FAN NO. 4	NSCT	250'-0"	R307					Y	Y	Y	Y	Y	
03000	21	2-1203-E4-001	CCW HEAT EXCHANGER	AUX	245'-0"	R227					Y	Y	Y	Y	Y	
03001	21	2-1203-E4-002	CCW HEAT EXCHANGER	AUX	245'-0"	R226					Y	Y	Y	Y	Y	
03002	05	2-1203-P4-001	CCW PUMP NO. 1	AUX	195'-0"	RA98					Y	Y	Y	Y	Y	
03003	05	2-1203-P4-002	CCW PUMP NO. 2	AUX	195'-0"	RA96					Y	Y	Y	Y	Y	
03004	05	2-1203-P4-003	CCW PUMP NO. 3	AUX	195'-0"	RA98					Y	Y	Y	Y	Y	
03005	05	2-1203-P4-004	CCW PUMP NO. 4	AUX	195'-0"	RA96					Y	Y	Y	Y	Y	
03008	21	2-1203-T4-001	CCW SURGE TANK	AUX	245'-0"	R227					Y	Y	Y	Y	Y	
03009	21	2-1203-T4-002	CCW SURGE TANK	AUX	245'-0"	R226					Y	Y	Y	Y	Y	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
04000	05	2-1204-P6-003	SI PUMP A	AUX	180'-0"	RB119					Y	Y	Y	Y	Y	
04001	05	2-1204-P6-004	SI PUMP B	AUX	180'-0"	RB117					Y	Y	Y	Y	Y	
04002	21	2-1204-T4-001	REFUELING WATER STORAGE TANK	RWST	220'-0"	SOUTH OF AUX					Y	Y	Y	Y	Y	
05000	21	2-1205-E6-001	RHR HEAT EXCHANGER A	AUX	119'-3"	RC25					Y	Y	Y	Y	Y	
05001	21	2-1205-E6-002	RHR HEAT EXCHANGER B	AUX	143'-6"	RC26					Y	Y	Y	Y	Y	
05002	05	2-1205-P6-001	RHR PUMP A	AUX	119'-3"	RD22					Y	Y	Y	Y	Y	
05003	05	2-1205-P6-002	RHR PUMP B	AUX	119'-3"	RD21					Y	Y	Y	Y	Y	
05004	00	2-1205-U6-019	MANUAL RHR THROTTLING GATE VALVE WITH REACH ROD	AUX	143'-6"	RC21					Y	Y	NA	Y	Y	
05005	00	2-1205-U6-020	MANUAL RHR THROTTLING GATE VALVE WITH REACH ROD	AUX	143'-6"	RC21					Y	Y	NA	Y	Y	
06000	21	2-1208-E6-001	REGENERATIVE HEAT EXCHANGER	CTB	183'0"	RB04					Y	Y	Y	Y	Y	
06004	05	2-1208-P6-002	CCP A	AUX	143'-6"	RC16					Y	Y	Y	Y	Y	
06005	05	2-1208-P6-003	CCP B	AUX	143'-6"	RC17					Y	Y	Y	Y	Y	
06006	00	2-1208-U6-151	MANUAL SEAL INJECTION VALVE WITH REACH ROD	AUX	143'-6"	RC18					Y	Y	NA	Y	Y	
06007	00	2-1208-U6-152	MANUAL SEAL INJECTION VALVE WITH REACH ROD	AUX	143'-6"	RC11					Y	Y	NA	Y	Y	
06008	00	2-1208-U6-153	MANUAL CCP DISCH ISO VLV WITH REACH ROD	AUX	143'-6"	RC09					Y	Y	NA	Y	Y	
07002	21	2-1213-E6-001	SPENT FUEL PIT HEAT EXCH A	AUX	195'-0"	RA91					Y	Y	Y	Y	Y	
07013	21	2-1213-E6-002	SPENT FUEL PIT HEAT EXCH B	FB	200'-0"	RA04					Y	Y	Y	Y	Y	
07003	21	2-1217-E4-001	ACCW HEAT EXCHANGER	AUX	220'-0"	R153					Y	Y	Y	Y	Y	
07004	21	2-1217-E4-002	ACCW HEAT EXCHANGER	AUX	220'-0"	R152					Y	Y	Y	Y	Y	
09001	05	2-1302-P4-002	AFW MOTOR DRIVEN PUMP B	AFWP HOUSE	220'-0"	R102					Y	Y	Y	Y	Y	
09002	05	2-1302-P4-003	AFW MOTOR DRIVEN PUMP A	AFWP HOUSE	220'-0"	R101					Y	Y	Y	Y	Y	
09003	21	2-1302-V4-001	CONDENSATE STORAGE TANK NO. 1 (CST)	CST NO. 1	220'-0"	YARD					Y	Y	Y	Y	Y	
21000	18	2-1407-P5-SGS	SGB ISOL SOLENOID RACK	AUX	180'-0"	RB130					Y	Y	Y	Y	Y	
10000	20	2-1500-Q5-HVC	HVAC PANEL	CONTROL	220'-0"	R164					Y	Y	Y	N	N	
10001	20	2-1500-V7-001-CBA	LOCAL CB HVAC PANEL TRAIN A	CONTROL	220'-0"	R164					Y	Y	Y	N	N	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO. (1)	EQUIP CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	<--------- Building (5)	EQUIPMENT Flr.Elv. (6)	LOCATION -----> Rm. or Row/Col. (7)	Base Elev. (8)	<40'? (9)	Capacity Spectrum (10)	Demand Spectrum (11)	Cap. > Demand? (12)	Caveats OK? (13)	Anchor OK? (14)	Inter-act OK? (15)	Equip OK? (16)	Notes (17)
10002	20	2-1500-V7-002-CBB	LOCAL CB HVAC PANEL TRAIN B	CONTROL	220'-0"	R164					Y	Y	Y	N	N	
10003	09	2-1501-A7-001-000	CTB COOLING UNIT & MOTOR	CTB	220'-0"	R301					Y	Y	Y	Y	Y	
10004	09	2-1501-A7-002-000	CTB COOLING UNIT & MOTOR	CTB	220'-0"	R301					Y	Y	Y	Y	Y	
10005	09	2-1501-A7-003-000	CTB COOLING UNIT & MOTOR	CTB	220'-0"	R301					Y	Y	Y	Y	Y	
10006	09	2-1501-A7-004-000	CTB COOLING UNIT & MOTOR	CTB	220'-0"	R301					Y	Y	Y	Y	Y	
10139	09	2-1531-B7-002-000	CBCR CHILLER ROOM VENT FAN	CONTROL	260'-0"	R311					Y	Y	Y	Y	Y	
10140	09	2-1531-B7-004-000	CBCR CHILLER ROOM VENT FAN	CONTROL	260'-0"	R308					Y	Y	Y	Y	Y	
10017	09	2-1531-N7-001-000	CBCR FILTER UNIT	CONTROL	260'-0"	R311					Y	Y	Y	Y	Y	
10018	09	2-1531-N7-002-000	CBCR FILTER UNIT	CONTROL	260'-0"	R305					Y	Y	Y	Y	Y	
10033	09	2-1532-A7-001-000	CBSF ELEC EQUIP RM AC UNIT	CONTROL	180'-0"	RB16					Y	Y	Y	Y	Y	
10034	09	2-1532-A7-002-000	CBSF ELEC EQUIP RM AC UNIT	CONTROL	180'-0"	RB17					Y	Y	Y	Y	Y	
10035	09	2-1532-B7-001-000	BATTERY RM EXHAUST FAN & MOTOR	CONTROL	180'-0"	RB33					Y	Y	Y	Y	Y	
10036	09	2-1532-B7-002-000	BATTERY RM EXHAUST FAN & MOTOR	CONTROL	180'-0"	RB32					Y	Y	Y	Y	Y	
10039	09	2-1539-A7-001-000	CB AUX RELAY RM ESF A/C UNIT	CONTROL	200'-0"	RA81					Y	Y	Y	Y	Y	
10040	09	2-1539-A7-002-000	CB AUX RELAY RM ESF A/C UNIT	CONTROL	240'-0"	R223					Y	Y	Y	Y	Y	
10041	09	2-1539-A7-005-000	CB NORMAL AC RM ESF A/C UNIT	CONTROL	260'-0"	R325					Y	Y	Y	Y	Y	
10045	09	2-1540-B7-001-000	DIESEL POWER CABLE TUNNEL EXHAUST FAN UNIT	TUNNEL	195'-0"	1T4A @ DGB					Y	Y	Y	Y	Y	
10046	09	2-1540-B7-002-000	DIESEL POWER CABLE TUNNEL EXHAUST FAN UNIT	TUNNEL	180'-0"	1T4B @ DGB					Y	Y	Y	Y	Y	
10047	09	2-1540-B7-003-000	NSCW TOWER CABLE TUNNEL EXHAUST FAN UNIT	TUNNEL	220'-0"	1T5A @ NSCW					Y	Y	Y	Y	Y	
10048	09	2-1540-B7-004-000	NSCW TOWER CABLE TUNNEL EXHAUST FAN UNIT	TUNNEL	220'-0"	1T5B @ NSCW					Y	Y	Y	Y	Y	
10049	09	2-1540-B7-005-000	AUX BLDG TRAIN A TUNNEL SUPPLY FAN UNIT	AUX	245'-0"	R221					Y	Y	Y	Y	Y	
10054	09	2-1555-A7-001-000	ELEC SWGR AND MCC ROOM COOLER A	AUX	119'-3"	RD02					Y	Y	Y	Y	Y	
10055	09	2-1555-A7-002-000	ELEC SWGR AND MCC ROOM COOLER B	AUX	245'-0"	R221					Y	Y	Y	Y	Y	
10056	09	2-1555-A7-003-000	ELEC SWGR AND MCC ROOM COOLER A	AUX	180'-0"	RB123					Y	Y	Y	Y	Y	
10057	09	2-1555-A7-004-000	ELEC SWGR AND MCC ROOM COOLER B	AUX	180'-0"	RB121					Y	Y	Y	Y	Y	

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10058	09	2-1555-A7-005-000	ELEC SWGR AND MCC ROOM COOLER A	AUX	220'-0"	R149					Y	Y	Y	Y	Y	
10059	09	2-1555-A7-006-000	ELEC SWGR AND MCC ROOM COOLER B	AUX	220'-0"	R147					Y	Y	Y	Y	Y	
10078	09	2-1561-E7-001-000	PIPING PENETRATION AREA COOLER	AUX	245'-0"	R219					Y	Y	Y	Y	Y	
10079	09	2-1561-E7-002-000	PIPING PENETRATION AREA COOLER	AUX	245'-0"	R219					Y	Y	Y	Y	Y	
10080	09	2-1561-N7-001-000	PIPING PENETRATION ROOM FILTRATION AND EXHAUST UNIT	AUX	245'-0"	R219					Y	Y	Y	Y	Y	
10081	09	2-1561-N7-002-000	PIPING PENETRATION ROOM FILTRATION AND EXHAUST UNIT	AUX	245'-0"	R220					Y	Y	Y	Y	Y	
10090	09	2-1566-B7-001-000	DG A BLDG ESF SUPPLY FAN NO. 1	DG	255'-0"	R208					Y	Y	Y	Y	Y	
10091	09	2-1566-B7-002-000	DG B BLDG ESF SUPPLY FAN NO. 2	DG	255'-0"	R203					Y	Y	Y	Y	Y	
10092	09	2-1566-B7-003-000	DG A BLDG ESF SUPPLY FAN NO. 3	DG	255'-0"	R208					Y	Y	Y	Y	Y	
10093	09	2-1566-B7-004-000	DG B BLDG ESF SUPPLY FAN NO. 4	DG	255'-0"	R203					Y	Y	Y	Y	Y	
10098	11	2-1592-C7-001	CB ESSENTIAL CHILLER	CONTROL	260'-0"	R310					Y	Y	Y	Y	Y	
10099	11	2-1592-C7-002	CB ESSENTIAL CHILLER	CONTROL	260'-0"	R308					Y	Y	Y	Y	Y	
10100	05	2-1592-P7-001	ESSENTIAL CHILLED WATER PUMP	CONTROL	260'-0"	R310					Y	Y	Y	Y	Y	
10101	05	2-1592-P7-002	ESSENTIAL CHILLED WATER PUMP	CONTROL	260'-0"	R308					Y	Y	Y	Y	Y	
10102	21	2-1592-T7-001	ESSENTIAL CHILLED WATER EXPANSION TANK	CONTROL	260'-0"	R310					Y	Y	Y	Y	Y	
10103	21	2-1592-T7-002	ESSENTIAL CHILLED WATER EXPANSION TANK	CONTROL	260'-0"	R308					Y	Y	Y	Y	Y	
10110	09	2-1593-B7-001	AFW PUMP A SUPPLY FAN & MOTOR	AFWP HOUSE	220'-0"	R101					Y	Y	Y	Y	Y	
10111	09	2-1593-B7-002	AFW PUMP B SUPPLY FAN & MOTOR	AFWP HOUSE	220'-0"	R102					Y	Y	Y	Y	Y	
13000	20	2-1601-Q5-MCB	MAIN CONTROL BOARD	CONTROL	220'-0"	R164					Y	Y	Y	N	N	
13001	20	2-1601-U3-T03	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA23					Y	Y	Y	Y	Y	
13002	20	2-1601-U3-T04	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R224					Y	Y	Y	Y	Y	
13003	20	2-1601-U3-T05	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA23					Y	Y	Y	Y	Y	
13004	20	2-1601-U3-T06	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R224					Y	Y	Y	Y	Y	
13005	20	2-1601-U3-T07	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA23					Y	Y	Y	Y	Y	
13006	20	2-1601-U3-T08	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R224					Y	Y	Y	Y	Y	
13007	20	2-1601-U3-T10	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R224					Y	Y	Y	Y	Y	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
13008	20	2-1601-U3-T11	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA23					Y	Y	Y	Y	Y	
13009	20	2-1601-U3-T14	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R224					Y	Y	Y	Y	Y	
13010	20	2-1601-U3-T15	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA23					Y	Y	Y	Y	Y	
13011	20	2-1601-U3-T1[illegible]	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA23					Y	Y	Y	Y	Y	
13012	20	2-1601-U3-T20	MN CONT BD TERMINATION CABINET	CONTROL	240'-0"	R224					Y	Y	Y	Y	Y	
13013	20	2-1601-U3-T27	MN CONT BD TERMINATION CABINET	CONTROL	200'-0"	RA23					Y	Y	Y	Y	Y	
14000	20	2-1602-P5-NDA	EXCORE NUC DET PREAMPS PNL-A	CONTROL	180'-0"	RB02					Y	Y	Y	Y	Y	
14001	20	2-1602-P5-NDB	EXCORE NUC DET PREAMPS PNL-B	CONTROL	180'-0"	RB19					Y	Y	Y	Y	Y	
14002	18	2-1602-Q5-NIR	NUCLEAR INST RACKS	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
15000	20	2-1604-Q5-PC1	PROCESS CONTROL GROUP 1	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
15001	20	2-1604-Q5-PC2	PROCESS CONTROL GROUP 2	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
15002	20	2-1604-Q5-PC3	PROCESS CONTROL GROUP 3	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
15003	20	2-1604-Q5-PC4	PROCESS CONTROL GROUP 4	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
15013	20	2-1604-Q5-PCG	BOP CONTROL PANEL 1	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
15004	20	2-1604-Q5-PCP	MISC SYS/EQPT PANEL	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
15005	20	2-1604-Q5-PP1	BOP PROTECTION CH 1 PANEL	CONTROL	220'-0"	R164					Y	Y	Y	N	N	
15006	20	2-1604-Q5-PP2	BOP PROTECTION CH 2 PANEL	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
15007	20	2-1604-Q5-PP3	BOP PROTECTION CH 3 PANEL	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
15008	20	2-1604-Q5-PP4	BOP PROTECTION CH 4 PANEL	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
15009	20	2-1604-Q5-PS1	PROCESS I&C PROTECT I	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
15010	20	2-1604-Q5-PS2	PROCESS I&C PROTECT II	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
15011	20	2-1604-Q5-PS3	PROCESS I&C PROTECT III	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
15012	20	2-1604-Q5-PS4	PROCESS I&C PROTECT IV	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
16000	20	2-1605-C5-ASI	ALTERNATE SHDN IND EAGLE 21 CAB	CONTROL	240'-0"	R264					Y	Y	Y	Y	Y	
16001	20	2-1605-P5-SDA	SHUTDOWN PANEL TRN A	CONTROL	200'-0"	RA76					Y	Y	Y	Y	Y	
16002	20	2-1605-P5-SDB	SHUTDOWN PANEL TRN B	CONTROL	200'-0"	RA24					Y	Y	Y	Y	Y	
16003	20	2-1605-Q5-SPA	SOLID STATE PROT SYS CAB-TRN A	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
16004	20	2-1605-Q5-SPB	SOLID STATE PROT SYS CAB-TRN B	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
16005	20	2-1605-Q5-SPC	SOLID STATE PROT SYS CAB-TRN C	CONTROL	220'-0"	R164					Y	Y	Y	N	N	
16006	20	2-1605-Q5-SPD	SOLID STATE PROT SYS CAB-TRN D	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
16007	20	2-1605-Q5-STA	SAFEGUARD TEST CAB-TRN A	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
16008	20	2-1605-Q5-STB	SAFEGUARD TEST CAB-TRN B	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
21001	20	2-1606-S6-002	REACTOR TRIP SWITCHGEAR	CONTROL	180'-0"	RB07					Y	Y	Y	Y	Y	
21002	20	2-1620-Q5-ESF	BOP ESF PANEL	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
17000	20	2-1623-D5-001	REMOTE PROCESSING UNIT A CAB 1	CONTROL	200'-0"	RA16					Y	Y	Y	Y	[illegible]	
17001	20	2-1623-D5-002	REMOTE PROCESSING UNIT A CAB 2	CONTROL	200'-0"	RA16					Y	Y	Y	Y	Y	
17002	20	2-1623-D5-003	REMOTE PROCESSING UNIT B CAB 1	CONTROL	240'-0"	R264					Y	Y	Y	Y	Y	
17003	20	2-1623-D5-004	REMOTE PROCESSING UNIT B CAB 2	CONTROL	240'-0"	R264					Y	Y	Y	Y	Y	
17004	20	2-1623-D5-006A	DISPLAY PROCESSING UNIT A	CONTROL	200'-0"	RA16					Y	Y	Y	Y	Y	
17005	20	2-1623-D5-006B	DISPLAY PROCESSING UNIT B	CONTROL	240'-0"	R264					Y	Y	Y	N	N	
17006	20	2-1623-P5-NFA	NEUTRON FLUX PRE-AMPS TRAIN A	CONTROL	183'-0"	RB02					Y	Y	Y	Y	Y	
17007	20	2-1623-P5-NFB	NEUTRON FLUX PRE-AMPS TRAIN B	CONTROL	183'-0"	RB19					Y	Y	Y	Y	Y	
18000	03	2-1804-S3-A02	4160V SWITCHGEAR 1AA02	CONTROL	200'-0"	RA16					Y	Y	Y	Y	Y	
18001	03	2-1804-S3-A03	4160V SWITCHGEAR 1BA03	CONTROL	200'-0"	RA15					Y	Y	Y	Y	Y	
18002	01	2-1805-S3-ABA	480V MOT CONTROL CTR 1ABA	CONTROL	260'-0"	R325					Y	Y	Y	Y	Y	
18003	01	2-1805-S3-ABB	480V MOT CONTROL CTR 1ABB	AUX	220'-0"	R149					Y	Y	Y	Y	Y	
18004	01	2-1805-S3-ABC	480V MOT CONTROL CTR 1ABC	CONTROL	180'-0"	RB04					Y	Y	Y	Y	Y	
18005	01	2-1805-S3-ABD	480V MOT CONTROL CTR 1ABD	AUX	143'-6"	RC07					Y	Y	Y	Y	Y	
18006	01	2-1805-S3-ABE	480V MOT CONTROL CTR 1ABE	CONTROL	180'-0"	RB01					Y	Y	Y	N	N	
18007	01	2-1805-S3-ABF	480V MOT CONTROL CTR 1ABF	DG	220'-0"	R101					Y	Y	Y	Y	Y	
18008	02	2-1805-S3-B01	480V SWITCHGEAR 1NB01	CONTROL	180'-0"	RB14					Y	Y	Y	Y	Y	
18009	02	2-1805-S3-B04	480V SWITCHGEAR 1AB04	CONTROL	180'-0"	RB04					Y	Y	Y	Y	Y	
18010	02	2-1805-S3-B05	480V SWITCHGEAR 1AB05	CONTROL	180'-0"	RB04					Y	Y	Y	Y	Y	
18011	02	2-1805-S3-B06	480V SWITCHGEAR 1BB06	CONTROL	180'-0"	RB18					Y	Y	Y	Y	Y	
18012	02	2-1805-S3-B07	480V SWITCHGEAR 1BB07	CONTROL	180'-0"	RB18					Y	Y	Y	Y	Y	
18013	02	2-1805-S3-B10	480V SWITCHGEAR 1NB10	CONTROL	180'-0"	RB33					Y	Y	Y	Y	Y	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO. (1)	EQUIP CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	<---------- Building (5)	EQUIPMENT Flr.Elv. (6)	LOCATION -----> Rm. or Row/Col. (7)	Base Elev. (8)	<40'? (9)	Capacity Spectrum (10)	Demand Spectrum (11)	Cap. > Demand? (12)	Caveats OK? (13)	Anchor OK? (14)	Inter-act OK? (15)	Equip OK? (16)	Notes (17)
18014	02	2-1805-S3-B15	480V SWITCHGEAR 1AB15	AUX	119'-3"	RD104					Y	Y	Y	Y	Y	
18015	02	2-1805-S3-B16	480V SWITCHGEAR 1BB16	AUX	245'-0"	R223					Y	Y	Y	Y	Y	
18016	01	2-1805-S3-BBA	480V MOT CONTROL CTR 1BBA	CONTROL	260'-0"	R305					Y	Y	Y	Y	Y	
18017	01	2-1805-S3-BBB	480V MOT CONTROL CTR 1BBB	AUX	220'-0"	R147					Y	Y	Y	Y	Y	
18018	01	2-1805-S3-BBC	480V MOT CONTROL CTR 1BBC	CONTROL	180'-0"	RB18					Y	Y	Y	Y	Y	
18019	01	2-1805-S3-BBD	480V MOT CONTROL CTR 1BBD	AUX	180'-0"	RB122					Y	Y	Y	Y	Y	
18020	01	2-1805-S3-BBE	480V MOT CONTROL CTR 1BBE	CONTROL	200'-0"	RA79					Y	Y	Y	Y	Y	
18021	01	2-1805-S3-BBF	480V MOT CONTROL CTR 1BBF	DG	220'-0"	R103					Y	Y	Y	Y	Y	
18022	02	2-1805-S3-NBR	480V MCC 1NBR	CONTROL	180'-0"	RB33					Y	Y	Y	N	N	
18023	02	2-1805-S3-NBS	480V MCC 1NBS	CONTROL	180'-0"	RB14					Y	Y	Y	Y	Y	
18052	23	2-1805-S3-RHR1A	STARTER/RHR HV-8701B	CONTROL	180'-0"	RB26					Y	Y	Y	Y	Y	
18053	23	2-1805-S3-RHR2A	STARTER/RHR HV-8702A	CONTROL	180'-0"	RB31					Y	Y	Y	Y	Y	
18054	16	2-1805-Y3-IC5	RHR ISO VLV INVERTER	CONTROL	180'-0"	RB26					Y	Y	Y	Y	Y	
18055	16	2-1805-Y3-ID6	RHR ISO VLV INVERTER	CONTROL	180'-0"	RB31					Y	Y	Y	N	N	
19001	15	2-1806-B3-BN3	125 VDC BATTERY 1ND3AB	CONTROL	280'-0"	R406					Y	N	Y	Y	N	
19002	15	2-1806-B3-BYA	125 VDC BATTERY 1AD1B	CONTROL	180'-0"	RB27					Y	Y	Y	Y	Y	
19003	15	2-1806-B3-BYB	125 VDC BATTERY 1BD1B	CONTROL	180'-0"	RB32					Y	Y	Y	N	N	
19004	15	2-1806-B3-BYC	125 VDC BATTERY 1CD1B	CONTROL	180'-0"	RB25					Y	Y	Y	Y	Y	
19005	15	2-1806-B3-BYD	125 VDC BATTERY 1DD1B	CONTROL	180'-0"	RB37					Y	Y	Y	Y	Y	
19006	16	2-1806-B3-CAA	BATTERY CHARGER 1AD1CA	CONTROL	180'-0"	RB29					Y	Y	Y	Y	Y	
19007	16	2-1806-B3-CAB	BATTERY CHARGER 1AD1CB	CONTROL	180'-0"	RB29					Y	Y	Y	Y	Y	
19008	16	2-1806-B3-CBA	BATTERY CHARGER 1BD1CA	CONTROL	180'-0"	RB36					Y	Y	Y	Y	Y	
19009	16	2-1806-B3-CBB	BATTERY CHARGER 1BD1CB	CONTROL	180'-0"	RB36					Y	Y	Y	Y	Y	
19010	16	2-1806-B3-CCA	BATTERY CHARGER 1CD1CA	CONTROL	180'-0"	RB26					Y	Y	Y	Y	Y	
19011	16	2-1806-B3-CCB	BATTERY CHARGER 1CD1CB	CONTROL	180'-0"	RB26					Y	Y	Y	Y	Y	
19012	16	2-1806-B3-CDA	BATTERY CHARGER 1DD1CA	CONTROL	180'-0"	RB31					Y	Y	Y	Y	Y	
19013	16	2-1806-B3-CDB	BATTERY CHARGER 1DD1CB	CONTROL	180'-0"	RB31					Y	Y	Y	Y	Y	
19014	14	2-1806-Q3-DA1	125 VDC DISTR. PANEL 1AD11	CONTROL	180'-0"	RB29					Y	Y	Y	Y	Y	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
19015	14	2-1806-Q3-DA2	125 VDC DISTR. PANEL 1AD12	CONTROL	180'-0"	RB29					Y	Y	Y	Y	Y	
19016	14	2-1806-Q3-DB1	125 VDC DISTR. PANEL 1BD11	CONTROL	200'-0"	RB36					Y	Y	Y	Y	Y	
19017	14	2-1806-Q3-DB2	125 VDC DISTR. PANEL 1BD12	CONTROL	200'-0"	RB36					Y	Y	Y	Y	Y	
19018	14	2-1806-Q3-DC1	125 VDC DISTR. PANEL 1CD11	CONTROL	200'-0"	RB26					Y	Y	Y	N	N	
19019	14	2-1806-Q3-DD1	125 VDC DISTR. PANEL 1DD11	CONTROL	200'-0"	RB31					Y	Y	Y	Y	Y	
19020	01	2-1806-S3-DCA	125 VDC MCC 1AD1M	CONTROL	200'-0"	RB29					Y	Y	Y	Y	Y	
19021	01	2-1806-S3-DCB	125 VDC MCC 1BD1M	CONTROL	200'-0"	RB35					Y	Y	Y	Y	Y	
19022	01	2-1806-S3-DCC	125 VDC MCC 1CD1M	CONTROL	200'-0"	RB85					Y	Y	Y	Y	Y	
19000	02	2-1806-S3-DN3	125 VDC SWITCHGEAR 1ND3A	CONTROL	280'-0"	R407					Y	Y	Y	Y	Y	
19023	02	2-1806-S3-DSA	125 VDC SWITCHGEAR 1AD1	CONTROL	200'-0"	RB29					Y	Y	Y	Y	Y	
19024	02	2-1806-S3-DSB	125 VDC SWITCHGEAR 1BD1	CONTROL	200'-0"	RB36					Y	Y	Y	Y	Y	
19025	02	2-1806-S3-DSC	125 VDC SWITCHGEAR 1CD1	CONTROL	200'-0"	RB26					Y	Y	Y	Y	Y	
19026	02	2-1806-S3-DSD	125 VDC SWITCHGEAR 1DD1	CONTROL	200'-0"	RB31					Y	Y	Y	Y	Y	
18024	14	2-1807-Q3-VI1	120 VAC VITAL PANEL 1AY1A	CONTROL	180'-0"	RB29					Y	Y	Y	Y	Y	
18025	14	2-1807-Q3-VI2	120 VAC VITAL PANEL 1BY1B	CONTROL	180'-0"	RB36					Y	Y	Y	Y	Y	
18026	14	2-1807-Q3-VI3	120 VAC VITAL PANEL 1CY1A	CONTROL	180'-0"	RB26					Y	Y	Y	N	N	
18027	14	2-1807-Q3-VI4	120 VAC VITAL PANEL 1DY1B	CONTROL	180'-0"	RB31					Y	Y	Y	N	N	
18028	14	2-1807-Q3-VI5	120 VAC VITAL DIST PANEL 1AY2A	AUX	220'-0"	R149					Y	Y	Y	Y	Y	
18029	14	2-1807-Q3-VI6	120 VAC VITAL DIST PANEL 1BY2B	AUX	220'-0"	R147					Y	Y	Y	Y	Y	
18030	14	2-1807-Q3-VN1	120 VAC ESSENT PANEL 1NY1N	CONTROL	180'-0"	RB28					Y	Y	Y	Y	Y	
18031	14	2-1807-Q3-VN2	120 VAC ESSENT PANEL 1NY2N	CONTROL	180'-0"	RB28					Y	Y	Y	Y	Y	
18032	14	2-1807-Q3-VN4	120 VAC ESSENT PANEL 1NY4N	CONTROL	260'-0"	R305					Y	Y	Y	Y	Y	
18033	04	2-1807-Y3-01	REGULATED XFMR 1ABC09X	CONTROL	180'-0"	RB29					Y	Y	Y	Y	Y	
18034	04	2-1807-Y3-02	REGULATED XFMR 1BBA07X	CONTROL	180'-0"	RB36					Y	Y	Y	Y	Y	
18035	04	2-1807-Y3-03	REGULATED XFMR 1ABA07X	CONTROL	180'-0"	RB29					Y	Y	Y	Y	Y	
18036	04	2-1807-Y3-04	REGULATED XFMR 1BBC09X	CONTROL	180'-0"	RB36					Y	Y	Y	Y	Y	
18037	04	2-1807-Y3-05	REGULATED XFMR 1BBC42X	CONTROL	180'-0"	RB18					Y	Y	Y	Y	Y	
18038	04	2-1807-Y3-06	REGULATED XFMR 1ABE51X	CONTROL	180'-0"	RB01					Y	Y	Y	Y	Y	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEG2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
18039	16	2-1807-Y3-I2	ESSENTIAL AC INVERTER IND312	CONTROL	180'-0"	RB28					Y	Y	Y	Y	Y	
18040	16	2-1807-Y3-I3	ESSENTIAL AC INVERTER IND313	CONTROL	180'-0"	RB28					Y	Y	Y	Y	Y	
18041	16	2-1807-Y3-I4	ESSENTIAL AC INVERTER IND314	CONTROL	260'-0"	R305					Y	Y	Y	Y	Y	
18042	16	2-1807-Y3-IA1	VITAL AC INVERTER 1AD1I1	CONTROL	180'-0"	RB29					Y	Y	Y	Y	Y	
18043	16	2-1807-Y3-IA11	VITAL AC INVERTER 1AD1I11	AUX	220'-0"	R149					Y	Y	Y	N	N	
18044	16	2-1807-Y3-IB12	VITAL AC INVERTER 1BD1I12	AUX	220'-0"	R147					Y	Y	Y	Y	Y	
18045	16	2-1807-Y3-IB2	VITAL AC INVERTER 1BD1I2	CONTROL	180'-0"	RB36					Y	Y	Y	Y	Y	
18046	16	2-1807-Y3-IC3	VITAL AC INVERTER 1CD1I3	CONTROL	180'-0"	RB26					Y	Y	Y	N	N	
18047	16	2-1807-Y3-ID4	VITAL AC INVERTER 1DD1I4	CONTROL	180'-0"	RB31					Y	Y	Y	N	N	
18048	04	2-1807-Y3-RX11	REGULATED XFMR 1ABC20X	CONTROL	180'-0"	RB04					Y	Y	Y	Y	Y	
18049	04	2-1807-Y3-RX12	REGULATED XFMR 1BBC20X	CONTROL	180'-0"	RB18					Y	Y	Y	Y	Y	
18050	04	2-1807-Y3-RX7	REGULATED XFMR 1BBB40X	AUX	180'-0"	R147					Y	Y	Y	Y	Y	
18051	04	2-1807-Y3-RX8	REGULATED XFMR 1ABB40X	AUX	180'-0"	R149					Y	Y	Y	Y	Y	
22000	14	2-1808-Q3-L12	ESSENTIAL LTG DIST PANEL 1NLP12	AUX	195'-0"	RA75					Y	Y	Y	Y	Y	
22001	14	2-1808-Q3-L19	ESSENTIAL LTG DIST PANEL 1NLP19	AUX	143'-6"	RC31					Y	Y	Y	Y	Y	
22002	14	2-1808-Q3-L29	EMERGENCY LTG DIST PANEL 1NLP29	CONTROL	220'-0"	R131					Y	Y	Y	Y	Y	
22003	14	2-1808-Q3-L32	EMERGENCY LTG DIST PANEL 1NLP32	CONTROL	220'-0"	R131					Y	Y	Y	Y	Y	
22004	14	2-1808-Q3-L47	EMERGENCY LTG DIST PANEL 1NLP47	DG	220'-0"	R103					Y	Y	Y	Y	Y	
22005	14	2-1808-Q3-L50	EMERGENCY LTG DIST PANEL 1NLP50	DG	220'-0"	R101					Y	Y	Y	Y	Y	
22006	04	2-1808-T3-003	LTG DIST XFMR 1NBR11X	AUX	195'-0"	RA75					Y	Y	Y	Y	Y	
22007	04	2-1808-T3-053	LTG DIST XFMR 1NBS14X	AUX	143'-6"	RC31					Y	Y	Y	Y	Y	
22008	04	2-1808-T3-103	LTG ISOLATION XFMR 1ABC23X	CONTROL	220'-0"	R131					Y	Y	Y	Y	Y	
22009	04	2-1808-T3-104	LTG ISOLATION XFMR 1BBC23X	CONTROL	220'-0"	R131					Y	Y	Y	Y	Y	
22010	04	2-1808-T3-105	LTG ISOLATION XFMR 1ABF13X	DG	220'-0"	R101					Y	Y	Y	Y	Y	
22011	04	2-1808-T3-106	LTG ISOLATION XFMR 1BBF13X	DG	220'-0"	R103					Y	Y	Y	Y	Y	
20000	20	2-1816-U3-001	AUXILIARY RELAY PANEL A	CONTROL	200'-0"	RA22					Y	Y	Y	Y	Y	
20001	20	2-1816-U3-002	AUXILIARY RELAY PANEL N-A	CONTROL	200'-0"	RA22					Y	Y	Y	Y	Y	
20002	20	2-1816-U3-003	AUXILIARY RELAY PANEL B	CONTROL	240'-0"	R223					Y	Y	Y	Y	Y	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
20003	20	2-1816-U3-004	AUXILIARY RELAY PANEL N-B	CONTROL	240'-0"	R223					Y	Y	Y	Y	Y	
20004	20	2-1816-U3-005	ISOLATION DEVICE PANEL AB	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
20005	20	2-1816-U3-006	ISOLATION DEVICE PANEL B-C	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
20006	20	2-1816-U3-007	ELECTRICAL AUXILIARY BOARD	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
20007	20	2-1816-U3-009	ISOLATION DEVICE PANEL C	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
20008	20	2-1816-U3-010	ISOLATION DEVICE PANEL	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
20009	20	2-1816-U3-014	AUXILIARY RELAY PANEL	CONTROL	200'-0"	RA22					Y	Y	Y	Y	Y	
20010	20	2-1816-U3-015	AUXILIARY RELAY PANEL	CONTROL	240'-0"	RA22					Y	Y	Y	Y	Y	
20011	20	2-1816-U3-017	AUXILIARY RELAY PANEL	CONTROL	200'-0"	RA22					Y	Y	Y	Y	Y	
20012	20	2-1816-U3-018	AUXILIARY RELAY PANEL	CONTROL	200'-0"	RA15					Y	Y	Y	Y	Y	
21003	20	2-1821-U3-001	SF SEQUENCER BOARD TRAIN A	CONTROL	200'-0"	RA16					Y	Y	Y	Y	Y	
21004	20	2-1821-U3-002	SF SEQUENCER BOARD TRAIN B	CONTROL	200'-0"	RA15					Y	Y	Y	Y	Y	
21005	20	2-1823-Q5-BPS	SYSTEM STATUS MONITOR PANEL	CONTROL	220'-0"	R164					Y	Y	Y	Y	Y	
21006	03	2-1825-S3-1AAA	13800V RCP SWITCHGEAR 1AAA	CONTROL	200'-0"	RA01					Y	Y	Y	Y	Y	
21007	03	2-1825-S3-1BAB	13800V RCP SWITCHGEAR 1BAB	CONTROL	200'-0"	RA01					Y	Y	Y	Y	Y	
21008	03	2-1825-S3-1CAC	13800V RCP SWITCHGEAR 1CAC	CONTROL	200'-0"	RA11					Y	Y	Y	Y	Y	
21009	03	2-1825-S3-1DAD	13800V RCP SWITCHGEAR 1DAD	CONTROL	200'-0"	RA11					Y	Y	Y	Y	Y	
11002	17	2-2403-G4-001	DIESEL GENERATOR A	DG	220'-0"	R101					Y	Y	Y	Y	Y	
11003	24	2-2403-G4-001-F01	DG INTAKE AIR FILTER	DG	255'-0"	R205					Y	Y	Y	Y	Y	
11004	24	2-2403-G4-001-F02	DG EXHAUST AIR SILENCER	DG	255'-0"	R204					Y	Y	Y	Y	Y	
11005	21	2-2403-G4-001-V01	DG AIR START RECEIVER	DG	220'-0"	R101					Y	Y	Y	Y	Y	
11006	21	2-2403-G4-001-V02	DG AIR START RECEIVER	DG	220'-0"	R101					Y	Y	Y	Y	Y	
11007	17	2-2403-G4-002	DIESEL GENERATOR B	DG	220'-0"	R103					Y	Y	Y	N	N	
11008	24	2-2403-G4-002-F01	DG INTAKE AIR FILTER	DG	255'-0"	R210					Y	Y	Y	Y	Y	
11009	24	2-2403-G4-002-F02	DG EXHAUST AIR SILENCER	DG	255'-0"	R103					Y	Y	Y	Y	Y	
11010	21	2-2403-G4-002-V01	DG AIR START RECEIVER	DG	220'-0"	R103					Y	Y	Y	Y	Y	
11011	21	2-2403-G4-002-V02	DG AIR START RECEIVER	DG	220'-0"	R103					Y	Y	Y	Y	Y	
11012	06	2-2403-P4-001	DIESEL FUEL OIL TRANSFER PUMP	DFOST	211'-6"	RA01					Y	Y	Y	Y	Y	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO. (1)	EQUIP CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	<--------- Building (5)	EQUIPMENT Flr.Elv. (6)	LOCATION -----> Rm. or Row/Col. (7)	Base Elev. (8)	<40'? (9)	Capacity Spectrum (10)	Demand Spectrum (11)	Cap. > Demand? (12)	Caveats OK? (13)	Anchor OK? (14)	Inter-act OK? (15)	Equip OK? (16)	Notes (17)
11013	06	2-2403-P4-003	DIESEL FUEL OIL TRANSFER PUMP	DFOST	211'-6"	RA03					Y	Y	Y	Y	Y	
11014	20	2-2403-P5-DG1	DG 1A GEN CTL PNL	DG	220'-0"	R101					Y	Y	Y	Y	Y	
11015	20	2-2403-P5-DG2	DG 1A ENG CTL PNL	DG	220'-0"	R101					Y	Y	Y	Y	Y	
11016	20	2-2403-P5-DG3	DG 1B GEN CTL PNL	DG	220'-0"	R103					Y	Y	Y	Y	Y	
11017	20	2-2403-P5-DG4	DG 1B ENG CTL PNL	DG	220'-0"	R103					Y	Y	Y	Y	Y	
11018	20	2-2403-T3-NGA	DG 1A NEUTRAL GND CABINET	DG	220'-0"	R101					Y	Y	Y	Y	Y	
11019	20	2-2403-T3-NGB	DG 1B NEUTRAL GND CABINET	DG	220'-0"	R103					Y	Y	Y	Y	Y	
11020	21	2-2403-T4-001	DIESEL FUEL OIL STORAGE TANK	DFOST	211'-6"	RA01					Y	Y	Y	Y	Y	
11021	21	2-2403-T4-002	DIESEL FUEL OIL STORAGE TANK	DFOST	211'-6"	RA03					Y	Y	Y	Y	Y	
11022	21	2-2403-T4-003	DIESEL FUEL OIL DAY TANK	DG	220'-0"	R104					Y	Y	Y	Y	Y	
11023	21	2-2403-T4-004	DIESEL FUEL OIL DAY TANK	DG	220'-0"	R102					Y	Y	Y	Y	Y	
02010	07	2-CV-9446	NSCT BLOWDOWN ISO AOV	NSCT	206'-0"	R402					Y	Y	NA	Y	Y	
02011	07	2-CV-9447	NSCT BLOWDOWN ISO AOV	NSCT	206'-0"	R302					Y	Y	NA	Y	Y	
05006	19	2-FIS-0610	RHR PUMP A FLOW TO MINIFLOW VALVE	AUX	119'-3"	RD113					Y	Y	NA	Y	Y	
05007	19	2-FIS-0611	RHR PUMP B FLOW TO MINIFLOW VALVE	AUX	119'-3"	RD41					Y	Y	NA	Y	Y	
02012	19	2-FIT-1640A	NSCW RETURN FLOW	NSCT	195'-0"	TUNNEL 1T2A					Y	Y	NA	Y	Y	
02013	19	2-FIT-1641A	NSCW RETURN FLOW	NSCT	195'-0"	TUNNEL 1T2B					Y	Y	NA	Y	Y	
10019	19	2-FSL-12045	INTERLOCK FLOW SWTCH CNTL BLD..CLOSES ON LOW AIR	CONTROL	260'-0"	R276					Y	Y	NA	Y	Y	
10020	19	2-FSL-12046	INTERLOCK FLOW SWTCH CNTL BLD..CLOSES ON AIR-FLO	CONTROL	260'-0"	R254					Y	Y	NA	Y	Y	
06010	19	2-FT-0138	CCP A FLOW	AUX	143'-6"	RC11					Y	Y	NA	Y	Y	
06011	19	2-FT-0142	RCP 4 SEAL INJ FLOW	FB	200'-0"	RA01					Y	Y	NA	Y	Y	
06012	19	2-FT-0143	RCP 3 SEAL INJ FLOW	FB	200'-0"	RA01					Y	Y	NA	Y	Y	
06013	19	2-FT-0144	RCP 2 SEAL INJ FLOW	AUX	195'-0"	RA103					Y	Y	NA	Y	Y	
06014	19	2-FT-0145	RCP 1 SEAL INJ FLOW	AUX	195'-0"	RA103					Y	Y	NA	Y	Y	
06045	19	2-FT-0406	REACTOR HEAD LETDOWN LINE FLOW	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
06046	19	2-FT-0407	REACTOR HEAD LETDOWN LINE FLOW	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
05008	19	2-FT-0618	RHR A FLOW	AUX	119'-3"	RD41					Y	Y	NA	Y	Y	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
05009	19	2-FT-0619	RHR B FLOW	AUX	143'-6"	RD41					Y	Y	NA	Y	Y	
04004	19	2-FT-0917	CCP INJECTION FLOW	AUX	180'-0"	RA39					Y	Y	NA	Y	Y	
04005	19	2-FT-0918	SIP A FLOW	AUX	180'-0"	RB119					Y	Y	NA	Y	Y	
04006	19	2-FT-0922	SIP B FLOW	AUX	180'-0"	RB117					Y	Y	NA	Y	Y	
02014	19	2-FT-1802	NSCW FLOW TO CB ESS CHILLER	CONTROL	260'-0"	R310					Y	Y	NA	Y	Y	
02015	19	2-FT-1803	NSCW FLOW TO CB ESS CHILLER	CONTROL	260'-0"	R308					Y	Y	NA	Y	Y	
03010	19	2-FT-1876	CCW A FLOW	AUX	195'-0"	RA98					Y	Y	NA	Y	Y	
03011	19	2-FT-1877	CCW B FLOW	AUX	195'-0"	RA96					Y	Y	NA	Y	Y	
10104	19	2-FT-22425	ECW FLOW	CONTROL	260'-0"	R310					Y	Y	NA	Y	Y	
10105	19	2-FT-22426	ECW FLOW	CONTROL	260'-0"	R308					Y	Y	NA	Y	Y	
09004	19	2-FT-5150	AFW FLOW TO SG 4	AUX	195'-0"	RA61					Y	Y	NA	Y	Y	
09005	19	2-FT-5151	AFW FLOW TO SG 2	CONTROL	200'-0"	RA02					Y	Y	NA	Y	Y	
09006	19	2-FT-5152	AFW FLOW TO SG 1	AUX	195'-0"	RA102					Y	Y	NA	Y	Y	
09007	19	2-FT-5153	AFW FLOW TO SG 3	CONTROL	200'-0"	RA10					Y	Y	NA	Y	Y	
09008	19	2-FT-5154	AFW B FLOW TO MINIFLOW VALVE	AFWP HOUSE	220'-0"	R102					Y	Y	NA	Y	Y	
09009	19	2-FT-5155	AFW A FLOW TO MINIFLOW VAVLE	AFWP HOUSE	220'-0"	R101					Y	Y	NA	Y	Y	
05010	08a	2-FV-0610	RHR PUMP A MINIFLOW MOV	AUX	143'-6"	RC25					Y	Y	NA	Y	Y	
05011	08a	2-FV-0611	RHR PUMP B MINIFLOW MOV	AUX	143'-6"	RC26					Y	Y	NA	Y	Y	
09010	08a	2-FV-5154	AFW PUMP B MINIFLOW MOV	AFWP HOUSE	220'-0"	R102					Y	Y	NA	Y	Y	
09011	08a	2-FV-5155	AFW PUMP A MINIFLOW MOV	AFWP HOUSE	220'-0"	R101					Y	Y	NA	Y	Y	
06015	08b	2-HV-0190A	CCP A SAFETY GRADE CHARGING SOLENOID OP VLV	AUX	195'-0"	RA103					Y	Y	NA	Y	Y	
06016	08b	2-HV-0190B	CCP B SAFETY GRADE CHARGING SOLENOID OP VLV	AUX	143'-6"	RC18					Y	Y	NA	Y	Y	
06047	08b	2-HV-0442A	REACTOR HEAD LETDOWN LINE CONTROL SOV	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
06048	08b	2-HV-0442B	REACTOR HEAD LETDOWN LINE CONTROL SOV	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
12005	07	2-HV-0780	NORMAL CTB SUMP PUMP DISCHARGE AOV	CTB	198'-0"	RB10					Y	Y	NA	Y	Y	
12006	07	2-HV-0781	NORMAL CTB SUMP PUMP DISCHARGE AOV	AUX	195'-0"	RA103					Y	Y	NA	Y	Y	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO. (1)	EQUIP CLASS (2)	MARK NO. (3)	SYSTEM/EQUIPMENT DESCRIPTION (4)	<--------- Building (5)	EQUIPMENT Flr.Elv. (6)	LOCATION -----> Rm. or Row/Col. (7)	Base Elev. (8)	<40'? (9)	Capacity Spectrum (10)	Demand Spectrum (11)	Cap. > Demand? (12)	Caveats OK? (13)	Anchor OK? (14)	Inter-act OK? (15)	Equip OK? (16)	Notes (17)
04007	08b	2-HV-0943A	ACCUMULATOR NITROGEN HDR VENT--SOLENOID OPERATED VALVE	CTB	180'-0"	RB10					Y	Y	NA	Y	Y	
04008	08b	2-HV-0943B	ACCUMULATOR NITROGEN HDR VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB10					Y	Y	NA	Y	Y	
04009	07	2-HV-10957	RWST TO SLUDGE MIXING PUMP SUCTION AOV	RWST	220'-0"	R101					Y	Y	NA	Y	Y	
04010	07	2-HV-10958	RWST TO SLUDGE MIXING PUMP SUCTION AOV	RWST	220'-0"	R101					Y	Y	NA	Y	Y	
02016	08a	2-HV-11600	NSCW PUMP 1 DISCHARGE MOV	NSCT	220'-0"	R403					Y	Y	NA	Y	Y	
02017	08a	2-HV-11606	NSCW PUMP 3 DISCHARGE MOV	NSCT	220'-0"	R403					Y	Y	NA	Y	Y	
02018	08a	2-HV-11607	NSCW PUMP 2 DISCHARGE MOV	NSCT	245'-0"	R303					Y	Y	NA	Y	Y	
02019	08a	2-HV-11613	NSCW PUMP 4 DISCHARGE MOV	NSCT	245'-0"	R303					Y	Y	NA	Y	Y	
10112	08a	2-HV-12005	AFW PUMP HOUSE AIR SUPPLY DAMPER	AFWP HOUSE	220'-0"	R102					Y	Y	NA	Y	Y	
10113	08a	2-HV-12006	AFW PUMP HOUSE AIR SUPPLY DAMPER	AFWP HOUSE	220'-0"	R101					Y	Y	NA	Y	Y	
10094	08a	2-HV-12050	DG A AIR SUPPLY DAMPER FOR FAN NO. 1	DG	255'-0"	R209					Y	Y	NA	Y	Y	
10095	08a	2-HV-12051	DG A AIR SUPPLY DAMPER FOR FAN NO. 3	DG	255'-0"	R209					Y	Y	NA	Y	Y	
10096	08a	2-HV-12053	DG A AIR SUPPLY DAMPER FOR FAN NO. 2	DG	255'-0"	R208					Y	Y	NA	Y	Y	
10097	08a	2-HV-12054	DG A AIR SUPPLY DAMPER FOR FAN NO. 4	DG	255'-0"	R208					Y	Y	NA	Y	Y	
10021	08a	2-HV-12128	CBCR FILTER UNIT AIR SUPPLY DAMPER	CONTROL	220'-0"	R140					Y	Y	NA	Y	Y	
10022	08a	2-HV-12129	CBCR FILTER UNIT AIR SUPPLY DAMPER	CONTROL	220'-0"	R127					Y	Y	NA	Y	Y	
10023	08a	2-HV-12130	CBCR FILTER UNIT AIR RETURN DAMPER	CONTROL	220'-0"	R140					Y	Y	NA	Y	Y	
10024	08a	2-HV-12131	CBCR FILTER UNIT AIR RETURN DAMPER	CONTROL	220'-0"	R127					Y	Y	NA	Y	Y	
10025	07	2-HV-12146	CBCR NORMAL AIR SUPPLY DAMPER	CONTROL	240'-0"	R264					Y	Y	NA	Y	Y	
10026	07	2-HV-12147	CBCR NORMAL AIR SUPPLY DAMPER	CONTROL	240'-0"	R264					Y	Y	NA	Y	Y	
10027	07	2-HV-12148	CBCR NORMAL AIR RETURN DAMPER	CONTROL	240'-0"	R264					Y	Y	NA	Y	Y	
10028	07	2-HV-12149	CBCR NORMAL AIR RETURN DAMPER	CONTROL	240'-0"	R264					Y	Y	NA	Y	Y	
10082	07	2-HV-12604	PPG PENETRATION NORMAL RETURN AIR ISOLATION DAMPER	AUX	245'-0"	R220					Y	Y	NA	Y	Y	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10083	07	2-HV-12605	PPG PENETRATION NORMAL AIR SUPPLY ISOLATION DAMPER	AUX	245'-0"	R220					Y	Y	NA	Y	Y	
10084	07	2-HV-12606	PPG PENETRATION NORMAL AIR SUPPLY ISOLATION DAMPER	AUX	245'-0"	R220					Y	Y	NA	Y	Y	
10085	07	2-HV-12607	PPG PENETRATION NORMAL RETURN AIR ISOLATION DAMPER	AUX	245'-0"	R220					Y	Y	NA	Y	Y	
10086	08c	2-HV-12614	PPG PEN FILTRATION AND EXHAUST UNIT SUCTION DAMPER	AUX	245'-0"	R219					Y	Y	NA	Y	Y	
10087	08c	2-HV-12616	PPG PEN FILTRATION AND EXHAUST UNIT SUCTION DAMPER	AUX	245'-0"	R220					Y	Y	NA	Y	Y	
12021	08b	2-HV-12976	CTB AIR RADIATION MONITOR INLET SOV	AUX	180'-0"	RB131					Y	Y	NA	Y	Y	
12022	08b	2-HV-12977	CTB AIR RADIATION MONITOR OUTLET SOV	AUX	180'-0"	RB131					Y	Y	NA	Y	Y	
08000	07	2-HV-13005A	INBOARD MSIV BYPASS AOV--SG 1	AUX	220'-0"	R159					Y	Y	NA	Y	Y	
08001	07	2-HV-13005B	OUTBOARD MSIV BYPASS AOV--SG 1	AUX	220'-0"	R159					Y	Y	NA	Y	Y	
08002	07	2-HV-13006A	INBOARD MSIV BYPASS AOV--SG 4	AUX	220'-0"	R159					Y	Y	NA	Y	Y	
08003	07	2-HV-13006B	OUTBOARD MSIV BYPASS AOV--SG 4	AUX	220'-0"	R159					Y	Y	NA	Y	Y	
08004	07	2-HV-13007A	INBOARD MSIV BYPASS AOV--SG 2	CONTROL	220'-0"	R123					Y	Y	NA	Y	Y	
08005	07	2-HV-13007B	OUTBOARD MSIV BYPASS AOV--SG 2	CONTROL	220'-0"	R123					Y	Y	NA	Y	Y	
08006	07	2-HV-13008A	INBOARD MSIV BYPASS AOV--SG 3	CONTROL	220'-0"	R122					Y	Y	NA	Y	Y	
08007	07	2-HV-13008B	OUTBOARD MSIV BYPASS AOV--SG 3	CONTROL	220'-0"	R122					Y	Y	NA	Y	Y	
07005	07	2-HV-15196	BFIV FOR SG 1	AUX	195'-0"	RA104					Y	Y	NA	N	N	
07006	07	2-HV-15197	BFIV FOR SG 2	CONTROL	200'-0"	RA09					Y	Y	NA	Y	Y	
07007	07	2-HV-15198	BFIV FOR SG 3	CONTROL	200'-0"	RA09					Y	Y	NA	Y	Y	
07008	07	2-HV-15199	BFIV FOR SG 4	AUX	195'-0"	RA105					Y	Y	NA	Y	Y	
02020	08a	2-HV-1668A	NSCW SPRAY VALVE	NSCT	195'-0"	R410					Y	Y	NA	Y	Y	
02021	08a	2-HV-1668B	NSCW TOWER BYPASS MOV	NSCT	220'-0"	R410					Y	Y	NA	Y	Y	
02022	08a	2-HV-1669A	NSCW SPRAY VALVE	NSCT	195'-0"	R310					Y	Y	NA	Y	Y	
02023	08a	2-HV-1669B	NSCW TOWER BYPASS MOV	NSCT	220'-0"	R310					Y	Y	NA	Y	Y	
12007	08a	2-HV-1974	ACCW RETURN FROM RCP COOLERS MOV	CTB	198'-0"	RB03					Y	Y	NA	Y	Y	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
12008	08a	2-HV-1975	ACCW RETURN FROM RCP COOLERS MOV	AUX	195'-0"	RA105					Y	Y	NA	Y	Y	
12009	08a	2-HV-1978	ACCW SUPPLY TO RCP COOLERS MOV	CTB	198'-0"	RB03					Y	Y	NA	Y	Y	
12010	08a	2-HV-1979	ACCW SUPPLY TO RCP COOLERS MOV	AUX	195'-0"	RA105					Y	Y	NA	Y	Y	
12015	07	2-HV-2626B	NORMAL CTB PURGE SUPPLY & EQUALIZING AOV	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
12016	07	2-HV-2627B	NORMAL CTB PURGE SUPPLY & EQUALIZING AOV	CONTROL	220'-0"	R125					Y	Y	NA	Y	Y	
12017	07	2-HV-2628B	NORMAL CTB PURGE EXHAUST & EQUALIZING AOV	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
12018	07	2-HV-2629B	NORMAL CTB PURGE EXHAUST & EQUALIZING AOV	CONTROL	220'-0"	R117					Y	Y	NA	Y	Y	
08008	08c	2-HV-3006A	INBOARD MSIV--SG 1	AUX	220'-0"	R159					Y	Y	NA	Y	Y	
08009	08c	2-HV-3006B	OUTBOARD MSIV--SG 1	AUX	220'-0"	R159					Y	Y	NA	Y	Y	
08010	08c	2-HV-3016A	INBOARD MSIV--SG 2	CONTROL	220'-0"	R123					Y	Y	NA	Y	Y	
08011	08c	2-HV-3016B	OUTBOARD MSIV--SG 2	CONTROL	220'-0"	R123					Y	Y	NA	Y	Y	
08012	08c	2-HV-3026A	INBOARD MSIV--SG 3	CONTROL	220'-0"	R123					Y	Y	NA	Y	Y	
08013	08c	2-HV-3026B	OUTBOARD MSIV--SG 3	CONTROL	220'-0"	R123					Y	Y	NA	Y	Y	
08014	08c	2-HV-3036A	INBOARD MSIV--SG 4	AUX	220'-0"	R159					Y	Y	NA	Y	Y	
08015	08c	2-HV-3036B	OUTBOARD MSIV--SG 4	AUX	220'-0"	R159					Y	Y	NA	Y	Y	
12023	07	2-HV-3502	HOT LEG SAMPLE & GFF DET AOV	FB	180'-0"	RA01					Y	Y	NA	Y	Y	
12024	07	2-HV-3508	PRESSURIZER LIQUID SAMPLE AOV	FB	180'-0"	RA01					Y	Y	NA	Y	Y	
12025	07	2-HV-3514	PRESSURIZER STEAM SAMPLE AOV	FB	180'-0"	RA01					N	N	NA	Y	N	
09012	08a	2-HV-5132	AFW PUMP B DISCHARGE MOV	CONTROL	195'-0"	RA09					Y	Y	NA	Y	Y	
09013	08a	2-HV-5134	AFW PUMP B DISCHARGE MOV	CONTROL	195'-0"	RA09					Y	Y	NA	Y	Y	
09014	08a	2-HV-5137	AFW PUMP A DISCHARGE MOV	AUX	195'-0"	RA105					Y	Y	NA	Y	Y	
09015	08a	2-HV-5139	AFW PUMP A DISCHARGE MOV	AUX	195'-0"	RA105					Y	Y	NA	Y	Y	
07009	08c	2-HV-5227	MFIV FOR SG 1	AUX	195'-0"	RA104					Y	Y	NA	Y	Y	
07010	08c	2-HV-5228	MFIV FOR SG 2	CONTROL	200'-0"	RA09					Y	Y	NA	Y	Y	
07011	08c	2-HV-5229	MFIV FOR SG 3	CONTROL	200'-0"	RA09					Y	Y	NA	Y	Y	
07012	08c	2-HV-5230	MFIV FOR SG 4	AUX	195'-0"	RA105					Y	Y	NA	Y	Y	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION ------> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
12019	07	2-HV-7136	REACTOR COOLANT DRAIN TANK PUMP DISCHARGE AOV	FB	200'-0"	RA01					Y	Y	NA	Y	Y	
12026	07	2-HV-7150	RCDT VENT AOV	FB	180'-0"	RA01					Y	Y	NA	Y	Y	
08016	07	2-HV-7603A	SG 1 BLOWDOWN ISOLATION AOV	AUX	180'-0"	RB131					Y	Y	NA	Y	Y	
08017	07	2-HV-7603B	SG 2 BLOWDOWN ISOLATION AOV	AUX	180'-0"	RB131					Y	Y	NA	Y	Y	
08018	07	2-HV-7603C	SG 3 BLOWDOWN ISOLATION AOV	AUX	180'-0"	RB131					Y	Y	NA	Y	Y	
08019	07	2-HV-7603D	SG 4 BLOWDOWN ISOLATION AOV	AUX	180'-0"	RB131					Y	Y	NA	Y	Y	
12020	07	2-HV-7699	REACTOR COOLANT DRAIN TANK PUMP DISCHARGE AOV	CTB	183'-0"	RB10					Y	Y	NA	Y	Y	
01010	08a	2-HV-8000A	PORV BLOCK VALVE	CTB	238'-0"	R110					Y	Y	NA	Y	Y	
01011	08a	2-HV-8000B	PORV BLOCK VALVE	CTB	238'-0"	R110					Y	Y	NA	Y	Y	
06041	08b	2-HV-8095A	REACTOR HEAD LETDOWN LINE ISOLATION SOV	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
06042	08b	2-HV-8095B	REACTOR HEAD LETDOWN LINE ISOLATION SOV	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
06043	08b	2-HV-8096A	REACTOR HEAD LETDOWN LINE ISOLATION SOV	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
06044	08b	2-HV-8096B	REACTOR HEAD LETDOWN LINE ISOLATION SOV	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
12003	08a	2-HV-8100	EXCESS LETDOWN & SEAL WATER LEAKOFF ISOLATION MOV	AUX	195'-0"	RA103					Y	Y	NA	Y	Y	
06017	08a	2-HV-8105	CHARGING TO REGEN HX MOV	AUX	195'-0"	RA103					Y	Y	NA	Y	Y	
06018	08a	2-HV-8106	CHARGING DISCHARGE MOV	AUX	195'-0"	RA103					Y	Y	NA	Y	Y	
06019	08a	2-HV-8110	CCP A & B COMMON MINIFLOW MOV	AUX	180'-0"	RB115					Y	Y	NA	Y	Y	
06020	08a	2-HV-8111A	CCP A MINIFLOW MOV	AUX	143'-6"	RC11					Y	Y	NA	Y	Y	
06021	08a	2-HV-8111B	CCP B MINIFLOW MOV	AUX	143'-6"	RC18					Y	Y	NA	Y	Y	
12004	08a	2-HV-8112	EXCESS LETDOWN & SEAL WATER LEAKOFF ISOLATION MOV	CTB	198'-0"	RB03					Y	Y	NA	Y	Y	
06022	08a	2-HV-8116	CCP A SAFETY GRADE CHARGING ISO MOV	AUX	195'-0"	RA103					Y	Y	NA	Y	Y	
06023	07	2-HV-8149A	LETDOWN ISOLATION AOV	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
06024	07	2-HV-8149B	LETDOWN ISOLATION AOV	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
06025	07	2-HV-8149C	LETDOWN ISOLATION AOV	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
06026	07	2-HV-8152	LETDOWN ISOLATION AOV	AUX	195'-0"	RA103					Y	Y	NA	Y	Y	
06027	07	2-HV-8154	EXCESS LETDOWN ISOLATION AOV	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
06028	07	2-HV-8160	LETDOWN ISOLATION AOV	CTB	198'-0"	RB03					Y	Y	NA	Y	Y	
06029	08a	2-HV-8485A	CCP A DISCHARGE ISO MOV	AUX	143'-6"	RC11					Y	Y	NA	Y	Y	
06030	08a	2-HV-8485B	CCP B DISCHARGE MOV	AUX	143'-6"	RC18					Y	Y	NA	Y	Y	
06031	08a	2-HV-8508A	CCP A ALT. MINIFLOW MOV	AUX	143'-6"	RC11					Y	Y	NA	Y	Y	
06032	08a	2-HV-8508B	CCP B ALT. MINIFLOW MOV	AUX	143'-6"	RC18					Y	Y	NA	Y	Y	
05012	08a	2-HV-8701A	RCS TO RHR PUMP A SUCTION MOV	CTB	180'-0"	RB03					Y	Y	NA	Y	Y	
05013	08a	2-HV-8701B	RCS TO RHR PUMP A SUCTION MOV	CTB	180'-0"	RB02					Y	Y	NA	Y	Y	
05014	08a	2-HV-8702A	RCS TO RHR PUMP B SUCTION MOV	CTB	180'-0"	RB03					Y	Y	NA	Y	Y	
05015	08a	2-HV-8702B	RCS TO RHR PUMP B SUCTION MOV	CTB	180'-0"	RB03					Y	Y	NA	Y	Y	
05016	08a	2-HV-8716A	RHR TRAIN A TO RCS HOT LEG ISOLATION MOV	AUX	119'-0"	RD22					Y	Y	NA	Y	Y	
05017	08a	2-HV-8716B	RHR TRAIN B TO RCS HOT LEG ISOLATION MOV	AUX	119'-0"	RD21					Y	Y	NA	Y	Y	
04011	08a	2-HV-8801A	CCP INJECTION MOV	AUX	195'-0"	RA18					Y	Y	NA	Y	Y	
04012	08a	2-HV-8801B	CCP INJECTION MOV	AUX	195'-0"	RA18					Y	Y	NA	Y	Y	
05018	08a	2-HV-8804A	RHR TO CCP SUCTION HEADER MOV	AUX	143'-6"	RC25					Y	Y	NA	Y	Y	
05019	08a	2-HV-8804B	RHR TO SIP SUCTION HEADER MOV	AUX	143'-6"	RC26					Y	Y	NA	Y	Y	
04013	08a	2-HV-8807A	CCP/SIP SUCTION HEADER CROSS-CONNECT MOV	AUX	180'-0"	RB119					Y	Y	NA	Y	Y	
04014	08a	2-HV-8807B	CCP/SIP SUCTION HEADER CROSS-CONNECT MOV	AUX	180'-0"	RB117					Y	Y	NA	Y	Y	
05020	08a	2-HV-8811A	CTMT SUMP TO RHR PUMP A SUCTION MOV	AUX	143'-6"	RC124					Y	Y	NA	Y	Y	
05021	08a	2-HV-8811B	CTMT SUMP TO RHR PUMP B SUCTION MOV	AUX	143'-6"	RC01					Y	Y	NA	Y	Y	
05022	08a	2-HV-8812A	RWST TO RHR PUMP A SUCTION MOV	AUX	119'-0"	RD22					Y	Y	NA	Y	Y	
05023	08a	2-HV-8812B	RWST TO RHR PUMP B SUCTION MOV	AUX	119'-0"	RD21					Y	Y	NA	Y	Y	
04015	08a	2-HV-8813	SIP COMMON MINIFLOW MOV	AUX	180'-0"	RB117					Y	Y	NA	Y	Y	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
04016	08a	2-HV-8814	SIP A MINIFLOW MOV	AUX	180'-0"	RB119					Y	Y	NA	Y	Y	
04017	08b	2-HV-8875A	ACCUMULATOR 1 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
04018	08b	2-HV-8875B	ACCUMULATOR 2 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB10					Y	Y	NA	Y	Y	
04019	08b	2-HV-8875C	ACCUMULATOR 3 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB10					Y	Y	NA	Y	Y	
04020	08b	2-HV-8875D	ACCUMULATOR 4 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
04021	08b	2-HV-8875E	ACCUMULATOR 1 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
04022	08b	2-HV-8875F	ACCUMULATOR 2 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB10					Y	Y	NA	Y	Y	
04023	08b	2-HV-8875G	ACCUMULATOR 3 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB10					Y	Y	NA	Y	Y	
04024	08b	2-HV-8875H	ACCUMULATOR 4 NITROGEN VENT--SOLENOID OPERATED VALVE	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
04025	08a	2-HV-8920	SIP B MINIFLOW MOV	AUX	180'-0"	RB117					Y	Y	NA	Y	Y	
06054	19	2-HY-0190A	I/P CONVERTER FOR HV-0190A	AUX	195'-0"	RA98					Y	Y	Y	Y	Y	
06055	19	2-HY-0190B	I/P CONVERTER FOR HV-0190B	AUX	143'-6"	RC19					Y	Y	Y	Y	Y	
06056	19	2-HY-0442A	I/P CONVERTER FOR HV-0442A	CONTROL	180'-0"	RB02					Y	Y	Y	Y	Y	
06057	19	2-HY-0442B	I/P CONVERTER FOR HV-0442B	CONTROL	180'-0"	RB10					Y	Y	Y	Y	Y	
04030	19	2-HY-0943A	I/P CONVERTER FOR HV-0943A	CONTROL	180'-0"	RB02					Y	Y	Y	Y	Y	
04031	19	2-HY-0943B	I/P CONVERTER FOR HV-0943B	CONTROL	180'-0"	RB10					Y	Y	Y	Y	Y	
12028	08b	2-HY-7150	SOLENOID VALVE FOR 2-HV-7150	FB	180'-0"	RA01					Y	Y	NA	Y	Y	
12027	08b	2-HY-7699	SOLENOID VALVE FOR 2-HV-7699	CTB	183'-0"	RB10					Y	Y	NA	Y	Y	
06049	08b	2-HY-8149A	SOLENOID VALVE FOR 2-HV-8149A	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
06050	08b	2-HY-8149B	SOLENOID VALVE FOR 2-HV-8149B	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
06051	08b	2-HY-8149C	SOLENOID VALVE FOR 2-HV-8149C	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
06052	08b	2-HY-8154	SOLENOID VALVE FOR 2-HV-8154	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
06053	08b	2-HY-8160	SOLENOID VALVE FOR 2-HV-8160	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
11024	19	2-LSH-9020	F.O. DAY TANK 3 LEVEL	DG	220'-0"	R102					Y	Y	NA	Y	Y	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<--------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
11025	19	2-LSH-9021	F.O. DAY TANK 4 LEVEL	DG	220'-0"	R104					Y	Y	NA	Y	Y	
11026	19	2-LSL-9020	F.O. DAY TANK 3 LEVEL	DG	220'-0"	R102					Y	Y	NA	Y	Y	
11027	19	2-LSL-9021	F.O. DAY TANK 4 LEVEL	DG	220'-0"	R104					Y	Y	NA	Y	Y	
03012	19	2-LSLL-1852	CCW SURGE TK 1 LEVEL	AUX	245'-0"	R227					Y	Y	NA	Y	Y	
03013	19	2-LSLL-1853	CCW SURGE TK 2 LEVEL	AUX	245'-0"	R226					Y	Y	NA	Y	Y	
03014	19	2-LSLL-1854	CCW SURGE TK 1 LEVEL	AUX	245'-0"	R227					Y	Y	NA	Y	Y	
03015	19	2-LSLL-1855	CCW SURGE TK 2 LEVEL	AUX	245'-0"	R226					Y	Y	NA	Y	Y	
06033	19	2-LT-0112	VCT LEVEL	AUX	195'-0"	RA69					Y	Y	NA	Y	Y	
06034	19	2-LT-0185	VCT LEVEL	AUX	195'-0"	RA69					Y	Y	NA	Y	Y	
01012	19	2-LT-0459	PRESSURIZER LEVEL	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
01013	19	2-LT-0460	PRESSURIZER LEVEL	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
01014	19	2-LT-0461	PRESSURIZER LEVEL	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
08020	19	2-LT-0501	SG 1 WIDE RANGE LEVEL	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
08021	19	2-LT-0502	SG 2 WIDE RANGE LEVEL	CTB	183'-0"	RB10					Y	Y	NA	Y	Y	
08022	19	2-LT-0503	SG 3 WIDE RANGE LEVEL	CTB	183'-0"	RB10					Y	Y	NA	Y	Y	
08023	19	2-LT-0504	SG 4 WIDE RANGE LEVEL	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
08024	19	2-LT-0517	SG 1 NARROW RANGE LEVEL	CTB	220'-0"	R102					Y	Y	NA	Y	Y	
08025	19	2-LT-0518	SG 1 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
08026	19	2-LT-0519	SG 1 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
08027	19	2-LT-0527	SG 2 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
08028	19	2-LT-0528	SG 2 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
08029	19	2-LT-0529	SG 2 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
08030	19	2-LT-0537	SG 3 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
08031	19	2-LT-0538	SG 3 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
08032	19	2-LT-0539	SG 3 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
08033	19	2-LT-0547	SG 4 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
08034	19	2-LT-0548	SG 4 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
08035	19	2-LT-0549	SG 4 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
08064	19	2-LT-0551	SG 1 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
08065	19	2-LT-0552	SG 2 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
08066	19	2-LT-0553	SG 3 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
08067	19	2-LT-0554	SG 4 NARROW RANGE LEVEL	CTB	220'-0"	R101					Y	Y	NA	Y	Y	
05024	19	2-LT-0764	CNMT EMERGENCY SUMP LEVEL	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
05025	19	2-LT-0765	CNMT EMERGENCY SUMP LEVEL	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
04026	19	2-LT-0990	RWST LEVEL	RWST	220'-0"	R101					Y	Y	NA	Y	Y	
04027	19	2-LT-0991	RWST LEVEL	RWST	220'-0"	R101					Y	Y	NA	Y	Y	
04028	19	2-LT-0992	RWST LEVEL	RWST	220'-0"	R101					Y	Y	NA	Y	Y	
04029	19	2-LT-0993	RWST LEVEL	RWST	220'-0"	R101					Y	Y	NA	Y	Y	
09016	19	2-LT-5111	CST NO. 1 LEVEL CONDENSATE STORAGE TANK	CST NO. 1	220'-0"	R103					Y	Y	NA	Y	Y	
06035	08a	2-LV-0112B	VCT DISCHARGE ISOLATION MOV	AUX	195'-0"	RA78					Y	Y	NA	Y	Y	
06036	08a	2-LV-0112C	VCT DISCHARGE ISOLATION MOV	AUX	195'-0"	RA78					Y	Y	NA	Y	Y	
06037	08a	2-LV-0112D	CCP SUCTION FROM RWST MOV	AUX	143'-6"	RC10					Y	Y	NA	Y	Y	
06038	08a	2-LV-0112E	CCP SUCTION FROM RWST MOV	AUX	143'-6"	RC19					Y	Y	NA	Y	Y	
14003	19	2-NE-0041	NIS DETECTOR--CH.1	CTB							Y	Y	NA	Y	Y	
14004	19	2-NE-0042	NIS DETECTOR--CH.2	CTB							Y	Y	NA	Y	Y	
14005	19	2-NE-0043	NIS DETECTOR--CH.3	CTB							Y	Y	NA	Y	Y	
14006	19	2-NE-0044	NIS DETECTOR--CH.4	CTB							Y	Y	NA	Y	Y	
08036	00	2-PSV-3001	MAIN STEAM SAFETY RELIEF VALVE	AUX	220'-0"	R159					Y	Y	NA	Y	Y	
08037	00	2-PSV-3011	MAIN STEAM SAFETY RELIEF VALVE	CONTROL	220'-0"	R123					Y	Y	NA	Y	Y	
08038	00	2-PSV-3021	MAIN STEAM SAFETY RELIEF VALVE	CONTROL	220'-0"	R123					Y	Y	NA	Y	Y	
08039	00	2-PSV-3031	MAIN STEAM SAFETY RELIEF VALVE	AUX	220'-0"	R159					Y	Y	NA	Y	Y	
06039	00	2-PSV-8510A	CCP A ALT MINIFLOW	AUX	143'-6"	RC11					Y	Y	NA	Y	Y	
01019	19	2-PT-0455	PRESSURIZER PRESSURE	CTB	183'-0"	RB03					Y	Y	NA	Y	Y	
01020	19	2-PT-0456	PRESSURIZER PRESSURE	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
01021	19	2-PT-0457	PRESSURIZER PRESSURE	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
01022	19	2-PT-0458	PRESSURIZER PRESSURE	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
08040	19	2-PT-0514	SG 1 PRESSURE	AUX	195'-0"	RA103					Y	Y	NA	Y	Y	
08041	19	2-PT-0515	SG 1 PRESSURE	AUX	195'-0"	RA103					Y	Y	NA	Y	Y	
08042	19	2-PT-0516	SG 1 PRESSURE	AUX	195'-0"	RA103					Y	Y	NA	Y	Y	
08043	19	2-PT-0524	SG 2 PRESSURE	CONTROL	200'-0"	RA04					Y	Y	NA	Y	Y	
08044	19	2-PT-0525	SG 2 PRESSURE	CONTROL	200'-0"	RA02					Y	Y	NA	Y	Y	
08045	19	2-PT-0526	SG 2 PRESSURE	CONTROL	200'-0"	RA04					Y	Y	NA	Y	Y	
08046	19	2-PT-0534	SG 3 PRESSURE	CONTROL	200'-0"	RA14					Y	Y	NA	Y	Y	
08047	19	2-PT-0535	SG 3 PRESSURE	CONTROL	220'-0"	RA10					Y	Y	NA	Y	Y	
08048	19	2-PT-0536	SG 3 PRESSURE	CONTROL	220'-0"	RA14					Y	Y	NA	Y	Y	
08049	19	2-PT-0544	SG 4 PRESSURE	AUX	220'-0"	R155					Y	Y	NA	Y	Y	
08050	19	2-PT-0545	SG 4 PRESSURE	AUX	220'-0"	R155					Y	Y	NA	Y	Y	
08051	19	2-PT-0546	SG 4 PRESSURE	AUX	220'-0"	R157					Y	Y	NA	Y	Y	
12000	19	2-PT-0934	CNMT PRESSURE	FB	200'-0"	RA01					Y	Y	NA	Y	Y	
12001	19	2-PT-0935	CNMT PRESSURE	AUX	180'-0"	RB1[illegible]					Y	Y	NA	Y	Y	
12002	19	2-PT-0936	CNMT PRESSURE	FB	180'-0"	RB01					Y	Y	NA	Y	Y	
02024	19	2-PT-11741	NSCW SUPPLY TO PUMP MOTOR COOLERS	AUX	119'-3"	RD06					Y	Y	NA	Y	Y	
02025	19	2-PT-11742	NSCW SUPPLY TO PUMP MOTOR COOLERS	AUX	119'-3"	RD11					Y	Y	NA	Y	Y	
08052	19	2-PT-3000	SG 1 PRESSURE TO ARV TRANSMITTER	AUX	195'-0"	RA103					Y	Y	NA	Y	Y	
08053	19	2-PT-3010	SG 2 PRESSURE TO ARV TRANSMITTER	CONTROL	200'-0"	RA02					Y	Y	NA	Y	Y	
08054	19	2-PT-3020	SG 3 PRESSURE TO ARV TRANSMITTER	CONTROL	200'-0"	RA10					Y	Y	NA	Y	Y	
08055	19	2-PT-3030	SG 4 PRESSURE TO ARV TRANSMITTER	AUX	220'-0"	R155					Y	Y	NA	Y	Y	
01023	08b	2-PV-0455A	PRESSURIZER PORV	CTB	238'-0"	R110					Y	Y	NA	Y	Y	
01024	08b	2-PV-0456A	PRESSURIZER PORV	CTB	238'-0"	R110					Y	Y	NA	Y	Y	
10088	08a	2-PV-2550A	PPG PEN FILTRATION AND EXHAUST UNIT DISCHARGE DAMPER	AUX	245'-0"	R219					Y	Y	NA	Y	Y	
10089	08a	2-PV-2551A	PPG PEN FILTRATION AND EXHAUST UNIT DISCHARGE DAMPER	AUX	245'-0"	R220					Y	Y	NA	Y	Y	
08056	08c	2-PV-3000	ATMOS. RELIEF VALVE--SG 1	AUX	245'-0"	R159					Y	Y	NA	N	N	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
08057	08c	2-PV-3010	ATMOS. RELIEF VALVE--SG 2	CONTROL	220'-0"	R121					Y	Y	NA	Y	Y	
08058	08c	2-PV-3020	ATMOS. RELIEF VALVE--SG 3	CONTROL	220'-0"	R122					Y	Y	NA	Y	Y	
08059	08c	2-PV-3030	ATMOS. RELIEF VALVE--SG 4	AUX	220'-0"	R159					Y	Y	NA	N	N	
08060	19	2-PY-3000	SG 1 PRESSURE TO ARV CONTROLLER	AUX	245'-0"	R229					Y	Y	NA	Y	Y	
08061	19	2-PY-3010	SG 2 PRESSURE TO ARV CONTROLLER	CONTROL	200'-0"	RA06					Y	Y	NA	Y	Y	
08062	19	2-PY-3020	SG 3 PRESSURE TO ARV CONTROLLER	CONTROL	200'-0"	RA06					Y	Y	NA	Y	Y	
08063	19	2-PY-3030	SG 4 PRESSURE TO ARV CONTROLLER	AUX	245'-0"	R229					Y	Y	NA	Y	Y	
10106	19	2-TDC-4170	ECW TEMP DIFF CONTROL TO NSCW VLV TV-11740	CONTROL	260'-0"	R310					Y	Y	Y	Y	Y	
10107	19	2-TDC-4193	ECW TEMP DIFF CONTROL TO NSCW VLV TV-11675	CONTROL	260'-0"	R308					Y	Y	Y	Y	Y	
01025	19	2-TE-0413A	RCS HOT LEG TEMP--LOOP 1	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
01026	19	2-TE-0413B	RCS COLD LEG TEMP--LOOP 1	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
01027	19	2-TE-0423A	RCS HOT LEG TEMP--LOOP 2	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
01028	19	2-TE-0423B	RCS COLD LEG TEMP--LOOP 2	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
01029	19	2-TE-0433A	RCS HOT LEG TEMP--LOOP 3	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
01030	19	2-TE-0433B	RCS COLD LEG TEMP--LOOP 3	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
01031	19	2-TE-0443A	RCS HOT LEG TEMP--LOOP 4	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
01032	19	2-TE-0443B	RCS COLD LEG TEMP--LOOP 4	CTB	183'-0"	RB02					Y	Y	NA	Y	Y	
02026	19	2-TE-11641	NSCW A RETURN TO FAN 1 CONTROL	NSCT	220'-0"	R402					Y	Y	NA	Y	Y	
02027	19	2-TE-11642	NSCW A RETURN TO FAN 2 CONTROL	NSCT	220'-0"	R402					Y	Y	NA	Y	Y	
02028	19	2-TE-11643	NSCW A RETURN TO FAN 3 CONTROL	NSCT	220'-0"	R402					Y	Y	NA	Y	Y	
02038	19	2-TE-11644	NSCW A RETURN TO FAN 4 CONTROL	NSCT	220'-0"	R402					Y	Y	NA	Y	Y	
02029	19	2-TE-11646	NSCW B RETURN TO FAN 1 CONTROL	NSCT	220'-0"	R302					Y	Y	NA	Y	Y	
02030	19	2-TE-11647	NSCW B RETURN TO FAN 2 CONTROL	NSCT	220'-0"	R302					Y	Y	NA	Y	Y	
02031	19	2-TE-11648	NSCW B RETURN TO FAN 3 CONTROL	NSCT	220'-0"	R302					Y	Y	NA	Y	Y	
02039	19	2-TE-11649	NSCW B RETURN TO FAN 4 CONTROL	NSCT	220'-0"	R302					Y	Y	NA	Y	Y	
10029	19	2-TE-12124	CB CR RETURN AIR TEMP	CONTROL	260'-0"	R311					Y	Y	NA	Y	Y	
10030	19	2-TE-12125	CB CR RETURN AIR TEMP	CONTROL	260'-0"	R305					Y	Y	NA	Y	Y	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Building	EQUIPMENT Flr.Elv.	LOCATION Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10037	19	2-TE-12725	ELEC EQUIP RM TEMP	CONTROL	180'-0"	RB32					Y	Y	NA	Y	Y	
10038	19	2-TE-12740	ELEC EQUIP RM TEMP	CONTROL	180'-0"	RB27					Y	Y	NA	Y	Y	
02032	19	2-TE-1668	NSCW A RETURN TO SPRAY/BYPASS VALVES	NSCT	220'-0"	R402					Y	Y	NA	Y	Y	
02033	19	2-TE-1669	NSCW B RETURN TO SPRAY/BYPASS VALVES	NSCT	220'-0"	R302					Y	Y	NA	Y	Y	
10043	19	2-TIC-13150	CB NORMAL A/C RM ESF A/C UNIT CONTROLLER	CONTROL	260'-0"	R325					Y	Y	NA	Y	Y	
10114	19	2-TIS-12005	AFW PUMP B ROOM SUPPLY FAN CONTROLLER	AFWP HOUSE	220'-0"	R102					Y	Y	NA	Y	Y	
10115	19	2-TIS-12006	AFW PUMP A ROOM SUPPLY FAN CONTROLLER	AFWP HOUSE	220'-0"	R101					Y	Y	NA	Y	Y	
10141	19	2-TIS-12300	CBCR CHILLER RM VENT FAN CONTROLLER	CONTROL	260'-0"	R311					Y	Y	Y	Y	Y	
10142	19	2-TIS-12303	CBCR CHILLER RM VENT FAN CONTROLLER	CONTROL	260'-0"	B308					Y	Y	Y	Y	Y	
10072	19	2-TISH-12200	ELECT SWGR & MCC RM A7001 COOLER CONTROLLER	AUX	119'-3"	RD104					Y	Y	NA	Y	Y	
10073	19	2-TISH-12201	ELECT SWGR & MCC RM A7002 COOLER CONTROLLER	AUX	245'-0"	R223					Y	Y	NA	Y	Y	
10074	19	2-TISH-12202	ELECT SWGR & MCC RM A7003 COOLER CONTROLLER	AUX	143'-6"	RC07					Y	Y	NA	Y	Y	
10075	19	2-TISH-12203	ELECT SWGR & MCC RM A7004 COOLER CONTROLLER	AUX	180'-0"	RB122					Y	Y	NA	Y	Y	
10076	19	2-TISH-12204	ELECT SWGR & MCC RM A7005 COOLER CONTROLLER	AUX	220'-0"	R149					Y	Y	NA	Y	Y	
10077	19	2-TISH-12205	ELECT SWGR & MCC RM A7006 COOLER CONTROLLER	AUX	220'-0"	R147					Y	Y	NA	Y	Y	
10116	19	2-TISH-22501	DIESEL POWER CABLE TUNNEL EXH FAN CONTROLLER	TUNNEL	220'-0"	@DG					Y	Y	NA	[illegible]	Y	
10050	19	2-TISH-22505	DIESEL POWER CABLE TUNNEL EXH FAN CONTROLLER	TUNNEL	220'-0"	1T4B @ DGB					Y	Y	NA	Y	Y	
10051	19	2-TISH-22509	TB & AB TRAIN A TUNNEL SUPPLY FAN CONTROLLER	CONTROL	180'-0"	RC08					Y	Y	NA	Y	Y	
10052	19	2-TISH-22516	NSCW TWR CABLE TUNN TRN A FAN CONTROLLER	TUNNEL	220'-0"	1T5A @ NSCW					Y	Y	NA	Y	Y	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10053	19	2-TISH-22519	NSCW TWR CABLE TUNN TRN B FAN CONTROLLER	TUNNEL	220'-0"	1TSB @ NSCW					Y	Y	NA	Y	Y	
02034	08c	2-TV-11675	NSCW TO ESSENTIAL CHILLER CONDENSER (E/H) CONTROL VLV	CONTROL	260'-0"	R308					Y	Y	NA	Y	Y	
02035	08c	2-TV-11740	NSCW TO ESSENTIAL CHILLER CONDENSER (E/H) CONTROL VLV	CONTROL	260'-0"	R310					Y	Y	NA	Y	Y	
10119	07	2-TV-12085	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103					Y	Y	NA	Y	Y	
10120	07	2-TV-12085A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103					Y	Y	NA	Y	Y	
10121	07	2-TV-12086	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101					Y	Y	NA	Y	Y	
10122	07	2-TV-12086A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101					Y	Y	NA	Y	Y	
10123	07	2-TV-12094A	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R209					Y	Y	NA	Y	Y	
10124	07	2-TV-12094B	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R209					Y	Y	NA	Y	Y	
10125	07	2-TV-12094C	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R209					Y	Y	NA	Y	Y	
10126	07	2-TV-12094D	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R209					Y	Y	NA	Y	Y	
10127	07	2-TV-12095A	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R208					Y	Y	NA	Y	Y	
10128	07	2-TV-12095B	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R208					Y	Y	NA	Y	Y	
10129	07	2-TV-12095C	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R208					Y	Y	NA	Y	Y	
10130	07	2-TV-12095D	DG BLDG OUTSIDE AIR DAMPER	DG	255'-0"	R208					Y	Y	NA	Y	Y	
10131	07	2-TV-12096	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101					Y	Y	NA	Y	Y	
10132	07	2-TV-12096A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101					Y	Y	NA	Y	Y	
10133	07	2-TV-12097	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101					Y	Y	NA	Y	Y	
10134	07	2-TV-12097A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R101					Y	Y	NA	Y	Y	
10135	07	2-TV-12098	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103					Y	Y	NA	Y	Y	
10136	07	2-TV-12098A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103					Y	Y	NA	Y	Y	
10137	07	2-TV-12099	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103					Y	Y	NA	Y	Y	
10138	07	2-TV-12099A	DG BLDG OUTSIDE AIR DAMPER	DG	220'-0"	R103					Y	Y	NA	Y	Y	
10031	08c	2-TV-12124	ECW TEMPERATURE CONTROL VALVE (E/H)	CONTROL	260'-0"	R311					Y	Y	NA	Y	Y	
10032	08c	2-TV-12125	ECW TEMPERATURE CONTROL VALVE (E/H)	CONTROL	260'-0"	R305					Y	Y	NA	Y	Y	

APPENDIX D
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SCREENING VERIFICATION DATA SHEET (SVDS)

Data Base File Name/Date/Time: VEGP2R2.DBF / 10/08/94 / 10:46:48
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	Base Elev.	<40'?	Capacity Spectrum	Demand Spectrum	Cap. > Demand?	Caveats OK?	Anchor OK?	Inter-act OK?	Equip OK?	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10108	08c	2-TV-12725	ECW TO ESF ELEC EQUIP RM HVAC UNIT CONTROL VALVE	CONTROL	180'-0"	RB17					Y	Y	NA	N	N	
10109	08c	2-TV-12740	ECW TO ESF ELEC EQUIP RM HVAC UNIT CONTROL VALVE	CONTROL	180'-0"	RB16					Y	Y	NA	Y	Y	
02040	19	2-TY-11675	CONVERTER FOR TV-11675	CONTROL	260'-0"	R308					Y	Y	Y	Y	Y	
02041	13	2-TY-11740	CONVERTER FOR TV-11740	CONTROL	260'-0"	R310					Y	Y	Y	Y	Y	
10143	19	2-TY-12124A	CONVERTER FOR TV-12124	CONTROL	260'-0"	R311					Y	Y	Y	Y	Y	
10144	19	2-TY-12125A	CONVERTER FOR TV-12125	CONTROL	260'-0"	R305					Y	Y	Y	Y	Y	
10145	19	2-TY-12725A	CONVERTER FOR TV-12725	CONTROL	180'-0"	RB17					Y	Y	Y	Y	Y	
10146	19	2-TY-12740A	CONVERTER FOR TV-12740	CONTROL	180'-0"	RB16					Y	Y	Y	Y	Y	

APPENDIX E
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
01000		00	1-1201-B6-001	STEAM GENERATOR 1	1X4DB111/20/D7	CTB	183'-0"	14AB	AS				N	1X4DB159-1/28, 1X4DB159-3/19, 1X4DB168-3/23	FW, MS, BLOWDOWN	
01001		00	1-1201-B6-002	STEAM GENERATOR 2	1X4DB111/20/F7	CTB	183'-0"	14BB	AS				N	1X4DB159-1/28, 1X4DB159-3/19, 1X4DB168-3/23	FW, MS, BLOWDOWN	
01002		00	1-1201-B6-003	STEAM GENERATOR 3	1X4DB111/20/F2	CTB	183'-0"	14CB	AS				N	1X4DB159-1/28, 1X4DB159-3/19, 1X4DB168-3/23	FW, MS, BLOWDOWN	
01003		00	1-1201-B6-004	STEAM GENERATOR 4	1X4DB111/20/D2	CTB	183'-0"	14DB	AS				N	1X4DB159-1/28, 1X4DB159-3/19, 1X4DB168-3/23	FW, MS, BLOWDOWN	
01033	A	18	1-1201-P5-TIA	RVLIS TRANSMITTER RACK TRAIN A	1X4DB113/19/B5	AUX	180'-0"	RB04	AS				Y	1X3D-CD-C02A, 1X3D-CD-C02E, 1X6AU01-670		
01034	B	18	1-1201-P5-TIB	RVLIS TRANSMITTER RACK TRAIN B	1X4DB113/19/B8	FB	180'-0"	RB08	AS				Y	1X3D-CD-C02C, 1X3D-CD-C02G, 1X6AU01-670		
01008		00	1-1201-V6-001	REACTOR VESSEL	1X4DB111/20/D4	CTB	183'-0"	14AB	AS				N			
01009		00	1-1201-V6-002	PRESSURIZER	1X4DB112/27/C6	CTB	183'-0"	14DA	AS				N			
02000	A	06	1-1202-P4-001	NSCW TRAIN A PUMP NO. 1	1X4DB133-1/28/C7	NSCT	220'-0"	R103	AS		OFF/ON	ON	Y	1X3D-BD-K04A/9		
02001	B	06	1-1202-P4-002	NSCW TRAIN B PUMP NO. 2	1X4DB133-2/33/C8	NSCT	220'-0"	R203	AS		OFF/ON	ON	Y	1X3D-BD-K04B/9		
02002	A	06	1-1202-P4-003	NSCW TRAIN A PUMP NO. 3	1X4DB133-1/28/C5	NSCT	220'-0"	R103	AS		OFF/ON	ON	Y	1X3D-BD-K04C/8		
02003	B	06	1-1202-P4-004	NSCW TRAIN B PUMP NO. 4	1X4DB133-2/33/C5	NSCT	220'-0"	R203	AS		OFF/ON	ON	Y	1X3D-BD-K04D/9		
02004	A	09	1-1202-W4-001-F01	NSCT FAN NO. 1	1X4DB133-1/28/G6	NSCT	250'-0"	R105	AS		OFF/ON	ON	Y	1X3D-BD-K03A/8		
02005	A	09	1-1202-W4-001-F02	NSCT FAN NO. 2	1X4DB133-1/28/G6	NSCT	250'-0"	R108	AS		OFF/ON	ON	Y	1X3D-BD-K03B/8		
02006	A	09	1-1202-W4-001-F03	NSCT FAN NO. 3	1X4DB133-1/28/G7	NSCT	250'-0"	R106	AS		OFF/ON	ON	Y	1X3D-BD-K03C/7		
02036	A	09	1-1202-W4-001-F04	NSCT FAN NO. 4	1X4DB133-1/28/G8	NSCT	250'-0"	R106	AS		OFF/ON	ON	Y	1X3D-BD-K03D/6		
02007	B	09	1-1202-W4-002-F01	NSCT FAN NO. 1	1X4DB133-2/33/G6	NSCT	250'-0"	R205	AS		OFF/ON	ON	Y	1X3D-BD-K03E/5		
02008	B	09	1-1202-W4-002-F02	NSCT FAN NO. 2	1X4DB133-2/33/G6	NSCT	250'-0"	R208	AS		OFF/ON	ON	Y	1X3D-BD-K03F/5		
02009	B	09	1-1202-W4-002-F03	NSCT FAN NO. 3	1X4DB133-2/33/G7	NSCT	250'-0"	R206	AS		OFF/ON	ON	Y	1X3D-BD-K03G/5		
02037	B	09	1-1202-W4-002-F04	NSCT FAN NO. 4	1X4DB133-2/33/G8	NSCT	250'-0"	R206	AS		OFF/ON	ON	Y	1X3D-BD-K03H/5		
03000	A	21	1-1203-E4-001	CCW HEAT EXCHANGER	1X4DB136/25/G2	AUX	245'-0"	R203	AS				N	1X4DB135-1/22	NSCW	
03001	B	21	1-1203-E4-002	CCW HEAT EXCHANGER	1X4DB136/25/D2	AUX	245'-0"	R202	AS				N	1X4DB133-2/33	NSCW	

APPENDIX E
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQ'D?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
03002	A	05	1-1203-P4-001	CCW PUMP NO. 1	1X4DB136/25/H4	AUX	195'-0"	RA05	AS		OFF/ON	ON	Y	1X4DB133-1/28, 1X3D-BD-L01A/8	NSCW	
03003	B	05	1-1203-P4-002	CCW PUMP NO. 2	1X4DB136/25/D4	AUX	195'-0"	RA03	AS		OFF/ON	ON	Y	1X4DB133-2/33, 1X3D-BD-L01B/8	NSCW	
03004	A	05	1-1203-P4-003	CCW PUMP NO. 3	1X4DB136/25/F4	AUX	195'-0"	RA05	AS		OFF/ON	ON	Y	1X4DB133-1/28, 1X3D-BD-L01C/7	NSCW	
03005	B	05	1-1203-P4-004	CCW PUMP NO. 4	1X4DB136/25/C4	AUX	195'-0"	RA03	AS		OFF/ON	ON	Y	1X4DB133-2/33, 1X3D-BD-L01D/7	NSCW	
03008	A	21	1-1203-T4-001	CCW SURGE TANK	1X4DB136/25/F7	AUX	245'-0"	R203	AS				N			
03009	B	21	1-1203-T4-002	CCW SURGE TANK	1X4DB136/25/B7	AUX	245'-0"	R202	AS				N			
04002		21	1-1204-T4-001	REFUELING WATER STORAGE TANK	1X4DB121/26/G2	RWST	220'-0"	SOUTH OF AUX	AS				N		SIS, CVCS, RHR, CNTMT SPRAY	
04003		21	1-1204-V6-001	BORON INJECTION TANK	1X4DB119/24/D4	AUX	180'-0"	RB11	AS	1A			N			
05000	A	21	1-1205-E6-001	RHR HEAT EXCHANGER A	1X4DB122/28/G6	AUX	119'-3"	RC90	AS				N	1X4DB137/15	CCW	
05001	B	21	1-1205-E6-002	RHR HEAT EXCHANGER B	1X4DB122/28/D6	AUX	143'-6"	RC91	AS				N	1X4DB137/15	CCW	
05002	A	05	1-1205-P6-001	RHR PUMP A	1X4DB122/28/G4	AUX	119'-3"	RD48	AS		OFF	ON	Y	1X4DB137/15, 1X4DB134/20, 1X3D-BD-E01A/5	CCW, NSCW	
05003	B	05	1-1205-P6-002	RHR PUMP B	1X4DB122/28/D4	AUX	119'-3"	RD49	AS		OFF	ON	Y	1X4DB137/15, 1X4DB134/20, 1X3D-BD-E01B/6	CCW, NSCW	
05004	A	00	1-1205-U6-019	MANUAL RHR THROTTLING GATE VALVE WITH REACH ROD	1X4DB122/28/G6	AUX	143'-6"	RC90	S	3	OPEN	OPEN	N			
05005	B	00	1-1205-U6-020	MANUAL RHR THROTTLING GATE VALVE WITH REACH ROD	1X4DB122/28/D6	AUX	143'-6"	RC91	S	3	OPEN	OPEN	N			
06000		21	1-1208-E6-001	REGENERATIVE HEAT EXCHANGER	1X4DB114/30/F6	CTB	183'0"	14AB	AS	1A			N			
06004	A	05	1-1208-P6-002	CCP A	1X4DB116-2/17/G4	AUX	143'-6"	RC115	AS		OFF	ON	Y	1X4DB134/20, 1X3D-BD-C01A/5	NSCW, RWST	
06005	B	05	1-1208-P6-003	CCP B	1X4DB116-2/17/C4	AUX	143'-6"	RC118	AS		OFF	ON	Y	1X4DB134/20, 1X3D-BD-C01B/6	NSCW, RWST	
06006	B	00	1-1208-U6-151	MANUAL SEAL INJECTION VALVE WITH REACH ROD	1X4DB116-2/17/C6	AUX	143'-6"	RC119	S		CLOSED	OPEN	N			
06007	A	00	1-1208-U6-152	MANUAL SEAL INJECTION VALVE WITH REACH ROD	1X4DB116-2/17/F6	AUX	143'-6"	RC114	S		CLOSED	OPEN	N			
06008		00	1-1208-U6-153	MANUAL CCP DISCH ISO VLV WITH REACH ROD	1X4DB116-1/28/B6	AUX	143'-6"	RC112	S		OPEN	OP/CL	N			

APPENDIX E
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
07002	A	21	1-1213-E6-001	SPENT FUEL PIT HEAT EXCH A	1X4DB130/25/F4	AUX	195'-0"	RA53	AS	1A			N	1X4DB137/15	CCW	
07013	B	21	1-1213-E6-002	SPENT FUEL PIT HEAT EXCH B	1X4DB130/25/G4	FB	200'-0"	RA07	AS	1A			N	1X4DB137/15	CCW	
07003	A	21	1-1217-E4-001	ACCW HEAT EXCHANGER	1X4DB138-1/19/B6	AUX	220'-0"	R105	AS	1A			N	1X4DB135-1/22	NSCW	
07004	B	21	1-1217-E4-002	ACCW HEAT EXCHANGER	1X4DB138-1/19/B4	AUX	220'-0"	R104	AS	1A			N	1X4DB133-2/33	NSCW	
09001	B	05	1-1302-P4-002	AFW MOTOR DRIVEN PUMP B	1X4DB161-2/23/D6	AFWP HOUSE	220'-0"	R102	AS		OFF	ON	Y	1X3D-BC-F05A/8		
09002	A	05	1-1302-P4-003	AFW MOTOR DRIVEN PUMP A	1X4DB161-2/23/B6	AFWP HOUSE	220'-0"	R101	AS		OFF	ON	Y	1X3D-BC-F04A/7		
09003		21	1-1302-V4-001	CONDENSATE STORAGE TANK NO. 1 (CST)	1X4DB161-1/23/G6	CST NO. 1	220'-0"		AS				N			
10000	A,B	20	1-1500-Q5-HVC	HVAC PANEL	1X5AB01-44	CONTROL	220'-0"	R163	AS	7				1X3D-AA-B20C		
10001	A	20	1-1500-V7-001-CBA	LOCAL CB HVAC PANEL TRAIN A	1X4AJ20-1337	CONTROL	220'-0"	R163	AS	8				1DCGD02B, 1X3DF30C,		
10002	B	20	1-1500-V7-001-CBB	LOCAL CB HVAC PANEL TRAIN B	1X4AJ20-1337	CONTROL	220'-0"	R163	AS	8				1DCGD02D, 1X3DF30C		
10139	A	09	1-1531-B7-002-000	CBCR CHILLER ROOM VENT FAN	AX4DB241/12/A5	CONTROL	260'-0"	R320	AS		OFF	ON	Y			
10140	B	09	1-1531-B7-004-000	CBCR CHILLER ROOM VENT FAN	AX4DB241/12/D6	CONTROL	260'-0"	R312	AS		OFF	ON	Y			
10017	A	09	1-1531-N7-001-000	CBCR FILTER UNIT	AX4DB206-3/24/C4	CONTROL	260'-0"	R321	AS		OFF	ON	Y	1X4DB233/19, 1X3D-BG-C01E/10	ECW	
10018	B	09	1-1531-N7-002-000	CBCR FILTER UNIT	AX4DB206-3/24/F4	CONTROL	260'-0"	R312	AS		OFF	ON	Y	1X4DB234/18, 1X3D-BG-C01F/9	ECW	
10033	A	09	1-1532-A7-001-000	CBSF ELEC EQUIP RM AC UNIT	1X4DB207-1/21/F3	CONTROL	180'-0"	RB60	AS		ON	ON	Y	1X4DB233/19, 1X3D-BG-C04A/5	ECW	
10034	B	09	1-1532-A7-002-000	CBSF ELEC EQUIP RM AC UNIT	1X4DB207-1/21/C3	CONTROL	180'-0"	RB62	AS		ON	ON	Y	1X4DB234/18, 1X3D-BG-C04B/5	ECW	
10035	A	09	1-1532-B7-001-000	BATTERY RM EXHAUST FAN & MOTOR	1X4DB207-1/21/E3	CONTROL	180'-0"	RB55	AS		ON	ON	Y	1X3D-BG-C04N/4		
10036	B	09	1-1532-B7-002-000	BATTERY RM EXHAUST FAN & MOTOR	1X4DB207-1/21/B3	CONTROL	180'-0"	RB49	AS		ON	ON	Y	1X3D-BG-C04P/3		
10039	A	09	1-1539-A7-001-000	CB AUX RELAY RM ESF A/C UNIT	AX4DB225/14/D7	CONTROL	200'-0"	RA82	AS		OFF	ON	Y	1X4DB233/19, 1X3D-BG-C07M/4	ECW	
10040	B	09	1-1539-A7-002-000	CB AUX RELAY RM ESF A/C UNIT	AX4DB216/12/G6	CONTROL	240'-0"	R226	AS		OFF	ON	Y	1X4DB234/18, 1X3D-BG-C07N/2	ECW	
10041	A	09	1-1539-A7-005-000	CB NORMAL AC RM ESF A/C UNIT	AX4DB216/12/D5	CONTROL	260'-0"	R325	AS		OFF	ON	Y	1X4DB233/19, 1X3D-BG-C07R/3	ECW	
10042	B	09	1-1539-A7-006-000	CB ELEC EQUIP RM ESF A/C UNIT	AX4DB216/12/G4	CONTROL	260'-0"	R322	AS		OFF	ON	Y	1X4DB234/18, 1X3D-BG-C07S/3	ECW	

APPENDIX E
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION ------> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10045	A	09	1-1540-B7-001-000	DIESEL POWER CABLE TUNNEL EXHAUST FAN UNIT	1X4DB238/9/H6	TUNNEL	195'-0"	1T4A @ DGB	AS		OFF	ON	Y	1X3D/BG/K01C/6		
10046	B	09	1-1540-B7-002-000	DIESEL POWER CABLE TUNNEL EXHAUST FAN UNIT	1X4DB238/9/F6	TUNNEL	180'-0"	1T4B @ DGB	AS		OFF	ON	Y	1X3D-BG-K01D/4		
10047	A	09	1-1540-B7-003-000	NSCW TOWER CABLE TUNNEL EXHAUST FAN UNIT	1X4DB238/9/H2	TUNNEL	220'-0"	1T5A @ NSCW	AS		OFF	ON	Y	1X3D-BG-K01C/6		
10048	B	09	1-1540-B7-004-000	NSCW TOWER CABLE TUNNEL EXHAUST FAN UNIT	1X4DB238/9/F2	TUNNEL	220'-0"	1T5B @ NSCW	AS		OFF	ON	Y	1X3D-BG-K01D/4		
10049	A	09	1-1540-B7-005-000	AUX BLDG TRAIN A TUNNEL SUPPLY FAN UNIT	1X4DB238/9/E2	AUX	245'-0"	R212	AS		OFF	ON	Y	1X3D-BG-K01E/6		
10054	A	09	1-1555-A7-001-000	ELEC SWGR AND MCC ROOM COOLER A (1AB15)	1X4DB228/10/G7	AUX	119'-3"	RD79	AS		OFF	ON	Y	1X4DB233/19, 1X3D-BG-D05A/9	ECW	
10055	B	09	1-1555-A7-002-000	ELEC SWGR AND MCC ROOM COOLER B (1BB16)	1X4DB228/10/G6	AUX	245'-0"	R212	AS		OFF	ON	Y	1X4DB234/18, 1X3D-BG-D05B/7	ECW	
10056	A	09	1-1555-A7-003-000	ELEC SWGR AND MCC ROOM COOLER A (1AB0)	1X4DB228/10/G5	AUX	180'-0"	RB13	AS		OFF	ON	Y	1X4DB233/19, 1X3D-BG-D05C/8	ECW	
10057	B	09	1-1555-A7-004-000	ELEC SWGR AND MCC ROOM COOLER B (1BBD)	1X4DB228/10/G4	AUX	180'-0"	RB17	AS		OFF	ON	Y	1X4DB234/18, 1X3D-BG-D05D/8	ECW	
10058	A	09	1-1555-A7-005-000	ELEC SWGR AND MCC ROOM COOLER A (1ABB)	1X4DB228/10/G3	AUX	220'-0"	R118	AS		OFF	ON	Y	1X4DB233/19, 1X3D-BG-D05E/6	ECW	
10059	B	09	1-1555-A7-006-000	ELEC SWGR AND MCC ROOM COOLER B (1BBB)	1X4DB228/10/G1	AUX	220'-0"	R116	AS		OFF	ON	Y	1X4DB234/18, 1X3D-BG-D05F/6	ECW	
10078		09	1-1561-E7-001-000	PIPING PENETRATION AREA COOLER	1X4DB205-1/21/B4	AUX	245'-0"	R210	AS				N	1X4DB233/19, 1X4DB234/18	ECW	
10079		09	1-1561-E7-002-000	PIPING PENETRATION AREA COOLER	1X4DB205-1/21/B5	AUX	245'-0"	R210	AS				N	1X4DB135-1/22, 1X4DB133-2/33	NSCW	
10080	A	09	1-1561-N7-001-000	PIPING PENETRATION ROOM FILTRATION AND EXHAUST UNIT	1X4DB205-1/21/E3	AUX	245'-0"	R210	AS		OFF	ON	Y	1X3D-BG-D01D/8		
10081	B	09	1-1561-N7-002-000	PIPING PENETRATION ROOM FILTRATION AND EXHAUST UNIT	1X4DB205-1/21/E7	AUX	245'-0"	R209	AS		OFF	ON	Y	1X3D-BG-D01F/6		
10090	A	09	1-1566-B7-001-000	DG A BLDG ESF SUPPLY FAN NO. 1	1X4DB217/13/H6	DG	255'-0"	R208	AS		OFF	ON	Y	1X3D-BG-F01B/9		
10091	B	09	1-1566-B7-002-000	DG B BLDG ESF SUPPLY FAN NO. 2	1X4DB217/13/D6	DG	255'-0"	R203	AS		OFF	ON	Y	1X3D-BG-F01E/8		
10092	A	09	1-1566-B7-003-000	DG A BLDG ESF SUPPLY FAN NO. 3	1X4DB217/13/G6	DG	255'-0"	R208	AS		OFF	ON	Y	1X3D-BG-F01C/9		
10093	B	09	1-1566-B7-004-000	DG B BLDG ESF SUPPLY FAN NO. 4	1X4DB217/13/D6	DG	255'-0"	R203	AS		OFF	ON	Y	1X3D-BG-F01F/8		
10098	A	11	1-1592-C7-001	CB ESSENTIAL CHILLER	1X4DB221/22/F3	CONTROL	260'-0"	R320	S		OFF	ON	Y	1X4DB134/20, 1X3D-BG-G02A/13	NSCW	

APPENDIX E
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO. (1)	TRAIN (2)	EQUIP CLASS (3)	MARK NO. (4)	SYSTEM/EQUIPMENT DESCRIPTION (5)	Dwg. No./Rev./Zone (6)	Building (7)	EQUIPMENT Flr.Elv. (8)	LOCATION Rm. or Row/Col. (9)	SORT (10)	NOTES (11)	OP. ST. Normal (12)	OP. ST. Desired (13)	POWER REQD? (14)	SUPPORTING SYS. DWG. NO./REV. (15)	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS (16)	REG. ISSUE (17)
10099	B	11	1-1592-C7-002	CB ESSENTIAL CHILLER	1X4DB221/22/C3	CONTROL	260'-0"	R313	S		OFF	ON	Y	1X4DB135-2/21, 1X3D-BG-G02B/14	MSCW	
10100	A	05	1-1592-P7-001	ESSENTIAL CHILLED WATER PUMP	1X4DB221/22/F5	CONTROL	260'-0"	R320	AS		OFF	ON	Y	1X3D-BG-G02C/11		
10101	B	05	1-1592-P7-002	ESSENTIAL CHILLED WATER PUMP	1X4DB221/22/C5	CONTROL	260'-0"	R313	AS		OFF	ON	Y	1X3D-BG-G02D/9		
10102	A	21	1-1592-T7-001	ESSENTIAL CHILLED WATER EXPANSION TANK	1X4DB221/22/G6	CONTROL	260'-0"	R316	AS				N			
10103	B	21	1-1592-T7-002	ESSENTIAL CHILLED WATER EXPANSION TANK	1X4DB221/22/D6	CONTROL	260'-0"	R313	AS				N			
10110	A	09	1-1593-B7-001	AFW PUMP A SUPPLY FAN & MOTOR	1X4DB227/11/C7	AFWP HOUSE	220'-0"	R101	AS		OFF	ON	Y	1X3D-BG-G03A/6		
10111	B	09	1-1593-B7-002	AFW PUMP B SUPPLY FAN & MOTOR	1X4DB227/11/E7	AFWP HOUSE	220'-0"	R102	AS		OFF	ON	Y	1X3D-BG-G03B/7		
13000	MULTI	20	1-1601-Q5-MCB	MAIN CONTROL BOARD	1X6AV02-159	CONTROL	220'-0"	R163	AS	6				1DCEB01D, AX3DF300, 1DCEB02B, 1X3DF30C,		
11002	A	17	1-2403-G4-001	DIESEL GENERATOR A	1X4DB170-1/29/F5	DG	220'-0"	R103	AS		OFF	ON	N	1X4DB135-1/22	MSCW	
11003	A	24	1-2403-G4-001-F01	DG INTAKE AIR FILTER	1X4DB170-1/29/H7	DG	255'-0"	R210	S				N			
11004	A	24	1-2403-G4-001-F02	DG EXHAUST AIR SILENCER	1X4DB170-1/29/H4	DG	255'-0"	R209	S				N			
11005	A	21	1-2403-G4-001-V01	DG AIR START RECEIVER	1X4DB170-1/29/F3	DG	220'-0"	R103	AS				N			
11006	A	21	1-2403-G4-001-V02	DG AIR START RECEIVER	1X4DB170-1/29/H3	DG	220'-0"	R103	AS				N			
11007	B	17	1-2403-G4-002	DIESEL GENERATOR B	1X4DB170-2/27/F5	DG	220'-0"	R101	AS		OFF	ON	N	1X4DB133-2/28	MSCW	
11008	B	24	1-2403-G4-002-F01	DG INTAKE AIR FILTER	1X4DB170-2/27/H7	DG	255'-0"	R205	S				N			
11009	B	24	1-2403-G4-002-F02	DG EXHAUST AIR SILENCER	1X4DB170-2/27/H4	DG	255'-0"	R204	AS				N			
11010	B	21	1-2403-G4-002-V01	DG AIR START RECEIVER	1X4DB170-2/27/F3	DG	220'-0"	R101	AS				N			
11011	B	21	1-2403-G4-002-V02	DG AIR START RECEIVER	1X4DB170-2/27/H3	DG	220'-0"	R101	AS				N			
11012	A	06	1-2403-P4-001	DIESEL FUEL OIL TRANSFER PUMP	1X4DB170-1/29/B3	DFOST	211'-6"	RA01	AS		OFF	ON	Y	1X3D-BH-G01X/5		
11013	B	06	1-2403-P4-003	DIESEL FUEL OIL TRANSFER PUMP	1X4DB170-2/27/A3	DFOST	211'-6"	RA03	AS		OFF	ON	Y	1X3D-BH-G02B/5		
11020	A	21	1-2403-T4-001	DIESEL FUEL OIL STORAGE TANK	1X4DB170-1/29/A3	DFOST	211'-6"	RA01	AS				N			
11021	B	21	1-2403-T4-002	DIESEL FUEL OIL STORAGE TANK	1X4DB170-2/27/A3	DFOST	211'-6"	RA03	AS				N			
11022	A	21	1-2403-T4-003	DIESEL FUEL OIL DAY TANK	1X4DB170-1/29/D2	DG	220'-0"	R104	AS				N			
11023	B	21	1-2403-T4-004	DIESEL FUEL OIL DAY TANK	1X4DB170-2/27/D2	DG	220'-0"	R102	AS				N			
02010	A	07	1-CV-9446	NSCT BLOWDOWN ISO AOV	1X4DB133-1/28/B5	NSCT	220'-0"	R102	S	2,4,5	OPEN	CLOSED	N	1X3D-BD-K04J/7		

APPENDIX E
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO. (1)	TRAIN (2)	EQUIP CLASS (3)	MARK NO. (4)	SYSTEM/EQUIPMENT DESCRIPTION (5)	Dwg. No./Rev./Zone (6)	<---------- Building (7)	EQUIPMENT Flr.Elv. (8)	LOCATION -----> Rm. or Row/Col. (9)	SORT (10)	NOTES (11)	<-- OP. Normal (12)	ST. --> Desired (13)	POWER REQD? (14)	SUPPORTING SYS. DWG. NO./REV. (15)	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS (16)	REG. ISSUE (17)
02011	B	07	1-CV-9447	NSCT BLOWDOWN ISO AOV	1X4DB133-2/33-B5	NSCT	220'-0"	R202	S	2,4,5	OPEN	CLOSED	N	1X3D-BD-K04K/4		
05006	A	19	1-FIS-0610	RHR PUMP A FLOW TO MINIFLOW VALVE	1X4DB122/28/G5	AUX	119'-3"	RD121	S				Y	1DCHH02B, 1X3DF411, 1DBDE02C,		
05007	B	19	1-FIS-0611	RHR PUMP B FLOW TO MINIFLOW VALVE	1X4DB122/28/D5	AUX	119'-3"	RD53	S				Y	1DCHH02B, 1X3DF411, 1DBDE02D,		
02012	A	19	1-FIT-1640A	NSCW RETURN FLOW	1X4DB133-1/28/F4	NSCT	195'-0"	TUNNEL 1T2A	S				Y	1X5DV-021		
02013	B	19	1-FIT-1641A	NSCW RETURN FLOW	1X4DB133-2/33/F5	NSCT	195'-0"	TUNNEL 1T2B	S				Y	1X5DV-022		
10019	A	19	1-FSL-12045	INTERLOCK FLOW SWTCH CNTL BLD..CLOSES ON LOW AIR	AX4DB206-3/24/F3	CONTROL	260'-0"	R320	S				Y	1X5DV498, 1X3DF315, 1DBGC01E,		
10020	B	19	1-FSL-12046	INTERLOCK FLOW SWTCH CNTL BLD..CLOSES ON AIR-FLO	AX4DB206-3/24/C3	CONTROL	260'-0"	R313	S				Y	1X5DV498, 1X3DF315, 1DBGC01F,		
06010	A	19	1-FT-0138	CCP A FLOW	1X4DB116-2/17/H7	AUX	143'-6"	RC114	S				Y	1X3D-CD-C03A, 1X6AU01-919		
06011		19	1-FT-0142	RCP 4 SEAL INJ FLOW	1X4DB114/30/C3	FB	200'-0"	RA10	S				Y	1X3D-CD-C03G, 1X6AU01-460		
06012		19	1-FT-0143	RCP 3 SEAL INJ FLOW	1X4DB114/30/C3	FB	200'-0"	RA10	S				Y	1X3D-CD-C03E, 1X6AU01-442		
06013		19	1-FT-0144	RCP 2 SEAL INJ FLOW	1X4DB114/30/C3	AUX	195'-0"	RA09	S				Y	1X3D-CD-C03C, 1X6AU01-406		
06014		19	1-FT-0145	RCP 1 SEAL INJ FLOW	1X4DB114/30/B5	AUX	195'-0"	RA09	S				Y	1X3D-CD-C03A, 1X6AU01-371		
06045	A	19	1-FT-0406	REACTOR HEAD LETDOWN LINE FLOW	1X4DB114/30/F4	CTB	183'-0"	RB03	S				Y	1X6AU01-673/3		
06046	B	19	1-FT-0407	REACTOR HEAD LETDOWN LINE FLOW	1X4DB114/30/F4	CTB	183'-0"	RB03	S				Y	1X6AU01-673/3		
05008	A	19	1-FT-0618	RHR A FLOW	1X4DB122/28/G7	AUX	119'-3"	RD121	S				Y	1X3D-CD-C02A, 1X6AU01-671		
05009	B	19	1-FT-0619	RHR B FLOW	1X4DB122/28/C7	AUX	143'-6"	RD53	S				Y	1X3D-CD-C02C, 1X6AU01-671		
04004	D	19	1-FT-0917	FLOW THROUGH BIT	1X4DB119/24/C2	AUX	180'-0"	RB11	S				Y	1X3D-CD-C02G, 1X6AU01-674		
02014	A	19	1-FT-1802	NSCW FLOW TO CB ESS CHILLER	1X4DB134/20/F1	CONTROL	260'-0"	R320	S				Y	1X3D-CE-B13E, 1X6AU01-947		
02015	B	19	1-FT-1803	NSCW FLOW TO CB ESS CHILLER	1X4DB135-2/21/A5	CONTROL	260'-0"	R313	S				Y	1X3D-CE-B13H, 1X6AU01-947		

APPENDIX E
VOGTLE ELELTRIC GENERATING PLANT - UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
03010	A	19	1-FT-1876	CCW A FLOW	1X4DB136/25/F1	AUX	195'-0"	RA05	S				Y	1X3D-CE-B12K, 1X6AU01-617		
03011	B	19	1-FT-1877	CCW B FLOW	1X4DB136/25/C1	AUX	195'-0"	RA04	S				Y	1X3D-CE-B12K, 1X6AU01-617		
10104	A	19	1-FT-22425	ECW FLOW	1X4DB221/22/G1	CONTROL	260'-0"	R320	S				Y	1X3D-CE-B12K, 1X6AU01-637		
10105	B	19	1-FT-22426	ECW FLOW	1X4DB221/22/D1	CONTROL	260'-0"	R313	S				Y	1X3D-CE-B12H, 1X6AU01-637		
09004	A	19	1-FT-5150	AFW FLOW TO SG 4	1X4DB161-2/23/H2	AUX	195'-0"	RA17	S				Y	1X3D-CE-B12F, 1X6AU01-614		
09005	B	19	1-FT-5151	AFW FLOW TO SG 2	1X4DB161-2/23/E2	CONTROL	200'-0"	RA62	S				Y	1X3D-CE-B12H, 1X6AU01-614		
09006	C	19	1-FT-5152	AFW FLOW TO SG 1	1X4DB161-2/23/G2	AUX	195'-0"	RA10	S				Y	1X3D-CE-B12F, 1X6AU01-614		
09007	D	19	1-FT-5153	AFW FLOW TO SG 3	1X4DB161-2/23/D2	CONTROL	200'-0"	RA56	S				Y	1X3D-CE-B12H, 1X6AU01-614		
09008	B	19	1-FT-5154	AFW B FLOW TO MINIFLOW VALVE	1X4DB161-2/23/D5	AFWP HOUSE	220'-0"	R101	S				Y	1X3D-CE-B12H, 1X6AU01-612		
09009	A	19	1-FT-5155	AFW A FLOW TO MINIFLOW VAVLE	1X4DB161-2/23/B5	AFWP HOUSE	220'-0"	R101	S				Y	1X3D-CE-B12F, 1X6AU01-759		
05010	A	08a	1-FV-0610	RHR PUMP A MINIFLOW MOV	1X4DB122/28/H5	AUX	143'-6"	RC90	S		OPEN	CLOSED	Y	1X3D-BD-E02C/7		
05011	B	08a	1-FV-0611	RHR PUMP B MINIFLOW MOV	1X4DB122/28/E5	AUX	143'-6"	RC91	S		OPEN	CLOSED	Y	1X3D-BD-E02D/7		
09010	B	08a	1-FV-5154	AFW PUMP B MINIFLOW MOV	1X4DB161-2/23/C6	AFWP HOUSE	220'-0"	R102	S	3	OPEN	OP/CL	Y	1X3D-BC-F05B/5		
09011	A	08a	1-FV-5155	AFW PUMP A MINIFLOW MOV	1X4DB161-2/23/A6	AFWP HOUSE	220'-0"	R101	S	3	OPEN	OP/CL	Y	1X3D-BC-F04B/3		
06015	A	08b	1-HV-0190A	CCP A SAFETY GRADE CHARGING SOLENOID OP VLV	1X4DB116-2/17/G7	AUX	195'-0"	RA09	S	3	CLOSED	OPEN	Y	1X3D-BD-C05H/5		
06016	B	08b	1-HV-0190B	CCP B SAFETY GRADE CHARGING SOLENOID OP VLV	1X4DB116-2/17/B7	AUX	143'-6"	RC119	S	3	CLOSED	OPEN	Y	1X3D-BD-C05H/5		
06047	A	08b	1-HV-0442A	REACTOR HEAD LETDOWN LINE CONTROL SOV	1X4DB112/27/H4	CTB	183'-0"	RB03	S		CLOSED	OP/CL	Y	1X3D-BD-C05H		
06048	B	08b	1-HV-0442B	REACTOR HEAD LETDOWN LINE CONTROL SOV	1X4DB112/27/G4	CTB	183'-0"	RB03	S		CLOSED	OP/CL	Y	1X3D-BD-C05H		
04007	A	08b	1-HV-0943A	ACCUMULATOR NITROGEN HDR VENT--SOLENOID OPERATED VALVE	1X4DB120/16/E1	CTB	180'-0"	RB10	S		CLOSED	OPEN	Y	1X3D-BD-D05J/3		
04008	B	08b	1-HV-0943B	ACCUMULATOR NITROGEN HDR VENT--SOLENOID OPERATED VALVE	1X4DB120/16/D1	CTB	183'-0"	RB1[illegible]	S		CLOSED	OPEN	Y	1X3D-BD-D05K/5		

APPENDIX E
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	EQUIPMENT Flr.Elv.	LOCATION Rm. or Row/Col.	SORT	NOTES	OP. ST. Normal	OP. ST. Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
04009	B	07	1-HV-10957	RWST TO SLUDGE MIXING PUMP SUCTION AOV	1X4DB121/26/G3	RWST	220'-0"	R101	S	2,5	OP/CL	CLOSED	N			
04010	A	07	1-HV-10958	RWST TO SLUDGE MIXING PUMP SUCTION AOV	1X4DB121/26/G3	RWST	220'-0"	R101	S	2,5	OP/CL	CLOSED	N			
02016	A	08a	1-HV-11600	NSCW PUMP 1 DISCHARGE MOV	1X4DB133-1/28/C8	NSCT	220'-0"	R103	S		OP/CL	OPEN	Y	1X3D-BD-K04Z/4		
02017	A	08a	1-HV-11606	NSCW PUMP 3 DISCHARGE MOV	1X4DB133-1/28/C4	NSCT	220'-0"	R103	S		OP/CL	OPEN	Y	1X3D-BD-K04Z/4		
02018	B	08a	1-HV-11607	NSCW PUMP 2 DISCHARGE MOV	1X4DB133-2/33/C8	NSCT	245'-0"	R203	S		OP/CL	OPEN	Y	1X3D-BK-K04Y/4		
02019	B	08a	1-HV-11613	NSCW PUMP 4 DISCHARGE MOV	1X4DB133-2/33/C5	NSCT	245'-0"	R203	S		OP/CL	OPEN	Y	1X3D-BK-K04Y/4		
10112	B	08a	1-HV-12005	AFW PUMP HOUSE AIR SUPPLY DAMPER	1X4DB227/11/E7	AFWP HOUSE	220'-0"	R102	S		CLOSED	OPEN	Y	1X3D-BG-G01N/3		
10113	A	08a	1-HV-12006	AFW PUMP HOUSE AIR SUPPLY DAMPER	1X4DB227/11/C7	AFWP HOUSE	220'-0"	R101	S		CLOSED	OPEN	Y	1X3D-BG-G01N/3		
10094	A	08a	1-HV-12050	DG A AIR SUPPLY DAMPER FOR FAN NO. 1	1X4DB217/13/H6	DG	255'-0"	R208	AS		CLOSED	OPEN	Y	1X3D-BG-F01M/4		
10095	A	08a	1-HV-12051	DG A AIR SUPPLY DAMPER FOR FAN NO. 3	1X4DB217/13/G6	DG	255'-0"	R208	S		CLOSED	OPEN	Y	1X3D-BG-F01M/4		
10096	B	08a	1-HV-12053	DG A AIR SUPPLY DAMPER FOR FAN NO. 2	1X4DB217/13/D6	DG	255'-0"	R203	S		CLOSED	OPEN	Y	1X3D-BG-F01M/4		
10097	B	08a	1-HV-12054	DG A AIR SUPPLY DAMPER FOR FAN NO. 4	1X4DB217/13/D6	DG	255'-0"	R203	S		CLOSED	OPEN	Y	1X3D-BG-F01M/4		
10021	A	08a	1-HV-12128	CBCR FILTER UNIT AIR SUPPLY DAMPER	AX4DB206-3/24/C2	CONTROL	220'-0"	R143	S		CLOSED	OPEN	Y	1X3D-BG-C01X/3		
10022	B	08a	1-HV-12129	CBCR FILTER UNIT AIR SUPPLY DAMPER	AX4DB206-3/24/F2	CONTROL	220'-0"	R143	S		CLOSED	OPEN	Y	1X3D-BG-C01Z/3		
10023	A	08a	1-HV-12130	CBCR FILTER UNIT AIR RETURN DAMPER	AX4DB206-3/24/B2	CONTROL	220'-0"	R143	S		CLOSED	OPEN	Y	1X3D-BG-C01X/3		
10024	B	08a	1-HV-12131	CBCR FILTER UNIT AIR RETURN DAMPER	AX4DB206-3/24/E2	CONTROL	220'-0"	R143	S		CLOSED	OPEN	Y	1X3D-BG-C01Z/3		
10025	A	07	1-HV-12146	CBCR NORMAL AIR SUPPLY DAMPER	AX4DB206-2/18/C5	CONTROL	240'-0"	R233	S	2,5	OPEN	CLOSED	N	1X3D-BG-C07B/8		
10026	B	07	1-HV-12147	CBCR NORMAL AIR SUPPLY DAMPER	AX4DB206-2/18/C4	CONTROL	240'-0"	R233	S	2,5	OPEN	CLOSED	N	1X3D-BG-C07C/8		
10027	B	07	1-HV-12148	CBCR NORMAL AIR RETURN DAMPER	AX4DB206-2/18/B4	CONTROL	240'-0"	R233	S	2,5	OPEN	CLOSED	N	1X3D-BG-C07C/8		
10028	A	07	1-HV-12149	CBCR NORMAL AIR RETURN DAMPER	AX4DB206-2/18/B5	CONTROL	240'-0"	R233	S	2,5	OPEN	CLOSED	N	1X3D-BG-C07B/8		
10082	A	07	1-HV-12604	PPG PENETRATION NORMAL RETURN AIR ISOLATION DAMPER	1X4DB205-2/14/F2	AUX	245'-0"	R209	S	2,5	OPEN	CLOSED	N	1X3D-BG-D04A/4		
10083	A	07	1-HV-12605	PPG PENETRATION NORMAL AIR SUPPLY ISOLATION DAMPER	1X4DB205-2/14/D1	AUX	245'-0"	R209	S	2,5	OPEN	CLOSED	N	1X3D-BG-D04A/4		
10084	B	07	1-HV-12606	PPG PENETRATION NORMAL AIR SUPPLY ISOLATION DAMPER	1X4DB205-2/14/F1	AUX	245'-0"	R209	S	2,5	OPEN	CLOSED	N	1X3D-BG-D04B/5		

APPENDIX E
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO. (1)	TRAIN (2)	EQUIP CLASS (3)	MARK NO. (4)	SYSTEM/EQUIPMENT DESCRIPTION (5)	Dwg. No./Rev./Zone (6)	<---------- Building (7)	EQUIPMENT Flr.Elv. (8)	LOCATION ------> Rm. or Row/Col. (9)	SORT (10)	NOTES (11)	<-- OP. Normal (12)	ST. --> Desired (13)	POWER REQD? (14)	SUPPORTING SYS. DWG. NO./REV. (15)	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS (16)	REG. ISSUE (17)
10085	B	07	1-HV-12607	PPG PENETRATION NORMAL RETURN AIR ISOLATION DAMPER	1X4DB205-2/14/D2	AUX	245'-0"	R209	S	2,5	OPEN	CLOSED	N	1X3D-BG-D04B/5		
10086	A	08c	1-HV-12614	PPG PEN FILTRATION AND EXHAUST UNIT SUCTION DAMPER	1X4DB205-1/21/D4	AUX	245'-0"	R210	S		CLOSED	OPEN	Y	1X3D-BG-D04J/2		
10087	B	08c	1-HV-12616	PPG PEN FILTRATION AND EXHAUST UNIT SUCTION DAMPER	1X4DB205-1/21/D8	AUX	245'-0"	R209	S		CLOSED	OPEN	Y	1X3D-BG-D04J/2		
08000	A	07	1-HV-13005A	INBOARD MSIV BYPASS AOV--SG 1	1X4DB159-2/22/G6	AUX	220'-0"	R108	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q02H/3		
08001	B	07	1-HV-13005B	OUTBOARD MSIV BYPASS AOV--SG 1	1X4DB159-2/22/G6	AUX	220'-0"	R108	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q02J/3		
08002	A	07	1-HV-13006A	INBOARD MSIV BYPASS AOV--SG 4	1X4DB159-2/22/A6	AUX	220'-0"	R108	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q02H/3		
08003	B	07	1-HV-13006B	OUTBOARD MSIV BYPASS AOV--SG 4	1X4DB159-2/22/A6	AUX	220'-0"	R108	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q02J/3		
08004	A	07	1-HV-13007A	INBOARD MSIV BYPASS AOV--SG 2	1X4DB159-2/22/E6	CONTROL	220'-0"	R123	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q02H/3		
08005	B	07	1-HV-13007B	OUTBOARD MSIV BYPASS AOV--SG 2	1X4DB159-2/22/E6	CONTROL	220'-0"	R123	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q02J/3		
08006	A	07	1-HV-13008A	INBOARD MSIV BYPASS AOV--SG 3	1X4DB159-2/22/C6	CONTROL	220'-0"	R122	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q02H/3		
08007	B	07	1-HV-13008B	OUTBOARD MSIV BYPASS AOV--SG 3	1X4DB159-2/22/C6	CONTROL	220'-0"	R122	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q02J/3		
07005		07	1-HV-15196	BFIV FOR SG 1	1X4DB168-3/23/E2	AUX	195'-0"	RA11	S	2,5	OPEN	CLOSED	N			
07006		07	1-HV-15197	BFIV FOR SG 2	1X4DB168-3/23/E4	CONTROL	200'-0"	RA56	S	2,5	OPEN	CLOSED	N			
07007		07	1-HV-15198	BFIV FOR SG 3	1X4DB168-3/23/E8	CONTROL	200'-0"	RA56	S	2,5	OPEN	CLOSED	N			
07008		07	1-HV-15199	BFIV FOR SG 4	1X4DB168-3/23/E6	AUX	195'-0"	RA12	S	2,5	OPEN	CLOSED	N			
02020	A	08a	1-HV-1668A	NSCW SPRAY VALVE	1X4DB133-1/28/G5	NSCT	195'-0"	R102	S		OPEN	OPEN	Y	1X3D-BD-K05U/7		
02021	A	08a	1-HV-1668B	NSCW TOWER BYPASS MOV	1X4DB133-1/28/F5	NSCT	220'-0"	R102	S		CLOSED	CLOSED	Y	1X3D-BD-K05V/7		
02022	B	08a	1-HV-1669A	NSCW SPRAY VALVE	1X4DB133-2/33/G6	NSCT	195'-0"	R202	S		OPEN	OPEN	Y	1X3D-BD-K05W/6		
02023	B	08a	1-HV-1669B	NSCW TOWER BYPASS MOV	1X4DB133-2/33/F5	NSCT	220'-0"	R202	S		CLOSED	CLOSED	Y	1X3D-BD-K05X/5		
08008	A	08c	1-HV-3006A	INBOARD MSIV--SG 1	1X4DB159-2/22/H6	AUX	220'-0"	R108	S	2	OPEN	CLOSED	N	1X3D-BC-Q01S/15		
08009	B	08c	1-HV-3006B	OUTBOARD MSIV--SG 1	1X4DB159-2/22/H6	AUX	220'-0"	R108	S	2	OPEN	CLOSED	N	1X3D-BC-Q01T/13		
08010	A	08c	1-HV-3016A	INBOARD MSIV--SG 2	1X4DB159-2/22/F6	CONTROL	220'-0"	R123	S	2	OPEN	CLOSED	N	1X3D-BC-Q01W/13		
08011	B	08c	1-HV-3016B	OUTBOARD MSIV--SG 2	1X4DB159-2/22/F6	CONTROL	220'-0"	R123	S	2	OPEN	CLOSED	N	1X3D-BC-Q01X/14		
08012	A	08c	1-HV-3026A	INBOARD MSIV--SG 3	1X4DB159-2/22/D6	CONTROL	220'-0"	R123	S	2	OPEN	CLOSED	N	1X3D-BC-Q02A/13		
08013	B	08c	1-HV-3026B	OUTBOARD MSIV--SG 3	1X4DB159-2/22/D6	CONTROL	220'-0"	R123	S	2	OPEN	CLOSED	N	1X3D-BC-Q02B/13		
08014	A	08c	1-HV-3036A	INBOARD MSIV--SG 4	1X4DB159-2/22/B6	AUX	220'-0"	R108	S	2	OPEN	CLOSED	N	1X3D-BC-Q02E/13		

APPENDIX E
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<--- EQUIPMENT Building	Flr.Elv.	LOCATION ---> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
08015	B	08c	1-HV-3036B	OUTBOARD MSIV--SG 4	1X4DB159-2/22/B6	AUX	220'-0"	R108	S	2	OPEN	CLOSED	N	1X3D-BC-Q02F/14		
09012	B	08a	1-HV-5132	AFW PUMP B DISCHARGE MOV	1X4DB161-2/23/D3	CONTROL	195'-0"	RA56	S	3	OPEN	OPEN	Y	1X3D-BC-F08A/6		
09013	B	08a	1-HV-5134	AFW PUMP B DISCHARGE MOV	1X4DB161-2/23/C3	CONTROL	195'-0"	RA56	S	3	OPEN	OPEN	Y	1X3D-BC-F08B/6		
09014	A	08a	1-HV-5137	AFW PUMP A DISCHARGE MOV	1X4DB161-2/23/B3	AUX	195'-0"	RA12	S	3	OPEN	OPEN	Y	1X3D-BC-F08C/5		
09015	A	08a	1-HV-5139	AFW PUMP A DISCHARGE MOV	1X4DB161-2/23/A3	AUX	195'-0"	RA12	S	3	OPEN	OPEN	Y	1X3D-BC-F08D/5		
07009		08c	1-HV-5227	MFIV FOR SG 1	1X4DB168-3/23/F1	AUX	195'-0"	RA11	S	2	OPEN	CLOSED	N			
07010		08c	1-HV-5228	MFIV FOR SG 2	1X4DB168-3/23/F3	CONTROL	200'-0"	RA56	S	2	OPEN	CLOSED	N			
07011		08c	1-HV-5229	MFIV FOR SG 3	1X4DB168-3/23/F7	CONTROL	200'-0"	RA56	S	2	OPEN	CLOSED	N			
07012		08c	1-HV-5230	MFIV FOR SG 4	1X4DB168-3/23/F5	AUX	195'-0"	RA12	S	2	OPEN	CLOSED	N			
08016		07	1-HV-7603A	SG 1 BLOWDOWN ISOLATION AOV	1X4DB159-3/19/F2	AUX	180'-0"	RB08	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q01A/8		
08017		07	1-HV-7603B	SG 2 BLOWDOWN ISOLATION AOV	1X4DB159-3/19/B2	AUX	180'-0"	RB08	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q01B/7		
08018		07	1-HV-7603C	SG 3 BLOWDOWN ISOLATION AOV	1X4DB159-1/28/F2	AUX	180'-0"	RB08	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q01C/7		
08019		07	1-HV-7603D	SG 4 BLOWDOWN ISOLATION AOV	1X4DB159-1/28/B2	AUX	180'-0"	RB08	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q01D/8		
01010	A	08a	1-HV-8000A	PORV BLOCK VALVE	1X4DB112/27/E7	CTB	220'-0"	R110	S		OPEN	OPEN	Y	1X3D-BD-B02A/5		
01011	B	08a	1-HV-8000B	PORV BLOCK VALVE	1X4DB112/27/F7	CTB	220'-0"	R110	S		OPEN	OPEN	Y	1X3D-BD-B02B/7		
06041	A	08b	1-HV-8095A	REACTOR HEAD LETDOWN LINE ISOLATION SOV	1X4DB114/30/E5	CTB	183'-0"	RB02	S		CLOSED	OP/CL	Y	1X3D-BD-C05G/4		
06042	B	08b	1-HV-8095B	REACTOR HEAD LETDOWN LINE ISOLATION SOV	1X4DB114/30/E5	CTB	183'-0"	RB02	S		CLOSED	OP/CL	Y	1X3D-BD-C05F/4		
06043	A	08b	1-HV-8096A	REACTOR HEAD LETDOWN LINE ISOLATION SOV	1X4DB114/30/E5	CTB	183'-0"	RB02	S		CLOSED	OP/CL	Y	1X3D-BD-C05G/4		
06044	B	08b	1-HV-8096B	REACTOR HEAD LETDOWN LINE ISOLATION SOV	1X4DB114/30/E5	CTB	183'-0"	RB02	S		CLOSED	OP/CL	Y	1X3D-BD-C05F/4		
06017	B	08a	1-HV-8105	CHARGING TO REGEN HX MOV	1X4DB116-1/28/C8	AUX	195'-0"	RA09	S	4	OPEN	OP/CL	Y	1X3D-BD-C03G/6		
06018	A	08a	1-HV-8106	CHARGING DISCHARGE MOV	1X4DB116-1/28/C7	AUX	195'-0"	RA09	S	4	OPEN	CLOSED	Y	1X3D-BD-C03G/6		
06019	A	08a	1-HV-8110	CCP A & B COMMON MINIFLOW MOV	1X4DB116-2/17/E7	AUX	180'-0"	RB25	S	4	OPEN	CLOSED	Y	1X3D-BD-C03J/5		
06020	B	08a	1-HV-8111A	CCP A MINIFLOW MOV	1X4DB116-2/17/E6	AUX	143'-6"	RC114	S	4	OPEN	CLOSED	Y	1X3D-BD-C03K/4		
06021	B	08a	1-HV-8111B	CCP B MINIFLOW MOV	1X4DB116-2/17/D6	AUX	143'-6"	RC119	S	4	OPEN	CLOSED	Y	1X3D-BD-C05L/4		
06022	A	08a	1-HV-8116	CCP A SAFETY GRADE CHARGING ISO MOV	1X4DB116-2/17/G8	AUX	195'-0"	RA09	S	4	CLOSED	OPEN	Y	1X3D-BD-C05E/5		

APPENDIX E
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO. (1)	TRAIN (2)	EQUIP CLASS (3)	MARK NO. (4)	SYSTEM/EQUIPMENT DESCRIPTION (5)	Dwg. No./Rev./Zone (6)	<---- Building (7)	EQUIPMENT Flr.Elv. (8)	LOCATION -----> Rm. or Row/Col. (9)	SORT (10)	NOTES (11)	<-- OP. Normal (12)	ST. --> Desired (13)	POWER REQD? (14)	SUPPORTING SYS. DWG. NO./REV. (15)	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS (16)	REG. ISSUE (17)
06023		07	1-HV-8149A	LETDOWN ISOLATION AOV	1X4DB114/30/G6	CTB	183'-0"	RB03	S	5	OPEN	CLOSED	N			
06024		07	1-HV-8149B	LETDOWN ISOLATION AOV	1X4DB114/30/H5	CTB	183'-0"	RB03	S	5	OPEN	CLOSED	N			
06025		07	1-HV-8149C	LETDOWN ISOLATION AOV	1X4DB114/30/G5	CTB	183'-0"	RB03	S	5	OPEN	CLOSED	N			
06026	B	07	1-HV-8152	LETDOWN ISOLATION AOV	1X4DB114/30/G2	AUX	195'-0"	RA09	S	2,5	OPEN	CLOSED	N	1X3D-BD-C03Y/3		
06027		07	1-HV-8154	EXCESS LETDOWN ISOLATION AOV	1X4DB114/30/F3	CTB	183'-0"	RB03	S	5	CLOSED	CLOSED	N			
06028	A	07	1-HV-8160	LETDOWN ISOLATION AOV	1X4DB114/30/G3	CONTROL	220'-0"	R163	S	2,5	OPEN	CLOSED	N	1X3D-BD-C04A/6		
06029	A	08a	1-HV-8485A	CCP A DISCHARGE ISO MOV	1X4DB116-2/17/G7	AUX	143'-6"	RC114	S		OPEN	CLOSED	Y	1X3D-BD-C05A/4		
06030	B	08a	1-HV-8485B	CCP B DISCHARGE MOV	1X4DB116-2/17/C7	AUX	143'-6"	RC119	S		OPEN	CLOSED	Y	1X3D-BD-C05B/4		
06031	A	08a	1-HV-8508A	CCP A ALT. MINIFLOW MOV	1X4DB116-2/17/F6	AUX	143'-6"	RC114	S	4	CLOSED	OP/CL	Y	1X3D-BD-C01T/3		
06032	B	08a	1-HV-8508B	CCP B ALT. MINIFLOW MOV	1X4DB116-2/17/D5	AUX	143'-6"	RC119	S	4	CLOSED	OP/CL	Y	1X3D-BD-C01U/3		
05012	A	08a	1-HV-8701A	RCS TO RHR PUMP A SUCTION MOV	1X4DB122/28/G2	CTB	180'-0"	RB03	S		CLOSED	OPEN	Y	1X3D-BD-E02G/6		
05013	A	08a	1-HV-8701B	RCS TO RHR PUMP A SUCTION MOV	1X4DB122/28/G2	CTB	180'-0"	RB02	S		CLOSED	OPEN	Y	1X3D-BD-E02H/7		
05014	B	08a	1-HV-8702A	RCS TO RHR PUMP B SUCTION MOV	1X4DB122/28/D2	CTB	180'-0"	RB03	S		CLOSED	OPEN	Y	1X3D-BD-E02J/7		
05015	B	08a	1-HV-8702B	RCS TO RHR PUMP B SUCTION MOV	1X4DB122/28/D2	CTB	180'-0"	RB03	S		CLOSED	OPEN	Y	1X3D-BD-E02K/7		
05016	A	08a	1-HV-8716A	RHR TRAIN A TO RCS HOT LEG ISOLATION MOV	1X4DB122/28/F7	AUX	119'-0"	RD48	S		OPEN	CLOSED	Y	1X3D-BD-E02N/5		
05017	B	08a	1-HV-8716B	RHR TRAIN B TO RCS HOT LEG ISOLATION MOV	1X4DB122/28/D7	AUX	119'-0"	RD49	S		OPEN	CLOSED	Y	1X3D-BD-E02P/5		
04012	B	08a	1-HV-8801B	BIT DISCHARGE TO RCS MOV	1X4DB119/24/E5	AUX	195'-0"	RA13	S	4	CLOSED	OPEN	Y	1X3D-BD-D02F/6		
05022	A	08a	1-HV-8812A	RWST TO RHR PUMP A SUCTION MOV	1X4DB122/28/E4	AUX	119'-0"	RD48	S		OPEN	CLOSED	Y	1X3D-BD-E02E/7		
05023	B	08a	1-HV-8812B	RWST TO RHR PUMP B SUCTION MOV	1X4DB122/28/C4	AUX	119'-0"	RD49	S		OPEN	CLOSED	Y	1X3D-BD-E02F/6		
04017	A	08b	1-HV-8875A	ACCUMULATOR 1 NITROGEN VENT--SOLENOID OPERATED VALVE	1X4DB120/16/H3	CTB	183'-0"	RB03	S		CLOSED	OPEN	Y	1X3D-BD-D04H/5		
04018	A	08b	1-HV-8875B	ACCUMULATOR 2 NITROGEN VENT--SOLENOID OPERATED VALVE	1X4DB120/16/F3	CTB	183'-0"	RB10	S		CLOSED	OPEN	Y	1X3D-BD-D04H/5		
04019	A	08b	1-HV-8875C	ACCUMULATOR 3 NITROGEN VENT--SOLENOID OPERATED VALVE	1X4DB120/16/D3	CTB	183'-0"	RB10	S		CLOSED	OPEN	Y	1X3D-BD-D04H/5		
04020	A	08b	1-HV-8875D	ACCUMULATOR 4 NITROGEN VENT--SOLENOID OPERATED VALVE	1X4DB120/16/B3	CTB	183'-0"	RB03	S		CLOSED	OPEN	Y	1X3D-BD-D04H/5		
04021	B	08b	1-HV-8875E	ACCUMULATOR 1 NITROGEN VENT--SOLENOID OPERATED VALVE	1X4DB120/16/G3	CTB	183'-0"	RB03	S		CLOSED	OPEN	Y	1X3D-BD-D04H/5		

APPENDIX E
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO. (1)	TRAIN (2)	EQUIP CLASS (3)	MARK NO. (4)	SYSTEM/EQUIPMENT DESCRIPTION (5)	Dwg. No./Rev./Zone (6)	<---------- Building (7)	EQUIPMENT Flr.Elv. (8)	LOCATION -----> Rm. or Row/Col. (9)	SORT (10)	NOTES (11)	<-- OP. Normal (12)	ST. --> Desired (13)	POWER REQD? (14)	SUPPORTING SYS. DWG. NO./REV. (15)	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS (16)	REG. ISSUE (17)
04022	B	08b	1-HV-8875F	ACCUMULATOR 2 NITROGEN VENT--SOLENOID OPERATED VALVE	1X4DB120/16/E3	CTB	183'-0"	RB10	S		CLOSED	OPEN	Y	1X3D-BD-D04H/5		
04023	B	08b	1-HV-8875G	ACCUMULATOR 3 NITROGEN VENT--SOLENOID OPERATED VALVE	1X4DB120/16/D3	CTB	183'-0"	RB10	S		CLOSED	OPEN	Y	1X3D-BD-D04H/5		
04024	B	08b	1-HV-8875H	ACCUMULATOR 4 NITROGEN VENT--SOLENOID OPERATED VALVE	1X4DB120/16/B3	CTB	183'-0"	RB03	S		CLOSED	OPEN	Y	1X3D-BD-D04H/5		
06054	A	19	1-HY-0190A	I/P CONVERTER FOR HV-0190A	1X4DB116-2/17/H7	AUX	195'-0"	RA05	S				Y	1X3D-BD-C05H/5		
06055	B	19	1-HY-0190B	I/P CONVERTER FOR HV-0190B	1X4DB116-2/17/B7	AUX	143'-6"	RC119	S				Y	1X3D-BD-C05H/5		
06056	A	19	1-HY-0442A	I/P CONVERTER FOR HV-0442A	1X4DB112/27/H4	CONTROL	180'-0"	RB78	S				Y	1X3D-BD-C05H/5		
06057	B	19	1-HY-0442B	I/P CONVERTER FOR HV-0442B	1X4DB112/27/G4	CONTROL	180'-0"	RB74	S				Y	1X3D-BD-D05K		
04030	A	19	1-HY-0943A	I/P CONVERTER FOR HV-0943A	1X4DB120/16/F1	CONTROL	180'-0"	RB78	S				Y	1X3D-BD-D05J		
04031	B	19	1-HY-0943B	I/P CONVERTER FOR HV-0943B	1X4DB120/16/D1	CONTROL	180'-0"	RB74	S				Y	1X3D-BD-D05K		
06049		08b	1-HY-8149A	SOLENOID VALVE FOR 1-HV-8149A	1X4DB114/30/G5	CTB	183'-0"	RB03	S							
06050		08b	1-HY-8149B	SOLENOID VALVE FOR 1-HV-8149B	1X4DB114/30/H5	CTB	183'-0"	RB03	S							
06051		08b	1-HY-8149C	SOLENOID VALVE FOR 1-HV-8149C	1X4DB114/30/G5	CTB	183'-0"	RB03	S							
06052		08b	1-HY-8154	SOLENOID VALVE FOR 1-HV-8154	1X4DB114/30/F3	CTB	183'-0"	RB03	S							
06053		08b	1-HY-8160	SOLENOID VALVE FOR 1-HV-8160	1X4DB114/30/H3	CTB	220'-0"	R163	S							
11024	A	19	1-LSH-9020	F.O. DAY TANK 3 LEVEL	1X4DB170-1/29/D4	DG	220'-0"	R1102	S				Y	1DCHM09F, 1X3DH7D6, 1DBHG01X,		
11025	B	19	1-LSH-9021	F.O. DAY TANK 4 LEVEL	1X4DB170-2/27/D4	DG	220'-0"	R1104	S				Y	1DCHM09F, 1X3DH7D1, 1DBHG02B,		
11026	A	19	1-LSL-9020	F.O. DAY TANK 3 LEVEL	1X4DB170-1/29/D3	DG	220'-0"	R1102	S				Y	1DCHM09F, 1X3DH7D6, 1DBHG01X,		
11027	B	19	1-LSL-9021	F.O. DAY TANK 4 LEVEL	1X4DB170-2/27/D3	DG	220'-0"	R1104	S				Y	1DCHM09F, 1X3DH7D1, 1DBHG02B,		
03012	A	19	1-LSLL-1852	CCW SURGE TK 1 LEVEL	1X4DB136/25/F6	AUX	245'-0"	R203	S				Y	1DCHH11L, 1X3DF426, 1DBDL01A,		
03013	B	19	1-LSLL-1853	CCW SURGE TK 2 LEVEL	1X4DB136/25/B6	AUX	245'-0"	R202	S				Y	1DCHH11L, 1X3DF426, 1DBDL01B,		

APPENDIX E
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO. (1)	TRAIN (2)	EQUIP CLASS (3)	MARK NO. (4)	SYSTEM/EQUIPMENT DESCRIPTION (5)	Dwg. No./Rev./Zone (6)	<---------- Building (7)	EQUIPMENT Flr.Elv. (8)	LOCATION -----> Rm. or Row/Col. (9)	SORT (10)	NOTES (11)	<-- OP. Normal (12)	ST. --> Desired (13)	POWER REQD? (14)	SUPPORTING SYS. DWG. NO./REV. (15)	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS (16)	REG. ISSUE (17)
03014	A	19	1-LSLL-1854	CCW SURGE TK 1 LEVEL	1X4DB136/25/F5	AUX	245'-0"	R203	S				Y	1DCHH11L, 1X3DF426, 1D80L01C,		
03015	B	19	1-LSLL-1855	CCW SURGE TK 2 LEVEL	1X4DB136/25/B6	AUX	245'-0"	R202	S				Y	1DCHH11L, 1X3DF426, 1D80L01D,		
06033		19	1-LT-0112	VCT LEVEL	1X4DB116-1/28/G3	AUX	195'-0"	RA30	S				Y	1X3D-CD-L03A, 1X6AU01-377, 1X5DV-001		
06034		19	1-LT-0185	VCT LEVEL	1X4DB116-1/28/G3	AUX	195'-0"	RA30	S				Y	1X3D-CD-L03G, 1X6AU01-463, 1X5DV-001		
01012	A	19	1-LT-0459	PRESSURIZER LEVEL	1X4DB112/27/C8	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02A, 1X6AU01-167		
01013	B	19	1-LT-0460	PRESSURIZER LEVEL	1X4DB112/27/C7	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02C, 1X6AU01-167		
01014	C	19	1-LT-0461	PRESSURIZER LEVEL	1X4DB112/27/C5	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02E, 1X6AU01-167		
08020	A	19	1-LT-0501	SG 1 WIDE RANGE LEVEL	1X4DB159-3/19/F5	CTB	183'-0"	RB03	S				Y	1X3D-CD-C02A, 1X6AU01-190		
08021	B	19	1-LT-0502	SG 2 WIDE RANGE LEVEL	1X4DB159-3/19/B5	CTB	183'-0"	RB10	S				Y	1X3D-CD-C02C, 1X6AU01-190		
08022	B	19	1-LT-0503	SG 3 WIDE RANGE LEVEL	1X4DB159-1/28/F5	CTB	183'-0"	RB10	S				Y	1X3D-CD-C02C, 1X6AU01-190		
08023	C	19	1-LT-0504	SG 4 WIDE RANGE LEVEL	1X4DB159-1/28/B5	CTB	183'-0"	RB03	S				Y	1X3D-CD-C02E, 1X6AU01-190		
08024	D	19	1-LT-0517	SG 1 NARROW RANGE LEVEL	1X4DB159-3/19/F7	CTB	220'-0"	R102	S				Y	1X3D-CD-C02G, 1X6AU01-176		
08025	C	19	1-LT-0518	SG 1 NARROW RANGE LEVEL	1X4DB159-3/19/F7	CTB	220'-0"	R101	S				Y	1X3D-CD-C02E, 1X6AU01-175		
08026	B	19	1-LT-0519	SG 1 NARROW RANGE LEVEL	1X4DB159-3/19/F7	CTB	220'-0"	R101	S				Y	1X3D-CD-C02C, 1X6AU01-173		
08027	D	19	1-LT-0527	SG 2 NARROW RANGE LEVEL	1X4DB159-3/19/C7	CTB	220'-0"	R101	S				Y	1X3D-CD-C02G, 1X6AU01-176		
08028	C	19	1-LT-0528	SG 2 NARROW RANGE LEVEL	1X4DB159-3/19/C7	CTB	220'-0"	R101	S				Y	1X3D-CD-C02E, 1X6AU01-175		
08029	A	19	1-LT-0529	SG 2 NARROW RANGE LEVEL	1X4DB159-3/19/C7	CTB	220'-0"	R101	S				Y	1X3D-CD-C02A, 1X6AU01-173		

APPENDIX E
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
08030	D	19	1-LT-0537	SG 3 NARROW RANGE LEVEL	1X4DB159-1/28/F7	CTB	220'-0"	R101	S				Y	1X3D-CD-C02G, 1X6AU01-176		
08031	C	19	1-LT-0538	SG 3 NARROW RANGE LEVEL	1X4DB159-1/28/F7	CTB	220'-0"	R101	S				Y	1X3D-CD-C02E, 1X6AU01-175		
08032	A	19	1-LT-0539	SG 3 NARROW RANGE LEVEL	1X4DB159-1/28/F7	CTB	220'-0"	R101	S				Y	1X3D-CD-C02A, 1X6AU01-173		
08033	D	19	1-LT-0547	SG 4 NARROW RANGE LEVEL	1X4DB159-1/28/C6	CTB	220'-0"	R101	S				Y	1X3D-CD-C02G, 1X6AU01-176		
08034	C	19	1-LT-0548	SG 4 NARROW RANGE LEVEL	1X4DB159-1/28/C7	CTB	220'-0"	R101	S				Y	1X3D-CD-C02E, 1X6AU01-175		
08035	B	19	1-LT-0549	SG 4 NARROW RANGE LEVEL	1X4DB159-1/28/C7	CTB	220'-0"	R101	S				Y	1X3D-CD-C02G, 1X6AU01-173		
08064	A	19	1-LT-0551	SG 1 NARROW RANGE LEVEL	1X4DB159-3/19/F5	CTB	220'-0"	R101	S				Y	1X6AU01-203/8		
08065	B	19	1-LT-0552	SG 2 NARROW RANGE LEVEL	1X4DB159-3/19/C5	CTB	220'-0"	R101	S				Y	1X6AU01-203/8		
08066	B	19	1-LT-0553	SG 3 NARROW RANGE LEVEL	1X4DB159-1/28/F5	CTB	220'-0"	R101	S				Y	1X6AU01-203/8		
08067	A	19	1-LT-0554	SG 4 NARROW RANGE LEVEL	1X4DB159-1/28/C5	CTB	220'-0"	R101	S				Y	1X6AU01-203/8		
04026	A	19	1-LT-0990	RWST LEVEL	1X4DB121/26/H1	RWST	220'-0"	R101	S				Y	1X3D-CD-C02A, 1X6AU01-201		
04027	B	19	1-LT-0991	RWST LEVEL	1X4DB121/26/G1	RWST	220'-0"	R101	S				Y	1X3D-CD-C02C, 1X6AU01-201		
04028	C	19	1-LT-0992	RWST LEVEL	1X4DB121/26/G1	RWST	220'-0"	R101	S				Y	1X3D-CD-C02E, 1X6AU01-201		
04029	D	19	1-LT-0993	RWST LEVEL	1X4DB121/26/G1	RWST	220'-0"	R101	S				Y	1X3D-CD-C02G, 1X6AU01-201		
09016	A	19	1-LT-5111	CST NO. 1 LEVEL CONDENSATE STORAGE TANK	1X4DB161-1/23/E7	CST NO. 1	220'-0"		S				Y	1X3D-CE-B12F, 1X6AU01-945		
06035	A	08a	1-LV-0112B	VCT DISCHARGE ISOLATION MOV	1X4DB116-1/28/F4	AUX	195'-0"	RA26	S	4	OPEN	CLOSED	Y	1X3D-BD-C02F/7		
06036	B	08a	1-LV-0112C	VCT DISCHARGE ISOLATION MOV	1X4DB116-1/28/E4	AUX	195'-0"	RA26	S	4	OPEN	CLOSED	Y	1X3D-BD-C02G/7		
06037	A	08a	1-LV-0112D	CCP SUCTION FROM RWST MOV	1X4DB116-2/17/E2	AUX	143'-6"	RC113	S	4	CLOSED	OPEN	Y	1X3D-BD-C02H/9		
06038	B	08a	1-LV-0112E	CCP SUCTION FROM RWST MOV	1X4DB116-2/17/D2	AUX	143'-6"	RC120	S	4	CLOSED	OPEN	Y	1X3D-BD-C02J/6		
14003	A	19	1-NE-0041	NIS DETECTOR--CH.1	1X6AA02-424	CTB			S				Y	1X3D-CD-D06A, 1X6AU01-273, 1X5DSP002		

APPENDIX E
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO. (1)	TRAIN (2)	EQUIP CLASS (3)	MARK NO. (4)	SYSTEM/EQUIPMENT DESCRIPTION (5)	Dwg. No./Rev./Zone (6)	<---------- Building (7)	EQUIPMENT Flr.Elv. (8)	LOCATION -----> Rm. or Row/Col. (9)	SORT (10)	NOTES (11)	<-- OP. Normal (12)	ST. --> Desired (13)	POWER REQ? (14)	SUPPORTING SYS. DWG. NO./REV. (15)	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS (16)	REG. ISSUE (17)
14004	B	19	1-NE-0042	NIS DETECTOR--CH.2	1X6AA02-424	CTB			S				Y	1X3D-CD-D06A, 1X6AU01-273, 1X5DSP002		
14005	C	19	1-NE-0043	NIS DETECTOR--CH.3	1X6AA02-424	CTB			S				Y	1X3D-CD-D06B, 1X6AU01-273, 1X5DSP002		
14006	D	19	1-NE-0044	NIS DETECTOR--CH.4	1X6AA02-424	CTB			S				Y	1X3D-CD-D06B, 1X6AU01-273, 1X5DSP002		
06039	A	00	1-PSV-8510A	CCP A ALT MINIFLOW	1X4DB116-2/17/F4	AUX	143'-6"	RC114	S		CLOSED	OP/CL	N			
06040	B	00	1-PSV-8510B	CCP B ALT MINIFLOW	1X4DB116-2/17/E4	AUX	143'-6"	RC119	S		CLOSED	OP/CL	N			
01019	A	19	1-PT-0455	PRESSURIZER PRESSURE	1X4DB112/27/C7	CTB	183'-0"	RB03	S				Y	1X3D-CD-C02A, 1X6AU01-168		
01020	B	19	1-PT-0456	PRESSURIZER PRESSURE	1X4DB112/27/C6	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02C, 1X6AU01-168		
01021	C	19	1-PT-0457	PRESSURIZER PRESSURE	1X4DB112/27/C5	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02E, 1X6AU01-168		
01022	D	19	1-PT-0458	PRESSURIZER PRESSURE	1X4DB112/27/C5	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02G, 1X6AU01-168		
08040	A	19	1-PT-0514	SG 1 PRESSURE	1X4DB159-2/22/G2	AUX	195'-0"	RA09	S				Y	1X3D-CD-C02A, 1X6AU01-169		
08041	B	19	1-PT-0515	SG 1 PRESSURE	1X4DB159-2/22/G3	AUX	195'-0"	RA09	S				Y	1X3D-CD-C02C, 1X6AU01-171		
08042	D	19	1-PT-0516	SG 1 PRESSURE	1X4DB159-2/22/G2	AUX	195'-0"	RA09	S				Y	1X3D-CD-C02G, 1X6AU01-177		
08043	A	19	1-PT-0524	SG 2 PRESSURE	1X4DB159-2/22/E2	CONTROL	200'-0"	RA62	S				Y	1X3D-CD-C02A, 1X6AU01-169		
08044	B	19	1-PT-0525	SG 2 PRESSURE	1X4DB159-2/22/F3	CONTROL	200'-0"	RA62	S				Y	1X3D-CD-C02C, 1X6AU01-172		
08045	C	19	1-PT-0526	SG 2 PRESSURE	1X4DB159-2/22/F3	CONTROL	200'-0"	RA62	S				Y	1X3D-CD-C02E, 1X6AU01-177		
08046	A	19	1-PT-0534	SG 3 PRESSURE	1X4DB159-2/22/C2	CONTROL	200'-0"	RA51	S				Y	1X3D-CD-C02A, 1X6AU01-170		
08047	B	19	1-PT-0535	SG 3 PRESSURE	1X4DB159-2/22/D2	CONTROL	220'-0"	RA51	S				Y	1X3D-CD-C02C, 1X6AU01-171		
08048	C	19	1-PT-0536	SG 3 PRESSURE	1X4DB159-2/22/D3	CONTROL	220'-0"	RA51	S				Y	1X3D-CD-C02E, 1X6AU01-177		

APPENDIX E
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO. (1)	TRAIN (2)	EQUIP CLASS (3)	MARK NO. (4)	SYSTEM/EQUIPMENT DESCRIPTION (5)	Dwg. No./Rev./Zone (6)	<---------- Building (7)	EQUIPMENT Flr.Elv. (8)	LOCATION -----> Rm. or Row/Col. (9)	SORT (10)	NOTES (11)	<-- OP. Normal (12)	ST. --> Desired (13)	POWER REQD? (14)	SUPPORTING SYS. DWG. NO./REV. (15)	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS (16)	REG. ISSUE (17)
08049	A	19	1-PT-0544	SG 4 PRESSURE	1X4DB159-2/22/B2	AUX	220'-0"	R107	S				Y	1X3D-CD-C02A, 1X6AU01-170		
08050	B	19	1-PT-0545	SG 4 PRESSURE	1X4DB159-2/22/B2	AUX	220'-0"	R107	S				Y	1X3D-CD-C02C, 1X6AU01-172		
08051	D	19	1-PT-0546	SG 4 PRESSURE	1X4DB159-2/22/B3	AUX	220'-0"	R110	S				Y	1X3D-CD-C02G, 1X6AU01-177		
02024	A	19	1-PT-11741	NSCW SUPPLY TO PUMP MOTOR COOLERS	1X4DB134/20/E5	AUX	119'-3"	RD75	S				Y	1X3D-CE-B12E, 1X6AU01-1056		
02025	B	19	1-PT-11742	NSCW SUPPLY TO PUMP MOTOR COOLERS	1X4DB134/20/B3	AUX	119'-3"	RD67	S				Y	1X3D-CE-B12H, 1X6AU01-1058		
08052	A	19	1-PT-3000	SG 1 PRESSURE TO ARV TRANSMITTER	1X4BD159-2/22/G3	AUX	195'-0"	RA09	S				Y	1X3D-CE-B12F, 1X6AU01-608		
08053	B	19	1-PT-3010	SG 2 PRESSURE TO ARV TRANSMITTER	1X4DB159-2/22/F3	CONTROL	200'-0"	RA62	S				Y	1X3D-CE-B12F, 1X6AU01-608		
08054	B	19	1-PT-3020	SG 3 PRESSURE TO ARV TRANSMITTER	1X4DB159-2/22/D3	CONTROL	200'-0"	RA51	S				Y	1X3D-CE-B12F, 1X6AU01-608		
08055	A	19	1-PT-3030	SG 4 PRESSURE TO ARV TRANSMITTER	1X4DB159-2/22/B3	AUX	220'-0"	R107	S				Y	1X3D-CE-B12F, 1X6AU01-608		
01023	A	08b	1-PV-0455A	PRESSURIZER PORV	1X4DB112/27/E8	CTB	220'-0"	1401	S		CLOSED	OP/CL	Y	1X3D-BD-B03H/B		
01024	B	08b	1-PV-0456A	PRESSURIZER PORV	1X4DB112/27/F8	CTB	220'-0"	R110	S		CLOSED	OP/CL	Y	1X3D-BD-B03F/B		
10088	A	08a	1-PV-2550A	PPG PEN FILTRATION AND EXHAUST UNIT DISCHARGE DAMPER	1X4DB205-1/21/E2	AUX	245'-0"	R210	S		CLOSED	OPEN	Y	1X3D-BG-D01L/3		
10089	B	08a	1-PV-2551A	PPG PEN FILTRATION AND EXHAUST UNIT DISCHARGE DAMPER	1X4DB205-1/21/E6	AUX	245'-0"	R209	S		CLOSED	OPEN	Y	1X3D-BG-D01M/3		
08056	A	08c	1-PV-3000	ATMOS. RELIEF VALVE--SG 1	1X4DB159-2/22/H2	AUX	245'-0"	R206	S		CLOSED	OP/CL	Y	1X3D-BC-Q03Q/7, 1X3D-BC-Q03P/4		
08057	B	08c	1-PV-3010	ATMOS. RELIEF VALVE--SG 2	1X4DB159-2/22/F2	CONTROL	220'-0"	R121	S		CLOSED	OP/CL	Y	1X3D-BC-Q03R/7, 1X3D-BC-Q03P/4		
08058	B	08c	1-PV-3020	ATMOS. RELIEF VALVE--SG 3	1X4DB159-2/22/D2	CONTROL	220'-0"	R122	S		CLOSED	OP/CL	Y	1X3D-BC-Q03R/7, 1X3D-BC-Q03P/4		
08059	A	08c	1-PV-3030	ATMOS. RELIEF VALVE--SG 4	1X4DB159-2/22/C2	AUX	220'-0"	R108	S		CLOSED	OP/CL	Y	1X3D-BC-Q03Q/7, 1X3D-BD-Q03P/4		
08060	A	19	1-PY-3000	SG 1 PRESSURE TO ARV CONTROLLER	1X4DB159-2/22/G3	AUX	245'-0"	R204	S				Y	1X3D-CE-B12F, 1X6AU01-608		
08061	B	19	1-PY-3010	SG 2 PRESSURE TO ARV CONTROLLER	1X4DB159-2/22/F3	CONTROL	200'-0"	RA60	S				Y	1X3D-CE-B12F, 1X6AU01-608		

APPENDIX E
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO. (1)	TRAIN (2)	EQUIP CLASS (3)	MARK NO. (4)	SYSTEM/EQUIPMENT DESCRIPTION (5)	Dwg. No./Rev./Zone (6)	<------ Building (7)	EQUIPMENT Flr.Elv. (8)	LOCATION ------> Rm. or Row/Col. (9)	SORT (10)	NOTES (11)	<-- OP. Normal (12)	ST. --> Desired (13)	POWER REQD? (14)	SUPPORTING SYS. DWG. NO./REV. (15)	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS (16)	REG. ISSUE (17)
08062	C	19	1-PY-3020	SG 3 PRESSURE TO ARV CONTROLLER	1X4DB159-2/22/D3	CONTROL	200'-0"	RA60	S				Y	1X3D-CE-B12F, 1X6AU01-606		
08063	D	19	1-PY-3030	SG 4 PRESSURE TO ARV CONTROLLER	1X4DB159-2/22/B3	AUX	245'-0"	R204	S				Y	1X3D-CE-B12F, 1X6AU01-608		
10106	A	19	1-TDC-4170	ECW COND/EVAP TEMP DIFF TO NSCW CONTROL VLV 1-TV-11740	1X4DB221/22/ 2	CONTROL	260'-0"	R320	S				Y			
10107	B	19	1-TDC-4193	ECW COND/EVAP TEMP DIFF TO NSCW CONTROL VLV 1-TV-11675	1X4DB221/22/C2	CONTROL	260'-0"	R313	S				Y			
01025	A	19	1-TE-0413A	RCS HOT LEG TEMP--LOOP 1	1X4DB111/20/D6	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02A, 1X6AU01-161		
01026	A	19	1-TE-0413B	RCS COLD LEG TEMP--LOOP 1	1X4DB111/20/B6	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02B, 1X6AU01-162		
01027	B	19	1-TE-0423A	RCS HOT LEG TEMP--LOOP 2	1X4DB111/20/F6	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02A, 1X6AU01-161		
01028	B	19	1-TE-0423B	RCS COLD LEG TEMP--LOOP 2	1X4DB111/20/G6	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02B, 1X6AU01-162		
01029	C	19	1-TE-0433A	RCS HOT LEG TEMP--LOOP 3	1X4DB111/20/F3	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02A, 1X6AU01-161		
01030	C	19	1-TE-0433B	RCS COLD LEG TEMP--LOOP 3	1X4DB111/20/G3	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02B, 1X6AU01-162		
01031	D	19	1-TE-0443A	RCS HOT LEG TEMP--LOOP 4	1X4DB111/20/D3	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02A, 1X6AU01-161		
01032	D	19	1-TE-0443B	RCS COLD LEG TEMP--LOOP 4	1X[illegible]B111/20/C3	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02B, 1X6AU01-162		
02026	A	19	1-TE-11641	NSCW A RETURN TO FAN 1 CONTROL	1X4DB133-1/28/G4	NSCT	220'-0"	R102	S				Y	1X3D-CE-B12F, 1X6AU01-610		
02027	A	19	1-TE-11642	NSCW A RETURN TO FAN 2 CONTROL	1X4DB133-1/28/G4	NSCT	220'-0"	R102	S				Y	1X3D-CE-B12F, 1X6AU01-610		
02028	A	19	1-TE-11643	NSCW A RETURN TO FAN 3 CONTROL	1X4DB133-1/28/G4	NSCT	220'-0"	R102	S				Y	1X3D-CE-B12F, 1X6AU01-610		
02038	A	19	1-TE-11644	NSCW A RETURN TO FAN 4 CONTROL	1X4DB133-1/28/G4	NSCT	220'-0"	R102	S				Y	1X5DY068/6		
02029	B	19	1-TE-11646	NSCW B RETURN TO FAN 1 CONTROL	1X4DB133-2/33/G4	NSCT	220'-0"	R202	S				Y	1X3D-CE-B12H, 1X6AU01-610		
02030	B	19	1-TE-11647	NSCW B RETURN TO FAN 2 CONTROL	1X4DB133-2/33/G4	NSCT	220'-0"	R202	S				Y	1X3D-CE-B12H, 1X6AU01-610		
02031	B	19	1-TE-11648	NSCW B RETURN TO FAN 3 CONTROL	1X4DB133-2/33/G4	NSCT	220'-0"	R202	S				Y	1X3D-CE-B12H, 1X6AU01-610		

APPENDIX E
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	EQUIPMENT Flr.Elv.	LOCATION Rm. or Row/Col.	SORT	NOTES	OP. ST. Normal	OP. ST. Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
02039	B	19	1-TE-11649	NSCW B RETURN TO FAN 4 CONTROL	1X4DB133-2/33/G4	NSCT	220'-0"	R202	S				Y	1X5DV072/6		
10029	A	19	1-TE-12124	CB CR RETURN AIR TEMP	AX4DB206-3/24/B2	CONTROL	260'-0"	R321	S				Y	1X5DV-428		
10030	B	19	1-TE-12125	CB CR RETURN AIR TEMP	AX4DB206-3/24/E2	CONTROL	260'-0"	R312	S				Y	1X5DV-429		
10037	B	19	1-TE-12725	ELEC EQUIP RM TEMP	1X4DB207-1/21/B8	CONTROL	180'-0"	RB49	S				Y	1X5DV-431		
10038	A	19	1-TE-12740	ELEC EQUIP RM TEMP	1X4DB207-1/21/E7	CONTROL	180'-0"	RB54	S				Y	1X5DV-430		
02032	A	19	1-TE-1668	NSCW A RETURN TO SPRAY/BYPASS VALVES	1X4DB133-1/28/G5	NSCT	220'-0"	R102	S				Y	1X3D-CE-B12F, 1X6AU01-634		
02033	B	19	1-TE-1669	NSCW B RETURN TO SPRAY/BYPASS VALVES	1X4DB133-2/33/G5	NSCT	220'-0"	R202	S				Y	1X3D-CE-B12H, 1X6AU01-634		
10043	A	19	1-TIC-13150	CB NORMAL A/C RM ESF A/C UNIT CONTROLLER	AX4DB216/12/E5	CONTROL	260'-0"	R325	S				Y	1DCHL13W, 1X3DF305, 1DBGC07R,		
10044	B	19	1-TIC-13152	CB ELEC EQUIP RM ESF A/C UNIT CONTROLLER	AX4DB216/12/G3	CONTROL	260'-0"	R325	S				Y	1DCHL13W, 1X3DF315, 1DBGC07S,		
10114	B	19	1-TIS-12005	AFW PUMP B ROOM SUPPLY FAN CONTROLLER	1X4DB227/11/E6	AFWP HOUSE	220'-0"	R102	S				Y	1X3D-BG-G03B		
10115	A	19	1-TIS-12006	AFW PUMP A ROOM SUPPLY FAN CONTROLLER	1X4DB227/11/C6	AFWP HOUSE	220'-0"	R101	S				Y	1X3D-BG-G03A		
10141	B	19	1-TIS-12300	CBCR CHILLER RM VENT FAN CONTROLLER	AX4DB241/12/D6	CONTROL	260'-0"	R312	S				Y	1X3D-BG-C02J		
10142	A	19	1-TIS-12303	CBCR CHILLER RM VENT FAN CONTROLLER	AX4DB241/12/B5	CONTROL	260'-0"	R320	S				Y	1X3D-BG-C01B		
10072	A	19	1-TISH-12200	ELECT SWGR & MCC RM A7001 COOLER CONTROLLER	1X4DB228/10/G8	AUX	119'-3"	RD105	S				Y	1DCHH01W, 1X3DF421, 1DBGD05A,		
10073	B	19	1-TISH-12201	ELECT SWGR & MCC RM A7002 COOLER CONTROLLER	1X4DB228/10/G7	AUX	245'-0"	R207	S				Y	1DCHH12B, 1X3DF416, 1DBGD05B,		
10074	A	19	1-TISH-12202	ELECT SWGR & MCC RM A7003 COOLER CONTROLLER	1X4DB228/10/G5	AUX	143'-6"	RC109	S				Y	1DCHH05W, 1X3DF422, 1DBGD05C,		
10075	B	19	1-TISH-12203	ELECT SWGR & MCC RM A7004 COOLER CONTROLLER	1X4DB228/10/G4	AUX	180'-0"	RB116	S				Y	1DCHH05W, 1X3DF423, 1DBGD05D,		
10076	A	19	1-TISH-12204	ELECT SWGR & MCC RM A7005 COOLER CONTROLLER	1X4DB228/10/G3	AUX	220'-0"	R117	S				Y	1DCHH10A, 1X3DF415, 1DBGD05E,		

APPENDIX E
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<--------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10077	B	19	1-TISH-12205	ELECT SWGR & MCC RM A7006 COOLER CONTROLLER	1X4DB228/10/G2	AUX	220'-0"	R118	S				Y	1DCHH10A, 1X3DF415, 1DBGD05F,		
10116	A	19	1-TISH-22501	DIESEL POWER CABLE TUNNEL EXH FAN CONTROLLER	1X4DB238/9/G7	DG	220'-0"		S				Y	1X3D-BG-K01C		
10050	B	19	1-TISH-22505	DIESEL POWER CABLE TUNNEL EXH FAN CONTROLLER	1X4DB238/9/F7	TUNNEL	220'-0"	1T4B @ DGB	S				Y	1X3D-BG-K01D		
10051	A	19	1-TISH-22509	TB & AB TRAIN A TUNNEL SUPPLY FAN CONTROLLER	1X4DB238/9/D7	CONTROL	180'-0"	R841	S				Y	1DCHL05R, 1X3DF380, 1DBGK01E,		
10052	A	19	1-TISH-22516	NSCW TWR CABLE TUNN TRN A FAN CONTROLLER	1X4DB238/9/G3	TUNNEL	220'-0"	1T5A @ NSCW	S				Y	1DAAA00Q, 1X3DH7E2, 1DBGK01C,		
10053	B	19	1-TISH-22519	NSCW TWR CABLE TUNN TRN B FAN CONTROLLER	1X4DB238/9/F3	TUNNEL	220'-0"	1T5B @ NSCW	S				Y	1DAAA00Q, 1X3DH7F1, 1DBGK01D,		
02034	B	08c	1-TV-11675	NSCW TO ESSENTIAL CHILLER CONDENSER (E/H) CONTROL VLV	1X4DB135-2/21/B5	CONTROL	260'-0"	R313	S		OPEN	OPEN	Y	1X5DV333/1		
02035	A	08c	1-TV-11740	NSCW TO ESSENTIAL CHILLER CONDENSER (E/H) CONTROL VLV	1X4DB134/20/G2	CONTROL	260'-0"	R320	S		OPEN	OPEN	Y	1X5DV332/1		
10119	B	07	1-TV-12085	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/B1	DG	220'-0"	R101	S		OPEN	OPEN	N	1X3D-BG-F01J		
10120	B	07	1-TV-12085A	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/B1	DG	220'-0"	R101	S		OPEN	OPEN	N	1X3D-BG-F01J		
10121	A	07	1-TV-12086	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/F8	DG	220'-0"	R103	S		OPEN	OPEN	N	1X3D-BG-F01H		
10122	A	07	1-TV-12086A	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/E8	DG	220'-0"	R103	S		OPEN	OPEN	N	1X3D-BG-F01H		
10123	A	07	1-TV-12094A	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/H8	DG	255'-0"	R208	S		OPEN	OPEN	N	1X3D-BG-F01H		
10124	A	07	1-TV-12094B	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/G8	DG	255'-0"	R208	S		OPEN	OPEN	N	1X3D-BG-F01H		
10125	A	07	1-TV-12094C	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/H8	DG	255'-0"	R208	S		OPEN	OPEN	N	1X3D-BG-F01K		
10126	A	07	1-TV-12094D	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/G8	DG	255'-0"	R208	S		OPEN	OPEN	N	1X3D-BG-F01K		
10127	B	07	1-TV-12095A	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/E8	DG	255'-0"	R209	S		OPEN	OPEN	N	1X3D-BG-F01J		
10128	B	07	1-TV-12095B	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/D8	DG	255'-0"	R209	S		OPEN	OPEN	N	1X3D-BG-F01H		
10129	B	07	1-TV-12095C	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/D8	DG	255'-0"	R209	S		OPEN	OPEN	N	1X3D-BG-F01K		
10130	B	07	1-TV-12095D	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/D8	DG	255'-0"	R209	S		OPEN	OPEN	N	1X3D-BG-F01K		
10131	A	07	1-TV-12096	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/F1	DG	220'-0"	R103	S		OPEN	OPEN	N	1X3D-BG-F01H		
10132	A	07	1-TV-12096A	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/F1	DG	220'-0"	R103	S		OPEN	OPEN	N	1X3D-BG-F01H		

APPENDIX E
VOGTLE ELECTRIC GENERATING PLANT - UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10133	A	07	1-TV-12097	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/F1	DG	220'-0"	R103	S		OPEN	OPEN	N	1X3D-BG-F01H		
10134	A	07	1-TV-12097A	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/E1	DG	220'-0"	R103	S		OPEN	OPEN	N	1X3D-BG-F01H		
10135	B	07	1-TV-12098	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/C1	DG	220'-0"	R101	S		OPEN	OPEN	N	1X3D-BG-F01J		
10136	B	07	1-TV-12098A	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/C1	DG	220'-0"	R101	S		OPEN	OPEN	N	1X3D-BG-F01J		
10137	B	07	1-TV-12099	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/B8	DG	220'-0"	R101	S		OPEN	OPEN	N	1X3D-BG-F01J		
10138	B	07	1-TV-12099A	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/B8	DG	220'-0"	R101	S		OPEN	OPEN	N	1X3D-BG-F01J		
10031	A	08c	1-TV-12124	ECW TEMPERATURE CONTROL VALVE (E/H)	1X4DB233/19/D7	CONTROL	260'-0"	R321	S		OPEN	OPEN	Y	1X3D-BA-J02A/9		
10032	B	08c	1-TV-12125	ECW TEMPERATURE CONTROL VALVE (E/H)	1X4DB234/18/D7	CONTROL	260'-0"	R312	S		OPEN	OPEN	Y	1X3D-BA-J02D/9		
10108	B	08c	1-TV-12725	ECW TO ESF ELEC EQUIP RM HVAC UNIT CONTROL VALVE	1X4DB234/18/D7	CONTROL	180'-0"	RB62	S		OPEN	OPEN	Y			
10109	A	08c	1-TV-12740	ECW TO ESF ELEC EQUIP RM HVAC UNIT CONTROL VALVE	1X4DB233/19/D7	CONTROL	180'-0"	RB60	S		OPEN	OPEN	Y			
02040	B	19	1-TY-11675	CONVERTER FOR TV-11675	1X4DB135-2/21/B6	CONTROL	260'-0"	R313	S				Y	1X5DV333/1		
02041	A	19	1-TY-11740	CONVERTER FOR TV-11740	1X4DB134/20/G2	CONTROL	260'-0"	R320	S				Y	1X5DV332/1		
10143	A	19	1-TY-12124A	CONVERTER FOR TV-12124	1X5DV428/8	CONTROL	260'-0"	R321	S				Y	CX5DP8212		
10144	B	19	1-TY-12125A	CONVERTER FOR TV-12125	1X5DV429/8	CONTROL	260'-0"	R312	S				Y	CX5DP8212		
10145	B	19	1-TY-12725A	CONVERTER FOR TV-12725	1X5DV431/8	CONTROL	180'-0"	RB62	S				Y	CX5DP8212		
10146	A	19	1-TY-12740A	CONVERTER FOR TV-12740	1X5DV430/7	CONTROL	180'-0"	RB60	S				Y	CX5DP8212		

APPENDIX 3.E

VOGTLE UNIT 1 IPEEE

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

SSEL Notes

1. Component not required to function; however, integrity of component is required in order to maintain fluid boundary.

   A. Walkdown required.

   B. Walkdown not required; equipment is well-anchored due to its operating loads.

2. No power required to valve, but actuation signal needed.

3. Valve regulates flow/miniflow.

4. Valve actuated by SI signal.

5. Valve fails closed on loss of instrument air.

6. The following instrumentation and controls on the main control board will be functional: charging flow, FI-0138A/917A; RCP seal injection flow, FI-0142A/143A/144A/145A; RHR flow, FI-0618A/619A; SIP flow, FI-0918/922; NSCW return flow, FI-1640A/1641A; CCW flow, FI-1876/1877; AFW flow, FI-5150A/5151A/5152A/5153A; reactor head letdown flow, FI-0406/407; VCT level, LI-0112/185; pressurizer level and pressure, LI-0459A/460A/461 and PI-0455A/456/457/458; SG level and pressure, LI-0501/502/503/504/517/518/519/527/528/529/537/538/539/547/548/549/551/552/553/554 and PIC-3010A/3020A/3030A, 3040A; containment emergency sumplevel, LI-0764/765; RWST level, LI-0990A/991A,992A/993A; CST No. 1 level, LI-5111A; RCS wide range pressure and temperature, PI-0408/418/428/438 and TI-0413A/413B/423A/423B/433A/433B/443A/443B; steam line pressure, PI-0514A/515A/516A/524A/525A/526A/534A/535A/536A/544A/545A/546A/; and containment pressure, PI-0934/935/936. The plasma display will be functional.

7. The following instrumentation and controls on the QHVC panel will be functional: FISL-2425/22426.

8. PIC-3010A/3020A/3030A,3040A; containment emergency sumplevel, LI-0764/765; RWST level, LI-0990A/991A/992A/993A; CST No. 1 level, LI-5111A; RCS wide range pressure and temperature, PI-0408/418/428/438 and TI-0413A/413B/423A/423B/433A/433B/443A/443B; steam line pressure, PI-0514A/515A/516A/524A/525A/526A/534A/535A/536A/544A/545A/546A/; and containment pressure, PI-0934/935/936. The plasma display will be functional.

7. The following instrumentation and controls on the QHVC panel will be functional: FISL-2425/22426.

9. The following instrumentation and controls on local HVAC panels will be functional: TIC-12124/12125/12725/12740.

VOGTLE UNIT 1 IPEEE

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

KEY TO SSEL LINE NUMBERS

SERIES	SYSTEM NAME	SYSTEM NO.
01000	Reactor Coolant	1201
02000	Nuclear Service Cooling Water	1202
03000	Component Cooling Water	1203
04000	Safety Injection	1204
05000	Residual Heat Removal	1205
06000	Chemical Volume & Control	1208
07000	Misc. Mechanical	various
08000	Main Steam	1301
09000	Auxiliary Feedwater	1302
10000	Misc. HVAC & Chilled Water	1500s
11000	Diesel Generators	2403
12000	Containment Iso./Integrity	various
13000	Main Control Board	1601
14000	Nuclear Instrumentation	1602
15000	Process Control	1604
16000	NSS Protection	1605
17000	Post Accident Monitoring	1623
18000	AC Power	various
19000	DC Power	1806
20000	Multisystem Panels & Boards	1816
21000	Misc. Electrical	various
22000	Lighting	1808

VOGTLE UNIT 1 IPEEE

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

KEY TO SSEL EQUIPMENT CLASSES

NUMBER	TYPES OF EQUIPMENT
00	Other
01	Motor Control Centers
02	Low Voltage Metal Clad Switchgear
03	Medium Voltage Metal Clad Switchgear
04	Transformers
05	Horizontal Pumps
06	Vertical Pumps
07	Air Operated Valves
08a	Motor Operated Valves
08b	Solenoid Operated Valves
08c	Electro-hydraulically Operated Valves
09	Fans and Air Handlers
11	Chillers
12	Air Compressors
13	Motor Generators
14	Distribution Panels
15	Batteries and Racks
16	Battery Chargers and Inverters
17	Engine Generators
18	Instrument Racks
19	Local Instruments and Temperature Sensors
20	Control and Instrumentation Panels
21	Tanks and Heat Exchangers
22	Automatic Transfer Switches
23	Wall Mounted Contactors, Transmitters, Power Supplies, etc.
24	Strainers and Filters
25	Control Rod Drive Assemblies
26	Traveling Screens and Sluice Gates

APPENDIX F
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
01000		00	2-1201-B6-001	STEAM GENERATOR 1	2X4DB111/19/D7	CTB	183'-0"	R102	AS				N	2X4DB159-3/23, 2X4DB168-3/23	FW, MS, BLOWDOWN	
01001		00	2-1201-B6-002	STEAM GENERATOR 2	2X4DB111/19/F7	CTB	183'-0"	R103	AS				N	2X4DB159-3/23, 2X4DB168-3/23	FW, MS, BLOWDOWN	
01002		00	2-1201-B6-003	STEAM GENERATOR 3	2X4DB111/19/F2	CTB	183'-0"	R104	AS				N	2X4DB159-1/24, 2X4DB168-3/23	FW, MS, BLOWDOWN	
01003		00	2-1201-B6-004	STEAM GENERATOR 4	2X4DB111/19/D2	CTB	183'-0"	R105	AS				N	2X4DB159-1/24, 2X4DB168-3/23	FW, MS, BLOWDOWN	
01033	A	18	2-1201-P5-TIA	RVLIS TRANSMITTER RACK TRAIN A	2X4DB113/19/B5	AUX	180'-0"	RB125	AS				Y	2X3D-CD-C02A, 2X3D-CD-C02E, 2X6AU01-670		
01034	B	18	2-1201-P5-TIB	RVLIS TRANSMITTER RACK TRAIN B	2X4DB113/19/B8	FB	180'-0"	RB06	AS				Y	2X3D-CD-C02C, 2X3D-CD-C02G, 2X6AU01-670		
01008		00	2-1201-V6-001	REACTOR VESSEL	2X4DB111/19/D4	CTB	183'-0"	RA01	AS				N			
01009		00	2-1201-V6-002	PRESSURIZER	2X4DB112/22/C6	CTB	183'-0"	RA07	AS				N			
02000	A	06	2-1202-P4-001	NSCW TRAIN A PUMP NO. 1	2X4DB133-1/27/C7	NSCT	220'-0"	R403	AS		OFF/ON	ON	Y	2X3D-BD-K04A		
02001	B	06	2-1202-P4-002	NSCW TRAIN B PUMP NO. 2	2X4DB133-2/27/C8	NSCT	220'-0"	R303	AS		OFF/ON	ON	Y	2X3D-BD-K04B		
02002	A	06	2-1202-P4-003	NSCW TRAIN A PUMP NO. 3	2X4DB133-1/27/C5	NSCT	220'-0"	R403	AS		OFF/ON	ON	Y	2X3D-BD-K04C		
02003	B	06	2-1202-P4-004	NSCW TRAIN B PUMP NO. 4	2X4DB133-2/27/C5	NSCT	220'-0"	R303	AS		OFF/ON	ON	Y	2X3D-BD-K04D		
02004	A	09	2-1202-W4-001-F01	NSCT FAN NO. 1	2X4DB133-1/27/G7	NSCT	250'-0"	R405	AS		OFF/ON	ON	Y	2X3D-BD-K03A		
02005	A	09	2-1202-W4-001-F02	NSCT FAN NO. 2	2X4DB133-1/27/G8	NSCT	250'-0"	R408	AS		OFF/ON	ON	Y	2X3D-BD-K03B		
02006	A	09	2-1202-W4-001-F03	NSCT FAN NO. 3	2X4DB133-1/27/G6	NSCT	250'-0"	R406	AS		OFF/ON	ON	Y	2X3D-BD-K03C		
02036	A	09	2-1202-W4-001-F04	NSCT FAN NO. 4	2X4DB133-1/27/G5	NSCT	250'-0"	R407	AS		OFF/ON	ON	Y	2X3D-BD-K03D		
02007	B	09	2-1202-W4-002-F01	NSCT FAN NO. 1	2X4DB133-2/27/G7	NSCT	250'-0"	R305	AS		OFF/ON	ON	Y	2X3D-BD-K03E		
02008	B	09	2-1202-W4-002-F02	NSCT FAN NO. 2	2X4DB133-2/27/G8	NSCT	250'-0"	R308	AS		OFF/ON	ON	Y	2X3D-BD-K03F		
02009	B	09	2-1202-W4-002-F03	NSCT FAN NO. 3	2X4DB133-2/27/G6	NSCT	250'-0"	R306	AS		OFF/ON	ON	Y	2X3D-BD-K03G		
02037	B	09	2-1202-W4-002-F04	NSCT FAN NO. 4	2X4DB133-2/27/G6	NSCT	250'-0"	R307	AS		OFF/ON	ON	Y	2X3D-BD-K03H		
03000	A	21	2-1203-E4-001	CCW HEAT EXCHANGER	2X4DB136/17/G2	AUX	245'-0"	R227	AS				N	2X4DB135-1/22	NSCW	
03001	B	21	2-1203-E4-002	CCW HEAT EXCHANGER	2X4DB136/17/D2	AUX	245'-0"	R226	AS				N	2X4DB133-2/27	NSCW	
03002	A	05	2-1203-P4-001	CCW PUMP NO. 1	2X4DB136/17/H4	AUX	195'-0"	RA98	AS		OFF/ON	ON	Y	2X4DB133-1/27, 2X3D-BD-L01A	NSCW	

APPENDIX F
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
03003	B	05	2-1203-P4-002	CCW PUMP NO. 2	2X4DB136/17/D4	AUX	195'-0"	RA96	AS		OFF/ON	ON	Y	2X4DB133-2/27, 2X3D-BD-L01B	NSCW	
03004	A	05	2-1203-P4-003	CCW PUMP NO. 3	2X4DB136/17/F4	AUX	195'-0"	RA98	AS		OFF/ON	ON	Y	2X4DB133-1/27, 2X3D-BD-L01C	NSCW	
03005	B	05	2-1203-P4-004	CCW PUMP NO. 4	2X4DB136/17/C4	AUX	195'-0"	RA96	AS		OFF/ON	ON	Y	2X4DB133-2/27, 2X3D-BD-L01D	NSCW	
03008	A	21	2-1203-T4-001	CCW SURGE TANK	2X4DB136/17/F7	AUX	245'-0"	R227	AS				N			
03009	B	21	2-1203-T4-002	CCW SURGE TANK	2X4DB136/17/B7	AUX	245'-0"	R226	AS				N			
04002		21	2-1204-T4-001	REFUELING WATER STORAGE TANK	2X4DB121/29/G2	RWST	220'-0"	SOUTH OF AUX	AS				N		SIS, CVCS, RHR, CNTMT SPRAY	
05000	A	21	2-1205-E6-001	RHR HEAT EXCHANGER A	2X4DB122/26/G6	AUX	119'-3"	RC25	AS				N	2X4DB137/17	CCW	
05001	B	21	2-1205-E6-002	RHR HEAT EXCHANGER B	2X4DB122/26/D6	AUX	143'-6"	RC26	AS				N	2X4DB137/17	CCW	
05002	A	05	2-1205-P6-001	RHR PUMP A	2X4DB122/26/G4	AUX	119'-3"	RD22	AS		OFF	ON	Y	2X4DB137/17, 2X4DB134/23, 2X3D-BD-E01A	CCW, NSCW	
05003	B	05	2-1205-P6-002	RHR PUMP B	2X4DB122/26/D4	AUX	119'-3"	RD21	AS		OFF	ON	Y	2X4DB137/17, 2X4DB134/23, 2X3D-BD-E01B	CCW, NSCW	
05004	A	00	2-1205-U6-019	MANUAL RHR THROTTLING GATE VALVE WITH REACH ROD	2X4DB122/26/G6	AUX	143'-6"	RC21	S	3	OPEN	OPEN	N			
05005	B	00	2-1205-U6-020	MANUAL RHR THROTTLING GATE VALVE WITH REACH ROD	2X4DB122/26/D6	AUX	143'-6"	RC21	S	3	OPEN	OPEN	N			
06000		21	2-1208-E6-001	REGENERATIVE HEAT EXCHANGER	2X4DB114/24/F6	CTB	183'0"	RB04	AS	1A			N			
06004	A	05	2-1208-P6-002	CCP A	2X4DB116-2/17/G4	AUX	143'-6"	RC16	AS		OFF/ON	ON	Y	2X4DB134/23, 2X3D-BD-C01A	NSCW, RWST	
06005	B	05	2-1208-P6-003	CCP B	2X4DB116-2/17/C4	AUX	143'-6"	RC17	AS		OFF/ON	ON	Y	2X4DB134/23, 2X3D-BD-C01B	NSCW, RWST	
06006	B	00	2-1208-U6-151	MANUAL SEAL INJECTION VALVE WITH REACH ROD	2X4DB116-2/17/C6	AUX	143'-6"	RC18	S		CLOSED	OPEN	N			
06007	A	00	2-1208-U6-152	MANUAL SEAL INJECTION VALVE WITH REACH ROD	2X4DB116-2/17/F6	AUX	143'-6"	RC11	S		CLOSED	OPEN	N			
06008		00	2-1208-U6-153	MANUAL CCP DISCH ISO VLV WITH REACH ROD	2X4DB116-1/25/B6	AUX	143'-6"	RC09	S		OPEN	OP/CL	N			
07002	A	21	2-1213-E6-001	SPENT FUEL PIT HEAT EXCH A	2X4DB130/23/F4	AUX	195'-0"	RA91	AS	1A			N	2X4DB137/17	CCW	
07013	B	21	2-1213-E6-002	SPENT FUEL PIT HEAT EXCH B	2X4DB130/23/G4	FB	200'-0"	RA04	AS	1A			N	2X4DB137/17	CCW	

APPENDIX F
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
07003	A	21	2-1217-E4-001	ACCW HEAT EXCHANGER	2X4DB138-1/19/B6	AUX	220'-0"	R153	AS	1A			N	2X4DB135-1/22	NSCW	
07004	B	21	2-1217-E4-002	ACCW HEAT EXCHANGER	2X4DB138-1/19/B4	AUX	220'-0"	R152	AS	1A			N	2X4DB133-2/27	NSCW	
09001	B	05	2-1302-P4-002	AFW MOTOR DRIVEN PUMP B	2X4DB161-2/20/D6	AFWP HOUSE	220'-0"	R102	AS		OFF	ON	Y	2X3D-BC-F05A		
09002	A	05	2-1302-P4-003	AFW MOTOR DRIVEN PUMP A	2X4DB161-2/20/B6	AFWP HOUSE	220'-0"	R101	AS		OFF	ON	Y	2X3D-BC-F04A		
09003		21	2-1302-V4-001	CONDENSATE STORAGE TANK NO. 1 (CST)	2X4DB161-1/22/G7	CST NO. 1	220'-0"	YARD	AS				N			
10000	A,B	20	2-1500-Q5-HVC	HVAC PANEL	2X5AB01-44	CONTROL	220'-0"	R164	AS	7				2X3D-AA-B20C		
10001	A	20	2-1500-V7-001-CBA	LOCAL CB HVAC PANEL TRAIN A	2X4AJ20-1337	CONTROL	220'-0"	R164	AS	8				2DCGD02B, 2X3DF30C,		
10002	B	20	2-1500-V7-002-CBB	LOCAL CB HVAC PANEL TRAIN B	2X4AJ20-1337	CONTROL	220'-0"	R164	AS	8				2DCGD02D, 2X3DF30C		
10003	A	09	2-1501-A7-001-000	CTB COOLING UNIT & MOTOR	2X4DB212/07/E7	CTB	220'-0"	R301	AS		ON	ON	Y	2X4DB135-1/22, 2X3D-BG-B01A, 2X3D-BG-B03F	NSCW	
10004	A	09	2-1501-A7-002-000	CTB COOLING UNIT & MOTOR	2X4DB212/07/E7	CTB	220'-0"	R301	AS		ON	ON	Y	2X4DB135-1/22, 2X3D-BG-B01B, 2X3D-BG-B03G	NSCW	
10005	B	09	2-1501-A7-003-000	CTB COOLING UNIT & MOTOR	2X4DB212/07/E6	CTB	220'-0"	R301	AS		ON	ON	Y	2X4DB135-2/20, 2X3D-BG-B01C, 2X3D-BG-B03H	NSCW	
10006	B	09	2-1501-A7-004-000	CTB COOLING UNIT & MOTOR	2X4DB212/07/E5	CTB	220'-0"	R301	AS		ON	ON	Y	2X4DB135-2/20, 2X3D-BG-B01D, 2X3D-BC-B03J	NSCW	
10139	A	09	2-1531-B7-002-000	CBCR CHILLER ROOM VENT FAN	AX4DB241/12/D7	CONTROL	260'-0"	R311	AS		OFF	ON	Y			
10140	B	09	2-1531-B7-004-000	CBCR CHILLER ROOM VENT FAN	AX4DB241/12/A8	CONTROL	260'-0"	R308	AS		OFF	ON	Y			
10017	A	09	2-1531-N7-001-000	CBCR FILTER UNIT	AX4DB206-1/25/C4	CONTROL	260'-0"	R311	AS		OFF	ON	Y	2X4DB233/16, 2X3D-BG-C01E	ECW	
10018	B	09	2-1531-N7-002-000	CBCR FILTER UNIT	AX4DB206-1/25/F4	CONTROL	260'-0"	R305	AS		OFF	ON	Y	2X4DB234/19, 2X3D-BG-C01F	ECW	
10033	A	09	2-1532-A7-001-000	CBSF ELEC EQUIP RM AC UNIT	2X4DB207-1/13/F4	CONTROL	180'-0"	RB16	AS		ON	ON	Y	2X4DB233/16, 2X3D-BG-C04A	ECW	
10034	B	09	2-1532-A7-002-000	CBSF ELEC EQUIP RM AC UNIT	2X4DB207-1/13/C4	CONTROL	180'-0"	RB17	AS		ON	ON	Y	2X4DB234/19, 2X3D-BG-C04B	ECW	
10035	A	09	2-1532-B7-001-000	BATTERY RM EXHAUST FAN & MOTOR	2X4DB207-1/13/E3	CONTROL	180'-0"	RB33	AS		ON	ON	Y	2X3D-BG-C04N		
10036	B	09	2-1532-B7-002-000	BATTERY RM EXHAUST FAN & MOTOR	2X4DB207-1/13/A3	CONTROL	180'-0"	RB32	AS		ON	ON	Y	2X3D-BG-C04P		

APPENDIX F
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- EQUIPMENT Building	Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10039	A	09	2-1539-A7-001-000	CB AUX RELAY RM ESF A/C UNIT	AX4DB225/14/G7	CONTROL	200'-0"	RA81	AS		OFF	ON	Y	2X4DB233/16, 2X3D-BG-C07M	ECW	
10040	B	09	2-1539-A7-002-000	CB AUX RELAY RM ESF A/C UNIT	AX4DB216/12/G8	CONTROL	240'-0"	R223	AS		OFF	ON	Y	2X4DB234/19, 2X3D-BG-C07N	ECW	
10041	A	09	2-1539-A7-005-000	CB NORMAL AC RM ESF A/C UNIT	AX4DB216/12/D5	CONTROL	260'-0"	R325	AS		OFF	ON	Y	2X4DB233/16, 2X3D-BG-C07R	ECW	
10045	A	09	2-1540-B7-001-000	DIESEL POWER CABLE TUNNEL EXHAUST FAN UNIT	2X4DB238/7/H6	TUNNEL	195'-0"	1T4A @ DGB	AS		OFF	ON	Y	2X3D-BG-K01C		
10046	B	09	2-1540-B7-002-000	DIESEL POWER CABLE TUNNEL EXHAUST FAN UNIT	2X4DB238/7/F6	TUNNEL	180'-0"	1T4B @ DGB	AS		OFF	ON	Y	2X3D-BG-K01D		
10047	A	09	2-1540-B7-003-000	NSCW TOWER CABLE TUNNEL EXHAUST FAN UNIT	2X4DB238/7/H2	TUNNEL	220'-0"	1T5A @ NSCW	AS		OFF	ON	Y	2X3D-BG-K01C		
10048	B	09	2-1540-B7-004-000	NSCW TOWER CABLE TUNNEL EXHAUST FAN UNIT	2X4DB238/7/F2	TUNNEL	220'-0"	1T5B @ NSCW	AS		OFF	ON	Y	2X3D-BG-K01D		
10049	A	09	2-1540-B7-005-000	AUX BLDG TRAIN A TUNNEL SUPPLY FAN UNIT	2X4DB238/7/E2	AUX	245'-0"	R221	AS		OFF	ON	Y	2X3D-BG-K01E		
10054	A	09	2-1555-A7-001-000	ELEC SWGR AND MCC ROOM COOLER A	2X4DB228/10/G8	AUX	119'-3"	RD02	AS		OFF	ON	Y	2X4DB233/16, 2X3D-BG-D05A	ECW	
10055	B	09	2-1555-A7-002-000	ELEC SWGR AND MCC ROOM COOLER B	2X4DB228/10/G6	AUX	245'-0"	R221	AS		OFF	ON	Y	2X4DB234/19, 2X3D-BG-D05B	ECW	
10056	A	09	2-1555-A7-003-000	ELEC SWGR AND MCC ROOM COOLER A	2X4DB228/10/G5	AUX	180'-0"	RB123	AS		OFF	ON	Y	2X4DB233/16, 2X3D-BG-D05C	ECW	
10057	B	09	2-1555-A7-004-000	ELEC SWGR AND MCC ROOM COOLER B	2X4DB228/10/G4	AUX	180'-0"	RB121	AS		OFF	ON	Y	2X4DB234/19, 2X3D-BG-D05D	ECW	
10058	A	09	2-1555-A7-005-000	ELEC SWGR AND MCC ROOM COOLER A	2X4DB228/10/G3	AUX	220'-0"	R1<3	AS		OFF	ON	Y	2X4DB233/16, 2X3D-BG-D05E	ECW	
10059	B	09	2-1555-A7-006-000	ELEC SWGR AND MCC ROOM COOLER B	2X4DB228/10/G1	AUX	220'-0"	R147	AS		OFF	ON	Y	2X4DB234/19, 2X3D-BG-D05F	ECW	
10078		09	2-1561-E7-001-000	PIPING PENETRATION AREA COOLER	2X4DB205-1/15/B4	AUX	245'-0"	R219	AS				N	2X4DB233/16, 2X4DB234/19	ECW	
10079		09	2-1561-E7-002-000	PIPING PENETRATION AREA COOLER	2X4DB205-1/15/B4	AUX	245'-0"	R219	AS				N	2X4DB135-1/22, 2X4DB133-2/27	NSCW	
10080	A	09	2-1561-N7-001-000	PIPING PENETRATION ROOM FILTRATION AND EXHAUST UNIT	2X4DB205-1/15/E3	AUX	245'-0"	R219	AS		OFF	ON	Y	2X3D-BG-D01D		
10081	B	09	2-1561-N7-002-000	PIPING PENETRATION ROOM FILTRATION AND EXHAUST UNIT	2X4DB205-1/15/E7	AUX	245'-0"	R220	AS		OFF	ON	Y	2X3D-BG-D01F		
10090	A	09	2-1566-B7-001-000	DG A BLDG ESF SUPPLY FAN NO. 1	2X4DB217/11/H6	DG	255'-0"	R208	AS		OFF	ON	Y	2X3D-BG-F01B		

APPENDIX F
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	EQUIPMENT Flr.Elv.	LOCATION Rm. or Row/Col.	SORT	NOTES	OP. ST. Normal	OP. ST. Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10091	B	09	2-1566-B7-002-000	DG B BLDG ESF SUPPLY FAN NO. 2	2X4DB217/11/E6	DG	255'-0"	R203	AS		OFF	ON	Y	2X3D-BG-F01E		
10092	A	09	2-1566-B7-003-000	DG A BLDG ESF SUPPLY FAN NO. 3	2X4DB217/11/G6	DG	255'-0"	R208	AS		OFF	ON	Y	2X3D-BG-F01C		
10093	B	09	2-1566-B7-004-000	DG B BLDG ESF SUPPLY FAN NO. 4	2X4DB217/11/D6	DG	255'-0"	R203	AS		OFF	ON	Y	2X3D-BG-F01F		
10098	A	11	2-1592-C7-001	CB ESSENTIAL CHILLER	2X4DB221/16/F3	CONTROL	260'-0"	R310	S		OFF	ON	Y	2X4DB134/23, 2X3D-BG-G02A	NSCW	
10099	B	11	2-1592-C7-002	CB ESSENTIAL CHILLER	2X4DB221/16/C3	CONTROL	260'-0"	R308	S		OFF	ON	Y	2X4DB135-2/20, 2X3D-BG-G02B	NSCW	
10100	A	05	2-1592-P7-001	ESSENTIAL CHILLED WATER PUMP	2X4DB221/16/F5	CONTROL	260'-0"	R310	AS		OFF	ON	Y	2X3D-BG-G02C		
10101	B	05	2-1592-P7-002	ESSENTIAL CHILLED WATER PUMP	2X4DB221/16/C5	CONTROL	260'-0"	R308	AS		OFF	ON	Y	2X3D-BG-G02D		
10102	A	21	2-1592-T7-001	ESSENTIAL CHILLED WATER EXPANSION TANK	2X4DB221/16/G6	CONTROL	260'-0"	R310	AS				N			
10103	B	21	2-1592-T7-002	ESSENTIAL CHILLED WATER EXPANSION TANK	2X4DB221/16/D6	CONTROL	260'-0"	R308	AS				N			
10110	A	09	2-1593-B7-001	AFW PUMP A SUPPLY FAN & MOTOR	2X4DB227/11/C7	AFWP HOUSE	220'-0"	R101	AS		OFF	ON	Y	2X3D-BG-G03A		
10111	B	09	2-1593-B7-002	AFW PUMP B SUPPLY FAN & MOTOR	2X4DB227/11/E7	AFWP HOUSE	220'-0"	R102	AS		OFF	ON	Y	2X3D-BG-G03B		
13000	MULTI	20	2-1601-Q5-MCB	MAIN CONTROL BOARD	2X6AV02-159	CONTROL	220'-0"	R164	AS	6				2DCEB01D, AX3DF300, 2DCEB02B, 2X3DF30C,		
11002	A	17	2-2403-G4-001	DIESEL GENERATOR A	2X4DB170-1/24/F5	DG	220'-0"	R101	AS		OFF	ON	N	2X4DB135-1/22	NSCW	
11003	A	24	2-2403-G4-001-F01	DG INTAKE AIR FILTER	2X4DB170-1/24/H7	DG	255'-0"	R205	S				N			
11004	A	24	2-2403-G4-001-F02	DG EXHAUST AIR SILENCER	2X4DB170-1/24/H4	DG	255'-0"	R204	S				N			
11005	A	21	2-2403-G4-001-V01	DG AIR START RECEIVER	2X4DB170-1/24/F3	DG	220'-0"	R101	AS				N			
11006	A	21	2-2403-G4-001-V02	DG AIR START RECEIVER	2X4DB170-1/24/H3	DG	220'-0"	R101	AS				N			
11007	B	17	2-2403-G4-002	DIESEL GENERATOR B	2X4DB170-2/26/F5	DG	220'-0"	R103	AS		OFF	ON	N	2X4DB133-2/27	NSCW	
11008	B	24	2-2403-G4-002-F01	DG INTAKE AIR FILTER	2X4DB170-2/26/H7	DG	255'-0"	R210	S				N			
11009	B	24	2-2403-G4-002-F02	DG EXHAUST AIR SILENCER	2X4DB170-2/26/H4	DG	255'-0"	R103	AS				N			
11010	B	21	2-2403-G4-002-V01	DG AIR START RECEIVER	2X4DB170-2/26/F3	DG	220'-0"	R103	AS				N			
11011	B	21	2-2403-G4-002-V02	DG AIR START RECEIVER	2X4DB170-2/26/H3	DG	220'-0"	R103	AS				N			
11012	A	06	2-2403-P4-001	DIESEL FUEL OIL TRANSFER PUMP	2X4DB170-1/24/B3	DFOST	211'-6"	RA01	AS		OFF	ON	Y	2X3D-BH-G01X		
11013	B	06	2-2403-P4-003	DIESEL FUEL OIL TRANSFER PUMP	2X4DB170-2/26/A3	DFOST	211'-6"	RA03	AS		OFF	ON	Y	2X3D-BH-G02B		

APPENDIX F
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO. (1)	TRAIN (2)	EQUIP CLASS (3)	MARK NO. (4)	SYSTEM/EQUIPMENT DESCRIPTION (5)	Dwg. No./Rev./Zone (6)	Building (7)	EQUIPMENT Flr.Elv. (8)	LOCATION Rm. or Row/Col. (9)	SORT (10)	NOTES (11)	OP. ST. Normal (12)	OP. ST. Desired (13)	POWER REQD? (14)	SUPPORTING SYS. DWG. NO./REV. (15)	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS (16)	REG. ISSUE (17)
11020	A	21	2-2403-T4-001	DIESEL FUEL OIL STORAGE TANK	2X4DB170-1/24/A3	DFOST	211'-6"	RA01	AS				N			
11021	B	21	2-2403-T4-002	DIESEL FUEL OIL STORAGE TANK	2X4DB170-2/26/A3	DFOST	211'-6"	RA03	AS				N			
11022	A	21	2-2403-T4-003	DIESEL FUEL OIL DAY TANK	2X4DB170-1/24/D2	DG	220'-0"	R104	AS				N			
11023	B	21	2-2403-T4-004	DIESEL FUEL OIL DAY TANK	2X4DB170-2/26/D2	DG	220'-0"	R102	AS				N			
02010	A	07	2-CV-9446	NSCT BLOWDOWN ISO AOV	2X4DB133-1/27/B5	NSCT	206'-0"	R402	S	2,4,5	OPEN	CLOSED	N	2X3D-BD-K04J		
02011	B	07	2-CV-9447	NSCT BLOWDOWN ISO AOV	2X4DB133-2/27/B5	NSCT	206'-0"	R302	S	2,4,5	OPEN	CLOSED	N	2X3D-BD-K04K		
05006	A	19	2-FIS-0610	RHR PUMP A FLOW TO MINIFLOW VALVE	2X4DB122/26/G5	AUX	119'-3"	RD113	S				Y	2DCHH02B, 2X3DF411, 2DBDE02C,		
05007	B	19	2-FIS-0611	RHR PUMP B FLOW TO MINIFLOW VALVE	2X4DB122/26/D5	AUX	119'-3"	RD41	S				Y	2DCHH02B, 2X3DF411, 2DBDE02D,		
02012	A	19	2-FIT-1640A	NSCW RETURN FLOW	2X4DB133-1/27/F4	NSCT	195'-0"	TUNNEL 1T2A	S				Y	2X5DV-021		
02013	B	19	2-FIT-1641A	NSCW RETURN FLOW	2X4DB133-2/27/F5	NSCT	195'-0"	TUNNEL 1T2B	S				Y	2X5DV-022		
10019	A	19	2-FSL-12045	INTERLOCK FLOW SWTCH CNTL BLD..CLOSES ON LOW AIR	AX4DB206-1/25/F3	CONTROL	260'-0"	R276	S				Y	2X5DV498, 2X3DF315, 2DBGC01E,		
10020	B	19	2-FSL-12046	INTERLOCK FLOW SWTCH CNTL BLD..CLOSES ON AIR-FLO	AX4DB206-1/25/C3	CONTROL	260'-0"	R254	S				Y	2X5DV498, 2X3DF315, 2DBGC01F,		
06010	A	19	2-FT-0138	CCP A FLOW	2X4DB116-2/17/H7	AUX	143'-6"	RC11	S				Y	2X3D-CD-C03A, 2X6AU01-919		
06011		19	2-FT-0142	RCP 4 SEAL INJ FLOW	2X4DB114/24/C3	FB	200'-0"	RA01	S				Y	2X3D-CD-C03G, 2X6AU01-460		
06012		19	2-FT-0143	RCP 3 SEAL INJ FLOW	2X4DB114/24/C3	FB	200'-0"	RA01	S				Y	2X3D-CD-C03E, 2X6AU01-442		
06013		19	2-FT-0144	RCP 2 SEAL INJ FLOW	2X4DB114/24/C3	AUX	195'-0"	RA103	S				Y	2X3D-CD-C03C, 2X6AU01-406		
06014		19	2-FT-0145	RCP 1 SEAL INJ FLOW	2X4DB114/24/B5	AUX	195'-0"	RA103	S				Y	2X3D-CD-C03A, 2X6AU01-371		
06045	A	19	2-FT-0406	REACTOR HEAD LETDOWN LINE FLOW	2X4DB114/24/F4	CTB	183'-0"	RB03	S				Y	2X6AU01-673		
06046	B	19	2-FT-0407	REACTOR HEAD LETDOWN LINE FLOW	2X4DB114/24/F4	CTB	183'-0"	RB03	S				Y	2X6AU01-673		
05008	A	19	2-FT-0618	RHR A FLOW	2X4DB122/26/G7	AUX	119'-3"	RD41	S				Y	2X3D-CD-C02A, 2X6AU01-671		

APPENDIX F
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
05009	B	19	2-FT-0619	RHR B FLOW	2X4DB122/26/C7	AUX	143'-6"	RD41	S				Y	2X3D-CD-C02C, 2X6AU01-671		
04004	D	19	2-FT-0917	CCP INJECTION FLOW	2X4DB119/19/E4	AUX	180'-0"	RA39	S				Y	2X3D-CD-C02G, 2X6AU01-674		
02014	A	19	2-FT-1802	NSCW FLOW TO CB ESS CHILLER	2X4DB134/23/F1	CONTROL	260'-0"	R310	S				Y	2X3D-CE-B13E, 2X6AU01-947		
02015	B	19	2-FT-1803	NSCW FLOW TO CB ESS CHILLER	2X4DB135-2/20/A6	CONTROL	260'-0"	R308	S				Y	2X3D-CE-B13H, 2X6AU01-947		
03010	A	19	2-FT-1876	CCW A FLOW	2X4DB136/17/F1	AUX	195'-0"	RA98	S				Y	2X3D-CE-B12K, 2X6AU01-617		
03011	B	19	2-FT-1877	CCW B FLOW	2X4DB136/17/C1	AUX	195'-0"	RA96	S				Y	2X3D-CE-B12K, 2X6AU01-617		
10104	A	19	2-FT-22425	ECW FLOW	2X4DB221/16/G1	CONTROL	260'-0"	R310	S				Y	2X3D-CE-B12K, 2X6AU01-637		
10105	B	19	2-FT-22426	ECW FLOW	2X4DB221/16/D1	CONTROL	260'-0"	R308	S				Y	2X3D-CE-B12H, 2X6AU01-637		
09004	A	19	2-FT-5150	AFW FLOW TO SG 4	2X4DB161-2/20/K1	AUX	195'-0"	RA61	S				Y	2X3D-CE-B12F, 2X6AU01-614		
09005	B	19	2-FT-5151	AFW FLOW TO SG 2	2X4DB161-2/20/E2	CONTROL	200'-0"	RA02	S				Y	2X3D-CE-B12H, 2X6AU01-614		
09006	C	19	2-FT-5152	AFW FLOW TO SG 1	2X4DB161-2/20/G2	AUX	195'-0"	RA102	S				Y	2X3D-CE-B12F, 2X6AU01-614		
09007	D	19	2-FT-5153	AFW FLOW TO SG 3	2X4DB161-2/20/D2	CONTROL	200'-0"	RA10	S				Y	2X3D-CE-B12H, 2X6AU01-614		
09008	B	19	2-FT-5154	AFW B FLOW TO MINIFLOW VALVE	2X4DB161-2/20/D5	AFWP HOUSE	220'-0"	R102	S				Y	2X3D-CE-B12H, 2X6AU01-612		
09009	A	19	2-FT-5155	AFW A FLOW TO MINIFLOW VAVLE	2X4DB161-2/20/B5	AFWP HOUSE	220'-0"	R101	S				Y	2X3D-CE-B12F, 2X6AU01-759		
05010	A	08a	2-FV-0610	RHR PUMP A MINIFLOW MOV	2X4DB122/26/H5	AUX	143'-6"	RC25	S		OPEN	CLOSED	Y	2X3D-BD-E02C		
05011	B	08a	2-FV-0611	RHR PUMP B MINIFLOW MOV	2X4DB122/26/E5	AUX	143'-6"	RC26	S		OPEN	CLOSED	Y	2X3D-BD-E02D		
09010	B	08a	2-FV-5154	AFW PUMP B MINIFLOW MOV	2X4DB161-2/20/C5	AFWP HOUSE	220'-0"	R102	S	3	OPEN	OP/CL	Y	2X3D-BC-F05B		
09011	A	08a	2-FV-5155	AFW PUMP A MINIFLOW MOV	2X4DB161-2/20/B5	AFWP HOUSE	220'-0"	R101	S	3	OPEN	OP/CL	Y	2X3D-BC-F04B		
06015	A	08b	2-HV-0190A	CCP A SAFETY GRADE CHARGING SOLENOID OP VLV	2X4DB116-2/17/G7	AUX	195'-0"	RA103	S	3	CLOSED	OPEN	Y	2X3D-BD-C05H		
06016	B	08b	2-HV-0190B	CCP B SAFETY GRADE CHARGING SOLENOID OP VLV	2X4DB116-2/17/B7	AUX	143'-6"	RC18	S	3	CLOSED	OPEN	Y	2X3D-BD-C05H		

APPENDIX F
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
06047	A	08b	2-HV-0442A	REACTOR HEAD LETDOWN LINE CONTROL SOV	2X4DB112/22/H4	CTB	183'-0"	RB03	S		CLOSED	OP/CL	Y	2X3D-BD-C05H		
06048	B	08b	2-HV-0442B	REACTOR HEAD LETDOWN LINE CONTROL SOV	2X4DB112/22/G4	CTB	183'-0"	RB03	S		CLOSED	OP/CL	Y	2X3D-BD-C05H		
04007	A	08b	2-HV-0943A	ACCUMULATOR NITROGEN HDR VENT--SOLENOID OPERATED VALVE	2X4DB120/16/E1	CTB	180'-0"	RB10	S		CLOSED	OPEN	Y	2X3D-BD-D05J		
04008	B	08b	2-HV-0943B	ACCUMULATOR NITROGEN HDR VENT--SOLENOID OPERATED VALVE	2X4DB120/16/D1	CTB	183'-0"	RB10	S		CLOSED	OPEN	Y	2X3D-BD-D05K		
04009	B	07	2-HV-10957	RWST TO SLUDGE MIXING PUMP SUCTION AOV	2X4DB121/29/G3	RWST	220'-0"	R101	S	2,5	OP/CL	CLOSED	N			
04010	A	07	2-HV-10958	RWST TO SLUDGE MIXING PUMP SUCTION AOV	2X4DB121/29/G3	RWST	220'-0"	R101	S	2,5	OP/CL	CLOSED	N			
02016	A	08a	2-HV-11600	NSCW PUMP 1 DISCHARGE MOV	2X4DB133-1/27/C8	NSCT	220'-0"	R403	S		OP/CL	OPEN	Y	2X3D-BD-K04Z		
02017	A	08a	2-HV-11606	NSCW PUMP 3 DISCHARGE MOV	2X4DB133-1/27/C4	NSCT	220'-0"	R403	S		OP/CL	OPEN	Y	2X3D-BD-K04Z		
02018	B	08a	2-HV-11607	NSCW PUMP 2 DISCHARGE MOV	2X4DB133-2/27/C8	NSCT	245'-0"	R303	S		OP/CL	OPEN	Y	2X3D-BK-K04Y		
02019	B	08a	2-HV-11613	NSCW PUMP 4 DISCHARGE MOV	2X4DB133-2/27/C5	NSCT	245'-0"	R303	S		OP/CL	OPEN	Y	2X3D-BK-K04Y		
10112	B	08a	2-HV-12005	AFW PUMP HOUSE AIR SUPPLY DAMPER	2X4DB227/11/E7	AFWP HOUSE	220'-0"	R102	S		CLOSED	OPEN	Y	2X3D-BG-G01N		
10113	A	08a	2-HV-12006	AFW PUMP HOUSE AIR SUPPLY DAMPER	2X4DB227/11/C7	AFWP HOUSE	220'-0"	R101	S		CLOSED	OPEN	Y	2X3D-BG-G01M		
10094	A	08a	2-HV-12050	DG A AIR SUPPLY DAMPER FOR FAN NO. 1	2X4DB217/11/H6	DG	255'-0"	R209	AS		CLOSED	OPEN	Y	2X3D-BG-F01M		
10095	A	08a	2-HV-12051	DG A AIR SUPPLY DAMPER FOR FAN NO. 3	2X4DB217/11/G6	DG	255'-0"	R209	S		CLOSED	OPEN	Y	2X3D-BG-F01M		
10096	B	08a	2-HV-12053	DG A AIR SUPPLY DAMPER FOR FAN NO. 2	2X4DB217/11/E6	DG	255'-0"	R208	S		CLOSED	OPEN	Y	2X3D-BG-F01M		
10097	B	08a	2-HV-12054	DG A AIR SUPPLY DAMPER FOR FAN NO. 4	2X4DB217/11/D6	DG	255'-0"	R208	S		CLOSED	OPEN	Y	2X3D-BG-F01M		
10021	A	08a	2-HV-12128	CBCR FILTER UNIT AIR SUPPLY DAMPER	AX4DB206-1/25/C2	CONTROL	220'-0"	R140	S		CLOSED	OPEN	Y	2X3D-BG-C01X		
10022	B	08a	2-HV-12129	CBCR FILTER UNIT AIR SUPPLY DAMPER	AX4DB206-1/25/F2	CONTROL	220'-0"	R127	S		CLOSED	OPEN	Y	2X3D-BG-C01Z		
10023	A	08a	2-HV-12130	CBCR FILTER UNIT AIR RETURN DAMPER	AX4DB206-1/25/B2	CONTROL	220'-0"	R140	S		CLOSED	OPEN	Y	2X3D-BG-C01X		
10024	B	08a	2-HV-12131	CBCR FILTER UNIT AIR RETURN DAMPER	AX4DB206-1/25/E2	CONTROL	220'-0"	R127	S		CLOSED	OPEN	Y	2X3D-BG-C01Z		
10025	A	07	2-HV-12146	CBCR NORMAL AIR SUPPLY DAMPER	AX4DB206-2/19/F5	CONTROL	240'-0"	R264	S	2,5	OPEN	CLOSED	N	2X3D-BG-C07B		
10026	B	07	2-HV-12147	CBCR NORMAL AIR SUPPLY DAMPER	AX4DB206-2/19/F4	CONTROL	240'-0"	R264	S	2,5	OPEN	CLOSED	N	2X3D-BG-C07C		
10027	B	07	2-HV-12148	CBCR NORMAL AIR RETURN DAMPER	AX4DB206-2/19/G4	CONTROL	240'-0"	R264	S	2,5	OPEN	CLOSED	N	2X3D-BG-C07C		

APPENDIX F
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10028	A	07	2-HV-12149	CBCR NORMAL AIR RETURN DAMPER	AX4DB206-2/19/G5	CONTROL	240'-0"	R264	S	2,5	OPEN	CLOSED	N	2X3D-BG-C07B		
10082	A	07	2-HV-12604	PPG PENETRATION NORMAL RETURN AIR ISOLATION DAMPER	2X4DB205-2/13/F2	AUX	245'-0"	R220	S	2,5	OPEN	CLOSED	N	2X3D-BG-D04A		
10083	A	07	2-HV-12605	PPG PENETRATION NORMAL AIR SUPPLY ISOLATION DAMPER	2X4DB205-2/13/D1	AUX	245'-0"	R220	S	2,5	OPEN	CLOSED	N	2X3D-BG-D04A		
10084	B	07	2-HV-12606	PPG PENETRATION NORMAL AIR SUPPLY ISOLATION DAMPER	2X4DB205-2/13/F1	AUX	245'-0"	R220	S	2,5	OPEN	CLOSED	N	2X3D-BG-D04B		
10085	B	07	2-HV-12607	PPG PENETRATION NORMAL RETURN AIR ISOLATION DAMPER	2X4DB205-2/13/D2	AUX	245'-0"	R220	S	2,5	OPEN	CLOSED	N	2X3D-BG-D04B		
10086	A	08c	2-HV-12614	PPG PEN FILTRATION AND EXHAUST UNIT SUCTION DAMPER	2X4DB205-1/15/D4	AUX	245'-0"	R219	S		CLOSED	OPEN	Y	2X3D-BG-D04J		
10087	B	08c	2-HV-12616	PPG PEN FILTRATION AND EXHAUST UNIT SUCTION DAMPER	2X4DB205-1/15/D8	AUX	245'-0"	R220	S		CLOSED	OPEN	Y	2X3D-BG-D04J		
08000	A	07	2-HV-13005A	INBOARD MSIV BYPASS AOV--SG 1	2X4DB159-2/20/G6	AUX	220'-0"	R159	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q02H		
08001	B	07	2-HV-13005B	OUTBOARD MSIV BYPASS AOV--SG 1	2X4DB159-2/20/G6	AUX	220'-0"	R159	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q02J		
08002	A	07	2-HV-13006A	INBOARD MSIV BYPASS AOV--SG 4	2X4DB159-2/20/A6	AUX	220'-0"	R159	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q02H		
08003	B	07	2-HV-13006B	OUTBOARD MSIV BYPASS AOV--SG 4	2X4DB159-2/20/A6	AUX	220'-0"	R159	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q02J		
08004	A	07	2-HV-13007A	INBOARD MSIV BYPASS AOV--SG 2	2X4DB159-2/20/E6	CONTROL	220'-0"	R123	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q02H		
08005	B	07	2-HV-13007B	OUTBOARD MSIV BYPASS AOV--SG 2	2X4DB159-2/20/E6	CONTROL	220'-0"	R123	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q02J		
08006	A	07	2-HV-13008A	INBOARD MSIV BYPASS AOV--SG 3	2X4DB159-2/20/C6	CONTROL	220'-0"	R122	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q02H		
08007	B	07	2-HV-13008B	OUTBOARD MSIV BYPASS AOV--SG 3	2X4DB159-2/20/C6	CONTROL	220'-0"	R122	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q02J		
07005		07	2-HV-15196	BFIV FOR SG 1	2X4DB168-3/23/E2	AUX	195'-0"	RA104	S	2,5	OPEN	CLOSED	N			
07006		07	2-HV-15197	BFIV FOR SG 2	2X4DB168-3/23/E4	CONTROL	200'-0"	RA09	S	2,5	OPEN	CLOSED	N			
07007		07	2-HV-15198	BFIV FOR SG 3	2X4DB168-3/23/E8	CONTROL	200'-0"	RA09	S	2,5	OPEN	CLOSED	N			
07008		07	2-HV-15199	BFIV FOR SG 4	2X4DB168-3/23/E6	AUX	195'-0"	RA105	S	2,5	OPEN	CLOSED	N			
02020	A	08a	2-HV-1668A	NSCW SPRAY VALVE	2X4DB133-1/27/G5	NSCT	195'-0"	R410	S		OPEN	OPEN	Y	2X3D-BD-K05U		
02021	A	08a	2-HV-1668B	NSCW TOWER BYPASS MOV	2X4DB133-1/27/F5	NSCT	220"-0"	R410	S		CLOSED	CLOSED	Y	2X3D-BD-K05V		
02022	B	08a	2-HV-1669A	NSCW SPRAY VALVE	2X4DB133-2/27/G5	NSCT	195'-0"	R310	S		OPEN	OPEN	Y	2X3D-BD-K05W		
02023	B	08a	2-HV-1669B	NSCW TOWER BYPASS MOV	2X4DB133-2/27/F5	NSCT	220'-0"	R310	S		CLOSED	CLOSED	Y	2X3D-BD-K05X		
08008	A	08c	2-HV-3006A	INBOARD MSIV--SG 1	2X4DB159-2/20/H6	AUX	220'-0"	R159	S	2	OPEN	CLOSED	N	2X3D-BC-Q01S		
08009	B	08c	2-HV-3006B	OUTBOARD MSIV--SG 1	2X4DB159-2/20/H7	AUX	220'-0"	R159	S	2	OPEN	CLOSED	N	2X3D-BC-Q01T		

APPENDIX F
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
08010	A	08c	2-HV-3016A	INBOARD MSIV--SG 2	2X4DB159-2/20/F6	CONTROL	220'-0"	R123	S	2	OPEN	CLOSED	N	2X3D-BC-Q01W		
08011	B	08c	2-HV-3016B	OUTBOARD MSIV--SG 2	2X4DB159-2/20/F7	CONTROL	220'-0"	R123	S	2	OPEN	CLOSED	N	2X3D-BC-Q01X		
08012	A	08c	2-HV-3026A	INBOARD MSIV--SG 3	2X4DB159-2/20/D6	CONTROL	220'-0"	R123	S	2	OPEN	CLOSED	N	2X3D-BC-Q02A		
08013	B	08c	2-HV-3026B	OUTBOARD MSIV--SG 3	2X4DB159-2/20/D7	CONTROL	220'-0"	R123	S	2	OPEN	CLOSED	N	2X3D-BC-Q02B		
08014	A	08c	2-HV-3036A	INBOARD MSIV--SG 4	2X4DB159-2/20/B6	AUX	220'-0"	R159	S	2	OPEN	CLOSED	N	2X3D-BC-Q02E		
08015	B	08c	2-HV-3036B	OUTBOARD MSIV--SG 4	2X4DB159-2/20/B7	AUX	220'-0"	R159	S	2	OPEN	CLOSED	N	2X3D-BC-Q02F		
09012	B	08a	2-HV-5132	AFW PUMP B DISCHARGE MOV	2X4DB161-2/20/D3	CONTROL	195'-0"	RA09	S	3	OPEN	OPEN	Y	2X3D-BC-F08A		
09013	B	08a	2-HV-5134	AFW PUMP B DISCHARGE MOV	2X4DB161-2/20/C3	CONTROL	195'-0"	RA09	S	3	OPEN	OPEN	Y	2X3D-BC-F08B		
09014	A	08a	2-HV-5137	AFW PUMP A DISCHARGE MOV	2X4DB161-2/20/B3	AUX	195'-0"	RA105	S	3	OPEN	OPEN	Y	2X3D-BC-F08C		
09015	A	08a	2-HV-5139	AFW PUMP A DISCHARGE MOV	2X4DB161-2/20/B3	AUX	195'-0"	RA105	S	3	OPEN	OPEN	Y	2X3D-BC-F08D		
07009		08c	2-HV-5227	MFIV FOR SG 1	2X4DB168-3/23/F1	AUX	195'-0"	RA104	S	2	OPEN	CLOSED	N			
07010		08c	2-HV-5228	MFIV FOR SG 2	2X4DB168-3/23/F3	CONTROL	200'-0"	RA09	S	2	OPEN	CLOSED	N			
07011		08c	2-HV-5229	MFIV FOR SG 3	2X4DB168-3/23/F7	CONTROL	200'-0"	RA09	S	2	OPEN	CLOSED	N			
07012		08c	2-HV-5230	MFIV FOR SG 4	2X4DB168-3/23/F5	AUX	195'-0"	RA105	S	2	OPEN	CLOSED	N			
08016		07	2-HV-7603A	SG 1 BLOWDOWN ISOLATION AOV	2X4DB159-3/23/F2	AUX	180'-0"	RB131	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q01A		
08017		07	2-HV-7603B	SG 2 BLOWDOWN ISOLATION AOV	2X4DB159-3/23/B2	AUX	180'-0"	RB131	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q01B		
08018		07	2-HV-7603C	SG 3 BLOWDOWN ISOLATION AOV	2X4DB159-1/24/F2	AUX	180'-0"	RB131	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q01C		
08019		07	2-HV-7603D	SG 4 BLOWDOWN ISOLATION AOV	2X4DB159-1/24/B2	AUX	180'-0"	RB131	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q01D		
01010	A	08a	2-HV-8000A	PORV BLOCK VALVE	2X4DB112/22/E7	CTB	238'-0"	R110	S		OPEN	OPEN	Y	2X3D-BD-B02A		
01011	B	08a	2-HV-8000B	PORV BLOCK VALVE	2X4DB112/22/F7	CTB	238'-0"	R110	S		OPEN	OPEN	Y	2X3D-BD-B02B		
06041	A	08b	2-HV-8095A	REACTOR HEAD LETDOWN LINE ISOLATION SOV	2X4DB114/24/E5	CTB	183'-0"	RB02	S		CLOSED	OP/CL	Y	2X3D-BD-C05G		
06042	B	08b	2-HV-8095B	REACTOR HEAD LETDOWN LINE ISOLATION SOV	2X4DB114/24/E5	CTB	183'-0"	RB02	S		CLOSED	OP/CL	Y	2X3D-BD-C05F		
06043	A	08b	2-HV-8096A	REACTOR HEAD LETDOWN LINE ISOLATION SOV	2X4DB114/24/E5	CTB	183'-0"	RB02	S		CLOSED	OP/CL	Y	2X3D-BD-C05G		
06044	B	08b	2-HV-8096B	REACTOR HEAD LETDOWN LINE ISOLATION SOV	2X4DB114/24/E5	CTB	183'-0"	RB02	S		CLOSED	OP/CL	Y	2X3D-BD-C05F		
06017	B	08a	2-HV-8105	CHARGING TO REGEN HX MOV	2X4DB116-1/25/C8	AUX	195'-0"	RA103	S	4	OPEN	OP/CL	Y	2X3D-BD-C03G		
06018	A	08a	2-HV-8106	CHARGING DISCHARGE MOV	2X4DB116-1/25/C7	AUX	195'-0"	RA103	S	4	OPEN	CLOSED	Y	2X3D-BD-C03G		

APPENDIX F
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
06019	A	08a	2-HV-8110	CCP A & B COMMON MINIFLOW MOV	2X4DB116-2/17/E7	AUX	180'-0"	RB115	S	4	OPEN	CLOSED	Y	2X3D-BD-C03J		
06020	B	08a	2-HV-8111A	CCP A MINIFLOW MOV	2X4DB116-2/17/E6	AUX	143'-6"	RC11	S	4	OPEN	CLOSED	Y	2X3D-BD-C03K		
06021	B	06a	2-HV-8111B	CCP B MINIFLOW MOV	2X4DB116-2/17/D6	AUX	143'-6"	RC18	S	4	OPEN	CLOSED	Y	2X3D-BD-C05L		
06022	A	08a	2-HV-8116	CCP A SAFETY GRADE CHARGING ISO MOV	2X4DB116-2/17/G8	AUX	195'-0"	RA103	S	4	CLOSED	OPEN	Y	2X3D-BD-C05E		
06023		07	2-HV-8149A	LETDOWN ISOLATION AOV	2X4DB114/24/G6	CTB	183'-0"	RB03	S	5	OP/CL	CLOSED	N			
06024		07	2-HV-8149B	LETDOWN ISOLATION AOV	2X4DB114/24/H5	CTB	183'-0"	RB03	S	5	OP/CL	CLOSED	N			
06025		07	2-HV-8149C	LETDOWN ISOLATION AOV	2X4DB114/24/G5	CTB	183'-0"	RB03	S	5	OP/CL	CLOSED	N			
06026	B	07	2-HV-8152	LETDOWN ISOLATION AOV	2X4DB114/24/G2	AUX	195'-0"	RA103	S	2,5	OPEN	CLOSED	N	2X3D-BD-C03Y		
06027		07	2-HV-8154	EXCESS LETDOWN ISOLATION AOV	2X4DB114/24/F3	CTB	183'-0"	RB03	S	5	CLOSED	CLOSED	N			
06028	A	07	2-HV-8160	LETDOWN ISOLATION AOV	2X4DB114/24/G3	CTB	198'-0"	RB03	S	2,5	OPEN	CLOSED	N	2X3D-BD-C04A		
06029	A	08a	2-HV-8485A	CCP A DISCHARGE ISO MOV	2X4DB116-2/17/G7	AUX	143'-6"	RC11	S		OPEN	CLOSED	Y	2X3D-BD-C05A		
06030	B	08a	2-HV-8485B	CCP B DISCHARGE MOV	2X4DB116-2/17/C7	AUX	143'-6"	RC18	S		OPEN	CLOSED	Y	2X3D-BD-C05B		
06031	A	08a	2-HV-8508A	CCP A ALT. MINIFLOW MOV	2X4DB116-2/17/F6	AUX	143'-6"	RC11	S	4	CLOSED	OP/CL	Y	2X3D-BD-C01T		
06032	B	08a	2-HV-8508B	CCP B ALT. MINIFLOW MOV	2X4DB116-2/17/D5	AUX	143'-6"	RC18	S	4	CLOSED	OP/CL	Y	2X3D-BD-C01U		
05012	A	08a	2-HV-8701A	RCS TO RHR PUMP A SUCTION MOV	2X4DB122/26/G2	CTB	180'-0"	RB03	S		CLOSED	OPEN	Y	2X3D-BD-E02G		
05013	A	G8a	2-HV-8701B	RCS TO RHR PUMP A SUCTION MOV	2X4DB122/26/G2	CTB	180'-0"	RB02	S		CLOSED	OPEN	Y	2X3D-BD-E02H		
05014	B	08a	2-HV-8702A	RCS TO RHR PUMP B SUCTION MOV	2X4DB122/26/D2	CTB	180'-0"	RB03	S		CLOSED	OPEN	Y	2X3D-BD-E02J		
05015	B	08a	2-HV-8702B	RCS TO RHR PUMP B SUCTION MOV	2X4DB122/26/D1	CTB	180'-0"	RB03	S		CLOSED	OPEN	Y	2X3D-BD-E02K		
05016	A	08a	2-HV-8716A	RHR TRAIN A TO RCS HOT LEG ISOLATION MOV	2X4DB122/26/F7	AUX	119'-0"	RD22	S		OPEN	CLOSED	Y	2X3D-BD-E02N		
05017	B	08a	2-HV-8716B	RHR TRAIN B TO RCS HOT LEG ISOLATION MOV	2X4DB122/26/D7	AUX	119'-0"	RD21	S		OPEN	CLOSED	Y	2X3D-BD-E02P		
04012	B	08a	2-HV-8801B	CCP INJECTION MOV	2X4DB119/19/E5	AUX	195'-0"	RA18	S	4	CLOSED	OPEN	Y	2X3D-BD-D02F		
05022	A	08a	2-HV-8812A	RWST TO RHR PUMP A SUCTION MOV	2X4DB122/26/E4	AUX	119'-0"	RD22	S		OPEN	CLOSED	Y	2X3D-BD-E02E		
05023	B	08a	2-HV-8812B	RWST TO RHR PUMP B SUCTION MOV	2X4DB122/26/C4	AUX	119'-0"	RD21	S		OPEN	CLOSED	Y	2X3D-BD-E02F		
04017	A	08b	2-HV-8875A	ACCUMULATOR 1 NITROGEN VENT--SOLENOID OPERATED VALVE	2X4DB120/16/H3	CTB	183'-0"	RB03	S		CLOSED	OPEN	Y	2X3D-BD-D04H		
04018	A	08b	2-HV-8875B	ACCUMULATOR 2 NITROGEN VENT--SOLENOID OPERATED VALVE	2X4DB120/16/F3	CTB	183'-0"	RB10	S		CLOSED	OPEN	Y	2X3D-BD-D04H		

APPENDIX F
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- EQUIPMENT Building	Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
04019	A	08b	2-HV-8875C	ACCUMULATOR 3 NITROGEN VENT--SOLENOID OPERATED VALVE	2X4DB120/16/D3	CTB	183'-0"	RB10	S		CLOSED	OPEN	Y	2X3D-BD-D04H		
04020	A	08b	2-HV-8875D	ACCUMULATOR 4 NITROGEN VENT--SOLENOID OPERATED VALVE	2X4DB120/16/B3	CTB	183'-0"	RB03	S		CLOSED	OPEN	Y	2X3D-BD-D04H		
04021	B	08b	2-HV-8875E	ACCUMULATOR 1 NITROGEN VENT--SOLENOID OPERATED VALVE	2X4DB120/16/G3	CTB	183'-0"	RB03	S		CLOSED	OPEN	Y	2X3D-BD-D04H		
04022	B	08b	2-HV-8875F	ACCUMULATOR 2 NITROGEN VENT--SOLENOID OPERATED VALVE	2X4DB120/16/E3	CTB	183'-0"	RB10	S		CLOSED	OPEN	Y	2X3D-BD-D04H		
04023	B	08b	2-HV-8875G	ACCUMULATOR 3 NITROGEN VENT--SOLENOID OPERATED VALVE	2X4DB120/16/D3	CTB	183'-0"	RB10	S		CLOSED	OPEN	Y	2X3D-BD-D04H		
04024	B	08b	2-HV-8875H	ACCUMULATOR 4 NITROGEN VENT--SOLENOID OPERATED VALVE	2X4DB120/16/B3	CTB	183'-0"	RB03	S		CLOSED	OPEN	Y	2X3D-BD-D04H		
06054	A	19	2-HY-0190A	I/P CONVERTER FOR HV-0190A	2X4DB116-2/17/H7	AUX	195'-0"	RA98	S				Y	2X3D-BD-C05H		
06055	B	19	2-HY-0190B	I/P CONVERTER FOR HV-0190B	2X4DB116-2/17/B7	AUX	143'-6"	RC19	S				Y	2X3D-BD-C05H		
06056	A	19	2-HY-0442A	I/P CONVERTER FOR HV-0442A	2X4DB112/22/H4	CONTROL	180'-0"	RB02	S				Y	2X3D-BD-C05H		
06057	B	19	2-HY-0442B	I/P CONVERTER FOR HV-0442B	2X4DB112/22/G4	CONTROL	180'-0"	RB10	S				Y	2X3D-BD-D05K		
04030	A	19	2-HY-0943A	I/P CONVERTER FOR HV-0943A	2X4DB120/16/F1	CONTROL	180'-0"	RB02	S				Y	2X3D-BD-D05J		
04031	B	19	2-HY-0943B	I/P CONVERTER FOR HV-0943B	2X4DB120/16/D1	CONTROL	180'-0"	RB10	S				Y	2X3D-BD-D05K		
11024	A	19	2-LSH-9020	F.O. DAY TANK 3 LEVEL	2X4DB170-1/24/D4	DG	220'-0"	R102	S				Y	2DCHM09F, 2X3DH7D6, 2DBHG01X,		
11025	B	19	2-LSH-9021	F.O. DAY TANK 4 LEVEL	2X4DB170-2/26/D4	DG	220'-0"	R104	S				Y	2DCHM09F, 2X3DH7D1, 2DBHG02B,		
11026	A	19	2-LSL-9020	F.O. DAY TANK 3 LEVEL	2X4DB170-1/24/D3	DG	220'-0"	R102	S				Y	2DCHM09F, 2X3DH7D6, 2DBHG01X,		
11027	B	19	2-LSL-9021	F.O. DAY TANK 4 LEVEL	2X4DB170-2/26/D3	DG	220'-0"	R104	S				Y	2DCHM09F, 2X3DH7D1, 2DBHG02B,		
03012	A	19	2-LSLL-1852	CCW SURGE TK 1 LEVEL	2X4DB136/17/F6	AUX	245'-0"	R227	S				Y	2DCHH11L, 2X3DF426, 2DBDL01A,		
03013	B	19	2-LSLL-1853	CCW SURGE TK 2 LEVEL	2X4DB136/17/B6	AUX	245'-0"	R226	S				Y	2DCHH11L, 1X3DF426, 2DBDL01B,		

APPENDIX F
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
03014	A	19	2-LSLL-1854	CCW SURGE TK 1 LEVEL	2X4DB136/17/F5	AUX	245'-0"	R227	S				Y	2DCHH11L, 2X3DF426, 2DBDL01C,		
03015	B	19	2-LSLL-1855	CCW SURGE TK 2 LEVEL	2X4DB136/17/B6	AUX	245'-0"	R226	S				Y	2DCHH11L, 2X3DF426, 2DBDLG1D,		
06033		19	2-LT-0112	VCT LEVEL	2X4DB116-1/25/G3	AUX	195'-0"	RA69	S				Y	2X3D-CD-L03A, 2X6AU01-377, 2X5DV-001		
06034		19	2-LT-0185	VCT LEVEL	2X4DB116-1/25/G3	AUX	195'-0"	RA69	S				Y	2X3D-CD-L03G, 2X6AU01-463, 2X5DV-001		
01012	A	19	2-LT-0459	PRESSURIZER LEVEL	2X4DB112/22/C8	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02A, 2X6AU01-167		
01013	B	19	2-LT-0460	PRESSURIZER LEVEL	2X4DB112/22/C7	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02C, 2X6AU01-167		
01014	C	19	2-LT-0461	PRESSURIZER LEVEL	2X4DB112/22/C5	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02E, 2X6AU01-167		
08020	A	19	2-LT-0501	SG 1 WIDE RANGE LEVEL	2X4DB159-[illegible]/F5	CTB	183'-0"	RB03	S				Y	2X3D-CD-C02A, 2X6AU01-190		
08021	B	19	2-LT-0502	SG 2 WIDE RANGE LEVEL	2X4DB159-3/23/B5	CTB	183'-0"	RB10	S				Y	2X3D-CD-C02C, 2X6AU01-190		
08022	B	19	2-LT-0503	SG 3 WIDE RANGE LEVEL	2X4DB159-1/24/F5	CTB	183'-0"	RB10	S				Y	2X3D-CD-C02C, 2X6AU01-190		
08023	C	19	2-LT-0504	SG 4 WIDE RANGE LEVEL	2X4DB159-1/24/C5	CTB	183'-0"	RB03	S				Y	2X3D-CD-C02E, 2X6AU01-190		
08024	D	19	2-LT-0517	SG 1 NARROW RANGE LEVEL	2X4DB159-3/23/F7	CTB	220'-0"	R102	S				Y	2X3D-CD-C02G, 2X6AU01-176		
08025	C	19	2-LT-0518	SG 1 NARROW RANGE LEVEL	2X4DB159-3/23/F7	CTB	220'-0"	R101	S				Y	2X3D-CD-C02E, 2X6AU01-175		
08026	B	19	2-LT-0519	SG 1 NARROW RANGE LEVEL	2X4DB159-3/23/F7	CTB	220'-0"	R101	S				Y	2X3D-CD-C02C, 2X6AU01-173		
08027	D	19	2-LT-0527	SG 2 NARROW RANGE LEVEL	2X4DB159-3/23/C7	CTB	220'-0"	R101	S				Y	2X3D-CD-C02G, 2X6AU01-176		
08028	C	19	2-LT-0528	SG 2 NARROW RANGE LEVEL	2X4DB159-3/23/C7	CTB	220'-0"	R101	S				Y	2X3D-CD-C02E, 2X6AU01-175		
08029	A	19	2-LT-0529	SG 2 NARROW RANGE LEVEL	2X4DB159-3/23/C7	CTB	220'-0"	R101	S				Y	2X3D-CD-C02A, 2X6AU01-173		

APPENDIX F
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
08030	D	19	2-LT-0537	SG 3 NARROW RANGE LEVEL	2X4DB159-1/24/F7	CTB	220'-0"	R101	S				Y	2X3D-CD-C02G, 2X6AU01-176		
08031	C	19	2-LT-0538	SG 3 NARROW RANGE LEVEL	2X4DB159-1/24/F7	CTB	220'-0"	R101	S				Y	2X3D-CD-C02E, 2X6AU01-175		
08032	A	19	2-LT-0539	SG 3 NARROW RANGE LEVEL	2X4DB159-1/24/F7	CTB	220'-0"	R101	S				Y	2X3D-CD-C02A, 2X6AU01-173		
08033	D	19	2-LT-0547	SG 4 NARROW RANGE LEVEL	2X4DB159-1/24/C6	CTB	220'-0"	R101	S				Y	2X3D-CD-C02G, 2X6AU01-176		
08034	C	19	2-LT-0548	SG 4 NARROW RANGE LEVEL	2X4DB159-1/24/C7	CTB	220'-0"	R101	S				Y	2X3D-CD-C02E, 2X6AU01-175		
08035	B	19	2-LT-0549	SG 4 NARROW RANGE LEVEL	2X4DB159-1/24/C7	CTB	220'-0"	R101	S				Y	2X3D-CD-C02G, 2X6AU01-173		
08064	A	19	2-LT-0551	SG 1 NARROW RANGE LEVEL	2X4DB159-3/23/F5	CTB	220'-0"	R101	S				Y	2X6AU01-203		
08065	B	19	2-LT-0552	SG 2 NARROW RANGE LEVEL	2X4DB159-3/23/C5	CTB	220'-0"	R101	S				Y	2X6AU01-203		
08066	B	19	2-LT-0553	SG 3 NARROW RANGE LEVEL	2X4DB159-1/24/F5	CTB	220'-0"	R101	S				Y	2X6AU01-203		
08067	A	19	2-LT-0554	SG 4 NARROW RANGE LEVEL	2X4DB159-1/24/C5	CTB	220'-0"	R101	S				Y	2X6AU01-203		
04026	A	19	2-LT-0990	RWST LEVEL	2X4DB121/29/H1	RWST	220'-0"	R101	S				Y	2X3D-CD-C02A, 2X6AU01-201		
04027	B	19	2-LT-0991	RWST LEVEL	2X4DB121/29/G1	RWST	220'-0"	R101	S				Y	2X3D-CD-C02C, 2X6AU01-201		
04028	C	19	2-LT-0992	RWST LEVEL	2X4DB121/29/G1	RWST	220'-0"	R101	S				Y	2X3D-CD-C02E, 2X6AU01-201		
04029	D	19	2-LT-0993	RWST LEVEL	2X4DB121/29/G1	RWST	220'-0"	R101	S				Y	2X3D-CD-C02G, 2X6AU01-201		
09016	A	19	2-LT-5111	CST NO. 1 LEVEL CONDENSATE STORAGE TANK	2X4DB161-1/22/F7	CST NO. 1	220'-0"	R103	S				Y	2X3D-CE-B12F, 2X6AU01-945		
06035	A	08a	2-LV-0112B	VCT DISCHARGE ISOLATION MOV	2X4DB116-1/25/F4	AUX	195'-0"	RA78	S	4	OPEN	CLOSED	Y	2X3D-BD-C02F		
06036	B	08a	2-LV-0112C	VCT DISCHARGE ISOLATION MOV	2X4DB116-1/25/E4	AUX	195'-0"	RA78	S	4	OPEN	CLOSED	Y	2X3D-BD-C02G		
06037	A	08a	2-LV-0112D	CCP SUCTION FROM RWST MOV	2X4DB116-2/17/E2	AUX	143'-6"	RC10	S	4	CLOSED	OPEN	Y	2X3D-BD-C02H		
06038	B	08a	2-LV-0112E	CCP SUCTION FROM RWST MOV	2X4DB116-2/17/D2	AUX	143'-6"	RC19	S	4	CLOSED	OPEN	Y	2X3D-BD-C02J		
14003	A	19	2-NE-0041	NIS DETECTOR--CH.1	2X6AA02-424	CTB			S				Y	2X3D-CD-D06A, 2X6AU01-273, 2X5DSP002		

APPENDIX F
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO. (1)	TRAIN (2)	EQUIP CLASS (3)	MARK NO. (4)	SYSTEM/EQUIPMENT DESCRIPTION (5)	Dwg. No./Rev./Zone (6)	<---------- EQUIPMENT Building (7)	Flr.Elv. (8)	LOCATION -----> Rm. or Row/Col. (9)	SORT (10)	NOTES (11)	<-- OP. Normal (12)	ST. --> Desired (13)	POWER REQD? (14)	SUPPORTING SYS. DWG. NO./REV. (15)	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS (16)	REG. ISSUE (17)
14004	B	19	2-NE-00[illegible]	NIS DETECTOR--CH.2	2X6AA02-424	CTB			S				Y	2X3D-CD-D06A, 2X6AU01-273, 2X5DSP002		
14005	C	19	2-NE-0043	NIS DETECTOR--CH.3	2X6AA02-424	CTB			S				Y	2X3D-CD-D06B, 2X6AU01-273, 2X5DSP002		
14006	D	19	2-NE-0044	NIS DETECTOR--CH.4	2X6AA02-424	CTB			S				Y	2X3D-CD-D06B, 2X6AU01-273, 2X5DSP002		
06039	A	00	2-PSV-8510A	CCP A ALT MINIFLOW	2X4DB116-2/17/F4	AUX	143'-6"	RC11	S		CLOSED	OP/CL	N			
01019	A	19	2-PT-0455	PRESSURIZER PRESSURE	2X4DB112/22/C7	CTB	183'-0"	RB03	S				Y	2X3D-CD-C02A, 2X6AU01-168		
01020	B	19	2-PT-0456	PRESSURIZER PRESSURE	2X4DB112/22/C6	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02C, 2X6AU01-168		
01021	C	19	2-PT-0457	PRESSURIZER PRESSURE	2X4DB112/22/C5	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02E, 2X6AU01-168		
01022	D	19	2-PT-0458	PRESSURIZER PRESSURE	2X4DB112/22/C5	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02G, 2X6AU01-168		
08040	A	19	2-PT-0514	SG 1 PRESSURE	2X4DB159-2/20/G2	AUX	195'-0"	RA103	S				Y	2X3D-CD-C02A, 2X6AU01-169		
08041	B	19	2-PT-0515	SG 1 PRESSURE	2X4DB159-2/20/G2	AUX	195'-0"	RA103	S				Y	2X3D-CD-C02C, 2X6AU01-171		
08042	D	19	2-PT-0516	SG 1 PRESSURE	2X4DB159-2/20/G3	AUX	195'-0"	RA103	S				Y	2X3D-CD-C02G, 2X6AU01-177		
08043	A	19	2-PT-0524	SG 2 PRESSURE	2X4DB159-2/20/E2	CONTROL	200'-0"	RA04	S				Y	2X3D-CD-C02A, 2X6AU01-169		
08044	B	19	2-PT-0525	SG 2 PRESSURE	2X4DB159-2/20/F2	CONTROL	200'-0"	RA02	S				Y	2X3D-CD-C02C, 2X6AU01-172		
08045	C	19	2-PT-0526	SG 2 PRESSURE	2X4DB159-2/20/F3	CONTROL	200'-0"	RA04	S				Y	2X3D-CD-C02E, 2X6AU01-177		
08046	A	19	2-PT-0534	SG 3 PRESSURE	2X4DB159-2/20/C2	CONTROL	200'-0"	RA14	S				Y	2X3D-CD-C02A, 2X6AU01-170		
08047	B	19	2-PT-0535	SG 3 PRESSURE	2X4DB159-2/20/D2	CONTROL	220'-0"	RA10	S				Y	2X3D-CD-C02C, 2X6AU01-171		
08048	C	19	2-PT-0536	SG 3 PRESSURE	2X4DB159-2/20/D3	CONTROL	220'-0"	RA14	S				Y	2X3D-CD-C02E, 2X6AU01-177		
08049	A	19	2-PT-0544	SG 4 PRESSURE	2X4DB159-2/20/B2	AUX	220'-0"	R155	S				Y	2X3D-CD-C02A, 2X6AU01-170		

APPENDIX F
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
08050	B	19	2-PT-0545	SG 4 PRESSURE	2X4DB159-2/20/B2	AUX	220'-0"	R155	S				Y	2X3D-CD-C02C, 2X6AU01-172		
08051	D	19	2-PT-0546	SG 4 PRESSURE	2X4DB159-2/20/B3	AUX	220'-0"	R157	S				Y	2X3D-CD-C02G, 2X6AU01-177		
02024	A	19	2-PT-11741	NSCW SUPPLY TO PUMP MOTOR COOLERS	2X4DB134/23/E5	AUX	119'-3"	RD06	S				Y	2X3D-CE-B12E, 2X6AU01-1056		
02025	B	19	2-PT-11742	NSCW SUPPLY TO PUMP MOTOR COOLERS	2X4DB134/23/B3	AUX	119'-3"	RD11	S				Y	2X3D-CE-B12H, 2X6AU01-1058		
08052	A	19	2-PT-3000	SG 1 PRESSURE TO ARV TRANSMITTER	2X4BD159-2/20/G3	AUX	195'-0"	RA103	S				Y	2X3D-CE-B12F, 2X6AU01-608		
08053	B	19	2-PT-3010	SG 2 PRESSURE TO ARV TRANSMITTER	2X4DB159-2/20/F3	CONTROL	200'-0"	RA02	S				Y	2X3D-CE-B12F, 2X5AU01-608		
08054	B	19	2-PT-3020	SG 3 PRESSURE TO ARV TRANSMITTER	2X4DB159-2/20/D3	CONTROL	200'-0"	RA10	S				Y	2X3D-CE-B12F, 2X6AU01-608		
08055	A	19	2-PT-3030	SG 4 PRESSURE TO ARV TRANSMITTER	2X4DB159-2/20/B3	AUX	220'-0"	R155	S				Y	2X3D-CE-B12F, 2X6AU01-608		
01023	A	08b	2-PV-0455A	PRESSURIZER PORV	2X4DB112/22/E8	CTB	238'-0"	R110	S		CLOSED	OP/CL	Y	2X3D-BD-B03H		
01024	B	08b	2-PV-0456A	PRESSURIZER PORV	2X4DB112/22/F8	CTB	238'-0"	R110	S		CLOSED	OP/CL	Y	2X3D-BD-B03F		
10088	A	08a	2-PV-2550A	PPG PEN FILTRATION AND EXHAUST UNIT DISCHARGE DAMPER	2X4DB205-1/15/E2	AUX	245'-0"	R219	S		CLOSED	OPEN	Y	2X3D-BG-D01L		
10089	B	08a	2-PV-2551A	PPG PEN FILTRATION AND EXHAUST UNIT DISCHARGE DAMPER	2X4DB205-1/15/E6	AUX	245'-0"	R220	S		CLOSED	OPEN	Y	2X3D-BG-D01M		
08056	A	08c	2-PV-3000	ATMOS. RELIEF VALVE--SG 1	2X4DB159-2/20/H2	AUX	245'-0"	R159	S		CLOSED	OP/CL	Y	2X3D-BC-Q03Q, 2X3D-BC-Q03P		
08057	B	08c	2-PV-3010	ATMOS. RELIEF VALVE--SG 2	2X4DB159-2/20/F2	CONTROL	220'-0"	R121	S		CLOSED	OP/CL	Y	2X3D-BC-Q03R, 2X3D-BC-Q03P		
08058	B	08c	2-PV-3020	ATMOS. RELIEF VALVE--SG 3	2X4DB159-2/20/D2	CONTROL	220'-0"	R122	S		CLOSED	OP/CL	Y	2X3D-BC-Q03R, 2X3D-BC-Q03P		
08059	A	08c	2-PV-3030	ATMOS. RELIEF VALVE--SG 4	2X4DB159-2/20/C2	AUX	220'-0"	R159	S		CLOSED	OP/CL	Y	2X3D-BC-Q03Q, 2X3D-BD-Q03P		
08060	A	19	2-PY-3000	SG 1 PRESSURE TO ARV CONTROLLER	2X4DB159-2/20/G3	AUX	245'-0"	R229	S				Y	2X3D-CE-B12F, 2X6AU01-608		
08061	B	19	2-PY-3010	SG 2 PRESSURE TO ARV CONTROLLER	2X4DB159-2/20/53	CONTROL	200'-0"	RA06	S				Y	2X3D-CE-B12F, 2X6AU01-608		
08062	C	19	2-PY-3020	SG 3 PRESSURE TO ARV CONTROLLER	2X4DB159-2/20/D3	CONTROL	200'-0"	RA06	S				Y	2X3D-CE-B12F, 2X6AU01-608		

APPENDIX F
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	EQUIPMENT Flr.Elv.	LOCATION Rm. or Row/Col.	SORT	NOTES	OP. ST. Normal	OP. ST. Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
08063	D	19	2-PY-3030	SG 4 PRESSURE TO ARV CONTROLLER	2X4DB159-2/20/B3	AUX	245'-0"	R229	S				Y	2X3D-CE-B12F, 2X6AU01-608		
10106	A	19	2-TDC-4170	ECW TEMP DIFF CONTROL TO NSCW VLV TV-11740	2X4DB221/16/F2	CONTROL	260'-0"	R310	S				Y			
10107	B	19	2-TDC-4193	ECW TEMP DIFF CONTROL TO NSCW VLV TV-11675	2X4DB221/16/C2	CONTROL	260'-0"	R308	S				Y			
01025	A	19	2-TE-0413A	RCS HOT LEG TEMP--LOOP 1	2X4DB111/19/D6	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02A, 2X6AU01-161		
01026	A	19	2-TE-0413B	RCS COLD LEG TEMP--LOOP 1	2X4DB111/19/B6	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02B, 2X6AU01-162		
01027	B	19	2-TE-0423A	RCS HOT LEG TEMP--LOOP 2	2X4DB111/19/F6	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02A, 2X6AU01-161		
01028	B	19	2-TE-0423B	RCS COLD LEG TEMP--LOOP 2	2X4DB111/19/G6	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02B, 2X6AU01-162		
01029	C	19	2-TE-0433A	RCS HOT LEG TEMP--LOOP 3	2X4DB111/19/F3	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02A, 2X6AU01-161		
01030	C	19	2-TE-0433B	RCS COLD LEG TEMP--LOOP 3	2X4DB111/19/G3	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02B, 2X6AU01-162		
01031	D	19	2-TE-0443A	RCS HOT LEG TEMP--LOOP 4	2X4DB111/19/D3	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02A, 2X6AU01-161		
01032	D	19	2-TE-0443B	RCS COLD LEG TEMP--LOOP 4	2X4DB111/19/C3	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02B, 2X6AU01-162		
02026	A	19	2-TE-11641	NSCW A RETURN TO FAN 1 CONTROL	2X4DB133-1/27/G4	NSCT	220'-0"	R402	S				Y	2X3D-CE-B12F, 2X6AU01-610		
02027	A	19	2-TE-11642	NSCW A RETURN TO FAN 2 CONTROL	2X4DB133-1/27/G4	NSCT	220'-0"	R402	S				Y	2X3D-CE-B12F, 2X6AU01-610		
02028	A	19	2-TE-11643	NSCW A RETURN TO FAN 3 CONTROL	2X4DB133-1/27/G4	NSCT	220'-0"	R402	S				Y	2X3D-CE-B12F, 2X6AU01-610		
02038	A	19	2-TE-11644	NSCW A RETURN TO FAN 4 CONTROL	2X4DB133-1/27/G4	NSCT	220'-0"	R402	S				Y	2X5DV068		
02029	B	19	2-TE-11646	NSCW B RETURN TO FAN 1 CONTROL	2X4DB133-2/27/G4	NSCT	220'-0"	R302	S				Y	2X3D-CE-B12H, 2X6AU01-610		
02030	B	19	2-TE-11647	NSCW B RETURN TO FAN 2 CONTROL	2X4DB133-2/27/G4	NSCT	220'-0"	R302	S				Y	2X3D-CE-B12H, 2X6AU01-610		
02031	B	19	2-TE-11648	NSCW B RETURN TO FAN 3 CONTROL	2X4DB133-2/27/G5	NSCT	220'-0"	R302	S				Y	2X3D-CE-B12H, 2X6AU01-610		
02039	B	19	2-TE-11649	NSCW B RETURN TO FAN 4 CONTROL	2X4DB133-2/27/G5	NSCT	220'-0"	R302	S				Y	2X5DV072		

APPENDIX F
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- EQUIPMENT Building	Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10029	A	19	2-TE-12124	CB CR RETURN AIR TEMP	AX4DB206-1/25/B2	CONTROL	260'-0"	R311	S				Y	2X5DV-428		
10030	B	19	2-TE-12125	CB CR RETURN AIR TEMP	AX4DB206-1/25/E2	CONTROL	260'-0"	R305	S				Y	2X5DV-429		
10037	B	19	2-TE-12725	ELEC EQUIP RM TEMP	2X4DB207-1/13/B6	CONTROL	180'-0"	RB32	S				Y	2X5DV-431		
10038	A	19	2-TE-12740	ELEC EQUIP RM TEMP	2X4DB207-1/13/E7	CONTROL	180'-0"	RB27	S				Y	2X5DV-430		
02032	A	19	2-TE-1668	NSCW A RETURN TO SPRAY/BYPASS VALVES	2X4DB133-1/27/G5	NSCT	220'-0"	?402	S				Y	2X3D-CE-B12F, 2X6AU01-634		
02033	B	19	2-TE-1669	NSCW B RETURN TO SPRAY/BYPASS VALVES	2X4DB133-2/27/G5	NSCT	220'-0"	R302	S				Y	2X3D-CE-B12H, 2X6AU01-634		
10043	A	19	2-TIC-13150	CB NORMAL A/C RM ESF A/C UNIT CONTROLLER	AX4DB216/12/E5	CONTROL	260'-0"	R325	S				Y	2DCHL13W, 2X3DF305, 2DBGC07R,		
10114	B	19	2-TIS-12005	AFW PUMP B ROOM SUPPLY FAN CONTROLLER	2X4DB227/11/E6	AFWP HOUSE	220'-0"	R102	S				Y	2X3D-BG-G03B		
10115	A	19	2-TIS-12006	AFW PUMP A ROOM SUPPLY FAN CONTROLLER	2X4DB227/11/C6	AFWP HOUSE	220'-0"	R101	S				Y	2X3D-BG-G03A		
10141	A	19	2-TIS-12300	CBCR CHILLER RM VENT FAN CONTROLLER	AX4DB241/12/B7	CONTROL	260'-0"	R311	S				Y	2X3D-BG-C02J		
10142	B	19	2-TIS-12303	CBCR CHILLER RM VENT FAN CONTROLLER	AX4DB241/12/D7	CONTROL	260'-0"	B308	S				Y	2X3D-BG-C01B		
10072	A	19	2-TISH-12200	ELECT SWGR & MCC RM A7001 COOLER CONTROLLER	2X4DB228/10/G8	AUX	119'-3"	RD104	S				Y	2DCHH01W, 2X3DF421, 2DBGD05A,		
10073	B	19	2-TISH-12201	ELECT SWGR & MCC RM A7002 COOLER CONTROLLER	2X4DB228/10/G7	AUX	245'-0"	R223	S				Y	2DCHH12B, 2X3DF416, 2DBGD05B,		
10074	A	19	2-TISH-12202	ELECT SWGR & MCC RM A7003 COOLER CONTROLLER	2X4DB228/10/G5	AUX	143'-6"	RC07	S				Y	2DCHH05W, 2X3DF422, 2DBGD05C,		
10075	B	19	2-TISH-12203	ELECT SWGR & MCC RM A7004 COOLER CONTROLLER	2X4DB228/10/G4	AUX	180'-0"	RB122	S				Y	2DCHH05W, 2X3DF423, 2DBGD05D,		
10076	A	19	2-TISH-12204	ELECT SWGR & MCC RM A7005 COOLER CONTROLLER	2X4DB228/10/G3	AUX	220'-0"	R149	S				Y	2DCHH10A, 2X3DF415, 2DBGD05E,		
10077	B	19	2-TISH-12205	ELECT SWGR & MCC RM A7006 COOLER CONTROLLER	2X4DB228/10/G2	AUX	220'-0"	R147	S				Y	2DCHH10A, 2X3DF415, 2DBGD05F,		

APPENDIX F
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10116	A	19	2-TISH-22501	DIESEL POWER CABLE TUNNEL EXH FAN CONTROLLER	2X4DB238/7/G7	TUNNEL	220'-0"	BDG	S				Y	2X3D-BG-K01C		
10050	B	19	2-TISH-22505	DIESEL POWER CABLE TUNNEL EXH FAN CONTROLLER	2X4DB238/7/F7	TUNNEL	220'-0"	1T4B @ DGB	S				Y	2X3D-BG-K01D		
10051	A	19	2-TISH-22509	TB & AB TRAIN A TUNNEL SUPPLY FAN CONTROLLER	2X4DB238/7/D7	CONTROL	180'-0"	RC08	S				Y	2DCHL0[illegible]2, 2X3DF3[illegible]0, 2DBGK01E,		
10052	A	19	2-TISH-22516	NSCW TWR CABLE TUNN TRN A FAN CONTROLLER	2X4DB238/7/G3	TUNNEL	220'-0"	1T5A @ NSCW	S				Y	2DAA[illegible]0Q, 2X3DH7E2, 2DBGK01C,		
10053	B	19	2-TISH-22519	NSCW TWR CABLE TUNN TRN B FAN CONTROLLER	2X4DB238/7/F3	TUNNEL	220'-0"	1T5B @ NSCW	S				Y	2DAAA00Q, 2X3DH7F1, 2DBGK01D,		
02034	B	08c	2-TV-11675	NSCW TO ESSENTIAL CHILLER CONDENSER (E/N) CONTROL VLV	2X4DB135-2/20/B5	CONTROL	260'-0"	R308	S		OPEN	OPEN	Y	2X5DV333		
02035	A	08c	2-TV-11740	NSCW TO ESSENTIAL CHILLER CONDENSER (E/N) CONTROL VLV	2X4DB134/23/G2	CONTROL	260'-0"	R310	S		OPEN	OPEN	Y	2X5DV332		
10119	B	07	2-TV-12085	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/B1	DG	220'-0"	R103	S		OPEN	OPEN	N	2X3D-BG-F01J		
10120	B	07	2-TV-12085A	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/B1	DG	220'-0"	R103	S		OPEN	OPEN	N	2X3D-BG-F01J		
10121	A	07	2-TV-12086	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/F8	DG	220'-0"	R101	S		OPEN	OPEN	N	2X3D-BG-F01H		
10122	A	07	2-TV-12086A	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/E8	DG	220'-0"	R101	S		OPEN	OPEN	N	2X3D-BG-F01H		
10123	A	07	2-TV-12094A	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/H8	DG	255'-0"	R209	S		OPEN	OPEN	N	2X3D-BG-F01H		
10124	A	07	2-TV-12094B	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/G8	DG	255'-0"	R209	S		OPEN	OPEN	N	2X3D-BG-F01H		
10125	A	07	2-TV-12094C	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/H8	DG	255'-0"	R209	S		OPEN	OPEN	N	2X3D-BG-F01K		
10126	A	07	2-TV-12094D	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/G8	DG	255'-0"	R209	S		OPEN	OPEN	N	2X3D-BG-F01K		
10127	B	07	2-TV-12095A	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/E8	DG	255'-0"	R208	S		OPEN	OPEN	N	2X3D-BG-F01J		
10128	B	07	2-TV-12095B	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/D8	DG	255'-0"	R208	S		OPEN	OPEN	N	2X3D-BG-F01N		
10129	B	07	2-TV-12095C	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/D8	DG	255'-0"	R208	S		OPEN	OPEN	N	2X3D-BG-F01K		
10130	B	07	2-TV-12095D	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/D8	DG	255'-0"	R208	S		OPEN	OPEN	N	2X3D-BG-F01K		
10131	A	07	2-TV-12096	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/F1	DG	220'-0"	R101	S		OPEN	OPEN	N	2X3D-BG-F01H		
10132	A	07	2-TV-12096A	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/F1	DG	220'-0"	R101	S		OPEN	OPEN	N	2X3D-BG-F01H		
10133	A	07	2-TV-12097	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/F1	DG	220'-0"	R101	S		OPEN	OPEN	N	2X3D-BG-F01H		
10134	A	07	2-TV-12097A	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/E1	DG	220'-0"	R101	S		OPEN	OPEN	N	2X3D-BG-F01H		

APPENDIX F
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH A

LINE NO. (1)	TRAIN (2)	EQUIP CLASS (3)	MARK NO. (4)	SYSTEM/EQUIPMENT DESCRIPTION (5)	Dwg. No./Rev./Zone (6)	<---------- Building (7)	EQUIPMENT Flr.Elv. (8)	LOCATION -----> Rm. or Row/Col. (9)	SORT (10)	NOTES (11)	<-- OP. Normal (12)	ST. --> Desired (13)	POWER REQD? (14)	SUPPORTING SYS. DWG. NO./REV. (15)	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS (16)	REG. ISSUE (17)
10135	B	07	2-TV-12098	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/C1	DG	220'-0"	R103	S		OPEN	OPEN	N	2X3D-BG-F01J		
10136	B	07	2-TV-12098A	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/C1	DG	220'-0"	R103	S		OPEN	OPEN	N	2X3D-BG-F01J		
10137	B	07	2-TV-12099	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/B8	DG	220'-0"	R103	S		OPEN	OPEN	N	2X3D-BG-F01J		
10138	B	07	2-TV-12099A	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/B8	DG	220'-0"	R103	S		OPEN	OPEN	N	2X3D-BG-F01J		
10031	A	08c	2-TV-12124	ECW TEMPERATURE CONTROL VALVE (E/H)	2X4DB233/16/D7	CONTROL	260'-0"	R311	S		OPEN	OPEN	Y	2X3D-BA-J02A		
10032	B	08c	2-TV-12125	ECW TEMPERATURE CONTROL VALVE (E/H)	2X4DB234/19/D7	CONTROL	260'-0"	R305	S		OPEN	OPEN	Y	2X3D-BA-J02D		
10108	B	08c	2-TV-12725	ECW TO ESF ELEC EQUIP RM HVAC UNIT CONTROL VALVE	2X4DB234/19/D7	CONTROL	180'-0"	RB17	S		OPEN	OPEN	Y			
10109	A	08c	2-TV-12740	ECW TO ESF ELEC EQUIP RM HVAC UNIT CONTROL VALVE	2X4DB233/16/D7	CONTROL	180'-0"	RB16	S		OPEN	OPEN	Y			
02040	B	19	2-TY-11675	CONVERTER FOR TV-11675	2X4DB135-2/20/B6	CONTROL	260'-0"	R308	S				Y	2X5DV333		
02041	A	19	2-TY-11740	CONVERTER FOR TV-11740	2X4DB134/23/G2	CONTROL	260'-0"	R310	S				Y	2X5DV332		
10143	A	19	2-TY-12124A	CONVERTER FOR TV-12124	2X5DV428	CONTROL	260'-0"	R311	S				Y	CX5DP8212		
10144	B	19	2-TY-12125A	CONVERTER FOR TV-12125	2X5DV429	CONTROL	260'-0"	R305	S				Y	CX5DP8212		
10145	B	19	2-TY-12725A	CONVERTER FOR TV-12725	2X5DV431	CONTROL	180'-0"	RB17	S				Y	CX5DP8212		
10146	A	19	2-TY-12740A	CONVERTER FOR TV-12740	2X5DV430	CONTROL	180'-0"	RB16	S				Y	CX5DP8212		

APPENDIX 3.F

VOGTLE UNIT 2 IPEEE

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

SSEL Notes

1. Component not required to function; however, integrity of component is required in order to maintain fluid boundary.

   A. Walkdown required.

   B. Walkdown not required; equipment is well-anchored due to its operating loads.

2. No power required to valve, but actuation signal needed.

3. Valve regulates flow/miniflow.

4. Valve actuated by SI signal.

5. Valve fails closed on loss of instrument air.

6. The following instrumentation and controls on the main control board will be functional: charging flow, FI-0138A/917A; RCP seal injection flow, FI-0142A/143A/144A/145A; RHR flow, FI-0618A/619A; SIP flow, FI-0918/922; NSCW return flow, FI-1640A/1641A; CCW flow, FI-1876/1877; AFW flow, FI-5150A/5151A/5152A/5153A; reactor head letdown flow, FI-0406/407; VCT level, LI-0112/185; pressurizer level and pressure, LI-0459A/460A/461 and PI-0455A/456/457/458; SG level and pressure, LI-0501/502/503/504/517/518/519/527/528/529/537/538/539/547/548/549/551/552/553/554 and PIC-3010A/3020A/3030A, 3040A; containment emergency sumplevel, LI-0764/765; RWST level, LI-0990A/991A,992A/993A; CST No. 1 level, LI-5111A; RCS wide range pressure and temperature, PI-0408/418/428/438 and TI-0413A/413B/423A/423B/433A/433B/443A/443B; steam line pressure, PI-0514A/515A/516A/524A/525A/526A/534A/535A/536A/544A/545A/546A/; and containment pressure, PI-0934/935/936. The plasma display will be functional.

7. The following instrumentation and controls on the QHVC panel will be functional: FISL-2425/22426.

8. PIC-3010A/3020A/3030A,3040A; containment emergency sumplevel, LI-0764/765; RWST level, LI-0990A/991A/992A/993A; CST No. 1 level, LI-5111A; RCS wide range pressure and temperature, PI-0408/418/428/438 and TI-0413A/413B/423A/423B/433A/433B/443A/443B; steam line pressure, PI-0514A/515A/516A/524A/525A/526A/534A/535A/536A/544A/545A/546A/; and containment pressure, PI-0934/935/936. The plasma display will be functional.

7. The following instrumentation and controls on the QHVC panel will be functional: FISL-2425/22426.

9. The following instrumentation and controls on local HVAC panels will be functional: TIC-12124/12125/12725/12740.

VOGTLE UNIT 2 IPEEE

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

KEY TO SSEL LINE NUMBERS

SERIES	SYSTEM NAME	SYSTEM NO.
01000	Reactor Coolant	1201
02000	Nuclear Service Cooling Water	1202
03000	Component Cooling Water	1203
04000	Safety Injection	1204
05000	Residual Heat Removal	1205
06000	Chemical Volume & Control	1208
07000	Misc. Mechanical	various
08000	Main Steam	1301
09000	Auxiliary Feedwater	1302
10000	Misc. HVAC & Chilled Water	1500s
11000	Diesel Generators	2403
12000	Containment Iso./Integrity	various
13000	Main Control Board	1601
14000	Nuclear Instrumentation	1602
15000	Process Control	1604
16000	NSS Protection	1605
17000	Post Accident Monitoring	1623
18000	AC Power	various
19000	DC Power	1806
20000	Multisystem Panels & Boards	1816
21000	Misc. Electrical	various
22000	Lighting	1808

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

KEY TO SSEL EQUIPMENT CLASSES

NUMBER	TYPES OF EQUIPMENT
00	Other
01	Motor Control Centers
02	Low Voltage Metal Clad Switchgear
03	Medium Voltage Metal Clad Switchgear
04	Transformers
05	Horizontal Pumps
06	Vertical Pumps
07	Air Operated Valves
08a	Motor Operated Valves
08b	Solenoid Operated Valves
08c	Electro-hydraulically Operated Valves
09	Fans and Air Handlers
11	Chillers
12	Air Compressors
13	Motor Generators
14	Distribution Panels
15	Batteries and Racks
16	Battery Chargers and Inverters
17	Engine Generators
18	Instrument Racks
19	Local Instruments and Temperature Sensors
20	Control and Instrumentation Panels
21	Tanks and Heat Exchangers
22	Automatic Transfer Switches
23	Wall Mounted Contactors, Transmitters, Power Supplies, etc.
24	Strainers and Filters
25	Control Rod Drive Assemblies
26	Traveling Screens and Sluice Gates

APPENDIX G
VOGTLE ELECTRIC GENERATING PLANT -UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
01000		00	1-1201-B6-001	STEAM GENERATOR 1	1X4DB111/20/D7	CTB	183'-0"	14AB	AS				N	1X4DB159-1/28, 1X4DB159-3/19, 1X4DB168-3/23	FW, MS, BLOWDOWN	
01001		00	1-1201-B6-002	STEAM GENERATOR 2	1X4DB111/20/F7	CTB	183'-0"	14BB	AS				N	1X4DB159-1/28, 1X4DB159-3/19, 1X4DB168-3/23	FW, MS, BLOWDOWN	
01002		00	1-1201-B6-003	STEAM GENERATOR 3	1X4DB111/20/F2	CTB	183'-0"	14CB	AS				N	1X4DB159-1/28, 1X4DB159-3/19, 1X4DB168-3/23	FW, MS, BLOWDOWN	
01003		00	1-1201-B6-004	STEAM GENERATOR 4	1X4DB111/20/D2	CTB	183'-0"	14DB	AS				N	1X4DB159-1/28, 1X4DB159-3/19, 1X4DB168-3/23	FW, MS, BLOWDOWN	
01033	A	18	1-1201-P5-TIA	RVLIS TRANSMITTER RACK TRAIN A	1X4DB113/19/B5	AUX	180'-0"	RB04	AS				Y	1X3D-CD-C02A, 1X3D-CD-C02E, 1X6AU01-670		
01034	B	18	1-1201-P5-TIB	RVLIS TRANSMITTER RACK TRAIN B	1X4DB113/19/B8	FB	180'-0"	RB08	AS				Y	1X3D-CD-C02C, 1X3D-CD-C02G, 1X6AU01-670		
01008		00	1-1201-V6-001	REACTOR VESSEL	1X4DB111/20/D4	CTB	183'-0"	14AB	AS				N			
01009		00	1-1201-V6-002	PRESSURIZER	1X4DB112/27/C6	CTB	183'-0"	14DA	AS				N			
02000	A	06	1-1202-P4-001	NSCW TRAIN A PUMP NO. 1	1X4DB133-1/28/C7	NSCT	220'-0"	R103	AS		OFF/ON	ON	Y	1X3D-BD-K04A/9		
02001	B	06	1-1202-P4-002	NSCW TRAIN B PUMP NO. 2	1X4DB133-2/33/C8	NSCT	220'-0"	R203	AS		OFF/ON	ON	Y	1X3D-BD-K04B/9		
02002	A	06	1-1202-P4-003	NSCW TRAIN A PUMP NO. 3	1X4DB133-1/28/C5	NSCT	220'-0"	R103	AS		OFF/ON	ON	Y	1X3D-BD-K04C/8		
02003	B	06	1-1202-P4-004	NSCW TRAIN B PUMP NO. 4	1X4DB133-2/33/C5	NSCT	220'-0"	R203	AS		OFF/ON	ON	Y	1X3D-BD-K04D/9		
02004	A	09	1-1202-W4-001-F01	NSCT FAN NO. 1	1X4DB133-1/28/G6	NSCT	250'-0"	R105	AS		OFF/ON	ON	Y	1X3D-BD-K03A/8		
02005	A	09	1-1202-W4-001-F02	NSCT FAN NO. 2	1X4DB133-1/28/G6	NSCT	250'-0"	R108	AS		OFF/ON	ON	Y	1X3D-BD-K03B/8		
02006	A	09	1-1202-W4-001-F03	NSCT FAN NO. 3	1X4DB133-1/28/G7	NSCT	250'-0"	R106	AS		OFF/ON	ON	Y	1X3D-BD-K03C/7		
02036	A	09	1-1202-W4-001-F04	NSCT FAN NO. 4	1X4DB133-1/28/G8	NSCT	250'-0"	R106	AS		OFF/ON	ON	Y	1X3D-BD-K03D/6		
02007	B	09	1-1202-W4-002-F01	NSCT FAN NO. 1	1X4DB133-2/33/G6	NSCT	250'-0"	R205	AS		OFF/ON	ON	Y	1X3D-BD-K03E/5		
02008	B	09	1-1202-W4-002-F02	NSCT FAN NO. 2	1X4DB133-2/33/G6	NSCT	250'-0"	R208	AS		OFF/ON	ON	Y	1X3D-BD-K03F/5		
02009	B	09	1-1202-W4-002-F03	NSCT FAN NO. 3	1X4DB133-2/33/G7	NSCT	250'-0"	R206	AS		OFF/ON	ON	Y	1X3D-BD-K03G/5		
02037	B	09	1-1202-W4-002-F04	NSCT FAN NO. 4	1X4DB133-2/33/G8	NSCT	250'-0"	R206	AS		OFF/ON	ON	Y	1X3D-BD-K03H/5		
03000	A	21	1-1203-E4-001	CCW HEAT EXCHANGER	1X4DB136/25/G2	AUX	245'-0"	R203	AS				N	1X4DB135-1/22	NSCW	
03001	B	21	1-1203-E4-002	CCW HEAT EXCHANGER	1X4DB136/25/D2	AUX	245'-0"	R202	AS				N	1X4DB133-2/33	NSCW	

APPENDIX G
VOGTLE ELECTRIC GENERATING PLANT -UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- EQUIPMENT Building	Flr.Elv.	LOCATION ------> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
03002	A	05	1-1203-P4-001	CCW PUMP NO. 1	1X4DB136/25/H4	AUX	195'-0"	RA05	AS		OFF/ON	ON	Y	1X4DB133-1/28, 1X3D-BD-L01A/8	NSCW	
03003	B	05	1-1203-P4-002	CCW PUMP NO. 2	1X4DB136/25/D4	AUX	195'-0"	RA03	AS		OFF/ON	ON	Y	1X4DB133-2/33, 1X3D-BD-L01B/8	NSCW	
03004	A	05	1-1203-P4-003	CCW PUMP NO. 3	1X4DB136/25/F4	AUX	195'-0"	RA05	AS		OFF/ON	ON	Y	1X4DB133-1/28, 1X3D-BD-L01C/7	NSCW	
03005	B	05	1-1203-P4-004	CCW PUMP NO. 4	1X4DB136/25/C4	AUX	195'-0"	RA03	AS		OFF/ON	ON	Y	1X4DB133-2/33, 1X3D-BD-L01D/7	NSCW	
03008	A	21	1-1203-T4-001	CCW SURGE TANK	1X4DB136/25/F7	AUX	245'-0"	R203	AS				N			
03009	B	21	1-1203-T4-002	CCW SURGE TANK	1X4DB136/25/B7	AUX	245'-0"	R202	AS				N			
04000	A	05	1-1204-P6-003	SI PUMP A	1X4DB121/26/E3	AUX	180'-0"	RB15	AS		OFF	ON	Y	1X4DB134/20, 1X3D-BD-D01C/5	NSCW, RWST	
04001	B	05	1-1204-P6-004	SI PUMP B	1X4DB121/26/C3	AUX	180'-0"	RB19	AS		OFF	ON	Y	1X4DB134/20, 1X3D-BD-D01D/6	NSCW, RWST	
04002		21	1-1204-T4-001	REFUELING WATER STORAGE TANK	1X4DB121/26/G2	RWST	220'-0"	SOUTH OF AUX	AS				N		SIS, CVCS, RHR, CNTMT SPRAY	
04003		21	1-1204-V6-001	BORON INJECTION TANK	1X4DB119/24/D4	AUX	180'-0"	RB11	AS	1A			N			
05000	A	21	1-1205-E6-001	RHR HEAT EXCHANGER A	1X4DB122/26/G6	AUX	119'-3"	RC90	AS				N	1X4DB137/15	CCW	
05001	B	21	1-1205-E6-002	RHR HEAT EXCHANGER B	1X4DB122/28/D6	AUX	143'-6"	RC91	AS				N	1X4DB137/15	CCW	
05002	A	05	1-1205-P6-001	RHR PUMP A	1X4DB122/28/G4	AUX	119'-3"	RD48	AS		OFF	ON	Y	1X4DB137/15, 1X4DB134/20, 1X3D-BD-E01A/6	CCW, NSCW	
05003	B	05	1-1205-P6-002	RHR PUMP B	1X4DB122/28/D4	AUX	119'-3"	RD49	AS		OFF	ON	Y	1X4DB137/15, 1X4DB134/20, 1X3D-BD-E01B/6	CCW, NSCW	
06000		21	1-1208-E6-001	REGENERATIVE HEAT EXCHANGER	1X4DB114/30/F6	CTB	183'0"	14AB	AS	1A			N			
06004	A	05	1-1208-P6-002	CCP A	1X4DB116-2/17/G4	AUX	143'-6"	RC115	AS		OFF	ON	Y	1X4DB134/20, 1X3D-BD-C01A/5	NSCW, RWST	
06005	B	05	1-1208-P6-003	CCP B	1X4DB116-2/17/C4	AUX	143'-6"	RC118	AS		OFF	ON	Y	1X4DB134/20, 1X3D-BD-C01B/6	NSCW, RWST	
07002	A	21	1-1213-E6-001	SPENT FUEL PIT HEAT EXCH A	1X4DB130/25/F4	AUX	195'-0"	RA53	AS	1A			N	1X4DB137/15	CCW	
07013	B	21	1-1213-E6-002	SPENT FUEL PIT HEAT EXCH B	1X4DB130/25/G4	FB	200'-0"	RA07	AS	1A			N	1X4DB137/15	CCW	
07003	A	21	1-1217-E4-001	ACCW HEAT EXCHANGER	1X4DB138-1/19/B6	AUX	220'-0"	R105	AS	1A			N	1X4DB135-1/22	NSCW	
07004	B	21	1-1217-E4-002	ACCW HEAT EXCHANGER	1X4DB138-1/19/B4	AUX	220'-0"	R104	AS	1A			N	1X4DB133-2/33	NSCW	

APPENDIX G
VOGTLE ELECTRIC GENERATING PLANT -UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10000	A,B	20	1-1500-Q5-HVC	HVAC PANEL	1X5AB01-44	CONTROL	220'-0"	R163	AS	7				1X3D-AA-B20C		
10001	A	20	1-1500-V7-001-CBA	LOCAL CB HVAC PANEL TRAIN A	1X4AJ20-1337	CONTROL	220'-0"	R163	AS	8				1DCGD02B, 1X3DF30C,		
10002	B	20	1-1500-V7-001-CBB	LOCAL CB HVAC PANEL TRAIN B	1X4AJ20-1337	CONTROL	220'-0"	R163	AS	8				1DCGD02D, 1X3DF30C		
10139	A	09	1-1531-B7-002-000	CBCR CHILLER ROOM VENT FAN	AX4DB241/12/A5	CONTROL	260'-0"	R320	AS		OFF	ON	Y			
10140	B	09	1-1531-B7-004-000	CBCR CHILLER ROOM VENT FAN	AX4DB241/12/D6	CONTROL	260'-0"	R312	AS		OFF	ON	Y			
10017	A	09	1-1531-N7-001-000	CBCR FILTER UNIT	AX4DB206-3/24/C4	CONTROL	260'-0"	R321	AS		OFF	ON	Y	1X4DB233/19, 1X3D-BG-C01E/10	ECW	
10018	B	09	1-1531-N7-002-000	CBCR FILTER UNIT	AX4DB206-3/24/F4	CONTROL	260'-0"	R312	AS		OFF	ON	Y	1X4DB234/18, 1X3D-BG-C01F/9	ECW	
10033	A	09	1-1532-A7-001-000	CBSF ELEC EQUIP RM AC UNIT	1X4DB207-1/21/F3	CONTROL	180'-0"	RB60	AS		ON	ON	Y	1X4DB233/19, 1X3D-BG-C04A/5	ECW	
10034	B	09	1-1532-A7-002-000	CBSF ELEC EQUIP RM AC UNIT	1X4DB207-1/21/C3	CONTROL	180'-0"	RB62	AS		ON	ON	Y	1X4DB234/18, 1X3D-BG-C04B/5	ECW	
10035	A	09	1-1532 B7-001-000	BATTERY RM EXHAUST FAN & MOTOR	1X4DB207-1/21/E3	CONTROL	180'-0"	RB55	AS		ON	ON	Y	1X3D-BG-C04N/4		
10036	B	09	1-1532-B7-002-000	BATTERY RM EXHAUST FAN & MOTOR	1X4DB207-1/21/B3	CONTROL	180'-0"	RB49	AS		ON	ON	Y	1X3D-BG-C04P/3		
10039	A	09	1-1539-A7-001-000	CB AUX RELAY RM ESF A/C UNIT	AX4DB225/14/D7	CONTROL	200'-0"	RA82	AS		OFF	ON	Y	1X4DB233/19, 1X3D-BG-C07M/4	ECW	
10040	B	09	1-1539-A7-002-000	CB AUX RELAY RM ESF A/C UNIT	AX4DB216/12/G6	CONTROL	240'-0"	R226	AS		OFF	ON	Y	1X4DB234/18, 1X3D-BG-C07N/2	ECW	
10041	A	09	1-1539-A7-005-000	CB NORMAL AC RM ESF A/C UNIT	AX4DB216/12/D5	CONTROL	260'-0"	R325	AS		OFF	ON	Y	1X4DB233/19, 1X3D-BG-C07R/3	ECW	
10042	B	09	1-1539-A7-006-000	CB ELEC EQUIP RM ESF A/C UNIT	AX4DB216/12/G4	CONTROL	260'-0"	R322	AS		OFF	ON	Y	1X4DB234/18, 1X3D-BG-C07S/3	ECW	
10045	A	09	1-1540-B7-001-000	DIESEL POWER CABLE TUNNEL EXHAUST FAN UNIT	1X4DB238/9/H6	TUNNEL	195'-0"	1T4A @ DGB	AS		OFF	ON	Y	1X3D/BG/K01C/6		
10046	B	09	1-1540-B7-002-000	DIESEL POWER CABLE TUNNEL EXHAUST FAN UNIT	1X4DB238/9/F6	TUNNEL	180'-0"	1T4B @ DGB	AS		OFF	ON	Y	1X3D-BG-K01D/4		
10047	A	09	1-1540-B7-003-000	NSCW TOWER CABLE TUNNEL EXHAUST FAN UNIT	1X4DB238/9/H2	TUNNEL	220'-0"	1T5A @ NSCW	AS		OFF	ON	Y	1X3D-BG-K01C/6		
10048	B	09	1-1540-B7-004-000	NSCW TOWER CABLE TUNNEL EXHAUST FAN UNIT	1X4DB238/9/F2	TUNNEL	220'-0"	1T5B @ NSCW	AS		OFF	ON	Y	1X3D-BG-K01D/4		
10049	A	09	1-1540-B7-005-000	AUX BLDG TRAIN A TUNNEL SUPPLY FAN UNIT	1X4DB238/9/E2	AUX	245'-0"	R212	AS		OFF	ON	Y	1X3D-BG-K01E/6		

APPENDIX G
VOGTLE ELECTRIC GENERATING PLANT -UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10054	A	09	1-1555-A7-001-000	ELEC SWGR AND MCC ROOM COOLER A (1AB15)	1X4DB228/10/G7	AUX	119'-3"	RD79	AS		OFF	ON	Y	1X4DB233/19, 1X3D-BG-D05A/9	ECW	
10055	B	09	1-1555-A7-002-000	ELEC SWGR AND MCC ROOM COOLER B (1BB16)	1X4DB228/10/G6	AUX	245'-0"	R212	AS		OFF	ON	Y	1X4DB234/18, 1X3D-BG-D05B/7	ECW	
10056	A	09	1-1555-A7-003-000	ELEC SWGR AND MCC ROOM COOLER A (1AB0)	1X4DB228/10/G5	AUX	180'-0"	RB13	AS		OFF	ON	Y	1X4DB233/19, 1X3D-BG-D05C/8	ECW	
10057	B	09	1-1555-A7-004-000	ELEC SWGR AND MCC ROOM COOLER B (1BBD)	1X4DB228/10/G4	AUX	180'-0"	RB17	AS		OFF	ON	Y	1X4DB234/18, 1X3D-BG-D05D/8	ECW	
10058	A	09	1-1555-A7-005-000	ELEC SWGR AND MCC ROOM COOLER A (1AB8)	1X4DB228/10/G3	AUX	220'-0"	R118	AS		OFF	ON	Y	1X4DB233/19, 1X3D-BG-D05E/6	ECW	
10059	B	09	1-1555-A7-006-000	ELEC SWGR AND MCC ROOM COOLER B (1BB8)	1X4DB228/10/G1	AUX	220'-0"	R116	AS		OFF	ON	Y	1X4DB234/18, 1X3D-BG-D05F/6	ECW	
10078		09	1-1561-E7-001-000	PIPING PENETRATION AREA COOLER	1X4DB205-1/21/B4	AUX	245'-0"	R210	AS				N	1X4DB233/19, 1X4DB234/18	ECW	
10079		09	1-1561-E7-002-000	PIPING PENETRATION AREA COOLER	1X4DB205-1/21/B5	AUX	245'-0"	R210	AS				N	1X4DB135-1/22, 1X4DB133-2/33	NSCW	
10080	A	09	1-1561-N7-001-000	PIPING PENETRATION ROOM FILTRATION AND EXHAUST UNIT	1X4DB205-1/21/E3	AUX	245'-0"	R210	AS		OFF	ON	Y	1X3D-BG-D01D/8		
10081	B	09	1-1561-N7-002-000	PIPING PENETRATION ROOM FILTRATION AND EXHAUST UNIT	1X4DB205-1/21/E7	AUX	245'-0"	R209	AS		OFF	ON	Y	1X3D-BG-D01F/6		
10090	A	09	1-1566-B7-001-000	DG A BLDG ESF SUPPLY FAN NO. 1	1X4DB217/13/H6	DG	255'-0"	R208	AS		OFF	ON	Y	1X3D-BG-F01B/9		
10091	B	09	1-1566-B7-002-000	DG B BLDG ESF SUPPLY FAN NO. 2	1X4DB217/13/D6	DG	255'-0"	R203	AS		OFF	ON	Y	1X3D-BG-F01E/8		
10092	A	09	1-1566-B7-003-000	DG A BLDG ESF SUPPLY FAN NO. 3	1X4DB217/13/G6	DG	255'-0"	R208	AS		OFF	ON	Y	1X3D-BG-F01C/9		
10093	B	09	1-1566-B7-004-000	DG B BLDG ESF SUPPLY FAN NO. 4	1X4DB217/13/D6	DG	255'-0"	R203	AS		OFF	ON	Y	1X3D-BG-F01F/8		
10098	A	11	1-1592-C7-001	CB ESSENTIAL CHILLER	1X4DB221/22/F3	CONTROL	260'-0"	R320	S		OFF	ON	Y	1X4DB134/20, 1X3D-BG-G02A/13	NSCW	
10099	B	11	1-1592-C7-002	CB ESSENTIAL CHILLER	1X4DB221/22/C3	CONTROL	260'-0"	R313	S		OFF	ON	Y	1X4DB135-2/21, 1X3D-BG-G02B/14	NSCW	
10100	A	05	1-1592-P7-001	ESSENTIAL CHILLED WATER PUMP	1X4DB221/22/F5	CONTROL	260'-0"	R320	AS		OFF	ON	Y	1X3D-BG-G02C/11		
10101	B	05	1-1592-P7-002	ESSENTIAL CHILLED WATER PUMP	1X4DB221/22/C5	CONTROL	260'-0"	R313	AS		OFF	ON	Y	1X3D-BG-G02D/9		
10102	A	21	1-1592-T7-001	ESSENTIAL CHILLED WATER EXPANSION TANK	1X4DB221/22/G6	CONTROL	260'-0"	R316	AS				N			
10103	B	21	1-1592-T7-002	ESSENTIAL CHILLED WATER EXPANSION TANK	1X4DB221/22/D6	CONTROL	260'-0"	R313	AS				N			

APPENDIX G
VOGTLE ELECTRIC GENERATING PLANT -UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO. (1)	TRAIN (2)	EQUIP CLASS (3)	MARK NO. (4)	SYSTEM/EQUIPMENT DESCRIPTION (5)	Dwg. No./Rev./Zone (6)	<---------- Building (7)	EQUIPMENT Flr.Elv. (8)	LOCATION -----> Rm. or Row/Col. (9)	SORT (10)	NOTES (11)	<-- OP. Normal (12)	ST. --> Desired (13)	POWER REQD? (14)	SUPPORTING SYS. DWG. NO./REV. (15)	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS (16)	REG. ISSUE (17)
13000	MULTI	20	1-1601-Q5-MCB	MAIN CONTROL BOARD	1X6AV02-159	CONTROL	220'-0"	R163	AS	6				1DCEB01D, AX3DF300, 1DCEB02B, 1X3DF30C,		
11002	A	17	1-2403-G4-001	DIESEL GENERATOR A	1X4DB170-1/29/F5	DG	220'-0"	R103	AS		OFF	ON	N	1X4DB135-1/22	NSCW	
11003	A	24	1-2403-G4-001-F01	DG INTAKE AIR FILTER	1X4DB170-1/29/H7	DG	255'-0"	R210	S				N			
11004	A	24	1-2403-G4-001-F02	DG EXHAUST AIR SILENCER	1X4DB170-1/29/H4	DG	255'-0"	R209	S				N			
11005	A	21	1-2403-G4-001-V01	DG AIR START RECEIVER	1X4DB170-1/29/F3	DG	220'-0"	R103	AS				N			
11006	A	21	1-2403-G4-001-V02	DG AIR START RECEIVER	1X4DB170-1/29/H3	DG	220'-0"	R103	AS				N			
11007	B	17	1-2403-G4-002	DIESEL GENERATOR B	1X4DB170-2/27/F5	DG	220'-0"	R101	AS		OFF	ON	N	1X4DB133-2/28	NSCW	
11008	B	24	1-2403-G4-002-F01	DG INTAKE AIR FILTER	1X4DB170-2/27/H7	DG	255'-0"	R205	S				N			
11009	B	24	1-2403-G4-002-F02	DG EXHAUST AIR SILENCER	1X4DB170-2/27/H4	DG	255'-0"	R204	AS				N			
11010	B	21	1-2403-G4-002-V01	DG AIR START RECEIVER	1X4DB170-2/27/F3	DG	220'-0"	R101	AS				N			
11011	B	21	1-2403-G4-002-V02	DG AIR START RECEIVER	1X4DB170-2/27/H3	DG	220'-0"	R101	AS				N			
11012	A	06	1-2403-P4-001	DIESEL FUEL OIL TRANSFER PUMP	1X4DB170-1/29/B3	DFOST	211'-6"	RA01	AS		OFF	ON	Y	1X3D-BH-G01X/5		
11013	B	06	1-2403-P4-003	DIESEL FUEL OIL TRANSFER PUMP	1X4DB170-2/27/A3	DFOST	211'-6"	RA03	AS		OFF	ON	Y	1X3D-BH-G02B/5		
11020	A	21	1-2403-T4-001	DIESEL FUEL OIL STORAGE TANK	1X4DB170-1/29/A3	DFOST	211'-6"	RA01	AS				N			
11021	B	21	1-2403-T4-002	DIESEL FUEL OIL STORAGE TANK	1X4DB170-2/27/A3	DFOST	211'-6"	RA03	AS				N			
11022	A	21	1-2403-T4-003	DIESEL FUEL OIL DAY TANK	1X4DB170-1/29/D2	DG	220'-0"	R104	AS				N			
11023	B	21	1-2403-T4-004	DIESEL FUEL OIL DAY TANK	1X4DB170-2/27/D2	DG	220'-0"	R102	AS				N			
02010	A	07	1-CV-9446	NSCT BLOWDOWN ISO AOV	1X4DB133-1/28/B5	NSCT	220'-0"	R102	S	2,4,5	OPEN	CLOSED	N	1X3D-BD-K04J/7		
02011	B	07	1-CV-9447	NSCT BLOWDOWN ISO AOV	1X4DB133-2/33-B5	NSCT	220'-0"	R202	S	2,4,5	OPEN	CLOSED	N	1X3D-BD-K04K/4		
05006	A	19	1-FIS-0610	RHR PUMP A FLOW TO MINIFLOW VALVE	1X4DB122/28/G5	AUX	119'-3"	RD121	S				Y	1DCHH02B, 1X3DF411, 1DBDE02C,		
05007	B	19	1-FIS-0611	RHR PUMP B FLOW TO MINIFLOW VALVE	1X4DB122/28/D5	AUX	119'-3"	RD53	S				Y	1DCHH02B, 1X3DF411, 1DBDE02D,		
02012	A	19	1-FIT-1640A	NSCW RETURN FLOW	1X4DB133-1/28/F4	NSCT	195'-0"	TUNNEL 1T2A	S				Y	1X5DV-021		
02013	B	19	1-FIT-1641A	NSCW RETURN FLOW	1X4DB133-2/33/F5	NSCT	195'-0"	TUNNEL 1T2B	S				Y	1X5DV-022		

APPENDIX G
VOGTLE ELECTRIC GENERATING PLANT -UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO. (1)	TRAIN (2)	EQUIP CLASS (3)	MARK NO. (4)	SYSTEM/EQUIPMENT DESCRIPTION (5)	Dwg. No./Rev./Zone (6)	<---------- EQUIPMENT Building (7)	Flr.Elv. (8)	LOCATION -----> Rm. or Row/Col. (9)	SORT (10)	NOTES (11)	<-- OP. Normal (12)	ST. --> Desired (13)	POWER REQD? (14)	SUPPORTING SYS. DWG. NO./REV. (15)	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS (16)	REG. ISSUE (17)
10019	A	19	1-FSL-12045	INTERLOCK FLOW SWTCH CNTL BLD..CLOSES ON LOW AIR	AX4DB206-3/24/F3	CONTROL	260'-0"	R320	S				Y	1X5DV498, 1X3DF315, 1DBGC01E,		
10020	B	19	1-FSL-12046	INTERLOCK FLOW SWTCH CNTL BLD..CLOSES ON AIR-FLO	AX4DB206-3/24/C3	CONTROL	260'-0"	R313	S				Y	1X5DV498, 1X3DF315, 1DBGC01F,		
05008	A	19	1-FT-0618	RHR A FLOW	1X4DB122/28/G7	AUX	119'-3"	RD121	S				Y	1X3D-CD-C02A, 1X6AU01-671		
05009	B	19	1-FT-0619	RHR B FLOW	1X4DB122/28/C7	AUX	143'-6"	RD53	S				Y	1X3D-CD-C02C, 1X6AU01-671		
04004	D	19	1-FT-0917	FLOW THROUGH BIT	1X4DB119/24/C2	AUX	180'-0"	RB1[illegible]	S				Y	1X3D-CD-C02G, 1X6AU01-674		
04005	A	19	1-FT-0918	SIP A FLOW	1X4DB121/26/E4	AUX	180'-0"	RB15	S				Y	1X3D-CD-C02G, 1X6AU01-671		
04006	B	19	1-FT-0922	SIP B FLOW	1X4DB121/26/C4	AUX	180'-0"	RB19	S				Y	1X3D-CD-C02G, 1X6AU01-671		
02014	A	19	1-FT-1802	NSCW FLOW TO CB ESS CHILLER	1X4DB134/20/F1	CONTROL	260'-0"	R320	S				Y	1X3D-CE-B13E, 1X6AU01-947		
02015	B	19	1-FT-1803	NSCW FLOW TO CB ESS CHILLER	1X4DB135-2/21/A5	CONTROL	260'-0"	R313	S				Y	1X3D-CE-B13H, 1X6AU01-947		
03010	A	19	1-FT-1876	CCW A FLOW	1X4DB136/25/F1	AUX	195'-0"	RA05	S				Y	1X3D-CE-B12K, 1X6AU01-617		
03011	B	19	1-FT-1877	CCW B FLOW	1X4DB136/25/C1	AUX	195'-0"	RA04	S				Y	1X3D-CE-B12K, 1X6AU01-617		
10104	A	19	1-FT-22425	ECW FLOW	1X4DB221/22/G1	CONTROL	260'-0"	R320	S				Y	1X3D-CE-B12K, 1X6AU01-637		
10105	B	19	1-FT-22426	ECW FLOW	1X4DB221/22/D1	CONTROL	260'-0"	R313	S				Y	1X3D-CE-B12H, 1X6AU01-637		
05010	A	08a	1-FV-0610	RHR PUMP A MINIFLOW MOV	1X4DB122/28/H5	AUX	143'-6"	RC90	S		OPEN	CLOSED	Y	1X3D-BD-E02C/7		
05011	B	08a	1-FV-0611	RHR PUMP B MINIFLOW MOV	1X4DB122/28/E5	AUX	143'-6"	RC91	S		OPEN	CLOSED	Y	1X3D-BD-E02D/7		
04009	B	07	1-HV-10957	RWST TO SLUDGE MIXING PUMP SUCTION AOV	1X4DB121/26/G3	RWST	220'-0"	R101	S	2,5	OP/CL	CLOSED	N			
04010	A	07	1-HV-10958	RWST TO SLUDGE MIXING PUMP SUCTION AOV	1X4DB121/26/G3	RWST	220'-0"	R101	S	2,5	OP/CL	CLOSED	N			
02016	A	08a	1-HV-11600	NSCW PUMP 1 DISCHARGE MOV	1X4DB133-1/28/C8	NSCT	220'-0"	R103	S		OP/CL	OPEN	Y	1X3D-BD-K04Z/4		
02017	A	08a	1-HV-11606	NSCW PUMP 3 DISCHARGE MOV	1X4DB133-1/28/C4	NSCT	220'-0"	R103	S		OP/CL	OPEN	Y	1X3D-BD-K04Z/4		

APPENDIX G
VOGTLE ELECTRIC GENERATING PLANT -UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
02018	B	08a	1-HV-11607	NSCW PUMP 2 DISCHARGE MOV	1X4DB133-2/33/C8	NSCT	245'-0"	R203	S		OP/CL	OPEN	Y	1X3D-BK-K04Y/4		
02019	B	08a	1-HV-11613	NSCW PUMP 4 DISCHARGE MOV	1X4DB133-2/33/C5	NSCT	245'-0"	R203	S		OP/CL	OPEN	Y	1X3D-BK-K04Y/4		
10094	A	08a	1-HV-12050	DG A AIR SUPPLY DAMPER FOR FAN NO. 1	1X4DB217/13/H6	DG	255'-0"	R208	AS		CLOSED	OPEN	Y	1X3D-BG-F01M/4		
10095	A	08a	1-HV-12051	DG A AIR SUPPLY DAMPER FOR FAN NO. 3	1X4DB217/13/G6	DG	255'-0"	R208	S		CLOSED	OPEN	Y	1X3D-BG-F01M/4		
10096	B	08a	1-HV-12053	DG A AIR SUPPLY DAMPER FOR FAN NO. 2	1X4DB217/13/D6	DG	255'-0"	R203	S		CLOSED	OPEN	Y	1X3D-BG-F01M/4		
10097	B	08a	1-HV-12054	DG A AIR SUPPLY DAMPER FOR FAN NO. 4	1X4DB217/13/D6	DG	255'-0"	R203	S		CLOSED	OPEN	Y	1X3D-BG-F01M/4		
10021	A	08a	1-HV-12128	CBCR FILTER UNIT AIR SUPPLY DAMPER	AX4DB206-3/24/C2	CONTROL	220'-0"	R143	S		CLOSED	OPEN	Y	1X3D-BG-C01X/3		
10022	B	08a	1-HV-12129	CBCR FILTER UNIT AIR SUPPLY DAMPER	AX4DB206-3/24/F2	CONTROL	220'-0"	R143	S		CLOSED	OPEN	Y	1X3D-BG-C01Z/3		
10023	A	08a	1-HV-12130	CBCR FILTER UNIT AIR RETURN DAMPER	AX4DB206-3/24/B2	CONTROL	220'-0"	R143	S		CLOSED	OPEN	Y	1X3D-BG-C01X/3		
10024	B	08a	1-HV-12131	CBCR FILTER UNIT AIR RETURN DAMPER	AX4DB206-3/24/E2	CONTROL	220'-0"	R143	S		CLOSED	OPEN	Y	1X3D-BG-C01Z/3		
10025	A	07	1-HV-12146	CBCR NORMAL AIR SUPPLY DAMPER	AX4DB206-2/18/C5	CONTROL	240'-0"	R233	S	2,5	OPEN	CLOSED	N	1X3D-BG-C07B/8		
10026	B	07	1-HV-12147	CBCR NORMAL AIR SUPPLY DAMPER	AX4DB206-2/18/C4	CONTROL	240'-0"	R233	S	2,5	OPEN	CLOSED	N	1X3D-BG-C07C/8		
10027	B	07	1-HV-12148	CBCR NORMAL AIR RETURN DAMPER	AX4DB206-2/18/B4	CONTROL	240'-0"	R233	S	2,5	OPEN	CLOSED	N	1X3D-BG-C07C/8		
10028	A	07	1-HV-12149	CBCR NORMAL AIR RETURN DAMPER	AX4DB206-2/18/B5	CONTROL	240'-0"	R233	S	2,5	OPEN	CLOSED	N	1X3D-BG-C07B/8		
10082	A	07	1-HV-12604	PPG PENETRATION NORMAL RETURN AIR ISOLATION DAMPER	1X4DB205-2/14/F2	AUX	245'-0"	R209	S	2,5	OPEN	CLOSED	N	1X3D-BG-D04A/4		
10083	A	07	1-HV-12605	PPG PENETRATION NORMAL AIR SUPPLY ISOLATION DAMPER	1X4DB205-2/14/D1	AUX	245'-0"	R209	S	2,5	OPEN	CLOSED	N	1X3D-BG-D04A/4		
10084	B	07	1-HV-12606	PPG PENETRATION NORMAL AIR SUPPLY ISOLATION DAMPER	1X4DB205-2/14/F1	AUX	245'-0"	R209	S	2,5	OPEN	CLOSED	N	1X3D-BG-D04B/5		
10085	B	07	1-HV-12607	PPG PENETRATION NORMAL RETURN AIR ISOLATION DAMPER	1X4DB205-2/14/D2	AUX	245'-0"	R209	S	2,5	OPEN	CLOSED	N	1X3D-BG-D04B/5		
10086	A	08c	1-HV-12614	PPG PEN FILTRATION AND EXHAUST UNIT SUCTION DAMPER	1X4DB205-1/21/D4	AUX	245'-0"	R210	S		CLOSED	OPEN	Y	1X3D-BG-D04J/2		
10087	B	08c	1-HV-12616	PPG PEN FILTRATION AND EXHAUST UNIT SUCTION DAMPER	1X4DB205-1/21/D8	AUX	245'-0"	R209	S		CLOSED	OPEN	Y	1X3D-BG-D04J/2		
08000	A	07	1-HV-13005A	INBOARD MSIV BYPASS AOV--SG 1	1X4DB159-2/22/G6	AUX	220'-0"	R108	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q02H/3		
08001	B	07	1-HV-13005B	OUTBOARD MSIV BYPASS AOV--SG 1	1X4DB159-2/22/G6	AUX	220'-0"	R108	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q02J/3		
08002	A	07	1-HV-13006A	INBOARD MSIV BYPASS AOV--SG 4	1X4DB159-2/22/A6	AUX	220'-0"	R108	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q02H/3		

APPENDIX G
VOGTLE ELECTRIC GENERATING PLANT -UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION ------> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
08003	B	07	1-HV-13006B	OUTBOARD MSIV BYPASS AOV--SG 4	1X4D8159-2/22/A6	AUX	220'-0"	R108	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q02J/3		
08004	A	07	1-HV-13007A	INBOARD MSIV BYPASS AOV--SG 2	1X4D8159-2/22/E6	CONTROL	220'-0"	R123	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q02H/3		
08005	B	07	1-HV-13007B	OUTBOARD MSIV BYPASS AOV--SG 2	1X4D8159-2/22/E6	CONTROL	220'-0"	R123	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q02J/3		
08006	A	07	1-HV-13008A	INBOARD MSIV BYPASS AOV--SG 3	1X4D8159-2/22/C6	CONTROL	220'-0"	R122	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q02H/3		
08007	B	07	1-HV-13008B	OUTBOARD MSIV BYPASS AOV--SG 3	1X4D8159-2/22/C6	CONTROL	220'-0"	R122	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q02J/3		
07005		07	1-HV-15196	BFIV FOR SG 1	1X4D8168-[illegible]/23/E2	AUX	195'-0"	RA11	S	2,5	OPEN	CLOSED	N			
07006		07	1-HV-15197	BFIV FOR SG 2	1X4D8168-3/23/E4	CONTROL	200'-0"	RA56	S	2,5	OPEN	CLOSED	N			
07007		07	1-HV-15198	BFIV FOR SG 3	1X4D8168-3/23/E8	CONTROL	200'-0"	RA56	S	2,5	OPEN	CLOSED	N			
07008		07	1-HV-15199	BFIV FOR SG 4	1X4D8168-3/23/E6	AUX	195'-0"	RA12	S	2,5	OPEN	CLOSED	N			
02020	A	08a	1-HV-1668A	NSCW SPRAY VALVE	1X4D8133-1/28/G5	NSCT	195'-0"	R102	S		OPEN	OPEN	Y	1X3D-BD-K05U/7		
02021	A	08a	1-HV-1668B	NSCW TOWER BYPASS MOV	1X4D8133-1/28/F5	NSCT	220'-0"	R102	S		CLOSED	CLOSED	Y	1X3D-BD-K05V/7		
02022	B	08a	1-HV-1669A	NSCW SPRAY VALVE	1X4D8133-2/33/G6	NSCT	195'-0"	R202	S		OPEN	OPEN	Y	1X3D-BD-K05W/6		
02023	B	08a	1-HV-1669B	NSCW TOWER BYPASS MOV	1X4D8133-2/33/F5	NSCT	220'-0"	R202	S		CLOSED	CLOSED	Y	1X3D-BD-K05X/5		
08008	A	08c	1-HV-3006A	INBOARD MSIV--SG 1	1X4D8159-2/22/H6	AUX	220'-0"	R108	S	2	OPEN	CLOSED	N	1X3D-BC-Q01S/15		
08009	B	08c	1-HV-3006B	OUTBOARD MSIV--SG 1	1X4D8159-2/22/H6	AUX	220'-0"	R108	S	2	OPEN	CLOSED	N	1X3D-BC-Q01T/13		
08010	A	08c	1-HV-3016A	INBOARD MSIV--SG 2	1X4D8159-2/22/F6	CONTROL	220'-0"	R123	S	2	OPEN	CLOSED	N	1X3D-BC-Q01W/13		
08011	B	08c	1-HV-3016B	OUTBOARD MSIV--SG 2	1X4D8159-2/22/F6	CONTROL	220'-0"	R123	S	2	OPEN	CLOSED	N	1X3D-BC-Q01X/14		
08012	A	08c	1-HV-3026A	INBOARD MSIV--SG 3	1X4D8159-2/22/D6	CONTROL	220'-0"	R123	S	2	OPEN	CLOSED	N	1X3D-BC-Q02A/13		
08013	B	08c	1-HV-3026B	OUTBOARD MSIV--SG 3	1X4D8159-2/22/D6	CONTROL	220'-0"	R123	S	2	OPEN	CLOSED	N	1X3D-BC-Q02B/13		
08014	A	08c	1-HV-3036A	INBOARD MSIV--SG 4	1X4D8159-2/22/B6	AUX	220'-0"	R108	S	2	OPEN	CLOSED	N	1X3D-BC-Q02E/13		
08015	B	08c	1-HV-3036B	OUTBOARD MSIV--SG 4	1X4D8159-2/22/B6	AUX	220'-0"	R108	S	2	OPEN	CLOSED	N	1X3D-BC-Q02F/14		
07009		08c	1-HV-5227	MFIV FOR SG 1	1X4D8168-3/23/F1	AUX	195'-0"	RA11	S	2	OPEN	CLOSED	N			
07010		08c	1-HV-5228	MFIV FOR SG 2	1X4D8168-3/23/F3	CONTROL	200'-0"	RA56	S	2	OPEN	CLOSED	N			
07011		08c	1-HV-5229	MFIV FOR SG 3	1X4D8168-3/23/F7	CONTROL	200'-0"	RA56	S	2	OPEN	CLOSED	N			
07012		08c	1-HV-5230	MFIV FOR SG 4	1X4D8168-3/23/F5	AUX	195'-0"	RA12	S	2	OPEN	CLOSED	N			
08016		07	1-HV-7603A	SG 1 BLOWDOWN ISOLATION AOV	1X4D8159-3/19/F2	AUX	180'-0"	RB08	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q01A/8		
08017		07	1-HV-7603B	SG 2 BLOWDOWN ISOLATION AOV	1X4D8159-3/19/B2	AUX	180'-0"	RB08	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q01B/7		
08018		07	1-HV-7603C	SG 3 BLOWDOWN ISOLATION AOV	1X4D8159-1/28/F2	AUX	180'-0"	RB08	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q01C/7		

APPENDIX G
VOGTLE ELECTRIC GENERATING PLANT -UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	EQUIPMENT Flr.Elv.	LOCATION Rm. or Row/Col.	SORT	NOTES	OP. ST. Normal	OP. ST. Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
08019		07	1-HV-7603D	SG 4 BLOWDOWN ISOLATION AOV	1X4DB159-1/28/B2	AUX	180'-0"	RB08	S	2,5	OPEN	CLOSED	N	1X3D-BC-Q01D/8		
01010	A	08a	1-HV-8000A	PORV BLOCK VALVE	1X4DB112/27/E7	CTB	220'-0"	R110	S		OPEN	OPEN	Y	1X3D-BD-B02A/5		
01011	B	08a	1-HV-8000B	PORV BLOCK VALVE	1X4DB112/27/F7	CTB	220'-0"	R110	S		OPEN	OPEN	Y	1X3D-BD-B02B/7		
06017	B	08a	1-HV-8105	CHARGING TO REGEN HX MOV	1X4DB116-1/28/C8	AUX	195'-0"	RA09	S	4	OPEN	OP/CL	Y	1X3D-BD-C03G/6		
06018	A	08a	1-HV-8106	CHARGING DISCHARGE MOV	1X4DB116-1/28/C7	AUX	195'-0"	RA09	S	4	OPEN	CLOSED	Y	1X3D-BD-C03G/6		
06019	A	08a	1-HV-8110	CCP A & B COMMON MINIFLOW MOV	1X4DB116-2/17/E7	AUX	180'-0"	RB25	S	4	OPEN	CLOSED	Y	1X3D-BD-C03J/5		
06020	B	08a	1-HV-8111A	CCP A MINIFLOW MOV	1X4DB116-2/17/E6	AUX	143'-6"	RC114	S	4	OPEN	CLOSED	Y	1X3D-BD-C03K/4		
06021	B	08a	1-HV-8111B	CCP B MINIFLOW MOV	1X4DB116-2/17/D6	AUX	143'-6"	RC119	S	4	OPEN	CLOSED	Y	1X3D-BD-C05L/4		
06023		07	1-HV-8149A	LETDOWN ISOLATION AOV	1X4DB114/30/G6	CTB	183'-0"	RB03	S	5	OPEN	CLOSED	N			
06024		07	1-HV-8149B	LETDOWN ISOLATION AOV	1X4DB114/30/H5	CTB	183'-0"	RB03	S	5	OPEN	CLOSED	N			
06025		07	1-HV-8149C	LETDOWN ISOLATION AOV	1X4DB114/30/G5	CTB	183'-0"	RB03	S	5	OPEN	CLOSED	N			
06026	B	07	1-HV-8152	LETDOWN ISOLATION AOV	1X4DB114/30/G2	AUX	195'-0"	RA09	S	2,5	OPEN	CLOSED	N	1X3D-BD-C03Y/3		
06027		07	1-HV-8154	EXCESS LETDOWN ISOLATION AOV	1X4DB114/30/F3	CTB	183'-0"	RB03	S	5	CLOSED	CLOSED	N			
06028	A	07	1-HV-8160	LETDOWN ISOLATION AOV	1X4DB114/30/G3	CONTROL	220'-0"	R163	S	2,5	OPEN	CLOSED	N	1X3D-BD-C04A/6		
06031	A	08a	1-HV-8508A	CCP A ALT. MINIFLOW MOV	1X4DB116-2/17/F6	AUX	143'-6"	RC114	S	4	CLOSED	OP/CL	Y	1X3D-BD-C01T/3		
06032	B	08a	1-HV-8508B	CCP B ALT. MINIFLOW MOV	1X4DB116-?/17/D5	AUX	143'-6"	RC119	S	4	CLOSED	OP/CL	Y	1X3D-BD-C01U/3		
05016	A	08a	1-HV-8716A	RHR TRAIN A TO RCS HOT LEG ISOLATION MOV	1X4DB122/28/F7	AUX	119'-0"	RD48	S		OPEN	CLOSED	Y	1X3D-BD-E02N/5		
05017	B	08a	1-HV-8716B	RHR TRAIN B TO RCS HOT LEG ISOLATION MOV	1X4DB122/28/D7	AUX	119'-0"	RD49	S		OPEN	CLOSED	Y	1X3D-BD-E02P/5		
04011	A	08a	1-HV-8801A	BIT DISCHARGE TO RCS MOV	1X4DB119/24/F5	AUX	195'-0"	RA13	S	4	CLOSED	OPEN	Y	1X3D-BD-D02E/7		
04012	B	08a	1-HV-8801B	BIT DISCHARGE TO RCS MOV	1X4DB119/24/E5	AUX	195'-0"	RA13	S	4	CLOSED	OPEN	Y	1X3D-BD-D02F/6		
05018	A	08a	1-HV-8804A	RHR TO CCP SUCTION HEADER MOV	1X4DB122/28/F8	AUX	143'-6"	RC90	S		CLOSED	OPEN	Y	1X3D-BD-D02L/5		
05019	B	08a	1-HV-8804B	RHR TO SIP SUCTION HEADER MOV	1X4DB122/28/B8	AUX	143'-6"	RC91	S		CLOSED	OPEN	Y	1X3D-BD-D02M/7		
04013	A	08a	1-HV-8807A	CCP/SIP SUCTION HEADER CROSS-CONNECT MOV	1X4DB121/26/D2	AUX	180'-0"	RB15	S		CLOSED	OPEN	Y	1X3D-BD-D02P/5		
04014	B	08a	1-HV-8807B	CCP/SIP SUCTION HEADER CROSS-CONNECT MOV	1X4DB121/26/D2	AUX	180'-0"	RB19	S		CLOSED	OPEN	Y	1X3D-BD-D02Q/5		
05020	A	08a	1-HV-8811A	CTMT SUMP TO RHR PUMP A SUCTION MOV	1X4DB122/28/B3	AUX	143'-6"	RC105	S		CLOSED	OPEN	Y	1X3D-BD-E03F/7		

APPENDIX G
VOGTLE ELECTRIC GENERATING PLANT -UNIT :
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
05021	B	08a	1-HV-8811B	CTMT SUMP TO RHR PUMP B SUCTION MOV	1X4DB122/28/B3	AUX	143'-6"	RC09	S		CLOSED	OPEN	Y	1X3D-BD-E03G/5		
05022	A	08a	1-HV-8812A	RWST TO RHR PUMP A SUCTION MOV	1X4DB122/28/E4	AUX	119'-0"	RD48	S		OPEN	CLOSED	Y	1X3D-BD-E02E/7		
05023	B	08a	1-HV-8812B	RWST TO RHR PUMP B SUCTION MOV	1X4DB122/28/C4	AUX	119'-0"	RD49	S		OPEN	CLOSED	Y	1X3D-BD-E02F/6		
04015	B	08a	1-HV-8813	SIP COMMON MINIFLOW MOV	1X4DB121/26/F5	AUX	180'-0"	RB19	S		OPEN	OP/CL	Y	1X3D-BD-D03B/6		
04016	A	08a	1-HV-8814	SIP A MINIFLOW MOV	1X4DB121/26/E3	AUX	180'-0"	RB15	S		OPEN	OP/CL	Y	1X3D-BD-D03C/5		
04025	B	08a	1-HV-8920	SIP B MINIFLOW MOV	1X4DB121/26/D3	AUX	180'-0"	RB19	S		OPEN	OP/CL	Y	1X3D-BD-D03B/5		
06049		08b	1-HY-8149A	SOLENOID VALVE FOR 1-HV-8149A	1X4DB114/30/G6	CTB	183'-0"	RB03	S							
06050		08b	1-HY-8149B	SOLENOID VALVE FOR 1-HV-8149B	1X4DB114/30/H5	CTB	183'-0"	RB03	S							
06051		08b	1-HY-8149C	SOLENOID VALVE FOR 1-HV-8149C	1X4DB114/30/G5	CTB	183'-0"	RB03	S							
06052		08b	1-HY-8154	SOLENOID VALVE FOR 1-HV-8154	1X4DB114/30/F3	CTB	183'-0"	RB03	S							
06053		08b	1-HY-8160	SOLENOID VALVE FOR 1-HV-8160	1X4DB114/30/H3	CTB	220'-0"	R163	S							
11024	A	19	1-LSH-9020	F.O. DAY TANK 3 LEVEL	1X4DB170-1/29/D4	DG	220'-0"	R1102	S				Y	1DCHM09F, 1X3DH7D6, 1DBHG01X,		
11025	B	19	1-LSH-9021	F.O. DAY TANK 4 LEVEL	1X4DB170-2/27/D4	DG	220'-0"	R1104	S				Y	1DCHM09F, 1X3DH7D1, 1DBHG02B,		
11026	A	19	1-LSL-9020	F.O. DAY TANK 3 LEVEL	1X4DB170-1/29/D3	DG	220'-0"	R1102	S				Y	1DCHM09F, 1X3DH7D6, 1DBHG01X,		
11027	B	19	1-LSL-9021	F.O. DAY TANK 4 LEVEL	1X4DB170-2/27/D3	DG	220'-0"	R1104	S				Y	1DCHM09F, 1X3DH7D1, 1DBHG02B,		
03012	A	19	1-LSLL-1852	CCW SURGE TK 1 LEVEL	1X4DB136/25/F6	AUX	245'-0"	R203	S				Y	1DCHH11L, 1X3DF426, 1DBDL01A,		
03013	B	19	1-LSLL-1853	CCW SURGE TK 2 LEVEL	1X4DB136/25/B6	AUX	245'-0"	R202	S				Y	1DCHH11L, 1X3DF426, 1DBDL01B,		
03014	A	19	1-LSLL-1854	CCW SURGE TK 1 LEVEL	1X4DB136/25/F5	AUX	245'-0"	R203	S				Y	1DCHH11L, 1X3DF426, 1DBDL01C,		
03015	B	19	1-LSLL-1855	CCW SURGE TK 2 LEVEL	1X4DB136/25/B6	AUX	245'-0"	R202	S				Y	1DCHH11L, 1X3DF426, 1DBDL01D,		

APPENDIX G
VOGTLE ELECTRIC GENERATING PLANT -UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	EQUIPMENT Flr.Elv.	LOCATION Rm. or Row/Col.	SORT	NOTES	OP. ST. Normal	OP. ST. Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
06033		19	1-LT-0112	VCT LEVEL	1X4DB116-1/28/G3	AUX	195'-0"	RA30	S				Y	1X3D-CD-L03A, 1X6AU01-377, 1X5DV-001		
06034		19	1-LT-0185	VCT LEVEL	1X4DB116-1/28/G3	AUX	195'-0"	RA30	S				Y	1X3D-CD-L03G, 1X6AU01-463, 1X5DV-001		
01012	A	19	1-LT-0459	PRESSURIZER LEVEL	1X4DB112/27/C8	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02A, 1X6AU01-167		
01013	B	19	1-LT-0460	PRESSURIZER LEVEL	1X4DB112/27/C7	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02C, 1X6AU01-167		
01014	C	19	1-LT-0461	PRESSURIZER LEVEL	1X4DB112/27/C5	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02E, 1X6AU01-167		
08020	A	19	1-LT-0501	SG 1 WIDE RANGE LEVEL	1X4DB159-3/19/F5	CTB	183'-0"	RB03	S				Y	1X3D-CD-C02A, 1X6AU01-190		
08021	B	19	1-LT-0502	SG 2 WIDE RANGE LEVEL	1X4DB159-3/19/B5	CTB	183'-0"	RB10	S				Y	1X3D-CD-C02C, 1X6AU01-190		
08022	B	19	1-LT-0503	SG 3 WIDE RANGE LEVEL	1X4DB159-1/28/F5	CTB	183'-0"	RB10	S				Y	1X3D-CD-C02C, 1X6AU01-190		
08023	C	19	1-LT-0504	SG 4 WIDE RANGE LEVEL	1X4DB159-1/28/B5	CTB	183'-0"	RB03	S				Y	1X3D-CD-C02E, 1X6AU01-190		
08024	D	19	1-LT-0517	SG 1 NARROW RANGE LEVEL	1X4DB159-3/19/F7	CTB	220'-0"	R102	S				Y	1X3D-CD-C02G, 1X6AU01-176		
08025	C	19	1-LT-0518	SG 1 NARROW RANGE LEVEL	1X4DB159-3/19/F7	CTB	220'-0"	R101	S				Y	1X3D-CD-C02E, 1X6AU01-175		
08026	B	19	1-LT-0519	SG 1 NARROW RANGE LEVEL	1X4DB159-3/19/F7	CTB	220'-0"	R101	S				Y	1X3D-CD-C02C, 1X6AU01-173		
08027	D	19	1-LT-0527	SG 2 NARROW RANGE LEVEL	1X4DB159-3/19/C7	CTB	220'-0"	R101	S				Y	1X3D-CD-C02G, 1X6AU01-176		
08028	C	19	1-LT-0528	SG 2 NARROW RANGE LEVEL	1X4DB159-3/19/C7	CTB	220'-0"	R101	S				Y	1X3D-CD-C02E, 1X6AU01-175		
08029	A	19	1-LT-0529	SG 2 NARROW RANGE LEVEL	1X4DB159-3/19/C7	CTB	220'-0"	R101	S				Y	1X3D-CD-C02A, 1X6AU01-173		
08030	D	19	1-LT-0537	SG 3 NARROW RANGE LEVEL	1X4DB159-1/28/F7	CTB	220'-0"	R101	S				Y	1X3D-CD-C02G, 1X6AU01-176		
08031	C	19	1-LT-0538	SG 3 NARROW RANGE LEVEL	1X4DB159-1/28/F7	CTB	220'-0"	R101	S				Y	1X3D-CD-C02E, 1X6AU01-175		
08032	A	19	1-LT-0539	SG 3 NARROW RANGE LEVEL	1X4DB159-1/28/F7	CTB	220'-0"	R101	S				Y	1X3D-CD-C02A, 1X6AU01-173		

APPENDIX G
VOGTLE ELECTRIC GENERATING PLANT -UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO. (1)	TRAIN (2)	EQUIP CLASS (3)	MARK NO. (4)	SYSTEM/EQUIPMENT DESCRIPTION (5)	Dwg. No./Rev./Zone (6)	Building (7)	EQUIPMENT Flr.Elv. (8)	LOCATION Rm. or Row/Col. (9)	SORT (10)	NOTES (11)	OP. ST. Normal (12)	OP. ST. Desired (13)	POWER REQD? (14)	SUPPORTING SYS. DWG. NO./REV. (15)	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS (16)	REG. ISSUE (17)
08033	D	19	1-LT-0547	SG 4 NARROW RANGE LEVEL	1X4DB159-1/28/C6	CTB	220'-0"	R101	S				Y	1X3D-CD-C02G, 1X6AU01-176		
08034	C	19	1-LT-0548	SG 4 NARROW RANGE LEVEL	1X4DB159-1/28/C7	CTB	220'-0"	R101	S				Y	1X3D-CD-C02E, 1X6AU01-175		
08035	B	19	1-LT-0549	SG 4 NARROW RANGE LEVEL	1X4DB159-1/28/C7	CTB	220'-0"	R101	S				Y	1X3D-CD-C02G, 1X6AU01-173		
08064	A	19	1-LT-0551	SG 1 NARROW RANGE LEVEL	1X4DB159-3/19/F5	CTB	220'-0"	R101	S				Y	1X6AU01-203/8		
08065	B	19	1-LT-0552	SG 2 NARROW RANGE LEVEL	1X4DB159-3/19/C5	CTB	220'-0"	R101	S				Y	1X6AU01-203/8		
08066	B	19	1-LT-0553	SG 3 NARROW RANGE LEVEL	1X4DB159-1/28/F5	CTB	220'-0"	R101	S				Y	1X6AU01-203/8		
08067	A	19	1-LT-0554	SG 4 NARROW RANGE LEVEL	1X4DB159-1/28/C5	CTB	220'-0"	R101	S				Y	1X6AU01-203/8		
05024	A	19	1-LT-0764	CNMT EMERGENCY SUMP LEVEL	1X4DB122/28/C2	CTB	183'-0"	RB03	S				Y	1X3D-CE-B12F, 1X6AU01-608		
05025	B	19	1-LT-0765	CNMT EMERGENCY SUMP LEVEL	1X4DB122/28/C1	CTB	183'-0"	RB03	S				Y	1X3D-CE-B12H, 1X6AU01-609		
04026	A	19	1-LT-0990	RWST LEVEL	1X4DB121/26/H1	RWST	220'-0"	R101	S				Y	1X3D-CD-C02A, 1X6AU01-201		
04027	B	19	1-LT-0991	RWST LEVEL	1X4DB121/26/G1	RWST	220'-0"	R101	S				Y	1X3D-CD-C02C, 1X6AU01-201		
04028	C	19	1-LT-0992	RWST LEVEL	1X4DB121/26/G1	RWST	220'-0"	R101	S				Y	1X3D-CD-C02E, 1X6AU01-201		
04029	D	19	1-LT-0993	RWST LEVEL	1X4DB121/26/G1	RWST	220'-0"	R101	S				Y	1X3D-CD-C02G, 1X6AU01-201		
06035	A	08a	1-LV-0112B	VCT DISCHARGE ISOLATION MOV	1X4DB116-1/28/F4	AUX	195'-0"	RA26	S	4	OPEN	CLOSED	Y	1X3D-BD-C02F/7		
06036	B	08a	1-LV-0112C	VCT DISCHARGE ISOLATION MOV	1X4DB116-1/28/E4	AUX	195'-0"	RA26	S	4	OPEN	CLOSED	Y	1X3D-BD-C02G/7		
06037	A	08a	1-LV-0112D	CCP SUCTION FROM RWST MOV	1X4DB116-2/17/E2	AUX	143'-6"	RC113	S	4	CLOSED	OPEN	Y	1X3D-BD-C02H/9		
06038	B	08a	1-LV-0112E	CCP SUCTION FROM RWST MOV	1X4DB116-2/17/D2	AUX	143'-6"	RC120	S	4	CLOSED	OPEN	Y	1X3D-BD-C02J/6		
14003	A	19	1-NE-0041	NIS DETECTOR--CH.1	1X6AA02-424	CTB			S				Y	1X3D-CD-D06A, 1X6AU01-273, 1X5DSP002		
14004	B	19	1-NE-0042	NIS DETECTOR--CH.2	1X6AA02-424	CTB			S				Y	1X3D-CD-D06A, 1X6AU01-273, 1X5DSP002		
14005	C	19	1-NE-0043	NIS DETECTOR--CH.3	1X6AA02-424	CTB			S				Y	1X3D-CD-D06B, 1X6AU01-273, 1X5DSP002		

APPENDIX G
VOGTLE ELECTRIC GENERATING PLANT -UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- EQUIPMENT Building	Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	[illegible]	OP. ST. --> [illegible]	Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
14006	D	19	1-NE-0044	NIS DETECTOR--CH.4	1X6AA02-424	CTB			S				Y	1X3D-CD-D06B, 1X6AU01-273, 1X5DSF002		
08036		00	1-PSV-3001	MAIN STEAM SAFETY RELIEF VALVE	1X4DB159-2/22/G3	AUX	220'-0"	R108	S		CLOSED	OP/CL	N			
08037		00	1-PSV-3011	MAIN STEAM SAFETY RELIEF VALVE	1X4DB159-2/22/F3	CONTROL	220'-0"	R123	S		CLOSED	OP/CL	N			
08038		00	1-PSV-3021	MAIN STEAM SAFETY RELIEF VALVE	1X4DB159-2/22/D3	CONTROL	220'-0"	R123	S		CLOSED	OP/CL	N			
08039		00	1-PSV-3031	MAIN STEAM SAFETY RELIEF VALVE	1X4DB159-2/22/B3	AUX	220'-0"	R108	S		CLOSED	OP/CL	N			
06039	A	00	1-PSV-8510A	CCP A ALT MINIFLOW	1X4DB116-2/17/F4	AUX	143'-6"	RC114	S		CLOSED	OP/CL	N			
06040	B	00	1-PSV-8510B	CCP B ALT MINIFLOW	1X4DB116-2/17/E4	AUX	143'-6"	RC119	S		CLOSED	OP/CL	N			
01019	A	19	1-PT-0455	PRESSURIZER PRESSURE	1X4DB112/27/C7	CTB	183'-0"	RB03	S				Y	1X3D-CD-C02A, 1X6AU01-168		
01020	B	19	1-PT-0456	PRESSURIZER PRESSURE	1X4DB112/27/C6	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02C, 1X6AU01-168		
01021	C	19	1-PT-0457	PRESSURIZER PRESSURE	1X4DB112/27/C5	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02E, 1X6AU01-168		
01022	D	19	1-PT-0458	PRESSURIZER PRESSURE	1X4DB112/27/C5	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02G, 1X6AU01-168		
08040	A	19	1-PT-0514	SG 1 PRESSURE	1X4DB159-2/22/G2	AUX	195'-0"	RA09	S				Y	1X3D-CD-C02A, 1X6AU01-169		
08041	B	19	1-PT-0515	SG 1 PRESSURE	1X4DB159-2/22/G3	AUX	195'-0"	RA09	S				Y	1X3D-CD-C02C, 1X6AU01-171		
08042	D	19	1-PT-0516	SG 1 PRESSURE	1X4DB159-2/22/G2	AUX	195'-0"	RA09	S				Y	1X3D-CD-C02G, 1X6AU01-177		
08043	A	19	1-PT-0524	SG 2 PRESSURE	1X4DB159-2/22/E2	CONTROL	200'-0"	RA62	S				Y	1X3D-CD-C02A, 1X6AU01-169		
08044	B	19	1-PT-0525	SG 2 PRESSURE	1X4DB159-2/22/F3	CONTROL	200'-0"	RA62	S				Y	1X3D-CD-C02C, 1X6AU01-172		
08045	C	19	1-PT-0526	SG 2 PRESSURE	1X4DB159-2/22/F3	CONTROL	200'-0"	RA62	S				Y	1X3D-CD-C02E, 1X6AU01-177		
08046	A	19	1-PT-0534	SG 3 PRESSURE	1X4DB159-2/22/C2	CONTROL	200'-0"	RA51	S				Y	1X3D-CD-C02A, 1X6AU01-170		
08047	B	19	1-PT-0535	SG 3 PRESSURE	1X4DB159-2/22/D2	CONTROL	220'-0"	RA51	S				Y	1X3D-CD-C02C, 1X6AU01-171		
08048	C	19	1-PT-0536	SG 3 PRESSURE	1X4DB159-2/22/D3	CONTROL	220'-0"	RA51	S				Y	1X3D-CD-C02E, 1X6AU01-177		

APPENDIX G
VOGTLE ELECTRIC GENERATING PLANT -UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION ----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
08049	A	19	1-PT-0544	SG 4 PRESSURE	1X4DB159-2/22/B2	AUX	220'-0"	R107	S				Y	1X3D-CD-C02A, 1X6AU01-170		
08050	B	19	1-PT-0545	SG 4 PRESSURE	1X4DB159-2/22/B2	AUX	220'-0"	R107	S				Y	1X3D-CD-C02C, 1X6AU01-172		
08051	D	19	1-PT-0546	SG 4 PRESSURE	1X4DB159-2/22/B3	AUX	220'-0"	R110	S				Y	1X3D-CD-C02G, 1X6AU01-177		
02024	A	19	1-PT-11741	NSCW SUPPLY TO PUMP MOTOR COOLERS	1X4DB134/20/E5	AUX	119'-3"	RD75	S				Y	1X3D-CE-B12E, 1X6AU01-1056		
02025	B	19	1-PT-11742	NSCW SUPPLY TO PUMP MOTOR COOLERS	1X4DB134/20/B3	AUX	119'-3"	RD67	S				Y	1X3D-CE-B12H, 1X6AU01-1058		
01023	A	08b	1-PV-0455A	PRESSURIZER PORV	1X4DB112/27/E8	CTB	220'-0"	1401	S		CLOSED	OP/CL	Y	1X3D-BD-B03H/8		
01024	B	08b	1-PV-0456A	PRESSURIZER PORV	1X4DB112/27/F8	CTB	220'-0"	R110	S		CLOSED	OP/CL	Y	1X3D-BD-B03F/8		
10088	A	08a	1-PV-2550A	PPG PEN FILTRATION AND EXHAUST UNIT DISCHARGE DAMPER	1X4DB205-1/21/E2	AUX	245'-0"	R210	S		CLOSED	OPEN	Y	1X3D-BG-D01L/3		
10089	B	08a	1-PV-2551A	PPG PEN FILTRATION AND EXHAUST UNIT DISCHARGE DAMPER	1X4DB205-1/21/E6	AUX	245'-0"	R209	S		[illegible]	OPEN	Y	1X3D-BG-D01M/3		
10106	A	19	1-TDC-4170	ECW COND/EVAP TEMP DIFF TO NSCW CONTROL VLV 1-TV-11740	1X4DB221/22/F2	CONTROL	260'-0"	R320	S				Y			
10107	B	19	1-TDC-4193	ECW COND/EVAP TEMP DIFF TO NSCW CONTROL VLV 1-TV-11675	1X4DB221/22/C2	CONTROL	260'-0"	R313	S				Y			
01025	A	19	1-TE-0413A	RCS HOT LEG TEMP--LOOP 1	1X4DB111/20/D6	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02A, 1X6AU01-161		
01026	A	19	1-TE-0413B	RCS COLD LEG TEMP--LOOP 1	1X4DB111/20/B6	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02B, 1X6AU01-162		
01027	B	19	1-TE-0423A	RCS HOT LEG TEMP--LOOP 2	1X4DB111/20/F6	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02A, 1X6AU01-161		
01028	B	19	1-TE-0423B	RCS COLD LEG TEMP--LOOP 2	1X4DB111/20/G6	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02B, 1X6AU01-162		
01029	C	19	1-TE-0433A	RCS HOT LEG TEMP--LOOP 3	1X4DB111/20/F3	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02A, 1X6AU01-161		
01030	C	19	1-TE-0433B	RCS COLD LEG TEMP--LOOP 3	1X4DB111/20/G3	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02B, 1X6AU01-162		
01031	D	19	1-TE-0443A	RCS HOT LEG TEMP--LOOP 4	1X4DB111/20/D3	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02A, 1X6AU01-161		
01032	D	19	1-TE-0443B	RCS COLD LEG TEMP--LOOP 4	1X4DB111/20/C3	CTB	183'-0"	RB02	S				Y	1X3D-CD-C02B, 1X6AU01-162		

APPENDIX G
VOGTLE ELECTRIC GENERATING PLANT -UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO. (1)	TRAIN (2)	EQUIP CLASS (3)	MARK NO. (4)	SYSTEM/EQUIPMENT DESCRIPTION (5)	Dwg. No./Rev./Zone (6)	<---------- Building (7)	EQUIPMENT Flr.Elv. (8)	LOCATION -----> Rm. or Row/Col. (9)	SORT (10)	NOTES (11)	<-- OP. Normal (12)	ST. --> Desired (13)	POWER REQD? (14)	SUPPORTING SYS. DWG. NO./REV. (15)	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS (16)	REG. ISSUE (17)
02026	A	19	1-TE-11641	NSCW A RETURN TO FAN 1 CONTROL	1X4DB133-1/28/G4	NSCT	220'-0"	R102	S				Y	1X3D-CE-B12F, 1X6AU01-610		
02027	A	19	1-TE-11642	NSCW A RETURN TO FAN 2 CONTROL	1X4DB133-1/28/G4	NSCT	220'-0"	R102	S				Y	1X3D-CE-B12F, 1X6AU01-610		
02028	A	19	1-TE-11643	NSCW A RETURN TO FAN 3 CONTROL	1X4DB133-1/28/G4	NSCT	220'-0"	R102	S				Y	1X3D-CE-B12F, 1X6AU01-610		
02038	A	19	1-TE-11644	NSCW A RETURN TO FAN 4 CONTROL	1X4DB133-1/28/G4	NSCT	220'-0"	R102	S				Y	1X5DV068/6		
02029	B	19	1-TE-11646	NSCW B RETURN TO FAN 1 CONTROL	1X4DB133-2/33/G4	NSCT	220'-0"	R202	S				Y	1X3D-CE-B12H, 1X6AU01-610		
02030	B	19	1-TE-11647	NSCW B RETURN TO FAN 2 CONTROL	1X4DB133-2/33/G4	NSCT	220'-0"	R202	S				Y	1X3D-CE-B12H, 1X6AU01-610		
02031	B	19	1-TE-11648	NSCW B RETURN TO FAN 3 CONTROL	1X4DB133-2/33/G4	NSCT	220'-0"	R202	S				Y	1X3D-CE-B12H, 1X6AU01-610		
02039	B	19	1-TE-11649	NSCW B RETURN TO FAN 4 CONTROL	1X4DB133-2/33/G4	NSCT	220'-0"	R202	S				Y	1X5DV072/6		
10029	A	19	1-TE-12124	CB CR RETURN AIR TEMP	AX4DB206-3/24/B2	CONTROL	260'-0"	R321	S				Y	1X5DV-428		
10030	B	19	1-TE-12125	CB CR RETURN AIR TEMP	AX4DB206-3/24/E2	CONTROL	260'-0"	R312	S				Y	1X5DV-429		
10037	B	19	1-TE-12725	ELEC EQUIP RM TEMP	1X4DB207-1/21/B8	CONTROL	180'-0"	RB49	S				Y	1X5DV-431		
10038	A	19	1-TE-12740	ELEC EQUIP RM TEMP	1X4DB207-1/21/E7	CONTROL	180'-0"	RB54	S				Y	1X5DV-430		
02032	A	19	1-TE-1668	NSCW A RETURN TO SPRAY/BYPASS VALVES	1X4DB133-1/28/G5	NSCT	220'-0"	R102	S				Y	1X3D-CE-B12F, 1X6AU01-634		
02033	B	19	1-TE-1669	NSCW B RETURN TO SPRAY/BYPASS VALVES	1X4DB133-2/33/G5	NSCT	220'-0"	R202	S				Y	1X3D-CE-B12H, 1X6AU01-634		
10043	A	19	1-TIC-13150	CB NORMAL A/C RM ESF A/C UNIT CONTROLLER	AX4DB216/12/E5	CONTROL	260'-0"	R325	S				Y	1DCHL13W, 1X3DF305, 1DBGC07R,		
10044	B	19	1-TIC-13152	CB ELEC EQUIP RM ESF A/C UNIT CONTROLLER	AX4DB216/12/G3	CONTROL	260'-0"	R325	S				Y	1DCHL13W, 1X3DF315, 1DBGC07S,		
10141	B	19	1-TIS-12300	CBCR CHILLER RM VENT FAN CONTROLLER	AX4DB241/12/D6	CONTROL	260'-0"	R312	S				Y	1X3D-BG-C02J		
10142	A	19	1-TIS-12303	CBCR CHILLER RM VENT FAN CONTROLLER	AX4DB241/12/B5	CONTROL	260'-0"	R320	S				Y	1X3D-BG-C01B		
10072	A	19	1-TISH-12200	ELECT SWGR & MCC RM A7001 COOLER CONTROLLER	1X4DB228/10/G8	AUX	119'-3"	RD105	S				Y	1DCHN01W, 1X3DF421, 1DBGD05A,		

APPENDIX G
VOGTLE ELECTRIC GENERATING PLANT -UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10073	B	19	1-TISH-12201	ELECT SWGR & MCC RM A7002 COOLER CONTROLLER	1X4DB228/10/G7	AUX	245'-0"	R207	S				Y	1DCHH12B, 1X3DF416, 1DBGD05B,		
10074	A	19	1-TISH-12202	ELECT SWGR & MCC RM A7003 COOLER CONTROLLER	1X4DB228/10/G5	AUX	143'-6"	RC109	S				Y	1DCHH05W, 1X3DF422, 1DBGD05C,		
10075	B	19	1-TISH-12203	ELECT SWGR & MCC RM A7004 COOLER CONTROLLER	1X4DB228/10/G4	AUX	180'-0"	RB116	S				Y	1DCHH05W, 1X3DF423, 1DBGD05D,		
10076	A	19	1-TISH-12204	ELECT SWGR & MCC RM A7005 COOLER CONTROLLER	1X4DB228/10/G3	AUX	220'-0"	R117	S				Y	1DCHH10A, 1X3DF415, 1DBGD05E,		
10077	B	19	1-TISH-12205	ELECT SWGR & MCC RM A7006 COOLER CONTROLLER	1X4DB228/10/G2	AUX	220'-0"	R118	S				Y	1DCHH10A, 1X3DF415, 1DBGD05F,		
10116	A	19	1-TISH-22501	DIESEL POWER CABLE TUNNEL EXH FAN CONTROLLER	1X4DB238/9/G7	DG	220'-0"		S				Y	1X3D-BG-K01C		
10050	B	19	1-TISH-22505	DIESEL POWER CABLE TUNNEL EXH FAN CONTROLLER	1X4DB238/9/F7	TUNNEL	220'-0"	1T4B @ DGB	S				Y	1X3D-BG-K01D		
10051	A	19	1-TISH-22509	TB & AB TRAIN A TUNNEL SUPPLY FAN CONTROLLER	1X4DB238/9/D7	CONTROL	180'-0"	RB41	S				Y	1DCHL05R, 1X3DF380, 1DBGK01E,		
10052	A	19	1-TISH-22516	NSCW TWR CABLE TUNN TRN A FAN CONTROLLER	1X4DB238/9/G3	TUNNEL	220'-0"	1T5A @ NSCW	S				Y	1DAAA00Q, 1X3DH7E2, 1DBGK01C,		
10053	B	19	1-TISH-22519	NSCW TWR CABLE TUNN TRN B FAN CONTROLLER	1X4DB238/9/F3	TUNNEL	220'-0"	1T5B @ NSCW	S				Y	1DAAA00Q, 1X3DH7F1, 1DBGK01D,		
02034	B	08c	1-TV-11675	NSCW TO ESSENTIAL CHILLER CONDENSER (E/H) CONTROL VLV	1X4DB135-2/21/B5	CONTROL	260'-0"	R313	S		OPEN	OPEN	Y	1X5DV333/1		
02035	A	08c	1-TV-11740	NSCW TO ESSENTIAL CHILLER CONDENSER (E/H) CONTROL VLV	1X4DB134/20/G2	CONTROL	260'-0"	R320	S		OPEN	OPEN	Y	1X5DV332/1		
10119	B	07	1-TV-12085	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/B1	DG	220'-0"	R101	S		OPEN	OPEN	N	1X3D-BG-F01J		
10120	B	07	1-TV-12085A	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/B1	DG	220'-0"	R101	S		OPEN	OPEN	N	1X3D-BG-F01J		
10121	A	07	1-TV-12086	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/F8	DG	220'-0"	R103	S		OPEN	OPEN	N	1X3D-BG-F01H		
10122	A	07	1-TV-12086A	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/E8	DG	220'-0"	R103	S		OPEN	OPEN	N	1X3D-BG-F01H		
10123	A	07	1-TV-12094A	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/H8	DG	255'-0"	R208	S		OPEN	OPEN	N	1X3D-BG-F01H		
10124	A	07	1-TV-12094B	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/G8	DG	255'-0"	R208	S		OPEN	OPEN	N	1X3D-BG-F01H		

APPENDIX G
VOGTLE ELECTRIC GENERATING PLANT -UNIT 1
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10125	A	07	1-TV-12094C	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/H8	DG	255'-0"	R208	S		OPEN	OPEN	N	1X3D-BG-F01K		
10126	A	07	1-TV-12094D	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/G8	DG	255'-0"	R208	S		OPEN	OPEN	N	1X3D-BG-F01K		
10127	B	07	1-TV-12095A	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/E8	DG	255'-0"	R209	S		OPEN	OPEN	N	1X3D-BG-F01J		
10128	B	07	1-TV-12095B	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/D8	DG	255'-0"	R209	S		OPEN	OPEN	N	1X3D-BG-F01H		
10129	B	07	1-TV-12095C	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/D8	DG	255'-0"	R209	S		OPEN	OPEN	N	1X3D-BG-F01K		
10130	B	07	1-TV-12095D	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/D8	DG	255'-0"	R209	S		OPEN	OPEN	N	1X3D-BG-F01K		
10131	A	07	1-TV-12096	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/F1	DG	220'-0"	R103	S		OPEN	OPEN	N	1X3D-BG-F01H		
10132	A	07	1-TV-12096A	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/F1	DG	220'-0"	R103	S		OPEN	OPEN	N	1X3D-BG-F01H		
10133	A	07	1-TV-12097	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/F1	DG	220'-0"	R103	S		OPEN	OPEN	N	1X3D-BG-F01H		
10134	A	07	1-TV-12097A	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/E1	DG	220'-0"	R103	S		OPEN	OPEN	N	1X3D-BG-F01H		
10135	B	07	1-TV-12098	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/C1	DG	220'-0"	R101	S		OPEN	OPEN	N	1X3D-BG-F01J		
10136	B	07	1-TV-12098A	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/C1	DG	220'-0"	R101	S		OPEN	OPEN	N	1X3D-BG-F01J		
10137	B	07	1-TV-12099	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/B8	DG	220'-0"	R101	S		OPEN	OPEN	N	1X3D-BG-F01J		
10138	B	07	1-TV-12099A	DG BLDG OUTSIDE AIR DAMPER	1X4DB217/13/B8	DG	220'-0"	R101	S		OPEN	OPEN	N	1X3D-BG-F01J		
10031	A	08c	1-TV-12124	ECW TEMPERATURE CONTROL VALVE (E/H)	1X4DB233/19/D7	CONTROL	260'-0"	R321	S		OPEN	OPEN	Y	1X3D-BA-J02A/9		
10032	B	08c	1-TV-12125	ECW TEMPERATURE CONTROL VALVE (E/H)	1X4DB234/18/D7	CONTROL	260'-0"	R312	S		OPEN	OPEN	Y	1X3D-BA-J02D/9		
10108	B	08c	1-TV-12725	ECW TO ESF ELEC EQUIP RM HVAC UNIT CONTROL VALVE	1X4DB234/18/D7	CONTROL	180'-0"	RB62	S		OPEN	OPEN	Y			
10109	A	08c	1-TV-12740	ECW TO ESF ELEC EQUIP RM HVAC UNIT CONTROL VALVE	1X4DB233/19/D7	CONTROL	180'-0"	RB60	S		OPEN	OPEN	Y			
02040	B	19	1-TY-11675	CONVERTER FOR TV-11675	1X4DB135-2/21/B6	CONTROL	260'-0"	R313	S				Y	1X5DV333/1		
02041	A	19	1-TY-11740	CONVERTER FOR TV-11740	1X4DB134/20/G2	CONTROL	260'-0"	R320	S				Y	1X5DV332/1		
10143	A	19	1-TY-12124A	CONVERTER FOR TV-12124	1X5DV428/8	CONTROL	260'-0"	R321	S				Y	CX5DP8212		
10144	B	19	1-TY-12125A	CONVERTER FOR TV-12125	1X5DV429/8	CONTROL	260'-0"	R312	S				Y	CX5DP8212		
10145	B	19	1-TY-12725A	CONVERTER FOR TV-12725	1X5DV431/8	CONTROL	180'-0"	RB62	S				Y	CX5DP8212		
10146	A	19	1-TY-12740A	CONVERTER FOR TV-12740	1X5DV430/7	CONTROL	180'-0"	RB60	S				Y	CX5DP8212		

APPENDIX 3.G

VOGTLE UNIT 1 IPEEE

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

SSEL Notes

1. Component not required to function; however, integrity of component is required in order to maintain fluid boundary.

   A. Walkdown required.

   B. Walkdown not required; equipment is well-anchored due to its operating loads.

2. No power required to valve, but actuation signal needed.

3. Valve regulates flow/miniflow.

4. Valve actuated by SI signal.

5. Valve fails closed on loss of instrument air.

6. The following instrumentation and controls on the main control board will be functional: charging flow, FI-0138A/917A; RCP seal injection flow, FI-0142A/143A/144A/145A; RHR flow, FI-0618A/619A; SIP flow, FI-0918/922; NSCW return flow, FI-1640A/1641A; CCW flow, FI-1876/1877; AFW flow, FI-5150A/5151A/5152A/5153A; reactor head letdown flow, FI-0406/407; VCT level, LI-0112/185; pressurizer level and pressure, LI-0459A/460A/461 and PI-0455A/456/457/458; SG level and pressure, LI-0501/502/503/504/517/518/519/527/528/529/537/538/539/547/548/549/551/552/553/554 and PIC-3010A/3020A/3030A, 3040A; containment emergency sumplevel, LI-0764/765; RWST level, LI-0990A/991A,992A/993A; CST No. 1 level, LI-5111A; RCS wide range pressure and temperature, PI-0408/418/428/438 and TI-0413A/413B/423A/423B/433A/433B/443A/443B; steam line pressure, PI-0514A/515A/516A/524A/525A/526A/534A/535A/536A/544A/545A/546A/; and containment pressure, PI-0934/935/936. The plasma display will be functional.

7. The following instrumentation and controls on the QHVC panel will be functional: FISL-2425/22426.

8. PIC-3010A/3020A/3030A,3040A; containment emergency sumplevel, LI-0764/765; RWST level, LI-0990A/991A/992A/993A; CST No. 1 level, LI-5111A; RCS wide range pressure and temperature, PI-0408/418/428/438 and TI-0413A/413B/423A/423B/433A/433B/443A/443B; steam line pressure, PI-0514A/515A/516A/524A/525A/526A/534A/535A/536A/544A/545A/546A/; and containment pressure, PI-0934/935/936. The plasma display will be functional.

7. The following instrumentation and controls on the QHVC panel will be functional: FISL-2425/22426.

9. The following instrumentation and controls on local HVAC panels will be functional: TIC-12124/12125/12725/12740.

VOGTLE UNIT 1 IPEEE

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

KEY TO SSEL LINE NUMBERS

SERIES	SYSTEM NAME	SYSTEM NO.
01000	Reactor Coolant	1201
02000	Nuclear Service Cooling Water	1202
03000	Component Cooling Water	1203
04000	Safety Injection	1204
05000	Residual Heat Removal	1205
06000	Chemical Volume & Control	1208
07000	Misc. Mechanical	various
08000	Main Steam	1301
09000	Auxiliary Feedwater	1302
10000	Misc. HVAC & Chilled Water	1500s
11000	Diesel Generators	2403
12000	Containment Iso./Integrity	various
13000	Main Control Board	1601
14000	Nuclear Instrumentation	1602
15000	Process Control	1604
16000	NSS Protection	1605
17000	Post Accident Monitoring	1623
18000	AC Power	various
19000	DC Power	1806
20000	Multisystem Panels & Boards	1816
21000	Misc. Electrical	various
22000	Lighting	1808

VOGTLE UNIT 1 IPEEE

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

KEY TO SSEL EQUIPMENT CLASSES

NUMBER	TYPES OF EQUIPMENT
00	Other
01	Motor Control Centers
02	Low Voltage Metal Clad Switchgear
03	Medium Voltage Metal Clad Switchgear
04	Transformers
05	Horizontal Pumps
06	Vertical Pumps
07	Air Operated Valves
08a	Motor Operated Valves
08b	Solenoid Operated Valves
08c	Electro-hydraulically Operated Valves
09	Fans and Air Handlers
11	Chillers
12	Air Compressors
13	Motor Generators
14	Distribution Panels
15	Batteries and Racks
16	Battery Chargers and Inverters
17	Engine Generators
18	Instrument Racks
19	Local Instruments and Temperature Sensors
20	Control and Instrumentation Panels
21	Tanks and Heat Exchangers
22	Automatic Transfer Switches
23	Wall Mounted Contactors, Transmitters, Power Supplies, etc.
24	Strainers and Filters
25	Control Rod Drive Assemblies
26	Traveling Screens and Sluice Gates

APPENDIX H
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- EQUIPMENT Building	Flr.Elv.	LOCATION ------> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
01000		00	2-1201-B6-001	STEAM GENERATOR 1	2X4DB111/19/D7	CTB	183'-0"	R102	AS				N	2X4DB159-3/23, 2X4DB168-3/23	FW, MS, BLOWDOWN	
01001		00	2-1201-B6-002	STEAM GENERATOR 2	2X4DB111/19/F7	CTB	183'-0"	R103	AS				N	2X4DB159-3/23, 2X4DB168-3/23	FW, MS, BLOWDOWN	
01002		00	2-1201-B6-003	STEAM GENERATOR 3	2X4DB111/19/F2	CTB	183'-0"	R104	AS				N	2X4DB159-1/24, 2X4DB168-3/23	FW, MS, BLOWDOWN	
01003		00	2-1201-B6-004	STEAM GENERATOR 4	2X4DB111/19/D2	CTB	183'-0"	R105	AS				N	2X4DB159-1/24, 2X4DB168-3/23	FW, MS, BLOWDOWN	
01033	A	18	2-1201-P5-T1A	RVLIS TRANSMITTER RACK TRAIN A	2X4DB113/19/B5	AUX	180'-0"	RB125	AS				Y	2X3D-CD-C02A, 2X3D-CD-C02E, 2X6AU01-670		
01034	B	18	2-1201-P5-T1B	RVLIS TRANSMITTER RACK TRAIN B	2X4DB113/19/B8	FB	180'-0"	RB06	AS				Y	2X3D-CD-C02C, 2X3D-CD-C02G, 2X6AU01-670		
01008		00	2-1201-V6-001	REACTOR VESSEL	2X4DB111/19/D4	CTB	183'-0"	RA01	AS				N			
01009		00	2-1201-V6-002	PRESSURIZER	2X4DB112/22/C6	CTB	183'-0"	RA07	AS				N			
02000	A	06	2-1202-P4-001	NSCW TRAIN A PUMP NO. 1	2X4DB133-1/27/C7	NSCT	220'-0"	R403	AS		OFF/ON	ON	Y	2X3D-BD-K04A		
02001	B	06	2-1202-P4-002	NSCW TRAIN B PUMP NO. 2	2X4DB133-2/27/C8	NSCT	220'-0"	R303	AS		OFF/ON	ON	Y	2X3D-BD-K04B		
02002	A	06	2-1202-P4-003	NSCW TRAIN A PUMP NO. 3	2X4DB133-1/27/C5	NSCT	220'-0"	R403	AS		OFF/ON	ON	Y	2X3D-BD-K04C		
02003	B	06	2-1202-P4-004	NSCW TRAIN B PUMP NO. 4	2X4DB133-2/27/C5	NSCT	220'-0"	R303	AS		OFF/ON	ON	Y	2X3D-BD-K04D		
02004	A	09	2-1202-W4-001-F01	NSCT FAN NO. 1	2X4DB133-1/27/G7	NSCT	250'-0"	R405	AS		OFF/ON	ON	Y	2X3D-BD-K03A		
02005	A	09	2-1202-W4-001-F02	NSCT FAN NO. 2	2X4DB133-1/27/G8	NSCT	250'-0"	R408	AS		OFF/ON	ON	Y	2X3D-BD-K03B		
02006	A	09	2-1202-W4-001-F03	NSCT FAN NO. 3	2X4DB133-1/27/G6	NSCT	250'-0"	R406	AS		OFF/ON	ON	Y	2X3D-BD-K03C		
02036	A	09	2-1202-W4-001-F04	NSCT FAN NO. 4	2X4DB133-1/27/G6	NSCT	250'-0"	R407	AS		OFF/ON	ON	Y	2X3D-BD-K03D		
02007	B	09	2-1202-W4-002-F01	NSCT FAN NO. 1	2X4DB133-2/27/G7	NSCT	250'-0"	R305	AS		OFF/ON	ON	Y	2X3D-BD-K03E		
02008	B	09	2-1202-W4-002-F02	NSCT FAN NO. 2	2X4DB133-2/27/G8	NSCT	250'-0"	R308	AS		OFF/ON	ON	Y	2X3D-BD-K03F		
02009	B	09	2-1202-W4-002-F03	NSCT FAN NO. 3	2X4DB133-2/27/G6	NSCT	250'-0"	R306	AS		OFF/ON	ON	Y	2X3D-BD-K03G		
02037	B	09	2-1202-W4-002-F04	NSCT FAN NO. 4	2X4DB133-2/27/G6	NSCT	250'-0"	R307	AS		OFF/ON	ON	Y	2X3D-BD-K03H		
03000	A	21	2-1203-E4-001	CCW HEAT EXCHANGER	2X4DB136/17/G2	AUX	245'-0"	R227	AS				N	2X4DB135-1/22	NSCW	
03001	B	21	2-1203-E4-002	CCW HEAT EXCHANGER	2X4DB136/17/D2	AUX	245'-0"	R226	AS				N	2X4DB133-2/27	NSCW	
03002	A	05	2-1203-P4-001	CCW PUMP NO. 1	2X4DB136/17/H4	AUX	195'-0"	RA98	AS		OFF/ON	ON	Y	2X4DB133-1/27, 2X3D-BD-L01A	NSCW	

APPENDIX H
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
03003	B	05	2-1203-P4-002	CCW PUMP NO. 2	2X4DB136/17/D4	AUX	195'-0"	RA96	AS		OFF/ON	ON	Y	2X4DB133-2/27, 2X3D-BD-L01B	NSCW	
03004	A	05	2-1203-P4-003	CC PUMP NO. 3	2X4DB136/17/F4	AUX	195'-0"	RA98	AS		OFF/ON	ON	Y	2X4DB133-1/27, 2X3D-BD-L01C	NSCW	
03005	B	05	2-1203-P4-004	CCW PUMP NO. 4	2X4DB136/17/C4	AUX	195'-0"	RA96	AS		OFF/ON	ON	Y	2X4DB133-2/27, 2X3D-BD-L01D	NSCW	
03008	A	21	2-1203-T4-001	CCW SURGE TANK	2X4DB136/17/F7	AUX	245'-0"	R227	AS				N			
03009	B	21	2-1203-T4-002	CCW SURGE TANK	2X4DB136/17/B7	AUX	245'-0"	R226	AS				N			
04000	A	05	2-1204-P6-003	SI PUMP A	2X4DB121/29/E3	AUX	180'-0"	RB119	AS		OFF	ON	Y	2X4DB134/23, 2X3D-BD-D01C	NSCW, RWST	
04001	B	05	2-1204-P6-004	SI PUMP B	2X4DB121/29/C3	AUX	180'-0"	RB117	AS		OFF	ON	Y	2X4DB134/23, 2X3D-BD-D01D	NSCW, RWST	
04002		21	2-1204-T4-001	REFUELING WATER STORAGE TANK	2X4DB121/29/G2	RWST	220'-0"	SOUTH OF AUX	AS				N		SIS, CVCS, RHR, CNTMT SPRAY	
05000	A	21	2-1205-E6-001	RHR HEAT EXCHANGER A	2X4DB122/26/G6	AUX	119'-3"	RC25	AS				N	2X4DB137/17	CCW	
05001	B	21	2-1205-E6-002	RHR HEAT EXCHANGER B	2X4DB122/26/D6	AUX	143'-6"	RC26	AS				N	2X4DB137/17	CCW	
05002	A	05	2-1205-P6-001	RHR PUMP A	2X4DB122/26/G4	AUX	119'-3"	RD22	AS		OFF	ON	Y	2X4DB137/17, 2X4DB134/23, 2X3D-BD-E01A	CCW, NSCW	
05003	B	05	2-1205-P6-002	RHR PUMP B	2X4DB122/26/D4	AUX	119'-3"	RD21	AS		OFF	ON	Y	2X4DB137/17, 2X4DB134/23, 2X3D-BD-E01B	CCW, NSCW	
06000		21	2-1208-E6-001	REGENERATIVE HEAT EXCHANGER	2X4DB114/24/F6	CTB	183'0"	RB04	AS	1A			N			
06004	A	05	2-1208-P6-002	CCP A	2X4DB116-2/17/G4	AUX	143'-6"	RC16	AS		OFF/ON	ON	Y	2X4DB134/23, 2X3D-BD-C01A	NSCW, RWST	
06005	B	05	2-1208-P6-003	CCP B	2X4DB116-2/17/C4	AUX	143'-6"	RC17	AS		OFF/ON	ON	Y	2X4DB134/23, 2X3D-BD-C01B	NSCW, RWST	
07002	A	21	2-1213-E6-001	SPENT FUEL PIT HEAT EXCH A	2X4DB130/23/F4	AUX	195'-0"	RA91	AS	1A			N	2X4DB137/17	CCW	
07013	B	21	2-1213-E6-002	SPENT FUEL PIT HEAT EXCH B	2X4DB130/23/G4	FB	200'-0"	RA04	AS	1A			N	2X4DB137/17	CCW	
07003	A	21	2-1217-E4-001	ACCW HEAT EXCHANGER	2X4DB138-1/19/B6	AUX	220'-0"	R153	AS	1A			N	2X4DB135-1/22	NSCW	
07004	B	21	2-1217-E4-002	ACCW HEAT EXCHANGER	2X4DB138-1/19/B4	AUX	220'-0"	R152	AS	1A			N	2X4DB133-2/27	NSCW	
10000	A,B	20	2-1500-Q5-HVC	HVAC PANEL	2X5AB01-44	CONTROL	220'-0"	R164	AS	7				2X3D-AA-B20C		
10001	A	20	2-1500-V7-001-CBA	LOCAL CB HVAC PANEL TRAIN A	2X4AJ20-1337	CONTROL	220'-0"	R164	AS	8				2DCGD02B, 2X3DF30C,		

APPENDIX N
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	EQUIPMENT Flr.Elv.	LOCATION Rm. or Row/Col.	SORT	NOTES	OP. ST. Normal	OP. ST. Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10002	B	20	2-1500-V7-002-CBB	LOCAL CB HVAC PANEL TRAIN B	2X4AJ20-1337	CONTROL	220'-0"	R164	AS	8				2DCGD02D, 2X3DF30C		
10003	A	09	2-1501-A7-001-000	CTB COOLING UNIT & MOTOR	2X4DB212/07/E7	CTB	220'-0"	R301	AS		ON	ON	Y	2X4DB135-1/22, 2X3D-BG-B01A, 2X3D-BG-B03F	NSCW	
10004	A	09	2-1501-A7-002-000	CTB COOLING UNIT & MOTOR	2X4DB212/07/E7	CTB	220'-0"	R301	AS		ON	ON	Y	2X4DB135-1/22, 2X3D-BG-B01B, 2X3D-BG-B03G	NSCW	
10005	B	09	2-1501-A7-003-000	CTB COOLING UNIT & MOTOR	2X4DB212/07/E6	CTB	220'-0"	R301	AS		ON	ON	Y	2X4DB135-2/20, 2X3D-BG-B01C, 2X3D-BG-B03H	NSCW	
10006	B	09	2-1501-A7-004-000	CTB COOLING UNIT & MOTOR	2X4DB212/07/E5	CTB	220'-0"	R301	AS		ON	ON	Y	2X4DB135-2/20, 2X3D-BG-B01D, 2X3D-BG-B03J	NSCW	
10139	A	09	2-1531-B7-002-000	CBCR CHILLER ROOM VENT FAN	AX4DB241/12/D7	CONTROL	260'-0"	R311	AS		OFF	ON	Y			
10140	B	09	2-1531-B7-004-000	CBCR CHILLER ROOM VENT FAN	AX4DB241/12/A8	CONTROL	260'-0"	R308	AS		OFF	ON	Y			
10017	A	09	2-1531-N7-001-000	CBCR FILTER UNIT	AX4DB206-1/25/C4	CONTROL	260'-0"	R311	AS		OFF	ON	Y	2X4DB233/16, 2X3D-BG-C01E	ECW	
10018	B	09	2-1531-N7-002-000	CBCR FILTER UNIT	AX4DB206-1/25/F4	CONTROL	260'-0"	R305	AS		OFF	ON	Y	2X4DB234/19, 2X3D-BG-C01F	ECW	
10033	A	09	2-1532-A7-001-000	CBSF ELEC EQUIP RM AC UNIT	2X4DB207-1/13/F4	CONTROL	180'-0"	RB16	AS		ON	ON	Y	2X4DB233/16, 2X3D-BG-C04A	ECW	
10034	B	09	2-1532-A7-002-000	CBSF ELEC EQUIP RM AC UNIT	2X4DB207-1/13/C4	CONTROL	180'-0"	[illegible]	AS		ON	ON	Y	2X4DB234/19, 2X3D-BG-C04B	ECW	
10035	A	09	2-1532-B7-001-000	BATTERY RM EXHAUST FAN & MOTOR	2X4DB207-1/13/E3	CONTROL	180'-0"	RB33	AS		ON	ON	Y	2X3D-BG-C04N		
10036	B	09	2-1532-B7-002-000	BATTERY RM EXHAUST FAN & MOTOR	2X4DB207-1/13/A3	CONTROL	180'-0"	RB32	AS		ON	ON	Y	2X3D-BG-C04P		
10039	A	09	2-1539-A7-001-000	CB AUX RELAY RM ESF A/C UNIT	AX4DB225/14/G7	CONTROL	200'-0"	RA81	AS		OFF	ON	Y	2X4DB233/16, 2X3D-BG-C07M	ECW	
10040	B	09	2-1539-A7-002-000	CB AUX RELAY RM ESF A/C UNIT	AX4DB216/12/G8	CONTROL	240'-0"	R223	AS		OFF	ON	Y	2X4DB234/19, 2X3D-BG-C07N	ECW	
10041	A	09	2-1539-A7-005-000	CB NORMAL AC RM ESF A/C UNIT	AX4DB216/12/D5	CONTROL	260'-0"	R325	AS		OFF	ON	Y	2X4DB233/16, 2X3D-BG-C07R	ECW	
10045	A	09	2-1540-B7-001-000	DIESEL POWER CABLE TUNNEL EXHAUST FAN UNIT	2X4DB238/7/H6	TUNNEL	195'-0"	114A @ DGB	AS		OFF	ON	Y	2X3D-BG-K01C		
10046	B	09	2-1540-B7-002-000	DIESEL POWER CABLE TUNNEL EXHAUST FAN UNIT	2X4DB238/7/F6	TUNNEL	180'-0"	114B @ DGB	AS		OFF	ON	Y	2X3D-BG-K01D		

APPENDIX H
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO. (1)	TRAIN (2)	EQUIP CLASS (3)	MARK NO. (4)	SYSTEM/EQUIPMENT DESCRIPTION (5)	Dwg. No./Rev./Zone (6)	<---------- EQUIPMENT Building (7)	Flr.Elv. (8)	LOCATION -----> Rm. or Row/Col. (9)	SORT (10)	NOTES (11)	<-- OP. Normal (12)	ST. --> Desired (13)	POWER REQD? (14)	SUPPORTING SYS. DWG. NO./REV. (15)	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS (16)	REG. ISSUE (17)
10047	A	09	2-1540-B7-003-000	NSCW TOWER CABLE TUNNEL EXHAUST FAN UNIT	2X4DB238/7/H2	TUNNEL	220'-0"	1TSA @ NSCW	AS		OFF	ON	Y	2X3D-BG-K01C		
10048	B	09	2-1540-B7-004-000	NSCW TOWER CABLE TUNNEL EXHAUST FAN UNIT	2X4DB238/7/F2	TUNNEL	220'-0"	1TSB @ NSCW	AS		OFF	ON	Y	2X3D-BG-K01D		
10049	A	09	2-1540-B7-005-000	AUX BLDG TRAIN A TUNNEL SUPPLY FAN UNIT	2X4DB238/7/E2	AUX	245'-0"	R221	AS		OFF	ON	Y	2X3D-BG-K01E		
10054	A	09	2-1555-A7-001-000	ELEC SWGR AND MCC ROOM COOLER A	2X4DB228/10/G8	AUX	119'-3"	RD02	AS		OFF	ON	Y	2X4DB233/16, 2X3D-BG-D05A	ECW	
10055	B	09	2-1555-A7-002-000	ELEC SWGR AND MCC ROOM COOLER B	2X4DB228/10/G6	AUX	245'-0"	R221	AS		OFF	ON	Y	2X4DB234/19, 2X3D-BG-D05B	ECW	
10056	A	09	2-1555-A7-003-000	ELEC SWGR AND MCC ROOM COOLER A	2X4DB228/10/G5	AUX	180'-0"	RB123	AS		OFF	ON	Y	2X4DB233/16, 2X3D-BG-D05C	ECW	
10057	B	09	2-1555-A7-004-000	ELEC SWGR AND MCC ROOM COOLER B	2X4DB228/10/G4	AUX	180'-0"	RB121	AS		OFF	ON	Y	2X4DB234/19, 2X3D-BG-D05D	ECW	
10058	A	09	2-1555-A7-005-000	ELEC SWGR AND MCC ROOM COOLER A	2X4DB228/10/G3	AUX	220'-0"	R149	AS		OFF	ON	Y	2X4DB233/16, 2X3D-BG-D05E	ECW	
10059	B	09	2-1555-A7-006-000	ELEC SWGR AND MCC ROOM COOLER B	2X4DB228/10/G1	AUX	220'-0"	R147	AS		OFF	ON	Y	2X4DB234/19, 2X3D-BG-D05F	ECW	
10078		09	2-1561-E7-001-000	PIPING PENETRATION AREA COOLER	2X4DB205-1/15/B4	AUX	245'-0"	R219	AS				N	2X4DB233/16, 2X4DB234/19	ECW	
10079		09	2-1561-E7-002-000	PIPING PENETRATION AREA COOLER	2X4DB205-1/15/B4	AUX	245'-0"	R219	AS				N	2X4DB135-1/22, 2X4DB133-2/27	NSCW	
10080	A	09	2-1561-N7-001-000	PIPING PENETRATION ROOM FILTRATION AND EXHAUST UNIT	2X4DB205-1/15/E3	AUX	245'-0"	R219	AS		OFF	ON	Y	2X3D-BG-D01D		
10081	B	09	2-1561-N7-002-000	PIPING PENETRATION ROOM FILTRATION AND EXHAUST UNIT	2X4DB205-1/15/E7	AUX	245'-0"	R220	AS		OFF	ON	Y	2X3D-BG-D01F		
10090	A	09	2-1566-B7-001-000	DG A BLDG ESF SUPPLY FAN NO. 1	2X4DB217/11/H6	DG	255'-0"	R208	AS		OFF	ON	Y	2X3D-BG-F01B		
10091	B	09	2-1566-B7-002-000	DG B BLDG ESF SUPPLY FAN NO. 2	2X4DB217/11/E6	DG	255'-0"	R203	AS		OFF	ON	Y	2X3D-BG-F01E		
10092	A	09	2-1566-B7-003-000	DG A BLDG ESF SUPPLY FAN NO. 3	2X4DB217/11/G6	DG	255'-0"	R208	AS		OFF	ON	Y	2X3D-BG-F01C		
10093	B	09	2-1566-B7-004-000	DG B BLDG ESF SUPPLY FAN NO. 4	2X4DB217/11/D6	DG	255'-0"	R203	AS		OFF	ON	Y	2X3D-BG-F01F		
10098	A	11	2-1592-C7-001	CB ESSENTIAL CHILLER	2X4DB221/16/F3	CONTROL	260'-0"	R310	S		OFF	ON	Y	2X4DB134/23, 2X3D-BG-G02A	NSCW	
10099	B	11	2-1592-C7-002	CB ESSENTIAL CHILLER	2X4DB221/16/C3	CONTROL	260'-0"	R308	S		OFF	ON	Y	2X4DB135-2/20, 2X3D-BG-G02B	NSCW	
10100	A	05	2-1592-P7-001	ESSENTIAL CHILLED WATER PUMP	2X4DB221/16/F5	CONTROL	260'-0"	R310	AS		OFF	ON	Y	2X3D-BG-G02C		

APPENDIX H
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10101	B	05	2-1592-P7-002	ESSENTIAL CHILLED WATER PUMP	2X4DB221/16/C5	CONTROL	260'-0"	R308	AS		OFF	ON	Y	2X3D-BG-G02D		
10102	A	21	2-1592-T7-001	ESSENTIAL CHILLED WATER EXPANSION TANK	2X4DB221/16/G6	CONTROL	260'-0"	R310	AS				N			
10103	B	21	2-1592-T7-002	ESSENTIAL CHILLED WATER EXPANSION TANK	2X4DB221/16/D6	CONTROL	260'-0"	R308	AS				N			
13000	MULTI	20	2-1601-Q5-MCB	MAIN CONTROL BOARD	2X6AV02-159	CONTROL	220'-0"	R164	AS	6				2DCEB01D, AX3DF300, 2DCEB02B, 2X3DF30C,		
11002	A	17	2-2403-G4-001	DIESEL GENERATOR A	2X4DB170-1/24/F5	DG	220'-0"	R101	AS		OFF	ON	N	2X4DB135-1/22	NSCW	
11003	A	24	2-2403-G4-001-F01	DG INTAKE AIR FILTER	2X4DB170-1/24/H7	DG	255'-0"	R205	S				N			
11004	A	24	2-2403-G4-001-F02	DG EXHAUST AIR SILENCER	2X4DB170-1/24/H4	DG	255'-0"	R204	S				N			
11005	A	21	2-2403-G4-001-V01	DG AIR START RECEIVER	2X4DB170-1/24/F3	DG	220'-0"	R101	AS				N			
11006	A	21	2-2403-G4-001-V02	DG AIR START RECEIVER	2X4DB170-1/24/H3	DG	220'-0"	R101	AS				N			
11007	B	17	2-2403-G4-002	DIESEL GENERATOR B	2X4DB170-2/26/F5	DG	220'-0"	R103	AS		OFF	ON	N	2X4DB133-2/27	NSCW	
11008	B	24	2-2403-G4-002-F01	DG INTAKE AIR FILTER	2X4DB170-2/26/H7	DG	255'-0"	R210	S				N			
11009	B	24	2-2403-G4-002-F02	DG EXHAUST AIR SILENCER	2X4DB170-2/26/H4	DG	255'-0"	R103	AS				N			
11010	B	21	2-2403-G4-002-V01	DG AIR START RECEIVER	2X4DB170-2/26/F3	DG	220'-0"	R103	AS				N			
11011	B	21	2-2403-G4-002-V02	DG AIR START RECEIVER	2X4DB170-2/26/H3	DG	220'-0"	R103	AS				N			
11012	A	06	2-2403-P4-001	DIESEL FUEL OIL TRANSFER PUMP	2X4DB170-1/24/B3	DFOST	211'-6"	RA01	AS		OFF	ON	Y	2X3D-BH-G01X		
11013	B	06	2-2403-P4-003	DIESEL FUEL OIL TRANSFER PUMP	2X4DB170-2/26/A3	DFOST	211'-6"	RA03	AS		OFF	ON	Y	2X3D-BH-G02B		
11020	A	21	2-2403-T4-001	DIESEL FUEL OIL STORAGE TANK	2X4DB170-1/24/A3	DFOST	211'-6"	RA01	AS				N			
11021	B	21	2-2403-T4-002	DIESEL FUEL OIL STORAGE TANK	2X4DB170-2/26/A3	DFOST	211'-6"	RA03	AS				N			
11022	A	21	2-2403-T4-003	DIESEL FUEL OIL DAY TANK	2X4DB170-1/24/D2	DG	220'-0"	R104	AS				N			
11023	B	21	2-2403-T4-004	DIESEL FUEL OIL DAY TANK	2X4DB170-2/26/D2	DG	220'-0"	R102	AS				N			
02010	A	07	2-CV-9446	NSCT BLOWDOWN ISO AOV	2X4DB133-1/27/B5	NSCT	206'-0"	R402	S	2,4,5	OPEN	CLOSED	N	2X3D-BD-K04J		
02011	B	07	2-CV-9447	NSCT BLOWDOWN ISO AOV	2X4DB133-2/27/B5	NSCT	206'-0"	R302	S	2,4,5	OPEN	CLOSED	N	2X3D-BD-K04K		
05006	A	19	2-FIS-0610	RHR PUMP A FLOW TO MINIFLOW VALVE	2X4DB122/26/G5	AUX	119'-3"	RD113	S				Y	2DCHH02B, 2X3DF411, 2DBDE02C,		

APPENDIX H
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
05007	B	19	2-FIS-0611	RHR PUMP B FLOW TO MINIFLOW VALVE	2X4DB122/26/D5	AUX	119'-3"	RD41	S				Y	2DCHH02B, 2X3DF411, 2DBDE02D,		
02012	A	19	2-FIT-1640A	NSCW RETURN FLOW	2X4DB133-1/27/F4	NSCT	195'-0"	TUNNEL 1T2A	S				Y	2X5DV-021		
02013	B	19	2-FIT-1641A	NSCW RETURN FLOW	2X4DB133-2/27/F5	NSCT	195'-0"	TUNNEL 1T2B	S				Y	2X5DV-022		
10019	A	19	2-FSL-12045	INTERLOCK FLOW SWTCH CNTL BLD..CLOSES ON LOW AIR	AX4DB206-1/25/F3	CONTROL	260'-0"	R276	S				Y	2X5DV498, 2X3DF315, 2DBGC01E,		
1002C	B	19	2-FSL-12046	INTERLOCK FLOW SWTCH CNTL BLD..CLOSES ON AIR-FLO	AX4DB206-1/25/C3	CONTROL	260'-0"	R254	S				Y	2X5DV498, 2X3DF315, 2DBGC01F,		
05008	A	19	2-FT-0618	RHR A FLOW	2X4DB122/26/G7	AUX	119'-3"	RD41	S				Y	2X3D-CD-C02A, 2X6AU01-671		
05009	B	19	2-FT-0619	RHR B FLOW	2X4DB122/26/C7	AUX	143'-6"	RD41	S				Y	2X3D-CD-C02C, 2X6AU01-671		
04004	D	19	2-FT-0917	CCP INJECTION FLOW	2X4DB119/19/E4	AUX	180'-0"	RA39	S				Y	2X3D-CD-C02G, 2X6AU01-674		
04005	A	19	2-FT-0918	SIP A FLOW	2X4DB121/29/E4	AUX	180'-0"	RB119	S				Y	2X3D-CD-C02G, 2X6AU01-671		
04006	B	19	2-FT-0922	SIP B FLOW	2X4DB121/29/C4	AUX	180'-0"	RB117	S				Y	2X3D-CD-C02G, 2X6AU01-671		
02014	A	19	2-FT-1802	NSCW FLOW TO CB ESS CHILLER	2X4DB134/23/F1	CONTROL	260'-0"	R310	S				Y	2X3D-CE-B13E, 2X6AU01-947		
02015	B	19	2-FT-1803	NSCW FLOW TO CB ESS CHILLER	2X4DB135-2/20/A6	CONTROL	260'-0"	R308	S				Y	2X3D-CE-B13H, 2X6AU01-947		
03010	A	19	2-FT-1876	CCW A FLOW	2X4DB136/17/F1	AUX	195'-0"	RA98	S				Y	2X3D-CE-B12K, 2X6AU01-617		
03011	B	19	2-FT-1877	CCW B FLOW	2X4DB136/17/C1	AUX	195'-0"	RA96	S				Y	2X3D-CE-B12K, 2X6AU01-617		
10104	A	19	2-FT-22425	ECW FLOW	2X4DB221/16/G1	CONTROL	260'-0"	R310	S				Y	2X3D-CE-B12K, 2X6AU01-637		
10105	B	19	2-FT-22426	ECW FLOW	2X4DB221/16/D1	CONTROL	260'-0"	R308	S				Y	2X3D-CE-B12N, 2X6AU01-637		
05010	A	08a	2-FV-0610	RHR PUMP A MINIFLOW MOV	2X4DB122/26/H5	AUX	143'-6"	RC25	S		OPEN	CLOSED	Y	2X3D-BD-E02C		
05011	B	08a	2-FV-0611	RHR PUMP B MINIFLOW MOV	2X4DB122/26/E5	AUX	143'-6"	RC26	S		OPEN	CLOSED	Y	2X3D-BD-E02D		
04009	B	07	2-HV-10957	RWST TO SLUDGE MIXING PUMP SUCTION AOV	2X4DB121/29/G3	RWST	220'-0"	R101	S	2,5	OP/CL	CLOSED	N			

APPENDIX C
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO. (1)	TRAIN (2)	EQUIP CLASS (3)	MARK NO. (4)	SYSTEM/EQUIPMENT DESCRIPTION (5)	Dwg. No./Rev./Zone (6)	Building (7)	EQUIPMENT Flr.Elv. (8)	LOCATION Rm. or Row/Col. (9)	SORT (10)	NOTES (11)	OP. ST. Normal (12)	OP. ST. Desired (13)	POWER REQD? (14)	SUPPORTING SYS. DWG. NO./REV. (15)	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS (16)	REG. ISSUE (17)
04010	A	07	2-HV-10958	RWST TO SLUDGE MIXING PUMP SUCTION AOV	2X4DB121/29/G3	RWST	220'-0"	R101	S	2,5	OP/CL	CLOSED	N			
02016	A	08a	2-HV-11600	NSCW PUMP 1 DISCHARGE MOV	2X4DB133-1/27/C8	NSCT	220'-0"	R403	S		OP/CL	OPEN	Y	2X3D-BD-K04Z		
02017	A	08a	2-HV-11606	NSCW PUMP 3 DISCHARGE MOV	2X4DB133-1/27/C4	NSCT	220'-0"	R403	S		OP/CL	OPEN	Y	2X3D-BD-K04Z		
02018	B	08a	2-HV-11607	NSCW PUMP 2 DISCHARGE MOV	2X4DB133-2/27/C8	NSCT	245'-0"	R303	S		OP/CL	OPEN	Y	2X3D-BK-K04Y		
02019	B	08a	2-HV-11613	NSCW PUMP 4 DISCHARGE MOV	2X4DB133-2/27/C5	NSCT	245'-0"	R303	S		OP/CL	OPEN	Y	2X3D-BK-K04Y		
10094	A	08a	2-HV-12050	DG A AIR SUPPLY DAMPER FOR FAN NO. 1	2X4DB217/11/H6	DG	255'-0"	R209	AS		CLOSED	OPEN	Y	2X3D-BG-F01M		
10095	A	08a	2-HV-12051	DG A AIR SUPPLY DAMPER FOR FAN NO. 3	2X4DB217/11/G6	DG	255'-0"	R209	S		CLOSED	OPEN	Y	2X3D-BG-F01M		
10096	B	08a	2-HV-12053	DG A AIR SUPPLY DAMPER FOR FAN NO. 2	2X4DB217/11/E6	DG	255'-0"	R208	S		CLOSED	OPEN	Y	2X3D-BG-F01M		
10097	B	08a	2-HV-12054	DG A AIR SUPPLY DAMPER FOR FAN NO. 4	2X4DB217/11/D6	DG	255'-0"	R208	S		CLOSED	OPEN	Y	2X3D-BG-F01M		
10021	A	08a	2-HV-12128	CBCR FILTER UNIT AIR SUPPLY DAMPER	AX4DB206-1/25/C2	CONTROL	220'-0"	R140	S		CLOSED	OPEN	Y	2X3D-BG-C01X		
10022	B	08a	2-HV-12129	CBCR FILTER UNIT AIR SUPPLY DAMPER	AX4DB206-1/25/F2	CONTROL	220'-0"	R127	S		CLOSED	OPEN	Y	2X3D-BG-C01Z		
10023	A	08a	2-HV-12130	CBCR FILTER UNIT AIR RETURN DAMPER	AX4DB206-1/25/B2	CONTROL	220'-0"	R140	S		CLOSED	OPEN	Y	2X3D-BG-C01X		
10024	B	08a	2-HV-12131	CBCR FILTER UNIT AIR RETURN DAMPER	AX4DB206-1/25/E2	CONTROL	220'-0"	R127	S		CLOSED	OPEN	Y	2X3D-BG-C01Z		
10025	A	07	2-HV-12146	CBCR NORMAL AIR SUPPLY DAMPER	AX4DB206-2/19/F5	CONTROL	240'-0"	R264	S	2,5	OPEN	CLOSED	N	2X3D-BG-C07B		
10026	B	07	2-HV-12147	CBCR NORMAL AIR SUPPLY DAMPER	AX4DB206-2/19/F4	CONTROL	240'-0"	R264	S	2,5	OPEN	CLOSED	N	2X3D-BG-C07C		
10027	B	07	2-HV-12148	CBCR NORMAL AIR RETURN DAMPER	AX4DB206-2/19/G4	CONTROL	240'-0"	R264	S	2,5	OPEN	CLOSED	N	2X3D-BG-C07C		
10028	A	07	2-HV-12149	CBCR NORMAL AIR RETURN DAMPER	AX4DB206-2/19/G5	CONTROL	240'-0"	R264	S	2,5	OPEN	CLOSED	N	2X3D-BG-C07B		
10082	A	07	2-HV-12604	PPG PENETRATION NORMAL RETURN AIR ISOLATION DAMPER	2X4DB205-2/13/F2	AUX	245'-0"	R220	S	2,5	OPEN	CLOSED	N	2X3D-BG-D04A		
10083	A	07	2-HV-12605	PPG PENETRATION NORMAL AIR SUPPLY ISOLATION DAMPER	2X4DB205-2/13/D1	AUX	245'-0"	R220	S	2,5	OPEN	CLOSED	N	2X3D-BG-D04A		
10084	B	07	2-HV-12606	PPG PENETRATION NORMAL AIR SUPPLY ISOLATION DAMPER	2X4DB205-2/13/F1	AUX	245'-0"	R220	S	2,5	OPEN	CLOSED	N	2X3D-BG-D04B		
10085	B	07	2-HV-12607	PPG PENETRATION NORMAL RETURN AIR ISOLATION DAMPER	2X4DB205-2/13/D2	AUX	245'-0"	R220	S	2,5	OPEN	CLOSED	N	2X3D-BG-D04B		
10086	A	08c	2-HV-12614	PPG PEN FILTRATION AND EXHAUST UNIT SUCTION DAMPER	2X4DB205-1/15/D4	AUX	245'-0"	R219	S		CLOSED	OPEN	Y	2X3D-BG-D04J		

APPENDIX H
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10087	B	08c	2-HV-12616	PPG PEN FILTRATION AND EXHAUST UNIT SUCTION DAMPER	2X4DB205-1/15/D8	AUX	245'-0"	R220	S		CLOSED	OPEN	Y	2X3D-BG-D04J		
08000	A	07	2-HV-13005A	INBOARD MSIV BYPASS AOV--SG 1	2X4DB159-2/20/G6	AUX	220'-0"	R159	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q02H		
08001	B	07	2-HV-13005B	OUTBOARD MSIV BYPASS AOV--SG 1	2X4DB159-2/20/G6	AUX	220'-0"	R159	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q02J		
08002	A	07	2-HV-13006A	INBOARD MSIV BYPASS AOV--SG 4	2X4DB159-2/20/A6	AUX	220'-0"	R159	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q02H		
08003	B	07	2-HV-13006B	OUTBOARD MSIV BYPASS AOV--SG 4	2X4DB159-2/20/A6	AUX	220'-0"	R159	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q02J		
08004	A	07	2-HV-13007A	INBOARD MSIV BYPASS AOV--SG 2	2X4DB159-2/20/E6	CONTROL	220'-0"	R123	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q02H		
08005	B	07	2-HV-13007B	OUTBOARD MSIV BYPASS AOV--SG 2	2X4DB159-2/20/E6	CONTROL	220'-0"	R123	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q02J		
08006	A	07	2-HV-13008A	INBOARD MSIV BYPASS AOV--SG 3	2X4DB159-2/20/C6	CONTROL	220'-0"	R122	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q02H		
08007	B	07	2-HV-13008B	OUTBOARD MSIV BYPASS AOV--SG 3	2X4DB159-2/20/C6	CONTROL	220'-0"	R122	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q02J		
07005		07	2-HV-15196	BFIV FOR SG 1	2X4DB168-3/23/E2	AUX	195'-0"	RA104	S	2,5	OPEN	CLOSED	N			
07006		07	2-HV-15197	BFIV FOR SG 2	2X4DB168-3/23/E4	CONTROL	200'-0"	RA09	S	2,5	OPEN	CLOSED	N			
07007		07	2-HV-15198	BFIV FOR SG 3	2X4DB168-3/23/E8	CONTROL	200'-0"	RA09	S	2,5	OPEN	CLOSED	N			
07008		07	2-HV-15199	BFIV FOR SG 4	2X4DB168-3/23/E6	AUX	195'-0"	RA105	S	2,5	OPEN	CLOSED	N			
02020	A	08a	2-HV-1668A	NSCW SPRAY VALVE	2X4DB133-1/27/G5	NSCT	195'-0"	R410	S		OPEN	OPEN	Y	2X3D-BD-K05U		
02021	A	08a	2-HV-1668B	NSCW TOWER BYPASS MOV	2X4DB133-1/27/F5	NSCT	220'-0"	R410	S		CLOSED	CLOSED	Y	2X3D-BD-K05V		
02022	B	08a	2-HV-1669A	NSCW SPRAY VALVE	2X4DB133-2/27/G5	NSCT	195'-0"	R310	S		OPEN	OPEN	Y	2X3D-BD-K05W		
02023	B	08a	2-HV-1669B	NSCW TOWER BYPASS MOV	2X4DB133-2/27/F5	NSCT	220'-0"	R310	S		CLOSED	CLOSED	Y	2X3D-BD-K05X		
08008	A	08c	2-HV-3006A	INBOARD MSIV--SG 1	2X4DB159-2/20/H6	AUX	220'-0"	R159	S	2	OPEN	CLOSED	N	2X3D-BC-Q01S		
08009	B	08c	2-HV-3006B	OUTBOARD MSIV--SG 1	2X4DB159-2/20/H7	AUX	220'-0"	R159	S	2	OPEN	CLOSED	N	2X3D-BC-Q01T		
08010	A	08c	2-HV-3016A	INBOARD MSIV--SG 2	2X4DB159-2/20/F6	CONTROL	220'-0"	R123	S	2	OPEN	CLOSED	N	2X3D-BC-Q01W		
08011	B	08c	2-HV-3016B	OUTBOARD MSIV--SG 2	2X4DB159-2/20/F7	CONTROL	220'-0"	R123	S	2	OPEN	CLOSED	N	2X3D-BC-Q01X		
08012	A	08c	2-HV-3026A	INBOARD MSIV--SG 3	2X4DB159-2/20/D6	CONTROL	220'-0"	R123	S	2	OPEN	CLOSED	N	2X3D-BC-Q02A		
08013	B	08c	2-HV-3026B	OUTBOARD MSIV--SG 3	2X4DB159-2/20/D7	CONTROL	220'-0"	R123	S	2	OPEN	CLOSED	N	2X3D-BC-Q02B		
08014	A	08c	2-HV-3036A	INBOARD MSIV--SG 4	2X4DB159-2/20/B6	AUX	220'-0"	R159	S	2	OPEN	CLOSED	N	2X3D-BC-Q02E		
08015	B	08c	2-HV-3036B	OUTBOARD MSIV--SG 4	2X4DB159-2/20/B7	AUX	220'-0"	R159	S	2	OPEN	CLOSED	N	2X3D-BC-Q02F		
07009		08c	2-HV-5227	MFIV FOR SG 1	2X4DB168-3/23/F1	AUX	195'-0"	RA104	S	2	OPEN	CLOSED	N			
07010		08c	2-HV-5228	MFIV FOR SG 2	2X4DB168-3/23/F3	CONTROL	200'-0"	RA09	S	2	OPEN	CLOSED	N			

APPENDIX H
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
07011		08c	2-HV-5229	MFIV FOR SG 3	2X4D8168-3/23/F7	CONTROL	200'-0"	RA09	S	2	OPEN	CLOSED	N			
07012		08c	2-HV-5230	MF?? FOR SG 4	2X4D8168-3/23/F5	AUX	195'-0"	RA105	S	2	OPEN	CLOSED	N			
08016		07	2-HV-7603A	SG 1 BLOWDOWN ISOLATION AOV	2X4D8159-3/23/F2	AUX	180'-0"	RB131	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q01A		
08017		07	2-HV-7603B	SG 2 B OWDOWN ISOLATION AOV	2X4D8159-3/23/B2	AUX	180'-0"	RB131	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q01B		
08018		07	2-HV-7603C	SG 3 BLOWDOWN ISOLATION AOV	2X4D8159-1/24/F2	AUX	180'-0"	RB131	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q01C		
08019		07	2-HV-7603D	SG 4 BLOWDOWN ISOLATION AOV	2X4D8159-1/24/B2	AUX	180'-0"	RB131	S	2,5	OPEN	CLOSED	N	2X3D-BC-Q01D		
01010	A	08a	2-HV-8000A	PORV BLOCK VALVE	2X4D8112/22/E7	CTB	238'-0"	R110	S		OPEN	OPEN	Y	2X3D-BD-B02A		
01011	B	08a	2-HV-8000B	PORV BLOCK VALVE	2X4D8112/22/F7	CTB	238'-0"	R110	S		OPEN	OPEN	Y	2X3D-BD-B02B		
06017	B	08a	2-HV-8105	CHARGING TO REGEN HX MOV	2X4D8116-1/25/C8	AUX	195'-0"	RA103	S	4	OPEN	OP/CL	Y	2X3D-BD-C03G		
06018	A	08a	2-HV-8106	CHARGING DISCHARGE MOV	2X4D8116-1/25/C7	AUX	195'-0"	RA103	S	4	OPEN	CLOSED	Y	2X3D-BD-C03G		
06019	A	08a	2-HV-8110	CCP A & B COMMON MINIFLOW MOV	2X4D8116-2/17/E7	AUX	180'-0"	RB115	S	4	OPEN	CLOSED	Y	2X3D-BD-C03J		
06020	B	08a	2-HV-8111A	CCP A MINIFLOW MOV	2X4D8116-2/17/E6	AUX	143'-6"	RC11	S	4	OPEN	CLOSED	Y	2X3D-BD-C03K		
06021	B	08a	2-HV-8111B	CCP B MINIFLOW MOV	2X4D8116-2/17/D6	AUX	143'-6"	RC18	S	4	OPEN	CLOSED	Y	2X3D-BD-C05L		
06023		07	2-HV-8149A	LETDOWN ISOLATION AOV	2X4D8114/24/G6	CTB	183'-0"	RB03	S	5	OP/CL	CLOSED	N			
06024		07	2-HV-8149B	LETDOWN ISOLATION AOV	2X4D8114/24/H5	CTB	183'-0"	RB03	S	5	OP/CL	CLOSED	N			
06025		07	2-HV-8149C	LETDOWN ISOLATION AOV	2X4D8114/24/G5	CTB	183'-0"	RB03	S	5	OP/CL	CLOSED	N			
06026	B	07	2-HV-8152	LETDOWN ISOLATION AOV	2X4D8114/24/G2	AUX	195'-0"	RA103	S	2,5	OPEN	CLOSED	N	2X3D-BD-C03Y		
06027		07	2-HV-8154	EXCESS LETDOWN ISOLATION AOV	2X4D8114/24/F3	CTB	183'-0"	RB03	S	5	CLOSED	CLOSED	N			
06028	A	07	2-HV-8160	LETDOWN ISOLATION AOV	2X4D8114/24/G3	CTB	198'-0"	RB03	S	2,5	OPEN	CLOSED	N	2X3D-BD-C04A		
06031	A	08a	2-HV-8508A	CCP A ALT. MINIFLOW MOV	2X4D8116-2/17/F6	AUX	143'-6"	RC11	S	4	CLOSED	OP/CL	Y	2X3D-BD-C01T		
06032	B	08a	2-HV-8508B	CCP B ALT. MINIFLOW MOV	2X4D8116-2/17/D5	AUX	143'-6"	RC18	S	4	CLOSED	OP/CL	Y	2X3D-BD-C01U		
05016	A	08a	2-HV-8716A	RHR TRAIN A TO RCS HOT LEG ISOLATION MOV	2X4D8122/26/F7	AUX	119'-0"	RD22	S		OPEN	CLOSED	Y	2X3D-BD-E02N		
05017	B	08a	2-HV-8716B	RHR TRAIN B TO RCS HOT LEG ISOLATION MOV	2X4D8122/26/D7	AUX	119'-0"	RD21	S		OPEN	CLOSED	Y	2X3D-BD-E02P		
04011	A	08a	2-HV-8801A	CCP INJECTION MOV	2X4D8119/19/F5	AUX	195'-0"	RA18	S	4	CLOSED	OPEN	Y	2X3D-BD-D02E		
04012	B	08a	2-HV-8801B	CCP INJECTION MOV	2X4D8119/19/E5	AUX	195'-0"	RA18	S	4	CLOSED	OPEN	Y	2X3D-BD-D02F		
05018	A	08a	2-HV-8804A	RHR TO CCP SUCTION HEADER MOV	2X4D8122/26/F8	AUX	143'-6"	RC25	S		CLOSED	OPEN	Y	2X3D-BD-D02L		
05019	B	08a	2-HV-8804B	RHR TO SIP SUCTION HEADER MOV	2X4D8122/26/B8	AUX	143'-6"	RC26	S		CLOSED	OPEN	Y	2X3D-BD-D02M		

APPENDIX H
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO. (1)	TRAIN (2)	EQUIP CLASS (3)	MARK NO. (4)	SYSTEM/EQUIPMENT DESCRIPTION (5)	Dwg. No./Rev./Zone (6)	Building (7)	EQUIPMENT Flr.Elv. (8)	LOCATION Rm. or Row/Col. (9)	SORT (10)	NOTES (11)	OP. ST. Normal (12)	OP. ST. Desired (13)	POWER REQD? (14)	SUPPORTING SYS. DWG. NO./REV. (15)	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS (16)	REG. ISSUE (17)
04013	A	08a	2-HV-8807A	CCP/SIP SUCTION HEADER CROSS-CONNECT MOV	2X4DB121/29/D2	AUX	180'-0"	RB119	S		CLOSED	OPEN	Y	2X3D-BD-D02P		
04014	B	08a	2-HV-8807b	CCP/SIP SUCTION HEADER CROSS-CONNECT MOV	2X4DB121/29/D2	AUX	180'-0"	RB117	S		CLOSED	OPEN	Y	2X3D-BD-D02Q		
05020	A	08a	2-HV-8811A	CTMT SUMP TO RHR PUMP A SUCTION MOV	2X4DB122/26/B3	AUX	143'-6"	RC124	S		CLOSED	OPEN	Y	2X3D-BD-E03F		
05021	B	08a	2-HV-8811B	CTMT SUMP TO RHR PUMP B SUCTION MOV	2X4DB122/26/B3	AUX	143'-6"	RC01	S		CLOSED	OPEN	Y	2X3D-BD-E03G		
05022	A	08a	2-HV-8812A	RWST TO RHR PUMP A SUCTION MOV	2X4DB122/26/E4	AUX	119'-0"	RD22	S		OPEN	CLOSED	Y	2X3D-BD-E02E		
05023	B	08a	2-HV-8812B	RWST TO RHR PUMP B SUCTION MOV	2X4DB122/26/C4	AUX	119'-0"	RD21	S		OPEN	CLOSED	Y	2X3D-BD-E02F		
04015	B	08a	2-HV-8813	SIP COMMON MINIFLOW MOV	2X4DB121/29/F5	AUX	180'-0"	RB117	S		OPEN	OP/CL	Y	2X3D-BD-D03B		
04016	A	08a	2-HV-8814	SIP A MINIFLOW MOV	2X4DB121/29/E3	AUX	180'-0"	RB119	S		OPEN	OP/CL	Y	2X3D-BD-D03C		
04025	B	08a	2-HV-8920	SIP B MINIFLOW MOV	2X4DB121/29/D3	AUX	180'-0"	RB117	S		OPEN	OP/CL	Y	2X3D-BD-D03B		
11024	A	19	2-LSH-9020	F.O. DAY TANK 3 LEVEL	2X4DB170-1/24/D4	DG	220'-0"	R102	S				Y	2DCHM09F, 2X3DH7D6, 2DBHG01X,		
11025	B	19	2-LSH-9021	F.O. DAY TANK 4 LEVEL	2X4DB170-2/26/D4	DG	220'-0"	R104	S				Y	2DCHM09F, 2X3DH7D1, 2DBHG02B,		
11026	A	19	2-LSL-9020	F.O. DAY TANK 3 LEVEL	2X4DB170-1/24/D3	DG	220'-0"	R102	S				Y	2DCHM09F, 2X3DH7D6, 2DBHG01X,		
11027	B	19	2-LSL-9021	F.C. DAY TANK 4 LEVEL	2X4DB170-2/26/D3	DG	220'-0"	R104	S				Y	2DCHM09F, 2X3DH7D1, 2DBHG02B,		
03012	A	19	2-LSLL-1852	CCW SURGE TK 1 LEVEL	2X4DB136/17/F5	AUX	245'-0"	R227	S				Y	2DCHH11L, 2X3DF426, 2DBDL01A,		
03013	B	19	2-LSLL-1853	CCW SURGE TK 2 LEVEL	2X4DB136/17/B6	AUX	245'-0"	R226	S				Y	2DCHH11L, 1X3DF426, 2DBDL01B,		
03014	A	19	2-LSLL-1854	CCW SURGE TK 1 LEVEL	2X4DB136/17/F5	AUX	245'-0"	R227	S				Y	2DCHH11L, 2X3DF426, 2DBDL01C,		
03015	B	19	2-LSLL-1855	CCW SURGE TK 2 LEVEL	2X4DB136/17/B6	AUX	245'-0"	R226	S				Y	2DCHH11L, 2X3DF426, 2DBDL01D,		

APPENDIX H
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO. (1)	TRAIN (2)	EQUIP CLASS (3)	MARK NO. (4)	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone (6)	Building (7)	EQUIPMENT Flr.Elv. (8)	LOCATION Rm. or Row/Col. (9)	SORT (10)	NOTES (11)	OP. ST. Normal (12)	OP. ST. Desired (13)	POWER REQD? (14)	SUPPORTING SYS. DWG. NO./REV. (15)	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS (16)	REG. ISSUE (17)
06033		19	2-LT-0112	VCT LEVEL	2X4DB116-1/25/G3	AUX	195'-0"	RA69	S				Y	2X3D-CD-L03A, 2X6AU01-377, 2X5DV-001		
06034		19	2-LT-0185	VCT LEVEL	2X4DB116-1/25/G3	AUX	195'-0"	RA69	S				Y	2X3D-CD-L03G, 2X6AU01-463, 2X5DV-001		
01012	A	19	2-LT-0459	PRESSURIZER LEVEL	2X4DB112/22/C8	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02A, 2X6AU01-167		
01013	B	19	2-LT-0460	PRESSURIZER LEVEL	2X4DB112/22/C7	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02C, 2X6AU01-167		
01014	C	19	2-LT-0461	PRESSURIZER LEVEL	2X4DB112/22/C5	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02E, 2X6AU01-167		
08020	A	19	2-LT-0501	SG 1 WIDE RANGE LEVEL	2X4DB159-3/23/F5	CTB	183'-0"	RB03	S				Y	2X3D-CD-C02A, 2X6AU01-190		
08021	B	19	2-LT-0502	SG 2 WIDE RANGE LEVEL	2X4DB159-3/23/B5	CTB	183'-0"	RB10	S				Y	2X3D-CD-C02C, 2X6AU01-190		
08022	B	19	2-LT-0503	SG 3 WIDE RANGE LEVEL	2X4DB159-1/24/F5	CTB	183'-0"	RB10	S				Y	2X3D-CD-C02C, 2X6AU01-190		
08023	C	19	2-LT-0504	SG 4 WIDE RANGE LEVEL	2X4DB159-1/24/C5	CTB	183'-0"	RB03	S				Y	2X3D-CD-C02E, 2X6AU01-190		
08024	D	19	2-LT-0517	SG 1 NARROW RANGE LEVEL	2X4DB159-3/23/F7	CTB	220'-0"	R102	S				Y	2X3D-CD-C02G, 2X6AU01-176		
08025	C	19	2-LT-0518	SG 1 NARROW RANGE LEVEL	2X4DB159-3/23/F7	CTB	220'-0"	R101	S				Y	2X3D-CD-C02E, 2X6AU01-175		
08026	B	19	2-LT-0519	SG 1 NARROW RANGE LEVEL	2X4DB159-3/23/F7	CTB	220'-0"	R101	S				Y	2X3D-CD-C02C, 2X6AU01-173		
08027	D	19	2-LT-0527	SG 2 NARROW RANGE LEVEL	2X4DB159-3/23/C7	CTB	220'-0"	R101	S				Y	2X3D-CD-C02G, 2X6AU01-176		
08028	C	19	2-LT-0528	SG 2 NARROW RANGE LEVEL	2X4DB159-3/23/C7	CTB	220'-0"	R101	S				Y	2X3D-CD-C02E, 2X6AU01-175		
08029	A	19	2-LT-0529	SG 2 NARROW RANGE LEVEL	2X4DB159-3/23/C7	CTB	220'-0"	R101	S				Y	2X3D-CD-C02A, 2X6AU01-173		
08030	D	19	2-LT-0537	SG 3 NARROW RANGE LEVEL	2X4DB159-1/24/F7	CTB	220'-0"	R101	S				Y	2X3D-CD-C02G, 2X6AU01-176		
08031	C	19	2-LT-0538	SG 3 NARROW RANGE LEVEL	2X4DB159-1/24/F7	CTB	220'-0"	R101	S				Y	2X3D-CD-C02E, 2X6AU01-175		
08032	A	19	2-LT-0539	SG 3 NARROW RANGE LEVEL	2X4DB159-1/24/F7	CTB	220'-0"	R101	S				Y	2X3D-CD-C02A, 2X6AU01-173		

APPENDIX H
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
08033	D	19	2-LT-0547	SG 4 NARROW RANGE LEVEL	2X4DB159-1/24/C6	CTB	220'-0"	R101	S				Y	2X3D-CD-C02G, 2X6AU01-176		
08034	C	19	2-LT-0548	SG 4 NARROW RANGE LEVEL	2X4DB159-1/24/C7	CTB	220'-0"	R101	S				Y	2X3D-CD-C02E, 2X6AU01-175		
08035	B	19	2-LT-0549	SG 4 NARROW RANGE LEVEL	2X4DB159-1/24/C7	CTB	220'-0"	R101	S				Y	2X3D-CD-C02G, 2X6AU01-173		
08064	A	19	2-LT-0551	SG 1 NARROW RANGE LEVEL	2X4DB159-3/23/F5	CTB	220'-0"	R101	S				Y	2X6AU01-203		
08065	B	19	2-LT-0552	SG 2 NARROW RANGE LEVEL	2X4DB159-3/23/C5	CTB	220'-0"	R101	S				Y	2X6AU01-203		
08066	B	19	2-LT-0553	SG 3 NARROW RANGE LEVEL	2X4DB159-1/24/F5	CTB	220'-0"	R101	S				Y	2X6AU01-203		
08067	A	19	2-LT-0554	SG 4 NARROW RANGE LEVEL	2X4DB159-1/24/C5	CTB	220'-0"	R101	S				Y	2X6AU01-203		
05024	A	19	2-LT-0764	CNMT EMERGENCY SUMP LEVEL	2X4DB122/26/C2	CTB	183'-0"	RB03	S				Y	2X3D-CE-B12F, 2X6AU01-608		
05025	B	19	2-LT-0765	CNMT EMERGENCY SUMP LEVEL	2X4DB122/26/C1	CTB	183'-0"	RB03	S				Y	2X3D-CE-B12H, 2X6AU01-609		
04026	A	19	2-LT-0990	RWST LEVEL	2X4DB121/29/H1	RWST	220'-0"	R101	S				Y	2X3D-CD-C02A, 2X6AU01-201		
04027	B	19	2-LT-0991	RWST LEVEL	2X4DB121/29/G1	RWST	220'-0"	R101	S				Y	2X3D-CD-C02C, 2X6AU01-201		
04028	C	19	2-LT-0992	RWST LEVEL	2X4DB121/29/G1	RWST	220'-0"	R101	S				Y	2X3D-CD-C02E, 2X6AU01-201		
04029	D	19	2-LT-0993	RWST LEVEL	2X4DB121/29/G1	RWST	220'-0"	R101	S				Y	2X3D-CD-C02G, 2X6AU01-201		
06035	A	08a	2-LV-0112B	VCT DISCHARGE ISOLATION MOV	2X4DB116-1/25/F4	AUX	195'-0"	RA78	S	4	OPEN	CLOSED	Y	2X3D-BD-C02F		
06036	B	08a	2-LV-0112C	VCT DISCHARGE ISOLATION MOV	2X4DB116-1/25/E4	AUX	195'-0"	RA78	S	4	OPEN	CLOSED	Y	2X3D-BD-C02G		
06037	A	08a	2-LV-0112D	CCP SUCTION FROM RWST MOV	2X4DB116-2/17/E2	AUX	143'-6"	RC10	S	4	CLOSED	OPEN	Y	2X3D-BD-C02H		
06038	B	08a	2-LV-0112E	CCP SUCTION FROM RWST MOV	2X4DB116-2/17/D2	AUX	143'-6"	RC19	S	4	CLOSED	OPEN	Y	2X3D-BD-C02J		
14003	A	19	2-NE-0041	NIS DETECTOR--CH.1	2X6AA02-424	CTB			S				Y	2X3D-CD-D05A, 2X6AU01-273, 2X5DSP002		
14004	B	19	2-NE-0042	NIS DETECTOR--CH.2	2X6AA02-424	CTB			S				Y	2X3D-CD-D06A, 2X6AU01-273, 2X5DSP002		
14005	C	19	2-NE-0043	NIS DETECTOR--CH.3	2X6AA02-424	CTB			S				Y	2X3D-CD-D06B, 2X6AU01-273, 2X5DSP002		

APPENDIX H
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	EQUIPMENT Flr.Elv.	LOCATION Rm. or Row/Col.	SORT	NOTES	OP. ST. Normal	OP. ST. Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
14006	D	19	2-NE-0044	NIS DETECTOR--CH.4	2X6AA02-424	CTB			S				Y	2X3D-CD-D06B, 2X6AU01-273, 2X5DSP002		
08036		00	2-PSV-3001	MAIN STEAM SAFETY RELIEF VALVE	2X4DB159-2/20/H3	AUX	220'-0"	R159	S		CLOSED	OP/CL	N			
08037		00	2-PSV-3011	MAIN STEAM SAFETY RELIEF VALVE	2X4DB159-2/20/F3	CONTROL	220'-0"	R123	S		CLOSED	OP/CL	N			
08038		00	2-PSV-3021	MAIN STEAM SAFETY RELIEF VALVE	2X4DB159-2/20/D3	CONTROL	220'-0"	R123	S		CLOSED	OP/CL	N			
08039		00	2-PSV-3031	MAIN STEAM SAFETY RELIEF VALVE	2X4DB159-2/20/B3	AUX	220'-0"	R159	S		CLOSED	OP/CL	N			
06039	A	00	2-PSV-8510A	CCP A ALT MINIFLOW	2X4DB116-2/17/F4	AUX	143'-6"	RC11	S		CLOSED	OP/CL	N			
01019	A	19	2-PT-0455	PRESSURIZER PRESSURE	2X4DB112/22/C7	CTB	183'-0"	RB03	S				Y	2X3D-CD-C02A, 2X6AU01-168		
01020	B	19	2-PT-0456	PRESSURIZER PRESSURE	2X4DB112/22/C6	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02C, 2X6AU01-168		
01021	C	19	2-PT-0457	PRESSURIZER PRESSURE	2X4DB112/22/C5	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02E, 2X6AU01-168		
01022	D	19	2-PT-0458	PRESSURIZER PRESSURE	2X4DB112/22/C5	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02G, 2X6AU01-168		
08040	A	19	2-PT-0514	SG 1 PRESSURE	2X4DB159-2/20/G2	AUX	195'-0"	RA103	S				Y	2X3D-CD-C02A, 2X6AU01-169		
08041	B	19	2-PT-0515	SG 1 PRESSURE	2X4DB159-2/20/G2	AUX	195'-0"	RA103	S				Y	2X3D-CD-C02C, 2X6AU01-171		
08042	D	19	2-PT-0516	SG 1 PRESSURE	2X4DB159-2/20/G3	AUX	195'-0"	RA103	S				Y	2X3D-CD-C02G, 2X6AU01-177		
08043	A	19	2-PT-0524	SG 2 PRESSURE	2X4DB159-2/20/E2	CONTROL	200'-0"	RA04	S				Y	2X3D-CD-C02A, 2X6AU01-169		
08044	B	19	2-PT-0525	SG 2 PRESSURE	2X4DB159-2/20/F2	CONTROL	200'-0"	RA02	S				Y	2X3D-CD-C02C, 2X6AU01-172		
08045	C	19	2-PT-0526	SG 2 PRESSURE	2X4DB159-2/20/F3	CONTROL	200'-0"	RA04	S				Y	2X3D-CD-C02E, 2X6AU01-177		
08046	A	19	2-PT-0534	SG 3 PRESSURE	2X4DB159-2/20/C2	CONTROL	200'-0"	RA14	S				Y	2X3D-CD-C02A, 2X6AU01-170		
08047	B	19	2-PT-0535	SG 3 PRESSURE	2X4DB159-2/20/D2	CONTROL	220'-0"	RA10	S				Y	2X3D-CD-C02C, 2X6AU01-171		
08048	C	19	2-PT-0536	SG 3 PRESSURE	2X4DB159-2/20/D3	CONTROL	220'-0"	RA14	S				Y	2X3D-CD-C02E, 2X6AU01-177		
08049	A	19	2-PT-0544	SG 4 PRESSURE	2X4DB159-2/20/B2	AUX	220'-0"	R155	S				Y	2X3D-CD-C02A, 2X6AU01-170		

APPENDIX H
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
08050	B	19	2-PT-0545	SG 4 PRESSURE	2X4DB159-2/20/B2	AUX	220'-0"	R155	S				Y	2X3D-CD-C02C, 2X6AU01-172		
08051	D	19	2-PT-0546	SG 4 PRESSURE	2X4DB159-2/20/B3	AUX	220'-0"	R157	S				Y	2X3D-CD-C02G, 2X6AU01-177		
02024	A	19	2-PT-11741	NSCW SUPPLY TO PUMP MOTOR COOLERS	2X4DB134/23/E5	AUX	119'-3"	RD06	S				Y	2X3D-CE-B12E, 2X6AU01-1056		
02025	B	19	2-PT-11742	NSCW SUPPLY TO PUMP MOTOR COOLERS	2X4DB134/23/B3	AUX	119'-3"	RD11	S				Y	2X3D-CE-B12H, 2X6AU01-1058		
01023	A	08b	2-PV-0455A	PRESSURIZER PORV	2X4DB112/22/E8	CTB	238'-0"	R110	S		CLOSED	OP/CL	Y	2X3D-BD-B03H		
01024	B	08b	2-PV-0456A	PRESSURIZER PORV	2X4DB112/22/F8	CTB	238'-0"	R110	S		CLOSED	OP/CL	Y	2X3D-BD-B03F		
10088	A	08a	2-PV-2550A	PPG PEN FILTRATION AND EXHAUST UNIT DISCHARGE DAMPER	2X4DB205-1/15/E2	AUX	245'-0"	R219	S		CLOSED	OPEN	Y	2X3D-BG-D01L		
10089	B	08a	2-PV-2551A	PPG PEN FILTRATION AND EXHAUST UNIT DISCHARGE DAMPER	2X4DB205-1/15/E6	AUX	245'-0"	R220	S		CLOSED	OPEN	Y	2X3D-BG-D01M		
10106	A	19	2-TDC-4170	ECW TEMP DIFF CONTROL TO NSCW VLV TV-11740	2X4DB221/16/F2	CONTROL	260'-0"	R310	S				Y			
10107	B	19	2-TDC-4193	ECW TEMP DIFF CONTROL TO NSCW VLV TV-11675	2X4DB221/16/C2	CONTROL	260'-0"	R308	S				Y			
01025	A	19	2-TE-0413A	RCS HOT LEG TEMP--LOOP 1	2X4DB111/19/D6	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02A, 2X6AU01-161		
01026	A	19	2-TE-0413B	RCS COLD LEG TEMP--LOOP 1	2X4DB111/19/B6	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02B, 2X6AU01-162		
01027	B	19	2-TE-0423A	RCS HOT LEG TEMP--LOOP 2	2X4DB111/19/F6	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02A, 2X6AU01-161		
01028	B	19	2-TE-0423B	RCS COLD LEG TEMP--LOOP 2	2X4DB111/19/G6	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02B, 2X6AU01-162		
01029	C	19	2-TE-0433A	RCS HOT LEG TEMP--LOOP 3	2X4DB111/19/F3	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02A, 2X6AU01-161		
01030	C	19	2-TE-0433B	RCS COLD LEG TEMP--LOOP 3	2X4DB111/19/G3	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02B, 2X6AU01-162		
01031	D	19	2-TE-0443A	RCS HOT LEG TEMP--LOOP 4	2X4DB111/19/D3	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02A, 2X6AU01-161		
01032	D	19	2-TE-0443B	RCS COLD LEG TEMP--LOOP 4	2X4DB111/19/C3	CTB	183'-0"	RB02	S				Y	2X3D-CD-C02B, 2X6AU01-162		
02026	A	19	2-TE-11641	NSCW A RETURN TO FAN 1 CONTROL	2X4DB133-1/27/G4	NSCT	220'-0"	R402	S				Y	2X3D-CE-B12F, 2X6AU01-610		

APPENDIX H
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO. (1)	TRAIN (2)	EQUIP CLASS (3)	MARK NO. (4)	SYSTEM/EQUIPMENT DESCRIPTION (5)	Dwg. No./Rev./Zone (6)	<---------- Building (7)	EQUIPMENT Flr.Elv. (8)	LOCATION ------> Rm. or Row/Col. (9)	SORT (10)	NOTES (11)	<-- OP. Normal (12)	ST. --> Desired (13)	POWER REQD? (14)	SUPPORTING SYS. DWG. NO./REV. (15)	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS (16)	REG. ISSUE (17)
02027	A	19	2-TE-11642	NSCW A RETURN TO FAN 2 CONTROL	2X4DB133-1/27/G4	NSCT	220'-0"	R402	S				Y	2X3D-CE-B12F, 2X6AU01-610		
02028	A	19	2-TE-11643	NSCW A RETURN TO FAN 3 CONTROL	2X4DB133-1/27/G4	NSCT	220'-0"	R402	S				Y	2X3D-CE-B12F, 2X6AU01-610		
02038	A	19	2-TE-11644	NSCW A RETURN TO FAN 4 CONTROL	2X4DB133-1/27/G4	NSCT	220'-0"	R402	S				Y	2X5DV068		
02029	B	19	2-TE-11646	NSCW B RETURN TO FAN 1 CONTROL	2X4DB133-2/27/G4	NSCT	220'-0"	R302	S				Y	2X3D-CE-B12H, 2X6AU01-610		
02030	B	19	2-TE-11647	NSCW B RETURN TO FAN 2 CONTROL	2X4DB133-2/27/G4	NSCT	220'-0"	R302	S				Y	2X3D-CE-B12H, 2X6AU01-610		
02031	B	19	2-TE-11648	NSCW B RETURN TO FAN 3 CONTROL	2X4DB133-2/27/G5	NSCT	220'-0"	R302	S				Y	2X3D-CE-B12H, 2X6AU01-610		
02039	B	19	2-TE-11649	NSCW B RETURN TO FAN 4 CONTROL	2X4DB133-2/27/G5	NSCT	220'-0"	R302	S				Y	2X5DV072		
10029	A	19	2-TE-12124	CB CR RETURN AIR TEMP	AX4DB206-1/25/B2	CONTROL	260'-0"	R311	S				Y	2X5DV-428		
10030	B	19	2-TE-12125	CB CR RETURN AIR TEMP	AX4DB206-1/25/E2	CONTROL	260'-0"	R305	S				Y	2X5DV-429		
10037	B	19	2-TE-12725	ELEC EQUIP RM TEMP	2X4DB207-1/13/B6	CONTROL	180'-0"	RB32	S				Y	2X5DV-431		
10038	A	19	2-TE-12740	ELEC EQUIP RM TEMP	2X4DB207-1/13/E7	CONTROL	180'-0"	RB27	S				Y	2X5DV-430		
02032	A	19	2-TE-1668	NSCW A RETURN TO SPRAY/BYPASS VALVES	2X4DB133-1/27/G5	NSCT	220'-0"	R402	S				Y	2X3D-CE-B12F, 2X6AU01-634		
02033	B	19	2-TE-1669	NSCW B RETURN TO SPRAY/BYPASS VALVES	2X4DB133-2/27/G5	NSCT	220'-0"	R302	S				Y	2X3D-CE-B12H, 2X6AU01-634		
10043	A	19	2-TIC-13150	CB NORMAL A/C RM ESF A/C UNIT CONTROLLER	AX4DB216/12/E5	CONTROL	260'-0"	R325	S				Y	2DCHL13W, 2X3DF305, 2DBGC07R,		
10141	A	19	2-TIS-12300	CBCR CHILLER RM VENT FAN CONTROLLER	AX4DB241/12/B7	CONTROL	260'-0"	R311	S				Y	2X3D-BG-C02J		
10142	B	19	2-TIS-12303	CBCR CHILLER RM VENT FAN CONTROLLER	AX4DB241/12/D7	CONTROL	260'-0"	R308	S				Y	2X3D-BG-C01B		
10072	A	19	2-TISH-12200	ELECT SWGR & MCC RM A7001 COOLER CONTROLLER	2X4DB228/10/G8	AUX	119'-3"	RD104	S				Y	2DCHH01W, 2X3DF421, 2DBGD05A,		
10073	B	19	2-TISH-12201	ELECT SWGR & MCC RM A7002 COOLER CONTROLLER	2X4DB228/10/G7	AUX	245'-0"	R223	S				Y	2DCHH12B, 2X3DF416, 2DBGD05B,		
10074	A	19	2-TISH-12202	ELECT SWGR & MCC RM A7003 COOLER CONTROLLER	2X4DB228/10/G5	AUX	143'-6"	RC07	S				Y	2DCHH05W, 2X3DF422, 2DBGD05C,		

APPENDIX H
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10075	B	19	2-TISH-12203	ELECT SWGR & MCC RM A7004 COOLER CONTROLLER	2X4DB228/10/G4	AUX	180'-0"	RB122	S				Y	2DCHH05W, 2X3DF423, 2DBGD05D,		
10076	A	19	2-TISH-12204	ELECT SWGR & MCC RM A7005 COOLER CONTROLLER	2X4DB228/10/G3	AUX	220'-0"	R149	S				Y	2DCHH10A, 2X3DF415, 2DBGD05E,		
10077	B	19	2-TISH-12205	ELECT SWGR & MCC RM A7006 COOLER CONTROLLER	2X4DB228/10/G2	AUX	220'-0"	R147	S				Y	2DCHH10A, 2X3DF415, 2DBGD05F,		
10116	A	19	2-TISH-22501	DIESEL POWER CABLE TUNNEL EXH FAN CONTROLLER	2X4DB238/7/G7	TUNNEL	220'-0"	@DG	S				Y	2X3D-BG-K01C		
10050	B	19	2-TISH-22505	DIESEL POWER CABLE TUNNEL EXH FAN CONTROLLER	2X4DB238/7/F7	TUNNEL	220'-0"	1T4B @ DGB	S				Y	2X3D-BG-K01D		
10051	A	19	2-TISH-22509	TB & AB TRAIN A TUNNEL SUPPLY FAN CONTROLLER	2X4DB238/7/D7	CONTROL	180'-0"	RC08	S				Y	2DCHL05R, 2X3DF380, 2DBGK01E,		
10052	A	19	2-TISH-22516	NSCW TWR CABLE TUNN TRN A FAN CONTROLLER	2X4DB238/7/G3	TUNNEL	220'-0"	1T5A @ NSCW	S				Y	2DAAA00Q, 2X3DH7E2, 2DBGK01C,		
10053	B	19	2-TISH-22519	NSCW TWR CABLE TUNN TRN B FAN CONTROLLER	2X4DB238/7/F3	TUNNEL	220'-0"	1T5B @ NSCW	S				Y	2DAAA00Q, 2X3DH7F1, 2DBGK01D,		
02034	B	08c	2-TV-11675	NSCW TO ESSENTIAL CHILLER CONDENSER (E/H) CONTROL VLV	2X4DB135-2/20/B5	CONTROL	260'-0"	R308	S		OPEN	OPEN	Y	2X5DV333		
02035	A	08c	2-TV-11740	NSCW TO ESSENTIAL CHILLER CONDENSER (E/H) CONTROL VLV	2X4DB134/23/G2	CONTROL	260'-0"	R310	S		OPEN	OPEN	Y	2X5DV332		
10119	B	07	2-TV-12085	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/B1	DG	220'-0"	R103	S		OPEN	OPEN	N	2X3D-BG-F01J		
10120	B	07	2-TV-12085A	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/B1	DG	220'-0"	R103	S		OPEN	OPEN	N	2X3D-BG-F01J		
10121	A	07	2-TV-12086	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/F8	DG	220'-0"	R101	S		OPEN	OPEN	N	2X3D-BG-F01H		
10122	A	07	2-TV-12086A	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/E8	DG	220'-0"	R101	S		OPEN	OPEN	N	2X3D-BG-F01H		
10123	A	07	2-TV-12094A	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/H8	DG	255'-0"	R209	S		OPEN	OPEN	N	2X3D-BG-F01H		
10124	A	07	2-TV-12094B	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/G8	DG	255'-0"	R209	S		OPEN	OPEN	N	2X3D-BG-F01H		
10125	A	07	2-TV-12094C	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/H8	DG	255'-0"	R209	S		OPEN	OPEN	N	2X3D-BG-F01K		
10126	A	07	2-TV-12094D	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/G8	DG	255'-0"	R209	S		OPEN	OPEN	N	2X3D-BG-F01K		
10127	B	07	2-TV-12095A	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/E8	DG	255'-0"	R208	S		OPEN	OPEN	N	2X3D-BG-F01J		
10128	B	07	2-TV-12095B	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/D8	DG	255'-0"	R208	S		OPEN	OPEN	N	2X3D-BG-F01H		

APPENDIX H
VOGTLE ELECTRIC GENERATING PLANT - UNIT 2
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SUCCESS PATH B

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	<---------- Building	EQUIPMENT Flr.Elv.	LOCATION -----> Rm. or Row/Col.	SORT	NOTES	<-- OP. Normal	ST. --> Desired	POWER REQD?	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
10129	B	07	2-TV-12095C	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/D8	DG	255'-0"	R208	S		OPEN	OPEN	N	2X3D-BG-F01K		
10130	B	07	2-TV-12095D	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/D8	DG	255'-0"	R208	S		OPEN	OPEN	N	2X3D-BG-F01K		
10131	A	07	2-TV-12096	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/F1	DG	220'-0"	R101	S		OPEN	OPEN	N	2X3D-BG-F01H		
10132	A	07	2-TV-12096A	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/F1	DG	220'-0"	R101	S		OPEN	OPEN	N	2X3D-BG-F01H		
10133	A	07	2-TV-12097	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/F1	DG	220'-0"	R101	S		OPEN	OPEN	N	2X3D-BG-F01H		
10134	A	07	2-TV-12097A	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/E1	DG	220'-0"	R101	S		OPEN	OPEN	N	2X3D-BG-F01H		
10135	B	07	2-TV-12098	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/C1	DG	220'-0"	R103	S		OPEN	OPEN	N	2X3D-BG-F01J		
10136	B	07	2-TV-12098A	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/C1	DG	220'-0"	R103	S		OPEN	OPEN	N	2X3D-BG-F01J		
10137	B	07	2-TV-12099	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/B8	DG	220'-0"	R103	S		OPEN	OPEN	N	2X3D-BG-F01J		
10138	B	07	2-TV-12099A	DG BLDG OUTSIDE AIR DAMPER	2X4DB217/11/B8	DG	220'-0"	R103	S		OPEN	OPEN	N	2X3D-BG-F01J		
10031	A	08c	2-TV-12124	ECW TEMPERATURE CONTROL VALVE (E/H)	2X4DB233/16/D7	CONTROL	260'-0"	R311	S		OPEN	OPEN	Y	2X3D-BA-J02A		
10032	B	08c	2-TV-12125	ECW TEMPERATURE CONTROL VALVE (E/H)	2X4DB234/19/D7	CONTROL	260'-0"	R305	S		OPEN	OPEN	Y	2X3D-BA-J02D		
10108	B	08c	2-TV-12725	ECW TO ESF ELEC EQUIP RM HVAC UNIT CONTROL VALVE	2X4DB234/19/D7	CONTROL	180'-0"	RB17	S		OPEN	OPEN	Y			
10109	A	08c	2-TV-12740	ECW TO ESF ELEC EQUIP RM HVAC UNIT CONTROL VALVE	2X4DB233/16/D7	CONTROL	180'-0"	RB16	S		OPEN	OPEN	Y			
02040	B	19	2-TY-11675	CONVERTER FOR TV-11675	2X4DB135-2/20/B6	CONTROL	260'-0"	R308	S				Y	2X5DV333		
02041	A	19	2-TY-11740	CONVERTER FOR TV-11740	2X4DB134/23/G2	CONTROL	260'-0"	R310	S				Y	2X5DV332		
10143	A	19	2-TY-12124A	CONVERTER FOR TV-12124	2X5DV428	CONTROL	260'-0"	R311	S				Y	CX5DP8212		
10144	B	19	2-TY-12125A	CONVERTER FOR TV-12125	2X5DV429	CONTROL	260'-0"	R305	S				Y	CX5DP8212		
10145	B	19	2-TY-12725A	CONVERTER FOR TV-12725	2X5DV431	CONTROL	180'-0"	RB17	S				Y	CX5DP8212		
10146	A	19	2-TY-12740A	CONVERTER FOR TV-12740	2X5DV430	CONTROL	180'-0"	RB16	S				Y	CX5DP8212		

APPENDIX 3.H

VOGTLE UNIT 2 IPEEE

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

SSEL Notes

1. Component not required to function; however, integrity of component is required in order to maintain fluid boundary.

    A. Walkdown required.

    B. Walkdown not required; equipment is well-anchored due to its operating loads.

2. No power required to valve, but actuation signal needed.

3. Valve regulates flow/miniflow.

4. Valve actuated by SI signal.

5. Valve fails closed on loss of instrument air.

6. The following instrumentation and controls on the main control board will be functional: charging flow, FI-0138A/917A; RCP seal injection flow, FI-0142A/143A/144A/145A; RHR flow, FI-0618A/619A; SIP flow, FI-0918/922; NSCW return flow, FI-1640A/1641A; CCW flow, FI-1876/1877; AFW flow, FI-5150A/5151A/5152A/5153A; reactor head letdown flow, FI-0406/407; VCT level, LI-0112/185; pressurizer level and pressure, LI-0459A/460A/461 and PI-0455A/456/457/458; SG level and pressure, LI-0501/502/503/504/517/518/519/527/528/529/537/538/539/547/548/549/551/552/553/554 and PIC-3010A/3020A/3030A, 3040A; containment emergency sumplevel, LI-0764/765; RWST level, LI-0990A/991A,992A/993A; CST No. 1 level, LI-5111A; RCS wide range pressure and temperature, PI-0408/418/428/438 and TI-0413A/413B/423A/423B/433A/433B/443A/443B; steam line pressure, PI-0514A/515A/516A/524A/525A/526A/534A/535A/536A/544A/545A/546A/; and containment pressure, PI-0934/935/936. The plasma display will be functional.

7. The following instrumentation and controls on the QHVC panel will be functional: FISL-2425/22426.

8. PIC-3010A/3020A/3030A,3040A; containment emergency sumplevel, LI-0764/765; RWST level, LI-0990A/991A/992A/993A; CST No. 1 level, LI-5111A; RCS wide range pressure and temperature, PI-0408/418/428/438 and TI-0413A/413B/423A/423B/433A/433B/443A/443B; steam line pressure, PI-0514A/515A/516A/524A/525A/526A/534A/535A/536A/544A/545A/546A/; and containment pressure, PI-0934/935/936. The plasma display will be functional.

7. The following instrumentation and controls on the QHVC panel will be functional: FISL-2425/22426.

9. The following instrumentation and controls on local HVAC panels will be functional: TIC-12124/12125/12725/12740.

VOGTLE UNIT 2 IPEEE

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

KEY TO SSEL EQUIPMENT CLASSES

NUMBER	TYPES OF EQUIPMENT
00	Other
01	Motor Control Centers
02	Low Voltage Metal Clad Switchgear
03	Medium Voltage Metal Clad Switchgear
04	Transformers
05	Horizontal Pumps
06	Vertical Pumps
07	Air Operated Valves
08a	Motor Operated Valves
08b	Solenoid Operated Valves
08c	Electro-hydraulically Operated Valves
09	Fans and Air Handlers
11	Chillers
12	Air Compressors
13	Motor Generators
14	Distribution Panels
15	Batteries and Racks
16	Battery Chargers and Inverters
17	Engine Generators
18	Instrument Racks
19	Local Instruments and Temperature Sensors
20	Control and Instrumentation Panels
21	Tanks and Heat Exchangers
22	Automatic Transfer Switches
23	Wall Mounted Contactors, Transmitters, Power Supplies, etc.
24	Strainers and Filters
25	Control Rod Drive Assemblies
26	Traveling Screens and Sluice Gates

VOGTLE UNIT 2 IPEEE

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

KEY TO SSEL LINE NUMBERS

SERIES	SYSTEM NAME	SYSTEM NO.
01000	Reactor Coolant	1201
02000	Nuclear Service Cooling Water	1202
03000	Component Cooling Water	1203
04000	Safety Injection	1204
05000	Residual Heat Removal	1205
06000	Chemical Volume & Control	1208
07000	Misc. Mechanical	various
08000	Main Steam	1301
09000	Auxiliary Feedwater	1302
10000	Misc. HVAC & Chilled Water	1500s
11000	Diesel Generators	2403
12000	Containment Iso./Integrity	various
13000	Main Control Board	1601
14000	Nuclear Instrumentation	1602
15000	Process Control	1604
16000	NSS Protection	1605
17000	Post Accident Monitoring	1623
18000	AC Power	various
19000	DC Power	1806
20000	Multisystem Panels & Boards	1816
21000	Misc. Electrical	various
22000	Lighting	1808

Vogtle Electric Generating Plant
Post Office Box 1600
Waynesboro, Georgia 30830
Telephone 706 724 1562
706 554 9961

Vogtle Electric Generating Plant

Georgia Power

Date:	January 28, 1994
RE:	Safe Shutdown Equipment List Log: NOTS-01656
FROM:	J. B. Beasley, Jr.
TO:	C. K. McCoy

This letter is in response to W. B. Shipman's request for the Operations Department to review the Safe Shutdown Equipment List (SSEL). Operations and Training personnel provided input for the SSEL during its development. This input ensured that the SSEL success paths selected were those that could be utilized during a seismic event. Selection of these SSEL paths was based upon plant procedures, training and available instrumentation and indicators. The current SSEL success paths are compatible with Vogtle Operations procedures and training.

If you have any questions, please contact Ken Holmes at ext. 3550

W F Kitchens for JBB

wb
JBB/KRH/rs

xc: S.H. Chesnut
C.C. Miller
NORMS

APPENDIX 3.J

Equipment Open Item Summary - Unit 1
(Sheet 1 of 2)

Equipment ID Number	Equipment Class	Equipment Description	Plant Area	Description of Open Item
1-1806-B3-BN3	15	125 VDC Battery 1ND3AB	Control Building El. 280'	Gap between battery rack end rails and batteries.
1-1804-S3-A03	03	4160V Switchgear 1BA03	Control Building El. 200'	Potential interaction with breaker stored in room.
1-LSH-9020	19	Fuel Oil Day Tank 3 Level	Diesel Generator Building, El. 220'	Device is leaking due to loose screws.
1-2403-G4-001	17	Diesel Generator A	Diesel Generator Building , El.220'	Potential interaction with crane controller.
1-2403-G4-002	17	Diesel Generator B	Diesel Generator Building, El. 220'	Potential interaction with crane controller.
1-2403-P5-DG1	20	Diesel Generator 1A Engine Control Panel	Diesel Generator Building, El. 220'	Potential interaction with crane controller.
1-2403-P5-DG2	20	Diesel Generator 1A Engine Control Panel	Diesel Generator Building, El. 220'	Potential interaction with crane controller.
1-2403-P5-DG3	20	Diesel Generator 1B Engine Control Panel	Diesel Generator Building, El. 220'	Potential interaction with crane controller.
1-2403-P5-DG4	20	Diesel Generator 1B Engine Control Panel	Diesel Generator Building, El. 220'	Potential interaction with crane controller.
1-1605-Q5-STB	20	Safeguard Test Cabinet - Train B	Control Building El. 220'	Potential interaction with unsecured metal plates temporarily stored between cabinets.
1-HV-3026A	08C	Inboard Main Steam Isolation Valve - SG 3	Control Building El. 220'	Potential interaction with monorail hoist and chains.
1-HV-3026B	08C	Outboard Main Steam Isolation Valve - SG 3	Control Building El. 220'	Potential interaction with monorail hoist and chains.

APPENDIX 3.J

Equipment Open Item Summary - Unit 1
(Sheet 2 of 2)

Equipment ID Number	Equipment Class	Equipment Description	Plant Area	Description of Open Item
1-HV-3016A	08C	Inboard Main Steam Isolation Valve - SG 2	Control Building El. 220'	Potential interaction with monorail hoist and chains.
1-HV-3016B	08C	Outboard Main Steam Isolation Valve - SG 2	Control Building El. 220'	Potential interaction with monorail hoist and chains.
1-HV-12146	07	CBCR Normal Air Supply Damper	Control Building El. 240'	Potential interaction with adjacent nonbearing wall.
1-1601-Q5-MCB	20	Main Control Board	Control Building El. 220'	Potential interaction with adjacent nonbearing wall.
1-1592-C7-001	11	CB Essential Chiller	Control Building El. 260'	Potential interaction with adjacent duct support at the chiller pipe fitting.
1-1807-Y3-IB12	16	Vital AC Inverter	Auxiliary Building El. 220'	Potential interaction with tools left overhead.
1-1805-S3-ABB	01	480V Motor Control Center 1ABB	Auxiliary Building El.220'	Potential interaction with unsecured ladder stored in room.
1-PV-3000	08C	Atmospheric Relief Valve - SG 1	Auxiliary Building El. 245'	Potential interaction with monorail hoist and chains.
1-PY-3000	19	SG 1 Pressure to ARV Controller	Auxiliary Building El. 245'	Potential interaction with unsecured ladder stored in room.
1-PY-3030	19	SG 4 Pressure to ARV Controller	Auxiliary Building El. 245'	Potential interaction with unsecured ladder stored in room.
1-HV-15196	07	BFIV for SG 1	Auxiliary Building El. 195'	Potential interaction with adjacent concrete wall.
1-HV-15199	07	BFIV for SG 4	Auxiliary Building El. 195'	Potential interaction with adjacent structural steel member.

APPENDIX 3.K

Equipment Open Item Summary - Unit 2
(Sheet 1 of 3)

Equipment ID Number	Equipment Class	Equipment Description	Plant Area	Description of Open Item
2-1806-B3-BN3	15	125 VDC Battery 1ND3AB	Control Building El. 280'	Gap between battery rack end rails and batteries.
2-1807-Q3-VI3	14	120 VAC Vital Panel 1CY1A	Control Building El. 180'	Potential interaction with loose cables resting on top of the panel.
2-1806-Q3-DC1	14	125 VDC Distr. Panel 1CD11	Control Building El. 200'	Potential interaction with loose cables resting on top of the panel.
2-1807-Y3-IC3	16	Vital AC Inverter 1CD1I3	Control Building El. 180'	Potential interaction with loose cables resting on top of the panel.
2-1807-Y3-IA11	16	Vital AC inverter 1AD1I11	Auxiliary Building' El. 220'	Potential interaction with adjacent conduits and loose cables.
2-PV-3030	08C	Atmospheric Relief Valve - SG 4	Auxiliary Building' El. 220'	Potential interaction with monorail hoist and chains at the valve tubing.
2-PV-3000	08C	Atmospheric Relief Valve - SG 1	Auxiliary Building' El. 245'	Potential interaction with monorail hoist and chains at the valve tubing.
2-HV-15196	07	BFIV for SG - 1	Auxiliary Building' El. 195'	1. Potential interaction with monorail hoist and chains. 2. Potential interaction with the concrete wall at the valve operator.
2-1605-Q5-SPC	20	Solid State Protection System Cabinet - Train C	Control Building El.220'	Potential interaction with adjacent halon extinguisher.
2-1604-Q5-PP1	20	BOP Protection Ch 1 Panel	Control Building El. 220'	Potential interaction with unanchored metal barrier.

APPENDIX 3.K

Equipment Open Item Summary - Unit 2
(Sheet 2 of 3)

Equipment ID Number	Equipment Class	Equipment Description	Plant Area	Description of Open Item
2-1500-Q5-HVC	20	HVAC Panel	Control Building EL. 220'	Potential interaction with unanchored metal sign/post.
2-1500-V7-001-CBA	20	Local CB HVAC Panel Train A	Control Building El. 220'	Potential interaction with room locker.
2-1500-V7-002-CBB	20	Local CB HVAC Panel Train B	Control Building El. 220'	Potential interaction with room locker.
2-1601-Q5-MCB	20	Main Control Board	Control Building El. 220'	Potential interaction with room locker.
2-HV-3514	07	Pressurizer Steam Sample AOV	Fuel Handling Building' El. 180'	Mounting screws are missing at ASCO valve.
2-1806-B3-BYB	15	125 VDC Battery 2DB1B	Control Building El. 180'	Overhead PVC pipe clamp is loose.
2-1807-Y3-ID4	16	Vital AC Inverter 2DD1I4	Control Building El. 180'	Potential interaction with loose cables stored between cabinets.
2-1807-Q3-VI4	14	120 VAC Vital Panel 2DY1B	Control Building El. 180'	Potential interaction with loose cables stored between cabinets.
2-2403-G4-002	17	Diesel Generator B	Diesel Generator Building' El. 220'	Potential interaction with crane controller.
2-1805-Y3-ID6	16	RHR Isolation Valve Inverter	Control Building El. 180'	Potential interaction with unsecured ladder.
2-TV-12725	08C	ECW to ESF Elec Equip Room HVAC Unit Control Valve	Control Building El. 180'	Potential interaction with adjacent concrete wall.

APPENDIX 3.K

Equipment Open Item Summary - Unit 2
(Sheet 3 of 3)

Equipment ID Number	Equipment Class	Equipment Description	Plant Area	Description of Open Item
2-1623-D5-006B	20	Display Processing Unit B	Control Building El. 240'	Potential interaction with swinging light fixture
2-1805-S3-ABE	01	480V MCC	Control Building El. 180'	Potential interaction with swinging light fixture
2-1805-S3-NBR	01	480V MCC	Control Building El. 180'	Potential interaction with swinging light fixture

Vogtle Electric Generating Plant

Unit 1 and Unit 2

Individual Plant Examination of External Events

Volume 2

November 1, 1995

TABLE OF CONTENTS

Volume 1

Volume 2

LIST OF TABLES

Table

LIST OF FIGURES

Figure

4. INTERNAL FIRE ANALYSIS

This chapter reports the analysis and results of a fire probabilistic risk assessment (PRA) performed for Units 1 and 2 of Vogtle Electric Generating Plant (VEGP) in response to the request of U.S. Nuclear Regulatory Commission (NRC) Generic Letter No. 88-20, Supplement 4 (Reference 4-1). The objective of the analysis is to identify fire- and smoke-induced plant-specific vulnerabilities to severe accidents that could be remedied with low-cost improvements at VEGP. The results of this analysis are summarized in section 4.10.

4.0 METHODOLOGY SELECTION

4.0.1 OVERVIEW OF TECHNICAL APPROACH

The fire analysis employs a scenario-based PRA approach that meets the intent of NUREG-1407 (Reference 4-2) to systematically and successively evaluate fire and smoke hazards and their associated risk impact to VEGP. The analysis was divided into two phases: (1) a spatial interactions analysis phase and (2) a detailed analysis phase.

Figure 4.0-1 illustrates the overall technical approach of the Vogtle fire risk analysis. Briefly, in the spatial interactions analysis phase, one or more fire and smoke hazard scenarios were developed for each plant location that can potentially initiate a plant transient or affect the ability of the plant to mitigate an accident. The scenarios developed in this phase are called location scenarios. Both localized and propagation location scenarios were considered. A localized location scenario evaluates fires initiated within a fire zone and contained within the fire zone. A propagation location scenario evaluates fire initiated in a fire zone and propagated to one or more of its adjacent fire zones.

Regardless of the initial fire severity, the amount of combustibles available, and the spatial separation between the fire sources and targets (plant equipment or cable raceways that may be damaged by the fire sources), a location scenario developed for each fire zone was conservatively assumed to damage all plant components and raceways located in the fire zone(s) prescribed by the scenario. This assumption is obviously ultraconservative for many scenarios, however, it allows the fire zones that have insignificant plant risk associated with fire and smoke hazards be screened from the subsequent analysis at an early stage of the project. This approach also allows an effective and efficient use of the resources, since detailed spatial information (that requires a large effort to collect) between the fire sources and targets (plant components and cables susceptible to fire damage) is not required for the locations that have insignificant risk impact.

The fire occurrence frequency of the location scenarios were assessed based on both nuclear power industry fire data and plant-specific experience. The plant impact corresponding to each location scenario was determined based on the individual plant examination (IPE) top events in which the affected components (due to fire damage to these components or their associated cables) were modeled. In this analysis, the location scenarios were then quantitatively screened for their risk significance. A location scenario was screened from further evaluation if its core damage risk is less than 0.1 percent of the total internal events-induced risk; i.e., a screening cutoff value is 4.45E-08 per year was used. Instead of discarding the numeric results of the screened location scenarios, the risk impact of the screened location scenarios was aggregated and included in the final risk estimation in the detailed analysis phase. This approach accounts for all quantified fire-induced risk impact.

The location scenarios retained from the quantitative screening were deemed to be relatively risk significant and required further analysis. In the detailed analysis phase, one or more subscenarios were developed for each location scenario that survived the quantitative screening to obtain a more realistic risk impact. A subscenario was used to describe the progression of a unique fire event that was initiated by specific ignition source(s) in a particular plant location. The evaluation of the subscenarios also considered combustible loadings (both in-situ and transient), critical components, location-specific features that may interfere with fire growth or its control, potential plant impact from the fire, and possible operator recovery actions to prevent core damage. Spatial separation between the fire source(s) and target(s) in each subscenario was used to realistically estimate the fire impact.

A realistic estimate of the ignition frequency of the fire source(s) was calculated. One or several frequency reduction factors (geometry factor, severity factor, and fire nonsuppression factor) were assessed for each detailed analysis subscenario. As each frequency reduction factor was assessed (with value ranging from 0.0 to 1.0), conservatism introduced in the earlier phase of the analysis was reduced and the complexity of the analysis progressively increased. Whenever one or more reduction factors led to the conclusion that the risk associated with a detailed analysis subscenario was relatively insignificant, the analysis for that subscenario would be halted and the remaining frequency reduction factor(s) would assume a value of 1.0.

Each subscenario was evaluated iteratively until the subscenario was considered to be relatively risk insignificant or all frequency reduction factors were assessed. The plant vulnerabilities to fire and smoke hazards were assessed by aggregating the risk impact of all subscenarios in the detailed analysis phase and the location scenarios that were screened from the spatial interactions analysis phase. The frequency of fire and smoke hazard-initiated core damage sequences was used as a measure of the plant vulnerabilities.

The containment performance in response to fire threats, Fire Risk Scoping Study (FRSS) issues (Reference 4-3), and other special safety issues were also evaluated. Low-cost risk management options could then be identified to reduce the risk impact associated with the subscenarios.

The major steps of VEGP fire individual plant examination for external events (IPEEE) are summarized as follows:

- Phase 1: Spatial Interactions Analysis

  1. Information Gathering and Data Collection
  2. Identification of Plant Locations and Qualitative Screening
  3. Development of Location Scenarios
  4. Quantitative Screening of Location Scenarios

- Phase 2: Detailed Analysis

  5. Development and Analysis of Subscenarios
  6. Sensitivity Analysis
  7. Containment Performance Evaluation
  8. Resolution of the FRSS and Other Safety Issues

4.0.2 BASIS AND ASSUMPTIONS

The basis for and assumptions of the analysis are as follows:

- The analysis assessed the risk of core damage induced by fire and smoke hazards in all important plant locations. Similar to the efforts reported in the VEGP IPE report (Reference 4-4), the fire IPEEE analysis assumed that VEGP was initially at full power.

- The current results and plant-specific data collected and analyzed by Southern Nuclear Operating Company (SNC) reflect the plant configuration as of October 1993.

- The plant model used in the detailed analysis for estimating the core damage frequency (CDF) was based on VEGP (Rev. 1) approved in September 1994 from the IPE submittal. The plant model was developed using the Westinghouse PRA software (Reference 4-5).

- The internal events-induced CDF for Unit 1 is 4.45E-05 per year, which was also used for Unit 2.

- The design basis, and operations of each unit are almost identical (see section 9.5.1 of the VEGP Final Safety Analysis Report (FSAR), Reference 4-6). Because of the similarity in equipment and system arrangement and layout between Unit 1 and Unit 2, the analysis presented in this section concentrated on the evaluation of Unit 1. For locations where Unit 1 and Unit 2 share similar characteristics and plant impact, the results of Unit 1 analysis were applied to Unit 2.

  Only three fire zones in Unit 2 were found not to have a matching Unit 1 fire zones per table 9A-2 of the VEGP FSAR. These fire zones are:

    Fire Zone 13: This fire zone was found to be similar to fire zone 12 of Unit 1 (which is included in the Unit 1 analysis).

    Fire Zone 141C: This fire zone is the polar crane access area. This fire zone has no top event impact and has insignificant fire risk impact.

    Fire Zone 200: This fire zone is a stairwell and has insignificant fire risk impact.

- The cable routing reflects the plant design as of May 1995 and the proposed Unit 1 design change for the Thermo-Lag® deletion to be implemented during the spring 1996 outage. Unit 2 will follow the same cable reroute strategy as Unit 1 to resolve the Thermo-Lag® issue. The Unit 2 reroute was not identified at the time of this analysis. However, a design change package for the Unit 2 Thermo-Lag® deletion is scheduled for the Fall 1996 outage.

- The analysis considered mishaps initiated by faults from electrical and mechanical plant components, and operator activities. Mishaps initiated by sabotage or arson were not considered.

- Operations at Unit 2 were assumed not to interfere with Unit 1 operations except in the common areas.

- The term "location" is defined as a designated plant space in this analysis and is used in a loose sense: a plant location can be a compartment, a collection of compartments, or a well-defined open space.

- Similar to a typical CMEB 9.5.1 analysis, a fire area is defined in this analysis as a location surrounded by a 3-hour rated fire barrier (door, wall, and penetration seal) or by a 1-hour rated barrier, provided that the location is protected by an automatically actuated fire suppression system.

- A fire zone is a plant location subdivided from a fire area. There is no barrier rating requirement for fire zones. In this analysis, the plant locations were evaluated at the fire zone level.

- The location and amount of transient combustibles affecting each location scenario were identified during the plant walkdowns and from VEGP FSAR (Reference 4-6) and the Fire Event Safe Shutdown Evaluation (FESSE) (Reference 4-7).

- The fire frequency associated with each key plant component category was assessed using actual nuclear industry experience (Reference 4-8). Each nuclear industry fire incident was reviewed for their relevance to VEGP's operation. The relevant generic experience was combined with VEGP experience using a two-stage Bayesian data update technique (Reference 4-9). Separate frequency assessments were performed for Unit 1 and Unit 2.

- Certain systems which were not included in the CMEB 9.5.1 cable data base and/or were not risk significant were set to guaranteed failure to simplify the analysis. These systems (or functions) were the containment cooling units, containment spray system, accumulators, main steam isolation valves, steam generator isolation, and ATWT mitigation system actuation circuitry.

- The computer code COMPBRN IIIe (Reference 4-10) was used in estimating the fire-induced damage time of critical components given a particular fire size and duration.

- Automatic fire detection systems and fire suppression systems (FSSs) were assumed to be installed per design specifications, following the National Fire Protection Association and NRC guidelines.

- Fire detectors were assumed to be able to detect fire signatures at their location per design specifications. Automatic fire suppression systems were assumed to be sized to effectively mitigate a fire of the maximum postulated size at that location. The fire protection systems (FPSs) were assumed to be maintained regularly.

- Fire drill records were collected to obtain information relating to fire brigade response time.

4.0.3 LAYOUT OF THE REPORT

The layout of the fire analysis follows Table C.1 of NUREG-1407. To present the analysis in the prescribed documentation structure, the major steps of the analysis (listed in section 4.0.1) were included in the different sections of the report, as follows:

Section	Analysis Step
4.1 Fire Hazard Analysis	1 through 4
4.2 Review of Plant Information and Walkdown	1 through 8
4.3 Fire Growth and Propagation	3 through 5
4.4 Evaluation of Component Fragilities and Failure Response	4 and 5
4.5 Fire Detection and Suppression	3 and 5
4.6 Analysis of Plant Systems, Sequences, and Plant Response	4 through 6
4.7 Analysis of Containment Performance	7
4.8 Treatment of FRSS Issues	8
4.9 USI A-45 and Other Safety Issues	8

Particularly, the results of the spatial interactions analysis are presented in section 4.1.5, and the results of the detailed analysis are presented in section 4.6.3. Section 4.10 summarizes the results and identifies risk management options.

While the key results of the analysis are reported in this section, the detailed analysis worksheets for the documentation of plant information collected and walkdown observations, fire event data analysis, the scenario frequency assessment, detailed fire subscenario calculations supporting the detailed analysis, relevant plant records, detailed analytical worksheets, and backup analysis are included in the tier 2 documentation.

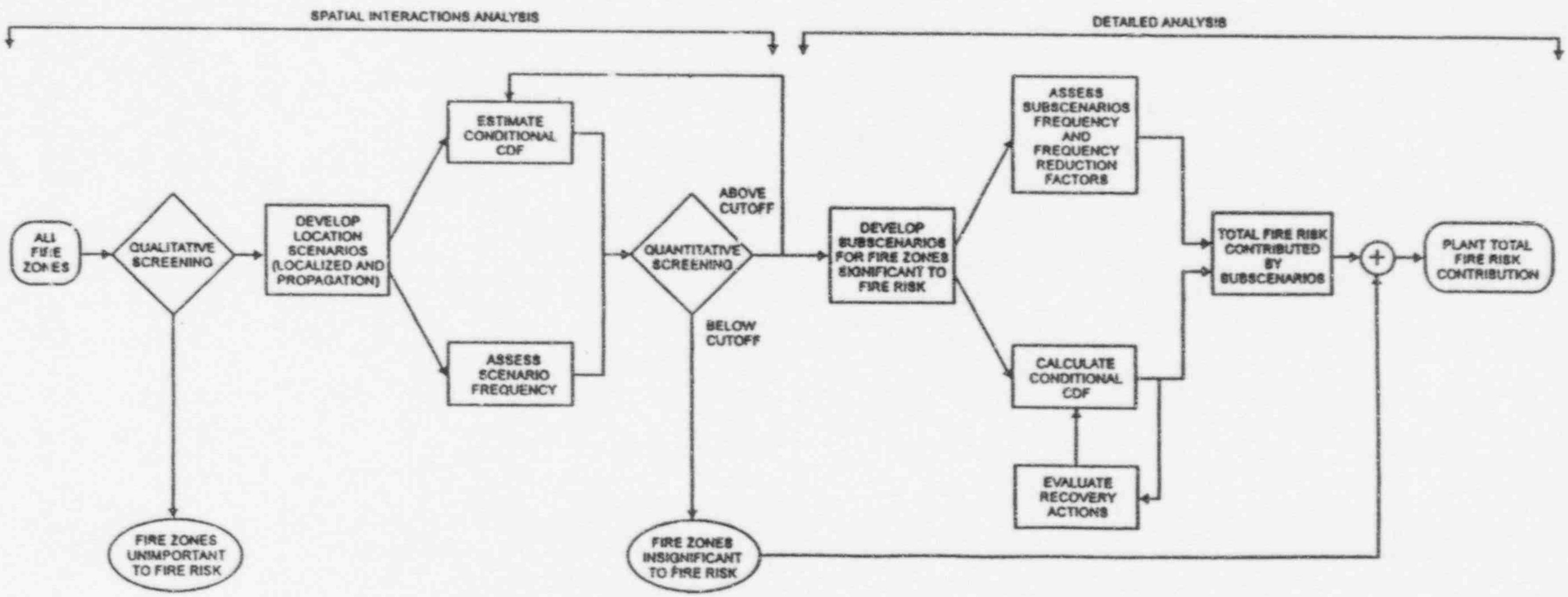


Figure 4.0-1 Overview of Technical Approach

4.1 FIRE HAZARD ANALYSIS

The presence of fire hazards in a location alone may not necessarily induce significant risk to plant operation. An ignition source must exist, and the fire hazards must have the potential to initiate a plant transient or to damage plant equipment that is required to mitigate accidents. Thus, spatial interactions between fire and smoke hazards and plant safety components govern fire risk to the plant operation.

This section presents the fire hazard analysis performed to support the spatial interactions analysis of Unit 1. The objectives of the fire hazard analysis are to:

- Collect relevant plant information to support the spatial interactions analysis.
- Perform qualitative screening to identify important plant locations for subsequent analysis.
- Estimate the fire hazard inventory in those locations.
- Identify fire protection capability at those locations.
- Identify potential fire and smoke room-to-room propagation pathways.

Using the results of the fire hazard analysis, the objectives of the spatial interaction actions analysis are to:

- Evaluate the potential of fire propagation between plant locations.
- Develop location scenarios that evaluate the impact of fire and smoke hazards to safety-related plant equipment and cable raceways.
- Quantitatively screen out location scenarios that are relatively insignificant to plant risk induced by fire and smoke hazards.

4.1.1 INFORMATION GATHERING AND DATA COLLECTION (STEP 1)

A fire analysis requires multi-disciplinary engineering knowledge and plant information. At the beginning of this project, the following information sources were visited:

- Fire Event Safe Shutdown Evaluation (FESSE).
- Site and plant general arrangement drawings.
- Combustible inventories and fire protection system features in each fire zone.
- Relevant sections of the Final Safety Analysis Report (FSAR).
- Individual Plant Examination (IPE) Report (including internal flood analysis).
- Location of safety equipment and cables routing associated with key safety equipment.

These information sources were important for the qualitative screening analysis (presented in the following section), and the verification of the impact of safety equipment and the associated cable raceways on the IPE model.

All relevant plant information was assembled into a relational database. The computer database imported existing plant information provided by VEGP personnel in different computer database format (e.g., DBASE®, etc.,) and related each piece of plant information to fire area and fire zones defined in this analysis. The information was then summarized into a set of location characteristics tables (LCTs) for subsequent analyses. As an example, table 4.1-1 shows the LCT developed for fire zone 91 for Unit 1.

As illustrated in table 4.1-1, each LCT contains eight sections:

1. **Fire Zone Description**. This section describes the fire zone.

2. **Fire/Smoke Hazards Inventory.** The information contained in this section was obtained from the combustibility loading calculation (Reference 4-11). This section provides an estimate of the normal inventory of in-site and transient fire and smoke hazards. Several types of fire and smoke hazards are included: cable insulation, oil/grease, paper, wood, fabrics, plastics, charcoal, and rubber goods. An estimate of the fire severity (in hours) is also included. The fire severity was obtained by dividing the fire loadings by the heat rate for Standard Exposure Fire (80,000 Btu/ft^2-h) established by the National Fire Protection Association.

   Safety-related plant component-induced fire and smoke hazards (e.g., pump-related fires) were included in section 5 of the LCT (see below).

3. **Fire Detection/Suppression Features**. This section describes the fire detection and suppression capabilities in the fire area. These include the detection system, and automatic and manual suppression system. The information included in this section was obtained from the FSAR.

4. **Fire Zone Adjacency.** This section lists the adjacent fire zones to the fire zones within the fire area. The adjacency information is essential in the development and evaluation of fire propagation between fire zones.

5. **Top Event(s)/[IE] Affected by Fire and Smoke Hazards-Susceptible Safety-Related Components.** This section includes a list of plant components, within each fire zone in the fire area, that can be affected by fire and smoke hazards and whose failure can lead to an initiating event (listed in brackets), or can impact the accident mitigation systems.

   The plant components were cross-referenced to IPE model. The top events associated with the plant system that the component belongs to are included even though the failure of the component and the basic event would not lead directly to the failure of the corresponding top event.

Some of the components included in this section also act as fire ignition sources and fire hazards. Thus, each component was categorized to a component type for identification purpose. This information was also considered in the fire frequency apportionment analysis.

6. **Top Event(s)/[IE] Affected by Raceways Associated with Safe Shutdown Components.** This section provides a list of raceways in each zone of the fire area. Failure of the raceway can lead to the loss of the intended function of plant components (that are not within the fire zone) and whose failure can lead to an initiating event, or can impact the accident mitigation systems.

   Similar to the equipment list, the top events are included even though the failure of the corresponding basic event would not lead directly to the failure of the corresponding top event.

7. **Top Event(s)/[IE] Affected by Cables Associated with Selected Safety-Related Components.** This section includes the top event(s) or initiating event affected by cables associated with selected IPE components (that are not Appendix R components).

8. **Summary of Top Event(s)/[IE] Affected.** The top events and initiating events affected by equipment, cable and raceway failures listed in sections 5 through 7 are summarized in this section.

An LCT was developed for each of the fire zones considered in this analysis.

The presence of in-situ and transient combustible loadings alone does not necessarily induce risk to the plant. An ignition source must co-exist with the combustible loadings in order to produce a fire and smoke risk impact. The following categories of plant components were considered as possible ignition sources to induce plant risk:

- Batteries.
- Battery chargers (includes battery chargers, diodes and inverters).
- Cabinets (includes logic cabinets, panels, relays, fuses, and switches).
- Cables (includes power and control cables).
- Control room-related events.
- Diesel generators.
- Generators (includes main generator).
- Heating, ventilation, and air-conditioning (includes heaters, fans, chillers, and filters).
- Motors (includes motor-operated valves and motor-generator sets).
- Motor control centers.
- Pumps and air compressors (includes the motor unit of pumps).
- Switchgears (includes circuit breakers and buses).

- Turbine (includes driver, turbine-driven pump unit, and main turbine unit).
- Large transformers (above 4 kV).
- Transformers (4 kV and below).

In addition to the above categories of component faults-induced ignition sources, certain personnel activities, such as welding and cutting, may create an ignition source. Thus, human activities were also included as an ignition source category. The above component-induced and human-induced fire and smoke hazard ignition source categories were used in the assessment of fire initiation frequency (see section 4.1.4).

4.1.2 IDENTIFICATION OF IMPORTANT PLANT LOCATIONS AND QUALITATIVE SCREENING (STEP 2)

This fire analysis used a top-down approach to evaluate all plant locations within the controlled area of VEGP. The analysis first examined the general layout drawings and general plant description provided by the VEGP IPE (Reference 4-4) and the VEGP FSAR (Reference 4-6. The fire areas and fire zones defined in these references were identified.

A fire area is defined (in the generic sense) as a plant location that is separated from other locations by a 3-h rated fire barrier (e.g., 3-h rated fire walls), or a 1-hour rated fire barrier (not used at VEGP) supplemented by an automatic fire suppression system. Each, Vogtle specific, fire area is identified by a unique fire area designator. For example, fire area "1-CB-LB-D" indicates a fire area "D" at level B (LB) of Unit 1 (1-) control building (CB).

A fire zone is a plant location within a fire area. A fire zone may consist of a compartment or several compartments, or it may be a fire area itself. A fire zone designator is an alphanumeric identifier used to uniquely define the fire zones. For example, fire zone 70, train B HVAC room, is one of the fire zones in fire area 1-CB-LB-D (fire area 1-CB-LB-D contains fire zones 60, 62, 65, 66, 67, 68, 70 and 144), and fire zone 70 includes rooms B62 and B17 (see table 4.1-2). While fire area 1-AB-LD-H only consists of fire zone 2, the train A switchgear room at level D of the auxiliary building. Table 4.1-2 lists Unit 1 fire zones considered in the fire analysis.

Following the fire area and fire zone definitions in the VEGP FSAR, a qualitative screening was performed to screen out fire zones that are not important to plant risk. The qualitative screening consists of two steps: functionality screening and fire propagation pathway credibility screening.

In the first step of the qualitative screening-the functionality screening, a fire zone is considered to be functionally important and retained for further analysis, if the fire zone contains fire-susceptible safety-related plant equipment and/or its associated power, control, and instrumentation cables, whose damage can cause an initiating event and/or can interfere with the plant's ability to mitigate accidents.

However, if the initiating event frequency due to other causes are higher (in orders of magnitude) than the fire frequency of the fire sources in the fire zone (estimated to be in the order of 10^{-3} to 10^{-5} per year), the risk contribution from fires initiated in the fire zone is considered to be relatively insignificant and the fire zone is screened from further analysis. Table 4.1-2 summarizes the results of the functionality screening analyses for Unit 1.

A fire zone that is screened from further analysis by the functionality screening criteria may be retained for further analysis if the fire zone contains a significant amount of combustible loadings that, if ignited, can result in a fire that can potentially spread to its adjacent fire zone(s) that contains fire-susceptible safety-related plant equipment.

A fire propagation pathway can be a door, a permanent opening, or a wall separating the fire zones. In order to identify the propagation pathways between fire zones, a fire zone adjacency matrix was developed by examining the layout and arrangement drawings. The matrix, based on the layout of the plant, illustrates the connections and potential fire propagation pathways between fire zones in Unit 1. The fire zone adjacency matrix information for each fire zone is presented in Section 4 of an LCT (see table 4.1-1).

There can be potentially a very large number of fire propagation pathways associated with an originating fire zone without the consideration of the effects of automatic and manual fire suppression, the availability of fire barriers separating the fire zones, and relative location of combustible loadings to the fire barriers. Therefore, to maintain a manageable number of fire propagation pathways, in the second step of the qualitative screening, the fire propagation pathways of all fire zones (including those screened from further analysis based on the functionality screening) were screened using qualitative screening criteria given below.

A fire propagation pathway between adjacent fire zones was assumed to be credible only if either of the following conservative criteria is satisfied:

- There is a permanent opening between the fire zones.

- The fire severity (duration) of the combustible contents (according to the VEGP FESSE, Reference 4-7) in the originating fire zone is greater than 75 percent of the rating of the barrier (e.g., door, wall, etc.) separating the originating fire zone and its adjacent fire zones, and there is no automatic suppression system in the originating fire zone or in the adjacent fire zone. This criterion also take into consideration the failure of fire barriers; e.g., fire door being left open. It is conservatively assumed that the combined unavailability of the fire protection system and the fire barrier would not be larger than 0.25 (typical unavailability for fire protection system is less than 0.1, and is much less than 0.01 for fire barrier).

The results of the fire propagation pathway reliability screening analysis are documented in Appendix 4.A.

4.1.3 DEVELOPMENT OF LOCATION SCENARIOS (STEP 3)

To systematically investigate the risk to plant operations induced by fire growth within a location and fire propagation between locations, one or more scenarios were developed for each fire zone that survived the qualitative screening. Conservative estimates of frequency of occurrence and plant impact of each scenario were assessed. A quantitative risk screening analysis (Step 4) was then performed to screen out scenarios with relatively low risk insignificance. The scenarios developed for this purpose are generally called location scenarios.

Location scenarios developed in this step were defined at the fire zone level (or for grouped fire zones). Regardless of the initial fire severity, the amount of combustibles available, spatial separation of the fire sources and targets, and the size of the fire zone, the location scenarios developed for each fire zone in this step conservatively assume that any fire occurring within the fire zone would damage all plant components and raceways in that fire zone.

Obviously, this assumption is extremely conservative for many scenarios; however, it allowed the fire zones that have insignificant plant risk associated with fire and smoke hazards to be screened from further analysis. Thus, this approach also allows analysts to use their resources effectively and efficiently, since detailed spatial information (which requires tremendous effort to collect) is not required for the locations that have relatively insignificant risk impact.

In general, two types of location scenarios can be developed from each fire zone: a localized scenario, and one or several propagation scenarios. A localized scenario describes a fire originated within a fire zone and is allowed to grow within the fire zone. The fire can be initiated from any of the ignition sources within the fire zone but the fire is assumed to be contained within the fire zone. All plant components and cable raceways in the fire zone are conservatively assumed to be damaged by the fires regardless of the amount of combustible loadings and spatial separation between the fire sources and these components and raceways.

A propagation scenario describes a fire originating in a fire zone and subsequently spreading to its adjacent fire zone(s), which, in turn, can propagate to other adjacent fire zones. A fire is assumed to spread from an originating fire zone to other fire zone(s) via credible propagation pathway(s) determined in Appendix 4.A. Similar to the localized scenarios, all plant components and raceways within the affected fire zones are conservatively assumed to be damaged. A propagation scenario developed for a fire zone usually results in a more severe plant impact than a localized scenario developed for the same fire zone because more plant systems can be impacted in a propagation scenario. However, a propagation scenario requires a higher fire severity and a longer fire growth time and, therefore, has a lower occurrence frequency, compared to a localized scenario developed for the same fire zone.

Table 4.1-3 lists the localized and propagation location scenarios developed for Unit 1 fire zones that survived the qualitative screening (table 4.1-2). Each location scenario is identified by a unique scenario designator. Each scenario designator consists of three parts. The first part denotes the fire zone initiating the fire described by the scenario; and the second part denotes the type of scenario. An "L" stands for a localized scenario, and a "P" stands for a propagation scenario. For example, scenario 1-CB-L2-A-121-L represents the localized scenario developed for the fire zone 121 of fire area 1-CB-L2-A, and 1-CB-L2-A-121-P represents the propagation scenario developed for the same fire zone.

4.1.4 SCENARIO OCCURRENCE FREQUENCY ASSESSMENT

In this analysis, fire frequencies for different ignition sources were assessed on a component-based approach using two-stage Bayesian techniques (Reference 4-9). Both generic nuclear industry experience and actual Unit 1 and Unit 2 plant-specific experience were used in the frequency assessment.

Briefly, each actual incident included in the nuclear industry fire event database (Reference 4-8) was reviewed for the applicability to VEGP's operation. The generic industrial data were collected from a variety of sources: the NRC Licensee Event Report, the American Nuclear Insurer, and plant-specific data collected by PLG during previous PRA studies. Reference 4-8 contains a total of 692 generic fire events which include events that occurred prior to December 31, 1992.

Since not all events contained in the generic database are applicable to the design and operations at VEGP, the information and the defined boundaries for each fire event were carefully reviewed to determine the applicability of the events to Unit 1. Therefore, the second step of the frequency assessment process involved a thorough review of the industry experience data to develop a "specialized" generic database for Unit 1 which accounts for plant-specific design features of Unit 1.

A generic event was considered to be applicable to Unit 1 if a similar incident could occur at Unit 1 during power operation. It is noted that some generic events that occurred during an outage or construction may be included in the specialized generic database if similar incidents can occur at Unit 1 even during power operation. Events that are not applicable to Unit 1 were removed from the database.

The resulting database that contains the applicable fire incidents is referred to as the specialized fire event database. The fire incidents in the specialized fire event database were then categorized according to the fire source (as listed in 4.1.1) identified in the incident description. The database specialization process not only aids in the assessment of the fire frequency, but also aids in the development and understanding of fire scenarios.

Past VEGP fire events were also reviewed for their applicability to the fire analysis. The specialized generic fire incidents and VEGP specific experience were then used to assess the fire frequency for the fire sources described in section 4.1.1. following the two-stage Bayesian methodology. Tables 4.1-4 and 4.1-5 summarize the results of the component-based fire events frequency assessments for Unit 1 and Unit 2, respectively.

The component-based fire frequencies were assessed on a plant-wide basis; i.e., the frequency of a component category presented in each of the tables 4.1-4 and 4.1-5, is the total fire frequency of that component category from all locations within each unit. Plant locations that are common to both units were assessed separately to account for activities and component population serving each individual unit.

To obtain a fire frequency for a fire zone in each unit, the total frequency of each component category in each unit (as shown in tables 4.1-4 and 4.1-5) is apportioned to the defined fire zones containing the component in each unit. The fire frequency reflects the variety and number of components, in-situ fuel sources, fuel loading, floor area, and personnel activities within each fire zone in each unit.

In each location scenario used for quantitative screening, any fire occurring within an originating fire zone, regardless of the fire strength and fire size, was conservatively assumed to damage all plant components and cable raceways within the affected fire zones prescribed by the scenario. Thus, the frequency of occurrence of a localized location scenario is the fire frequency apportioned to that fire zone.

For fire zones in which propagation scenario(s) were developed, the propagation scenario frequency is conservatively assumed to be equal to that of the localized scenario. This is an obvious conservative assumption, since the sum of the initiation frequency for the location scenario and the propagation scenario(s) developed for a fire zone should be higher than (instead of equal to) the fire frequency apportioned to that fire zone. Table 4.1-3 summarizes the fire frequency assessed for each location scenario developed for Unit 1.

4.1.5 QUANTITATIVE SCREENING (STEP 4)

The location scenarios were screened for their relative risk significance (i.e., unconditional CDF), which was measured by the product of the occurrence frequency of a scenario (see section 4.1.4) and the conditional CDF which is based on the impacted top events of the scenario (see section 4.4.5). A conservative screening value (0.1 percent of the total CDF of 4.45E-05 per year for internal initiating events) was used to ensure that the scenarios that were screened from further analysis, were, in fact, relatively risk insignificant to plant operation. This cutoff value (4.45E-08 per year) is more conservative and reasonable than the commonly used 1.0E-06 per year cutoff value. It provides a reasonable threshold for saving sequences that can have a measurable impact on the CDF. Since the internal events-induced CDF is 4.45E-05 per year, any scenario with a CDF less than 1.0E-06 per year (which is about 2.25 percent of the total CDF) may be screened from further analysis. Thus, screening with a 1.0E-06 per year cutoff will definitely lead to nonconservative and misleading results.

Scenarios with unconditional CDF below the cutoff value were considered to be relatively risk insignificant and were screened from the detailed analysis. The total unconditional CDF of the screened location scenarios, however, was retained, aggregated and compared to the unconditional CDF obtained from the fire-induced risk impact obtained from the detailed analysis (see section 4.6). If the total unconditional CDF of the screened location scenario is unacceptably high, the cutoff value may be lower to obtain a more realistic result.

Table 4.1-3 summarizes the results of the spatial interactions quantitative screening analyses for Unit 1. The following example demonstrates the quantitative screening in Step 4.

> A localized location scenario, 1-CB-L2-B-120-L, was developed for fire zone 120 in Unit 1. The scenario occurrence frequency of 1-CB-L2-B-120-L was assessed to be 7.30E-04 per year, and the conditional CDF was estimated to be 2.65E-03 (see section 4.4.5). The unconditional CDF was 1.94E-06 per year, which is higher than the cutoff value (4.45E-08 per year). The scenario 1-CB-L2-B-120-L was retained for the detailed analysis.

It must be noted that the conditional CDFs included in table 4.1-3 assume that all plant equipment and cables within the locations are damaged simultaneously. Thus, the conditional and unconditional CDFs are provided for the purposes of quantitatively screening only and should not be referenced for any other purposes.

For the location scenarios that survived the quantitative screening, subscenarios were developed (Step 5) to account for the realistic risk impact of each ignition source and combustible loadings in each location prescribed in the scenario. The detailed analysis of these subscenarios is presented in section 4.6. Sections 4.2 through 4.5 describe the common steps and various screening tools available for the spatial interactions analysis and the detailed analysis.

Table 4.1-1 LOCATION CHARACTERISTICS TABLE - UNIT 1

FIRE AREA: 1-CB-LA-G

FIRE ZONE: 91

1. FIRE ZONE DESCRIPTION:

ROOM NO.	FIRE ZONE DESCRIPTION	BLDG	FLOOR AREA (FT2)
A48	TRAIN A 4.16 kV SWITCHGEAR ROOM	CB	1592

2. FIRE/SMOKE HAZARDS INVENTORY:

PRINCIPAL COMBUSTIBLES	CABLE INSUL. HYPALON WT EQUIV (LB)	OIL/GREASE (LB)	PAPER, WOOD, FABRICS (LB)	PLASTICS (LB)	CHARCOAL (LB)	RUBBER GOODS (LB)	WOOD EQUIV FIRE SEVERITY (HR)
CABLE INSUL.	13300						0.85

3. FIRE DETECTION/SUPPRESSION FEATURES:

FIRE DETECTION	AUTOMATIC FIRE SUPPRESSION CAPABILITIES	MANUAL FIRE SUPPRESSION CAPABILITIES
FIRE DETECTOR	NO ZONE COVERAGE	HOSE STATION
FIRE DETECTOR	NO ZONE COVERAGE	HOSE STATION

4. FIRE ZONE ADJACENCY:

ADJACENT FIRE AREA	ADJACENT FIRE ZONE	BARRIER RATING (HR)
1-CB-LA-G	103	0
1-CB-LA-G	103	0.25
1-CB-LA-H	92	3
1-CB-LA-N	85	3
1-CB-LA-N	86	3

5. TOP EVENT(s)/|IE| AFFECTED BY FIRE AND SMOKE HAZARDS-SUSCEPTIBLE SAFETY-RELATED COMPONENTS:

TOP EVENT(s)/|IE| AFFECTED	COMPONENT AFFECTED	COMPONENT DESCRIPTION
NE	1-1623-D5-001	REMOTE PROCESSING UNIT A CAB 1
NE	1-1623-D5-002	REMOTE PROCESSING UNIT A CAB 2
NE	1-1623-D5-006A	R.G. 1.97 CAB (DPU A)
4KAC_L-A, VESF-A	1-1821-U3-001	SEQUENCER BOARD 1ACPSQ1
4KAC-A, 4KAC_L-A	1-AA02	CLASS 1E 4KV SWGR 1AA02 TRAIN A 1-1804-S3-A02
4KAC-AP	1-AA0201	CIRCUIT BREAKER FOR BUS 1A002
CON, LOSPA, NCW, SGP	1-AA0205	CIRCUIT BREAKER FOR BUS 1A002
480A_15-A, 480A_L15-A	1-AA0210	SUPPLY CB FROM 4160V BUS 1AA02
4KAC_L-A	1-AA0219	DG OUTPUT CIRCUIT BREAKER
480A_4-A	1-AA0220	SUPPLY CB FROM 4160V BUS 1AA02
480A_5-A	1-AA0221	SUPPLY CB FROM 4160V BUS 1AA02
480A_4-A	1-AB0401	SUPPLY CB FROM 4160V BUS 1AA02
480A_4-A	1-AB04X	TRANSFORMERS
480A_5-A	1-AB0501	SUPPLY CB FROM 4160V BUS 1AA02
480A_5-A	1-AB05X	TRANSFORMERS
480A_15-A, 480A_L15-A	1-AB1501	SUPPLY CB FROM 4160V BUS 1AA02
480A_15-A, 480A_L15-A	1-AB15X	TRANSFORMERS
LOSP-A, LOSP-B	LOSP-ADD-IN	LOSP-ADD-IN

6. TOP EVENT(s)/|IE| AFFECTED BY RACEWAYS ASSOCIATED WITH SAFE SHUTDOWN (APPENDIX R) COMPONENTS:

TOP EVENT(S)/|IE| AFFECTED	RACEWAY	RACEWAY DESCRIPTION	COMPONENT AFFECTED	FTAG	TTAG
480A_15-A, 480A_L15-A	1TR1AE302TGAM	4160V XFMR 1AB15X FDR BRKR	1-AA0210	1-1804-S3-A02	1-1805-S3-B15
480A_15-A, 480A_L15-A	1TR1AE302TGAN	4160V XFMR 1AB15X FDR BRKR	1-AA0210	1-1804-S3-A02	1-1805-S3-B15
480A_15-A, 480A_L15-A	1TR1AE302TGAP	4160V XFMR 1AB15X FDR BRKR	1-AA0210	1-1804-S3-A02	1-1805-S3-B15
480A_15-A, 480A_L15-A	1TR1AE302TGBF	4160V XFMR 1AB15X FDR BRKR	1-AA0210	1-1804-S3-A02	1-1805-S3-B15
480A_15-A, 480A_L15-A	1TR1AE302TTAB	4160V XFMR 1AB15X FDR BRKR	1-AA0210	1-1804-S3-A02	1-1816-U3-007
480A_15-A, 480A_L15-A	1TR1AE302TTABVA	4160V XFMR 1AB15X FDR BRKR	1-AA0210	1-1804-S3-A02	1-1816-U3-007
480A_15-A, 480A_L15-A	1TR1AE302TTAC	4160V XFMR 1AB15X FDR BRKR	1-AA0210	1-1804-S3-A02	1-1816-U3-007
480A_15-A, 480A_L15-A	1TR1AE302TTAD	4160V XFMR 1AB15X FDR BRKR	1-AA0210	1-1804-S3-A02	1-1816-U3-007
480A_15-A, 480A_L15-A	1TR1AE302TTAE	4160V XFMR 1AB15X FDR BRKR	1-AA0210	1-1804-S3-A02	1-1816-U3-007
480A_15-A, 480A_L15-A	1TR1AE302TTAF	4160V XFMR 1AB15X FDR BRKR	1-AA0210	1-1804-S3-A02	1-1816-U3-007
480A_15-A, 480A_L15-A	1TR1AE302TTAG	4160V XFMR 1AB15X FDR BRKR	1-AA0210	1-1804-S3-A02	1-1816-U3-007
480A_15-A, 480A_L15-A	1TR1AE302TTAH	4160V XFMR 1AB15X FDR BRKR	1-AA0210	1-1804-S3-A02	1-1816-U3-007
480A_15-A, 480A_L15-A	1TR1AE302TTAJ	4160V XFMR 1AB15X FDR BRKR	1-AA0210	1-1804-S3-A02	1-1816-U3-007
480A_15-A, 480A_L15-A	1TR1AE302TTAK	4160V XFMR 1AB15X FDR BRKR	1-AA0210	1-1804-S3-A02	1-1816-U3-007

LOCATION CHARACTERISTICS TABLE - UNIT 1

FIRE AREA: 1-CB-LA-G
FIRE ZONE: 91

480A_15-A 480A_L15-A	1TR1AE302TTAL	4160V XFMR 1AB15X FDR BRKR	1-AA0210	1-1804-S3-A02	1-1816-U3-007
480A_15-A 480A_L15-A	1TR1AE302TTAL	480V SWGR 1AB15 INCM FDR BRKR	1-AB1501	1-1821-U3-001	1-1805-S3-B15
480A_15-A 480A_L15-A	1TR1AE302TTAM	480V SWGR 1AB15 INCM FDR BRKR	1-AB1501	1-1821-U3-001	1-1805-S3-B15
480A_15-A 480A_L15-A	1TR1AE302TTAN	480V SWGR 1AB15 INCM FDR BRKR	1-AB1501	1-1821-U3-001	1-1805-S3-B15
480A_15-A 480A_L15-A	1TR1AE302TTAQ	480V SWGR 1AB15 INCM FDR BRKR	1-AB1501	1-1821-U3-001	1-1805-S3-B15
480A_15-A 480A_L15-A	1TR1AE302TTAS	480V SWGR 1AB15 INCM FDR BRKR	1-AB1501	1-1821-U3-001	1-1805-S3-B15
480A_15-A 480A_L15-A	1TR1AE322TTAE	480V SWGR 1AB15 INCM FDR BRKR	1-AB1501	1-1821-U3-001	1-1805-S3-B15
480A_4-A	1TR1AE302TEBB	4160V XFMR 1AB04X FDR BRKR	1-AA0220	1-1804-S3-A02	1-1805-S3-B04
480A_4-A	1TR1AE302TEBD	4160V XFMR 1AB04X FDR BRKR	1-AA0220	1-1804-S3-A02	1-1805-S3-B04
480A_4-A	1TR1AE302TTAA	4160V XFMR 1AB04X FDR BRKR	1-AA0220	1-1804-S3-A02	1-1816-U3-007
480A_4-A	1TR1AE302TTAB	4160V XFMR 1AB04X FDR BRKR	1-AA0220	1-1804-S3-A02	1-1816-U3-007
480A_4-A	1TR1AE302TTAC	4160V XFMR 1AB04X FDR BRKR	1-AA0220	1-1804-S3-A02	1-1816-U3-007
480A_4-A	1TR1AE302TTAD	4160V XFMR 1AB04X FDR BRKR	1-AA0220	1-1804-S3-A02	1-1816-U3-007
480A_4-A	1TR1AE302TTAE	4160V XFMR 1AB04X FDR BRKR	1-AA0220	1-1804-S3-A02	1-1816-U3-007
480A_4-A	1TR1AE302TTAF	4160V XFMR 1AB04X FDR BRKR	1-AA0220	1-1804-S3-A02	1-1816-U3-007
480A_4-A	1TR1AE302TTAG	4160V XFMR 1AB04X FDR BRKR	1-AA0220	1-1804-S3-A02	1-1816-U3-007
480A_4-A	1TR1AE302TTAH	4160V XFMR 1AB04X FDR BRKR	1-AA0220	1-1804-S3-A02	1-1816-U3-007
480A_4-A	1TR1AE302TTAJ	4160V XFMR 1AB04X FDR BRKR	1-AA0220	1-1804-S3-A02	1-1816-U3-007
480A_4-A	1TR1AE302TTAK	4160V XFMR 1AB04X FDR BRKR	1-AA0220	1-1804-S3-A02	1-1816-U3-007
480A_4-A	1TR1AE302TTAL	4160V XFMR 1AB04X FDR BRKR	1-AA0220	1-1804-S3-A02	1-1816-U3-007
480A_4-A	1TR1AE302TTAL	480V SWGR 1AB04 INCOM FEEDER BRKR	1-AB0401	1-1805-S3-B04	1-1821-U3-001
480A_4-A	1TR1AE302TTAM	480V SWGR 1AB04 INCOM FEEDER BRKR	1-AB0401	1-1805-S3-B04	1-1821-U3-001
480A_4-A	1TR1AE302TTAN	480V SWGR 1AB04 INCOM FEEDER BRKR	1-AB0401	1-1805-S3-B04	1-1821-U3-001
480A_4-A	1TR1AE302TTAQ	480V SWGR 1AB04 INCOM FEEDER BRKR	1-AB0401	1-1805-S3-B04	1-1821-U3-001
480A_4-A	1TR1AE302TTAS	480V SWGR 1AB04 INCOM FEEDER BRKR	1-AB0401	1-1805-S3-B04	1-1821-U3-001
480A_4-A	1TR1AE302TTZA	4160V XFMR 1AB04X FDR BRKR	1-AA0220	1-1804-S3-A02	1-1816-U3-007
480A_4-A	1TR1AE302TTZB	4160V XFMR 1AB04X FDR BRKR	1-AA0220	1-1804-S3-A02	1-1816-U3-007
480A_4-A	1TR1AE302TTZC	4160V XFMR 1AB04X FDR BRKR	1-AA0220	1-1804-S3-A02	1-1816-U3-007
480A_4-A	1TR1AE302TTZD	4160V XFMR 1AB04X FDR BRKR	1-AA0220	1-1804-S3-A02	1-1816-U3-007
480A_4-A	1TR1AE302TTZE	4160V XFMR 1AB04X FDR BRKR	1-AA0220	1-1804-S3-A02	1-1816-U3-007
480A_4-A	1TR1AE302TTZF	4160V XFMR 1AB04X FDR BRKR	1-AA0220	1-1804-S3-A02	1-1816-U3-007
480A_4-A	1TR1AE302TTZG	4160V XFMR 1AB04X FDR BRKR	1-AA0220	1-1804-S3-A02	1-1816-U3-007
480A_4-A	1TR1AE302TTZH	4160V XFMR 1AB04X FDR BRKR	1-AA0220	1-1804-S3-A02	1-1816-U3-007
480A_4-A	1TR1AE302TTZHVA	4160V XFMR 1AB04X FDR BRKR	1-AA0220	1-1804-S3-A02	1-1816-U3-007
480A_4-A	1TR1AE322TTAE	480V SWGR 1AB04 INCOM FEEDER BRKR	1-AB0401	1-1805-S3-B04	1-1821-U3-001
480A_5-A	1TR1AE302TEBB	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1805-S3-B05
480A_5-A	1TR1AE302TEBD	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1805-S3-B05
480A_5-A	1TR1AE302TTAA	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1816-U3-007
480A_5-A	1TR1AE302TTAB	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1816-U3-007
480A_5-A	1TR1AE302TTAC	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1816-U3-007
480A_5-A	1TR1AE302TTAD	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1816-U3-007
480A_5-A	1TR1AE302TTAE	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1816-U3-007
480A_5-A	1TR1AE302TTAF	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1816-U3-007
480A_5-A	1TR1AE302TTAG	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1816-U3-007
480A_5-A	1TR1AE302TTAH	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1816-U3-007
480A_5-A	1TR1AE302TTAJ	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1816-U3-007
480A_5-A	1TR1AE302TTAK	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1816-U3-007
480A_5-A	1TR1AE302TTAL	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1816-U3-007
480A_5-A	1TR1AE302TTAL	480V SWGR 1AB05 INCOM FEEDER BRKR	1-AB0501	1-1805-S3-B05	1-1821-U3-001
480A_5-A	1TR1AE302TTAL	480V SWGR 1AB05 INCOM FEEDER BRKR	1-AB0501	1-1821-U3-001	1-1805-S3-B05
480A_5-A	1TR1AE302TTAM	480V SWGR 1AB05 INCOM FEEDER BRKR	1-AB0501	1-1805-S3-B05	1-1821-U3-001
480A_5-A	1TR1AE302TTAM	480V SWGR 1AB05 INCOM FEEDER BRKR	1-AB0501	1-1821-U3-001	1-1805-S3-B05
480A_5-A	1TR1AE302TTAN	480V SWGR 1AB05 INCOM FEEDER BRKR	1-AB0501	1-1805-S3-B05	1-1821-U3-001
480A_5-A	1TR1AE302TTAN	480V SWGR 1AB05 INCOM FEEDER BRKR	1-AB0501	1-1821-U3-001	1-1805-S3-B05
480A_5-A	1TR1AE302TTAQ	480V SWGR 1AB05 INCOM FEEDER BRKR	1-AB0501	1-1805-S3-B05	1-1821-U3-001
480A_5-A	1TR1AE302TTAQ	480V SWGR 1AB05 INCOM FEEDER BRKR	1-AB0501	1-1821-U3-001	1-1805-S3-B05
480A_5-A	1TR1AE302TTAS	480V SWGR 1AB05 INCOM FEEDER BRKR	1-AB0501	1-1805-S3-B05	1-1821-U3-001
480A_5-A	1TR1AE302TTAS	480V SWGR 1AB05 INCOM FEEDER BRKR	1-AB0501	1-1821-U3-001	1-1805-S3-B05
480A_5-A	1TR1AE302TTZA	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1816-U3-007
480A_5-A	1TR1AE302TTZB	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1816-U3-007
480A_5-A	1TR1AE302TTZC	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1816-U3-007
480A_5-A	1TR1AE302TTZD	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1816-U3-007
480A_5-A	1TR1AE302TTZE	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1816-U3-007

LOCATION CHARACTERISTICS TABLE - UNIT 1

FIRE AREA: 1-CB-LA-G

FIRE ZONE: 91

480A_5-A	1TR1AE302TTZF	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1816-U3-007
480A_5-A	1TR1AE302TTZG	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1816-U3-007
480A_5-A	1TR1AE302TTZH	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1816-U3-007
480A_5-A	1TR1AE302TTZJ	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1816-U3-007
480A_5-A	1TR1AE302TTZJVA	4160V XFMR 1AB05X FDR BRKR	1-AA0221	1-1804-S3-A02	1-1816-U3-007
480A_5-A	1TR1AE322TTAE	480V SWGR 1AB05 INCOM FEEDER BRKR	1-AB0501	1-1805-S3-B05	1-1821-U3-001
480A_5-A	1TR1AE322TTAE	480V SWGR 1AB05 INCOM FEEDER BRKR	1-AB0501	1-1821-U3-001	1-1805-S3-B05
4KAC-A 4KAC_L-A	1TR1AE302TTAJ	4160V SWGR 1AA02 P T CUBICLE	1-AA02	1-1804-S3-A02	1-1816-U3-007
4KAC-A 4KAC_L-A	1TR1AE302TTAJ	4160V SWGR 1AA02 P T CUBICLE	1-AA02	1-1816-U3-007	1-1804-S3-A02
4KAC-A 4KAC_L-A	1TR1AE302TTAJVA	4160V SWGR 1AA02 P T CUBICLE	1-AA02	1-1804-S3-A02	1-1816-U3-007
4KAC-A 4KAC_L-A	1TR1AE302TTAJVA	4160V SWGR 1AA02 P T CUBICLE	1-AA02	1-1816-U3-007	1-1804-S3-A02
4KAC-A 4KAC_L-A	1TR1AE302TTAK	4160V SWGR 1AA02 P T CUBICLE	1-AA02	1-1804-S3-A02	1-1816-U3-007
4KAC-A 4KAC_L-A	1TR1AE302TTAK	4160V SWGR 1AA02 P T CUBICLE	1-AA02	1-1816-U3-007	1-1804-S3-A02
4KAC-A 4KAC_L-A	1TR1AE302TTAL	4160V SWGR 1AA02 P T CUBICLE	1-AA02	1-1804-S3-A02	1-1816-U3-007
4KAC-A 4KAC_L-A	1TR1AE302TTAL	4160V SWGR 1AA02 P T CUBICLE	1-AA02	1-1816-U3-007	1-1804-S3-A02
4KAC-AP	1TR1AE302TTAJ	4160V SWGR 1AA02 INCM BRKR INXRB	1-AA0201	1-1804-S3-A02	1-1816-U3-002
4KAC-AP	1TR1AE302TTAJ	4160V SWGR 1AA02 INCM BRKR INXRB	1-AA0201	1-1804-S3-A02	1-1816-U3-007
4KAC-AP	1TR1AE302TTAJ	4160V SWGR 1AA02 INCM BRKR INXRB	1-AA0201	1-1804-S3-A02	1-1816-U3-014
4KAC-AP	1TR1AE302TTAJ	4160V SWGR 1AA02 INCM BRKR INXRB	1-AA0301	1-1804-S3-A02	1-1821-U3-001
4KAC-AP	1TR1AE302TTAJVB	4160V SWGR 1AA02 INCM BRKR INXRB	1-AA0201	1-1804-S3-A02	1-1816-U3-002
4KAC-AP	1TR1AE302TTAJVB	4160V SWGR 1AA02 INCM BRKR INXRB	1-AA0201	1-1804-S3-A02	1-1816-U3-007
4KAC-AP	1TR1AE302TTAJVB	4160V SWGR 1AA02 INCM BRKR INXRB	1-AA0201	1-1804-S3-A02	1-1816-U3-014
4KAC-AP	1TR1AE302TTAJVB	4160V SWGR 1AA02 INCM BRKR INXRB	1-AA0201	1-1804-S3-A02	1-1821-U3-001
4KAC-AP	1TR1AE302TTAK	4160V SWGR 1AA02 INCM BRKR INXRB	1-AA0201	1-1804-S3-A02	1-1616-U3-002
4KAC-AP	1TR1AE302TTAK	4160V SWGR 1AA02 INCM BRKR INXRB	1-AA0201	1-1804-S3-A02	1-1816-U3-007
4KAC-AP	1TR1AE302TTAK	4160V SWGR 1AA02 INCM BRKR INXRB	1-AA0201	1-1804-S3-A02	1-1816-U3-014
4KAC-AP	1TR1AE302TTAK	4160V SWGR 1AA02 INCM BRKR INXRB	1-AA0201	1-1804-S3-A02	1-1821-U3-001
4KAC-AP	1TR1AE302TTAL	4160V SWGR 1AA02 INCM BRKR INXRB	1-AA0201	1-1804-S3-A02	1-1816-U3-002
4KAC-AP	1TR1AE302TTAL	4160V SWGR 1AA02 INCM BRKR INXRB	1-AA0201	1-1804-S3-A02	1-1816-U3-007
4KAC-AP	1TR1AE302TTAL	4160V SWGR 1AA02 INCM BRKR INXRB	1-AA0201	1-1804-S3-A02	1-1816-U3-014
4KAC-AP	1TR1AE302TTAM	4160V SWGR 1AA02 INCM BRKR INXRB	1-AA0201	1-1804-S3-A02	1-1821-U3-001
4KAC-AP	1TR1AE302TTAH	4160V SWGR 1AA02 INCM BRKR INXRB	1-AA0201	1-1804-S3-A02	1-1821-U3-001
4KAC-AP	1TR1AE302TTAQ	4160V SWGR 1AA02 INCM BRKR INXRB	1-AA0201	1-1804-S3-A02	1-1821-U3-001
4KAC-AP	1TR1AE302TTAS	4160V SWGR 1AA02 INCM BRKR INXRB	1-AA0201	1-1804-S3-A02	1-1821-U3-001
4KAC-AP	1TR1AE322TTAE	4160V SWGR 1AA02 INCM BRKR INXRB	1-AA0201	1-1804-S3-A02	1-1821-U3-001
4KAC-AP	1TR1AE322TTAF	4160V SWGR 1AA02 INCM BRKR INXRB	1-AA0201	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1CO1AE302RR252	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-2403-P5-DG1
4KAC_L-A	1CO1AE302RR252	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-2403-P5-DG2
4KAC_L-A	1CO1AE322RS210	LOP SIGNAL-UV RELAYS	1-2403-G4-001	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1CO1AE322RS210	LOP SIGNAL-UV RELAYS	1-2403-G4-001	1-1821-U3-001	1-1804-S3-A02
4KAC_L-A	1TR1AE302TSAL	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-2403-P5-DG1	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAA	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTAA	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAA	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1816-U3-007
4KAC_L-A	1TR1AE302TTAA	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAA	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1816-U3-007	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAB	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTAB	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAB	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1816-U3-007
4KAC_L-A	1TR1AE302TTAB	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAB	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1816-U3-007	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAC	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTAC	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAC	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1816-U3-007
4KAC_L-A	1TR1AE302TTAC	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAC	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1816-U3-007	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAD	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTAD	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAD	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1816-U3-007
4KAC_L-A	1TR1AE302TTAD	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAD	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1816-U3-007	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAE	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTAE	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1804-S3-A02

LOCATION CHARACTERISTICS TABLE - UNIT 1

FIRE AREA: 1-CB-LA-G
FIRE ZONE: 91

4KAC_L-A	1TR1AE302TTAE	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1816-U3-007
4KAC_L-A	1TR1AE302TTAE	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAE	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1816-U3-007	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAF	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTAF	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAF	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1816-U3-007
4KAC_L-A	1TR1AE302TTAF	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAF	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1816-U3-007	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAG	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTAG	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAG	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1816-U3-007
4KAC_L-A	1TR1AE302TTAG	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAG	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1816-U3-007	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAH	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTAH	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAH	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1816-U3-007
4KAC_L-A	1TR1AE302TTAH	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAH	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1816-U3-007	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAJ	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTAJ	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAJ	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1816-U3-007
4KAC_L-A	1TR1AE302TTAJ	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAJ	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1816-U3-007	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAJ	LOP SIGNAL-UV RELAYS	1-2403-G4-001	1-1821-U3-001	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAJVA	LOP SIGNAL-UV RELAYS	1-2403-G4-001	1-1821-U3-001	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAK	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTAK	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1816-U3-007
4KAC_L-A	1TR1AE302TTAK	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAK	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1816-U3-007	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAK	LOP SIGNAL-UV RELAYS	1-2403-G4-001	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAK	LOP SIGNAL-UV RELAYS	1-2403-G4-001	1-1821-U3-001	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAKVA	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAKVA	LOP SIGNAL-UV RELAYS	1-2403-G4-001	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAL	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTAL	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1816-U3-007
4KAC_L-A	1TR1AE302TTAL	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1816-U3-007	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAM	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAM	LOP SIGNAL-UV RELAYS	1-2403-G4-001	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAM	LOP SIGNAL-UV RELAYS	1-2403-G4-001	1-1821-U3-001	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAN	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAN	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-2403-P5-DG1	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAN	LOP SIGNAL-UV RELAYS	1-2403-G4-001	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAN	LOP SIGNAL-UV RELAYS	1-2403-G4-001	1-1821-U3-001	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAQ	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAQ	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-2403-P5-DG1	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAQ	LOP SIGNAL-UV RELAYS	1-2403-G4-001	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAQ	LOP SIGNAL-UV RELAYS	1-2403-G4-001	1-1821-U3-001	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTAS	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAS	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-2403-P5-DG1	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAS	LOP SIGNAL-UV RELAYS	1-2403-G4-001	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTAS	LOP SIGNAL-UV RELAYS	1-2403-G4-001	1-1821-U3-001	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTZA	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-P5-SDA
4KAC_L-A	1TR1AE302TTZA	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTZA	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTZA	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1816-U3-007
4KAC_L-A	1TR1AE302TTZA	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTZA	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1816-U3-007	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTZA	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-1821-U3-001	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTZA	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-2403-P5-DG1	1-1821-U3-001
4KAC_L-A	1TR1AE302TTZB	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-P5-SDA
4KAC_L-A	1TR1AE302TTZB	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTZB	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTZB	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1816-U3-007

LOCATION CHARACTERISTICS TABLE - UNIT 1

FIRE AREA: 1-CB-LA-G

FIRE ZONE: 91

4KAC_L-A	1TR1AE302TTZB	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTZB	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1816-U3-007	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTZB	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-1821-U3-001	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTZB	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-2403-P5-DG1	1-1821-U3-001
4KAC_L-A	1TR1AE302TTZC	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-P5-SDA
4KAC_L-A	1TR1AE302TTZC	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTZC	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTZC	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1816-U3-007
4KAC_L-A	1TR1AE302TTZC	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTZC	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1816-U3-007	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTZC	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-1821-U3-001	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTZC	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-2403-P5-DG1	1-1821-U3-001
4KAC_L-A	1TR1AE302TTZD	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-P5-SDA
4KAC_L-A	1TR1AE302TTZD	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTZD	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTZD	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1816-U3-007
4KAC_L-A	1TR1AE302TTZD	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTZD	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1816-U3-007	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTZD	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-1821-U3-001	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTZD	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-2403-P5-DG1	1-1821-U3-001
4KAC_L-A	1TR1AE302TTZE	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-P5-SDA
4KAC_L-A	1TR1AE302TTZE	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTZE	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTZE	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1816-U3-007
4KAC_L-A	1TR1AE302TTZE	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTZE	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1816-U3-007	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTZE	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-1821-U3-001	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTZE	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-2403-P5-DG1	1-1821-U3-001
4KAC_L-A	1TR1AE302TTZF	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-P5-SDA
4KAC_L-A	1TR1AE302TTZF	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTZF	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTZF	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1816-U3-007
4KAC_L-A	1TR1AE302TTZF	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTZF	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1816-U3-007	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTZF	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-1821-U3-001	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTZF	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-2403-P5-DG1	1-1821-U3-001
4KAC_L-A	1TR1AE302TTZG	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-P5-SDA
4KAC_L-A	1TR1AE302TTZG	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTZG	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTZG	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1816-U3-007
4KAC_L-A	1TR1AE302TTZG	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTZG	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1816-U3-007	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTZG	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-1821-U3-001	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTZG	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-2403-P5-DG1	1-1821-U3-001
4KAC_L-A	1TR1AE302TTZH	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-P5-SDA
4KAC_L-A	1TR1AE302TTZH	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTZH	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTZH	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1816-U3-007
4KAC_L-A	1TR1AE302TTZH	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTZH	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1816-U3-007	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTZH	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-1821-U3-001	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTZH	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-2403-P5-DG1	1-1821-U3-001
4KAC_L-A	1TR1AE302TTZHVB	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-P5-SDA
4KAC_L-A	1TR1AE302TTZHVB	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTZHVB	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTZHVB	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1816-U3-007
4KAC_L-A	1TR1AE302TTZHVB	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE302TTZHVB	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-2403-P5-DG1
4KAC_L-A	1TR1AE302TTZHVB	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-2403-P5-DG2
4KAC_L-A	1TR1AE302TTZHVB	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1816-U3-007	1-1804-S3-A02
4KAC_L-A	1TR1AE302TTZJ	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-1821-U3-001	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TTZJ	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-2403-P5-DG1	1-1821-U3-001
4KAC_L-A	1TR1AE302TUBA	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1605-P5-SDA

FIRE AREA: 1-CB-LA-G
FIRE ZONE: 91

4KAC_L-A	1TR1AE302TUBA	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-1821-U3-001	1-1605-Q5-SPA
4KAC_L-A	1TR1AE302TUBA	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-2403-P5-DG1	1-1821-U3-001
4KAC_L-A	1TR1AE322TTAE	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE322TTAE	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-2403-P5-DG1	1-1821-U3-001
4KAC_L-A	1TR1AE322TTAE	LOP SIGNAL-UV RELAYS	1-2403-G4-001	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE322TTAE	LOP SIGNAL-UV RELAYS	1-2403-G4-001	1-1821-U3-001	1-1804-S3-A02
4KAC_L-A	1TR1AE322TTAF	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE322TTAF	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-1821-U3-001	1-1605-Q5-SPA
4KAC_L-A	1TR1AE322TTAF	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-2403-P5-DG1	1-1821-U3-001
4KAC_L-A	1TR1AE322TTAF	LOP SIGNAL-UV RELAYS	1-2403-G4-001	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE322TTAF	LOP SIGNAL-UV RELAYS	1-2403-G4-001	1-1821-U3-001	1-1804-S3-A02
4KAC_L-A	1TR1AE322TTAG	4160 SWGR 1AA02 INCM BRKR FROM DIESEL GEN	1-AA0219	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE322TTAG	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-2403-P5-DG1	1-1821-U3-001
4KAC_L-A	1TR1AE322TTAG	LOP SIGNAL-UV RELAYS	1-2403-G4-001	1-1804-S3-A02	1-1821-U3-001
4KAC_L-A	1TR1AE322TTAG	LOP SIGNAL-UV RELAYS	1-2403-G4-001	1-1821-U3-001	1-1804-S3-A02
4KAC_L-A	1TR1AE322TTZK	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-1821-U3-001	1-1605-Q5-SPA
4KAC_L-A	1TR1AE322TTZK	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-2403-P5-DG1	1-1821-U3-001
4KAC_L-A	1TR1AE322TTZL	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-1821-U3-001	1-1605-Q5-SPA
4KAC_L-A	1TR1AE322TTZL	DIESEL GENERATOR-DG1A	1-2403-G4-001	1-2403-P5-DG1	1-1821-U3-001
4KAC_L-A. VESF-A	1CO1AE322RL287	120V AC FDR TO SEQUENCER 1-1821-U3-001	1-1821-U3-001	1-1807-Q3-V15	1-1821-U3-001
4KAC_L-AP	1TR1AE302TTAL	D.G. BLDG VENT FAN MOTOR 1-1566-B7-001-M01	1-1566-B7-001	1-1566-B7-001-H01	1-1821-U3-001
4KAC_L-AP	1TR1AE302TTAL	D.G. BLDG VENT FAN MOTOR 1-1566-B7-001-M01	1-1566-B7-001	1-1805-S3-B05	1-1821-U3-001
4KAC_L-AP	1TR1AE302TTAL	D.G. BLDG VENT FAN MOTOR 1-1566-B7-003-M01	1-1566-B7-003	1-1566-B7-003-H01	1-1821-U3-001
4KAC_L-AP	1TR1AE302TTAL	D.G. BLDG VENT FAN MOTOR 1-1566-B7-003-M01	1-1566-B7-003	1-1805-S3-B05	1-1821-U3-001
4KAC_L-AP	1TR1AE302TTAM	D.G. BLDG VENT FAN MOTOR 1-1566-B7-001-M01	1-1566-B7-001	1-1566-B7-001-H01	1-1821-U3-001
4KAC_L-AP	1TR1AE302TTAM	D.G. BLDG VENT FAN MOTOR 1-1566-B7-001-M01	1-1566-B7-001	[illegible]	1-1821-U3-001
4KAC_L-AP	1TR1AE302TTAM	D.G. BLDG VENT FAN MOTOR 1-1566-B7-003-M01	1-1566-B7-003	[illegible]	1-1821-U3-001
4KAC_L-AP	1TR1AE302TTAM	D.G. BLDG VENT FAN MOTOR 1-1566-B7-003-M01	1-1566-B7-003	1-1805-S3-B05	1-1821-U3-001
4KAC_L-AP	1TR1AE302TTAN	D.G. BLDG VENT FAN MOTOR 1-1566-B7-001-M01	1-1566-B7-001	1-1566-B7-001-H01	1-1821-U3-001
4KAC_L-AP	1TR1AE302TTAN	D.G. BLDG VENT FAN MOTOR 1-1566-B7-001-M01	1-1566-B7-001	1-1805-S3-B05	1-1821-U3-001
4KAC_L-AP	1TR1AE302TTAN	D.G. BLDG VENT FAN MOTOR 1-1566-B7-003-M01	1-1566-B7-003	1-1566-B7-003-H01	1-1821-U3-001
4KAC_L-AP	1TR1AE302TTAN	D.G. BLDG VENT FAN MOTOR 1-1566-B7-003-M01	1-1566-B7-003	1-1805-S3-B05	1-1821-U3-001
4KAC_L-AP	1TR1AE302TTAQ	D.G. BLDG VENT FAN MOTOR 1-1566-B7-001-M01	1-1566-B7-001	1-1566-B7-001-H01	1-1821-U3-001
4KAC_L-AP	1TR1AE302TTAQ	D.G. BLDG VENT FAN MOTOR 1-1566-B7-001-M01	1-1566-B7-001	1-1805-S3-B05	1-1821-U3-001
4KAC_L-AP	1TR1AE302TTAQ	D.G. BLDG VENT FAN MOTOR 1-1566-B7-003-M01	1-1566-B7-003	1-1566-B7-003-H01	1-1821-U3-001
4KAC_L-AP	1TR1AE302TTAQ	D.G. BLDG VENT FAN MOTOR 1-1566-B7-003-M01	1-1566-B7-003	1-1805-S3-B05	1-1821-U3-001
4KAC_L-AP	1TR1AE302TTAS	D.G. BLDG VENT FAN MOTOR 1-1566-B7-001-M01	1-1566-B7-001	1-1566-B7-001-H01	1-1821-U3-001
4KAC_L-AP	1TR1AE302TTAS	D.G. BLDG VENT FAN MOTOR 1-1566-B7-001-M01	1-1566-B7-001	1-1805-S3-B05	1-1821-U3-001
4KAC_L-AP	1TR1AE302TTAS	D.G. BLDG VENT FAN MOTOR 1-1566-B7-003-M01	1-1566-B7-003	1-1566-B7-003-H01	1-1821-U3-001
4KAC_L-AP	1TR1AE302TTAS	D.G. BLDG VENT FAN MOTOR 1-1566-B7-003-M01	1-1566-B7-003	1-1805-S3-B05	1-1821-U3-001
4KAC_L-AP	1TR1AE322TTAE	D.G. BLDG VENT FAN MOTOR 1-1566-B7-001-M01	1-1566-B7-001	1-1566-B7-001-H01	1-1821-U3-001
4KAC_L-AP	1TR1AE322TTAE	D.G. BLDG VENT FAN MOTOR 1-1566-B7-001-M01	1-1566-B7-001	1-1805-S3-B05	1-1821-U3-001
4KAC_L-AP	1TR1AE322TTAE	D.G. BLDG VENT FAN MOTOR 1-1566-B7-003-M01	1-1566-B7-003	1-1566-B7-003-H01	1-1821-U3-001
4KAC_L-AP	1TR1AE322TTAE	D.G. BLDG VENT FAN MOTOR 1-1566-B7-003-M01	1-1566-B7-003	1-1805-S3-B05	1-1821-U3-001
AFW-A	1TR1AE302TEBC	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	TAG # N/A
AFW-A	1TR1AE302TEBD	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	TAG # N/A
AFW-A	1TR1AE302TTAA	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1601-U3-T27
AFW-A	1TR1AE302TTAA	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
AFW-A	1TR1AE302TTAA	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1816-U3-002
AFW-A	1TR1AE302TTAA	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE302TTAB	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1601-U3-T27
AFW-A	1TR1AE302TTAB	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
AFW-A	1TR1AE302TTAB	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1816-U3-002
AFW-A	1TR1AE302TTAB	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE302TTAC	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1601-U3-T27
AFW-A	1TR1AE302TTAC	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
AFW-A	1TR1AE302TTAC	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1816-U3-002
AFW-A	1TR1AE302TTAC	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE302TTAD	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1601-U3-T27
AFW-A	1TR1AE302TTAD	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
AFW-A	1TR1AE302TTAD	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1816-U3-002
AFW-A	1TR1AE302TTAD	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE302TTAE	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1601-U3-T27

FIRE AREA: 1-CB-LA-G
FIRE ZONE: 91

AFW-A	1TR1AE302TTAE	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
AFW-A	1TR1AE302TTAE	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1816-U3-002
AFW-A	1TR1AE302TTAE	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE302TTAF	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1601-U3-T27
AFW-A	1TR1AE302TTAF	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
AFW-A	1TR1AE302TTAF	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1816-U3-002
AFW-A	1TR1AE302TTAF	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE302TTAG	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1601-U3-T27
AFW-A	1TR1AE302TTAG	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
AFW-A	1TR1AE302TTAG	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1816-U3-002
AFW-A	1TR1AE302TTAG	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE302TTAH	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1601-U3-T27
AFW-A	1TR1AE302TTAH	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
AFW-A	1TR1AE302TTAH	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1816-U3-002
AFW-A	1TR1AE302TTAH	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE302TTAJ	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1601-U3-T27
AFW-A	1TR1AE302TTAJ	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
AFW-A	1TR1AE302TTAJ	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1816-U3-002
AFW-A	1TR1AE302TTAJ	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE302TTAK	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1601-U3-T27
AFW-A	1TR1AE302TTAX	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
AFW-A	1TR1AE302TTAK	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1816-U3-002
AFW-A	1TR1AE302TTAK	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE302TTAL	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1601-U3-T27
AFW-A	1TR1AE302TTAL	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
AFW-A	1TR1AE302TTAL	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1816-U3-002
AFW-A	1TR1AE302TTAM	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE302TTAN	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE302TTAQ	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE302TTAS	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE302TTZA	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1601-U3-T27
AFW-A	1TR1AE302TTZA	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-P5-SDA
AFW-A	1TR1AE302TTZA	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
AFW-A	1TR1AE302TTZA	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1816-U3-002
AFW-A	1TR1AE302TTZA	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE302TTZB	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1601-U3-T27
AFW-A	1TR1AE302TTZB	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-P5-SDA
AFW-A	1TR1AE302TTZB	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
AFW-A	1TR1AE302TTZB	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1816-U3-002
AFW-A	1TR1AE302TTZB	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE302TTZC	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1601-U3-T27
AFW-A	1TR1AE302TTZC	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-P5-SDA
AFW-A	1TR1AE302TTZC	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
AFW-A	1TR1AE302TTZC	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1816-U3-002
AFW-A	1TR1AE302TTZC	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE302TTZD	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1601-U3-T27
AFW-A	1TR1AE302TTZD	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-P5-SDA
AFW-A	1TR1AE302TTZD	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
AFW-A	1TR1AE302TTZD	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1816-U3-002
AFW-A	1TR1AE302TTZD	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE302TTZE	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1601-U3-T27
AFW-A	1TR1AE302TTZE	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-P5-SDA
AFW-A	1TR1AE302TTZE	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
AFW-A	1TR1AE302TTZE	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1816-U3-002
AFW-A	1TR1AE302TTZE	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE302TTZF	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1601-U3-T27
AFW-A	1TR1AE302TTZF	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-P5-SDA
AFW-A	1TR1AE302TTZF	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
AFW-A	1TR1AE302TTZF	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1816-U3-002
AFW-A	1TR1AE302TTZF	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE302TTZFVA	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1601-U3-T27
AFW-A	1TR1AE302TTZFVA	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-P5-SDA
AFW-A	1TR1AE302TTZFVA	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-Q5-SPA

LOCATION CHARACTERISTICS TABLE - UNIT 1

FIRE AREA: 1-CB-LA-G

FIRE ZONE: 91

AFW-A	1TR1AE302TTZFVA	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1816-U3-002
AFW-A	1TR1AE302TTZFVA	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE302TUBA	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1605-P5-SDA
AFW-A	1TR1AE322TTAE	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE322TTAF	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-A	1TR1AE322TTAG	AUX FEEDWATER PUMP MOTOR 1-1302-P4-003-M01	1-1302-P4-003	1-1804-S3-A02	1-1821-U3-001
AFW-AP	1CO1AE302RT261	AUX FW PUMP DISCHARGE VALVE TR A 1HV-5139	1-HV-5139	1-1805-S3-ABB	1-1605-P5-SDA
AFW-AP	1CO1AE302RT264	AUX FW PUMP DISCHARGE VALVE TR A 1HV-5137	1-HV-5137	1-1805-S3-ABB	1-1605-P5-SDA
AFW-AP	1TR1AE302TSAL	AUX FW PUMP DISCHARGE VALVE TR A 1HV-5137	1-HV-5137	1-1805-S3-ABB	1-1605-P5-SDA
AFW-AP	1TR1AE302TSAL	AUX FW PUMP DISCHARGE VALVE TR A 1HV-5139	1-HV-5139	1-1805-S3-ABB	1-1605-P5-SDA
AFW-AP	1TR1AE302TTAM	AUX FW PUMP DISCHARGE VALVE TR A 1HV-5137	1-HV-5137	1-1805-S3-ABB	1-1605-P5-SDA
AFW-AP	1TR1AE302TTAM	AUX FW PUMP DISCHARGE VALVE TR A 1HV-5139	1-HV-5139	1-1805-S3-ABB	1-1605-P5-SDA
AFW-AP	1TR1AE302TUBA	AUX FW PUMP DISCHARGE VALVE TR A 1HV-5137	1-HV-5137	1-1805-S3-ABB	1-1605-P5-SDA
AFW-AP	1TR1AE302TUBA	AUX FW PUMP DISCHARGE VALVE TR A 1HV-5139	1-HV-5139	1-1805-S3-ABB	1-1605-P5-SDA
AFW-C	1CO1CE302RS211	AUX. FW TURBINE DRIVEN STEAM INLET VALVE 1HV-5106	1-HV-5106	1-1806-S3-DCC	1-1816-U3-003
AFW-C	1TR1AE302TTAL	TURB DRIVEN AFW HV-5106 AUTO START	1-HV-5106	1-1821-U3-001	1-1816-U3-002
AFW-C	1TR1AE302TTAM	TURB DRIVEN AFW HV-5106 AUTO START	1-HV-5106	1-1821-U3-001	1-1816-U3-002
AFW-C	1TR1AE302TTAN	TURB DRIVEN AFW HV-5106 AUTO START	1-HV-5106	1-1821-U3-001	1-1816-U3-002
AFW-C	1TR1AE302TTAQ	TURB DRIVEN AFW HV-5106 AUTO START	1-HV-5106	1-1821-U3-001	1-1816-U3-002
AFW-C	1TR1AE302TTAS	TURB DRIVEN AFW HV-5106 AUTO START	1-HV-5106	1-1821-U3-001	1-1816-U3-002
AFW-C	1TR1AE322TTAE	TURB DRIVEN AFW HV-5106 AUTO START	1-HV-5106	1-1821-U3-001	1-1816-U3-002
AFW-C	1TR1AE322TTAF	TURB DRIVEN AFW HV-5106 AUTO START	1-HV-5106	1-1821-U3-001	1-1816-U3-002
AM (NE)	1TR1AE302TTAA	TRAIN-A MOTOR DRIVEN AFWP AUTO START (AMSAC)	1-1626-Q5-AMS	1-1804-S3-A02	1-1626-Q5-AMS
AM (NE)	1TR1AE302TTAB	TRAIN-A MOTOR DRIVEN AFWP AUTO START (AMSAC)	1-1626-Q5-AMS	1-1804-S3-A02	1-1626-Q5-AMS
AM (NE)	1TR1AE302TTAC	TRAIN-A MOTOR DRIVEN AFWP AUTO START (AMSAC)	1-1626-Q5-AMS	1-1804-S3-A02	1-1626-Q5-AMS
AM (NE)	1TR1AE302TTAD	TRAIN-A MOTOR DRIVEN AFWP AUTO START (AMSAC)	1-1626-Q5-AMS	1-1804-S3-A02	1-1626-Q5-AMS
AM (NE)	1TR1AE302TTAE	TRAIN-A MOTOR DRIVEN AFWP AUTO START (AMSAC)	1-1626-Q5-AMS	1-1804-S3-A02	1-1626-Q5-AMS
AM (NE)	1TR1AE302TTAF	TRAIN-A MOTOR DRIVEN AFWP AUTO START (AMSAC)	1-1626-Q5-AMS	1-1804-S3-A02	1-1626-Q5-AMS
AM (NE)	1TR1AE302TTAG	TRAIN-A MOTOR DRIVEN AFWP AUTO START (AMSAC)	1-1626-Q5-AMS	1-1804-S3-A02	1-1626-Q5-AMS
AM (NE)	1TR1AE302TTAH	TRAIN-A MOTOR DRIVEN AFWP AUTO START (AMSAC)	1-1626-Q5-AMS	1-1804-S3-A02	1-1626-Q5-AMS
AM (NE)	1TR1AE302TTAJ	TRAIN-A MOTOR DRIVEN AFWP AUTO START (AMSAC)	1-1626-Q5-AMS	1-1804-S3-A02	1-1626-Q5-AMS
AM (NE)	1TR1AE302TTAK	TRAIN-A MOTOR DRIVEN AFWP AUTO START (AMSAC)	1-1626-Q5-AMS	1-1804-S3-A02	1-1626-Q5-AMS
AM (NE)	1TR1AE302TTAL	TRAIN-A MOTOR DRIVEN AFWP AUTO START (AMSAC)	1-1626-Q5-AMS	1-1804-S3-A02	1-1626-Q5-AMS
AM (NE)	1TR1AE302TTZA	TRAIN-A MOTOR DRIVEN AFWP AUTO START (AMSAC)	1-1626-Q5-AMS	1-1804-S3-A02	1-1626-Q5-AMS
AM (NE)	1TR1AE302TTZB	TRAIN-A MOTOR DRIVEN AFWP AUTO START (AMSAC)	1-1626-Q5-AMS	1-1804-S3-A02	1-1626-Q5-AMS
AM (NE)	1TR1AE302TTZC	TRAIN-A MOTOR DRIVEN AFWP AUTO START (AMSAC)	1-1626-Q5-AMS	1-1804-S3-A02	1-1626-Q5-AMS
AM (NE)	1TR1AE302TTZD	TRAIN-A MOTOR DRIVEN AFWP AUTO START (AMSAC)	1-1626-Q5-AMS	1-1804-S3-A02	1-1626-Q5-AMS
AM (NE)	1TR1AE302TTZE	TRAIN-A MOTOR DRIVEN AFWP AUTO START (AMSAC)	1-1626-Q5-AMS	1-1804-S3-A02	1-1626-Q5-AMS
AM (NE)	1TR1AE302TTZF	TRAIN-A MOTOR DRIVEN AFWP AUTO START (AMSAC)	1-1626-Q5-AMS	1-1804-S3-A02	1-1626-Q5-AMS
AM (NE)	1TR1AE302TTZFVA	TRAIN-A MOTOR DRIVEN AFWP AUTO START (AMSAC)	1-1626-Q5-AMS	1-1804-S3-A02	1-1626-Q5-AMS
CCW-AP	1TR1AE302TEBF	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1203-P4-001-M01
CCW-AP	1TR1AE302TEBF	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1203-P4-001-M01
CCW-AP	1TR1AE302TEBF	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1203-P4-003-M01
CCW-AP	1TR1AE302TEBF	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1203-P4-003-M01
CCW-AP	1TR1AE302TEBF	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1203-P4-005-M01
CCW-AP	1TR1AE302TEBF	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1203-P4-005-M01
CCW-AP	1TR1AE302TTAA	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1605-P5-SDA
CCW-AP	1TR1AE302TTAA	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1605-P5-SDA
CCW-AP	1TR1AE302TTAA	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAA	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAA	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1605-P5-SDA
CCW-AP	1TR1AE302TTAA	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAA	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAA	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1LSLL1856
CCW-AP	1TR1AE302TTAAVA	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAAVA	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAAVA	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1605-P5-SDA
CCW-AP	1TR1AE302TTAAVA	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAAVA	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAAVA	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1LSLL1856
CCW-AP	1TR1AE302TTAB	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1605-P5-SDA
CCW-AP	1TR1AE302TTAB	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1605-P5-SDA
CCW-AP	1TR1AE302TTAB	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1601-U3-T03

LOCATION CHARACTERISTICS TABLE - UNIT 1

FIRE AREA: 1-CB-LA-G

FIRE ZONE: 91

CCW-AP	1TR1AE302TTAB	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAB	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAB	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAB	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1LSLL1856
CCW-AP	1TR1AE302TTAC	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1605-P5-SDA
CCW-AP	1TR1AE302TTAC	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1605-P5-SDA
CCW-AP	1TR1AE302TTAC	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAC	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAC	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAC	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAC	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1LSLL1856
CCW-AP	1TR1AE302TTAD	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1605-P5-SDA
CCW-AP	1TR1AE302TTAD	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1605-P5-SDA
CCW-AP	1TR1AE302TTAD	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAD	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAD	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAD	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAD	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1LSLL1856
CCW-AP	1TR1AE302TTAE	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1605-P5-SDA
CCW-AP	1TR1AE302TTAE	CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-003	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAE	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAE	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAE	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAE	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1LSLL1856
CCW-AP	1TR1AE302TTAE	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAE	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAE	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAE	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAE	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1LSLL1856
CCW-AP	1TR1AE302TTAEVA	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAEVA	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAEVA	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1605-P5-SDA
CCW-AP	1TR1AE302TTAEVA	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAEVA	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAEVA	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1LSLL1856
CCW-AP	1TR1AE302TTAF	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1605-P5-SDA
CCW-AP	1TR1AE302TTAF	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAF	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAF	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAF	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAF	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1LSLL1856
CCW-AP	1TR1AE302TTAF	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAF	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAF	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAF	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAF	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1LSLL1856
CCW-AP	1TR1AE302TTAG	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1605-P5-SDA
CCW-AP	1TR1AE302TTAG	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAG	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAG	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAG	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAG	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1LSLL1856
CCW-AP	1TR1AE302TTAG	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAG	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAG	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAG	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAG	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1LSLL1856
CCW-AP	1TR1AE302TTAH	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAH	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAH	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAH	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAH	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1LSLL1852
CCW-AP	1TR1AE302TTAH	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1601-U3-T03

LOCATION CHARACTERISTICS TABLE - UNIT 1

FIRE AREA: 1-CB-LA-G

FIRE ZONE: 91

CCW-AP	1TR1AE302TTAH	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAH	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAH	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAH	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1LSLL1856
CCW-AP	1TR1AE302TTAH	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAH	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAH	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAH	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAH	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1LSLL1856
CCW-AP	1TR1AE302TTAHVA	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAHVA	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAHVA	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1605-P5-SOA
CCW-AP	1TR1AE302TTAHVA	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAHVA	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAHVA	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1LSLL1852
CCW-AP	1TR1AE302TTAJ	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAJ	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAJ	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAJ	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAJ	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1LSLL1852
CCW-AP	1TR1AE302TTAJ	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAJ	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAJ	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAJ	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAJ	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1LSLL1856
CCW-AP	1TR1AE302TTAJ	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAJ	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAJ	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAJ	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAJ	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1LSLL1856
CCW-AP	1TR1AE302TTAK	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAK	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAK	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAK	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAK	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1LSLL1852
CCW-AP	1TR1AE302TTAK	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAK	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAK	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAK	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAK	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1LSLL1856
CCW-AP	1TR1AE302TTAK	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAK	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAK	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAK	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAK	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1LSLL1856
CCW-AP	1TR1AE302TTAL	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAL	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAL	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAL	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1LSLL1852
CCW-AP	1TR1AE302TTAL	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAL	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAL	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAL	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1LSLL1856
CCW-AP	1TR1AE302TTAL	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1601-U3-T03
CCW-AP	1TR1AE302TTAL	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
CCW-AP	1TR1AE302TTAL	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
CCW-AP	1TR1AE302TTAL	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1LSLL1856
CCW-AP	1TR1AE302TTAM	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAM	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAM	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAN	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAN	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAN	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1821-U3-001

LOCATION CHARACTERISTICS TABLE - UNIT 1

FIRE AREA: 1-CB-LA-G

FIRE ZONE: 91

CCW-AP	1TR1AE302TTAQ	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAQ	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAQ	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAS	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAS	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TTAS	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE302TUBA	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1605-P5-SDA
CCW-AP	1TR1AE302TUBA	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1605-P5-SDA
CCW-AP	1TR1AE302TUBA	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1605-P5-SDA
CCW-AP	1TR1AE322TTAE	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE322TTAE	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE322TTAE	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE322TTAF	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE322TTAF	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE322TTAF	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE322TTAG	CCW PUMP MOTOR 1-1203-P4-001-M01	1-1203-P4-001	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE322TTAG	CCW PUMP MOTOR 1-1203-P4-003-M01	1-1203-P4-003	1-1804-S3-A02	1-1821-U3-001
CCW-AP	1TR1AE322TTAG	SPARE CCW PUMP MOTOR 1-1203-P4-005-M01	1-1203-P4-005	1-1804-S3-A02	1-1821-U3-001
CON. LOSPA. NCW. SGP	1TR1AE302TTAF	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1816-U3-002
CON. LOSPA. NCW. SGP	1TR1AE302TTAF	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1816-U3-007
CON. LOSPA. NCW. SGP	1TR1AE302TTAF	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1816-U3-014
CON. LOSPA. NCW. SGP	1TR1AE302TTAF	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1821-U3-001
CON. LOSPA. NCW. SGP	1TR1AE302TTAFVB	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1816-U3-002
CON. LOSPA. NCW. SGP	1TR1AE302TTAFVB	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1816-U3-007
CON. LOSPA. NCW. SGP	1TR1AE302TTAFVB	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1816-U3-014
CON. LOSPA. NCW. SGP	1TR1AE302TTAFVB	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1821-U3-001
CON. LOSPA. NCW. SGP	1TR1AE302TTAG	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1816-U3-002
CON. LOSPA. NCW. SGP	1TR1AE302TTAG	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1816-U3-007
CON. LOSPA. NCW. SGP	1TR1AE302TTAG	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1816-U3-014
CON. LOSPA. NCW. SGP	1TR1AE302TTAG	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1821-U3-001
CON. LOSPA. NCW. SGP	1TR1AE302TTAH	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1816-U3-002
CON. LOSPA. NCW. SGP	1TR1AE302TTAH	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1816-U3-007
CON. LOSPA. NCW. SGP	1TR1AE302TTAH	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1816-U3-014
CON. LOSPA. NCW. SGP	1TR1AE302TTAH	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1821-U3-001
CON. LOSPA. NCW. SGP	1TR1AE302TTAJ	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1816-U3-002
CON. LOSPA. NCW. SGP	1TR1AE302TTAJ	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1816-U3-007
CON. LOSPA. NCW. SGP	1TR1AE302TTAJ	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1816-U3-014
CON. LOSPA. NCW. SGP	1TR1AE302TTAJ	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1821-U3-001
CON. LOSPA. NCW. SGP	1TR1AE302TTAK	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1816-U3-002
CON. LOSPA. NCW. SGP	1TR1AE302TTAK	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1816-U3-007
CON. LOSPA. NCW. SGP	1TR1AE302TTAK	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1816-U3-014
CON. LOSPA. NCW. SGP	1TR1AE302TTAK	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1821-U3-001
CON. LOSPA. NCW. SGP	1TR1AE302TTAL	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1816-U3-002
CON. LOSPA. NCW. SGP	1TR1AE302TTAL	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1816-U3-007
CON. LOSPA. NCW. SGP	1TR1AE302TTAL	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1816-U3-014
CON. LOSPA. NCW. SGP	1TR1AE302TTAM	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1821-U3-001
CON. LOSPA. NCW. SGP	1TR1AE302TTAN	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1821-U3-001
CON. LOSPA. NCW. SGP	1TR1AE302TTAQ	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1821-U3-001
CON. LOSPA. NCW. SGP	1TR1AE302TTAS	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1821-U3-001
CON. LOSPA. NCW. SGP	1TR1AE322TTAE	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1821-U3-001
CON. LOSPA. NCW. SGP	1TR1AE322TTAF	4160V SWGR 1AA02 INCM BRKR 1NXRA	1-AA0205	1-1804-S3-A02	1-1821-U3-001
EBR-P	1CO1AE302RT264	CVCS BORIC ACID TANK TO CHARGING PUMP VALVE 1HV-8104	1-HV-8104	1-1805-S3-ABB	1-1605-P5-SDA
EBR-P	1TR1AE302TSAL	CVCS BORIC ACID TANK TO CHARGING PUMP VALVE 1HV-8104	1-HV-8104	1-1805-S3-ABB	1-1605-P5-SDA
EBR-P	1TR1AE302TTAM	CVCS BORIC ACID TANK TO CHARGING PUMP VALVE 1HV-8104	1-HV-8104	1-1805-S3-ABB	1-1605-P5-SDA
EBR-P	1TR1AE302TUBA	CVCS BORIC ACID TANK TO CHARGING PUMP VALVE 1HV-8104	1-HV-8104	1-1805-S3-ABB	1-1605-P5-SDA
ECW-A	1TR1AE302TEBF	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1592-C7-001-M01
ECW-A	1TR1AE302TTAA	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1604-Q5-PP1
ECW-A	1TR1AE302TTAA	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1605-P5-SDA
ECW-A	1TR1AE302TTAB	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1604-Q5-PP1
ECW-A	1TR1AE302TTAB	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1605-P5-SDA
ECW-A	1TR1AE302TTAC	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1604-Q5-PP1
ECW-A	1TR1AE302TTAC	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1605-P5-SDA
ECW-A	1TR1AE302TTAD	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1604-Q5-PP1

LOCATION CHARACTERISTICS TABLE - UNIT 1

FIRE AREA: 1-CB-LA-G

FIRE ZONE: 91

ECW-A	1TR1AE302TTAD	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1605-P5-SDA
ECW-A	1TR1AE302TTAE	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1604-Q5-PP1
ECW-A	1TR1AE302TTAE	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1605-P5-SDA
ECW-A	1TR1AE302TTAF	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1200-Q5-HVC
ECW-A	1TR1AE302TTAF	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1500-Q5-HVC
ECW-A	1TR1AE302TTAF	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1592-C7-001
ECW-A	1TR1AE302TTAF	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1604-Q5-PP1
ECW-A	1TR1AE302TTAF	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1816-U3-014
ECW-A	1TR1AE302TTAF	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1821-U3-001
ECW-A	1TR1AE302TTAFVA	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1200-Q5-HVC
ECW-A	1TR1AE302TTAFVA	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1500-Q5-HVC
ECW-A	1TR1AE302TTAFVA	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1592-C7-001
ECW-A	1TR1AE302TTAFVA	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1604-Q5-PP1
ECW-A	1TR1AE302TTAFVA	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1604-Q5-PP1
ECW-A	1TR1AE302TTAFVA	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1605-P5-SDA
ECW-A	1TR1AE302TTAFVA	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1816-U3-014
ECW-A	1TR1AE302TTAFVA	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1821-U3-001
ECW-A	1TR1AE302TTAG	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1200-Q5-HVC
ECW-A	1TR1AE302TTAG	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1500-Q5-HVC
ECW-A	1TR1AE302TTAG	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1592-C7-001
ECW-A	1TR1AE302TTAG	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1604-Q5-PP1
ECW-A	1TR1AE302TTAG	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1816-U3-014
ECW-A	1TR1AE302TTAG	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1821-U3-001
ECW-A	1TR1AE302TTAH	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1200-Q5-HVC
ECW-A	1TR1AE302TTAH	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1500-Q5-HVC
ECW-A	1TR1AE302TTAH	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1592-C7-001
ECW-A	1TR1AE302TTAH	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1604-Q5-PP1
ECW-A	1TR1AE302TTAH	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1816-U3-014
ECW-A	1TR1AE302TTAH	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1821-U3-001
ECW-A	1TR1AE302TTAJ	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1200-Q5-HVC
ECW-A	1TR1AE302TTAJ	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1500-Q5-HVC
ECW-A	1TR1AE302TTAJ	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1592-C7-001
ECW-A	1TR1AE302TTAJ	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1604-Q5-PP1
ECW-A	1TR1AE302TTAJ	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1816-U3-014
ECW-A	1TR1AE302TTAJ	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1821-U3-001
ECW-A	1TR1AE302TTAK	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1200-Q5-HVC
ECW-A	1TR1AE302TTAK	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1500-Q5-HVC
ECW-A	1TR1AE302TTAK	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1592-C7-001
ECW-A	1TR1AE302TTAK	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1604-Q5-PP1
ECW-A	1TR1AE302TTAK	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1816-U3-014
ECW-A	1TR1AE302TTAK	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1821-U3-001
ECW-A	1TR1AE302TTAL	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1200-Q5-HVC
ECW-A	1TR1AE302TTAL	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1500-Q5-HVC
ECW-A	1TR1AE302TTAL	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1592-C7-001
ECW-A	1TR1AE302TTAL	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1604-Q5-PP1
ECW-A	1TR1AE302TTAL	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1816-U3-014
ECW-A	1TR1AE302TTAM	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1821-U3-001
ECW-A	1TR1AE302TTAN	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1821-U3-001
ECW-A	1TR1AE302TTAQ	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1821-U3-001
ECW-A	1TR1AE302TTAS	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1821-U3-001
ECW-A	1TR1AE302TUBA	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1604-Q5-PP1
ECW-A	1TR1AE302TUBA	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1605-P5-SDA
ECW-A	1TR1AE322TTAE	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1821-U3-001
ECW-A	1TR1AE322TTAF	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1821-U3-001
ECW-A	1TR1AE322TTAG	ESF CHILLER COMPRESSOR MOTOR 1-1592-C7-001-M01	1-1592-C7-001	1-1804-S3-A02	1-1821-U3-001
HLR-AP, LPI-AP, NRHR-AP, LPR-A	1CO1AE302RT261	RHR TR A TO SIS COLD LEG ISO VALVE 1HV-8809A	1-HV-8809A	1-1805-S3-ABB	1-1605-P5-SDA
HLR-AP, LPI-AP, NRHR-AP, LPR-A	1TR1AE302TSAL	RHR TR A TO SIS COLD LEG ISO VALVE 1HV-8809A	1-HV-8809A	1-1805-S3-ABB	1-1605-P5-SDA
HLR-AP, LPI-AP, NRHR-AP, LPR-A	1TR1AE302TTAM	RHR TR A TO SIS COLD LEG ISO VALVE 1HV-8809A	1-HV-8809A	1-1805-S3-ABB	1-1605-P5-SDA
HLR-AP, LPI-AP, NRHR-AP, LPR-A	1TR1AE302TUBA	RHR TR A TO SIS COLD LEG ISO VALVE 1HV-8809A	1-HV-8809A	1-1805-S3-ABB	1-1605-P5-SDA
HPI-A, HPR-A, NCHRG-A	1TR1AE302TGAM	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1208-P6-002-H01
HPI-A, HPR-A, NCHRG-A	1TR1AE302TGAM	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1208-P6-002-M01
HPI-A, HPR-A, NCHRG-A	1TR1AE302TGAH	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1208-P6-002-H01
HPI-A, HPR-A, NCHRG-A	1TR1AE302TGAH	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1208-P6-002-M01

LOCATION CHARACTERISTICS TABLE - UNIT 1

FIRE AREA: 1-CB-LA-G

FIRE ZONE: 91

HPI-A HPR-A NCHRG-A	1TR1AE302TGAQ	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1208-P6-002-H01
HPI-A HPR-A NCHRG-A	1TR1AE302TGAQ	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1208-P6-002-M01
HPI-A HPR-A NCHRG-A	1TR1AE302TGAR	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1208-P6-002-H01
HPI-A HPR-A NCHRG-A	1TR1AE302TGAR	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1208-P6-002-M01
HPI-A HPR-A NCHRG-A	1TR1AE302TGBF	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1208-P6-002-H01
HPI-A HPR-A NCHRG-A	1TR1AE302TGBF	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1208-P6-002-M01
HPI-A HPR-A NCHRG-A	1TR1AE302TTAA	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1601-U3-T05
HPI-A HPR-A NCHRG-A	1TR1AE302TTAA	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1605-Q5-SPA
HPI-A HPR-A NCHRG-A	1TR1AE302TTAA	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1821-U3-001
HPI-A HPR-A NCHRG-A	1TR1AE302TTAB	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1601-U3-T05
HPI-A HPR-A NCHRG-A	1TR1AE302TTAB	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1605-Q5-SPA
HPI-A HPR-A NCHRG-A	1TR1AE302TTAB	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1821-U3-001
HPI-A HPR-A NCHRG-A	1TR1AE302TTAC	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1601-U3-T05
HPI-A HPR-A NCHRG-A	1TR1AE302TTAC	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1605-Q5-SPA
HPI-A HPR-A NCHRG-A	1TR1AE302TTAC	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1821-U3-001
HPI-A HPR-A NCHRG-A	1TR1AE302TTAD	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1601-U3-T05
HPI-A HPR-A NCHRG-A	1TR1AE302TTAD	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1605-Q5-SPA
HPI-A HPR-A NCHRG-A	1TR1AE302TTAD	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1821-U3-001
HPI-A HPR-A NCHRG-A	1TR1AE302TTAE	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1601-U3-T05
HPI-A HPR-A NCHRG-A	1TR1AE302TTAE	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1605-Q5-SPA
HPI-A HPR-A NCHRG-A	1TR1AE302TTAE	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1821-U3-001
HPI-A HPR-A NCHRG-A	1TR1AE302TTAF	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1601-U3-T05
HPI-A HPR-A NCHRG-A	1TR1AE302TTAF	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1605-Q5-SPA
HPI-A HPR-A NCHRG-A	1TR1AE302TTAF	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1821-U3-001
HPI-A HPR-A NCHRG-A	1TR1AE302TTAG	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1601-U3-T05
HPI-A HPR-A NCHRG-A	1TR1AE302TTAG	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1605-Q5-SPA
HPI-A HPR-A NCHRG-A	1TR1AE302TTAG	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1821-U3-001
HPI-A HPR-A NCHRG-A	1TR1AE302TTAH	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1601-U3-T05
HPI-A HPR-A NCHRG-A	1TR1AE302TTAH	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1605-Q5-SPA
HPI-A HPR-A NCHRG-A	1TR1AE302TTAH	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1821-U3-001
HPI-A HPR-A NCHRG-A	1TR1AE302TTAJ	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1601-U3-T05
HPI-A HPR-A NCHRG-A	1TR1AE302TTAJ	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1605-Q5-SPA
HPI-A HPR-A NCHRG-A	1TR1AE302TTAJ	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1821-U3-001
HPI-A HPR-A NCHRG-A	1TR1AE302TTAK	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1601-U3-T05
HPI-A HPR-A NCHRG-A	1TR1AE302TTAK	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1605-Q5-SPA
HPI-A HPR-A NCHRG-A	1TR1AE302TTAK	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1821-U3-001
HPI-A HPR-A NCHRG-A	1TR1AE302TTAL	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1601-U3-T05
HPI-A HPR-A NCHRG-A	1TR1AE302TTAL	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1605-Q5-SPA
HPI-A HPR-A NCHRG-A	1TR1AE302TTAM	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1821-U3-001
HPI-A HPR-A NCHRG-A	1TR1AE302TTAN	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1821-U3-001
HPI-A HPR-A NCHRG-A	1TR1AE302TTAQ	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1821-U3-001
HPI-A HPR-A NCHRG-A	1TR1AE302TTAS	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1821-U3-001
HPI-A HPR-A NCHRG-A	1TR1AE302TTZA	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1601-U3-T05
HPI-A HPR-A NCHRG-A	1TR1AE302TTZA	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1605-P5-SDA
HPI-A HPR-A NCHRG-A	1TR1AE302TTZA	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1605-Q5-SPA
HPI-A HPR-A NCHRG-A	1TR1AE302TTZA	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1821-U3-001
HPI-A HPR-A NCHRG-A	1TR1AE302TTZB	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1601-U3-T05
HPI-A HPR-A NCHRG-A	1TR1AE302TTZB	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1605-P5-SDA
HPI-A HPR-A NCHRG-A	1TR1AE302TTZB	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1605-Q5-SPA
HPI-A HPR-A NCHRG-A	1TR1AE302TTZB	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1821-U3-001
HPI-A HPR-A NCHRG-A	1TR1AE302TTZBVA	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1601-U3-T05
HPI-A HPR-A NCHRG-A	1TR1AE302TTZBVA	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1605-P5-SDA
HPI-A HPR-A NCHRG-A	1TR1AE302TTZBVA	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1605-Q5-SPA
HPI-A HPR-A NCHRG-A	1TR1AE302TTZBVA	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1821-U3-001
HPI-A HPR-A NCHRG-A	1TR1AE302TUBA	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1605-P5-SDA
HPI-A HPR-A NCHRG-A	1TR1AE322TTAE	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1821-U3-001
HPI-A HPR-A NCHRG-A	1TR1AE322TTAF	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1821-U3-001
HPI-A HPR-A NCHRG-A	1TR1AE322TTAG	CVCS CHARGING PUMP MOTOR 1-1208-P6-002-M01	1-1208-P6-002	1-1804-S3-A02	1-1821-U3-001
HPI-P NCHRG	1CO1AE302RT263	CVCS VOLUME CONTROL TANK OUTLET ISO VALVE 1LV-0112B	1-LV-0112B	1-1805-S3-ABB	1-1605-P5-SDA
HPI-P NCHRG	1CO1AE302RT264	CVCS VOLUME CONTROL TANK OUTLET ISO VALVE 1LV-0112B	1-LV-0112B	1-1805-S3-ABB	1-1605-P5-SDA
HPI-P NCHRG	1TR1AE302TSAL	CVCS VOLUME CONTROL TANK OUTLET ISO VALVE 1LV-0112B	1-LV-0112B	1-1805-S3-ABB	1-1605-P5-SDA
HPI-P NCHRG	1TR1AE302TTAM	CVCS VOLUME CONTROL TANK OUTLET ISO VALVE 1LV-0112B	1-LV-0112B	1-1805-S3-ABB	1-1605-P5-SDA
HPI-P NCHRG	1TR1AE302TUBA	CVCS VOLUME CONTROL TANK OUTLET ISO VALVE 1LV-0112B	1-LV-0112B	1-1805-S3-ABB	1-1605-P5-SDA

LOCATION CHARACTERISTICS TABLE - UNIT 1

FIRE AREA: 1-CB-LA-G

FIRE ZONE: 91

ISI	1COINE302RS202	CVCS AUX. SPRAY TO PRESSURIZER 1HV-8145	1-HV-8145	1-1601-U3-T09	1-1605-P5-SDA
ISI	1COINE302RS202	CVCS AUX. SPRAY TO PRESSURIZER 1HV-8145	1-HV-8145	1-1605-P5-SDA	1-1818-H3-P69
ISI	1COINE302RS202	CVCS AUX. SPRAY TO PRESSURIZER 1HV-8145	1-HV-8145	1-1816-U3-011	1-1605-P5-SDA
ISI, SLO(1)	1COINE302RX223	PRESSURIZER SPRAY VALVE PV-0455B	1-PV-0455B	1-1604-Q5-PC1	1-1605-P5-SDA
ISI, SLO(1)	1COINE302RX223	PRESSURIZER SPRAY VALVE PV-0455C	1-PV-0455C	1-1604-Q5-PC1	1-1605-P5-SDA
ISI, SLO(1)	1COINE302RX225	PRESSURIZER SPRAY VALVE PV-0455B	1-PV-0455B	1-1604-Q5-PC1	1-1605-P5-SDA
ISI, SLO(1)	1COINE302RX225	PRESSURIZER SPRAY VALVE PV-0455C	1-PV-0455C	1-1604-Q5-PC1	1-1605-P5-SDA
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1COINE302RX223	RHR EXCHANGER OUTLET VALVE 1HV-0606	1-HV-0606	1-1604-Q5-PC1	1-1605-P5-SDA
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1COINE302RX224	RHR HT EXCHANGER OUTLET VLV 1HV-0606	1-HV-0606	1-1604-Q5-PC1	1-1605-P5-SDA
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1COINE302RX225	RHR EXCHANGER OUTLET VALVE 1HV-0606	1-HV-0606	1-1604-Q5-PC1	1-1605-P5-SDA
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1COINE302RX225	RHR HT EXCHANGER OUTLET VLV 1HV-0606	1-HV-0606	1-1604-Q5-PC1	1-1605-P5-SDA
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TGAM	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1205-P6-001-H01
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TGAM	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1205-P6-001-M01
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TGAN	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1205-P6-001-H01
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TGAN	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1205-P6-001-M01
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TGAP	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1205-P6-001-H01
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TGAP	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1205-P6-001-M01
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TGBF	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1205-P6-001-H01
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TGBF	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1205-P6-001-M01
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAA	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1605-P5-SDA
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAB	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1605-P5-SDA
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAC	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1601-U3-T07
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAC	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1605-Q5-SPA
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAC	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1821-U3-001
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTACVA	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1601-U3-T07
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTACVA	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1605-P5-SDA
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTACVA	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1605-Q5-SPA
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTACVA	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1821-U3-001
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAD	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1601-U3-T07
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAD	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1605-Q5-SPA
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAD	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1821-U3-001
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAE	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1601-U3-T07
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAE	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1605-Q5-SPA
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAE	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1821-U3-001
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAF	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1601-U3-T07
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAF	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1605-Q5-SPA
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAF	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1821-U3-001
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAG	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1601-U3-T07
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAG	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1605-Q5-SPA
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAG	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1821-U3-001
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAH	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1601-U3-T07
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAH	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1605-Q5-SPA
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAH	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1821-U3-001
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAJ	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1601-U3-T07
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAJ	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1605-Q5-SPA
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAJ	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1821-U3-001
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAK	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1601-U3-T07
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAK	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1605-Q5-SPA
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAK	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1821-U3-001
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAL	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1601-U3-T07
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAL	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1605-Q5-SPA
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAM	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1821-U3-001
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAN	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1821-U3-001
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAO	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1821-U3-001
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TTAS	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1821-U3-001
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE302TUBA	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1605-P5-SDA
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE322TTAE	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1821-U3-001
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE322TTAF	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1821-U3-001
LPI-A, LPR-A, NRHR-A, HPR(C2)-A	1TR1AE322TTAG	RESIDUAL HEAT REMOVAL PUMP MOTOR 1-1205-P6-001-M01	1-1205-P6-001	1-1804-S3-A02	1-1821-U3-001
LPR-A, HPR-A, NRHR-A	1COINE302RX224	RHR HX BYPASS FLOW CONTROL 1FIC-618B	1-FT-0618	1-1604-Q5-PC1	1-1605-P5-SDA
LPR-A, HPR-A, NRHR-A	1COINE302RX225	RHR HX BYPASS FLOW CONTROL 1FIC-618B	1-FT-0618	1-1604-Q5-PC1	1-1605-P5-SDA
NRHR-A, CI-I/I	1COICE302RS071	RHR LOOP 1 INLET ISO. VALVE 1HV-8701B	1-HV-8701B	1-1805-S3-RHR-1A	1-1605-P5-SDA
NRHR-A, CI-I/I	1COICE302RS071	RHR LOOP 1 INLET ISO. VALVE 1HV-8701B	1-HV-8701B	1-1805-S3-RHR1A	1-1605-P5-SDA

LOCATION CHARACTERISTICS TABLE - UNIT 1

FIRE AREA: 1-CB-LA-G
FIRE ZONE: 91

NSCW-A	1TR1AE302TTAA	NSCW COOLING TOWER A RETURN VALVE 1HV-1668A	1-HV-1668A	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTAA	NSCW TOWER FAN BYPASS VALVE 1HV-1668B	1-HV-1668B	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTAB	NSCW COOLING TOWER A RETURN VALVE 1HV-1668A	1-HV-1668A	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTAB	NSCW TOWER FAN BYPASS VALVE 1HV-1668B	1-HV-1668B	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTAC	NSCW COOLING TOWER A RETURN VALVE 1HV-1668A	1-HV-1668A	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTAC	NSCW TOWER FAN BYPASS VALVE 1HV-1668B	1-HV-1668B	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTAD	NSCW COOLING TOWER A RETURN VALVE 1HV-1668A	1-HV-1668A	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTAD	NSCW TOWER FAN BYPASS VALVE 1HV-1668B	1-HV-1668B	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTAE	NSCW COOLING TOWER A RETURN VALVE 1HV-1668A	1-HV-1668A	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTAE	NSCW TOWER FAN BYPASS VALVE 1HV-1668B	1-HV-1668B	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTAF	NSCW COOLING TOWER A RETURN VALVE 1HV-1668A	1-HV-1668A	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTAF	NSCW TOWER FAN BYPASS VALVE 1HV-1668B	1-HV-1668B	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTAG	NSCW COOLING TOWER A RETURN VALVE 1HV-1668A	1-HV-1668A	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTAG	NSCW TOWER FAN BYPASS VALVE 1HV-1668B	1-HV-1668B	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTAH	NSCW COOLING TOWER A RETURN VALVE 1HV-1668A	1-HV-1668A	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTAH	NSCW TOWER FAN BYPASS VALVE 1HV-1668B	1-HV-1668B	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTAJ	NSCW COOLING TOWER A RETURN VALVE 1HV-1668A	1-HV-1668A	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTAJ	NSCW TOWER FAN BYPASS VALVE 1HV-1668B	1-HV-1668B	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTAK	NSCW COOLING TOWER A RETURN VALVE 1HV-1668A	1-HV-1668A	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTAK	NSCW TOWER FAN BYPASS VALVE 1HV-1668B	1-HV-1668B	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTAL	NSCW COOLING TOWER A RETURN VALVE 1HV-1668A	1-HV-1668A	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTAL	NSCW TOWER FAN BYPASS VALVE 1HV-1668B	1-HV-1668B	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTZA	NSCW COOLING TOWER A RETURN VALVE 1HV-1668A	1-HV-1668A	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTZA	NSCW TOWER FAN BYPASS VALVE 1HV-1668B	1-HV-1668B	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTZAVA	NSCW COOLING TOWER A RETURN VALVE 1HV-1668A	1-HV-1668A	1-1804-S3-A02	1-1805-S3-ABB
NSCW-A	1TR1AE302TTZAVA	NSCW TOWER FAN BYPASS VALVE 1HV-1668B	1-HV-1668B	1-1804-S3-A02	1-1805-S3-ABB
NSCW-AP	1TR1AE302TPBF	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1202-P4-001-H01
NSCW-AP	1TR1AE302TPBF	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1202-P4-001-M01
NSCW-AP	1TR1AE302TPBF	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1202-P4-003-M01
NSCW-AP	1TR1AE302TPBF	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1202-P4-003-M01
NSCW-AP	1TR1AE302TPBF	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1202-P4-005-H01
NSCW-AP	1TR1AE302TPBF	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1202-P4-005-M01
NSCW-AP	1TR1AE302TSAL	NSCW VALVE 1-HV-11600	1-HV-11600	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TSAL	NSCW VALVE 1-HV-11605	1-HV-11605	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TSAL	NSCW VALVE 1-HV-11606	1-HV-11606	1-1805-S3-ABB	1-1202-P4-003-H01
NSCW-AP	1TR1AE302TSAL	NSCW VALVE 1-HV-11606	1-HV-11606	1-1805-S3-ABB	1-1806-S3-A02
NSCW-AP	1TR1AE302TTAA	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1605-P5-SDA
NSCW-AP	1TR1AE302TTAA	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1605-P5-SDA
NSCW-AP	1TR1AE302TTAA	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1605-P5-SDA
NSCW-AP	1TR1AE302TTAA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV11605
NSCW-AP	1TR1AE302TTAA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668A
NSCW-AP	1TR1AE302TTAA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668B
NSCW-AP	1TR1AE302TTAA	NSCW VALVE 1-HV-11605	1-HV-11605	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAB	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1605-P5-SDA
NSCW-AP	1TR1AE302TTAB	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1605-P5-SDA
NSCW-AP	1TR1AE302TTAB	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1605-P5-SDA
NSCW-AP	1TR1AE302TTAB	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAB	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAB	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAB	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAB	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV11605
NSCW-AP	1TR1AE302TTAB	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668A
NSCW-AP	1TR1AE302TTAB	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668B
NSCW-AP	1TR1AE302TTAB	NSCW VALVE 1-HV-11605	1-HV-11605	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAC	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1605-P5-SDA
NSCW-AP	1TR1AE302TTAC	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1605-P5-SDA
NSCW-AP	1TR1AE302TTAC	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1605-P5-SDA
NSCW-AP	1TR1AE302TTAC	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAC	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1604-Q5-PP1

LOCATION CHARACTERISTICS TABLE - UNIT 1

FIRE AREA: 1-CB-LA-G

FIRE ZONE: 91

NSCW-AP	1TR1AE302TTAC	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAC	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAC	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV11605
NSCW-AP	1TR1AE302TTAC	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668A
NSCW-AP	1TR1AE302TTAC	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668B
NSCW-AP	1TR1AE302TTAC	NSCW VALVE 1-HV-11605	1-HV-11605	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAD	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1605-P5-SDA
NSCW-AP	1TR1AE302TTAD	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAD	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAD	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAD	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1821-U3-001
NSCW-AP	1TR1AE302TTAD	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1HV11606
NSCW-AP	1TR1AE302TTAD	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAD	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAD	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAD	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAD	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1HV11606
NSCW-AP	1TR1AE302TTAD	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAD	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAD	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAD	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAD	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV11605
NSCW-AP	1TR1AE302TTAD	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668A
NSCW-AP	1TR1AE302TTAD	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668B
NSCW-AP	1TR1AE302TTAD	NSCW VALVE 1-HV-11605	1-HV-11605	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAD	NSCW VALVE 1-HV-11606	1-HV-11606	1-1805-S3-ABB	1-1202-P4-003-H01
NSCW-AP	1TR1AE302TTAD	NSCW VALVE 1-HV-11606	1-HV-11606	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTADVA	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1601-U3-T03
NSCW-AP	1TR1AE302TTADVA	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTADVA	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1605-P5-SDA
NSCW-AP	1TR1AE302TTADVA	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTADVA	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1821-U3-001
NSCW-AP	1TR1AE302TTADVA	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1HV11606
NSCW-AP	1TR1AE302TTADVA	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTADVA	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTADVA	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1605-P5-SDA
NSCW-AP	1TR1AE302TTADVA	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTADVA	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTADVA	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1HV11606
NSCW-AP	1TR1AE302TTADVA	NSCW VALVE 1-HV-11606	1-HV-11606	1-1805-S3-ABB	1-1202-P4-003-H01
NSCW-AP	1TR1AE302TTADVA	NSCW VALVE 1-HV-11606	1-HV-11606	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAE	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1605-P5-SDA
NSCW-AP	1TR1AE302TTAE	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAE	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAE	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAE	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1821-U3-001
NSCW-AP	1TR1AE302TTAE	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1HV11606
NSCW-AP	1TR1AE302TTAE	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAE	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAE	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAE	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAE	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1HV11606
NSCW-AP	1TR1AE302TTAE	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAE	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAE	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAE	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAE	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV11605
NSCW-AP	1TR1AE302TTAE	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668A
NSCW-AP	1TR1AE302TTAE	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668B
NSCW-AP	1TR1AE302TTAE	NSCW VALVE 1-HV-11605	1-HV-11605	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAE	NSCW VALVE 1-HV-11606	1-HV-11606	1-1805-S3-ABB	1-1202-P4-003-H01
NSCW-AP	1TR1AE302TTAE	NSCW VALVE 1-HV-11606	1-HV-11606	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAF	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1605-P5-SDA

LOCATION CHARACTERISTICS TABLE - UNIT 1

FIRE AREA: 1-CB-LA-G
FIRE ZONE: 91

NSCW-AP	1TR1AE302TTAF	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAF	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAF	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAF	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1821-U3-001
NSCW-AP	1TR1AE302TTAF	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1HV11606
NSCW-AP	1TR1AE302TTAF	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAF	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAF	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAF	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAF	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1HV11606
NSCW-AP	1TR1AE302TTAF	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAF	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAF	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAF	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAF	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV11605
NSCW-AP	1TR1AE302TTAF	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668A
NSCW-AP	1TR1AE302TTAF	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668B
NSCW-AP	1TR1AE302TTAF	NSCW VALVE 1-HV-11605	1-HV-11605	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAF	NSCW VALVE 1-HV-11606	1-HV-11606	1-1805-S3-ABB	1-1202-P4-003-H01
NSCW-AP	1TR1AE302TTAF	NSCW VALVE 1-HV-11606	1-HV-11606	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAG	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAG	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAG	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAG	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAG	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1HV11600
NSCW-AP	1TR1AE302TTAG	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAG	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAG	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAG	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1821-U3-001
NSCW-AP	1TR1AE302TTAG	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1HV11606
NSCW-AP	1TR1AE302TTAG	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAG	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAG	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAG	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAG	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1HV11606
NSCW-AP	1TR1AE302TTAG	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAG	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAG	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAG	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAG	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV11605
NSCW-AP	1TR1AE302TTAG	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668A
NSCW-AP	1TR1AE302TTAG	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668B
NSCW-AP	1TR1AE302TTAG	NSCW VALVE 1-HV-11600	1-HV-11600	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAG	NSCW VALVE 1-HV-11605	1-HV-11605	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAG	NSCW VALVE 1-HV-11606	1-HV-11606	1-1805-S3-ABB	1-1202-P4-003-H01
NSCW-AP	1TR1AE302TTAG	NSCW VALVE 1-HV-11606	1-HV-11606	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAGVA	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAGVA	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAGVA	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1605-P5-SDA
NSCW-AP	1TR1AE302TTAGVA	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAGVA	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAGVA	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1HV11600
NSCW-AP	1TR1AE302TTAGVA	NSCW VALVE 1-HV-11600	1-HV-11600	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAH	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAH	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAH	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAH	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAH	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1HV11600
NSCW-AP	1TR1AE302TTAH	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAH	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAH	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAH	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1821-U3-001
NSCW-AP	1TR1AE302TTAH	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1HV11606

LOCATION CHARACTERISTICS TABLE - UNIT 1

FIRE AREA: 1-CB-LA-G
FIRE ZONE: 91

NSCW-AP	1TR1AE302TTAH	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAH	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAH	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAH	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAH	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1HV11606
NSCW-AP	1TR1AE302TTAH	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAH	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAH	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAH	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAH	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV11605
NSCW-AP	1TR1AE302TTAH	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668A
NSCW-AP	1TR1AE302TTAH	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668B
NSCW-AP	1TR1AE302TTAH	NSCW VALVE 1-HV-11600	1-HV-11600	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAH	NSCW VALVE 1-HV-11605	1-HV-11605	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAH	NSCW VALVE 1-HV-11606	1-HV-11606	1-1805-S3-ABB	1-1202-P4-003-M01
NSCW-AP	1TR1AE302TTAH	NSCW VALVE 1-HV-11606	1-HV-11606	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAJ	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAJ	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAJ	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAJ	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAJ	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1HV11600
NSCW-AP	1TR1AE302TTAJ	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-M01	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAJ	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-M01	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAJ	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-M01	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAJ	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-M01	1-1821-U3-001
NSCW-AP	1TR1AE302TTAJ	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-M01	1HV11606
NSCW-AP	1TR1AE302TTAJ	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAJ	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAJ	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAJ	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAJ	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1HV11606
NSCW-AP	1TR1AE302TTAJ	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAJ	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAJ	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAJ	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAJ	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV11605
NSCW-AP	1TR1AE302TTAJ	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668A
NSCW-AP	1TR1AE302TTAJ	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668B
NSCW-AP	1TR1AE302TTAJ	NSCW VALVE 1-HV-11600	1-HV-11600	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAJ	NSCW VALVE 1-HV-11605	1-HV-11605	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAJ	NSCW VALVE 1-HV-11606	1-HV-11606	1-1805-S3-ABB	1-1202-P4-003-M01
NSCW-AP	1TR1AE302TTAJ	NSCW VALVE 1-HV-11606	1-HV-11606	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAK	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAK	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAK	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAK	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAK	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1HV11600
NSCW-AP	1TR1AE302TTAK	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-M01	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAK	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-M01	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAK	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-M01	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAK	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-M01	1-1821-U3-001
NSCW-AP	1TR1AE302TTAK	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-M01	1HV11606
NSCW-AP	1TR1AE302TTAK	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAK	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAK	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAK	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAK	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1HV11606
NSCW-AP	1TR1AE302TTAK	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAK	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAK	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAK	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAK	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV11605
NSCW-AP	1TR1AE302TTAK	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668A

LOCATION CHARACTERISTICS TABLE - UNIT 1

FIRE AREA: 1-CB-LA-G

FIRE ZONE: 91

NSCW-AP	1TR1AE302TTAK	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668B
NSCW-AP	1TR1AE302TTAK	NSCW VALVE 1-HV-11600	1-HV-11600	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAK	NSCW VALVE 1-HV-11605	1-HV-11605	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAK	NSCW VALVE 1-HV-11606	1-HV-11606	1-1805-S3-ABB	1-1202-P4-003-H01
NSCW-AP	1TR1AE302TTAK	NSCW VALVE 1-HV-11606	1-HV-11606	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAL	NSCW COOLING TOWER FAN 1-1202-W4-001-M01	1-1202-W4-001-F01	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE302TTAL	NSCW COOLING TOWER FAN 1-1202-W4-001-M02	1-1202-W4-001-F02	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE302TTAL	NSCW COOLING TOWER FAN 1-1202-W4-001-M03	1-1202-W4-001-F03	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE302TTAL	NSCW COOLING TOWER FAN 1-1202-W4-001-M04	1-1202-W4-001-F04	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE302TTAL	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAL	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAL	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAL	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1HV11600
NSCW-AP	1TR1AE302TTAL	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1601-U3-T01
NSCW-AP	1TR1AE302TTAL	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAL	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAL	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1HV11606
NSCW-AP	1TR1AE302TTAL	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAL	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAL	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAL	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1HV11606
NSCW-AP	1TR1AE302TTAL	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1601-U3-T03
NSCW-AP	1TR1AE302TTAL	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTAL	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTAL	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV11605
NSCW-AP	1TR1AE302TTAL	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668A
NSCW-AP	1TR1AE302TTAL	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668B
NSCW-AP	1TR1AE302TTAM	NSCW COOLING TOWER FAN 1-1202-W4-001-M01	1-1202-W4-001-F01	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE302TTAM	NSCW COOLING TOWER FAN 1-1202-W4-001-M02	1-1202-W4-001-F02	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE302TTAM	NSCW COOLING TOWER FAN 1-1202-W4-001-M03	1-1202-W4-001-F03	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE302TTAM	NSCW COOLING TOWER FAN 1-1202-W4-001-M04	1-1202-W4-001-F04	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE302TTAM	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAM	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1821-U3-001
NSCW-AP	1TR1AE302TTAM	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAM	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAM	NSCW VALVE 1-HV-11600	1-HV-11600	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAM	NSCW VALVE 1-HV-11605	1-HV-11605	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAM	NSCW VALVE 1-HV-11606	1-HV-11606	1-1805-S3-ABB	1-1202-P4-003-H01
NSCW-AP	1TR1AE302TTAM	NSCW VALVE 1-HV-11606	1-HV-11606	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTAN	NSCW COOLING TOWER FAN 1-1202-W4-001-M01	1-1202-W4-001-F01	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE302TTAN	NSCW COOLING TOWER FAN 1-1202-W4-001-M02	1-1202-W4-001-F02	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE302TTAN	NSCW COOLING TOWER FAN 1-1202-W4-001-M03	1-1202-W4-001-F03	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE302TTAN	NSCW COOLING TOWER FAN 1-1202-W4-001-M04	1-1202-W4-001-F04	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE302TTAN	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAN	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1821-U3-001
NSCW-AP	1TR1AE302TTAN	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAN	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAQ	NSCW COOLING TOWER FAN 1-1202-W4-001-M01	1-1202-W4-001-F01	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE302TTAQ	NSCW COOLING TOWER FAN 1-1202-W4-001-M02	1-1202-W4-001-F02	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE302TTAQ	NSCW COOLING TOWER FAN 1-1202-W4-001-M03	1-1202-W4-001-F03	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE302TTAQ	NSCW COOLING TOWER FAN 1-1202-W4-001-M04	1-1202-W4-001-F04	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE302TTAQ	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAQ	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1821-U3-001
NSCW-AP	1TR1AE302TTAQ	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAQ	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAS	NSCW COOLING TOWER FAN 1-1202-W4-001-M01	1-1202-W4-001-F01	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE302TTAS	NSCW COOLING TOWER FAN 1-1202-W4-001-M02	1-1202-W4-001-F02	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE302TTAS	NSCW COOLING TOWER FAN 1-1202-W4-001-M03	1-1202-W4-001-F03	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE302TTAS	NSCW COOLING TOWER FAN 1-1202-W4-001-M04	1-1202-W4-001-F04	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE302TTAS	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAS	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1821-U3-001
NSCW-AP	1TR1AE302TTAS	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTAS	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1821-U3-001

LOCATION CHARACTERISTICS TABLE - UNIT 1

FIRE AREA: 1-CB-LA-G
FIRE ZONE: 91

NSCW-AP	1TR1AE302TTZA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1601-U3-T01
NSCW-AP	1TR1AE302TTZA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTZA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1605-P5-SDA
NSCW-AP	1TR1AE302TTZA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTZA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTZA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV11605
NSCW-AP	1TR1AE302TTZA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668A
NSCW-AP	1TR1AE302TTZA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668B
NSCW-AP	1TR1AE302TTZA	NSCW VALVE 1-HV-11605	1-HV-11605	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TTZAVA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1601-U3-T01
NSCW-AP	1TR1AE302TTZAVA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1604-Q5-PP1
NSCW-AP	1TR1AE302TTZAVA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1605-P5-SDA
NSCW-AP	1TR1AE302TTZAVA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1605-Q5-SPA
NSCW-AP	1TR1AE302TTZAVA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE302TTZAVA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV11605
NSCW-AP	1TR1AE302TTZAVA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668A
NSCW-AP	1TR1AE302TTZAVA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1HV1668B
NSCW-AP	1TR1AE302TTZAVA	NSCW VALVE 1-HV-11605	1-HV-11605	1-1805-S3-ABB	1-1804-S3-A02
NSCW-AP	1TR1AE302TUBA	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1605-P5-SDA
NSCW-AP	1TR1AE302TUBA	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1605-P5-SDA
NSCW-AP	1TR1AE302TUBA	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1605-P5-SDA
NSCW-AP	1TR1AE302TUBA	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1605-P5-SDA
NSCW-AP	1TR1AE322TTAE	NSCW COOLING TOWER FAN 1-1202-W4-001-M01	1-1202-W4-001-F01	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE322TTAE	NSCW COOLING TOWER FAN 1-1202-W4-001-M02	1-1202-W4-001-F02	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE322TTAE	NSCW COOLING TOWER FAN 1-1202-W4-001-M03	1-1202-W4-001-F03	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE322TTAE	NSCW COOLING TOWER FAN 1-1202-W4-001-M04	1-1202-W4-001-F04	1-1805-S3-B15	1-1821-U3-001
NSCW-AP	1TR1AE322TTAE	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE322TTAE	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1821-U3-001
NSCW-AP	1TR1AE322TTAE	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE322TTAE	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE322TTAF	NSCW PUMP MOTOR 1-1202-P4-001-M01	1-1202-P4-001	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE322TTAF	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1202-P4-003-H01	1-1821-U3-001
NSCW-AP	1TR1AE322TTAF	NSCW PUMP MOTOR 1-1202-P4-003-M01	1-1202-P4-003	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE322TTAF	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1821-U3-001
NSCW-AP	1TR1AE322TTAG	NSCW PUMP MOTOR 1-1202-P4-005-M01	1-1202-P4-005	1-1804-S3-A02	1-1821-U3-001
SD-A	1CO1AE302RX118	S.G. 1 LEVEL INDICATION 1LI-0501A	1-1605-P5-SDA	1-1604-Q5-PS1	1-1605-P5-SDA
SD-A	1CO1AE302RX201	LOW HEAD SAFETY INJECTION FLOW FY 618A	1-1605-P5-SDA	1-1604-Q5-PS1	1-1605-P5-SDA
SD-A	1CO1AE302RX201	RWST LEVEL INDICATION 1LI-0990B	1-1605-P5-SDA	1-1604-Q5-PS1	1-1605-P5-SDA
SD-A	1CO1AE321RS167	REACTOR TRIP	1-1605-P5-SDA	1-1606-S6-002	1-1605-P5-SDA
SD-A	1CO1BE31CRS108	REACTOR TRIP	1-1605-P5-SDA	1-1606-S6-002	1-1605-P5-SDA
SD-A	1CO1NE302RX101	LOW HEAD SAFETY INJECTION FLOW FY 618A	1-1605-P5-SDA	1-1604-Q5-PC1	1-1605-P5-SDA
SGP-AP	1CO1AE302RX118	MAIN STEAM ATM DUMP LOOP 1 1PV-3000	1-PV-3000	1-1604-Q5-PP1	1-1605-P5-SDA
SGP-AP	1CO1AE302RX118	MAIN STEAM ATM DUMP LOOP 4 1PV-3030	1-PV-3030	1-1604-Q5-PP1	1-1605-P5-SDA
SGP-AP	1CO1AE302RX226	LOOP 1 ATM DUMP VALVE PRESSURE INDICATION 1PIC-3000B	1-PT-3000	1-1604-Q5-PP1	1-1605-P5-SDA
SGP-AP	1CO1AE302RX226	LOOP 4 ATM DUMP VALVE PRESSURE INDICATION 1PIC-3030B	1-PT-3030	1-1604-Q5-PP1	1-1605-P5-SDA
SGP-AP	1CO1AE302RX228	LOOP 1 ATM DUMP VALVE PRESSURE INDICATION 1PIC-3000B	1-PT-3000	1-1604-Q5-PP1	1-1605-P5-SDA
SGP-AP	1CO1AE302RX228	LOOP 4 ATM DUMP VALVE PRESSURE INDICATION 1PIC-3030B	1-PT-3030	1-1604-Q5-PP1	1-1605-P5-SDA
SLO(1)	1CO1AE302RX118	LETDOWN TO PRZ TANK VALVES 1HV-0442A	1-HV-0442A	1-1604-Q5-PS1	1-1605-P5-SDA
SLO-A	1TR1AE302TPBF	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1217-P4-001-H01
SLO-A	1TR1AE302TPBF	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1217-P4-001-M01
SLO-A	1TR1AE302TTAA	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1601-U3-T01
SLO-A	1TR1AE302TTAA	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
SLO-A	1TR1AE302TTAA	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
SLO-A	1TR1AE302TTAA	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1821-U3-001
SLO-A	1TR1AE302TTAA	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1LSLL1956
SLO-A	1TR1AE302TTAB	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1601-U3-T01
SLO-A	1TR1AE302TTAB	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
SLO-A	1TR1AE302TTAB	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
SLO-A	1TR1AE302TTAB	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1821-U3-001
SLO-A	1TR1AE302TTAB	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1LSLL1956
SLO-A	1TR1AE302TTAC	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1601-U3-T01
SLO-A	1TR1AE302TTAC	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
SLO-A	1TR1AE302TTAC	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1605-Q5-SPA

LOCATION CHARACTERISTICS TABLE - UNIT 1

FIRE AREA: 1-CB-LA-G
FIRE ZONE: 91

SLO-A	1TR1AE302TTAC	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1821-U3-001
SLO-A	1TR1AE302TTAC	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1LSLL1956
SLO-A	1TR1AE302TTAD	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1601-U3-T03
SLO-A	1TR1AE302TTAD	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
SLO-A	1TR1AE302TTAD	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
SLO-A	1TR1AE302TTAD	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1821-U3-001
SLO-A	1TR1AE302TTAD	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1LSLL1956
SLO-A	1TR1AE302TTAE	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1601-U3-T03
SLO-A	1TR1AE302TTAE	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
SLO-A	1TR1AE302TTAE	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
SLO-A	1TR1AE302TTAE	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1821-U3-001
SLO-A	1TR1AE302TTAE	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1LSLL1956
SLO-A	1TR1AE302TTAF	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1601-U3-T03
SLO-A	1TR1AE302TTAF	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
SLO-A	1TR1AE302TTAF	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
SLO-A	1TR1AE302TTAF	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1821-U3-001
SLO-A	1TR1AE302TTAF	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1LSLL1956
SLO-A	1TR1AE302TTAG	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1601-U3-T03
SLO-A	1TR1AE302TTAG	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
SLO-A	1TR1AE302TTAG	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
SLO-A	1TR1AE302TTAG	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1821-U3-001
SLO-A	1TR1AE302TTAG	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1LSLL1956
SLO-A	1TR1AE302TTAH	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1601-U3-T03
SLO-A	1TR1AE302TTAH	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
SLO-A	1TR1AE302TTAH	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
SLO-A	1TR1AE302TTAH	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1821-U3-001
SLO-A	1TR1AE302TTAH	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1LSLL1956
SLO-A	1TR1AE302TTAJ	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1601-U3-T03
SLO-A	1TR1AE302TTAJ	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
SLO-A	1TR1AE302TTAJ	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
SLO-A	1TR1AE302TTAJ	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1821-U3-001
SLO-A	1TR1AE302TTAJ	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1LSLL1956
SLO-A	1TR1AE302TTAK	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1601-U3-T03
SLO-A	1TR1AE302TTAK	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
SLO-A	1TR1AE302TTAK	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
SLO-A	1TR1AE302TTAK	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1821-U3-001
SLO-A	1TR1AE302TTAK	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1LSLL1956
SLO-A	1TR1AE302TTAL	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1601-U3-T03
SLO-A	1TR1AE302TTAL	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
SLO-A	1TR1AE302TTAL	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
SLO-A	1TR1AE302TTAL	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1LSLL1956
SLO-A	1TR1AE302TTAM	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1821-U3-001
SLO-A	1TR1AE302TTAN	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1821-U3-001
SLO-A	1TR1AE302TTAQ	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1821-U3-001
SLO-A	1TR1AE302TTAS	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1821-U3-001
SLO-A	1TR1AE302TTZA	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1601-U3-T03
SLO-A	1TR1AE302TTZA	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
SLO-A	1TR1AE302TTZA	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
SLO-A	1TR1AE302TTZA	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1821-U3-001
SLO-A	1TR1AE302TTZA	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1LSLL1956
SLO-A	1TR1AE302TTZB	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1601-U3-T03
SLO-A	1TR1AE302TTZB	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
SLO-A	1TR1AE302TTZB	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
SLO-A	1TR1AE302TTZB	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1821-U3-001
SLO-A	1TR1AE302TTZB	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1LSLL1956
SLO-A	1TR1AE302TTZC	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1601-U3-T03
SLO-A	1TR1AE302TTZC	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
SLO-A	1TR1AE302TTZC	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1605-Q5-SPA
SLO-A	1TR1AE302TTZC	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1821-U3-001
SLO-A	1TR1AE302TTZC	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1LSLL1956
SLO-A	1TR1AE302TTZD	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1601-U3-T03
SLO-A	1TR1AE302TTZD	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1604-Q5-PP1
SLO-A	1TR1AE302TTZD	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1605-Q5-SPA

LOCATION CHARACTERISTICS TABLE - UNIT 1

FIRE AREA: 1-CB-LA-G

FIRE ZONE: 91

SLO-A	1TR1AE302TTZD	ACCW FUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1821-U3-001
SLO-A	1TR1AE302TTZD	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1LSLL1956
SLO-A	1TR1AE302TTZDVA	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1601-U3-T03
SLO-A	1TR1AE302TTZDVA	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1604-Q5-FP1
SLO-A	1TR1AE302TTZDVA	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1004-S3-A02	1-1605-Q5-SPA
SLO-A	1TR1AE302TTZDVA	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1821-U3-001
SLO-A	1TR1AE302TTZDVA	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1LSLL1956
SLO-A	1TR1AE322TTAE	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1821-U3-001
SLO-A	1TR1AE322TTAF	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1821-U3-001
SLO-A	1TR1AE322TTAG	ACCW PUMP MOTOR 1-1217-P4-001-M01	1-1217-P4-001	1-1804-S3-A02	1-1821-U3-001
VESF-A	1TR1AE302TTAL	SI SIGNAL TO SEQUENCER A	1-SI-A-SEQ	1-1605-Q5-SPA	1-1821-U3-001
VESF-A	1TR1AE302TTAM	SI SIGNAL TO SEQUENCER A	1-SI-A-SEQ	1-1605-Q5-SPA	1-1821-U3-001
VESF-A	1TR1AE302TTAN	SI SIGNAL TO SEQUENCER A	1-SI-A-SEQ	1-1605-Q5-SFA	1-1821-U3-001
VESF-A	1TR1AE302TTAQ	SI SIGNAL TO SEQUENCER A	1-SI-A-SEQ	1-1605-Q5-SPA	1-1821-U3-001
VESF-A	1TR1AE302TTAS	SI SIGNAL TO SEQUENCER A	1-SI-A-SEQ	1-1605-Q5-SPA	1-1821-U3-001
VESF-A	1TR1AE322TTAE	SI SIGNAL TO SEQUENCER A	1-SI-A SEQ	1-1605-Q5-SPA	1-1821-U3-001
VESF-A	1TR1AE322TTAF	SI SIGNAL TO SEQUENCER A	1-SI-A-SEQ	1-1605-Q5-SPA	1-1821-U3-001
VESF-A	1TR1AE322TTAG	SI SIGNAL TO SEQUENCER A	1-SI-A-SEQ	1-1605-Q5-SPA	1-1821-U3-001

7. TOP EVENT(s)/[IE' AFFECTED BY CABLES ASSOCIATED WITH SELECTED SAFETY-RELATED COMPONENTS:

TOP EVENT(S)/[IE] AFFECTED	CABLE	COMPONENT AFFECTED	COMPONENT DESCRIPTION
4KAC-BP	CABLEBUSN/Q	1-BA0305	CIRCUIT BREAKER FOR BUS 1BA4
4KAC_L-A	CABLEBUSW	1-DG-A-DUCT	DIESEL GEN A CABLE BUS DUCT
CON, LOSPB, NCW, SGP	CABLEBUSP/T	1-BA0301	CIRCUIT BREAKER FOR BUS 1BA03
HPI-AP, NCHRG	1ABB12SE	1-HV-8106	CHARGING DISCHARGE MOV
HPI-AP, NCHRG	1ABB12SK	1-HV-8106	CHARGING DISCHARGE MOV

8. SUMMARY OF TOP EVENT(s)/[IE] AFFECTED:

TOP EVENT(S)/[IE] AFFECTED
480A_15-A, 480A_4-A, 480A_5-A, 480A_L15-A, 4KAC-A, 4KAC-AP, 4KAC-BP, 4KAC_L-A, 4KAC_L-AP, AFW-A, AFW-AP, AFW-C, AM (NE), CCW-AP, CI-I/I, CON, EBR-P, ECW-A, HLR-AP, HPI-A, HPI-AP, HPI-P, HPR(C2)-A, HPR-A, ISL, LOSP-A, LOSP-B, LOSPA, LOSPB, LPI-A, LPI-AP, LPR-A, NCHRG, NCHRG-A, NCW, NRHR-A, NRHR-AP, NSCW-A, NSCW-AP, SD-A, SGP, SGP-AP, SLO(1), SLO-A, VESF-A

Table 4.1-2 Summary of the Qualitative Screening (Unit 1)
(Sheet 1 of 9)

FIRE AREA	FIRE ZONE	FIRE ZONE GENERAL DESCRIPTION	QUALITATIVE RISK IMPACT*	QUALITATIVE SCREENING RESULT
1-AB-L1-B	149	SWGR ROOM	T	RETAINED
1-AB-L1-B	43	TRAIN B MCC ROOM	T	RETAINED
1-AB-L1-C	44	TRAIN A MCC ROOM	T	RETAINED
1-AB-L1-G	150	DRUM STORAGE AREA	N	SCREENED
1-AB-L1-H	50	DEMINERALIZER ACCESS HATCH AREA, HOT MACHINE SHOP, DECONTAMINATION ROOMS	N	SCREENED
1-AB-L2-A	141A	TRAIN A MECHANICAL FILTRATION AND EXCHANGER ROOM, PURGE EXHAUST UNIT AREA, EX LOSURE FILTER AND EXHAUST UNIT AREA	T	RETAINED
1-AB-L2-A	172	TRAIN A MECHANICAL FILTRATION AND EXCHANGER ROOM, PURGE EXHAUST UNIT AREA, EX LOSURE FILTER AND EXHAUST UNIT AREA	T	RETAINED
1-AB-L2-A	53	HVAC EQUIPMENT ROOM	T	RETAINED
1-AB-L2-C	147	TRAIN B MECHANICAL FILTRATION AND EXCHANGER ROOM	N	SCREENED
1-AB-L2-E	148	SWITCHGEAR ROOM	T	RETAINED
1-AB-LA-A	11A	TRAIN A ELECTRICAL CHASE	T	RETAINED
1-AB-LA-B	37	TRAIN B- CCW PUMP ROOM	T	RETAINED
1-AB-LA-B	52	TRAIN B- ACCW HEAT EXCHANGER ROOM	T	RETAINED
1-AB-LA-B	55	TRAIN B- CCW HEAT EXCHANGER ROOM	T	RETAINED
1-AB-LA-C	39C	VESTIBULE	T	RETAINED
1-AB-LA-D	39D	TRAIN A PIPING PENETRATION ROOM, HEAT EXCHANGER ROOM, VALVE GALLERY	T	RETAINED
1-AB-LA-E	39A	VESTIBULE, RESTRAINT ROOM, MAIN STEAM VALVE ROOM	T	RETAINED
1-AB-LA-E	45	FEED WATER PENETRATION ROOM	T	RETAINED
1-AB-LB-A	31	TRAIN B MCC ROOM	T	RETAINED
1-AB-LB-A	33	TRAIN SI PUMP ROOM	T	RETAINED
1-AB-LB-A	34	ACCW PUMP ROOM	T	RETAINED
1-AB-LB-A	35	SEAL WATER HEAT EXCHANGER ROOM	T,P	RETAINED
1-AB-LB-B	171	TRAIN A PIPE PENETRATION ROOM	T	RETAINED
1-AB-LB-B	26B	BORON INJECTION PUMP ROOM	T	RETAINED
1-AB-LB-B	39B	PIPE PENETRATION ROOM	T	RETAINED
1-AB-LC-A	16	TRAIN B-RHR HEAT EXCHANGER ROOM	T	RETAINED
1-AB-LC-B	17	TRAIN A ELECTRICAL CHASE	T	RETAINED
1-AB-LC-C	18	TRAIN A-RHR HEAT EXCHANGER ROOM	T	RETAINED
1-AB-LC-D	20	TRAIN A CVCS CHARGING PUMP ROOM	T	RETAINED
1-AB-LC-E	19	TRAIN B CVCS CHARGING PUMP ROOM	T	RETAINED
1-AB-LD-A	11B	TRAIN B PIPE CHASE	T	RETAINED
1-AB-LD-A	9	TRAIN B RHR PUMP ROOM	T	RETAINED
1-AB-LD-B	12	LAUNDRY AND HOT SHOWER TANK ROOM, ELECTRIC BOILER ROOM, FLOOR	T	RETAINED
1-AB-LD-B	139	FLOOR DRAIN TANK ROOM, FILTER AREA, SUMP AND SUMP PUMP AREA, WASTE HOLD-UP TANK ROOM, VALVE GALLERY, BORON RECYCLE HOLD UP TANK ROOM, WASTE EVAPORATOR FEED PUMP ROOM, etc.	N	SCREENED

Table 4.1-2 Summary of the Qualitative Screening (Unit 1)
(Sheet 2 of 9)

1-AB-LD-B	142	FLOOR DRAIN TANK ROOM, FILTER AREA, SUMP AND SUMP PUMP AREA, WASTE HOLD-UP TANK ROOM, VALVE GALLERY, BORON RECYCLE HOLD UP TANK ROOM, WASTE EVAPORATOR FEED PUMP ROOM, etc.	N,P	RETAINED
1-AB-LD-B	192	FLOOR DRAIN TANK ROOM, FILTER AREA, SUMP AND SUMP PUMP AREA, WASTE HOLD-UP TANK ROOM, VALVE GALLERY, BORON RECYCLE HOLD UP TANK ROOM, WASTE EVAPORATOR FEED PUMP ROOM, etc.	N	SCREENED
1-AB-LD-B	24	FLOOR DRAIN TANK ROOM, FILTER AREA, SUMP AND SUMP PUMP AREA, WASTE HOLD-UP TANK ROOM, VALVE GALLERY, BORON RECYCLE HOLD UP TANK ROOM, WASTE EVAPORATOR FEED PUMP ROOM, etc.	T,P	RETAINED
1-AB-LD-B	25	FLOOR DRAIN TANK ROOM, FILTER AREA, SUMP AND SUMP PUMP AREA, WASTE HOLD-UP TANK ROOM, VALVE GALLERY, BORON RECYCLE HOLD UP TANK ROOM, WASTE EVAPORATOR FEED PUMP ROOM, etc.	N	SCREENED
1-AB-LD-B	27	FLOOR DRAIN TANK ROOM, FILTER AREA, SUMP AND SUMP PUMP AREA, WASTE HOLD-UP TANK ROOM, VALVE GALLERY, BORON RECYCLE HOLD UP TANK ROOM, WASTE EVAPORATOR FEED PUMP ROOM, etc.	N	SCREENED
1-AB-LD-B	28	FLOOR DRAIN TANK ROOM, FILTER AREA, SUMP AND SUMP PUMP AREA, WASTE HOLD-UP TANK ROOM, VALVE GALLERY, BORON RECYCLE HOLD UP TANK ROOM, WASTE EVAPORATOR FEED PUMP ROOM, etc.	N	SCREENED
1-AB-LD-B	38	FLOOR DRAIN TANK ROOM, FILTER AREA, SUMP AND SUMP PUMP AREA, WASTE HOLD-UP TANK ROOM, VALVE GALLERY, BORON RECYCLE HOLD UP TANK ROOM, WASTE EVAPORATOR FEED PUMP ROOM, etc.	T	RETAINED
1-AB-LD-B	40	FLOOR DRAIN TANK ROOM, FILTER AREA, SUMP AND SUMP PUMP AREA, WASTE HOLD-UP TANK ROOM, VALVE GALLERY, BORON RECYCLE HOLD UP TANK ROOM, WASTE EVAPORATOR FEED PUMP ROOM, etc.	T	RETAINED
1-AB-LD-B	41	FLOOR DRAIN TANK ROOM, FILTER AREA, SUMP AND SUMP PUMP AREA, WASTE HOLD-UP TANK ROOM, VALVE GALLERY, BORON RECYCLE HOLD UP TANK ROOM, WASTE EVAPORATOR FEED PUMP ROOM, etc.	N	SCREENED
1-AB-LD-B	42A	FLOOR DRAIN TANK ROOM, FILTER AREA, SUMP AND SUMP PUMP AREA, WASTE HOLD-UP TANK ROOM, VALVE GALLERY, BORON RECYCLE HOLD UP TANK ROOM, WASTE EVAPORATOR FEED PUMP ROOM, etc.	N	SCREENED
1-AB-LD-B	46	FLOOR DRAIN TANK ROOM, FILTER AREA, SUMP AND SUMP PUMP AREA, WASTE HOLD-UP TANK ROOM, VALVE GALLERY, BORON RECYCLE HOLD UP TANK ROOM, WASTE EVAPORATOR FEED PUMP ROOM, etc.	T	RETAINED
1-AB-LD-B	47	FLOOR DRAIN TANK ROOM, FILTER AREA, SUMP AND SUMP PUMP AREA, WASTE HOLD-UP TANK ROOM, VALVE GALLERY, BORON RECYCLE HOLD UP TANK ROOM, WASTE EVAPORATOR FEED PUMP ROOM, etc.	N,P	RETAINED

Table 4.1-2 Summary of the Qualitative Screening (Unit 1) (Sheet 3 of 9)

1-AB-LD-B	81A	FLOOR DRAIN TANK ROOM, FILTER AREA, SUMP AND SUMP PUMP AREA, WASTE HOLD-UP TANK ROOM, VALVE GALLERY, BORON RECYCLE HOLD UP TANK ROOM, WASTE EVAPORATOR FEED PUMP ROOM, etc.	N	SCREENED
1-AB-LD-C	190	TRAIN B RHR PUMP ROOM ESF COOLER ROOM	N	SCREENED
1-AB-LD-D	10	TRAIN A RHR PUMP ROOM & TRAIN A PIPE CHASE	T	RETAINED
1-AB-LD-D	8	TRAIN A RHR PUMP ROOM & TRAIN A PIPE CHASE	T	RETAINED
1-AB-LD-E	189	TRAIN A RHR PUMP ROOM ESF COOLER ROOM	N	SCREENED
1-AB-LD-F	184	HVAC SHAFT	N	SCREENED
1-AB-LD-G	14A	VESTIBULE	N,P	RETAINED
1-AB-LD-G	14B	VESTIBULE	T,P	RETAINED
1-AB-LD-G	14B	VESTIBULE	T	RETAINED
1-AB-LD-G	14C	VESTIBULE	T	RETAINED
1-AB-LD-G	14D	BORIC ACID BATCHING TANK ROOM	T	RETAINED
1-AB-LD-G	21	CVCS POS DISP CHARGING PUMP ROOM	T	RETAINED
1-AB-LD-G	22	MCC ROOM	T	RETAINED
1-AB-LD-G	26A	TRAIN A CONTAINMENT SPRAY PUMP ROOM AND BORIC ACID TRANSFER PUMP ROOM, TRAIN A PIPE PENETRATION ROOM, SGB HEAT EXCHANGER ROOM, TRAIN A CCW PUMPS ROOM, TRAIN A ACCW AND CCW HEAT EXCHANGER ROOM, etc.	T	RETAINED
1-AB-LD-G	3	BORIC ACID STORAGE TANK ROOM	T	RETAINED
1-AB-LD-G	30	TRAIN A ACCW PUMP ROOM	T	RETAINED
1-AB-LD-G	32	TRAIN A CONTAINMENT SPRAY PUMP ROOM AND BORIC ACID TRANSFER PUMP ROOM, TRAIN A PIPE PENETRATION ROOM, SGB HEAT EXCHANGER ROOM, TRAIN A CCW PUMPS ROOM, TRAIN A ACCW AND CCW HEAT EXCHANGER ROOM, etc.	T	RETAINED
1-AB-LD-G	36	TRAIN A CCW PUMPS ROOM	T	RETAINED
1-AB-LD-G	48	TRAIN A CONTAINMENT SPRAY PUMP ROOM AND BORIC ACID TRANSFER PUMP ROOM, TRAIN A PIPE PENETRATION ROOM, SGB HEAT EXCHANGER ROOM, TRAIN A CCW PUMPS ROOM, TRAIN A ACCW AND CCW HEAT EXCHANGER ROOM, etc.	T	RETAINED
1-AB-LD-G	49	TRAIN A ACCW HX ROOM	N	SCREENED
1-AB-LD-G	5	TRAIN A CONTAINMENT SPRAY PUMP ROOM AND BORIC ACID TRANSFER PUMP ROOM, TRAIN A PIPE PENETRATION ROOM, SGB HEAT EXCHANGER ROOM, TRAIN A CCW PUMPS ROOM, TRAIN A ACCW AND CCW HEAT EXCHANGER ROOM, etc.	T	RETAINED
1-AB-LD-G	54	TRAIN A CCW HX ROOM	T	RETAINED
1-AB-LD-H	2	TRAIN A SWITCH GEAR ROOM	T	RETAINED
1-AB-LD-I	1	TRAIN A PIPING ROOM, SPRAY ADDITIVE TANK ROOM	T	RETAINED
1-AB-LD-I	23	TRAIN A PIPING ROOM, CONTAINMENT SPRAY ROOM AND ELECTRICAL CHASE, SPRAY ADDITIVE TANK ROOM	T	RETAINED
1-AB-LD-I	4	TRAIN A PIPING ROOM, CONTAINMENT SPRAY ROOM AND ELECTRICAL CHASE, SPRAY ADDITIVE TANK ROOM	T	RETAINED
1-AB-LD-J	6	TRAIN A BORIC ACID TRANSFER PUMP ROOM	T	RETAINED
1-AFB-A	155	TRAIN B -AUXILIARY FEED WATER PUMP ROOM	I,Z,W	SCREENED
1-AFB-B	156	TRAIN A -AUXILIARY FEED WATER PUMP ROOM	T	RETAINED
1-AFB-C	157A	TRAIN C -AUXILIARY FEED WATER PUMP ROOM	T	RETAINED
1-AFB-C	193	TRAIN C -AUXILIARY FEED WATER PUMP ROOM	N	SCREENED
1-AFB-C	194	TRAIN C -AUXILIARY FEED WATER PUMP ROOM	N	SCREENED
1-AFB-D	157B	CONDENSATE STORAGE TANK ROOM	T	RETAINED
1-CB-L1-A	105-1	MAIN CONTROL ROOM	T	RETAINED

Table 4.1-2 Summary of the Qualitative Screening (Unit 1)
(Sheet 4 of 9)

1-CB-L1-A	105-2	MAIN CONTROL ROOM	N	SCREENED
1-CB-L1-A	106	CONTROL ROOMS, KITCHEN AND CONFERENCE ROOMS	N	SCREENED
1-CB-L1-A	183A	CONTROL ROOMS, KITCHEN AND CONFERENCE ROOMS	N	SCREENED
1-CB-L1-B	109	DRUM STORAGE AND FIRST AID ROOMS, CORRIDORS, HEALTH PHYSICS STORAGE, TECHNICAL WORK ROOMS	N	SCREENED
1-CB-L1-B	111	RADIOCHEMICAL LABORATORY	T	RETAINED
1-CB-L1-B	112	LOW LEVEL LABORATORY	T	RETAINED
1-CB-L1-B	113	DRUM STORAGE AND FIRST AID ROOMS, CORRIDORS, HEALTH PHYSICS STORAGE, TECHNICAL WORK ROOMS	T	RETAINED
1-CB-L1-B	114	DRUM STORAGE AND FIRST AID ROOMS, CORRIDORS, HEALTH PHYSICS STORAGE, TECHNICAL WORK ROOMS	T	RETAINED
1-CB-L1-B	115	DRUM STORAGE AND FIRST AID ROOMS, CORRIDORS, HEALTH PHYSICS STORAGE, TECHNICAL WORK ROOMS	T	RETAINED
1-CB-L1-B	116	DRUM STORAGE AND FIRST AID ROOMS, CORRIDORS, HEALTH PHYSICS STORAGE, TECHNICAL WORK ROOMS	T	RETAINED
1-CB-L1-B	117	DRUM STORAGE AND FIRST AID ROOMS, CORRIDORS, HEALTH PHYSICS STORAGE, TECHNICAL WORK ROOMS	T	RETAINED
1-CB-L1-B	118	DRUM STORAGE AND FIRST AID ROOMS, CORRIDORS, HEALTH PHYSICS STORAGE, TECHNICAL WORK ROOMS	T	RETAINED
1-CB-L1-B	119	DRUM STORAGE AND FIRST AID ROOMS, CORRIDORS, HEALTH PHYSICS STORAGE, TECHNICAL WORK ROOMS	T	RETAINED
1-CB-L1-B	124	DRUM STORAGE AND FIRST AID ROOMS, CORRIDORS, HEALTH PHYSICS STORAGE, TECHNICAL WORK ROOMS	T	RETAINED
1-CB-L1-B	183B	DRUM STORAGE AND FIRST AID ROOMS, CORRIDORS, HEALTH PHYSICS STORAGE, TECHNICAL WORK ROOMS	T	RETAINED
1-CB-L1-B	185	Level 1 Men's Room	T	RETAINED
1-CB-L1-C	176	TRAIN B- ELECTRICAL SHAFT	T	RETAINED
1-CB-L1-D	177	NORMAL ELECTRICAL SHAFT	N	SCREENED
1-CB-L1-E	108	NORMAL ELECTRICAL SHAFT	T	RETAINED
1-CB-L1-F	107	TRAIN A- ELECTRICAL SHAFT	T	RETAINED
1-CB-L1-G	110	RECORD STORAGE ROOM	T	RETAINED
1-CB-L1-TSC	601	TECHNICAL SUPPORT CENTER	N	SCREENED
1-CB-L1-TSC	602	TECHNICAL SUPPORT CENTER	N	SCREENED
1-CB-L1-TSC	603	TECHNICAL SUPPORT CENTER	N,P	RETAINED
1-CB-L1-TSC	604	TECHNICAL SUPPORT CENTER	N	SCREENED
1-CB-L1-TSC	605	TECHNICAL SUPPORT CENTER	N	SCREENED
1-CB-L2-A	121	TRAIN B- AUXILIARY RELAY ROOM	T,P	RETAINED
1-CB-L2-B	120	TRAIN B- CABLE SPREADING ROOM	T	RETAINED
1-CB-L2-E	122A	HVAC ROOM	T	RETAINED
1-CB-L2-E	122B	INVERTER CHARGER PANEL, BATTERY, COMPUTER AND STORAGE ROOMS, FIRE PROTECTION VALVE ROOM, AND LUBE OIL ANALYSIS ROOM, etc.	T	RETAINED
1-CB-L2-E	123	INVERTER CHARGER PANEL, BATTERY, COMPUTER AND STORAGE ROOMS, FIRE PROTECTION VALVE ROOM, AND LUBE OIL ANALYSIS ROOM, etc.	T	RETAINED
1-CB-L2-E	127	INVERTER CHARGER PANEL, BATTERY, COMPUTER AND STORAGE ROOMS, FIRE PROTECTION VALVE ROOM, AND LUBE OIL ANALYSIS ROOM, etc.	T	RETAINED
1-CB-L2-E	128	INVERTER CHARGER PANEL, BATTERY, COMPUTER AND STORAGE ROOMS, FIRE PROTECTION VALVE ROOM, AND LUBE OIL ANALYSIS ROOM, etc.	N	SCREENED

Table 4.1-2 Summary of the Qualitative Screening (Unit 1) (Sheet 5 of 9)

1-CB-L2-E	129	INVERTER CHARGER PANEL, BATTERY, COMPUTER AND STORAGE ROOMS, FIRE PROTECTION VALVE ROOM, AND LUBE OIL ANALYSIS ROOM, etc.	N	SCREENED
1-CB-L2-E	130	INVERTER CHARGER PANEL, BATTERY, COMPUTER AND STORAGE ROOMS, FIRE PROTECTION VALVE ROOM, AND LUBE OIL ANALYSIS ROOM, etc.	N	SCREENED
1-CB-L2-E	131	WAREHOUSE STORAGE	T	RETAINED
1-CB-L2-E	133A	SECURITY BATTERY ROOM	T	RETAINED
1-CB-L2-E	133B	LOBBY, CORRIDOR	T	RETAINED
1-CB-L2-E	134	HP CALI LAB	T	RETAINED
1-CB-L2-E	182	INVERTER CHARGER PANEL, BATTERY, COMPUTER AND STORAGE ROOMS, FIRE PROTECTION VALVE ROOM, AND LUBE OIL ANALYSIS ROOM, etc.	T	RETAINED
1-CB-L2-E	201	INVERTER CHARGER PANEL, BATTERY, COMPUTER AND STORAGE ROOMS, FIRE PROTECTION VALVE ROOM, AND LUBE OIL ANALYSIS ROOM, etc.	T	RETAINED
1-CB-L3-A	179	TRAIN B- ELECTRICAL EQUIPMENT ROOM	T	RETAINED
1-CB-L3-B	180	NORMAL ELECTRICAL SHAFT	T	RETAINED
1-CB-L3-C	178	TRAIN A ELECTRICAL SHAFT	T	RETAINED
1-CB-L3-H	135	NORMAL HVAC EQUIPMENT ROOM	T	RETAINED
1-CB-L3-J	126B	UNIT 2 TRAIN A FILTER ROOM AND CHILLER ROOM	N	SCREENED
1-CB-L3-K	125B	UNIT 2 TRAIN B FILTER ROOM, CHILLER ROOM AND WATER HEATER ROOM	N	SCREENED
1-CB-L3-K	136	UNIT 2 TRAIN B FILTER ROOM, CHILLER ROOM AND WATER HEATER ROOM	T	RETAINED
1-CB-L3-L	137	LOBBY AND CORRIDOR	T	RETAINED
1-CB-L3-M	125A	TRAIN B FILTER AND CHILLER ROOMS	T	RETAINED
1-CB-L3-M	57B	TRAIN B FILTER AND CHILLER ROOMS	N	SCREENED
1-CB-L4-A	170	HVAC ROOMS	T	RETAINED
1-CB-L4-A	181	HVAC ROOMS	N	SCREENED
1-CB-LA-A	101	TRAIN A HVAC ROOM, CORRIDOR	T	RETAINED
1-CB-LA-B	89	TRAIN A ELECTRICAL PENETRATION AREA	T	RETAINED
1-CB-LA-C	159	SWITCHGEAR AND MCC ROOM	N	SCREENED
1-CB-LA-C	90	SWITCHGEAR AND MCC ROOM	T	RETAINED
1-CB-LA-D	104	MAIN STEAM VALVE AREA	T	RETAINED
1-CB-LA-D	99	FEED WATER VALVE AREA	T	RETAINED
1-CB-LA-E	195	PIPING SHAFT	N	SCREENED
1-CB-LA-F	84	ELECTRICAL TUNNEL	T	RETAINED
1-CB-LA-G	103	TRAIN A SHUTDOWN ROOM	T	RETAINED
1-CB-LA-G	91	TRAIN A 4.16 kV SWITCHGEAR ROOM	T	RETAINED
1-CB-LA-H	92	TRAIN B 4.16 kV SWITCHGEAR ROOM	T	RETAINED
1-CB-LA-I	88	TRAIN B: PENETRATION AREA AND CORRIDORS	T	RETAINED
1-CB-LA-I	93	TRAIN B: PENETRATION AREA AND CORRIDORS	T	RETAINED
1-CB-LA-J	158	MOTOR CONTROL CENTER ROOM	T	RETAINED
1-CB-LA-K	95	LOWER CABLE SPREADING ROOM	T	RETAINED
1-CB-LA-L	98	TRAIN B SHUTDOWN ROOM	T	RETAINED
1-CB-LA-M	96	COMPUTER ROOM	N	SCREENED
1-CB-LA-N	85	EAST, WEST AND NORTH, SOUTH CORRIDORS	T	RETAINED
1-CB-LA-N	86	EAST, WEST AND NORTH, SOUTH CORRIDORS	T	RETAINED
1-CB-LA-N	94	AUXILIARY RELAY ROOM	T	RETAINED
1-CB-LA-O	174	NORMAL ELECTRICAL SHAFT	T	RETAINED

Table 4.1-2 Summary of the Qualitative Screening (Unit 1)
(Sheet 6 of 9)

1-CB-LA-P	173	TRAIN A ELECTRICAL SHAFT	T	RETAINED
1-CB-LA-Q	175	NORMAL ELECTRICAL SHAFT	T	RETAINED
1-CB-LA-R	97	TRAIN B ELECTRICAL SHAFT	T	RETAINED
1-CB-LA-S	100	TRAIN A HVAC ROOM	T	RETAINED
1-CB-LA-T	102	PENETRATION AREA	T	RETAINED
1-CB-LA-T	87	13.8-kV SWITCHGEAR, PENETRATION AREA	T	RETAINED
1-CB-LA-U	154	LOBBY, STORAGE ROOM, HVAC ROOM, CORRIDOR	N	SCREENED
1-CB-LA-U	169	LOBBY, STORAGE ROOM, HVAC ROOM, CORRIDOR	T	RETAINED
1-CB-LB-A	143	TRAIN A CORRIDOR AND ELECTRICAL MEZZANINE, HVAC ROOM, ROD CONTROL EQUIPMENT ROOM, ELECTRICAL TUNNEL 1T4A	T	RETAINED
1-CB-LB-A	59	TRAIN A CORRIDOR AND ELECTRICAL MEZZANINE, HVAC ROOM, ROD CONTROL EQUIPMENT ROOM, ELECTRICAL TUNNEL 1T4A	N	SCREENED
1-CB-LB-A	69	ROD CONTROL EQUIPMENT ROOM	T,P	RETAINED
1-CB-LB-A	72	HVAC ROOM	T	RETAINED
1-CB-LB-A	73	TRAIN A CORRIDOR AND ELECTRICAL MEZZANINE, HVAC ROOM, ROD CONTROL EQUIPMENT ROOM, ELECTRICAL TUNNEL 1T4A	T	RETAINED
1-CB-LB-B	75	TRAIN A SWITCHGEAR ROOM	T	RETAINED
1-CB-LB-C	79A	TRAIN B CHANNEL 2 SWITCHGEAR/ BATTERY ROOM	T	RETAINED
1-CB-LB-D	144	TRAIN B CORRIDOR, M.G. SET ROOM, PENETRATION AREA, HVAC ROOM, PENETRATION ROOM, ELECTRICAL TUNNEL 1T4B	T	RETAINED
1-CB-LB-D	60	TRAIN B PENETRATION AREA	T	RETAINED
1-CB-LB-D	62	PENETRATION ROOM	T	RETAINED
1-CB-LB-D	65	TRAIN B CORRIDOR, M.G. SET ROOM, PENETRATION AREA, HVAC ROOM, PENETRATION ROOM, ELECTRICAL TUNNEL 1T4B	T	RETAINED
1-CB-LB-D	66	TRAIN B CORRIDOR, M.G. SET ROOM, PENETRATION AREA, HVAC ROOM, PENETRATION ROOM, ELECTRICAL TUNNEL 1T4B	T	RETAINED
1-CB-LB-D	67	TRAIN B CORRIDOR, M.G. SET ROOM, PENETRATION AREA, HVAC ROOM, PENETRATION ROOM, ELECTRICAL TUNNEL 1T4B	T	RETAINED
1-CB-LB-D	68	TRAIN B CORRIDOR, M.G. SET ROOM, PENETRATION AREA, HVAC ROOM, PENETRATION ROOM, ELECTRICAL TUNNEL 1T4B	T	RETAINED
1-CB-LB-D	70	TRAIN B HVAC ROOM	T	RETAINED
1-CB-LB-E	76	NON-TRAIN DC ROOM	T	RETAINED
1-CB-LB-F	74	NON-TRAIN SWITCHGEAR ROOM	T	RETAINED
1-CB-LB-G	63	TRAIN B- ELECTRICAL PENETRATION ROOM	N,P	RETAINED
1-CB-LB-G	82	TRAIN B- ELECTRICAL PENETRATION ROOM	N,P	RETAINED
1-CB-LB-H	71	TRAIN B SWITCHGEAR ROOM	T	RETAINED
1-CB-LB-I	83	NON-TRAIN ELECTRICAL ROOM	T	RETAINED
1-CB-LB-J	56B	TRAIN D CHANNEL 4 SWITCHGEAR/ BATTERY ROOM	T	RETAINED
1-CB-LB-K	77B	TRAIN C CHANNEL 3 SWITCHGEAR/ BATTERY ROOM	T	RETAINED
1-CB-LB-L	77A	TRAIN C CHANNEL 3 SWITCHGEAR/ BATTERY ROOM	T	RETAINED
1-CB-LB-M	78B	TRAIN A CHANNEL 1 SWITCHGEAR/ BATTERY ROOM	T	RETAINED
1-CB-LB-N	78A	TRAIN A CHANNEL 1 SWITCHGEAR/ BATTERY ROOM	T	RETAINED
1-CB-LB-O	56A	TRAIN D CHANNEL 4 SWITCHGEAR/ BATTERY ROOM	T	RETAINED
1-CB-LB-P	152	TRAIN B ELECTRICAL ROOM	T	RETAINED
1-CB-LB-Q	79B	TRAIN B CHANNEL 2 SWITCHGEAR/ BATTERY ROOM	T	RETAINED
1-CB-LB-R	191	WASTE MONITOR TANK AND PUMP ROOM	N	SCREENED
1-CB-LB-S	57A	TRAIN B MECHANICAL CHASE	N	SCREENED
1-CB-LB-T	61	TRAIN A PENETRATION ROOM	T	RETAINED
1-CB-LB-T	64	TRAIN A MCC ROOM	T,P	RETAINED
1-CB-LB-T	64	TRAIN A MCC ROOM	T	RETAINED
1-CB-LC-A	126A	TRAIN A FILTER/CHILLER ROOM	T	RETAINED

Table 4.1-2 Summary of the Qualitative Screening (Unit 1)
(Sheet 7 of 9)

1-CB-LC-A	151	PARTIAL TRAIN A ELECTRICAL TUNNEL, TRAIN A ELECTRICAL CHASE, TRAIN A MECHANICAL SHAFT, TRAIN A FILTER, CHILLER ROOM NORMAL ELECTRICAL SHAFT	T	RETAINED
1-CB-LC-A	153	PARTIAL TRAIN A ELECTRICAL TUNNEL, TRAIN A ELECTRICAL CHASE, TRAIN A MECHANICAL SHAFT, TRAIN A FILTER, CHILLER ROOM NORMAL ELECTRICAL SHAFT	T	RETAINED
1-CB-LC-A	42B	PARTIAL TRAIN A ELECTRICAL TUNNEL, TRAIN A ELECTRICAL CHASE, TRAIN A MECHANICAL SHAFT, TRAIN A FILTER, CHILLER ROOM NORMAL ELECTRICAL SHAFT	T	RETAINED
1-CB-LC-A	81B	PARTIAL TRAIN A ELECTRICAL TUNNEL, TRAIN A ELECTRICAL CHASE, TRAIN A MECHANICAL SHAFT, TRAIN A FILTER, CHILLER ROOM NORMAL ELECTRICAL SHAFT	N	SCREENED
1-CB-LC-B	138	NON-TRAIN SWITCHGEAR, NORMAL HVAC, LOBBY, CORRIDOR	T	RETAINED
1-CB-LC-B	58	NON-TRAIN SWITCHGEAR, NORMAL HVAC, LOBBY, CORRIDOR	T	RETAINED
1-CB-LC-B	80	NON-TRAIN SWITCHGEAR, NORMAL HVAC, LOBBY, CORRIDOR	T	RETAINED
1-CTB	140A	CONTAINMENT	T	RETAINED
1-CTB	140B	CONTAINMENT	T	RETAINED
1-CTB	140C	CONTAINMENT	T	RETAINED
1-CTB	140E	CONTAINMENT	T	RETAINED
1-DB-L1-A	161	DIESEL GENERATOR BUILDING	T	RETAINED
1-DB-L1-B	162	TRAIN B DIESEL GENERATOR, INTAKE FILTER, FAN ROOM, AIR PLENUM ROOM, EXHAUST SILENCER ROOM, DUCT PENETRATION ROOM	T	RETAINED
1-DB-L1-C	163	TRAIN A FUEL OIL DAY TANK ROOM	T	RETAINED
1-DB-L1-D	164	TRAIN B FUEL OIL DAY TANK ROOM	T	RETAINED
1-DPB-A	165	DIESEL PUMPHOUSE	T,P	RETAINED
1-DPB-B	166	DIESEL PUMP ROOM, VALVE ROOM	T,P	RETAINED
1-EB-B	141B	FILTER EXHAUST UNIT AREA, VALVE ROOM	T	RETAINED
1-FB-L3-A	167	TRAIN A POST-ACCIDENT EXHAUST FILTER ROOM	N	SCREENED
1-FB-L3-B	168	TRAIN B POST-ACCIDENT EXHAUST FILTER ROOM	N	SCREENED
1-FB-LC-A	132	PIPE PENETRATION ROOMS, SPENT FUEL PIT HEAT EXCHANGER ROOM, ELECTRICAL CHASE	T	RETAINED
1-FB-LC-A	15	PIPE PENETRATION ROOMS, SPENT FUEL PIT HEAT EXCHANGER ROOM, ELECTRICAL CHASE	T	RETAINED
1-FB-LC-A	29	PIPE PENETRATION ROOMS, SPENT FUEL PIT HEAT EXCHANGER ROOM, ELECTRICAL CHASE	N	SCREENED
1-HPB-L1-A	314	HP ROOM	N	SCREENED
1-NSP-LA-A	145	TRAIN A NSCW PUMPHOUSE, COOLING TOWER, TUNNELS 1T2A, 1T3A, AND 1T5A	T	RETAINED
1-NSP-LA-A	160A	TRAIN A NSCW PUMPHOUSE, COOLING TOWER, TUNNELS 1T2A, 1T3A, AND 1T5A	T	RETAINED
1-NSP-LA-B	146	TRAIN B NSCW PUMPHOUSE, COOLING TOWER, REFUELING WATER STORAGE TANK, REACTOR MAKE-UP WATER STORAGE TANK, TUNNELS 1T2B, 1T5B	T	RETAINED
1-NSP-LA-B	160B	TRAIN B NSCW PUMPHOUSE, COOLING TOWER, REFUELING WATER STORAGE TANK, REACTOR MAKE-UP WATER STORAGE TANK, TUNNELS 1T2B, 1T5B	T	RETAINED
1-NSP-LA-B	188	TRAIN B NSCW PUMPHOUSE, COOLING TOWER, REFUELING WATER STORAGE TANK, REACTOR MAKE-UP WATER STORAGE TANK, TUNNELS 1T2B, 1T5B	T	RETAINED
1-NSP-LA-C	146A	TUNNELS ESBT AND 1T3B	N	SCREENED

Table 4.1-2 Summary of the Qualitative Screening (Unit 1)
(Sheet 8 of 9)

1-RTB-L1-A	300	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	300A	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	300B	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	301	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	302	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	303	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	304	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	305	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	306	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	307	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	308	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	309	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	310	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	311	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	312	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	313	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	315	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	316	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	317	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	318	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	319	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	320	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	321	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	322	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	323	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED

Table 4.1-2 Summary of the Qualitative Screening (Unit 1)
(Sheet 9 of 9)

1-RTB-L1-A	325	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-RTB-L1-A	330	VALVE GALLERY, EQUIPMENT ROOM, CONTROL ROOM, DRESSOUT AREA	N	SCREENED
1-TB	500	LEVEL A GENERAL AREA	T,Z,W	SCREENED
1-TB	501	TURBINE LUBE OIL CONDITIONER ROOM	N	SCREENED
1-TB	502	HYDRAZINE, AMMONIA & BATCH TANK ROOM	N	SCREENED
1-TB	503	LEVEL 1 BATTERY ROOM	T,Z,W	SCREENED
1-TB	504	LEVEL 1 SWITCHGEAR ROOM	T,Z,W	SCREENED
1-TB	505	GENERATOR STARTER COOLING UNIT	T,Z,W	SCREENED
1-TB	506	S.G. FEED PUMP A AREA	T,Z,W	SCREENED
1-TB	507	S.G. FEED PUMP B AREA	T,Z,W	SCREENED
1-TB	508	LEVEL 1 GENERAL AREA	T,Z,W	SCREENED
1-TB	509	LEVEL 1 SWITCHGEAR ROOM	T,Z,W	SCREENED
1-TB	510	MAIN LUBE OIL CONDITIONER ROOM	N	SCREENED
1-TB	511	WATER ANALYSIS ROOM	T,Z,W	SCREENED
1-TB	512	LEVEL 2 SWITCHGEAR ROOM	T,Z,W	SCREENED
1-TB	513	LEVEL 2 GENERAL AREA	T,Z,W	SCREENED
1-TB	514	LUBE OIL RESERVOIR	N	SCREENED
1-TB	515	LEVEL 3 GENERAL AREA	N	SCREENED
YARD	OE1	COOLING TOWER	T,Z,W	SCREENED
YARD	PAN	PROTECTED AREA - NORTH (RAT)	T,Z,W	SCREENED
YARD	PAS	PROTECTED AREA - SOUTH (NSCW BUILDINGS, FIELD SUPPORT BUILDING)	N	SCREENED
YARD	XYZ	USER-DEFINED FIRE ZONE	T,Z,W	SCREENED

*Note

I or T - The fire zone contains safety-related equipment or raceway whose failure can cause an initiating event and/or affect a top event. The fire zone was retained for quantitative screening and a localized location scenario was developed in the quantitative screening step.

T,P - A credible fire propagation pathway exists between the T Category fire zone and its adjacent fire zone. A propagation location scenario was also developed for this fire zone in the quantitative screening step.

N,P - The N category fire zone was retained for further evaluation because a credible fire propagation pathway exists between the fire zone and its adjacent fire zone(s). A propagation location scenario was developed for this fire zone in the quantitative screening step.

N - The fire zone has no impact on safety-related component or raceway and was screened from further analysis.

T,Z,W - The fire frequency of indir idual fire source (on the order of 10^{-3} to 10^{-4} per year) in Category T fire zone is relatively lower than other causes (on the order of 10^{-1} for general transient or 10^{-2} for LOSP per year). The walkdown observation also confirmed that there are very low combustible content, and/or very large spatial separation between safety equipment and credible fire sources. The fire zone was screened from further analysis.

Table 4.1-3 List of Location Scenarios and Summary of the Quantitative Screening (Unit 1) (Sheet 1 of 4)

Scenario Designator	Fire Area	Fire Zone	Other Impacted Fire Area [Zone]	Scenario Frequency (1/yr)	CCDF*	UCDF* (1/yr)	Quantitative Screening Result
1-AB-L1-B-149-L	1-AB-L1-B	149	None	3.42E-03	8.10E-04	2.77E-07	Screened
1-AB-L1-B-43-L	1-AB-L1-B	43	None	1.92E-02	5.10E-03	9.79E-06	Retained
1-AB-L1-C-44-L	1-AB-L1-C	44	None	1.92E-02	6.99E-03	1.35E-05	Retained
1-AB-L2-A-141A-L	1-AB-L2-A	141A	None	2.80E-03	2.01E-06	5.62E-10	Screened
1-AB-L2-A-172-L	1-AB-L2-A	172	None	1.71E-03	1.79E-04	3.06E-08	Screened
1-AB-L2-A-53-L	1-AB-L2-A	53	None	6.00E-03	7.35E-03	4.41E-06	Retained
1-AB-L2-E-148-L	1-AB-L2-E	148	None	3.45E-03	1.79E-04	6.15E-08	Screened
1-AB-LA-A-11A-L	1-AB-LA-A	11A	None	1.39E-03	8.93E-03	1.24E-06	Retained
1-AB-LA-B-37-L	1-AB-LA-B	37	None	1.21E-02	8.51E-04	1.03E-06	Retained
1-AB-LA-B-52-L	1-AB-LA-B	52	None	3.82E-03	6.66E-05	2.54E-08	Screened
1-AB-LA-B-55-L	1-AB-LA-B	55	None	1.55E-03	1.27E-03	1.97E-07	Screened
1-AB-LA-C-39C-L	1-AB-LA-C	39C	None	7.44E-03	8.37E-04	6.22E-07	Retained
1-AB-LA-D-39D-L	1-AB-LA-D	39D	None	4.08E-03	3.12E-06	1.27E-09	Screened
1-AB-LA-E-39A-L	1-AB-LA-E	39A	None	2.43E-03	4.01E-03	9.74E-07	Retained
1-AB-LA-E-45-L	1-AB-LA-E	45	None	1.77E-03	9.23E-04	1.64E-07	Screened
1-AB-LB-A-31-L	1-AB-LB-A	31	None	1.39E-02	6.76E-05	9.41E-08	Screened
1-AB-LB-A-33-L	1-AB-LB-A	33	None	7.68E-03	2.07E-03	1.59E-06	Retained
1-AB-LB-A-34-L	1-AB-LB-A	34	None	7.53E-03	2.81E-04	2.11E-07	Screened
1-AB-LB-A-35-L	1-AB-LB-A	35	None	2.26E-03	2.81E-04	6.33E-08	Screened
1-AB-LB-A-35-P	1-AB-LB-A	35	1-AB-LB-A [34]	2.26E-03	2.81E-04	6.33E-08	Screened
1-AB-LB-B-171-L	1-AB-LB-B	171	None	1.08E-02	9.26E-06	1.00E-08	Screened
1-AB-LB-B-26B-L	1-AB-LB-B	26B	None	2.32E-03	1.70E-03	3.94E-07	Screened
1-AB-LB-B-39B-L	1-AB-LB-B	39B	None	1.88E-03	2.81E-03	5.28E-07	Retained
1-AB-LC-A-16-L	1-AB-LC-A	16	None	1.42E-03	2.81E-03	3.98E-07	Screened
1-AB-LC-B-17-L	1-AB-LC-B	17	None	3.65E-03	7.14E-01	2.61E-04	Retained
1-AB-LC-C-18-L	1-AB-LC-C	18	None	4.38E-03	2.81E-03	1.23E-06	Retained
1-AB-LC-D-20-L	1-AB-LC-D	20	None	5.01E-03	2.81E-04	1.41E-07	Screened
1-AB-LC-E-19-L	1-AB-LC-E	19	None	5.51E-03	2.81E-03	1.54E-06	Retained
1-AB-LD-A-11B-L	1-AB-LD-A	11B	None	4.11E-03	5.10E-03	2.09E-06	Retained
1-AB-LD-A-9-L	1-AB-LD-A	9	None	4.54E-03	7.03E-05	3.19E-08	Screened
1-AB-LD-B-12-L	1-AB-LD-B	12	None	1.56E-03	1.23E-03	1.92E-07	Screened
1-AB-LD-B-142-P	1-AB-LD-B	142	1-CB-L3-A [179]	1.98E-03	7.17E-05	1.42E-08	Screened
1-AB-LD-B-24-L	1-AB-LD-B	24	None	1.87E-02	2.81E-03	5.24E-06	Retained
1-AB-LD-B-24-P	1-AB-LD-B	24	1-AB-LD-B [192], 1-AB-LD-B [25]	1.87E-02	2.81E-03	5.24E-06	Screened
1-AB-LD-B-38-L	1-AB-LD-B	38	None	4.49E-02	5.55E-01	2.49E-03	Retained
1-AB-LD-B-40-L	1-AB-LD-B	40	None	7.83E-03	2.04E-05	1.60E-08	Screened
1-AB-LD-B-46-L	1-AB-LD-B	46	None	6.90E-03	9.08E-04	6.26E-07	Retained
1-AB-LD-B-47-P	1-AB-LD-B	47	1-AB-LD-B [46]	3.95E-03	9.08E-04	3.59E-07	Screened
1-AB-LD-D-10-L	1-AB-LD-D	10	None	4.63E-03	8.10E-05	3.75E-08	Screened
1-AB-LD-D-8-L	1-AB-LD-D	8	None	1.38E-03	8.76E-04	1.21E-07	Screened
1-AB-LD-G-14A-P	1-AB-LD-G	14A	1-AB-LD-G [14C]	5.61E-03	2.81E-04	1.57E-07	Screened
1-AB-LD-G-14B-L	1-AB-LD-G	14B	None	3.51E-03	8.31E-04	2.92E-07	Screened
1-AB-LD-G-14B-P	1-AB-LD-G	14B	1-AB-LD-G [22], 1-AB-LD-G [21]	3.51E-03	3.62E-03	1.27E-06	Retained
1-AB-LD-G-14C-L	1-AB-LD-G	14C	None	3.03E-03	2.81E-04	8.50E-08	Screened
1-AB-LD-G-14D-L	1-AB-LD-G	14D	None	1.34E-03	8.95E-04	1.20E-07	Screened
1-AB-LD-G-21-L	1-AB-LD-G	21	None	4.26E-03	8.31E-04	3.54E-07	Screened
1-AB-LD-G-22-L	1-AB-LD-G	22	None	2.47E-03	8.76E-04	2.16E-07	Screened

Table 4.1-3 List of Location Scenarios and Summary of the Quantitative Screening (Unit 1)
(Sheet 2 of 4)

1-AB-LD-G-22-P	1-AB-LD-G	22	1-AB-LD-G [14B], 1-AB-LD-G [14D]	2.47E-03	1.23E-03	3.03E-07	Screened
1-AB-LD-G-26A-L	1-AB-LD-G	26A	None	4.43E-03	1.70E-03	7.53E-07	Retained
1-AB-LD-G-3-L	1-AB-LD-G	3	None	3.41E-03	8.31E-04	2.83E-07	Screened
1-AB-LD-G-30-L	1-AB-LD-G	30	None	4.25E-03	2.07E-03	8.79E-07	Retained
1-AB-LD-G-32-L	1-AB-LD-G	32	None	1.39E-02	6.76E-05	9.40E-08	Screened
1-AB-LD-G-36-L	1-AB-LD-G	36	None	1.09E-02	8.37E-04	9.15E-07	Retained
1-AB-LD-G-48-L	1-AB-LD-G	48	None	1.66E-03	1.98E-02	3.29E-06	Retained
1-AB-LD-G-5-L	1-AB-LD-G	5	None	4.43E-03	8.31E-04	3.69E-07	Screened
1-AB-LD-G-54-L	1-AB-LD-G	54	None	1.49E-03	2.26E-06	3.36E-10	Screened
1-AB-LD-H-2-L	1-AB-LD-H	2	None	1.39E-03	8.13E-04	1.13E-07	Screened
1-AB-LD-I-1-L	1-AB-LD-I	1	None	1.84E-03	8.76E-04	1.62E-07	Screened
1-AB-LD-I-23-L	1-AB-LD-I	23	None	1.95E-03	2.31E-02	4.52E-06	Retained
1-AB-LD-I-4-L	1-AB-LD-I	4	None	6.00E-03	2.01E-06	1.20E-09	Screened
1-AB-LD-J-6-L	1-AB-LD-J	6	None	1.27E-03	2.01E-06	2.54E-10	Screened
1-AFB-B-156-L	1-AFB-B	156	None	4.57E-03	3.04E-05	1.39E-08	Screened
1-AFB-C-157A-L	1-AFB-C	157A	None	3.40E-02	3.69E-06	1.26E-08	Screened
1-AFB-D-157B-L	1-AFB-D	157B	None	1.61E-03	2.01E-06	3.23E-10	Screened
1-CB-L1-A-105-1-L	1-CB-L1-A	105-1	None	3.18E-02	1.00E+01	3.18E-02	Retained
1-CB-L1-B-111-L	1-CB-L1-B	111	None	1.88E-03	2.01E-0[illegible]	3.79E-10	Screened
1-CB-L1-B-112-L	1-CB-L1-B	112	None	1.27E-03	2.01E-06	2.55E-10	Screened
1-CB-L1-B-113-L	1-CB-L1-B	113	None	3.86E-03	6.57E-04	2.54E-07	Screened
1-CB-L1-B-114-L	1-CB-L1-B	114	None	2.53E-03	2.01E-06	5.10E-10	Screened
1-CB-L1-B-115-L	1-CB-L1-B	115	None	1.27E-03	2.96E-06	3.76E-10	Screened
1-CB-L1-B-116-L	1-CB-L1-B	116	None	1.27E-03	6.78E-05	8.57E-09	Screened
1-CB-L1-B-117-L	1-CB-L1-B	117	None	6.53E-03	2.01E-06	1.32E-09	Screened
1-CB-L1-B-118-L	1-CB-L1-B	118	None	3.85E-03	2.01E-06	7.75E-10	Screened
1-CB-L1-B-119-L	1-CB-L1-B	119	None	1.67E-03	2.01E-06	3.37E-10	Screened
1-CB-L1-B-124-L	1-CB-L1-B	124	None	3.80E-03	2.01E-06	7.65E-10	Screened
1-CB-L1-B-183B-L	1-CB-L1-B	183B	None	3.83E-03	6.78E-05	2.60E-08	Screened
1-CB-L1-B-185-L	1-CB-L1-B	185	None	3.83E-03	6.78E-05	2.60E-08	Screened
1-CB-L1-C-176-L	1-CB-L1-C	176	None	1.66E-03	2.54E-01	4.22E-05	Retained
1-CB-L1-E-108-L	1-CB-L1-E	108	None	2.03E-03	1.69E-03	3.43E-07	Screened
1-CB-L1-F-107-L	1-CB-L1-F	107	None	1.80E-03	1.30E-03	2.33E-07	Screened
1-CB-L1-G-110-L	1-CB-L1-G	110	None	2.53E-03	2.01E-06	5.09E-10	Screened
1-CB-L1-TSC-603-P	1-CB-L1-TSC	603	1-CB-L1-TSC [604], 1-CB-L1-TSC	9.56E-03	2.12E-04	2.03E-07	Screened
1-CB-L2-A-121-L	1-CB-L2-A	121	None	8.87E-03	2.50E-03	2.21E-06	Retained
1-CB-L2-A-121-P	1-CB-L2-A	121	1-CB-LC-A [153], 1-CB-L2-B [120]	8.87E-03	2.65E-02	2.35E-05	Retained
1-CB-L2-B-120-L	1-CB-L2-B	120	None	7.30E-03	2.65E-02	1.94E-05	Retained
1-CB-L2-E-122A-L	1-CB-L2-E	122A	None	3.48E-03	2.01E-06	7.00E-10	Screened
1-CB-L2-E-122B-L	1-CB-L2-E	122B	None	4.17E-03	2.01E-06	8.39E-10	Screened
1-CB-L2-E-123-L	1-CB-L2-E	123	None	1.27E-03	2.01E-06	2.55E-10	Screened
1-CB-L2-E-127-L	1-CB-L2-E	127	None	7.43E-03	2.01E-06	1.49E-09	Screened
1-CB-L2-E-131-L	1-CB-L2-E	131	None	2.89E-03	2.01E-06	5.82E-10	Screened
1-CB-L2-E-133A-L	1-CB-L2-E	133A	None	3.90E-03	2.01E-06	7.85E-10	Screened
1-CB-L2-E-133B-L	1-CB-L2-E	133B	None	5.04E-03	2.65E-02	1.34E-05	Retained
1-CB-L2-E-134-L	1-CB-L2-E	134	None	3.96E-03	2.54E-01	1.00E-04	Retained
1-CB-L2-E-182-L	1-CB-L2-E	182	None	4.25E-03	2.01E-06	8.56E-10	Screened
1-CB-L2-E-201-L	1-CB-L2-E	201	None	2.53E-03	2.01E-06	5.10E-10	Screened
1-CB-L3-A-179-L	1-CB-L3-A	179	None	6.41E-03	7.17E-05	4.59E-08	Screened
1-CB-L3-B-180-L	1-CB-L3-B	180	None	1.44E-03	2.05E-06	2.96E-10	Screened
1-CB-L3-C-178-L	1-CB-L3-C	178	None	1.41E-03	1.30E-03	1.83E-07	Screened

Table 4.1-3 List of Location Scenarios and Summary of the Quantitative Screening (Unit 1)
(Sheet 3 of 4)

1-CB-L3-H-135-L	1-CB-L3-H	135	None	6.37E-03	2.13E-06	1.35E-09	Screened
1-CB-L3-K-136-L	1-CB-L3-K	136	None	9.80E-03	2.05E-06	2.01E-09	Screened
1-CB-L3-L-137-L	1-CB-L3-L	137	None	4.00E-03	6.77E-05	2.71E-08	Screened
1-CB-L3-M-125A-L	1-CB-L3-M	125A	None	2.85E-03	6.77E-05	1.93E-08	Screened
1-CB-L4-A-170-L	1-CB-L4-A	170	None	1.69E-02	2.05E-06	3.47E-09	Screened
1-CB-LA-A-101-L	1-CB-LA-A	101	None	2.68E-03	2.01E-06	5.38E-10	Screened
1-CB-LA-B-89-L	1-CB-LA-B	89	None	3.37E-03	2.01E-06	6.77E-10	Screened
1-CB-LA-C-90-L	1-CB-LA-C	90	None	1.08E-02	1.07E-05	1.16E-08	Screened
1-CB-LA-D-104-L	1-CB-LA-D	104	None	1.78E-03	6.68E-05	1.19E-08	Screened
1-CB-LA-D-99-L	1-CB-LA-D	99	None	2.84E-03	3.65E-05	1.04E-08	Screened
1-CB-LA-F-84-L	1-CB-LA-F	84	None	3.75E-03	3.95E-02	1.48E-05	Retained
1-CB-LA-G-103-L	1-CB-LA-G	103	None	2.97E-03	2.17E-03	6.46E-07	Retained
1-CB-LA-G-91-L	1-CB-LA-G	91	None	1.18E-02	9.17E-02	1.08E-04	Retained
1-CB-LA-H-92-L	1-CB-LA-H	92	None	8.30E-03	8.78E-02	7.29E-05	Retained
1-CB-LA-I-88-L	1-CB-LA-I	88	None	1.68E-03	5.83E-02	9.76E-06	Retained
1-CB-LA-I-93-L	1-CB-LA-I	93	None	3.74E-03	2.65E-02	9.92E-06	Retained
1-CB-LA-J-158-L	1-CB-LA-J	158	None	2.29E-03	1.18E-05	2.70E-09	Screened
1-CB-LA-K-95-L	1-CB-LA-K	95	None	1.13E-02	3.35E-02	3.80E-05	Retained
1-CB-LA-L-98-L	1-CB-LA-L	98	None	3.34E-03	8.87E-03	2.96E-06	Retained
1-CB-LA-N-85-L	1-CB-LA-N	85	None	1.84E-02	8.03E-01	1.47E-03	Retained
1-CB-LA-N-86-L	1-CB-LA-N	86	None	4.62E-03	5.70E-05	2.63E-08	Screened
1-CB-LA-N-94-L	1-CB-LA-N	94	None	1.00E-02	9.79E-03	9.83E-06	Retained
1-CB-LA-O-174-L	1-CB-LA-O	174	None	2.05E-03	3.07E-04	6.30E-08	Screened
1-CB-LA-P-173-L	1-CB-LA-P	173	None	1.87E-03	2.97E-02	5.56E-06	Retained
1-CB-LA-Q-175-L	1-CB-LA-Q	175	None	2.17E-03	1.09E-05	2.36E-09	Screened
1-CB-LA-R-97-L	1-CB-LA-R	97	None	1.57E-03	2.16E-02	3.38E-06	Retained
1-CB-LA-S-100-L	1-CB-LA-S	100	None	1.27E-03	2.01E-06	2.54E-10	Screened
1-CB-LA-T-102-L	1-CB-LA-T	102	None	1.27E-03	2.01E-06	2.54E-10	Screened
1-CB-LA-T-87-L	1-CB-LA-T	87	None	5.30E-03	1.08E-05	5.71E-09	Screened
1-CB-LA-U-169-L	1-CB-LA-U	169	None	5.00E-03	6.34E-04	3.17E-07	Screened
1-CB-LB-A-143-L	1-CB-LB-A	143	None	4.20E-03	3.04E-05	1.28E-08	Screened
1-CB-LB-A-69-L	1-CB-LB-A	69	None	3.02E-03	2.01E-06	6.05E-10	Screened
1-CB-LB-A-69-P	1-CB-LB-A	69	1-CB-LB-A [59], 1-CB-LB-A [73]	4.20E-03	1.22E-02	5.14E-06	Retained
1-CB-LB-A-72-L	1-CB-LB-A	72	None	3.52E-03	2.07E-05	7.28E-09	Screened
1-CB-LB-A-73-L	1-CB-LB-A	73	None	6.89E-03	1.22E-02	8.42E-06	Retained
1-CB-LB-B-75-L	1-CB-LB-B	75	None	6.67E-03	4.94E-03	3.29E-06	Retained
1-CB-LB-C-79A-L	1-CB-LB-C	79A	None	1.03E-02	1.69E-02	1.74E-05	Retained
1-CB-LB-D-144-L	1-CB-LB-D	144	None	3.39E-03	6.68E-05	2.27E-08	Screened
1-CB-LB-D-60-L	1-CB-LB-D	60	None	1.39E-03	5.37E-03	7.45E-07	Retained
1-CB-LB-D-62-L	1-CB-LB-D	62	None	3.70E-03	4.84E-03	1.79E-06	Retained
1-CB-LB-D-65-L	1-CB-LB-D	65	None	1.54E-03	3.65E-05	5.62E-09	Screened
1-CB-LB-D-66-L	1-CB-LB-D	66	None	2.78E-03	6.83E-04	1.90E-07	Screened
1-CB-LB-D-67-L	1-CB-LB-D	67	None	3.06E-03	2.00E-03	6.13E-07	Retained
1-CB-LB-D-68-L	1-CB-LB-D	68	None	1.27E-03	3.65E-05	4.64E-09	Screened
1-CB-LB-D-70-L	1-CB-LB-D	70	None	1.62E-03	2.02E-05	3.28E-09	Screened
1-CB-LB-E-76-L	1-CB-LB-E	76	None	1.99E-02	2.05E-06	4.09E-09	Screened
1-CB-LB-F-74-L	1-CB-LB-F	74	None	6.90E-03	3.69E-06	2.55E-09	Screened
1-CB-LB-G-63-P	1-CB-LB-G	63	1-CB-LB-G [82]	1.99E-02	2.01E-06	4.00E-09	Screened
1-CB-LB-G-82-L	1-CB-LB-G	82	None	1.35E-03	2.01E-06	2.71E-10	Screened
1-CB-LB-G-82-P	1-CB-LB-G	82	1-CB-LB-G [63], 1-CTB [XX]	6.90E-03	4.48E-02	3.09E-05	Retained
1-CB-LB-H-71-L	1-CB-LB-H	71	None	6.45E-03	1.12E-04	7.24E-08	Screened

Table 4.1-3 List of Location Scenarios and Summary of the Quantitative Screening (Unit 1) (Sheet 4 of 4)

1-CB-LB-I-83-L	1-CB-LB-I	83	None	3.27E-03	1.09E-05	3.56E-09	Screened
1-CB-LB-J-56B-L	1-CB-LB-J	56B	None	2.63E-03	2.01E-06	5.28E-10	Screened
1-CB-LB-K-77B-L	1-CB-LB-K	77B	None	2.63E-03	3.69E-06	9.70E-10	Screened
1-CB-LB-L-77A-L	1-CB-LB-L	77A	None	9.74E-03	8.36E-04	8.15E-07	Retained
1-CB-LB-M-78B-L	1-CB-LB-M	78B	None	2.64E-03	3.46E-02	9.12E-06	Retained
1-CB-LB-N-78A-L	1-CB-LB-N	78A	None	1.03E-02	4.56E-02	4.69E-05	Retained
1-CB-LB-O-56A-L	1-CB-LB-O	56A	None	1.50E-02	1.07E-05	1.61E-08	Screened
1-CB-LB-P-152-L	1-CB-LB-P	152	None	1.56E-03	2.99E-02	4.64E-06	Retained
1-CB-LB-Q-79B-L	1-CB-LB-Q	79B	None	2.63E-03	3.70E-04	9.72E-08	Screened
1-CB-LB-T-61-L	1-CB-LB-T	61	None	3.79E-03	4.04E-03	1.53E-06	Retained
1-CB-LB-T-64-L	1-CB-LB-T	64	None	2.26E-03	7.69E-04	1.74E-07	Screened
1-CB-LB-T-64-P	1-CB-LB-T	64	1-CB-LB-T [61]	2.53E-03	4.04E-03	1.02E-06	Retained
1-CB-LC-A-126A-L	1-CB-LC-A	126A	None	2.92E-03	6.79E-05	1.98E-08	Screened
1-CB-LC-A-151-L	1-CB-LC-A	151	None	8.70E-04	2.97E-02	2.59E-06	Retained
1-CB-LC-A-153-L	1-CB-LC-A	153	None	1.63E-03	8.37E-04	1.36E-07	Screened
1-CB-LC-A-42B-L	1-CB-LC-A	42B	None	7.37E-03	5.83E-01	4.29E-04	Retained
1-CB-LC-B-138-L	1-CB-LC-B	138	None	2.63E-03	1.43E-03	3.76E-07	Screened
1-CB-LC-B-58-L	1-CB-LC-B	58	None	1.62E-03	2.01E-06	3.26E-10	Screened
1-CB-LC-B-80-L	1-CB-LC-B	80	None	4.35E-02	1.43E-03	6.20E-06	Retained
1-CTB-XX-L**	1-CTB	XX	None	2.35E-02	4.48E-02	1.05E-04	Retained
1-DB-L1-A-161-L	1-DB-L1-A	161	None	1.50E-01	2.01E-06	3.02E-08	Screened
1-DB-L1-B-162-L	1-DB-L1-B	162	None	1.51E-01	2.01E-06	3.02E-08	Screened
1-DB-L1-C-163-L	1-DB-L1-C	163	None	1.27E-03	2.01E-06	2.54E-10	Screened
1-DB-L1-D-164-L	1-DB-L1-D	164	None	1.27E-03	2.01E-06	2.54E-10	Screened
1-DPB-A-165-L	1-DPB-A	165	None	7.18E-03	2.01E-06	1.44E-09	Screened
1-DPB-A-165-P	1-DPB-A	165	1-DPB-B [166]	1.27E-03	2.01E-06	2.54E-10	Screened
1-DPB-B-166-L	1-DPB-B	166	None	7.18E-03	2.01E-06	1.44E-09	Screened
1-DPB-B-166-P	1-DPB-B	166	1-DPB-A [165]	1.27E-03	2.01E-06	2.54E-10	Screened
1-EB-B-141B-L	1-EB-B	141B	None	1.62E-03	2.01E-06	3.26E-10	Screened
1-FB-LC-A-132-L	1-FB-LC-A	132	None	4.72E-03	3.52E-03	1.66E-06	Retained
1-FB-LC-A-15-L	1-FB-LC-A	15	None	4.35E-03	2.31E-02	1.01E-05	Retained
1-NSP-LA-A-145-L	1-NSP-LA-A	145	None	2.49E-03	8.31E-04	2.07E-07	Screened
1-NSP-LA-A-160A-L	1-NSP-LA-A	160A	None	1.44E-02	8.31E-04	1.20E-06	Retained
1-NSP-LA-B-146-L	1-NSP-LA-B	146	None	2.92E-03	8.92E-04	2.60E-07	Screened
1-NSP-LA-B-160B-L	1-NSP-LA-B	160B	None	1.46E-02	8.29E-04	1.21E-06	Retained
1-NSP-LA-B-188-L	1-NSP-LA-B	188	None	1.27E-03	6.78E-05	8.57E-09	Screened

Note:

*Conditional core damage frequency (CDF) and unconditional CDF (UCDF) are based on conservative estimates.

They may not have any real physical meaning and should not be referenced in any purposes other than the quantitative screening step.

**1-CTB-XX includes 1-CTB-104A, 1-CTB-104B, 1-CTB-104C, and 1-CTB-104E.

Table 4.1-4 Summary of Component-Based Fire Ignition Frequency Assessment (Unit 1)

	Fire Category															
	Battery	Battery Charger	Cabinet	Cables (Power/ Control)	Control Room	Diesel Generator	Generator	HVAC	MCC	Motor	Pumps	Switchgear	Transformer above 4kV	Transformer 4kV & below	Transient Fires	Turbine
Total Specialized Generic Events	3	3	28	21	3	60	13	5	11	4	30	23	29	5	18	14
Known events	3	3	27	17	3	56	12	5	11	4	27	20	25	4	15	10
Unknown events	0	0	1	4	0	4	1	0	0	0	3	3	4	1	3	4
Hypothesis 1 Prior Mean	N/A	N/A	3.06E-1	2.88E-01	N/A	5.93E-01	1.67E-01	N/A	N/A	N/A	2.86E-01	2.36E-01	3.60E-02	4.98E-02	2.08E-01	2.90E-01
Hypothesis 2 Prior Mean	N/A	N/A	2.93E-01	2.13E-01	N/A	5.85E-01	1.60E-01	N/A	N/A	N/A	2.44E-01	2.14E-01	2.52E-01	4.67E-02	1.59E-01	1.93E-01
Hypothesis 3 Prior Mean	N/A	N/A	2.95E-01	2.41E-01	N/A	5.93E-01	1.62E-01	N/A	N/A	N/A	2.43E-01	2.18E-01	2.30E-01	4.78E-02	1.57E-01	1.55E-01
Hypothesis 4 Prior Mean	N/A	N/A	N/A	2.33E-01	N/A	6.41E-01	N/A	N/A	N/A	N/A	2.73E-01	2.32E-01	3.00E-01	N/A	1.83E-01	2.46E-01
Hypothesis 5 Prior Mean	N/A	N/A	N/A	1.99E-01	N/A	5.86E-01	N/A	N/A	N/A	N/A	2.21E-01	2.15E-01	2.24E-01	N/A	1.57E-01	1.43E-01
Merged Prior Mean	2.59E-02	3.46E-02	3.01E-01	2.43E-01	3.43E-02	6.15E-01	1.58E-01	4.83E-02	1.18E-01	3.50E-02	2.54E-01	2.16E-01	2.68E-01	4.68E-02	1.75E-01	2.04E-01
Merged Prior 5th	4.49E-04	1.73E-04	4.01E-03	1.53E-03	6.13E-04	1.25E-02	1.18E-03	9.50E-04	1.46E-03	7.46E-04	2.18E-02	3.76E-03	1.41E-02	1.13E-03	2.62E-03	1.90E-03
Merged Prior 50th	8.32E-03	4.89E-03	7.46E-02	4.11E-02	1.25E-02	1.85E-01	2.64E-02	1.48E-02	2.62E-02	1.28E-02	1.68E-01	6.26E-02	1.71E-01	1.75E-02	6.22E-02	5.86E-02
Merged Prior 95th	1.05E-01	1.47E-01	1.69E-00	9.91E-01	1.49E-01	2.36E-00	5.98E-01	1.97E-01	4.18E-01	1.52E-01	7.09E-01	8.14E-01	7.12E-01	1.95E-01	5.77E-01	6.35E-01
Merged Prior Range Factor	15.3	29.1	20.5	25.5	15.6	13.7	22.5	14.4	16.9	14.3	5.7	14.7	7.1	13.1	14.8	18.3
Vogtle 1 Event(s)	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
Vogtle 1 Period (years)	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
Posterior Mean	2.04E-02	2.20E-02	1.60E-01	1.18E-01	2.63E-02	2.73E-01	9.09E-02	3.59E-02	7.16E-02	2.69E-02	2.01E-01	1.36E-01	1.97E-01	2.46E-01	5.07E-01	1.17E-01
Posterior 5th	5.01E-04	1.95E-04	4.27E-03	1.67E-03	6.45E-04	1.03E-02	1.13E-03	9.37E-04	1.60E-03	7.56E-04	2.20E-02	3.90E-03	1.27E-02	1.31E-02	3.87E-02	2.15E-03
Posterior 50th	8.25E-03	5.00E-03	6.04E-02	3.52E-02	1.07E-02	1.38E-01	2.31E-02	1.38E-02	2.55E-02	1.12E-02	1.47E-01	5.25E-02	1.47E-01	1.11E-01	2.15E-01	5.08E-02
Posterior 95th	8.50E-02	1.03E-01	5.66E-01	4.42E-01	1.08E-01	1.08E-00	3.30E-01	1.47E-01	3.31E-01	1.10E-01	5.41E-01	4.82E-02	5.08E-01	8.98E-01	1.89E-00	3.45E-01
Posterior Range Factor	13.0	23.0	11.5	16.3	12.9	10.2	17.1	12.5	14.4	12.1	5.0	3.5	6.3	8.3	7.0	12.7

Table 4.1-5 Summary of Component-Based Fire Ignition Frequency Assessment (Unit 2)

	Fire Category															
	Battery	Battery Charger	Control Room	Diesel Generator	Generator	Human Error	HVAC	Logic Cabinet	MCC	Motor	Power and Control Cables	Pumps	Switch-gear	Trans-former 4kV & below	Trans-former above 4kV	Turbine
Total Specialized Generic Events	3	3	3	60	13	19	4	28	11	5	21	30	23	6	29	14
Known events	3	3	3	56	12	16	4	27	11	5	17	27	20	5	25	10
Unknown events	0	0	0	4	1	3	0	1	0	0	4	3	3	1	4	4
Hypothesis 1 Prior Mean	N/A	N/A	N/A	5.93E-01	1.67E-01	2.30E-01	N/A	3.06E-1	N/A	N/A	2.87E-01	2.86E-01	2.35E-01	6.06E-02	3.60E-01	2.90E-01
Hypothesis 2 Prior Mean	N/A	N/A	N/A	5.85E-01	1.60E-01	1.70E-01	N/A	2.92E-01	N/A	N/A	2.14E-01	2.43E-01	2.13E-01	5.69E-02	2.52E-01	1.93E-01
Hypothesis 3 Prior Mean	N/A	N/A	N/A	5.93E-01	1.62E-01	1.65E-01	N/A	2.95E-01	N/A	N/A	2.40E-01	2.43E-01	2.18E-01	5.82E-02	2.30E-01	1.55E-01
Hypothesis 4 Prior Mean	N/A	N/A	N/A	6.40E-01	N/A	2.07E-01	N/A	N/A	N/A	N/A	2.32E-01	2.72E-01	2.31E-01	N/A	2.99E-01	2.46E-01
Hypothesis 5 Prior Mean	N/A	N/A	N/A	5.85E-01	N/A	1.66E-01	N/A	N/A	N/A	N/A	1.99E-01	2.21E-01	2.14E-01	N/A	2.24E-01	1.43E-01
Merged Prior Mean	2.58E-02	3.45E-02	3.43E-02	5.95E-01	1.65E-01	1.87E-01	3.94E-02	2.98E-01	1.17E-01	4.42E-02	2.29E-01	2.52E-01	2.26E-01	5.94E-02	2.80E-01	2.06E-01
Merged Prior 5th	4.48E-04	1.73E-04	6.12E-04	1.51E-02	1.17E-03	3.24E-03	7.44E-04	4.06E-03	1.41E-03	7.59E-04	1.46E-03	2.09E-02	3.74E-03	1.40E-03	1.45E-02	1.85E-03
Merged Prior 50th	8.31E-03	4.88E-03	1.24E-02	1.78E-01	2.70E-02	7.19E-02	1.30E-02	7.69E-02	2.54E-02	1.37E-02	4.03E-02	1.63E-01	6.55E-02	1.92E-02	1.70E-01	5.84E-02
Merged Prior 95th	1.05E-01	1.47E-01	1.48E-01	2.28E-00	6.07E-01	5.87E-01	1.71E-01	1.45E-00	4.13E-01	1.87E-01	6.24E-01	7.08E-01	8.75E-01	2.21E-01	7.26E-01	6.52E-01
Merged Prior Range Factor	15.3	29.1	15.6	12.3	22.8	13.5	15.2	18.9	17.1	15.7	23.8	5.8	15.3	12.6	7.1	18.8
Vogtle 2 Event(s)	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Vogtle 2 Period (years)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Posterior Mean	2.08E-02	2.32E-02	2.67E-02	3.09E-01	1.04E-01	1.37E-01	2.71E-01	1.78E-01	7.34E-02	3.40E-02	1.35E-01	2.13E-01	1.55E-01	5.17E-02	1.89E-01	1.30E-01
Posterior 5th	5.02E-04	1.95E-04	6.47E-04	1.11E-02	1.17E-03	3.36E-03	8.73E-03	4.34E-03	1.56E-03	7.83E-04	1.61E-03	2.20E-02	3.90E-03	1.58E-03	1.04E-02	2.16E-03
Posterior 50th	8.29E-03	5.04E-03	1.08E-02	1.43E-01	2.45E-02	6.56E-02	1.03E-01	6.60E-02	2.54E-02	1.25E-02	3.63E-02	1.47E-01	5.71E-02	1.94E-02	1.31E-01	5.25E-02
Posterior 95th	8.60E-02	1.08E-01	1.10E-01	1.22E-00	3.82E-01	4.47E-01	1.08E-00	6.27E-01	3.44E-01	1.42E-01	5.17E-01	5.66E-01	5.50E-01	1.86E-01	5.30E-01	4.00E-01
Posterior Range Factor	13.1	23.5	13.0	10.5	18.1	11.5	11.1	12.0	14.8	13.5	17.9	5.1	11.9	10.9	7.1	13.6

4.2 REVIEW OF PLANT INFORMATION AND PLANT WALKDOWN (STEPS 1 THROUGH 8)

4.2.1 INFORMATION REVIEW

The information presented in the previous sections and the following information sources were collected throughout the project:

- Cable routing diagrams.
- Plant records of fire incidents.
- IPE plant model.
- Interfacing systems loss-of-coolant accident (LOCA) analysis.
- Fire drill records.
- Fire barrier inspection procedures and problem reports.
- Fire fighting procedures and fire preplans.
- Fire protection and detection maintenance procedures and inspection reports.

Typically, general information would first be collected. If required, specific, and detailed information would then be collected to support the analyses.

Relevant information was stored in a relational spatial interactions analysis database. A set of location characteristic tables (LCTs) (see table 4.1-1) was developed to summarize the stored information in the relational database that is relevant to the spatial interactions analysis. Information contained in the LCTs was verified during the walkdowns and continuously updated throughout the project.

4.2.2 PLANT WALKDOWN

Two plant walkdowns were performed for the analysis. The first walkdown was conducted at the beginning of the qualitative screening (Step 4) in March 1994. The second walkdown was conducted at the initial stage of the detailed analysis (Step 5). Both walkdowns lasted for 4 days and were performed by a team of PLG engineers, SNC engineers, and a VEGP engineer. An SCS engineer who is familiar with the cable routing at VEGP also participated in the first walkdown. Both walkdowns received full cooperation from the control room and plant operators.

The purpose of the first plant walkdown was to gain an early appreciation for the spatial interactions of hazards and equipment, to confirm the information that had been gathered in the LCTs, to inspect the amount and location of transient hazards, and to verify potential propagation paths. The walkdown team visited most accessible fire zones in Unit 1 and Unit 2. The plant locations that were not visited included those that are radiological-controlled or require special permits (radiation permit, etc.). Photographs, sketches, and notes were made to document complex configurations. In addition to confirming the actual locations of the mechanical components (e.g., pumps, valves, electrical switchgear, etc.), the walkdown team also evaluated the personnel activity level, transient combustibles content, and the applicability of generic event data (for the frequency assessment task in Step 4) to Unit 1 and Unit 2.

The purposes of the second walkdown (the detailed analysis walkdowns for Unit 1) were to confirm the results of the quantitative screening (Step 4), screen and verify propagation pathways that were retained from the qualitative evaluation of credible propagation pathways, identify ignition sources and combustible loadings location, collect detailed spatial information of the safety-related plant equipment and cable raceways (cable trays and conduit), inspect the amount and location of possible transient hazards, and develop subscenarios for the detailed analysis. The detailed analysis walkdowns concentrated only on Unit 1 fire zones that survived the quantitative screening (Step 4) and were accessible to the walkdown team.

A checklist (see section 4.8 and Appendix 4.B) was also prepared to address the Fire Risk Scoping Study (FRSS) issues (Reference 4-3) and other safety issues. The walkdown confirmed the information contained in the FRSS issues, possible seismic-fire interactions scenarios, and inadvertent sprinkler actuation scenario. Sections 4.8 and 4.9 provide a more detailed discussion of these issues.

4.3 FIRE GROWTH AND PROPAGATION

Fire growth and propagation were considered in the spatial interactions analysis phase and in the detailed analysis phase with different levels of attention. In the spatial interactions analysis phase, fires initiated from any of the fire sources within a fire zone were assumed to grow and propagate uninhibitedly to cause damage all plant equipment and raceways within the fire zone. Potential fire propagation pathways between fire zones were screened according to a set of conservative criteria based on combustible inventory, fire barrier rating, and the type of fire protection system (FPS) in adjacent fire zones (see section 4.1.3).

In the detailed analysis phase, fire growth and propagation were analyzed more realistically by considering the separation distance between the fire sources and the safety-related equipment within a fire zone, the heat release rate of the fire sources, and the duration of fire exposure. These attributes were predicted using severity factor (f_S) curves the COMPBRN IIIe code (Reference 4-10).

4.3.1 SEVERITY FACTOR

The f_S was used to estimate the probability of fires initiated by a particular fire source with an initial fire intensity severe enough to propagate to a certain distance. Figures 4.3-1 and 4.3-2 define the f_S as a function of the radial distance from the fire source for control room panel fires, and electrical and mechanical plant equipment fires. The curves in figures 4.3-1 and 4.3-2 were estimated from past actual nuclear power plant fire incident data and judgment (Reference 4-12).

4.3.2 FIRE GROWTH ESTIMATION

The computer code COMPBRN IIIe was used to predict the heat release rate and the fire exposure duration of a given fire source for the assessment of the geometric factor (f_G, for transient fires) and the fire nonsuppression factor (f_{NS}). Sections 4.4 and 4.5 describe the quantification of the f_{NS}.

COMPBRN IIIe uses a quasi-static zonal approach to simulate the process of fire growth in an enclosure or an unconfined area. The enclosure is assumed to be divided into three distinct homogeneous, stable zones: the flame region, a hot gas layer, and an ambient air region. The hot gas layer includes the hot gases accumulating under the ceiling due to fire plume entrainment and buoyancy. Objects in this layer are subject to both convective and radiative heat fluxes from the hot gases. A region of ambient air is assumed to form underneath the hot gas layer. This layer is assumed to be thermally inert and contains relatively quiescent cool air, which remains at ambient conditions at all time.

The burning rate of a fire source is used to determine the heat output of the fire source, which can be transported to other objects in the vicinity via radiation. A plant component (e.g., safety-related cable) is considered to be damaged or ignited if the surface temperature exceeds the user-specified damage or ignition temperatures.

The physical models of the COMPBRN IIIe code have been reviewed extensively (see References 4-3 and 4-13). In general, the COMPBRN IIIe code is designed with one objective: to predict the time to damage of cable trays that are exposed to a relatively small pool fire in an enclosure in a probabilistic fire analysis. Due to the coarse nature of the models used in the COMPBRN IIIe code, the following limitations must be considered in applying the code:

1. The code does not perform well when the fire source is close to the ceiling, within the hot gas layer, or when a target is directly on top of a flame.

2. The code cannot model window openings. Only one doorway can be modeled, but the location of the doorway cannot be specified. The door is not allowed to open or close during the simulation period.

3. The ventilation ports can only be located at the ceiling or on the floor. The fraction of flow entering or leaving the port is specified by the users. Because ventilation to an affected area will be cut off and the air dampers or door will be closed once a fire is detected, ventilation is normally not modeled.

4. All objects, including the enclosures and cable trays, are assumed to be rectangular in shape and must be oriented parallel to one of the axes.

5. Because the hot gas layer is assumed to be formed within the first time step, the code's predictions are expected to be most reasonable for fire scenarios involving large fuel loads during their pre-flashover burning period. For instance, COMPBRN IIIe should not be used to model fires within cabinets (in such cases, the enclosure would be too small for the fires).

6. Vertical or slanted burning objects cannot be modeled with accuracy.

7. The interference effect of objects in close proximity, such as cable trays piled together with a very small separation distance, cannot be modeled properly.

Some of the fire sources considered in this analysis do not satisfy the requirements of the COMPBRN IIIe models. Surrogate fire sources were then used to simulate the heat release rate and fire duration of the actual fire sources. For example, an oil pool fire of an appropriate pool diameter may be used to simulate a pump-related fire with similar heat release rate.

Physical property data are used to define the behavior of the objects, and the model parameters are used to represent the parameters of the physical models. Table 4.3-1 lists the typical point value of the physical parameters using cable trays and oil pools. Table 4.3-2 lists the typical key physical model parameters. These values are selected from plant data and recommendations from the COMPBRN IIIe code.

Table 4.3-1 Physical Parameter Values Used in the COMPBRN IIIe Simulations

Property Parameter	Cable	Oil
Density (kg/m^3)	1,450	886
Specific Heat (J/kg-K)	2,250	1,884
Thermal Conductivity (W/m-K)	0.1	0.145
Heat Value (MJ/kg)	25.8	48.8
Piloted Ignition Temperature (°K)	761	269
Spontaneous Ignition Temperature (°K)	761	486
Damage Temperature (°K)	450	1.0
Ventilation Controlled Burning Rate Constant	0.11	0.11
Specific Burning Rate Constant (kg/m^2-K)	0.02	0.039
Surface Controlled Burning Rate Constant (kg/J)	2.90E-06	2.00E-06
Combustion Efficiency	0.5	0.9
Fraction of Flame Heat Released as Radiation	0.4	0.5
Absorption Coefficient for Flame Gases (m^{-1})	1.4	1.4
Reflectivity	0.12	0.1

Table 4.3-2 Typical Values for Key Modeling Parameters in the COMPBRN IIIe Simulations

Model Parameter	Typical Value
Flame Heat Transfer Coefficient (W/m^2-K)	22
Hot Gas Layer Convective Heat Transfer Coefficient (W/m^2-K)	10
Coefficient of Inflow Air through Doorway	0.6
Coefficient of Outflow Air through Doorway	0.7
Absorption Coefficient of Hot Gases	1.3
Buoyant Plume Entrainment Coefficient (Unaffected Fires)	2.0
Buoyant Plume Entrainment Coefficient (Fires Next to a Wall)	1.5
Buoyant Plume Entrainment Coefficient (Fires Near a Corner)	1.25

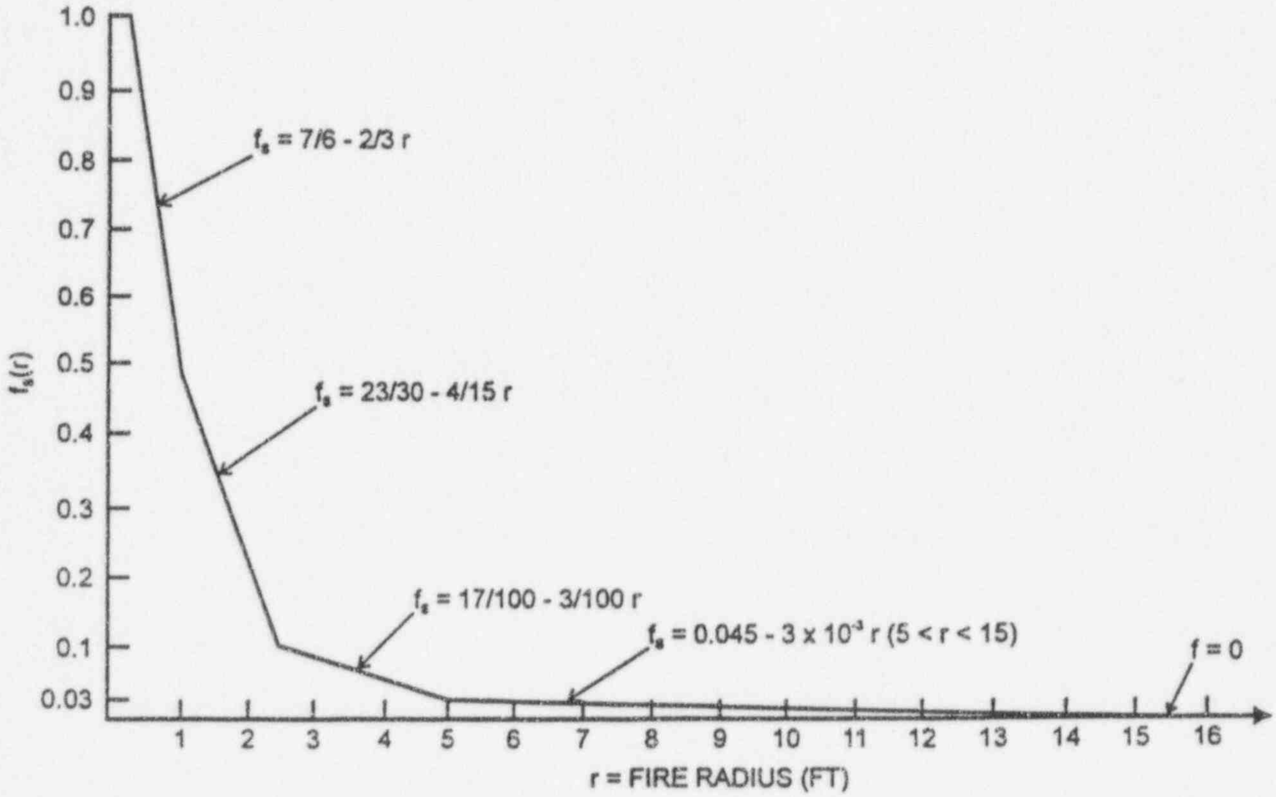


Figure 4.3-1 Fire Severity Curve for Control Panel Fires

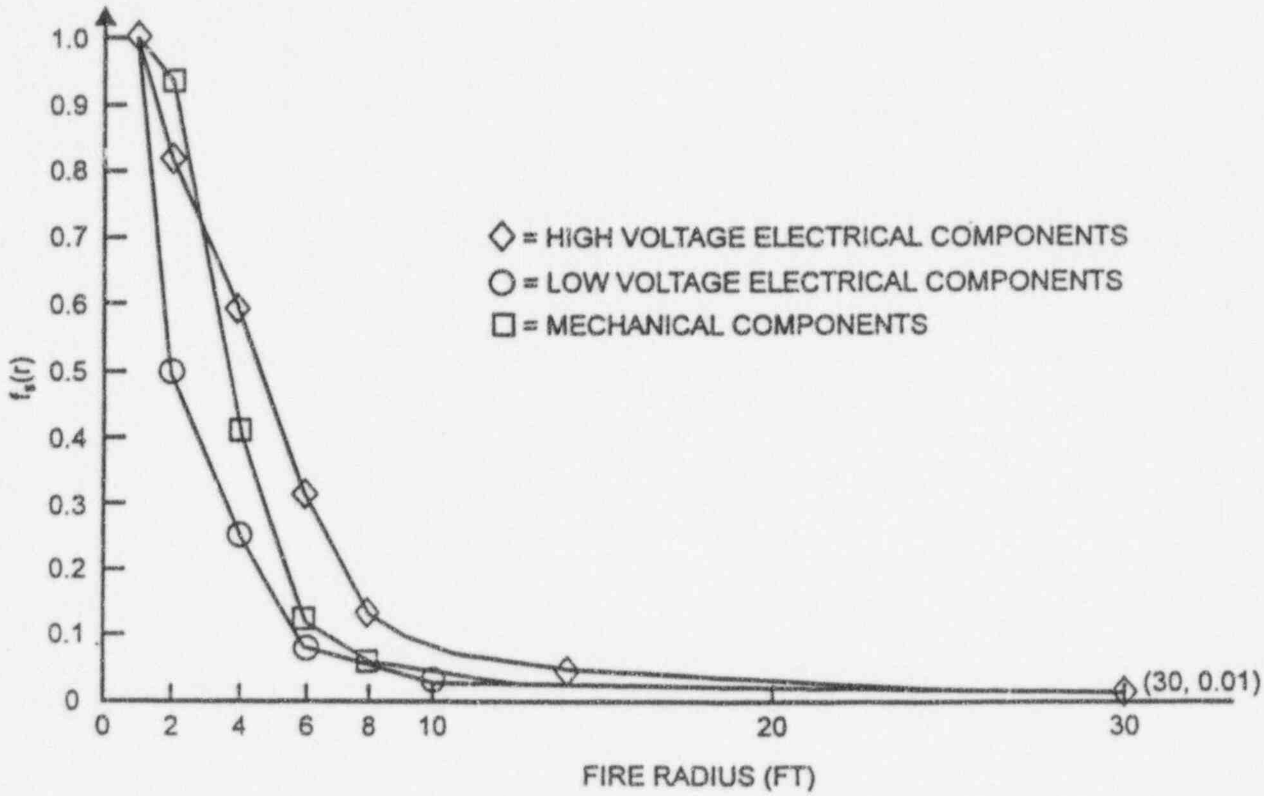


Figure 4.3-2 Fire Severity Curve for Electrical and Mechanical Components

4.4 EVALUATION OF COMPONENT FRAGILITIES AND FAILURE RESPONSE

In the spatial interactions analysis, a component was assumed to be damaged once a fire (of any initial severity from any fire source) occurs within the same fire zone (regardless of the separation distance and suppression efforts). This conservative assumption allows the fire zones with insignificant risk impact to be screened from further attention at an early stage of the analysis. Thus, the overall analysis can be performed effectively and efficiently.

In the detailed analysis phase where the risk contributions from the important plant locations are required, the component fragility (in terms of fire threats) must be quantified in a more realistic manner. Three factors were used to estimate fire-induced component fragilities: the severity factor (f_S), the geometric factor (f_G), and the fire nonsuppression factor (f_{NS}).

4.4.1 SEVERITY FACTOR

In addition to modeling fire growth the f_S (section 4.3.1), was also used to estimate the fire-induced damage probability of a component due to component-induced fires (except transient fires) in a less fire-vulnerable location in the detailed analysis phase. It is conservatively assumed that if a fire has an initial severity to grow to r ft away, then all components within r ft from the fire source would be damaged. The severity factor represents a generic probability and it does not consider the configurations of the specific fire source(s) and targets, and the FPS at a particular location. For example, if a safety-related component is at a distance of r ft away from the fire source, the $f_S(r)$ gives the probability that a fire initiated by a given fire source would propagate to the component. The component is then assumed to fail, regardless of the duration of fire exposure and available fire suppression efforts to control the fire before damage can occur.

In locations where the fire vulnerability is relatively more severe, the fire nonsuppression factor (section 4.4.3) was used to account for the fire duration, fire barrier, orientations and configurations of the fire sources and targets, and the interactions of suppression efforts.

4.4.2 GEOMETRIC FACTOR

The geometric factor was used to further apportion the component-based fire frequency assigned to the location scenario to a particular subscenario developed from that fire zone based on the component population included in the subscenario and the characteristics of the subscenario.

For transient fires, multiple runs of COMPBRN IIIe (see Reference 4-10) were performed by moving a transient fire source from directly underneath a safety-related cable tray outward to a point where the cable tray would not be affected by the transient fire. The horizontal separation distance between this point and the cable tray is referred to as the critical radius (beyond which the cable tray would not be damaged by the transient fire source). The ratio of the floor area covered by the critical radius to the total floor area provides an estimate of the influence of transient fires to a specific cable tray in a location. The product of the subscenario apportionment factor and the area ratio (for transient fires only) is called the geometric factor (f_G) in this analysis.

In the detailed analysis phase, the severity factor, f_S, was typically used to refine the fire frequency for subscenarios with equipment as the fire source; i.e., pump, motor, transformer, etc. The geometric factor, f_G, was typically used for subscenarios involving transient fires (human error-initiated fires), in addition to its use to apportion the ignition frequency.

In more fire-vulnerable locations where more realistic fire-induced component fragility analysis and suppression analysis are required to assess the risk impact, the fire nonsuppression factor (f_{NS}) would also be used. These three factors, f_S, f_G, and f_{NS}, are often referred to as the frequency reduction factors because they were used mainly to reduce the fire frequency assigned to a fire zone to the unique situation modeled by a particular subscenario developed from that fire zone. The following section and section 4.5 discuss the assessment of the f_{NS}, and section 4.6 describes the application of the frequency reduction factors.

4.4.3 FIRE NONSUPPRESSION FACTOR

If a fire has the potential to grow and propagate to a certain distance, plant components within that distance may still be functionally intact if the fire can be controlled, or is self-extinguished, before the components reach their damage threshold; e.g., damage temperatures. The f_{NS} is used to account for the time element that is missing in the quantification of the f_S and f_G. If the f_S and f_G are used to answer the question of whether a fire source is strong to enough to damage a component at a certain distance, then the f_{NS} is used to answer the question of whether the fire burns long enough to damage a particular component or set of components.

The f_{NS} was used in the detailed analysis to estimate the probability of a component damaged by a given fire in the presence of fire suppression (manual or automatic) efforts. The quantification of f_{NS} requires the assessment of the time intervals between fire initiation, time to damage of the critical components, and time required for fire detection and suppression. These different time intervals can be summarized by two characteristic time factors: the fire damage time (also known as the fire growth time), t_G, and the fire control time (also known as the fire hazard time), t_H.

The fire damage time, t_G, is defined as the time taken for a given fire to damage the component. The fire control time, t_H, is defined as the time required to control the fire or the fire exposure time during which the component can be damaged by the fire. This time factor includes time to detect the fire, time to actuate automatic suppression system (if equipped), time to summon the fire brigade, fire brigade response time, and time to control the fire growth. It is noted a fire can be controlled long before extinguishment. A fire is said to be controlled if the heat release from the fire source(s) can no longer affect the target(s).

Thus, t_G and t_H depend on the characteristics and spatial relationship of the fire and the targets, while t_H also depends on the characteristics of the fire suppression system (FPS) at the location.

A component is considered to be damaged if its t_G is less than the t_H. f_{NS} can then be expressed as:

$$f_{NS} = \text{Freq}\,(t_G < t_H) \qquad (4.1)$$

where t_G and t_H are probability distributions of t_G and t_H, respectively.

4.4.4 FIRE DAMAGE TIME

In the detailed analysis, the uncertainties in the distribution of t_G were believed to be greater than the random variability of t_G itself, and the uncertainties in the distribution of t_H overwhelmed the uncertainties in t_G. Thus, t_G can be represented by its mean value τ_G in Equation (4.1):

$$f_{NS} = F\,(\tau_G < t_H) \qquad (4.2)$$

which can then be expressed as:

$$f_{NS} = 1 - F_{t_H}\,(\tau_G) \qquad (4.3)$$

where F_{t_H} is the cumulative probability function for t_H.

Given a fire of a certain initial fire size, the COMPBRN IIIe code (section 4.3.2) predicts the surface temperature of the safety-related components (mainly safety-related cables) using a set of user-defined parameters. COMPBRN IIIe can also compare the surface temperatures with a user-specified damage temperature of the components. If the surface temperature of a component is higher than its damage temperature, then the component is considered to be damaged and τ_G is the time at which the component is declared damaged (with the consideration of the parameter uncertainties). The mean damage temperature used in the detailed analysis was conservatively assumed to be 450°K (based on the typical qualification temperature of the cables in VEGP). It is recognized that the qualification temperature is generally well below the typical ignition temperature of the cable jacket material (typically, in the range of 700°K to 850°K) and the damage temperature (623°K) suggested by References 4-3, 4-14 and 4-15.

Once the damage time is known, f_{NS} can then be obtained using the fire protection system class designation (see table 4.4-1) and the fire damage time predicted by COMPBRN IIIe. Table 4.4-1 is a tabulation of values calculated from Equation (4.3) for several fire protection system classes. Section 4.5 discusses the quantification of t_H and f_{NS}.

4.4.5 FAILURE RESPONSE

During the quantitative fire scenario screening step of the spatial interactions analysis phase (section 4.1.5), the plant response to component failure (plant impact) was assessed by considering the effects of component and raceway failures on the Individual Plant Examination (IPE) top events. For fire damage to cables, the failure mode (e.g., open circuit and hot short) with the worst impact was assumed and the associated component was considered failed. Table 4.4-2 summarizes the top events affected in each of the fire zones of Unit 1.

Since the impact on some of the top events listed in table 4.4-2 may not be real, given that all of the equipment and cables in the fire zone are damaged by fires, the top events associated with each scenario were re-evaluated to determine whether a listed plant component (affected due to fire damage to the component itself or its associated cables) would fail the top event completely, fail the top event partially, or has no impact the top event at all.

Based on the more realistic top event impacts for a fire scenario, the conditional core damage frequency (CDF) was estimated in this quantitative screening step using the VEGP IPE model (Reference 4-4)and related software (Reference 4-5). Only very limited and conservative operator recovery actions were included in the simplified core damage sequence model for these conditional CDF calculations. With the exception of a few very conservative recovery actions, existing IPE split fraction values were used in the quantification of the simplified core damage sequence model for top events that were not failed by fire damage.

The risk impact of each scenario (i.e., the unconditional CDF) was then obtained by multiplying the scenario occurrence frequency by the conditional CDF. If the unconditional CDF of a scenario is below the cutoff threshold (4.45E-08 per year), the scenario was screened from further evaluation. Table 4.1-3 presents the final results of the quantitative risk screening step in the spatial interactions analysis phase for Unit 1.

Table 4.4-1 Summary of Fire Nonsuppression Factor (f_{NS}) Calculations

Damage Time (Minutes)	Fire Protection System Class*		
	II	IV	V
0	1	1	1
1	0.82	0.79	0.84
2	0.75	0.71	0.78
3	0.69	0.66	0.73
4	0.65	0.62	0.69
5	0.62	0.59	0.65
6	0.58	0.56	0.62
7	0.56	0.53	0.59
8	0.53	0.51	0.57
9	0.51	0.49	0.55
10	0.49	0.47	0.53
11	0.47	0.45	0.51
12	0.46	0.44	0.49
13	0.44	0.42	0.47
14	0.43	0.41	0.46
15	0.41	0.40	0.45
16	0.40	0.38	0.43
17	0.39	0.37	0.42
18	0.37	0.36	0.41
19	0.36	0.35	0.40
20	0.35	0.34	0.39
25	0.31	0.30	0.34

*Fire Protection Equipment Room Class Definition:

Room Class	Definition
I	No detectors; no suppression systems.
II	Detectors; no suppression systems.
III	No detectors, manually actuated suppression systems.
IV	Detectors, manually actuated suppression systems.
V	Detectors; automatic suppression systems.

Table 4.4-2 Summary of Top Events Impacted by Fire Zones (Unit 1)
(Sheet 1 of 7)

TOP EVENT SUMMARY (UNIT-1)

FIRE AREA	FIRE ZONE	TOP EVENT/[IE] AFFECTED
1-AB-L1-B	149	480B_15-B, 480B_L15-B, MCCB_B-B, MCCB_D-B, NSCW-BP
1-AB-L1-B	43	480B_15-B, 480B_L15-B, 4KAC_L-B, 4KAC_L-BP, AFW-BP, CI-O/O, HLR-BP, HPI-A, HPI-B, HPI-BP, HPI-P, HPR(C1), HPR-AP, HPR-BP, LPI-B, LPI-BP, LPR-B, MCCB_B-B, MCCB_LB-B, NCHRG, NCHRG-AP, NCHRG-B, NCHRG-BP, NRHR-B, NRHR-BP, NSCW-B, NSCW-BP, SD-I, SGP-BP, VESF-B, VESF-BP
1-AB-L1-C	44	4KAC_L-A, 4KAC_L-AP, AFW-AP, EBR-P, HLR-AP, HPI-A, HPI-AP, HPI-B, HPI-P, HPR(C2), HPR-AP, HPR-BP, LPI-A, LPI-AP, LPR-A, MCCA_B-A, NCHRG, NCHRG-AP, NCHRG-BP, NRHR-AP, NSCW-A, NSCW-AP, SGP-AP, SLO, VESF-A, VESF-AP
1-AB-L2-A	141A	CI, CI-I, CI-O
1-AB-L2-A	172	AFW-AP, CCW-AP, CON, MSI-A, MSR-A, SGI, SGP-AP
1-AB-L2-A	53	480B_15-B, 480B_L15-B, AFW-AP, CCW-AP, CON, MSI-A, MSR-A, SGI, SGP-AP
1-AB-L2-E	148	AFW-AP, CCW-AP, CON, MSI-A, MSR-A, SGI, SGP-AP, SLO-A
1-AB-LA-A	11A	4KAC_L-A, 4KAC_L-AP, AM (NE), CCP-P, CCW-AP, CI-I/I, EBR-P, HLR-AP, HPI-A, HPI-AP, HPI-B, HPI-P, HPR-AP, HPR-BP, HPR-P, LPI-AP, LPR-A, LPR-P, NCHRG, NCHRG-AP, NCHRG-BP, NRHR-A, NRHR-AP, NSCW-A, NSCW-A(MR), NSCW-AP, SGP-AP, SLO, SLO-A, VESF-A, VESF-AP
1-AB-LA-B	37	480B_15-B, 480B_L15-B, CCW-BP, CON, HPI-BP, HPR-P, LPR-P, MCCB_B-B, MSI-B, MSR-B, NCHRG, NSCW-B, NSCW-BP, SGI, SLO-B
1-AB-LA-B	52	CCW-BP, CON, HPI-BP, MSI-B, MSR-B, NCHRG, SGI, SLO-B
1-AB-LA-B	55	CCW-BP, SLO-A, SLO-B
1-AB-LA-C	39C	4KAC_L-A, 4KAC_L-AP, AM (NE), CCW-AP, EBR-P, HLR-AP, HPI-AP, HPI-P, HPR-AP, HPR-P, LPI-AP, LPR-A, LPR-P, NCHRG, NRHR-AP, NSCW-A, NSCW-AP, VESF-A, VESF-AP
1-AB-LA-D	39D	CI-O, CI-O(B), CSI-B, HLR-AP, HLR-BP, HPI(SI), HPI-AP, HPI-BP, LPI-AP, LPR-A, NCHRG, NRHR-AP, SGP-AP
1-AB-LA-E	39A	AFW-AP, AFW-CP, AM (NE), CON, HPI-BP, NCHRG, SGI, SLO
1-AB-LA-E	45	AFW-AP, AFW-CP, CON, HPI-BP, MSI-A, MSI-B, MSR-A, MSR-B, NCHRG, SGI, SGP-AP, SLO
1-AB-LB-A	31	CCP-P, HLR(SI)-B, HPI(SI), HPI(SI)-B, HPI-BP, HPI-P, HPR(C1), HPR(C2), HPR(C3-B), HPR(SI), HPR(SI)-B, HPR-BP, NCHRG, SLO-B
1-AB-LB-A	33	CCP-P, HLR(SI), HPI(SI), HPI-BP, HPI-P, HPR(C1), HPR(C2), HPR(SI), HPR-BP, NCHRG, SLO, SLO-B
1-AB-LB-A	34	480B_15-B, 480B_L15-B, AFW-BP, CCP-P, EBR-B, HPI-A, HPI-AP, HPI-B, HPI-BP, HPI-P, HPR(C1), HPR(C1)-B, HPR(C2), HPR(C3-B), HPR-A, HPR-B, HPR-BP, LPI-B, LPR-B, MCCB_B-B, MCCB_D-B, NCHRG, NCHRG-A, NCHRG-B, NSCW-BP, SLO-B
1-AB-LB-A	35	480B_15-B, 480B_L15-B, AFW-BP, CCP-P, EBR-B, HPI-A, HPI-AP, HPI-B, HPI-BP, HPI-P, HPR(C1), HPR(C1)-B, HPR(C2), HPR(C3-B), HPR-A, HPR-B, HPR-BP, LPI-B, LPR-B, MCCB_B-B, MCCB_D-B, NCHRG, NCHRG-A, NCHRG-B, NSCW-BP, SGP-BP, SLO-B
1-AB-LB-B	171	CCU-B, HPI-BP, HPR(C1), HPR-BP
1-AB-LB-B	26B	CCP-P, CCU-A, CI, HPI-BP, HPI-P, HPR(C2), HPR(C2)-A, HPR(C3), HPR(C3-A), HPR-BP, LPI-A, LPR-A, NCHRG, NRHR-A, SLO-A, SLO-B
1-AB-LB-B	39B	CSI-A, HLR-P, HPI-AP, HPI-BP, HPR-AP, HPR-BP
1-AB-LC-A	16	CI-O/O, HPI(SI), HPI-A, HPI-B, HPR(C1), HPR(C1)-B, HPR(C3-B), HPR(SI), HPR-AP, HPR-B, HPR-BP, LPI-B, LPR-B, NCHRG-AP, NCHRG-BP, NRHR-B
1-AB-LC-B	17	480A_15-A, 480A_L15-A, 4KAC_L-A, 4KAC_L-AP, AFW-AP, CCP-P, CCW-AP, CI-I/I, CON, EBR-A, EBR-P, HLR-AP, HPI(SI)-A, HPI-A, HPI-AP, HPI-B, HPI-P, HPR(C1)-B, HPR(C2), HPR(C2)-A, HPR(C3), HPR(C3-A), HPR(SI)-A, HPR-A, HPR-AP, HPR-B, HPR-BP, HPR-P, LOSP-A, LOSP-B, LPI-A, LPI-AP, LPI-B, LPR-A, LPR-B, LPR-P, MSI-A, MSR-A, NCHRG, NCHRG-A, NCHRG-AP, NCHRG-BP, NRHR-A, NRHR-AP, NRHR-B, NSCW-A, NSCW-A(MR), NSCW-AP, SGI, SGP-AP, SLO, SLO-A, SLO-B, VESF-A, VESF-AP
1-AB-LC-C	18	CI-I/I, HPI(SI), HPI(SI)-A, HPI-A, HPI-B, HPR(C2), HPR(C2)-A, HPR(SI), HPR(SI)-A, HPR-A, HPR-AP, HPR-BP, LPI-A, LPR-A, NCHRG-AP, NCHRG-BP, NRHR-A
1-AB-LC-D	20	EBR-A, HPI-A, HPI-AP, HPI-B, HPI-P, HPR(C1), HPR(C2), HPR-A, HPR-AP, HPR-BP, NCHRG, NCHRG-A, NCHRG-AP, NCHRG-BP
1-AB-LC-E	19	EBR-B, HPI-A, HPI-B, HPI-BP, HPI-P, HPR(C1), HPR(C2), HPR-A, HPR-AP, HPR-B, HPR-BP, NCHRG, NCHRG-AP, NCHRG-B, NCHRG-BP
1-AB-LD-A	11B	480B_15-B, 480B_L15-B, 4KAC_L-B, 4KAC_L-BP, AFW-BP, AM (NE), CCW-BP, CI-O/O, CON, EBR-B, EBR-P, HLR-BP, HPI(SI), HPI-A, HPI-AP, HPI-B, HPI-BP, HPI-P, HPR(C1), HPR(C1)-B, HPR(C2)-A, HPR(SI), HPR-A, HPR-AP, HPR-B, HPR-BP, HPR-P, LPI-A, LPI-B, LPI-BP, LPR-A, LPR-B, LPR-P, MCCB_B-B, MCCB_D-B, MSI-B, MSR-B, NCHRG, NCHRG-A, NCHRG-AP, NCHRG-B, NCHRG-BP, NRHR-A, NRHR-B, NRHR-BP, NSCW-B, NSCW-BP, SD-I, SGI, SGP-BP, SLO-B, VESF-B, VESF-BP
1-AB-LD-A	9	CI-O/O, EBR-B, HPI-A, HPI-B, HPR(C1)-B, HPR-AP, HPR-B, HPR-BP, LPI-B, LPR-B, NCHRG-AP, NCHRG-BP, NRHR-B

Table 4.4-2 Summary of Top Events Impacted by Fire Zones (Unit 1) (Sheet 2 of 7)

FIRE AREA	FIRE ZONE	TOP EVENT/[IE] AFFECTED
1-AB-LD-B	12	480A_15-A, 480A_L15-A, CCP-P, CI-I/I, EBR-A, HPI-A, HPI-AP, HPI-B, HPI-P, HPR(C2), HPR(C2)-A, HPR(C3), HPR(C3-A), HPR-A, HPR-AP, HPR-B, HPR-BP, LPI-A, LPR-A, LPR-B, NCHRG, NCHRG-A, NCHRG-AP, NCHRG-BP, NRHR-A, NRHR-B, NSCW-AP, SLO-B
1-AB-LD-B	24	CI-I/I, HPI(SI), HPI-A, HPI-B, HPR(C1)-B, HPR(C2)-A, HPR(SI), HPR-A, HPR-AP, HPR-B, HPR-BP, LPI-A, LPI-B, LPR-A, LPR-B, NCHRG-AP, NCHRG-BP, NRHR-A, NRHR-B, NSCW-A(MR)
1-AB-LD-B	38	4KAC_L-A, 4KAC_L-AP, CCP-P, CCW-AP, CI-I/I, EBR-P, HLR-AP, HPI-A, HPI-AP, HPI-B, HPI-P, HPR-AP, HPR-BP, HPR-P, LOSP-A, LOSP-B, LPI-AP, LPR-A, LPR-P, NCHRG, NCHRG-AP, NCHRG-BP, NRHR-A, NRHR-AP, NSCW-A, NSCW-A(MR), NSCW-AP, SGP-AP, SLO, SLO-A, VESF-A, VESF-AP
1-AB-LD-B	40	VESF-AP
1-AB-LD-B	46	AFW-AP, EBR-P, HLR-AP, HPI-A, HPI-AP, HPI-P, HPR(C2), HPR-AP, LPI-AP, LPR-A, NCHRG, NCHRG-AP, NRHR-AP, NSCW-A, NSCW-AP, VESF-BP
1-AB-LD-D	10	480A_15-A, 480A_L15-A, CI-I/I, HPI-A, HPI-B, HPR(C2), HPR(C2)-A, HPR(C3), HPR(C3-A), HPR-AP, HPR-BP, LPI-A, LPR-A, NCHRG-AP, NCHRG-BP, NRHR-A
1-AB-LD-D	8	480A_15-A, 480A_L15-A, CCP-P, CI-I/I, EBR-A, HPI-A, HPI-AP, HPI-B, HPI-P, HPR(C2), HPR(C2)-A, HPR(C3), HPR(C3-A), HPR-A, HPR-AP, HPR-BP, LPI-A, LPR-A, NCHRG, NCHRG-A, NCHRG-AP, NCHRG-BP, NRHR-A, NSCW-AP, SLO-B
1-AB-LD-G	12	NSCW-B(MR)
1-AB-LD-G	14B	CI-I/I, CSR-A, HPR(C2), HPR(C2)-A, LPI-A, LPR-A, NRHR-A, NSCW-A(MR)
1-AB-LD-G	14C	EBR-B, HPI-A, HPI-AP, HPI-B, HPI-BP, HPI-P, HPR(C1), HPR(C2), HPR-A, HPR-AP, HPR-B, HPR-BP, NCHRG, NCHRG-A, NCHRG-AP, NCHRG-B, NCHRG-BP
1-AB-LD-G	14D	CI-I/I, EBR-A, HPI-A, HPI-AP, HPI-B, HPI-P, HPR(C1), HPR(C2), HPR-A, HPR-AP, HPR-BP, LPI-A, NCHRG, NCHRG-A, NCHRG-AP, NCHRG-BP, NRHR-A, NSCW-A(MR)
1-AB-LD-G	21	CI-I/I, HPR(C2), LPI-A, NRHR-A, NSCW-A(MR)
1-AB-LD-G	22	480A_15-A, 480A_L15-A, CCP-P, CI-I/I, EBR-A, HPI-A, HPI-AP, HPI-B, HPI-P, HPR(C1), HPR(C2), HPR(C2)-A, HPR(C3), HPR(C3-A), HPR-A, HPR-AP, HPR-BP, LPI-A, LPR-A, MCCA_D-A, NCHRG, NCHRG-A, NCHRG-AP, NCHRG-BP, NRHR-A, NSCW-A(MR), NSCW-AP
1-AB-LD-G	26A	CCP-P, HPI-P, HPR(C1), HPR(C2), HPR(C2)-A, HPR(C3), HPR(C3-A), LPI-A, LPR-A, NCHRG, NRHR-A, SLO-A, SLO-B
1-AB-LD-G	3	EBR-B, NSCW-A(MR)
1-AB-LD-G	30	CCP-P, HPI-P, HPR(C1), HPR(C2), HPR(C2)-A, LPI-A, LPR-A, NCHRG, NRHR-A, SLO-A, SLO-B
1-AB-LD-G	32	CCP-P, HLR(SI)-A, HPI(SI)-A, HPI-P, HPR(C1), HPR(C2), HPR(C2)-A, HPR(C3), HPR(C3-A), HPR(SI)-A, LPI-A, LPR-A, NCHRG, NRHR-A, SLO-B
1-AB-LD-G	36	4KAC_L-A, 4KAC_L-AP, AM (NE), CCW-AP, EBR-P, HLR-AP, HPI-AP, HPI-P, HPR-AP, HPR-P, LPI-AP, LPR-A, LPR-P, NCHRG, NRHR-AP, NSCW-A, NSCW-AP, VESF-A, VESF-AP
1-AB-LD-G	48	4KAC_L-A, 4KAC_L-AP, AFW-AP, CON, EBR-P, HLR-AP, HPI-A, HPI-AP, HPI-B, HPI-P, HPR, HPR(C2), HPR(C2)-A, HPR-AP, HPR-BP, LPI-A, LPI-AP, LPR, LPR-A, MCCA_B-A, MSI-A, MSR-A, NCHRG, NCHRG-AP, NCHRG-BP, NRHR-AP, NSCW-A, NSCW-AP, SGI, SGP-AP, SLO, VESF-A, VESF-AP
1-AB-LD-G	5	CSI-B, CSR-B, EBR-B, NSCW-A(MR)
1-AB-LD-G	54	CCW-AP, SLO-A
1-AB-LD-H	2	480A_15-A, 480A_L15-A, HPI-A, HPR-AP, MCCA_B-A, MCCA_D-A, NCHRG-AP, NSCW-AP
1-AB-LD-I	1	480A_15-A, 480A_L15-A, CCP-P, CI-I/I, CSI-A, CSR-A, EBR-A, HPI-A, HPI-AP, HPI-B, HPI-P, HPR(C2), HPR(C2)-A, HPR(C3), HPR(C3-A), HPR-A, HPR-AP, HPR-BP, LPI-A, LPR-A, MCCA_B-A, MCCA_D-A, NCHRG, NCHRG-A, NCHRG-AP, NCHRG-BP, NRHR-A, NSCW-AP, SLO-B
1-AB-LD-I	23	480A_15-A, 480A_L15-A, 4KAC_L-A, 4KAC_L-AP, AFW-AP, AM (NE), CCP-P, CCW-AP, CI-I/I, CON, EBR-A, EBR-P, HLR-AP, HPI-A, HPI-AP, HPI-B, HPI-P, HPR(C2), HPR(C2)-A, HPR(C3), HPR(C3-A), HPR-A, HPR-AP, HPR-BP, HPR-P, LPI-A, LPI-AP, LPR-A, LPR-P, MCCA_B-A, MCCA_D-A, MSI-A, MSR-A, NCHRG, NCHRG-A, NCHRG-AP, NCHRG-BP, NRHR-A, NRHR-AP, NSCW-A, NSCW-A(MR), NSCW-AP, SGI, SGP-AP, SLO, SLO-A, SLO-B, VESF-A, VESF-AP
1-AB-LD-I	4	CSI-A, CSR-A, EBR-A
1-AB-LD-J	6	EBR-A
1-AFB-A	155	AFW-B
1-AFB-B	156	AFW-A
1-AFB-C	157A	AFW-C
1-AFB-D	157B	AFW, AFW-A, AFW-C
1-CB-L1-A	105-1	ALL
1-CB-L1-B	109	SGP-BP
1-CB-L1-B	111	SGP-BP
1-CB-L1-B	112	SGP-BP
1-CB-L1-B	113	AFW-P, CI-O/O, ESF-P, ISI, NRHR-B, RT-P, SGP-BP, SLO, SSP-4, VESF-A
1-CB-L1-B	114	SGP-BP

Table 4.4-2 Summary of Top Events Impacted by Fire Zones (Unit 1)
(Sheet 3 of 7)

FIRE AREA	FIRE ZONE	TOP EVENT/[IE] AFFECTED
1-CB-L1-B	115	4KAC_L-AP, SGP-BP, VESF-AP
1-CB-L1-B	116	SGP-BP
1-CB-L1-B	117	SGP-BP
1-CB-L1-B	118	SGP-BP
1-CB-L1-B	119	SGP-BP
1-CB-L1-B	124	SGP-BP
1-CB-L1-B	183B	SGP-BP
1-CB-L1-B	185	SGP-BP
1-CB-L1-C	176	480B_15-B, 480B_6-B, 480B_7-B, 480B_L15-B, 4KAC-B, 4KAC_L-B, 4KAC_L-BP, 4KAC_LB, ACCW-B(LR), AFW-B, AFW-B(LR), AFW-BP, AFW-C, AFW-P, AM (NE), AM-P, CBHV-B, CCP-B(LR), CCW-B(MR), CCW-BP, CI, CI-O/O, CON, DCBS-BP, EBR-B, ECW-B, ESF-P, HLR-BP, HPI(SI), HPI-A, HPI-AP, HPI-B, HPI-BP, HPI-P, HPR(C1), HPR(C1)-B, HPR(C3-B), HPR(SI), HPR-A, HPR-AP, HPR-B, HPR-BP, HPR-P, ISL, LOSPB, LOSPB(MR-DG-RAT), LPI-B, LPI-BP, LPR-B, LPR-P, MCCB_B-B, MCCB_D-B, MSI, MSI-B, MSR, MSR-B, NCHRG, NCHRG-A, NCHRG-AP, NCHRG-B, NCHRG-BP, NCW, NRHR-B, NRHR-BP, NSCW-B, NSCW-B(LR), NSCW-B(MR), NSCW-BP, PPR-B, PRP-B, PVC-B, PZR-B, RT-P, SD-A, SD-B, SD-I, SGI, SGP, SGP-BP, SI-B(LR), SLO, SLO(1), SLO(1)-95B96B, SLO-B, SLO-B(MR), SSP-2, VESF-A, VESF-B
1-CB-L1-E	108	AM (NE), HPR(C2)-A, LPI-A, LPR-A, NRHR-A, TT
1-CB-L1-F	107	4KAC_L-A, AFW-AP, CBHV-A, CON, DCBS-AP, ECW-A, HPR(C2), MCCA_A-A, MSI-A, MSR-A, NRHR-AP, NSCW-AP, SGI, SGP-AP
1-CB-L2-A	121	4KAC_L-B, 4KAC_L-BP, AFW-B, AFW-BP, AFW-C, AM (NE), AM-P, CI-O/O, CON, EBR-B, ECW-B, LOSPB, LOSPB(MR-DG-RAT), MSI-B, MSR-B, NCW, NRHR-B, SGP, SGP-BP, SLO(1), SLO(1)-95B96B, TT
1-CB-L2-B	120	1-RT-SI, 480B_15-B, 480B_6-B, 480B_7-B, 480B_L15-B, 4KAC-B, 4KAC_L-B, 4KAC_L-BP, 4KAC_LB, ACCW-B(LR), AFW-B, AFW-B(LR), AFW-BP, AFW-C, AFW-P, AM (NE), AM-P, CBHV-B, CCP-B(LR), CCW-BP, CI, CI-O/O, CON, EBR-B, ECW-B, ESF-P, HLR-BP, HPI(SI), HPI-A, HPI-AP, HPI-B, HPI-BP, HPI-P, HPR(C1), HPR(C1)-B, HPR(C2)-A, HPR(C3-B), HPR(SI), HPR-A, HPR-AP, HPR-B, HPR-BP, HPR-P, ISL, LOSPB, LOSPB(MR-DG-RAT), LPI-A, LPI-B, LPI-BP, LPR-A, LPR-B, LPR-P, MCCB_B-B, MSI, MSI-B, MSR, MSR-B, NCHRG, NCHRG-A, NCHRG-AP, NCHRG-B, NCHRG-BP, NCW, NRHR-A, NRHR-B, NRHR-BP, NSCW-B, NSCW-B(LR), NSCW-BP, PPR-B, PRP-B, PVC-B, PZR-B, RT-P, SD-A, SD-B, SD-I, SGI, SGP, SGP-BP, SI-B(LR), SLO, SLO(1), SLO(1)-95B96B, SLO-B, SSP-2, SSP-4, TT, VESF-A, VESF-B, VESF-B(11)
1-CB-L2-E	122A	AFW-P, CI-O/O, ESF-P, ISL, NRHR-B, RT-P, SD-A, SD-B, SD-I, SLO, SLO(1), SSP-4, VESF-A
1-CB-L2-E	122B	AFW-P, CI-O/O, ESF-P, ISL, NRHR-B, RT-P, SD-A, SD-B, SD-I, SLO, SLO(1), SSP-4, VESF-A
1-CB-L2-E	123	AFW-P, CI-O/O, ESF-P, ISL, NRHR-B, RT-P, SD-A, SD-B, SD-I, SLO, SLO(1), SSP-4, VESF-A
1-CB-L2-E	127	AFW-P, CI-O/O, ESF-P, ISL, NRHR-B, RT-P, SD-A, SD-B, SD-I, SLO, SLO(1), SSP-4, VESF-A
1-CB-L2-E	131	AFW-P, CI-O/O, ESF-P, ISL, NRHR-B, RT-P, SD-A, SD-B, SD-I, SLO, SLO(1), SSP-4, VESF-A
1-CB-L2-E	133A	AFW-P, CI-O/O, ESF-P, ISL, NRHR-B, RT-P, SD-A, SD-B, SD-I, SLO, SLO(1), SSP-4, VESF-A
1-CB-L2-E	133B	480B_15-B, 480B_6-B, 480B_7-B, 480B_L15-B, 4KAC-B, 4KAC_L-B, 4KAC_L-BP, 4KAC_LB, ACCW-B(LR), AFW-B, AFW-B(LR), AFW-BP, AFW-C, AFW-P, AM-P, CBHV-B, CCP-B(LR), CCW-BP, CI, CI-O/O, CON, EBR-B, ECW-B, ESF-P, HLR-BP, HPI(SI), HPI-A, HPI-AP, HPI-B, HPI-BP, HPI-P, HPR(C1), HPR(C1)-B, HPR(C3-B), HPR(SI), HPR-A, HPR-AP, HPR-B, HPR-BP, HPR-P, ISL, LOSPB, LOSPB(MR-DG-RAT), LPI-B, LPI-BP, LPR-B, LPR-P, MCCB_B-B, MSI, MSI-B, MSR, MSR-B, NCHRG, NCHRG-A, NCHRG-AP, NCHRG-B, NCHRG-BP, NCW, NRHR-B, NRHR-BP, NSCW-B, NSCW-B(LR), NSCW-BP, PPR-B, PRP-B, PVC-B, PZR-B, RT-P, SD-A, SD-B, SD-I, SGI, SGP, SGP-BP, SI-B(LR), SLO, SLO(1), SLO(1)-95B96B, SLO-B, SSP-2, SSP-4, VESF-A, VESF-B
1-CB-L2-E	134	480B_15-B, 480B_6-B, 480B_7-B, 480B_L15-B, 4KAC-B, 4KAC_L-B, 4KAC_LB, AFW-B, AFW-BP, AFW-C, AFW-P, CI-O/O, CON, EBR-B, ECW-B, ESF-P, HLR-BP, HPI-A, HPI-AP, HPI-B, HPI-BP, HPI-P, HPR(C1)-B, HPR(C3-B), HPR-A, HPR-AP, HPR-B, HPR-BP, ISL, LOSPB, LPI-B, LPI-BP, LPR-B, MSI-B, MSR-B, NCHRG, NCHRG-A, NCHRG-AP, NCHRG-B, NCHRG-BP, NCW, NRHR-B, NRHR-BP, NSCW-B, NSCW-BP, RT-P, SD-A, SD-B, SD-I, SGI, SGP, SGP-BP, SLO, SLO(1), SSP-4, VESF-A
1-CB-L2-E	182	AFW-P, CI-O/O, ESF-P, ISL, NRHR-B, RT-P, SD-A, SD-B, SD-I, SLO, SLO(1), SSP-4, VESF-A
1-CB-L2-E	201	AFW-P, CI-O/O, ESF-P, ISL, NRHR-B, RT-P, SD-A, SD-B, SD-I, SLO, SLO(1), SSP-4, VESF-A
1-CB-L3-A	179	CBHV-B, DCBS-BP, ECW-B, MCCB_A-B, MCCB_D-B, NRHR-BP, VESF-BP
1-CB-L3-B	180	NCW-A, NCW-B
1-CB-L3-C	178	4KAC_L-A, AFW-AP, CBHV-A, CON, DCBS-AP, ECW-A, MCCA_A-A, MSI-A, MSR-A, NRHR-AP, NSCW-AP, SGI, SGP-AP
1-CB-L3-H	135	AFW-C, CBHV-A, DCBS-AP, ECW-A, MCCA_A-A, NCW, NRHR-AP
1-CB-L3-K	136	NCW-A, NCW-B
1-CB-L3-L	137	ECW-B
1-CB-L3-M	125A	ECW-B
1-CB-L4-A	170	NCW, NCW-A, NCW-B
1-CB-LA-A	101	CI, SGP-BP
1-CB-LA-B	89	SGP-BP

Table 4.4-2 Summary of Top Events Impacted by Fire Zones (Unit 1) (Sheet 4 of 7)

FIRE AREA	FIRE ZONE	TOP EVENT/[IE] AFFECTED
1-CB-LA-C	90	CON, SGP
1-CB-LA-D	104	AFW-BP, AFW-CP, MSI-A, MSI-B, SGL, SGP-BP
1-CB-LA-D	99	AFW-BP, MSI-A, MSI-B, SGL, SGP-BP
1-CB-LA-F	84	4KAC-BP, CON, CON-P, LOSP-A, LOSP-B, LOSPB, NCW, NCW-A, NCW-B, SGP
1-CB-LA-G	103	480A_15-A, 480A_L15-A, 4KAC_L-A, 4KAC_L-AP, AFW-A, AFW-AP, AFW-C, CBHV-A, CCP-P, CCW-AP, CI-I/I, EBR-A, EBR-P, ECW-A, HLR-AP, HPI-A, HPI-AP, HPI-P, HPR(C2)-A, HPR-A, HPR-AP, ISL, LPI-A, LPI-AP, LPR-A, NCHRG, NCHRG-A, NRHR-A, NRHR-AP, NSCW-A, NSCW-AP, PPR-A, PRP-A, PVC-A, PZR-A, SD-A, SGP-AP, SLO(1), SLO-A, VESF-A
1-CB-LA-G	91	480A_15-A, 480A_4-A, 480A_5-A, 480A_L15-A, 4KAC-A, 4KAC-AP, 4KAC-BP, 4KAC_L-A, 4KAC_L-AP, AFW-A, AFW-AP, AFW-C, AM (NE), CCW-AP, CI-I/I, CON, EBR-P, ECW-A, HLR-AP, HPI-A, HPI-AP, HPI-P, HPR(C2)-A, HPR-A, ISL, LOSP-A, LOSP-B, LOSPA, LOSPB, LPI-A, LPI-AP, LPR-A, NCHRG, NCHRG-A, NCW, NRHR-A, NRHR-AP, NSCW-A, NSCW-AP, SD-A, SGP, SGP-AP, SLO(1), SLO-A, VESF-A
1-CB-LA-H	92	480B_15-B, 480B_6-B, 480B_7-B, 480B_L15-B, 4KAC-B, 4KAC-BP, 4KAC_L-A, 4KAC_L-B, 4KAC_L-BP, 4KAC_LB, AFW-B, AFW-BP, AFW-C, AM (NE), CCW-BP, CON, ECW-B, HPI-B, HPR(C1)-B, HPR(C3-B), HPR-B, LOSP-A, LOSP-B, LOSPB, LPI-B, LPR-B, MSI-B, NCHRG-B, NCW, NRHR-B, NSCW-B, NSCW-BP, SGL, SGP, SGP-BP, SLO-B, VESF-B
1-CB-LA-I	88	4KAC_L-B, AFW-B, AM (NE), CCW-BP, CI-O/O, DCBS-BP, ECW-B, ESF-P, HPI-B, HPR(C1), HPR(C1)-B, HPR-B, ISL, LPI-B, LPR-B, MCCB_E-B, NCHRG-B, NRHR-B, NRHR-BP, NSCW-BP, PPR-B, PRP-B, PVC-B, PZR-B, SD-A, SD-B, SD-I, SGP-BP, SLO, SLO(1)
1-CB-LA-I	93	480B_15-B, 480B_6-B, 480B_7-B, 480B_L15-B, 4KAC-B, 4KAC_L-B, 4KAC_L-BP, 4KAC_LB, AFW-B, AFW-BP, AFW-C, AM (NE), CBHV-B, CCW-BP, CI-O/O, CON, DCBS-BP, EBR-B, ECW-B, ESF-P, HLR-BP, HPI(SI), HPI-A, HPI-AP, HPI-B, HPI-BP, HPI-P, HPR(C1), HPR(C1)-B, HPR(C3-B), HPR(SI), HPR-A, HPR-AP, HPR-B, HPR-BP, HPR-P, ISL, LOSPB, LPI-B, LPI-BP, LPR-B, LPR-P, MCCB_B-B, MCCB_E-B, MSI-B, MSR-B, NCHRG, NCHRG-A, NCHRG-AP, NCHRG-B, NCHRG-BP, NCW, NRHR-B, NRHR-BP, NSCW-B, NSCW-BP, PPR-B, PRP-B, PVC-B, PZR-B, SD-A, SD-B, SD-I, SGL, SGP, SGP-BP, SLO, SLO(1), SLO-B, VESF-B, VESF-BP
1-CB-LA-J	158	CI-O/O, DCBS-BP, MCCB_E-B, NRHR-B, NRHR-BP, PPR-B, PRP-B, PVC-B, PZR-B, SLO, SLO(1)
1-CB-LA-K	95	1-QMCB-A-A, 1-QMCB-A-I, 1-QMCB-B-A, 1-QMCB-B-I, 480A_15-A, 480A_4-A, 480A_5-A, 480A_L15-A, 4KAC-A, 4KAC-AP, 4KAC_L-A, 4KAC_L-AP, ACCW-A(LR), AFW-A, AFW-A(LR), AFW-AP, AFW-C, AFW-P, AM (NE), CBHV-A, CCP-P, CCW-AP, CI, CI-I/I, CON, CON-P, EBR-A, EBR-P, ECW-A, ESF-P, HLR-AP, HPI(SI)-A, HPI-A, HPI-AP, HPI-B, HPI-P, HPR(C1)-B, HPR(C2), HPR(C2)-A, HPR(C3), HPR(C3-A), HPR(SI)-A, HPR-A, HPR-AP, HPR-B, HPR-BP, HPR-P, ISL, LOSPA, LOSPA(MR-DG-RAT), LPI-A, LPI-AP, LPI-B, LPR-A, LPR-B, LPR-P, MSL, MSI-A, MSR, MSR-A, NCHRG, NCHRG-A, NCHRG-AP, NCHRG-BP, NCW, NRHR-A, NRHR-AP, NRHR-B, NSCW-A, NSCW-A(LR), NSCW-A(MR), NSCW-AP, PPR-A, PRP-A, PVC-A, PZR-A, RT-P, SD-A, SD-B, SGL, SGP, SGP-AP, SLO, SLO(1), SLO(1)-95A96A, SLO-A, SLO-B, SSP-1, SSP-3, TT, VESF-A, VESF-A(11), VESF-A(11)4, VESF-B
1-CB-LA-L	98	480B_15-B, 480B_L15-B, 4KAC_L-B, 4KAC_L-BP, AFW-B, AFW-BP, AFW-P, CBHV-B, CCW-BP, CI-O/O, EBR-B, ECW-B, ESF-P, HLR-BP, HPI-A, HPI-AP, HPI-B, HPI-BP, HPI-P, HPR(C1)-B, HPR-A, HPR-B, HPR-BP, ISL, LPI-B, LPI-BP, LPR-B, MCCB_B-B, NCHRG, NCHRG-A, NCHRG-B, NRHR-B, NRHR-BP, NSCW-B, NSCW-BP, PPR-B, PRP-B, PVC-B, PZR-B, RT-P, SD-A, SD-B, SGP-BP, SLO, SLO(1), SSP-4, VESF-A, VESF-B
1-CB-LA-N	85	480A_15-A, 480A_4-A, 480A_5-A, 480A_L15-A, 4KAC-BP, 4KAC_L-A, 4KAC_L-AP, AFW-A, AFW-C, AFW-P, AM (NE), CBHV-A, CCP-P, CCW-AP, CI-I/I, CON, EBR-A, ECW-A, ESF-P, HLR-AP, HPI-A, HPI-AP, HPI-P, HPR(C2)-A, HPR-A, HPR-AP, ISL, LOSP-A, LOSP-B, LOSPB, LPI-A, LPI-AP, LPR-A, MCCA_A-A, MSI-A, NCHRG, NCHRG-A, NCW, NRHR-A, NRHR-AP, NSCW-A, NSCW-A(MR), NSCW-AP, PPR-A, PRP-A, PVC-A, PZR-A, RT-P, SD-A, SGL, SGP, SGP-AP, SLO, SLO(1), SLO-A, VESF-A
1-CB-LA-N	86	4KAC_L-A, AM (NE), CON, CON-P, HPI-AP, MSI-A, NCHRG, SGL, SGP
1-CB-LA-N	94	480A_15-A, 480A_4-A, 480A_5-A, 480A_L15-A, 4KAC-A, 4KAC-AP, 4KAC_L-A, 4KAC_L-AP, AFW-A, AFW-AP, AFW-C, AFW-CP, AFW-P, AM (NE), CCW-AP, CI-I/I, CM, CON, EBR-A, EBR-P, ECW-A, ESF-P, HLR-AP, HPI-A, HPI-AP, HPI-P, HPR(C2)-A, HPR-A, HPR-P, ISL, LOSPA, LOSPA(MR-DG-RAT), LPI-A, LPI-AP, LPR-A, LPR-P, MSI-A, MSR-A, NCHRG, NCHRG-A, NCW, NRHR-A, NRHR-AP, NSCW-A, NSCW-A(MR), NSCW-AP, RT-P, SGL, SGP, SGP-AP, SLO, SLO(1), SLO(1)-95A96A, SLO-A, SLO-B, SSP-3, VESF-A, VESF-B
1-CB-LA-O	174	AM (NE), HPR(C1)-B, HPR(C2)-A, HPR-A, HPR-B, ISL, LPI-A, LPI-B, LPR-A, LPR-B, NRHR-A, NRHR-B, SD-A, SLO(1), TT
1-CB-LA-P	173	480A_15-A, 480A_4-A, 480A_5-A, 480A_L15-A, 4KAC_L-A, 4KAC_L-AP, ACCW-A(LR), AFW-A(LR), AFW-AP, AFW-P, CBHV-A, CCP-P, CCW-AP, CI, CI-I/I, CON, DCBS-AP, EBR-A, EBR-P, ECW-A, ESF-P, HLR-AP, HPI(SI)-A, HPI-A, HPI-AP, HPI-B, HPI-P, HPR(C2), HPR(C2)-A, HPR(C3), HPR(C3-A), HPR(SI)-A, HPR-A, HPR-AP, HPR-BP, HPR-P, ISL, LOSPA(MR-DG-RAT), LPI-A, LPI-AP, LPR-A, LPR-P, MCCA_A-A, MSI-A, MSR-A, NCHRG, NCHRG-A, NCHRG-AP, NCHRG-BP, NRHR-A, NRHR-AP, NSCW-A, NSCW-A(LR), NSCW-A(MR), NSCW-AP, PPR-A, PRP-A, PVC-A, PZR-A, RT-P, SD-A, SD-B, SGL, SGP-AP, SLO, SLO(1), SLO(1)-95A96A, SLO-A, SLO-B, VESF-A
1-CB-LA-Q	175	AM (NE), ESF-P, HPR(C1)-B, ISL, LPI-B, LPR-B, NRHR-B, SD-B, SLO, SLO(1)

Table 4.4-2 Summary of Top Events Impacted by Fire Zones (Unit 1)
(Sheet 5 of 7)

FIRE AREA	FIRE ZONE	TOP EVENT/[IE] AFFECTED
1-CB-LA-R	97	480B_15-B, 480B_6-B, 480B_7-B, 480B_L15-B, 4KAC-B, 4KAC_L-B, 4KAC_L-BP, 4KAC_LB, ACCW-B(LR), AFW-B, AFW-B(LR), AFW-BP, AFW-C, AFW-P, AM (NE), AM-P, CBHV-B, CCP-B(LR), CCW-B(MR), CCW-BP, CI, CI-O/O, CON, DCBS-BP, EBR-B, ECW-B, ESF-P, HLR-BP, HPI(SI), HPI-A, HPI-AP, HPI-B, HPI-BP, HPI-P, HPR(C1), HPR(C1)-B, HPR(SI), HPR-A, HPR-AP, HPR-B, HPR-BP, HPR-P, ISL, LOSPB, LOSPB(MR-DG-RAT), LPI-B, LPI-BP, LPR-B, LPR-P, MCCB_B-B, MCCB_D-B, MSI, MSI-B, MSR, MSR-B, NCHRG, NCHRG-A, NCHRG-AP, NCHRG-B, NCHRG-BP, NCW, NRHR-B, NRHR-BP, NSCW-B, NSCW-B(LR), NSCW-B(MR), NSCW-BP, PPR-B, PRP-B, PVC-B, PZR-B, RT-P, SD-A, SD-B, SD-I, SGI, SGP, SGP-BP, SI-B(LR), SLO, SLO(1), SLO(1)-95B96B, SLO-B, SLO-B(MR), SSP-2, VESF-A, VESF-B, VESF-BP
1-CB-LA-S	100	SGP-BP
1-CB-LA-T	102	SGP-BP
1-CB-LA-T	87	CON, SGP, SGP-BP
1-CB-LA-U	169	AM (NE), EBR, ESF-P, HPR(C1)-B, ISL, LPI-B, LPR-B, NRHR-B, SLO
1-CB-LB-A	143	4KAC_L-A, 4KAC_L-AP, AFW-A
1-CB-LB-A	69	[RT], SD-A, SD-B, TT, VRT1, VRT2
1-CB-LB-A	72	AFW-C, CBHV-A
1-CB-LB-A	73	[RT], 480A_4-A, 480A_5-A, 4KAC_L-A, 4KAC_L-AP, AFW-A, AFW-P, CBHV-A, CI, CI-I/I, CON, DCBS-AP, ESF-P, HPR(C2), ISL, MCCA_A-A, MCCA_E-A, NRHR-A, NRHR-AP, PPR-A, PRP-A, PVC-A, PZR-A, RT-P, SD-A, SD-B, SGP, SLO, SLO(1), TT, VESF-AP
1-CB-LB-B	75	480A_4-A, 480A_5-A, 4KAC_L-A, 4KAC_L-AP, AFW-A, AFW-P, CBHV-A, CI, CI-I/I, DCBS-AP, ESF-P, HPR(C2), ISL, MCCA_A-A, MCCA_E-A, NRHR-A, NRHR-AP, PPR-A, PRP-A, PVC-A, PZR-A, RT-P, SLO, SLO(1), VESF-AP
1-CB-LB-C	79A	[RT], 4KAC_L-B, 4KAC_L-BP, ACCW-B(LR), AFW-B(LR), AM-P, CBHV-B, CCP-B(LR), CCW-B(MR), CON, DCBS-B, DCBS-BP, DCPB-B, LOSPB(MR-DG-RAT), MSI, MSI-B, MSR, MSR-B, NSCW-B(LR), NSCW-B(MR), PPR-B, PRP-B, PVC-B, PZR-B, SGI, SGP-BP, SI-B(LR), SLO(1), SLO(1)-95B96B, SLO-B(MR), SSP-2, VESF-A, VESF-B, VESF-BP
1-CB-LB-D	144	4KAC_L-B, 4KAC_L-BP, AFW-B, AFW-C
1-CB-LB-D	60	AFW-P, ESF-P, ISL, RT-P, SLO, SLO(1)
1-CB-LB-D	62	[RT], 480B_6-B, 480B_7-B, 4KAC_L-B, 4KAC_L-BP, AFW-BP, AFW-P, AM (NE), CBHV-B, CI, CI-O/O, ESF-P, HPR(C1), HPR(C1)-B, ISL, LPI-B, LPR-B, MCCB_D-B, MCCB_E-B, NRHR-B, NRHR-BP, PPR-B, PRP-B, PVC-B, PZR-B, RT-P, SD-A, SGP-BP, SLO, SLO(1)
1-CB-LB-D	65	4KAC_L-B, 4KAC_L-BP, AFW-B, CI, SGP-BP
1-CB-LB-D	66	[RT], 4KAC_L-B, 4KAC_L-BP, AFW-B, AFW-BP, AFW-C, AFW-P, CI, CI-I/I, ESF-P, ISL, NRHR-A, RT-P, SD-A, SGP-BP, SLO, SLO(1)
1-CB-LB-D	67	480B_6-B, 480B_7-B, 4KAC_L-B, 4KAC_L-BP, AFW-B, AFW-BP, AFW-P, CBHV-B, CI, CI-I/I, ESF-P, ISL, MCCB_D-B, MCCB_E-B, NRHR-A, PPR-B, PRP-B, PVC-B, PZR-B, RT-P, SGP-BP, SLO, SLO(1)
1-CB-LB-D	68	4KAC_L-B, AFW-BP, SGP-BP, VRT1, VRT2
1-CB-LB-D	70	AFW-C, CBHV-B
1-CB-LB-E	76	EBR, NCW, NCW-P
1-CB-LB-F	74	AFW-C
1-CB-LB-H	71	480B_6-B, 480B_7-B, 4KAC_L-B, 4KAC_L-BP, AFW-B, AFW-C, CBHV-B, MCCB_D-B, MCCB_E-B, SGP-BP, SLO(1)
1-CB-LB-I	83	AM (NE), HPR(C1)-B, ISL, LPI-B, LPR-B, NRHR-B, SLO(1)
1-CB-LB-J	56B	NRHR-B
1-CB-LB-K	77B	AFW-C, CI-I/I, NRHR-A
1-CB-LB-L	77A	AFW-C, AFW-CP, AFW-P, CI-I/I, ESF-P, ISL, NRHR-A, NRHR-AP, NSCW-A(MR), RT-P, SLO, SSP-3, VESF-A, VESF-B
1-CB-LB-M	78B	4KAC_L-A, 4KAC_L-AP, ACCW-A(LR), CBHV-A, CON, DCBS-A, DCBS-AP, MSI, MSR, NSCW-A(LR), PPR-A, PRP-A, PVC-A, PZR-A, SGI, SLO(1), SSP-1, VESF-A, VESF-AP, VESF-B
1-CB-LB-N	78A	[RT], 4KAC_L-A, 4KAC_L-AP, ACCW-A(LR), AFW-A(LR), CON, DCBS-A, DCBS-AP, DCPA-A, LOSPA(MR-DG-RAT), MSI, MSI-A, MSR, MSR-A, NSCW-A(LR), PPR-A, PRP-A, PVC-A, PZR-A, SGI, SGP-AP, SLO(1), SLO(1)-95A96A, SSP-1, VESF-A, VESF-AP, VESF-B
1-CB-LB-O	56A	CI-O/O, NRHR-B, NRHR-BP, SSP-4, VESF-A, VESF-B
1-CB-LB-P	152	[RT], 480B_6-B, 480B_7-B, 4KAC_L-B, 4KAC_L-BP, ACCW-B(LR), AFW-B(LR), AFW-BP, AFW-P, AM-P, CBHV-B, CCP-B(LR), CCW-B(MR), CI, CON, DCBS-BP, ESF-P, ISL, LOSPB(MR-DG-RAT), MCCB_D-B, MSI, MSI-B, MSR, MSR-B, NRHR-BP, NSCW-B(LR), NSCW-B(MR), PPR-B, PRP-B, PVC-B, PZR-B, RT-P, SD-A, SGI, SGP-BP, SI-B(LR), SLO, SLO(1), SLO(1)-95B96B, SLO-B(MR), SSP-2, VESF-A, VESF-B, VESF-BP
1-CB-LB-Q	79B	CBHV-B, DCBS-B
1-CB-LB-T	61	AFW-P, CI, CI-I/I, DCBS-AP, ESF-P, HPR(C2), ISL, MCCA_E-A, NRHR-A, NRHR-AP, PPR-A, PRP-A, PVC-A, PZR-A, RT-P, SLO, SLO(1)
1-CB-LB-T	64	AFW-P, CI-I/I, DCBS-AP, ESF-P, ISL, MCCA_E-A, NRHR-A, NRHR-AP, PPR-A, PRP-A, PVC-A, PZR-A, RT-P, SLO, SLO(1)

Table 4.4-2 Summary of Top Events Impacted by Fire Zones (Unit 1)
(Sheet 6 of 7)

FIRE AREA	FIRE ZONE	TOP EVENT/[IE] AFFECTED
1-CB-LC-A	126A	CI-I/I, ECW-A, NRHR-A
1-CB-LC-A	151	[RT], 480A_15-A, 480A_4-A, 480A_L15-A, 4KAC_L-A, 4KAC_L-AP, ACCW-A(LR), AFW-A(LR), AFW-AP, AFW-P, CBHV-A, CCP-P, CCW-AP, CI, CI-I/I, CON, DCBS-AP, EBR-A, EBR-P, ESF-P, HLR-AP, HPI(SI)-A, HPI-A, HPI-AP, HPI-B, HPI-P, HPR(C2), HPR(C2)-A, HPR(C3), HPR(C3-A), HPR(SI)-A, HPR-A, HPR-AP, HPR-BP, HPR-P, ISL, LOSPA(MR-DG-RAT), LPI-A, LPI-AP, LPR-A, LPR-P, MSI-A, MSR-A, NCHRG, NCHRG-A, NCHRG-AP, NCHRG-BP, NRHR-A, NRHR-AP, NSCW-A, NSCW-A(LR), NSCW-A(MR), NSCW-AP, PPR-A, PRP-A, PVC-A, PZR-A, RT-P, SD-A, SD-B, SGL, SGP-AP, SLO, SLO(1), SLO(1)-95A96A, SLO-A, SLO-B, VESF-A, VESF-AP
1-CB-LC-A	153	HPR(C1)-B, HPR(C2)-A, HPR-A, HPR-B, ISL, LPI-A, LPI-B, LPR-A, LPR-B, NRHR-A, NRHR-B, NSCW-A(MR), TT
1-CB-LC-A	42B	480A_15-A, 480A_L15-A, 4KAC-BP, 4KAC_L-A, 4KAC_L-AP, AFW-AP, CCP-P, CCW-AP, CI-I/I, CON, EBR-A, EBR-P, HLR-AP, HPI(SI)-A, HPI-A, HPI-AP, HPI-B, HPI-P, HPR(C1)-B, HPR(C2), HPR(C2)-A, HPR(C3), HPR(C3-A), HPR(SI)-A, HPR-A, HPR-AP, HPR-B, HPR-BP, HPR-P, LOSP-A, LOSP-B, LOSPA(MR-DG-RAT), LOSPB, LPI-A, LPI-AP, LPI-B, LPR-A, LPR-B, LPR-P, MSI-A, MSR-A, NCHRG, NCHRG-A, NCHRG-AP, NCHRG-BP, NCW, NCW-A, NCW-B, NRHR-A, NRHR-AP, NRHR-B, NSCW-A, NSCW-A(MR), NSCW-AP, SGL, SGP, SGP-AP, SLO, SLO(1)-95A96A, SLO-A, SLO-B, VESF-A, VESF-AP
1-CB-LC-B	138	[RT], 4KAC_L-A, 4KAC_L-B, AFW-A(LR), CBHV-A, CI-O/O, CON, LOSPA(MR-DG-RAT), MSL, MSI-A, MSR, MSR-A, NRHR-B, PPR-A, PPR-B, PRP-A, PRP-B, PVC-A, PVC-B, PZR-A, PZR-B, SGL, SGP-AP, SGP-BP, SLO(1), SLO(1)-95A96A, SSP-2, SSP-4, VESF-A, VESF-B
1-CB-LC-B	80	[RT], 4KAC_L-A, 4KAC_L-AP, 4KAC_L-B, ACCW-A(LR), AFW-A(LR), CBHV-A, CI-O/O, DCBS-AP, DCBS-BP, ISL, LOSPA(MR-DG-RAT), MSI-A, MSR-A, NRHR-AP, NRHR-B, NSCW-A(LR), PPR-A, PRP-A, PVC-A, PZR-A, SGP-AP, SLO(1), SLO(1)-95A96A, SSP-2, SSP-4, VESF-A, VESF-AP, VESF-B
1-CTB	140A	[RCS], ACC-AP, AFW-P, CCU-A, CCU-AP, CCU-B, CCU-BP, CI, CI-I, CI-I/I, CI-O/O, ESF-P, HPR(C1), HPR(C2), ISL, NRHR-A, NRHR-B, PPR-A, PPR-B, PRP-A, PRP-B, PVC-A, PVC-B, PZR-A, PZR-B, RT-P, SLO, SLO(1)
1-CTB	140B	[RCS], ACC-BP, AFW-P, CCU-A, CCU-AP, CCU-B, CCU-BP, CI, CI-I(A), CI-I/I, CI-O/O, ESF-P, HPR(C1), HPR(C2), ISL, NRHR-A, NRHR-B, PPR-A, PPR-B, PRP-A, PRP-B, PVC-A, PVC-B, PVC-P, PZR-A, PZR-B, RT-P, SLO, SLO(1)
1-CTB	140C	AFW-P, CCU-A, CCU-B, CI-I/I, CI-O/O, ESF-P, HPR(C1), HPR(C2), ISL, NRHR-A, NRHR-B, PPR-A, PPR-B, PRP-A, PRP-B, PVC-A, PVC-B, PZR-A, PZR-B, RT-P, SLO, SLO(1)
1-CTB	140E	AFW-P, CI-I/I, CI-O/O, ESF-P, HPR(C1), HPR(C2), ISL, NRHR-A, NRHR-B, PPR-A, PPR-B, PRP-A, PRP-B, PVC-A, PVC-B, PZR-A, PZR-B, RT-P, SLO, SLO(1)
1-DB-L1-A	161	4KAC_L-A, 4KAC_L-AP, AFW-A
1-DB-L1-B	162	4KAC_L-A, 4KAC_L-B, 4KAC_L-BP, AFW-B
1-DB-L1-C	163	4KAC_L-A
1-DB-L1-D	164	4KAC_L-B
1-DPB-A	165	4KAC_L-A
1-DPB-B	166	4KAC_L-B
1-EB-B	141B	CI, SGP-BP
1-FB-LC-A	132	480B_15-B, 480B_L15-B, 4KAC_L-B, 4KAC_L-BP, AFW-BP, AM (NE), CCW-BP, CI-O/O, CON, EBR-B, HLR-BP, HPI(SI), HPI-A, HPI-AP, HPI-B, HPI-BP, HPI-P, HPR(C1), HPR(C1)-B, HPR(C3-B), HPR(SI), HPR-A, HPR-AP, HPR-B, HPR-BP, HPR-P, LPI-B, LPI-BP, LPR-B, LPR-P, MCCB_B-B, MSI-B, MSR-B, NCHRG, NCHRG-A, NCHRG-AP, NCHRG-B, NCHRG-BP, NRHR-B, NRHR-BP, NSCW-B, NSCW-BP, SD-I, SGL, SGP, SGP-BP, SLO-B, VESF-B, VESF-BP
1-FB-LC-A	15	480B_15-B, 480B_L15-B, 4KAC_L-B, 4KAC_L-BP, AFW-BP, AM (NE), CCW-BP, CI, CI-O/O, CON, CSR-B, EBR-B, HLR-BP, HPI(SI), HPI-A, HPI-AP, HPI-B, HPI-BP, HPI-P, HPR(C1), HPR(C1)-B, HPR(SI), HPR-A, HPR-AP, HPR-B, HPR-BP, HPR-P, LPI-B, LPI-BP, LPR-B, LPR-P, MCCB_B-B, MSI-B, MSR-B, NCHRG, NCHRG-A, NCHRG-AP, NCHRG-B, NCHRG-BP, NRHR-B, NRHR-BP, NSCW-B, NSCW-BP, SD-I, SGL, SGP-BP, SLO-B, VESF-B, VESF-BP
1-NSP-LA-A	145	NSCW-A, NSCW-AP
1-NSP-LA-A	160A	NSCW-A, NSCW-AP
1-NSP-LA-B	146	HPR-P, LPR-P, NSCW-B, NSCW-BP
1-NSP-LA-B	160B	NSCW-B, NSCW-BP
1-NSP-LA-B	188	HPR-P, LPR-P
1-TB	500	4KAC-BP, CON, CON-P, LOSP-A, LOSP-B, LOSPB, NCW, SGL, SGP
1-TB	503	CON, NCW, SGP
1-TB	504	CON, NCW, SGP
1-TB	505	CON, NCW-A, NCW-B, SGP
1-TB	506	CON-P, MFW-A, MFW-P
1-TB	507	MFW-A, MFW-B, MFW-P
1-TB	508	4KAC-BP, CON, CON-P, LOSP-A, LOSP-B, LOSPB, NCW, SGP, SGP-P

Table 4.4-2 Summary of Top Events Impacted by Fire Zones (Unit 1)
(Sheet 7 of 7)

FIRE AREA	FIRE ZONE	TOP EVENT/[IE] AFFECTED
1-TB	509	CON, CON-P, LOSP-A, LOSP-B, MFW, NCW, NCW-A, NCW-B, SGP
1-TB	511	CON, LOSP-A, LOSP-B, NCW, SGP
1-TB	512	CON, CON-P, MFW, NCW, SGP
1-TB	513	4KAC-BP, CON, CON-P, LOSPB, NCW, SGP, TT
1-YARD	OE1	CON, SGP-P
1-YARD	PAN	CON, LOSPA, NCW, SGP
1-YARD	XYZ	TT
2-AB-LC-D	20	HPI-A, HPR-AP, NCHRG-AP
2-AB-LC-E	19	HPI-B, HPR-BP, NCHRG-BP
MISC	AA	VESF-A, VESF-B

4.5 FIRE DETECTION AND SUPPRESSION

4.5.1 FIRE PROTECTION SYSTEM (FPS)

The availability and the effectiveness of an FPS often dictates the severity and consequences of a fire. Thus, suppression probability is an important factor in a detailed fire analysis. In the context of a fire risk analysis, it is sometimes more appropriate to consider nonsuppression frequencies rather than suppression probabilities (see References 4-3, 4-12, and 4-16).

Following References 4-7, 4-12, and 4-16, the FPS in different fire zones in Unit 1 can be categorized into five FPS classes (table 4.4-1). The type of fire detection and suppression systems within a fire zone determines the t_H, which, in turn, is used to assess f_{NS}. The following section describes the assessment of f_{NS}.

4.5.2 FIRE NONSUPPRESSION FACTOR ANALYSIS

In earlier fire analyses (e.g., Reference 4-16), the fire nonsuppresin factor (f_{NS}) was often estimated by the following simplified model:

$$f_{NS} = \exp\left(-\frac{\tau_G}{t_S}\right) \tag{4.4}$$

where τ_G is the time to damage critical equipment predicted by COMPBRN IIIe (section 4.4.4), and t_s is the mean suppression time (42 min). This exponential model has also been used in References 4-3 and 4-14.

However, because the exponential model presumes the suppression time is exponentially distributed and does not consider the actual nuclear power plant fire incident data, the type of FPS in a location and the initial fire severity of a scenario, it was found not to be scenario-specific (Reference 4-12) and unrealistic.

Reference 4-12 presents a more sophisticated detection/suppression transition model that distinguishes the type of FPS being analyzed (table 4.4-1) and breaks down the detection and suppression processes into stages (figure 4.5-1). References 4-12, 4-15, and 4-17 provide a detailed description of the transition model and, therefore, is not repeated here. Briefly, the transition model separates the detection and suppression processes and considers the possible combination of manual and automatic response of different types of detection and suppression systems. Conditional probabilities are then assigned to each transition path based on actual nuclear power plant fire event data (see Reference 4-8).

Because the transition model requires extensive numerical manipulation, its approximated form (as a Weibull distribution, W) has been commonly used in more sophisticated fire analyses (References 4-12, 4-15, and 4-18):

$$W(\alpha, \beta, t) = \frac{\beta}{\alpha}\left(\frac{t}{\alpha}\right)^{\beta-1} e^{-\left(\frac{t}{\alpha}\right)^{\beta}} \tag{4.5}$$

and

$$F_{t_H}(t|\alpha, \beta) = 1 - \exp\left[-\left(\frac{t}{\alpha}\right)^{\beta}\right] \tag{4.6}$$

where α and β are the parameters for the Weibull distribution and are FPS class-specific.

Following Equations (4.3) and (4.6), f_{NS} becomes:

$$\begin{aligned} f_{NS} &= 1 - F_{t_H}(\tau_G|\alpha, \beta) \\ &= \exp\left[-\left(\frac{\tau_G}{\alpha}\right)^{\beta}\right] \end{aligned} \tag{4.7}$$

where τ_G is the damage time predicted by COMPBRN IIIe.

Since the VEGP FPS is similar to a generic nuclear power plant FPS and there is no evidence that the failure rate of VEGP FPS is significantly different from that of the generic failure rate for FPS, generic failure rates based on actual nuclear power plant fire records were used in Equation (4.5) to evaluate the parameters for the Weibull distribution for different FPS classes. Furthermore, the fire brigade response times obtained from actual fire drill records (table 4.5-1) were comparable to the generic response times provided by Reference 4-8, therefore, the generic fire response time was used. The mean fire control time for the various room FPS class were estimated to be in the range of 39.0 to 69.5 min (References 4-12, 4-15, and 4-17), depending on the initial fire severity modeled. This range of mean fire control time is considered to be reasonable and conservative because most fires can be detected by automatic fire detectors within seconds of fire initiation. Furthermore, the average VEGP fire brigade fire drill response time (see table 4.5-1 for several recent fire drill records) has been found to be lower than the mean fire control time used in the analysis.

Two type of fire severity were modeled in Reference 4-12: high and low initial fire severity. This analysis uses the parameters developed for high initial severity fires. Table 4.4-2 summarizes the f_{NS} calculations for FPS classes II, IV, and V with high initial fire severity as estimated in Reference 4-15.

Table 4.5-1 Summary of Fire Drill Records

Date	Type	Drill Location	Fire Brigade Response Time (min)	Simulated Suppression Time (min)
4/12/92	Announced	Unit 2 Control Building Level-A Computer Room RA-30 (Fire Zone 96)	15	13
7/1/92	Unannounced	Unit 1 Control Building North Main Steam Valve Room R-123	16	16
2/26/93	Announced	Unit 1 Turbine Building Level 3 Main Generator (Fire Zone 500)	21	9
5/21/93	Announced	Unit 1 Fuel handling Building Level 3 Room #301 (Fire Zone 142)	15	6
7/20/93	Unannounced	Unit 1 Auxiliary Feedwater Pumphouse Room R-104 (Fire Zone 157A)	19	6
8/25/94	Announced	Unit 2 Control Building Level A Room RA-06 (Fire Zone 100)	12	8
11/8/94	Announced	Unit 1 Diesel Generator Building Room R-101 Train B	16	18
1/16/95	Unannounced	Unit 1 Auxiliary Building Level 1 Room R-113 (fire Zone 46)	15	1

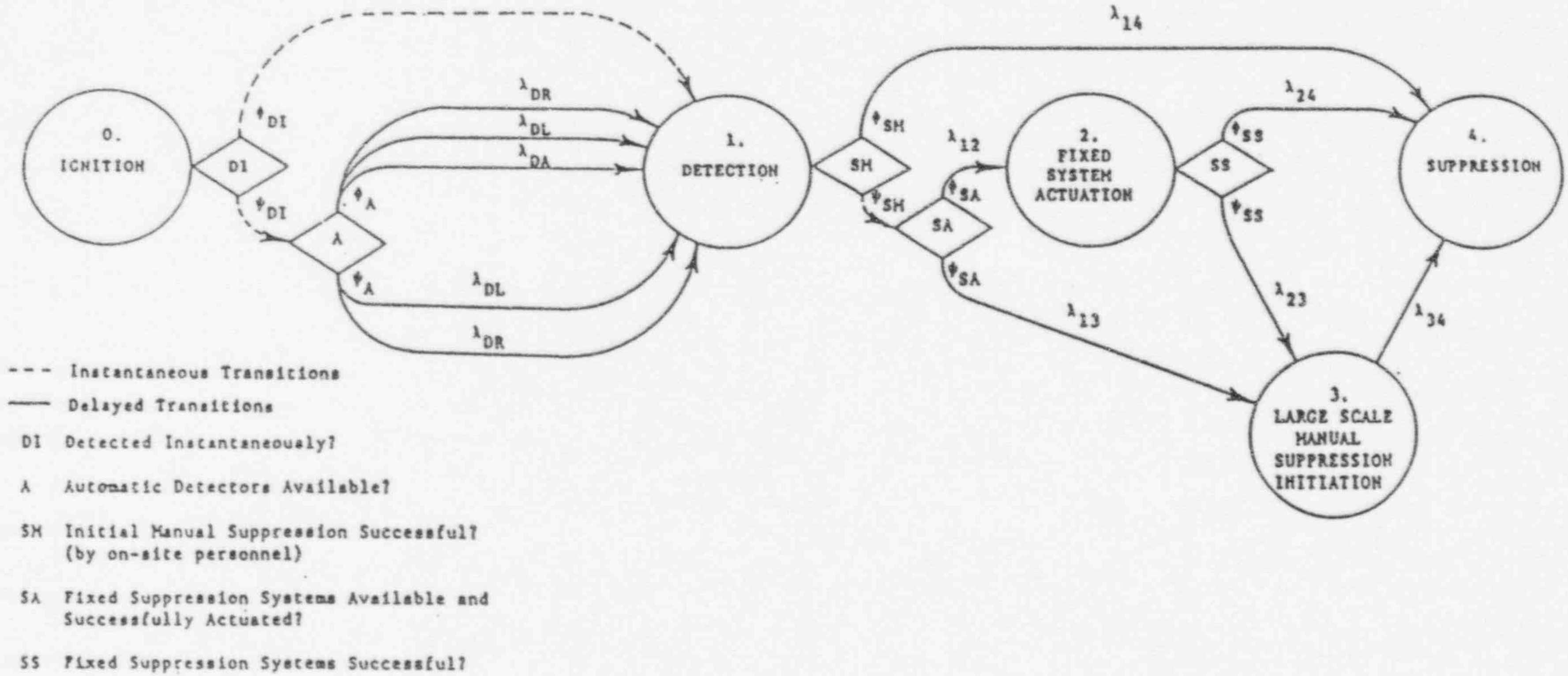


Figure 4.5-1 Transition Model for Detection and Suppression

4.6 ANALYSIS OF PLANT SYSTEMS, SEQUENCES, AND PLANT RESPONSE

4.6.1 DETAILED ANALYSIS (STEP 5)

In the spatial interactions analysis phase, several conservative assumptions were made to screen out the relatively risk-insignificant locations in the early part of the analysis. For instance, it was assumed that all components and cables within a fire zone were disabled by any fire occurring in the fire zone regardless of the location and severity of the fire.

In the detailed analysis phase, the conservative assumptions made in the earlier screening analysis were revisited. Detailed analysis scenarios, called subscenarios in this analysis, were developed for each location scenario that was retained from the spatial interactions analysis phase quantitative screening. Each subscenario accounts for an individual fire source (or group of fire sources) that can cause a distinct set of components to be damaged within a fire zones. Special attention was given to fire growth, hazard propagation, hazard detection and suppression, timing of failures, realistic plant impact, and operator recovery actions.

The frequency, ϕ_i, of the plant risk associated with fire zone i can be obtained by summing up the plant impact of j subscenarios developed for the fire zone:

$$\phi_i = \sum_j \lambda_{i,j}\, f_{R,j}\, Q_{x,j} \tag{4.8}$$

where

$\lambda_{i,j}$ = fire occurrence frequency apportioned to the fire source(s) modeled by subscenario j in fire zone i.

$f_{R,j}$ = frequency reduction factor, include $f_{S,j}$, $f_{G,j}$, and $f_{NS,j}$, where
= $f_{S,j}$ (severity factor);
= $f_{G,j}$ (geometry factor); or
= $f_{NS,j}$ (fire nonsuppression factor).

$Q_{x,j}$ = conditional CDF, given that the fire described by the subscenario j has occurred. The frequency of core damage is a combination of random failures and fire-induced failures. The conditional CDF also accounts for the failure probability of operator-initiated plant recovery actions (nonrecovery factors).

The elements in Equation (4.8) are described in the following sections.

4.6.2 FREQUENCY REDUCTION FACTOR

In the spatial interactions analysis, the scenario occurrence frequency of a fire zone denotes the total fire occurrence frequency of all fire sources within the fire zone. In the detailed analysis phase, where individual fire sources were evaluated separately in each subscenario, the location scenario occurrence frequency must be further apportioned to the particular fire sources modeled in each subscenario. Thus, the subscenario occurrence frequency, $\lambda_{i,j}$, is the fire occurrence frequency of the particular fire source(s) modeled in subscenario j for fire zone i.

The initiation of a fire does not necessarily lead to component damage (unless the fire source is the critical component). The frequency reduction factors $f_{S,j}$, $f_{G,j}$, or $f_{NS,j}$ were then used to model the probability of fire growth, fire propagation, fire detection and suppression, and the timing of fire-induced damage due to subscenario j.

Each frequency reduction factor addresses certain assumptions made earlier in the analysis and may have a point estimate value ranging from 0.0 to 1.0. Typically, either f_S or f_G (depending on the fire source) would first be evaluated for each subscenario. At the more fire vulnerable locations, the f_{NS} would be used to take credit for fire protection systems and manual suppression efforts (otherwise, the f_{NS} will take on a value of 1.0). Thus, f_R represents the product of f_S, f_G and f_{NS} in the evaluation of ϕ_i for fire zone i. Because the control room is 24-hour manned and the apportioned fire frequency for the cabinet fire source category plant components dominate the fire exposure risk, only the risk-significant panel-initiated fires were considered.

Figures 4.3-1 and 4.3-2 of this report present the f_S curves for different types of fire sources and table 4.4-2 of this report summarizes the calculation of f_{NS}.

4.6.3 ANALYSIS OF PLANT RESPONSE

4.6.3.1 Plant Response

The analysis of plant response in the detailed analysis phase was a refinement of the failure response analysis in the spatial interactions analysis phase (section 4.4.5). Instead of failing all of the top events associated with a particular fire zone, only impacts on the top events associated with the components failed by the specific subscenario were modeled. Appropriate split fraction values were then used to estimate Q_x, the conditional CDF, of each subscenario. Certain operator recovery actions were also modeled to obtain a realistic estimate of the conditional CDF.

The CDFs for the subscenarios were calculated in two separate iterations. First, the conditional CDFs for all of the subscenarios developed in the detailed analysis phase were evaluated by failing the equipment and cables included in the subscenarios. The unconditional core damage frequency for each of the subscenarios was obtained by multiplying the occurrence frequency of the fire scenario by the conditional CDF. For those subscenarios with an relatively higher unconditional core damage frequency, the subscenarios may be further subdivided to model a more realistic fire interactions between the fire sources and the safety equipment and cables.

4.6.3.2 Results of Fire Risk Analysis

Table 4.6-1 of this report summarizes the total fire risk impact for Unit 1. As shown in this table, the total core damage risk is 1.01E-5 per year for Unit 1. This represents about 22.7 percent of the core damage risk from the internal events for Unit 1.

4.6.3.2.1 Risk-Dominant Plant Locations

Table 4.6-2 lists the risk-dominant fire zones, associated with the top subscenarios listed in table 4.6-3, based on the detailed analysis. The fire risk contributions of these fire zones accounts for more than 60 percent of the total fire risk impact to Unit 1. Table 4.6-3 summarizes the top subscenarios that individually contribute more than 1 percent of the total fire-induced core damage risk for Unit 1. Collectively, these subscenarios account for approximately 50 percent of the total. The following paragraphs describe the fire risk significant fire zones and subscenarios.

Selected Unit 1 Locations. For Unit 1, the top five locations include the main control room, the train A and train B 4.16-kV switchgear rooms, the lower cable spreading room, and the train B electrical penetration area. A discussion of the analysis of the dominating subscenarios for each of the top Unit 1 plant locations for fire-induced core damage risk is presented below.

4.6.3.2.2 Risk-Dominant Fire Scenarios

Selected Unit 1 Scenarios. The following descriptions of the dominant Unit 1 fire subscenarios expand on the information provided in table 4.6-3. These Unit 1 top fire subscenarios each have an individual unconditional core damage frequency approximately greater than 1.0E-07 events per year. These subscenarios are grouped together and presented in the order of the top Unit 1 locations. The numbers in parentheses correspond to the rank number in table 4.6-3.

A. Main Control Room

(1) Control Room Fire Damaging Section 1A of Electrical Auxiliary Board 1-1816-U3-007. (MCR-46)

Core Damage Frequency: 1.28E-06 events per year.

This subscenario models a control room fire in section 1A of electrical auxiliary board 1-1816-U3-007. A number of plant impacts, including an LOSP on train A and train B, are assumed as a result of this fire. The following major equipment is modeled in the analysis as failed or unavailable:

- Section 1A of electrical auxiliary board 1-1816-U3-007.

- RAT 1NXRA.

- RAT 1NXRB.

- Since power from RAT 1NXRA and 1NXRB is not available to power 4.16-kV train A switchgear 1AA02 and train B switchgear 1BA03, all non-Class 1E equipment was assumed to be unavailable (e.g., condensate, normal chilled water, steam dumps, etc.).

The conditions leading to failure of this equipment due to fire and possible recovery actions are described below.

Train A and train B of essential ac power, initially assumed failed, were credited as being recovered in the analysis. Assuming the worst case impact, a control room fire in section 1A of electrical auxiliary board 1-1816-U3-007 could cause the power supply breakers from both RATs 1NXRA and 1NXRB, and diesel generator (DG) 1A and 1B to open, resulting in the de-energization of both 4.16-kV train A switchgear 1AA02 and train B switchgear 1BA03. A recovery action to locally (manually) close the DG output breakers on both train A and train B, was credited in the analysis. If this operator recovery action fails, a loss of all essential ac power is assumed to occur. However this is a highly conservative assessment. Although not credited in this analysis, ac power could be provided by Georgia Power Company's (GPC's) Plant Wilson through the SAT. A loss of all essential ac power in conjunction with failure of the turbine-driven AFW pump due to causes other than fire, would lead to core damage.

B. Train A 4.16-kV Switchgear Room

(2) Sequencer Fire (small) in Train A 4.16-kV Switchgear Room Damaging Cable Trays Causing Train A Loss of Offsite Power.
(1-CB-LA-G-91-L-F3)

Core Damage Frequency: 7.60E-07 events per year.

This subscenario models a small fire in sequencer 1-1823-U3-001 which damages the sequencer, and the following cable trays: TTZL, TTAE, TTAG, TTAF, and TEAB. A number of plant impacts, including an LOSP on train A, are assumed as a result of this fire. The resulting CDF associated with this subscenario was calculated using a reactor trip as the initiating event. The following major equipment is modeled in the analysis as failed or unavailable:

- Sequencer 1-1823-U3-001.

- Class 1E 4.16-kV emergency switchgear 1AA02 train A (1-1804-S3-A02).
- RAT 1NXRA.
- DG 1A (1-2403-G4-001).
- Class 1E 480-V train A switchgear 1AB15 (1-1805-S3-B15), 1AB04 (1-1805-S3-B04), and 1AB05 (1-1805-S3-B05).
- Train A motor-driven AFW pump 1A.
- Train C turbine-driven AFW pump 1C.
- Train A residual heat removal (RHR) pump.
- Train A charging pump.
- Train A engineered safety feature (ESF) chiller compressor motor.
- Train A component cooling water (CCW) pumps.
- Nuclear service cooling water (NSCW) train A.

The conditions leading to failure of this equipment due to fire and possible recovery actions are described below.

Train A of essential ac power and the turbine-driven AFW pump, initially assumed failed, were credited as being recovered in the analysis. Assuming the worst case impact due to a fire in the sequencer, trip coils in the circuitry could cause the power supply breakers from both RAT 1NXRA and DG 1A to open, resulting in the de-energization of the 4.16-k-V switchgear 1AA02. A recovery action to locally (manually) close these breakers was credited in the analysis. If this operator recovery action fails, and train B essential ac power fails due to causes other than fire, a loss of all essential ac power is assumed to occur. However this is a highly conservative assessment. Although not credited in this analysis, ac power could be provided by GPC's Plant Wilson through the SAT. A failure of the turbine-driven AFW pump, caused by the unavailability of the signal to auto-open the steam admission valve HV-5106, is modeled due to loss of the sequencer. A recovery action to locally (manually) open HV-5106 was also credited in the analysis. Failure of this operator recovery action, in conjunction with a loss of all essential ac power would lead to core damage.

The train A pumps, powered by train A of ac power, shown above are assumed failed due to the loss of a pump start signal from the sequencer. Although not credited in this analysis, these pumps could likely be recovered, by manual start, if train A essential ac power recovery is successful.

However, even if recovery of essential ac power is successful, train A of NSCW may still be unavailable. Due to loss of 480-V MCC 1ABB (powered from 480-V switchgear 1AB15), the NSCW cooling tower A return valve 1-HV-1668A and bypass valve 1-HV-1668B (both powered by 480-V MCC 1ABB) are assumed closed in the analysis. Most likely a three-phase short would be required to cause these normally open valves to transfer closed, but for this analysis the worst case was assumed. Although recovery (manually opening) these valves is possible, it was not credited in this analysis.

(8) Transient Fire (large) in the Train A 4.16-kV Switchgear Room Damaging Switchgear 1AA02 and all Cables in the Fire Zone Causing Train A and Train B Loss of Offsite Power.
(1-CB-LA-G-91-L-R4)

Core Damage Frequency: 1.96E-07 events per year.

This subscenario models a large transient fire in the train A 4.16-kV switchgear room which damages switchgear 1AA02 and all the cables in the fire zone. A number of plant impacts, including an LOSP on train A and train B, are assumed as a result of this fire. The resulting CDF associated with this subscenario was calculated using an inadvertent safety injection as the initiating event. The following major equipment is modeled in the analysis as failed or unavailable:

- Class 1E 4.16-kV emergency switchgear 1AA02 train A (1-1804-S3-A02)
- RAT 1NXRB
- RAT 1NXRA
- DG 1A (1-2403-G4-001)
- Train C turbine-driven AFW pump 1C.
- Main steam atmospheric dump valves 1-PV-3000, 3030.
- Since 4.16-kV switchgear 1AA02 is de-energized, all train A non-Class 1E equipment, powered from 1NB01, was assumed to be unavailable (e.g., condensate, normal chilled water, steam dumps, etc.).

The conditions leading to failure of this equipment due to fire and possible recovery actions are described below.

Assuming the worst case impact, power from both RATs to 4.16-kV switchgear 1AA02 and 1BA03 is unavailable due to a hot short in the cables that are routed to switchgear 1AA02. As a result, train A of all non-Class 1E equipment (e.g., condensate, normal chilled water, steam dumps, etc.) is assumed lost. A loss of control cables from the shutdown panel, due to a fire in this zone, could cause the main steam atmospheric dump valves 1-PV-3000 and 3030, to fail. Failure of these valves to open when demanded could lead to the unavailability of steam generator pressure relief. Further, DG 1A is assumed unavailable since the DG 1A output breaker, power supply cable and sequencer A are located in this fire zone; therefore, the train A 4.16-kV ac division is assumed unavailable. Therefore, if DG 1B which energizes train B 4.16-kV switchgear 1BA03 (since the RAT B is unavailable due to fire) fails due to causes other than fire, a loss of all essential ac power is assumed to occur. However this is a highly conservative assessment. Although not credited in this analysis, ac power could be provided by GPC's Plant Wilson through the SAT.

An inadvertent safety injection is assumed to occur because various cables to several pressurizer spray valves are located in this room. A failure of the turbine-driven AFW pump, caused by the loss of cables to the steam admission valve HV-5106, was assumed. A recovery action to locally (manually) open HV-5106 was credited in the analysis. Failure of this operator recovery action, in conjunction with a loss of all essential ac power, would lead to core damage.

C. Train B 4.16-kV Switchgear Room

(3) Switchgear Fire (large) in Train B 4.16-kV Switchgear Room Damaging all Cables in the Room Causing Train A and Train B Loss of Offsite Power.
(1-CB-LA-H-92-L-O1)

Core Damage Frequency: 6.19E-07 events per year.

This subscenario models a large fire in switchgear 1BA03 which damages the switchgear and all the cables in the room. A number of plant impacts, including an LOSP on train A and train B, are assumed as a result of this fire. The resulting CDF associated with this subscenario was calculated using a loss of main feedwater as the initiating event. The following major equipment is modeled in the analysis as failed or unavailable:

- Class 1E 4.16-kV emergency switchgear 1BA03 train B (1-1804-S3-A03).
- RAT 1NXRB.
- RAT 1NXRA.
- DG 1B (1-2403-G4-002.)

- Train C turbine-driven AFW pump 1C.

- Since 4.16-kV switchgear 1BA03 is de-energized, all non-Class 1E equipment was assumed to be unavailable (e.g., condensate, normal chilled water, steam dumps, etc.).

NOTE: The CDF shown for this subscenario is based on the worst case impact for the total fire zone.

The conditions leading to failure of this equipment due to fire and possible recovery actions are described below.

Since 4.16-kV switchgear 1BA03 is the source of the fire, no recovery of train B essential ac power was postulated. Therefore if DG 1A which energizes train A 4.16-kV switchgear 1AA02 (since the RAT A is unavailable due to fire), fails due to causes other than fire, a loss of all essential ac power is assumed to occur. However this is a highly conservative assessment. Although not credited in this analysis, ac power could be provided by GPC's Plant Wilson through the SAT. A failure of the turbine-driven AFW pump, caused by the unavailability of the signal to auto-open the steam admission valve HV-5106, is modeled due to loss of the sequencer which is powered from train B essential ac power. A recovery action to locally (manually) open HV-5106 was credited in the analysis. Failure of this operator recovery action, in conjunction with a loss of all essential ac power would lead to core damage.

D. Lower Cable Spreading Room

(9) Cable Fire in the Lower (Train A) Cable Spreading Room Damaging Raceways TTCE, TTCF, TTCG, TTCH, and TTCT.
(1-CB-LA-K-95-L-G2)

Core Damage Frequency: 1.69E-07 events per year.

This subscenario models self-ignition of cable in trays TTCE, TTCF, TTCG, TTCH, and TTCT, or other trays in the same stack. For this subscenario, the worst case impact for the total fire zone was assumed. Based on this worst case assumption, a number of plant impacts, including an LOSP on train A, are assumed as a result of a cable fire. The resulting CDF associated with this subscenario was claculated using a inadvertent safety injection as the initiating event. The following major equipment is modeled in the analysis as failed or unavailable:

- Class 1E 4.16-kV emergency switchgear 1AA02 train A (1-1804-S3-A02).

- RAT 1NXRA.

- DG 1A (1-2403-G4-001).

- Train C turbine-driven AFW pump 1C.
- Main steam atmospheric dump valves 1-PV-3000, 3030.
- CVCS alternate miniflow isolation valve HV-8509A.
- RCS pressurizer power-operated relief valve (PORV) 1-PV-0455A.
- RCS pressurizer PORV block valve 1-HV-8000A.

NOTE: The CDF shown for this subscenario is based on the worst case impact for the total fire zone.

The conditions leading to failure of this equipment due to fire and possible recovery actions are described below.

Assuming the worst case impact, a fire could cause the power supply breakers from RAT A and DG 1A to open, resulting in the de-energization of 4.16-kV switchgear 1AA02. Power may be recoverable, but no credit was taken in the analysis. As a result, a loss of train A (essential and nonessential) ac power is assumed, which leads to an extensive loss of train A systems. Therefore if train B ac power fails due to causes other than fire, a loss of all essential ac power is assumed to occur. However this is a highly conservative assessment. Although not credited in this analysis, ac power could be provided by GPC's Plant Wilson through the SAT.

CVCS alternate miniflow isolation valve HV-8509A could transfer closed by a three-phase short to fail train B of high-pressure injection. A recovery action to locally open HV-8509A (or HV-8438) to recover train B was credited in the analysis. Failure of this recovery action could lead to a total loss (both trains) of high-pressure injection.

It was also assumed that loss of some control cables, to the RCS pressurizer PORV 1-PV-0455A, and RCS PORV block valve 1-HV-8000A could possibly cause a small LOCA. Most likely a three-phase short would be required to cause these normally fail closed valves to transfer open, but for this analysis the worst case was assumed. Recovery (manually closing) of these valves was credited in this analysis.

Further, loss of control cables from the shutdown panel could cause the main steam atmospheric dump valves 1-PV-3000 and 3030 to fail. Failure of these valves to open when demanded could lead to the unavailability of train A steam generator pressure relief.

An inadvertent safety injection is assumed to occur due to failure of three pressurizer pressure transmitters (PT-0455, 0456, and 0457) and various cables to several pressurizer spray valves. A failure of the turbine-driven AFW pump, caused by the loss of cables to the steam admission valve HV-5106, was assumed. A recovery action to locally (manually) open HV-5106 was credited in the analysis. Failure of this operator recovery action, in conjunction with a loss of all essential ac power would lead to core damage.

(10) Cable Fire in the Lower (Train A) Cable Spreading Room Damaging Raceways TQBR, TQBS, TQBU, TQBV, and TQBW.
(1-CB-LA-K-95-L-G3)

Core Damage Frequency: 1.69E-07 events per year.

This subscenario is similar to 1-CB-LA-K-95-L-G2, except that the fire source is self-ignition of cables in trays TQBR, TQBS, TQBU, TQBV, and TQBW.

E. Train B Electrical Penetration Area

(5) Transient Fire (large) in the Train B Electrical Penetration Area Damaging All the Raceways and Cables in the Fire Zone.
(1-CB-LA-I-88-L-R2)

Core Damage Frequency: 3.36E-07 events per year.

This subscenario models a large transient fire in the train B electrical penetration area which damages all the raceways and cables in the fire zone A number of plant impacts are assumed as a result of this fire. The resulting CDF associated with this subsceanrio was clauclated using an inadvertant safety injection as the initiating event. The following major equipment is modeled in the analysis as failed or unavailable:

- Train B NSCW pumps (1-1202-P4-002, 004, and 006)
- Train B CVCS charging pump (1-1208-P6-003)
- Train B CCW pumps (1-1203-P4-002, 004, and 006)
- Train B motor-driven AFW pump 1B.
- Reactor head vent letdown to pressurizer tank valve HV-0442B
- CVCS head vent letdown valves HV-8095B, 8096B

The conditions leading to failure of this equipment due to fire and possible recovery actions are described below.

Assuming the worst case impact, a fire which damages cables from shutdown panel 1BCPSDB to the train B AFW and CVCS pumps, the train B CCW pumps, and the train B NSCW pumps, could possibly interfere with the operation of train B of AFW, charging, CCW, and NSCW. Subsequently, train B of these systems was conservatively modeled as unavailable. Recovery actions to restore operation of these pumps are possible but were not credited in this analysis. It was also assumed that loss of some control cables from the same shutdown panel, 1BCPSDB, to the reactor head vent letdown to pressurizer tank valve HV-0442B and CVCS head vent letdown valves HV-8095B, 8096B could possibly cause a small LOCA. Most likely a three-phase short would be required to cause these normally fail closed solenoid valves to transfer open, but for this analysis the worst case was assumed. Although recovery (manually closing) these valves is possible, it was not credited in this analysis.

Failure of the possible operator recovery actions mentioned above, in conjunction with a loss of train AFW train A and C (turbine-driven pump), main feedwater, and NSCW train A, due to causes other than fire, would lead to core damage.

(12) Cable Fire in the Train B Electrical Penetration Area Damaging All the Raceways and Cables in the Fire Zone.
(1-CB-LA-I-88-L-G1)

Core Damage Frequency: 1.19E-07 events per year.

This subscenario is similar to 1-CB-LA-I-88-L-R2, except that the fire source is self-ignition of cables, instead of transient fires.

F. Level A Corridor and Cable Chase

(4) Transient Fire (large) in the Level A Corridor and Cable Chase Damaging the LOSP Raceways and All Cables in Adjacent Raceways Causing Trains A and B Loss of Offsite Power.
(1-CB-LA-N-85-L-R2)

Core Damage Frequency: 4.20E-07 events per year.

This subscenario models a large transient fire in the level A corridor and cable chase which damages the LOSP raceways and all the cables in the following adjacent raceways: THBE, TLBE, TRBE, TTBE, TRBF,TTBF, TUBE, TUBF, TTAE. A number of plant impacts, including an LOSP on train A and train B, are assumed as a result of this fire. The resulting CDF associated with this subscenario was calculated using an inadvertent safety injection as the initiating event. The following major equipment is modeled in the analysis as failed or unavailable:

- Class 1E 4.16-kVeEmergency switchgear 1AA02 train A (1-1804-S3-A02).

- RAT 1NXRB.

- RAT 1NXRA.
- DG 1A (1-2403-G4-001).
- Train C turbine-driven AFW pump 1C.
- Since 4.16-kV switchgear 1AA02 is de-energized, all train A non-Class 1E equipment, powered from switchgear 1NB01, was assumed to be unavailable (e.g., condensate, normal chilled water, steam dumps, etc.).

NOTE: The CDF shown for this subscenario is based on the worst case impact for the total fire zone.

The conditions leading to failure of this equipment due to fire and possible recovery actions are described below.

Assuming the worst case impact, power from both RATs to 4.16-kV switchgear 1AA02 and 1BA03 is unavailable due to fire. In addition, DG 1A is assumed unavailable due to the loss of some control cables. A recovery action to manually start the DG is possible but not credited in the analysis. Therefore, if DG 1B which energizes train B 4.16-kV switchgear 1BA03 (since the RAT B is unavailable due to fire), fails due to causes other than fire, a loss of all essential ac power is assumed to occur. However this is a highly conservative assessment. Although not credited in this analysis, ac power could be provided by GPC's Plant Wilson through the SAT. A failure of the turbine-driven AFW pump, caused by the unavailability of 125-V dc MCC 1CD1M (1-1806-S3-DCC) which auto-opens the steam admission valve HV-5106, is modeled due to loss of a cable associated with the MCC. A recovery action to locally (manually) open HV-5106 was credited in the analysis. Failure of this operator recovery action, in conjunction with a loss of all essential ac power would lead to core damage.

G. Train A Electrical Mezzanine

(7) Transient Fire (large) in the Train A Electrical Mezzanine Damaging All the Raceways and Cables in the Fire Zone.
(1-CB-LB-A-73-L-R2)

Core Damage Frequency: 2.01E-07 events per year.

This subscenario models a large transient fire in the train A electrical mezzanine which damages all the raceways and cables in the fire zone. A number of plant impacts are assumed as a result of this fire. The resulting CDF associated with this subscenario was calculated using a loss fo main feedwater as the initiating event. The following major equipment is modeled in the analysis as failed or unavailable:

- 480-V switchgear 1AB04.
- 480-V switchgear 1AB05.
- 13.8kV switchgear 1NAB.
- Control building electrical equipment HVAC train A.
- Train A motor-driven AFW pump 1A.
- RCS Pressurizer PORV 1-PV-0455A.
- RCS PORV block valve 1-HV-8000A.
- Reactor head vent letdown to pressurizer tank valve HV-0442A.
- CVCS head vent letdown valves HV-8095A, 8096A.

Assuming the worst case impact, a fire which damages control cables associated with 480-V switchgear 1AB04 and 1AB05 could cause the power supply breakers (1AB0401 and 1AB0501) from 4.16-kV transformers 1AB04X and 1AB05X (both powered from 4.16-kV switchgear 1AA02) to open causing a loss of both of these train A 480-V switchgear. A recovery action to locally (manually) close these breakers was credited in the analysis.

A fire which damages a cable from 4.16-kV switchgear 1AA02 could cause the train A motor-driven AFW pump to fail. Therefore AFW train A was modeled as unavailable. In addition, loss of a cable from control building 480-V MCC 1ABC, due to fire, could cause train A of the control building electrical equipment HVAC to fail. Therefore it was also modeled as unavailable.

It was also assumed that loss of some control cables (to the reactor head vent letdown to pressurizer tank valve HV-0442A, CVCS head vent letdown valves HV-8095A and 8096A, RCS pressurizer PORV 1-PV-0455A, and RCS pressurizer PORV block valve 1-HV-8000A) could possibly cause a small LOCA. Most likely a three-phase short would be required to cause these normally fail closed valves to transfer open, but for this analysis the worst case was assumed. Recovery (manually closing) of these valves was credited in this analysis.

Unavailability of 13.8-kV switchgear 1NAB is assumed due to loss of an associated fire damaged cable. The train A circulating water (CW) pump, powered from 1NAB, is therefore unavailable. This results in a loss of cooling to the condenser which leads to a loss of main feedwater and failure of the steam dumps.

Failure of the possible operator recovery actions mentioned above, in conjunction with a loss of all essential ac power and the turbine-driven AFW pump due to causes other than fire, would lead to core damage.

(11) Cable Fire in the Train A Electrical Mezzanine Damaging All the Raceways and Cables in the Fire Zone.
(1-CB-LB-A-73-L-G1)

Core Damage Frequency: 1.26E-07 events per year.

This subscenario is similar to 1-CB-LB-A-73-L-R2, except that the fire source is self-ignition of cables, instead of transient fires.

H. Train B Electrical Raceway Room

(6) Transient Fire (small) in the Train B Electrical Raceway Room Damaging All the Raceways and Cables in the Fire Zone Causing Train B Loss of Offsite Power.
(1-CB-LA-R-97-L-G1)

Core Damage Frequency: 2.29E-07 events per year.

This subscenario models a small transient fire in the train B electrical raceway room damaging all the raceways and cables in the fire zone. A number of plant impacts, including an LOSP on train B, are assumed as a result of this fire. The resulting CDF associated with this subscenario was calculated uisng a reactor trip as the initiating event. The following major equipment is modeled in the analysis as failed or unavailable:

- Class 1E 4.16-kV emergency switchgear 1BA03 train B (1-1804-S3-A03).
- RAT 1NXRB.
- DG 1B (1-2403-G4-002).
- Train B motor-driven AFW pump 1B.
- Train C turbine-driven AFW pump 1C.
- Main steam atmospheric dump valves 1-PV-3010, 3020.
- RCS pressurizer PORV 1-PV-0456A.
- RCS pressurizer PORV block valve 1-HV-8000B.
- Reactor head vent letdown to pressurizer tank valve HV-0442B.

- CVCS head vent letdown valves HV-8095B, 8096B.
- Since 4.16-kV switchgear 1BA03 is de-energized, all train B non-Class 1E equipment, powered from switchgear 1NB10 was assumed to be unavailable (e.g., condensate, normal chilled water, steam dumps, etc.).

The conditions leading to failure of this equipment due to fire and possible recovery actions are described below.

Assuming the worst case impact, a fire which damages control cables associated with 4.16-kV switchgear 1BA03 could cause the power supply breakers from both RAT B 1NXRB and DG 1B, to open causing a de-energization of the switchgear. A recovery action to locally (manually) close these breakers is possible; however, it was not credited in the analysis. Therefore, if train A 4.16-kV switchgear 1AA02, fails due to causes other than fire, a loss of all essential ac power is assumed to occur. However this is a highly conservative assessment. Although not credited in this analysis, ac power could be provided by GPC's Plant Wilson through the SAT.

A fire which damages cables from shutdown panel 1BCPSDB and the solid state protection panel to the train B AFW pump could possibly interfere with the operation of train B of AFW. Subsequently, AFW train B was conservatively modeled as unavailable. Recovery actions to restore operation of this pump are possible but were not credited in this analysis. It was also assumed that loss of some control cables from the same shutdown panel (1BCPSDB, to the reactor head vent letdown to pressurizer tank valve HV-0442B, CVCS head vent letdown valves HV-8095B and 8096B, RCS pressurizer PORV 1-PV-0456A, and RCS pressurizer PORV block valve 1-HV-8000B) could possibly cause a small LOCA. Most likely a three-phase short would be required to cause these normally fail closed valves to transfer open, but for this analysis the worst case was assumed. Recovery (manually closing) of these valves was credited in this analysis. Further, loss of control cables from the shutdown panel could cause the main steam atmospheric dump valves 1-PV-3010 and 3020, to fail. Failure of these valves to open when demanded could lead to the unavailability of steam generator pressure relief.

A failure of the turbine-driven AFW pump, caused by the unavailability of the signal to auto-open the steam admission valve HV-5106, is modeled due to loss of sequencer B which is assumed unavailable due to grounding of associated cables which could be damaged by fire. A recovery action to locally (manually) open HV-5106 was credited in the analysis.

Failure of the possible operator recovery actions mentioned above, in conjunction with a loss of all essential ac power would lead to core damage.

I. Train B Cable Spreading Room:

(13) Cable Fire in the Train B Cable Spreading Room Damaging Raceways TSDA, TSDB, TSDC, TSDD, TSDE, and TSDF.
(1-CB-L2-B-120-L-G2)

Core Damage Frequency: 1.12E-07 events per year.

This subscenario models self-ignition of cable in trays TSDA, TSDB, TSDC, TSDD, TSDE, and TSDF, or other trays in the same stack. For this subscenario, the worst case impact for the total fire zone was assumed. Based on this worst case assumption, a number of plant impacts, including an LOSP on train B, are assumed as a result of a cable fire. The resulting CDF associated with this subscenario was calculated using an inadvertent safety injection as the initiating event. The following major equipment is modeled in the analysis as failed or unavailable:

- Class 1E 4.16-kV emergency switchgear 1BA03 train B (1-1804-S3-A03).
- RAT 1NXRB.
- DG 1B (1-2403-G4-002).
- Train C turbine-driven AFW pump 1C.
- Main steam atmospheric dump valves 1-PV-3010, 3020.
- CVCS alternate miniflow isolation valve HV-8509B.
- RCS pressurizer PORV 1-PV-0456A.
- RCS pressurizer PORV block valve 1-HV-8000B.

NOTE: The CDF shown for this subscenario is based on the worst case impact for the total fire zone.

The conditions leading to failure of this equipment due to fire and possible recovery actions are described below.

Assuming the worst case impact, a fire could cause the power supply breakers from RAT B and DG 1B to open, resulting in the de-energization of 4.16-kV switchgear 1BA03. Power may be recoverable, but no credit was taken in the analysis. As a result, a loss of train B (essential and nonessential) ac power is assumed, which leads to an extensive loss of train B systems. Therefore, if train A ac power fails due to causes other than fire, a loss of all essential ac power is assumed to occur. However this is a highly conservative assessment. Although not credited in this analysis, ac power could be provided by GPC's Plant Wilson through the SAT.

CVCS alternate miniflow isolation valve HV-8509B could transfer closed by a three-phase short to fail train A of high-pressure injection. A recovery action to locally open HV-8509B (or HV-8438) to recover train A was credited in the analysis. Failure of this recovery action could lead to a total loss (both trains) of high-pressure injection.

It was also assumed that loss of some control cables (to the RCS pressurizer PORVs 1-PV-0456A, and RCS PORV block valve 1-HV-8000B) could possibly cause a small LOCA. Most likely a three-phase short would be required to cause these normally fail closed valves to transfer open, but for this analysis the worst case was assumed. Recovery (manually closing) of these valves was credited in this analysis.

Further, loss of control cables from the shutdown panel could cause the main steam atmospheric dump valves, 1-PV-3010 and 3020, to fail. Failure of these valves to open when demanded could lead to the unavailability of train B steam generator pressure relief.

An inadvertent safety injection is assumed to occur due to failure of three pressurizer pressure transmitters (PT-0455, 0456, and 0458) and various cables to several pressurizer spray valves. A failure of the turbine-driven AFW pump, caused by the loss of cables to the steam admission valve HV-5106, was assumed. A recovery action to locally (manually) open HV-5106 was credited in the analysis. Failure of this operator recovery action, in conjunction with a loss of all essential ac power would lead to core damage.

4.6.4 SENSITIVITY ANALYSIS

Sensitivity analyses were performed to determine the impact of changes in important parameters to the VEGP fire analysis results.

The first sensitivity analysis involved the nonsuppression factor f_{NS}.. To assess the impact of changes in the nonsuppression factor, f_{NS} was set to 1.0 for all of the detailed analysis subscenarios. In other words, no credit is taken for fire suppression in this analysis. The core damage frequency from fires with f_{NS} set to 1.0 is 1.25E-05 per year, representing an increase of about 22.5 percent over the base case fire analysis results.

The next sensitivity case involved the fire frequencies used in the analysis. To assess the impact of changes in the fire frequencies, the 95th percentile value from each of the fire frequency distributions was used to quantify the detailed analysis subscenarios in place of the mean value. In other words, there is a 95 percent certainty that the actual value for the fire frequency lies below the value used for this sensitivity case. The core damage frequency from fires using the 95th percentile value is 3.22E-05 per year, or an increase of about 216 percent over the base case fire analysis results. The increase is not particularly surprising, given the high uncertainty in the fire frequencies.

The final sensitivity case involved the spatial interaction scenarios that were screened from the analysis. If the frequency of these screened scenarios is removed from the total fire risk impact, the resulting core damage frequency is 8.41E-06 per year (18.9 percent of the internal events total CDF), or a decrease of about 17.5 percent over the total fire risk impact (see table 4.6-1 of this report). It must be remembered that the spatial interaction scenarios do not include any of the frequency reduction factors, such as the nonsuppression factor, geometric factor, and severity factor. In addition, the spatial scenarios do not benefit from refinements in the top event impacts or from the spatial separation of fire sources and fire targets that are accounted for in the detailed subscenarios.

Table 4.6-1 Summary of Unit 1 Fire Risk Analysis

Item	Risk Impact (CDF) 1 per year	Percent of Internal Event Total CDF
Detailed Analysis Fire Risk Contribution	8.31E-06	18.7
Fire Risk Contribution of Scenarios Screened from Spatial Interactions Quantitative Screening	1.78E-06	4.0
Total Fire Risk Impact	1.01E-05	22.7

Table 4.6-2 Risk Contribution of Fire Zones Associated With the Top Fire Risk Subscenarios

Fire Zone	Fire Zone Description	Fire Zone CDF (1/yr)	Percent of Fire CDF Total	Percent of Internal CDF Total
1-CB-L1-A-105	Control Room	1.61E-06	15.95	3.62
1-CB-LA-G-91	Train A 4.16-kV Switchgear Room	1.21E-06	11.96	2.71
1-CB-LA-H-92	Train B 4.16-kV Switchgear Room	7.14E-07	7.08	1.61
1-CB-LA-K-95	Lower Cable Spreading Room - Train A	5.59E-07	5.53	1.26
1-CB-LA-I-88	Train B Electrical Penetration Area	5.51E-07	5.46	1.24
1-CB-LA-N-85	Level A East-West Corridor and Cable Chase	5.29E-07	5.24	1.19
1-CB-LB-A-73	Train A Electrical Mezanine	3.73E-07	3.69	0.84
1-CB-L2-B-120	Upper Cable Spreading Room - Train B	3.46E-07	3.43	0.78
1-CB-LA-R-97	Train B Electrical Raceway Room	2.29E-07	2.27	0.51

Table 4.6-3 Fire Risk Contribution of the Significant Subscenarios
(Sheet 1 of 3)

Rank No.	Subscenario Designator	Subscenario Description	Guaranteed Failures	Major Recovery Actions to Mitigate Fire Damages	Most Significant Nonfire Failures	Risk Impact (1/yr)	% of Total Fire Impact	% of Total Internal Event CDF
1	CONT-46	Shorts lead to fires in cabinet E1 (Electrical Aux. board section 1A, contains 11 subsections)	RAT 1NXRA, RAT 1NXRB, and all equipment powered from non-essential AC power.	Locally (manually) close DG-A and DG-B output breakers to restore essential AC power to 4.16kV switchgear 1AA02 and 1BA03.	AFW train C (Turbine-driven AFW pump)	1.28E-06	15.198%	**2.87%**
2	1-CB-LA-G-91-L-F3	Fires initiated from the sequencer 1-1823-U3-001 damage cable trays TTZL, TTAE, TTAG, TTAF, and TEAB.	Sequencer 1823-U3-001, 4.16kV Emerg Switchgear 1AA02, RAT 1NXRA, DG-A, 480V Switchgear 1AB15,1AB04,and AB05, AFW Pump 1A, TD AFW Pump 1C, Train A RHR Pump, Train A Charging Pump, Train A ESF Chiller Compressor Motor, Train A CCW Pump, NSCW train A.	Locally (manually) close DG-A and RAT 1NXRA output breakers to restore essential and non-essential AC power to 4.16kV switchgear 1AA02. Locally (manually) open the TDAFW pump steam admission valve HV-5106.	DG-B, RAT 1B.	7.60E-07	9.031%	**1.71%**
3	1-CB-LA-H-92-L-O1	Fires initiated from Switchgear 1AB03 damage cables in the fire zone.	DG 1B, 4.16kV Emerg Switchgear 1BA03, RAT 1NXRA, RAT 1NXRB, TD AFW Pump 1C, and all equipment powered from non-essential AC power.	Locally (manually) open the TDAFW pump steam admission valve HV-5106.	DG 1A	6.19E-07	7.362%	**1.39%**
4	1-CB-LA-N-85-L-R2	This subscenario models large transient fires that damage the off-site power raceways and adjacent raceways (LOSP-A, LOSP-B, THBE, TLBE, TRBE, TTBE, TRBF, TTBF, TUBE, TUBF, and TTAE).	DG 1A, 4.16kV Emerg Switchgear 1AA02, RAT 1NXRA, RAT 1NXRB, TD AFW Pump 1C, and all equipment powered from non-essential AC power.	Locally (manually) open the TDAFW pump steam admission valve HV-5106.	DG 1B	4.20E-07	4.993%	**0.94%**
5	1-CB-LA-I-88-L-R2	This subscenario models lrage transient fires that damage all cable raceways in the fire zone. Worst case impact is assumed.	NSCW Train B pumps, Train B Charging Pump, Train B CCW Pumps, AFW Pump 1B, Reactor Head Vent Letdown to Pzr Tank Valve HV-0442B, CVCS Head Vent Letdown Valves HV-8095B, 8096B .	None credited in the analysis.	AFW train A and C, main feedwater, NSCW train A.	3.36E-07	3.989%	**0.75%**

Table 4.6-3 Fire Risk Contribution of the Significant Subscenarios
(Sheet 2 of 3)

Rank No.	Subscenario Designator	Subscenario Description	Guaranteed Failures	Major Recovery Actions to Mitigate Fire Damages	Most Significant Nonfire Failures	Risk Impact (1/yr)	% of Total Fire Impact	% of Total Internal Event CDF
6	1-CB-LA-R-97-L-G1	This subscenario models cable fires that damage all cable raceways in the fire zone. Worst case impact is assumed.	DG 1B, 4.16kV Swgr 1BA03, RAT 1NXRB, AFW Pumps 1B and 1C, All Train B non-Class 1E Equip, RCS Pzr PORV PV-0456A, PORV Block Valve HV-8000B, Reactor Head Vent Letdown to Pzr Tank Valve HV-0442B, CVCS Head Vent Letdown Valves HV-8095B, 8096B .	Locally (manually) open the TDAFW pump steam admission valve HV-5106. Manually close HV-0442B, HV-8095B, HV-8096B, PV-0456A, and HV-8000B.	DG 1A, RAT 1A	2.29E-07	2.722%	0.51%
7	1-CB-LB-A-73-L-R2	This subscenario models large transient fires that damage all cable raceways in the fire zone. Worst case impact is assumed.	480V Switchgear 1AB04 and AB05, 13.8kV Switchgear 1NAB, CB Electrical Equip Train A HVAC, AFW Pump 1A, RCS Pzr PORV PV-0455A, PORV Block Valve HV-8000A, Reactor Head Vent Letdown to Pzr Tank Valve HV-0442A, CVCS Head Vent Letdown Valves HV-8095A, 8096A .	Locally (manually) close the power supply breakers from 4.16kV transformers 1AB04X and 1AB05X to restore power to 480V switchgear 1AB04 and 1AB05. Manually close HV-0442A, HV-8095A, HV-8096A, PV-0455A, and HV-8000A.	Train A and B essential AC power, AFW train C (Turbine-driven AFW pump).	2.01E-07	2.388%	0.45%
8	1-CB-LA-G-91-L-R4	This subscenario models large transient fires that damage all cable raceways in the fire zone and switchgear 1AA02. Worst case impact is assumed.	DG 1A, 4.16kV Emerg Switchgear 1AA02, RAT 1NXRA, RAT 1NXRB, TD AFW Pump 1C, and all Train A powered non-Class 1E Equip	Locally (manually) open the TDAFW pump steam admission valve HV-5106.	DG 1B,	1.96E-07	2.329%	0.44%
9	1-CB-LA-K-95-L-G2	This subscenario models cable fires that damage raceway TTCE, TTCF, TTCG, TTCH, and TTCT.	DG 1A, 4.16kV Emerg Switchgear 1AA02, RAT 1NXRA, TD AFW Pump 1C, CVCS Alternate Miniflow Isolation Valve HV-8509A, RCS Pzr PORV PV-0455A, PORV Block Valve HV-8000A, and all Train A powered non-Class 1E Equip	Manually open HV-8509A. Manually close HV-0455A, and HV-8000A. Locally (manually) open the TDAFW pump steam admission valve HV-5106.	DG 1B, RAT 1B	1.69E-07	2.004%	0.38%

Table 4.6-3 Fire Risk Contribution of the Significant Subscenarios (Sheet 3 of 3)

Rank No.	Subscenario Designator	Subscenario Description	Guaranteed Failures	Major Recovery Actions to Mitigate Fire Damages	Most Significant Nonfire Failures	Risk Impact (1/yr)	% of Total Fire Impact	% of Total Internal Event CDF
10	1-CB-LA-K-95-L-G3	This subscenario models cable fires that damage raceway TQBR, TQBS, TQBU, TQBV, TQBW, TQBY, and TQBZ.	Same as 1-CB-LA-K-95-L-G2	Same as 1-CB-LA-K-95-L-G2	Same as 1-CB-LA-K-95-L-G2	1.69E-07	2.004%	0.38%
11	1-CB-LB-A-73-L-G1	This subscenario models cable fires that damage all cable raceways in the fire zone. Worst case impact is assumed.	Same as 1-CB-LB-A-73-L-R2	Same as 1-CB-LB-A-73-L-R2	Same as 1-CB-LB-A-73-L-R2	1.26E-07	1.498%	0.28%
12	1-CB-LA-I-88-L-G1	This subscenario models cable fires that damage all cable raceways in the fire zone. Worst case impact is assumed.	Same as 1-CB-LA-I-88-L-R2	Same as 1-CB-LA-I-88-L-R2	Same as 1-CB-LA-I-88-L-R2	1.19E-07	1.420%	0.27%
13	1-CB-L2-B-120-L-G2	This subscenario models cable fires that damage raceway TSDA, TSDB, TSDC, TSDD, TSDE, TSDF, and TSDG.	DG 1B, 4.16kV Emerg Switchgear 1BA03, RAT 1NXRB, TD AFW Pump 1C, CVCS Alternate Miniflow Isolation Valve HV-8509B, RCS Pzr PORV PV-0456A, PORV Block Valve HV-8000B, and all Train B powered non-Class 1E Equip	Manually open HV-8509B. Manually close HV-0456A, and HV-8000B. Locally (manually) open the TDAFW pump steam admission valve HV-5106.	DG 1A, RAT 1A	1.12E-07	1.332%	0.25%

4.7 ANALYSIS OF CONTAINMENT PERFORMANCE (STEP 7)

NUREG-1407 requires that containment performance be assessed to determine whether containment failure modes stemming from fire-initiated sequences are distinctly different from those obtained in the internal events analysis. If new containment failure modes are identified, a containment analysis is required to evaluate the potential for the new failure mode.

A review of the fire-initiated core damage sequences reveals that none involve new containment failure modes unique to fires. Therefore, for the Individual Plant Examination for External Events (IPEEE) the task for containment performance is reduced to simply determining the fire-initiated core damage frequency for each of the key release categories, in particular the frequency of release categories involving containment bypass or containment isolation failure.

The executive summary of the internal events plant examination (i.e. table 1.4-4 of the VEGP IPE submittal), presents the frequency results for four major categories of core damage sequences. Very little release was predicted for two of the four release categories; i.e., those where the containment performance is successful (S), and those where containment failure does not occur for more than 48 hours (A). Of these two categories, the more frequent involves the possibility of containment failure after 48 hours due to gradual overpressure (A). Higher releases were identified for the other two categories; i.e., those where the containment is either bypassed (T) or in which the containment is not isolated (G). These latter two release categories combine to total roughly 4 percent of the total core damage frequency (4.45E-05 per year) from internal plant events.

The total core damage frequency from fires is only a fraction of the total from internal events. Further, the additional loss of debris cooling and containment heat removal merely shifts a core damage sequence from the long-term containment success category (S) to one for potential containment failure after 48 hours (A). The loss of cooling does not shift the sequence frequency to the more significant release categories; i.e., (T) and (G). Therefore, for the purpose of comparing the containment performance for fire-initiated core damage sequences with those for internal events it was judged sufficient to conservatively assign all fire-initiated core damage sequences that do not involve containment isolation or bypass to the more severe category of the remaining two; i.e., to the category with potential containment failure after 48 hours (A).

The following sections discuss the determination of release category frequencies for fire-initiated core damage sequences involving containment isolation failure or containment bypass.

4.7.1 CONTAINMENT ISOLATION

To determine the containment isolation paths which could be affected by a plant fire, the Containment Isolation System Notebook from the IPE analysis of VEGP was reviewed. Table 7 from that notebook summarizes the containment penetrations judged potentially significant to the containment isolation analysis. A review of the table shows that a large fraction of the penetrations are either isolated via locked closed valves, or contain check valves which would not be affected by a fire. Even if a fire disabled the redundant isolation valve associated with the penetration path, the frequency of containment isolation failure would still be only 1.0E-03; i.e., the frequency of a check valve failing to close. Therefore, all containment penetrations which utilize a locked closed valve or a check valve as one of the isolation valves were eliminated because they could contribute only insignificantly to the frequency of the (G) release category from fires.

Four of the penetrations do not contain check valves or normally locked closed valves. These lines are:

1. The two RHR suction lines from the hot legs (MOVs HV-8701A/B and HV-8702A/B, penetrations 59 and 60),

2. The normal containment sump pump discharge (AOVs HV-0780 and HV-0781, penetration 78), and

3. The normal containment purge exhaust line (AOVs HV-2628B, HV-2629B, and HV-12592, penetration 84).

The RHR suction line valves are normally closed and interlocked to remain closed when the primary system pressure is greater than 377 psig. They are also interlocked to prevent them from being opened unless the valves isolating the RHR suction from the RWST and the valves isolating the RHR discharge from the centrifugal charging and safety injection pump suction are closed. Therefore these penetrations were not modeled in the IPE for containment isolation failure. These valves also have the power removed from them when the reactor is at power. Therefore, the occurrence of a fire cannot affect the position of these valves. Consequently, penetrations 59 and 60 were screened from further consideration of containment isolation failures resulting from fires.

A review of the cable routing data for the normal containment sump discharge valves shows that the only fire zone in which cables for both valves are routed is the control room; i.e., fire zone 105. The control room panels which include the controls for these valves are 1-1605-Q5-SPA and 1-1604-Q5-PCP. Both of these panels were screened out as not contributing to the fire-initiated core damage frequency. Therefore, the potential for core damage with containment isolation failure from such fires was also judged to be insignificant.

The containment purge exhaust line and the containment sump pump discharge line are only intermittently open. A review of the cable routing data for the isolation valves on the containment purge exhaust line shows that the only fire zone in which cables for both valves are routed is the control room; i.e., fire zone 105. The panel in the control room which includes the controls for these valves is 1-1500-Q5-HVC. However, fires originating in this panel were screened out from further consideration on the basis that they could not contribute significantly to the core damage frequency. (Actually, failure of this panel was determined to not even cause a plant trip.) Therefore, the potential for core damage with containment isolation failure from such fires was also judged to be insignificant.

4.7.2 CONTAINMENT BYPASS

From the ISLOCA Frequency Notebook developed for the Vogtle IPE, six penetrations were identified as potentially significant ISLOCA pathways. These pathways are:

1. Seal water return and excess letdown line.
2. Auxiliary component cooling water system.
3. Containment penetrations between the RCS and centrifugal charging pump discharge header.
4. Safety injection discharge lines.
5. RHR discharge lines.
6. RHR suction lines.

As with the containment isolation pathway review, potential ISLOCA pathways which contain a passive barrier, a check valve, or a normally locked closed valve are screened from further analysis. This is because these valves are not susceptible to fires. They have a very low independent failure probability. The probability, combined with the frequency of a fire failing the one or more other isolation valves in the same line at the same time, is insignificant. With this as a guide, pathways 2 (passive barrier), 3 (check valves), 4 (check valves), and 5 (check valves) above were screened from further fire analysis review. The RHR suction lines were also screened because the power to these motor-operated valves is removed when the reactor is at power. This prevents any significant impact from a fire.

The seal water return and excess letdown line is retained for further review. This flowpath was judged not to be of concern for containment isolation because it is less than 3 in. in size, but was evaluated in the IPE as a flow path for ISLOCA. However, for sequences in which the RCP seals are degraded, leakage through the degraded seals may be released outside containment if this normally open line is not isolated. The normally open motor-operated isolation valves in this line are HV-8112 and HV-8100.

A review of the cable routing data for the RCP seal return lines showed that the only fire zone containing cables for both of these valves is zone 105; i.e., the control room. The cables for each valve traverse three panels each, but only one section of a panel, section A2 of panel 1-1601-Q5-MCB, contains cables for both valves. The core damage frequency from all fire scenarios affecting this panel section is 1.11E-07 per year.

The contribution of fires to the frequency of release category (T) where the containment is bypassed can be conservatively bound by assuming that all of the core damage frequency initiated by fires in section A2 of panel 1-1601-Q5-MCB involve containment bypass. This frequency is conservative because not all such panel fires will prevent the RCP seal return line isolation valves from automatically closing, and there is still the possibility of locally isolating the valves. It is also conservative because it assumes that the RCP seals are also degraded in the core damage scenario, permitting flow from the RCS to enter the seal return line. This may not be the case for some fraction of the panel fire frequency. Credit for locally isolating the valves is neglected in this estimate. This conservative assumption was made because the key fire scenario is a control room fire which may necessitate evacuation from the control room, complicating the decision to isolate the valves.

There are no other penetrations susceptible to ISLOCAs that are configured such that they would contribute significantly to the frequency of the containment bypass release category (T).

4.7.3 SUMMARY OF RELEASE CATEGORY FREQUENCIES

Table 4.7-1 summarizes the release category frequencies from internal plant fires, and compares them with the results from the Vogtle IPE. In each case, the release category frequencies from fires is a fraction of the total from the internal events evaluated in the IPE.

The fire assessment did not identify any unique containment failure modes or vulnerabilities to early containment failure. A penetration-by-penetration review revealed that VEGP is not susceptible to containment isolation failures due to internal plant fires. Also, even a conservative estimate for the fraction of the fire-initiated core damage frequency that involves containment bypass is small.

The key feature of the VEGP containment identified in the IPE, namely its ability to remain intact for several tens of hours following core damage, is also true for internal plant fires. Volatile releases greater than 10 percent still only occur in sequences in which the containment is bypassed or not isolated. The frequency of these sequences is only a fraction of the total core damage frequency from fires.

Table 4.7-1 VEGP Fire-Initiated Airborne Release Category and Probability

Release Category ID	Release Category Definition	Release Frequency from Fires Only	Release Frequency from IPE Only	Fraction of IPE Release Category Total
A	No containment failure within 48 hours, < 0.1% released	1.02E-05	3.56E-05	0.29
S	Success, normal leakage only	0.0[1]	9.39E-06	0.0
T	Containment bypassed, > 10% of volatiles released	1.11E-07[2]	1.61E-06	0.07
G	Containment isolation failure, up to 10% volatiles released	4.08E-08[3]	1.68E-07	0.24

Notes:

1. All fire initiated core damage frequency not assigned to release category T or G is conservatively assigned to category A.

2. The containment bypass frequency was conservatively estimated as all of the core damage frequency originating from fires in panel 1-1601-Q5-MCB, section A2 with no credit for locally isolating the isolation valves. The proportion of the fire initiated core damage frequency involving containment bypass differs from the IPE results which were dominated by steam generator tube rupture events.

3. No dependencies related to the fire initiating events were identified that would affect the occurrence of containment isolation failure. The same proportion of the IPE core damage frequency that involved containment isolation failures (i.e. .004) was assumed to apply for fire events.

4.8 TREATMENT OF FIRE RISK SCOPING STUDY ISSUES

NRC Generic Letter No. 88-20, Supplement 4 (Reference 4-1), lists the following Fire Risk Scoping Study (FRSS) issues to be addressed in the fire analysis of the IPEEE:

- Effectiveness of manual fire fighting.
- Fire barrier assessments.
- Seismic/fire interactions.
- Total environment equipment survival.
- Control systems interactions.

The approach taken in addressing the specific concerns regarding each of the above issues and the results of those investigations are described in the following sections. In addition, a checklist was created for FRSS issues to aid in the gathering of information pertaining to those issues. This checklist is presented in Appendix 4.B.

4.8.1 EFFECTIVENESS OF MANUAL FIRE FIGHTING

A review (see Section A of Appendix 4.B) was conducted of VEGP's fire fighting programs, procedures, and training records to confirm and document that the plant has an effective fire fighting team. VEGP Procedures 92000-C, 92030-C, and 92005-C establish the personnel and responsibilities of the Site Fire Brigade as well as training and drilling requirements.

In-situ and transient combustibles are tracked by Procedures 92015C and 92020-C. The use, control, and storage of flammable/combustible materials are governed by Procedures 92015-C and 92027-C.

VEGP Procedure 92010-C provides evacuation plans and procedures for verification or recovery of operation of certain safety-related equipment. Annual inspections and audits of the Fire Protection and Prevention Program are performed and documented per Procedures 92010-C and 14958-C.

Table 4.5-2 of this report presents the fire drill records at VEGP. The average response time for the fire areas evaluated in the detailed analysis is considered to be adequate in most situations and is compatible to the generic manual response used in the f_{NS} calculations (section 4.5). Thus, based on the review of VEGP's fire fighting programs, procedures, and training records, the plant's manual fire fighting capability is considered to be adequate.

4.8.2 FIRE BARRIER ASSESSMENT

A review of the VEGP fire barriers program and the results from manager inspection reports was conducted to confirm and document that adequate programs exist to inspect, test, and maintain these fire barriers as rated barriers, and to establish the infrequency of having an excess amount of transient combustibles in important fire zones (see Section B of Appendix 4.B).

Verification of fire rated assemblies is performed every 18 months and includes a visual inspection of all fire-rated assemblies (walls, floors, ceilings, and fire-wrapped ductwork, conduit, and cable trays) and at least 10 percent of all sealed penetrations. No significant failure that affects the safe operation has been experienced.

There are approximately 450 3-h rated fire doors, 616 3-h rated fire dampers, and 39,856 penetration seals at Unit 1 (see Section 2 of Appendix 4.B). Between 1980 and 1995, there have been approximately 5 problem reports for fire doors filed per month; 1 problem report for fire dampers filed per 18 months, and 15 problem reports filed for fire seals per year. There has been no problem report filed for fire walls. A problem report filed for a fire barrier does not necessarily constitute a functional failure of the fire barrier. For instance, a problem report may be filed even if just the paint of a fire door is chipped. If it is conservatively assumed that all problem reports filed are for functional failure, the average failure rate for fire doors, fire dampers, and fire seals are 0.13/door-year, 0.0011/damper-year, and 0.003/seal-year, respectively.

Plant personnel are trained to operate fire doors correctly. It is very unlikely that a fire door would be left open and uncorrected for an extended period of time. Using an average time of 4 hours as the mean duration for leaving a fire door in the open position and an average failure rate of 0.13/door-year, the unavailability of a fire door is estimated to be 5.94E-05. Thus, fire propagation via fire barrier due to random failure is insignificant. Therefore, based on the review of the inspection, testing, and maintenance technical requirements, and the test results, it is concluded that the fire barriers at VEGP are considered effective and adequate.

4.8.3 SEISMIC/FIRE INTERACTIONS

The seismic plant walkdown included consideration of (1) potential fire initiators, such as component lube oil systems and hydrogen tanks; (2) fire protection piping, which could be rendered inoperable due to seismic interaction with its environment (i.e., adjacent piping, block walls, etc.); and (3) fire protection systems, which, if actuated (or ruptured) due to a seismic event, could affect the required fire mitigation equipment (see Section C of Appendix 4.B).

Following the seismic analysis (chapter 3 of this IPEEE report) and description contained in Section 3 of Appendix 4.B, there were no significant seismic-induced fire scenarios identified.

4.8.4 TOTAL ENVIRONMENT EQUIPMENT SURVIVAL

The FRSS expressed concern regarding the potential for adverse effects on plant equipment caused by combustion products released from the fire. However, there has not been enough testing/analysis performed with respect to nonthermal fire effects on plant equipment to quantify the potential problems. In addition, the detrimental short-term effects of smoke on equipment are not believed to be significant. Therefore, the effect of smoke on equipment survivability was implicitly addressed.

All automatic fire suppression systems in the safety-related areas are either halon or preaction sprinkler systems. Sprinkler heads are passive components and only one head is expected to fail at any one time. Most of the MCCs, panels and cabinets have spray shield installed to protect the unit from direct water spray. Thus, damage due to inadvertent actuation of suppression system is not considered to be significant.

With regard to operator effectiveness in performing manual safe shutdown actions, an evaluation of the normally operating plant ventilation systems and their effect on the ability of the operators to access and operate equipment needed to shut down the plant was conducted (see Section D of Appendix 4.B).

The effects of inadvertent actuation of the fire suppression system on safety-related equipment is addressed by GI-57 in section 4.9.2 and Appendix 4.B.

4.8.5 CONTROL SYSTEMS INTERACTION

A review of the control and monitoring circuits of the plant was conducted to verify that safe shutdown circuits have been located physically independent of, or can be isolated from, the control room for an exposure fire that causes a loss of control from the control room. A review of control room evacuation and remote shutdown capabilities is presented in Section E of Appendix 4.B; no significant fire vulnerability was observed. This review found no significant contributor to risk due to FRSS issues.

4.9 USI A-45 AND OTHER SAFETY ISSUES

In addition to the Fire Risk Safety Study issues, the following safety issues are addressed in this report:

- USI-A45, "Shutdown Decay-Heat Removal Requirements."
- GI-57, "Effects of Fire Protection System Actuation on Safety-Related Equipment."

The VEGP Individual Plant Examination (IPE) report also addressed several generic issues regarding system safety. No other fire safety-related issues affecting the fire vulnerability of VEGP were identified.

4.9.1 DECAY HEAT REMOVAL EVALUATION (USI A-45)

Resolution of the external events portion of Unresolved Safety Issue (USI) A-45 has been subsumed into the IPEEE requirements that allow plant-specific evaluation of the safety adequacy of decay heat removal (DHR) systems. VEGP IPEEE fire probabilistic risk analysis (PRA) evaluates the systems and operator actions required to remove decay heat during the 24-hour mission time following a fire-induced plant trip from full-power operation. The results of the fire PRA provide indications of the importance of systems that directly perform the decay heat removal function.

This section provides an evaluation of the VEGP decay heat removal functions based on the results from the IPEEE as required by Generic Letter 88-20 (Reference 4-1). The purpose of the evaluation is to identify potential decay heat removal vulnerabilities for events initiated from power operation and to examine whether or not risks attributed to the loss of DHR, if necessary, can be lowered in a cost-effective manner (USI A-45).

4.9.1.1 Background

The primary objectives of the NRC's USI A-45 program were to evaluate the adequacy of DHR systems, determine the benefit of providing an alternate means of DHR, and assess the benefit and cost of alternative measures. The USI A-45 program included probabilistic risk assessments and deterministic evaluations of decay heat removal systems and support systems required to achieve hot shutdown and cold shutdown conditions. In A-45, the decay heat removal function is defined as those components and systems required to maintain primary and secondary coolant inventory control and to transfer heat from the reactor coolant system to an ultimate heat sink following shutdown of the reactor for normal events or abnormal transients such as loss of main feedwater, loss of offsite power, and loss of coolant accidents (LOCAs). The A-45 program did not consider anticipated transients without trip, interfacing system LOCAs, or large or medium LOCAs. The program considered support systems such as service water systems and emergency onsite ac and dc power systems that are required for various modes of DHR.

The insights gained from the NRC's A-45 evaluations are discussed and evaluated in NUREG-1289, "Regulatory and Backfit Analysis: Unresolved Safety Issue A-45, Shutdown Decay Heat Removal Requirements," (Reference 4-19) and Appendix 5 of Generic Letter 88-20. The important insights are summarized below:

- Support system failures are significant contributors to the core damage frequency.
- The adequacy of physical separation and protection of redundant safeguard trains is often lacking.
- Sharing and interconnections between redundant safeguards trains creates single-point vulnerabilities.
- Human errors were found to be of special significance.
- Loss of offsite power events were found to contribute significantly to risk.
- Bleed and feed operations could have a significant effect upon the decay heat removal-related core damage risk.

Generic Letter 88-20 and NUREG-1335 (Reference 4-20) require a thorough discussion of the evaluation of the decay heat removal function because the adequacy of the DHR capability at the plant for preventing severe accident situations is required to be resolved as a part of the IPEEE.

Decay heat can be removed by different systems and methods depending on the type of accident sequence.

4.9.1.2 Evaluation

The decay heat removal during the first 24 hours following a plant trip is accomplished by the following key functions at VEGP:

- During transient events, decay heat is removed via the secondary side by the auxiliary feedwater (AFW), main feedwater (MFW), or condensate systems. If the AFW, MFW, and condensate systems are unavailable, bleed and feed operations are established on the primary side. The bleed and feed operation requires the high-pressure injection system, the pressurizer power-operated relief valves (PORVs), and the associated operator actions.
- For small LOCA events, some decay heat is removed through the break while the remainder is removed by the AFW system or bleed and feed operation.

- During small LOCA events or after bleed and feed cooling, when recirculation or normal residual heat removal (RHR) cooling is established, decay heat removal is accomplished by the RHR heat exchangers or the containment cooling units.

Given that successful DHR depends upon the above systems and operator actions, the following discussion of these functions and their respective features is provided.

- The AFW system consists of three trains feeding the four steam generators. One train consists of a turbine-driven AFW pump which supplies all four steam generators. The other two trains each consist of a motor-driven AFW pump which feeds two steam generators (SGs). The AFW pumps take suction normally from condensate storage tank (CST) 1 with a backup supply from CST 2. The backup supply was not modeled in the VEGP IPE because failure of CST 1 was an insignificant failure mode of the AFW system. Decay heat is removed from the steam generators by the condenser steam dump system (shared by all SGs), the SG atmospheric relief valves (one per SG), or the steam generator safety valves (five per SG).

  The turbine-driven pump and the valves associated with this train are powered from train C of dc power (125-V dc bus 1CD1). One motor-driven pump is powered from train A engineered safety feature (ESF) ac (4160-V ac bus 1AA02) and train A ESF dc power (125-V dc bus 1AD1). The valves associated with the train are powered from train A ESF ac. The other pump is powered from train B ESF ac and dc power (4160-V ac bus 1BA03 and 125-V dc bus 1BD1) while the valves are powered from train B ESF ac power. The turbine-driven AFW pump and each motor-driven AFW pump are located in three separate fire areas. No credible single fire ignition source has been identified which will result in failure of both the turbine-driven AFW pump and motor-driven AFW pump.

- When AFW is not available, the operators are instructed in the loss of secondary heat sink emergency operating procedure (EOP) to establish an alternate feedwater flow to the steam generators. This action consists of starting, if necessary, the main feedwater pumps and/or condensate pumps and opening of the main feedwater isolation and regulating valves. Three motor-driven condensate pumps take suction from the condenser hot wells and discharge to two turbine-driven main feedwater pumps. The alignment of main feedwater to the steam generators is the primary source of feedwater when AFW fails. If main feedwater cannot be established, the steam generators are depressurized to allow for feedwater directly from the condensate pumps. For the IPEEE, MFW recovery was not credited for the small LOCA event or transient events in which main feedwater was lost as part of the initiating event.

  The condensate pumps are powered from non-Class 1E power. The main feedwater isolation and regulating valves are powered from 125-V dc ESF power.

- With no feedwater flow to the steam generators, the operators are instructed per the loss of secondary heat sink EOP to initiate bleed and feed cooling via the pressurizer PORVs and high-pressure injection. One of the two pressurizer PORVs are used in the bleed and feed operation to prevent overpressurization of the reactor coolant system (RCS). The important feature of the pressurizer PORVs are that they are independent of the instrument air system (which is not the case for most plants) and only require 125-V dc ESF power for operation. The pressurizer PORV block valves, which are permitted to be closed during full power operation, are ac ESF powered. The pressurizer PORVs are powered from redundant electrical trains which meet CMEB 9.5.1 separation requirements. In the event spurious opening of a pressurizer PORV occurs, closure of the pressurizer PORV block valve will terminate the loss of reactor coolant system pressure and inventory. Where fire damage can preclude PORV lock valve operability, operator actions to deenergize the PORV (fails closed upon loss of power) may be necessary.

- The high-pressure injection (HPI) system of the emergency core cooling system (ECCS) consists of two SI and two charging CCP pumps. These pumps take suction from the refueling water storage tank (RWST) and discharge into each of the RCS cold legs. One SI pump and one charging pump are powered from train A ESF power, while the other pumps are powered from train B ESF power. Each HPI pump is housed in a separate fire area, and all valves required for DHR function are supplied by redundant electrical trains meeting CMEB 9.5.1 separation requirements.

- When the RCS pressure is below the shutoff head of the RHR pumps, the low-pressure injection (LPI) system can be used. This system consists of two RHR pumps which take suction from the RWST and inject into each of the four RCS cold legs. One RHR pump is powered from train A ESF power, while the other pump is supplied from train B ESF power. The pumps are located in separate fire areas, and the routing of the redundant power cables meets CMEB 9.5.1 separation requirements.

- If ECCS injection is successful and the RCS has been cooled down and depressurized, the operators are instructed via post-LOCA cooldown and depressurization EOP to establish normal RHR cooling to provide long-term decay heat removal from the RCS. Normal RHR cooling is accomplished via the RHR pumps with the alignment of the system to take suction from the RCS hot legs rather than the RWST. Normal RHR cooling also requires the component cooling water (CCW) system to be in operation to supply cooling to the RHR heat exchangers. The redundant heat exchangers are located in separate fire areas, and their associated valves are powered by redundant electrical trains meeting the CMEB 9.5.1 separation requirements.

- When the low-low level RWST alarm setpoint is reached, the operators transfer from the injection to the recirculation mode using the transfer to cold leg recirculation EOP. The high-pressure recirculation (HPR) system consists of the two SI and two centrifugal charging pumps which can be used to maintain the plant in a long-term stable condition for sequences with the RCS pressure above the RHR shutoff head. This mode of operation requires suction from the RHR system. The low-pressure recirculation (LPR) system consists of two RHR pumps which can be used to maintain the plant in a long-term stable condition for sequences with the RCS pressure below the RHR pump shutoff head. Heat removal can be accomplished by component cooling water to the RHR heat exchangers. Valves required for the recirculation phase are powered by redundant electrical trains meeting CMEB 9.5.1 separation requirements. Additionally, the containment cooling units (CCUs) can be used for heat removal. For purposes of the IPEEE fire model, all CCUs were assumed failed and thus not relied upon for this analysis.

- The CCW system consists of two trains, each with three pumps and one heat exchanger. The CCW system is a closed-loop system which transfers heat to the nuclear service cooling water (NSCW) system. The pumps are powered from train A ESF ac and dc power for train A components and train B ESF ac and dc power for train B components. This system meets the requirements of CMEB 9.5.1 separation.

- The containment cooling unit system serves as a backup decay heat removal system at VEGP and consists of eight units, four per train. Each train transfers decay heat to its associated train of NSCW. Four containment cooling units can provide DHR equivalent to one RHR heat exchanger during recirculation. This system was not relied upon and assumed failed for the IPEEE fire analysis.

4.9.1.3 Summary and Conclusions

As identified above, VEGP has redundant and diverse means for decay heat removal. Most of the decay heat removal systems and associated operator actions have relatively low failure probabilities (refer to tables 3.3.3-2 and 3.3.5-1 of the VEGP IPE, Reference 4-4). Several of these systems and operator actions would have to fail in combination to have an impact on the DHRcapability, and that impact is small. In addition, the DHR capability was improved, during the IPE phase, through several procedural enhancements, including manually operating the turbine-driven auxiliary feedwater pump locally on loss of control power, aligning NSCW for one pump operation, and opening the inverter room doors on loss of HVAC. Therefore, based on this analysis, the VEGP systems such as AFW, MFW, PORVs, or HPI or their support systems warrant no additional improvements.

With regard to physical separation of safeguards equipment, as discussed in Appendix 5 of Generic Letter 88-20, VEGP was specifically designed to provide train separation and physical protection for the safeguards equipment. Each train of the decay heat removal systems and their support systems (ac and dc power, CCW, and NSCW) is spatially and electrically separated from the other train. The extensive use of compartmentation in the design of VEGP allows redundant safety components to be located in separate fire zones or fire areas. This is clearly a risk-reduction design feature. The functions of the redundant safety components can only be disabled by the unlikely event of fires initiated at different plant locations simultaneously.

In conclusion, there are no unique decay heat removal vulnerabilities for fire-initiated events at power for VEGP. Therefore, the risk attributed to the loss of decay heat removal functions can not be cost effectively lowered. As a result, USI A-45, Shutdown Decay Heat Removal, should be further considered resolved for VEGP.

4.9.2 GI-57

The response to GI-57 has been included in the internal flooding analysis of the IPE submittal (Reference 4-4). Internal flooding was found to have insignificant risk impact to VEGP operations. The extensive use of preaction sprinkler systems and spray shield on top of most electrical components (e.g., motor control centers) has rendered the conclusion that there is no significant risk impact identified in response to GI-57.

4.9.3 OTHER SAFETY ISSUES

NUREG/CR-5088 (Reference 4-3) identifies several issues that may affect the analysis of fire-induced events and their corresponding risk impact. Section 4.8 of this report specifically addresses these issues as they apply to VEGP.

Georgia Power Company does not propose to resolve any other issues or programs with respect to fire-induced events at VEGP through this submittal.

4.10 CONCLUSIONS

4.10.1 FIRE RISK CONTRIBUTIONS

The internal fire analysis used a phased probabilistic risk assessment (PRA) approach to systematically evaluate all safety-related plant locations. The locations that have no or negligible fire risk were screened from the analysis at the early phase of the analysis. The relatively more risk-significant locations were screened qualitatively and quantitatively using conservative criteria in the spatial interactions analysis phase. Detailed analysis was then performed to assess the fire risk impact of the locations that have not been screened.

The analysis reflects the state-of-knowledge of the fire risk contribution to VEGP. The fire-induced core damage frequency (CDF) for Unit 1 was found to be 1.01E-5 per year, which is approximately 22.7 percent of the total internal events CDF of 4.45E-05 per year. The CDF contribution from the fire risk dominant fire zones and subscenarios is presented in tables 4.6-2 and 4.6-3, respectively, of this report. Since the design basis and operations at Unit 2 are similar to those of Unit 1, the fire risk impact of Unit 1 fire zones are also applicable to Unit 2 (except that fire impact of fire zone 12 of Unit 1 should be applied to fire zone 13 of Unit 2).

The calculated fire risk contribution would be lower if the conservatisms in the analysis is reduced. For example, the top subscenario CONT-46 (table 4.6-3) assumes that fires of any size initiated in the electrical auxiliary board would disable all safety-related functions associated with the board. This is obviously a conservative assumption because the board has 11 subsections. Any fire of a significant size to damage all subscetions would be detected by the control room operators. Furthermore, the CDF calculation for a large portion of the subscenarios was based on the worst case impact of fire damaging the safety equipment in that fire zone instead of just that particular equipment or cable raceways in the immediate vicinity of the fire source. Most cable raceways were assumed to fail the component(s) they served. These assumed failure modes were, however, in many cases, ultraconservative or can be recoverable by operator actions which are not considered in the model. Thus, the assessed fire risk CDF can also be viewed as the upper bound fire risk contribution to the total CDF for VEGP.

The fire risk impact for VEGP is consistent with the fire risk evaluated in the previous fire PSAs for pressurized water reactor (PWR) plants, such as Turkey Point, St. Lucie, ANO 1, Oconee, etc., whose core damage frequency contributions from fires ranged from 6.0E-07 per year (South Texas Project) to 1.9E-04 per year (Indian Point Unit 2) (see Reference 4-2). Similar to most PWRs, the fire zones that were found to be risk significant at VEGP are the control room, 4-kV switchgear rooms, cable spreading room, etc. Furthermore, the fire risk analysis did not find any unique fire-initiated containment failure modes or vulnerabilities to early containment failure.

4.10.2 FIRE RISK MANAGEMENT

Because of the relatively low fire risk impact to the operations at VEGP, no plant improvement to reduce fire risk is necessary.

REFERENCES

4-1. USNRC, Generic Letter No. 88-20, Supplement No. 4, "Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities - 10 CFR 50.54(f)," June 1991.

4-2. USNRC, NUREG-1407, "Procedural and Submittal Guidance for the Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities," June 1991.

4-3. Lambright, J. A., et al., "Fire Risk Scoping Study: Investigation of Nuclear Power Plant Fire Risk, Including Previously Unaddressed Issues," Sandia National Laboratories, prepared for USNRC, NUREG/CR-5088, January 1989.

4-4. VEGP Individual Plant Examination (IPE),Southern Nuclear Operating Company,

4-5. Westinghouse computer code used for the IPE model.

4-6. VEGP Final Safety Analysis Report, Southern Nuclear Operating Company,.

4-7. VEGP Fire Event Safe Shutdown Evaluation (FESSE), Southern Nuclear Operating Company,.

4-8. PLG, Inc., "Database for Probabilistic Risk Assessment of Light Water Reactor Power Plants," PLG-0500, Vol. 8, May 1994.

4-9. Kaplan, S., "On a 'Two-Stage' Bayesian Procedure for Determining Failure Rates from Experiential Data," Institute of Electrical and Electronics Engineers Transactions on Power Apparatus and Systems, Vol. PAS-102, No. 1, January 1983.

4-10. Ho, V. S., et al., "COMPBRN IIIe—An Interactive Computer Code for Fire Risk Analysis," UCLA-ENG-9016, Electric Power Research Institute, NP-7282, May 1991.

4-11. VEGP Design Calculation X4C23015012, Fire Hazards Analysis: Combustible Loading.

4-12. Siu, N. O., and Apostolakis, G., "A Methodology for Analyzing the Detection and Suppression of Fires in Nuclear Power Plants," Nuclear Science and Engineering, 94(1986)213-226.

4-13. Ruger, C., Boccio, J. L., and Azarm, M. A.,"Evaluation of Current Methodology Employed in Probabilistic Risk Assessment of Fire Events at Nuclear Power Plants," prepared for USNRC, NUREG/CR-4229, May 1985.

4-14. USNRC, NUREG-1150, "Severe Accident Risks: An Assessment for Five U.S. Nuclear Power Plants," June 1989.

4-15. Brookhaven National Laboratories, "Fire Risk Analysis of POS 6 and POS 10, Surry Low Power and Shutdown Project," prepared for USNRC, NUREG/CR-6144, 1993.

4-16. Pickard, Lowe, and Garrick, Inc., Westinghouse Electric Corporation, and Fauske and Associates, "Indian Point Probabilistic Safety Study," 1982.

4-17. Ho, V. S., "Improvement of FNS Input Data," PLG, Inc., PLG-0900, March 1994.

4-18. PLG, Inc., "Beznau Station Risk Assessment, Plant with NANO," prepared for Nordostschweizerische Kraftwerke AG, PLG-0511, December 1989.

4-19. USNRC, NUREG 1289, "Regulatory and Backfit Analysis: Unresolved Safety Issue A-45, Shutdown Decay Heat Removal Requirements," November 1988.

4-20. USNRC, NUREG-1335, Individual Plant Examination: Submittal Guidance," final report, August 1989.

APPENDIX 4.A

FIRE PROPAGATION PATHWAY CREDIBILITY SCREENING

Fire Area	Fire Zone	Fire Severity [Hours]	Adjacent Fire Area	Adjacent Fire Zone	Barrier Rating [Hours]	Automatic Suppression System	Permanent Opening	Fire Duration< Rating*0.75	Auto FSS Exists	Retained for Quantitative Screening?	BARRIER DESCRIPTION/ANALYSIS NOTES
1-AB-L1-B	149	0.68	1-AB-LD-G	54	3.00	PREACTION SPRINKLER-FULL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -EAST WALL
1-AB-L1-B	149	0.68	1-AB-LD-F	184	3.00	PREACTION SPRINKLER-FULL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -SOUTH WALL
1-AB-L1-B	149	0.68	1-AB-LD-A	11B	3.00	PREACTION SPRINKLER-FULL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -EAST WALL, DOOR
1-AB-L1-B	149	0.68	1-AB-LA-B	52	3.00	PREACTION SPRINKLER-FULL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -EAST WALL
1-AB-L1-B	149	0.68	1-AB-L2-C	147	3.00	PREACTION SPRINKLER-FULL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -NORTH WALL
1-AB-L1-B	149	0.68	1-AB-L2-A	53	3.00	PREACTION SPRINKLER-FULL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -WEST WALL, DOOR
1-AB-L1-B	43	0.40	1-AB-LD-G	49	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -EAST WALL
1-AB-L1-B	43	0.40	1-AB-LD-A	11B	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -EAST WALL
1-AB-L1-C	44	0.48	1-AB-LD-G	48	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-AB-L1-C	44	0.48	1-AB-LD-B	46	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-AB-L1-C	44	0.48	1-AB-LD-A	11B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	SOUTH WALL
1-AB-L1-C	44	0.48	1-AB-L2-A	141A	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-AB-L1-G	150	0.55	1-RTB-L1-A	302	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	SOUTH
1-AB-L1-G	150	0.55	1-RTB-L1-A	301	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	SOUTH DOOR
1-AB-L1-G	150	0.55	1-AB-LD-B	47	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST
1-AB-L1-G	150	0.55	1-AB-LD-B	46	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH
1-AB-L1-G	150	0.55	1-AB-LD-B	25	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST
1-AB-L1-H	50	0.42	1-AB-LD-B	47	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-AB-L2-A	141A	0.62	1-CTB	XX	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 AND 2 -EQUIPMENT BUILDING -EAST WALL
1-AB-L2-A	141A	0.62	1-CB-L1-TSC	604	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 AND 2 -EQUIPMENT BUILDING -NORTH WALL
1-AB-L2-A	141A	0.62	1-CB-L1-D	177	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 AND 2 -EQUIPMENT BUILDING -WEST WALL
1-AB-L2-A	141A	0.62	1-CB-L1-C	176	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 AND 2 -EQUIPMENT BUILDING -WEST WALL
1-AB-L2-A	141A	0.62	1-CB-L1-B	XX	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 AND 2 -EQUIPMENT BUILDING -SOUTH WALL
1-AB-L2-A	141A	0.62	1-AB-LD-B	139	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -AUXILIARY BUILDING -EAST WALL
1-AB-L2-A	141A	0.62	1-AB-L2-A	53	2.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL
1-AB-L2-A	141A	0.62	1-AB-L2-A	172	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-AB-L2-A	141A	0.62	1-AB-L1-C	44	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 AND 2 -EQUIPMENT BUILDING -SOUTH WALL
1-AB-L2-A	172	1.37	1-AB-LD-I	23	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -AUXILIARY BUILDING -EAST WALL
1-AB-L2-A	172	1.37	1-AB-LD-B	139	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -AUXILIARY BUILDING -NORTH WALL
1-AB-L2-A	172	1.37	1-AB-LC-B	17	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2-WEST WALL
1-AB-L2-A	172	1.37	1-AB-L2-E	148	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -AUXILIARY BUILDING -EAST WALL
1-AB-L2-A	172	1.37	1-AB-L2-C	147	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2-SOUTH WALL
1-AB-L2-A	172	1.37	1-AB-L2-A	53	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	EAST WALL, DOOR
1-AB-L2-A	172	1.37	1-AB-L2-A	141A	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	NORTH WALL
1-AB-L2-A	53	1.25	1-AB-LD-F	184	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -AUXILIARY BUILDING -EAST WALL, DOOR
1-AB-L2-A	53	1.25	1-AB-LD-B	47	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 AND 2 -EQUIPMENT BUILDING -WEST WALL
1-AB-L2-A	53	1.25	1-AB-LD-B	139	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 AND 2 -EQUIPMENT BUILDING -NORTH WALL
1-AB-L2-A	53	1.25	1-AB-LA-B	55	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -AUXILIARY BUILDING -EAST WALL
1-AB-L2-A	53	1.25	1-AB-L2-A	172	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	WEST WALL, DOOR
1-AB-L2-A	53	1.25	1-AB-L2-A	141A	2.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-AB-L2-A	53	1.25	1-AB-L1-B	149	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2-EAST WALL, DOOR
1-AB-L2-B	17	14.52	1-AB-LC-A	172	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 2-EAST WALL
1-AB-L2-C	147	1.80	1-AB-LD-I	23	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-AB-L2-C	147	1.80	1-AB-LD-G	54	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-AB-L2-C	147	1.80	1-AB-LD-A	11B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	SOUTH WALL
1-AB-L2-C	147	1.80	1-AB-LC-B	17	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-AB-L2-C	147	1.80	1-AB-L2-E	148	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-AB-L2-C	147	1.80	1-AB-L2-A	53	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL/SOUTH WALL, DOOR
1-AB-L2-C	147	1.80	1-AB-L2-A	172	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-AB-L2-C	147	1.80	1-AB-L1-B	149	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	SOUTH WALL
1-AB-L2-E	148	0.63	1-AB-LD-I	23	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-AB-L2-E	148	0.63	1-AB-LD-G	54	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	SOUTH WALL
1-AB-L2-E	148	0.63	1-AB-LA-E	45	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-AB-L2-E	148	0.63	1-AB-L2-C	147	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-AB-L2-E	148	0.63	1-AB-L2-A	172	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-AB-LA-A	11A	1.67	1-FB-LC-A	132	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL

Fire Area	Fire Zone	Fire Severity [Hours]	Adjacent Fire Area	Adjacent Fire Zone	Barrier Rating [Hours]	Automatic Suppression System	Permanent Opening	Fire Duration< Rating*0.75	Auto FSS Exists	Retained for Quantitative Screening?	BARRIER DESCRIPTION/ANALYSIS NOTES
1-AB-LA-A	11A	1.67	1-AB-LD-I	23	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-AB-LA-A	11A	1.67	1-AB-LD-A	11B	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL
1-AB-LA-A	11A	1.67	1-AB-LB-B	26B	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-AB-LA-A	11A	1.67	1-AB-LA-C	39C	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-AB-LA-B	37	0.68	1-AB-LD-G	36	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -NORTH WALL
1-AB-LA-B	37	0.68	1-AB-LD-F	184	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -WEST WALL
1-AB-LA-B	37	0.68	1-AB-LD-B	38	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -WEST WALL
1-AB-LA-B	37	0.68	1-AB-LD-A	11B	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -WEST WALL
1-AB-LA-B	37	0.68	1-AB-LA-C	39C	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -NORTH WALL
1-AB-LA-B	52	0.52	1-AB-LD-G	49	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -NORTH WALL
1-AB-LA-B	52	0.52	1-AB-LD-F	184	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -WEST WALL
1-AB-LA-B	52	0.52	1-AB-LD-B	41	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -WEST WALL
1-AB-LA-B	55	0.28	1-AB-LD-G	54	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -NORTH WALL
1-AB-LA-B	55	0.28	1-AB-LD-F	184	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -WEST WALL
1-AB-LA-B	55	0.28	1-AB-L2-A	53	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -WEST WALL
1-AB-LA-C	39C	1.02	1-AB-LD-I	23	3.00	PREACTION SPRINKLER-FULL COVERAGE	FALSE	TRUE	TRUE	NO	WEST WALL
1-AB-LA-C	39C	1.02	1-AB-LD-G	36	3.00	PREACTION SPRINKLER-FULL COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL
1-AB-LA-C	39C	1.02	1-AB-LD-A	11B	3.00	PREACTION SPRINKLER-FULL COVERAGE	FALSE	TRUE	TRUE	NO	WEST WALL
1-AB-LA-C	39C	1.02	1-AB-LB-B	39B	3.00	PREACTION SPRINKLER-FULL COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-AB-LA-C	39C	1.02	1-AB-LB-B	171	3.00	PREACTION SPRINKLER-FULL COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-AB-LA-C	39C	1.02	1-AB-LA-E	39A	3.00	PREACTION SPRINKLER-FULL COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-AB-LA-C	39C	1.02	1-AB-LA-B	37	3.00	PREACTION SPRINKLER-FULL COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL
1-AB-LA-C	39C	1.02	1-AB-LA-A	11A	3.00	PREACTION SPRINKLER-FULL COVERAGE	FALSE	TRUE	TRUE	NO	WEST WALL
1-AB-LA-D	39D	0.00	1-CTB	XX	0.25	PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-AB-LA-D	39D	0.00	1-AB-LA-E	39A	3.00	PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-AB-LA-E	39A	0.15	1-CTB	XX	0.25	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -NORTH WALL
1-AB-LA-E	39A	0.15	1-AB-LD-G	36	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -SOUTH WALL
1-AB-LA-E	39A	0.15	1-AB-LB-B	39B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -EAST WALL
1-AB-LA-E	39A	0.15	1-AB-LA-C	39C	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -WEST WALL
1-AB-LA-E	45	0.45	1-CTB	XX	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 -NORTH WALL
1-AB-LA-E	45	0.45	1-AB-LD-I	48	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -WEST WALL
1-AB-LA-E	45	0.45	1-AB-LD-G	49	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -SOUTH WALL
1-AB-LA-E	45	0.45	1-AB-L2-E	148	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -WEST WALL
1-AB-LB-A	31	0.40	1-AB-LB-A	34	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	WALL, DOOR
1-AB-LB-A	33	0.20	1-AB-LD-G	30	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL
1-AB-LB-A	33	0.20	1-AB-LD-G	26A	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-AB-LB-A	33	0.20	1-AB-LB-A	34	0.25	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	WALL, DOOR
1-AB-LB-A	34	0.37	1-AB-LD-F	184	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	WEST WALL
1-AB-LB-A	34	0.37	1-AB-LD-B	40	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	WEST WALL
1-AB-LB-A	34	0.37	1-AB-LB-A	35	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	UNRATED FIRE AREA BOUNDARY, DOOR
1-AB-LB-A	34	0.37	1-AB-LB-A	33	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	WALL, DOOR
1-AB-LB-A	34	0.37	1-AB-LB-A	31	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	WALL, DOOR
1-AB-LB-A	35	0.53	1-AB-LD-A	11B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-AB-LB-A	35	0.53	1-AB-LB-B	171	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-AB-LB-A	35	0.53	1-AB-LB-A	34	0.25	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	UNRATED FIRE AREA BOUNDARY, DOOR
1-AB-LB-B	171	0.15	1-AB-LD-I	23	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -WEST WALL
1-AB-LB-B	171	0.15	1-AB-LD-G	26A	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B (EL 180 FT - 6 IN) -EAST WALL
1-AB-LB-B	171	0.15	1-AB-LD-[illegible]	11B	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -WEST WALL
1-AB-LB-B	171	0.15	1-AB-LB-B	26B	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B NORTH WALL, DOOR
1-AB-LB-B	171	0.15	1-AB-LB-A	35	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B (EL 180 FT - 6 IN) -SOUTH WALL
1-AB-LB-B	171	0.15	1-AB-LB-A	34	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -SOUTH WALL
1-AB-LB-B	171	0.15	1-AB-LB-A	32	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B (EL 180 FT - 6 IN) -WEST WALL
1-AB-LB-B	171	0.15	1-AB-LA-E	39A	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A (FIRE ZONE 171) -NORTH WALL
1-AB-LB-B	171	0.15	1-AB-LA-C	39C	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A (FIRE ZONE 171) -WEST WALL

Fire Area	Fire Zone	Fire Severity [Hours]	Adjacent Fire Area	Adjacent Fire Zone	Barrier Rating [Hours]	Automatic Suppression System	Permanent Opening	Fire Duration< Rating*0.75	Auto FSS Exists	Retained for Quantitative Screening?	BARRIER DESCRIPTION/ANALYSIS NOTES
1-AB-LB-B	26B	0.55	1-CTB	XX	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL A (EL 211 FT - 5 IN , FIRE ZONE 39B) -NORTH WALL
1-AB-LB-B	26B	0.55	1-AB-LD-I	23	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -WEST WALL
1-AB-LB-B	26B	0.55	1-AB-LD-G	26A	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -SOUTH WALL
1-AB-LB-B	26B	0.55	1-AB-LB-B	29B	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL A EAST WALL
1-AB-LB-B	26B	0.55	1-AB-LB-B	171	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL B SOUTH WALL
1-AB-LB-B	26B	0.55	1-AB-LA-C	39C	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A (FIRE ZONES 26B) -SOUTH WALL
1-AB-LB-B	26B	0.55	1-AB-LA-A	11A	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A (FIRE ZONES 26B, 39B) -WEST WALL
1-AB-LB-B	39B	0.02	1-AB-LD-A	11B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A (EL 211 FT - 5 IN , FIRE ZONE 39B) -SOUTH WALL
1-AB-LB-B	39B	0.02	1-AB-LB-B	26B	0.25	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A WEST WALL
1-AB-LB-B	39B	0.02	1-AB-LA-E	39A	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A (FIRE ZONES 26B, 39B) -EAST WALL
1-AB-LB-B	39B	0.02	1-AB-LA-C	39C	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A (FIRE ZONES 39B) -SOUTH WALL
1-AB-LB-B	39B	0.02	1-AB-LA-A	11A	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A (EL 211 FT - 5 IN , FIRE ZONE 39B) -WEST WALL
1-AB-LC-A	16	0.05	1-AB-LD-B	24	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -SOUTH WALL
1-AB-LC-A	16	0.05	1-AB-LD-A	11B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C (EL 153 FT - 2 IN) -EAST WALL
1-AB-LC-A	16	0.05	1-AB-LC-C	18	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -NORTH WALL
1-AB-LC-B	17	14.52	1-CB-LC-A	42B	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL C -NORTH WALL
1-AB-LC-B	17	14.52	1-AB-LD-B	46	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 -SOUTH WALL
1-AB-LC-B	17	14.52	1-AB-LD-B	40	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL B -NORTH WALL, OPENING OR DOOR?
1-AB-LC-B	17	14.52	1-AB-LD-B	38	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL A -WEST WALL
1-AB-LC-B	17	14.52	1-AB-LD-B	24	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL C -SOUTH WALL
1-AB-LC-B	17	14.52	1-AB-LD-B	192	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL A -EAST WALL
1-AB-LC-B	17	14.52	1-AB-L2-C	147	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 2 -SOUTH WALL
1-AB-LC-B	17	14.52	1-AB-L2-A	53	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 2 -NORTH WALL
1-AB-LC-B	17	14.52	1-AB-L2-A	172	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 2 -EAST WALL
1-AB-LC-C	18	0.02	1-AB-LD-B	24	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -WEST WALL
1-AB-LC-C	18	0.02	1-AB-LD-A	11B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -EAST WALL
1-AB-LC-C	18	0.02	1-AB-LC-A	16	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL B -SOUTH WALL
1-AB-LC-D	20	0.38	1-AB-LD-G	21	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-AB-LC-D	20	0.38	1-AB-LD-G	14D	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	WEST WALL, OPENING
1-AB-LC-D	20	0.38	1-AB-LD-G	14A	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-AB-LC-D	20	0.38	1-AB-LC-E	19	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL
1-AB-LC-E	19	0.33	1-AB-LD-G	14D	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-AB-LC-E	19	0.33	1-AB-LD-G	14C	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	WEST WALL, OPENING
1-AB-LC-E	19	0.33	1-AB-LD-G	14A	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL
1-AB-LC-E	19	0.33	1-AB-LC-D	20	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-AB-LD-A	11B	3.30	TAIRWELL NO 3		3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL A -CENTRAL -SOUTH WALL
1-AB-LD-A	11B	3.30	1-FB-LC-A	15	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL B -CENTRAL -NORTH WALL
1-AB-LD-A	11B	3.30	1-FB-LC-A	132	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL A -CENTRAL -NORTH WALL
1-AB-LD-A	11B	3.30	1-AB-LD-I	23	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 -CENTRAL (HVAC CHASE) -EAST WALL
1-AB-LD-A	11B	3.30	1-AB-LD-I	1	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL D -CENTRAL -EAST WALL
1-AB-LD-A	11B	3.30	1-AB-LD-G	54	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 2 -CENTRAL -EAST WALL
1-AB-LD-A	11B	3.30	1-AB-LD-G	5	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL D -CENTRAL -EAST WALL
1-AB-LD-A	11B	3.30	1-AB-LD-G	49	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 -CENTRAL (ELECTRIC CHASE) -EAST WALL
1-AB-LD-A	11B	3.30	1-AB-LD-G	48	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 -CENTRAL (HVAC CHASE) -EAST WALL
1-AB-LD-A	11B	3.30	1-AB-LD-G	3	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL D -CENTRAL -EAST WALL
1-AB-LD-A	11B	3.30	1-AB-LD-G	14D	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL C -CENTRAL -EAST WALL
1-AB-LD-A	11B	3.30	1-AB-LD-G	14C	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL C -CENTRAL -EAST WALL
1-AB-LD-A	11B	3.30	1-AB-LD-F	184	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL A -CENTRAL -SOUTH WALL
1-AB-LD-A	11B	3.30	1-AB-LD-D	8	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL D -CENTRAL -NORTH WALL
1-AB-LD-A	11B	3.30	1-AB-LD-C	190	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL D -CENTRAL -WEST WALL
1-AB-LD-A	11B	3.30	1-AB-LD-B	46	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 -CENTRAL (ELECTRIC CHASE) -NORTH WALL
1-AB-LD-A	11B	3.30	1-AB-LD-B	41	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL A -CENTRAL -WEST WALL
1-AB-LD-A	11B	3.30	1-AB-LD-B	40	[illegible]	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL B -CENTRAL -WEST WALL
1-AB-LD-A	11B	3.30	1-AB-LD-B	38	[illegible]	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL A -CENTRAL -WEST WALL
1-AB-LD-A	11B	3.30	1-AB-LD-B	24	[illegible]	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL C -CENTRAL -WEST WALL

Fire Area	Fire Zone	Fire Severity [Hours]	Adjacent Fire Area	Adjacent Fire Zone	Barrier Rating [Hours]	Automatic Suppression System	Permanent Opening	Fire Duration< Rating*0.75	Auto FSS Exists	Retained for Quantitative Screening?	BARRIER DESCRIPTION/ANALYSIS NOTES
1-AB-LD-A	11B	3 30	1-AB-LD-B	12	3 00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL D -CENTRAL -SOUTH WALL
1-AB-LD-A	11B	3 30	1-AB-LD-A	9	0 25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL D WEST WALL
1-AB-LD-A	11B	3 30	1-AB-LC-C	18	3 00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL C -CENTRAL -WEST WALL
1-AB-LD-A	11B	3 30	1-AB-LC-A	16	3 00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL B -CENTRAL -WEST WALL
1-AB-LD-A	11B	3 30	1-AB-LB-B	171	3 00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL B -CENTRAL -EAST WALL
1-AB-LD-A	11B	3 30	1-AB-LB-A	35	3 00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL B -CENTRAL -EAST WALL
1-AB-LD-A	11B	3 30	1-AB-LB-A	34	3 00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL B -CENTRAL -EAST WALL
1-AB-LD-A	11B	3 30	1-AB-LA-B	37	3 00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL A -CENTRAL -EAST WALL
1-AB-LD-A	11B	3 30	1-AB-LA-A	11A	3 00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL A -CENTRAL -NORTH WALL
1-AB-LD-A	11B	3 30	1-AB-L2-C	147	3 00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 2 -CENTRAL -NORTH WALL
1-AB-LD-A	11B	3 30	1-AB-L1-C	44	3 00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 -CENTRAL (HVAC CHASE) -NORTH WALL
1-AB-LD-A	11B	3 30	1-AB-L1-B	43	3 00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 -CENTRAL (ELECTRIC CHASE) -SOUTH WALL
1-AB-LD-A	11B	3 30	1-AB-L1-B	149	3 00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 2 -CENTRAL -SOUTH WALL
1-AB-LD-A	9	0 13	1-AB-LD-B	12	3 00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL D -CENTRAL -WEST WALL
1-AB-LD-A	9	0 13	1-AB-LD-A	11B	0 25	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL D EAST WALL
1-AB-LD-B	27	0 36	1-FB-LC-A	15	3 00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 AND 2 -FUEL HANDLING BUILDING -EAST WALL
1-AB-LD-B	27	0 36	1-CTB	XX	0 25	NO ZONE COVERAGE	FALSE	FALSE	FALSE	NO	LEVEL B -AUXILIARY AND FUEL HANDLING BUILDINGS -EAST WALL. NO FIRE PROPAGATION IS CREDIBLE THROUGH THE CONTAINMENT WALL
1-AB-LD-B	139	0 12	A-AB-LD-B	142	0 25	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 3 -FUEL HANDLING BUILDING -EAST WALL
1-AB-LD-B	139	0 12	1-FB-L3-A	29	3 00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 3 -FUEL HANDLING BUILDING -EAST WALL
1-AB-LD-B	142	2 26	1-CB-L3-A	179	3 00	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	LEVEL 3 -CONTROL BUILDING -SOUTH WALL
1-AB-LD-B	142	2 26	1-AB-LD-B	139	0 25	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	LEVEL 3 -CONTROL BUILDING -EAST WALL
1-AB-LD-B	142	2 26	1-AB-LD-B	46	0 25	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	LEVEL 3 -FUEL HANDLING BUILDING -NORTH WALL
1-AB-LD-B	192	0 00	1-CB-L2-E	XX	3 00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 AND 2 -FUEL HANDLING BUILDING -NORTH WALL
1-AB-LD-B	192	0 00	1-CB-L1-B	XX	3 00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 -CONTROL BUILDING -EAST WALL
1-AB-LD-B	12	0 45	TAIRWELL NO 3		2 00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL D -AUXILIARY BUILDING -EAST WALL
1-AB-LD-B	12	0 45	ELEVATOR NO 1		2 00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL D -AUXILIARY BUILDING -NORTH WALL
1-AB-LD-B	12	0 45	1-AB-LD-G	5	3 00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL D -AUXILIARY BUILDING -EAST WALL
1-AB-LD-B	12	0 45	1-AB-LD-G	3	3 00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL D -AUXILIARY BUILDING -EAST WALL
1-AB-LD-B	12	0 45	1-AB-LD-E	189	3 00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL D -AUXILIARY BUILDING -EAST WALL
1-AB-LD-B	12	0 45	1-AB-LD-D	10	3 00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL D -AUXILIARY BUILDING -EAST WALL
1-AB-LD-B	12	0 45	1-AB-LD-C	190	3 00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL D -AUXILIARY BUILDING -EAST WALL
1-AB-LD-B	12	0 45	1-AB-LD-B	192	0 25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	
1-AB-LD-B	12	0 45	1-AB-LD-A	9	3 00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL D -AUXILIARY BUILDING -EAST WALL
1-AB-LD-B	12	0 45	1-AB-LD-A	11B	3 00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL D -AUXILIARY BUILDING -EAST WALL
1-AB-LD-B	139	0 12	1-FB-LC-A	132	3 00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -AUXILIARY AND FUEL HANDLING BUILDINGS -EAST WALL
1-AB-LD-B	139	0 12	1-AB-L2-A	141A	3 00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 AND 2 -FUEL HANDLING BUILDING -EAST WALL
1-AB-LD-B	192	0 00	1-AB-LD-B	46	0 25	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	
1-AB-LD-B	192	0 00	1-AB-LD-B	41	0 25	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	
1-AB-LD-B	192	0 00	1-AB-LD-B	40	0 25	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	
1-AB-LD-B	192	0 00	1-AB-LD-B	38	0 25	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	
1-AB-LD-B	192	0 00	1-AB-LD-B	24	0 25	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	
1-AB-LD-B	192	0 00	1-AB-LD-B	12	0 25	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	
1-AB-LD-B	24	0 53	TAIRWELL NO 3		2 00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -AUXILIARY BUILDING -EAST WALL
1-AB-LD-B	24	0 53	LEVATOR NO 1		2 00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -AUXILIARY BUILDING -NORTH WALL
1-AB-LD-B	24	0 53	1-FB-LC-A	15	3 00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -AUXILIARY BUILDING -NORTH WALL
1-AB-LD-B	24	0 53	1-AB-LD-G	22	3 00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -AUXILIARY BUILDING -EAST WALL
1-AB-LD-B	24	0 53	1-AB-LD-G	14D	3 00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -AUXILIARY BUILDING -EAST WALL
1-AB-LD-B	24	0 53	1-AB-LD-G	14C	3 00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -AUXILIARY BUILDING -EAST WALL
1-AB-LD-B	24	0 53	1-AB-LD-F	184	3 00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -AUXILIARY BUILDING -EAST WALL
1-AB-LD-B	24	0 53	1-AB-LD-B	25	0 25	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	
1-AB-LD-B	24	0 53	1-AB-LD-B	192	0 25	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	

Fire Area	Fire Zone	Fire Severity [Hours]	Adjacent Fire Area	Adjacent Fire Zone	Barrier Rating [Hours]	Automatic Suppression System	Permanent Opening	Fire Duration< Rating*0.75	Auto FSS Exists	Retained for Quantitative Screening?	BARRIER DESCRIPTION/ANALYSIS NOTES
1-AB-LD-B	24	0.53	1-AB-LD-A	11B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -AUXILIARY BUILDING -EAST WALL
1-AB-LD-B	24	0.53	1-AB-LC-C	18	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -AUXILIARY BUILDING -NORTH WALL
1-AB-LD-B	24	0.53	1-AB-LC-B	17	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -AUXILIARY BUILDING -NORTH WALL
1-AB-LD-B	24	0.53	1-AB-LC-A	16	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -AUXILIARY BUILDING -NORTH WALL
1-AB-LD-B	25	22.47	1-AB-LD-B	46	0.25	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	
1-AB-LD-B	25	22.47	1-AB-LD-B	40	0.25	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	
1-AB-LD-B	25	22.47	1-AB-LD-B	38	0.25	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	
1-AB-LD-B	25	22.47	1-AB-LD-B	24	0.25	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	
1-AB-LD-B	28	0.30	1-FB-LC-A	132	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -AUXILIARY AND FUEL HANDLING BUILDINGS -EAST WALL
1-AB-LD-B	38	0.58	TAIRWELL NO 3		2.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -AUXILIARY AND FUEL HANDLING BUILDINGS -EAST WALL
1-AB-LD-B	38	0.58	ELEVATOR NO 1		2.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -AUXILIARY AND FUEL HANDLING BUILDINGS -INTERIOR
1-AB-LD-B	38	0.53	1-AB-LD-F	184	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -AUXILIARY AND FUEL HANDLING BUILDINGS -EAST WALL
1-AB-LD-B	38	0.58	1-AB-LD-B	41	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	
1-AB-LD-B	38	0.58	1-AB-LD-B	25	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	
1-AB-LD-B	38	0.58	1-AB-LD-B	192	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	
1-AB-LD-B	38	0.58	1-AB-LD-A	11B	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -AUXILIARY AND FUEL HANDLING BUILDINGS -EAST WALL
1-AB-LD-B	38	0.58	1-AB-LC-B	17	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -AUXILIARY AND FUEL HANDLING BUILDINGS -INTERIOR
1-AB-LD-B	38	0.58	1-AB-LA-B	37	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -AUXILIARY AND FUEL HANDLING BUILDINGS -EAST WALL
1-AB-LD-B	38	0.58	1-AB-LA-A	11A	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -AUXILIARY AND FUEL HANDLING BUILDINGS -EAST WALL
1-AB-LD-B	40	0.48	TAIRWELL NO 3		2.00	MANUAL SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -AUXILIARY AND FUEL HANDLING BUILDINGS -EAST WALL
1-AB-LD-B	40	0.48	ELEVATOR NO 1		2.00	MANUAL SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -AUXILIARY AND FUEL HANDLING BUILDINGS -INTERIOR WALL
1-AB-LD-B	40	0.48	1-FB-LC-A	15	3.00	MANUAL SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -AUXILIARY AND FUEL HANDLING BUILDINGS -EAST WALL
1-AB-LD-B	40	0.48	1-AB-LD-F	184	3.00	MANUAL SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -AUXILIARY AND FUEL HANDLING BUILDINGS -EAST WALL
1-AB-LD-B	40	0.48	1-AB-LD-B	25	0.25	MANUAL SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	
1-AB-LD-B	40	0.48	1-AB-LD-B	192	0.25	MANUAL SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	
1-AB-LD-B	40	0.48	1-AB-LD-A	11B	3.00	MANUAL SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -AUXILIARY AND FUEL HANDLING BUILDINGS -EAST WALL
1-AB-LD-B	40	0.48	1-AB-LC-C	18	3.00	MANUAL SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -AUXILIARY AND FUEL HANDLING BUILDINGS -EAST WALL
1-AB-LD-B	40	0.48	1-AB-LC-B	17	3.00	MANUAL SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -AUXILIARY AND FUEL HANDLING BUILDINGS -INTERIOR WALL, OPENING
1-AB-LD-B	40	0.48	1-AB-LB-A	34	3.00	MANUAL SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -AUXILIARY AND FUEL HANDLING BUILDINGS -EAST WALL, OPENING
1-AB-LD-B	41	0.02	1-AB-LD-B	38	0.25	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	
1-AB-LD-B	41	0.02	1-AB-LD-B	192	0.25	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	
1-AB-LD-B	46	0.45	TAIRWELL NO 3		2.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -AUXILIARY BUILDING -EAST WALL
1-AB-LD-B	46	0.45	1-AB-LD-G	49	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -AUXILIARY BUILDING -EAST WALL
1-AB-LD-B	46	0.45	1-AB-LD-F	184	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -AUXILIARY BUILDING -EAST WALL
1-AB-LD-B	46	0.45	1-AB-LD-B	47	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	
1-AB-LD-B	46	0.45	1-AB-LD-B	25	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	
1-AB-LD-B	46	0.45	1-AB-LD-B	192	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	
1-AB-LD-B	46	0.45	1-AB-LD-A	11B	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -AUXILIARY BUILDING -EAST WALL
1-AB-LD-B	46	0.45	1-AB-LC-B	17	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -AUXILIARY BUILDING -INTERIOR
1-AB-LD-B	46	0.45	1-AB-LA-B	52	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -AUXILIARY BUILDING -EAST WALL
1-AB-LD-B	46	0.45	1-AB-L2-A	141A	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -AUXILIARY BUILDING -NORTH WALL
1-AB-LD-B	46	0.45	1-AB-L1-G	150	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -AUXILIARY BUILDING -SOUTH WALL

Fire Area	Fire Zone	Fire Severity [Hours]	Adjacent Fire Area	Adjacent Fire Zone	Barrier Rating [Hours]	Automatic Suppression System	Permanent Opening	Fire Duration< Rating*0.75	Auto FSS Exists	Retained for Quantitative Screening?	BARRIER DESCRIPTION/ANALYSIS NOTES
1-AB-LD-B	46	0.45	1-AB-L1-C	44	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -AUXILIARY BUILDING -EAST WALL
1-AB-LD-B	46	0.45	1-AB-L1-B	43	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -AUXILIARY BUILDING -EAST WALL
1-AB-LD-B	47	0.37	TAIRWELL NO. 1		2.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 -AUXILIARY BUILDING -INTERIOR
1-AB-LD-B	47	0.37	ELEVATOR NO. 1		2.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 -AUXILIARY BUILDING -INTERIOR
1-AB-LD-B	47	0.37	1-AB-LD-B	46	0.25	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	
1-AB-LD-B	47	0.37	1-AB-L2-A	53	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 2 -AUXILIARY BUILDING -EAST WALL
1-AB-LD-B	47	0.37	1-AB-L1-H	50	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 -AUXILIARY BUILDING -WEST WALL
1-AB-LD-C	190	0.05	1-AB-LD-B	12	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-AB-LD-C	190	0.05	1-AB-LD-A	9	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-AB-LD-D	10	1.02	1-AB-LD-I	9	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-AB-LD-D	10	1.02	1-AB-LD-D	8	0.25	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL D EAST WALL
1-AB-LD-D	10	1.02	1-AB-LD-B	12	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	WEST WALL
1-AB-LD-D	8	1.03	1-AB-LD-I	1	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-AB-LD-D	8	1.03	1-AB-LD-D	10	0.25	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL D WEST WALL
1-AB-LD-D	8	1.03	1-AB-LD-A	11B	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL
1-AB-LD-E	189	0.05	1-AB-LD-D	10	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-AB-LD-E	189	0.05	1-AB-LD-B	12	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-AB-LD-F	184	0.00	TAIRWELL NO. 3		3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -WEST WALL
1-AB-LD-F	184	0.00	1-AB-LD-G	3	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL D (EL 135 FT - 2 IN.) -EAST WALL
1-AB-LD-F	184	0.00	1-AB-LD-G	14C	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -EAST WALL
1-AB-LD-F	184	0.00	1-AB-LD-B	46	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 -NORTH WALL
1-AB-LD-F	184	0.00	1-AB-LD-B	40	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL B -SOUTH WALL
1-AB-LD-F	184	0.00	1-AB-LD-B	38	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -SOUTH WALL
1-AB-LD-F	184	0.00	1-AB-LD-B	24	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -SOUTH WALL
1-AB-LD-F	184	0.00	1-AB-LD-B	12	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL D (EL 135 FT - 2 IN.) -SOUTH WALL
1-AB-LD-F	184	0.00	1-AB-LD-A	1B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -NORTH WALL
1-AB-LD-F	184	0.00	1-AB-LD-A	11B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -NORTH WALL
1-AB-LD-F	184	0.00	1-AB-LB-A	34	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL B -EAST WALL
1-AB-LD-F	184	0.00	1-AB-LA-B	55	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 2 -EAST WALL
1-AB-LD-F	184	0.00	1-AB-LA-B	52	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 -EAST WALL
1-AB-LD-F	184	0.00	1-AB-LA-B	37	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -EAST WALL
1-AB-LD-F	184	0.00	1-AB-L2-A	53	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 2 -WEST WALL, DOOR
1-AB-LD-F	184	0.00	1-AB-L1-B	148	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 2 -NORTH WALL
1-AB-LD-G	14A	0.70	TAIRWELL NO. 5		2.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -INTERIOR
1-AB-LD-G	14A	0.70	ELEVATOR NO. 3		2.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -EAST WALL
1-AB-LD-G	14A	0.70	1-AB-LD-G	14C	0.25	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	
1-AB-LD-G	14A	0.70	1-AB-LC-E	19	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -INTERIOR
1-AB-LD-G	14A	0.70	1-AB-LC-D	20	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -INTERIOR
1-AB-LD-G	14B	0.26	1-CTB	XX	0.25		FALSE	FALSE	TRUE	NO	LEVEL C -NORTH WALL
1-AB-LD-G	14B	0.27	1-AB-LD-G	22	0.25	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	
1-AB-LD-G	14B	0.27	1-AB-LD-G	21	0.25	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	
1-AB-LD-G	14C	0.62	1-AB-LD-G	14D	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	
1-AB-LD-G	14C	0.62	1-AB-LD-G	14A	0.25	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	
1-AB-LD-G	14C	0.62	1-AB-LD-F	184	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL C -WEST WALL
1-AB-LD-G	14C	0.62	1-AB-LD-B	24	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL C -WEST WALL
1-AB-LD-G	14C	0.62	1-AB-LD-A	11B	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL C -WEST WALL
1-AB-LD-G	14C	0.62	1-AB-LC-E	19	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL C -INTERIOR
1-AB-LD-G	14D	0.33	1-AB-LD-G	22	0.25	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	
1-AB-LD-G	14D	0.33	1-AB-LD-G	21	0.25	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	
1-AB-LD-G	14D	0.33	1-AB-LD-G	14C	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	
1-AB-LD-G	14D	0.33	1-AB-LD-A	11B	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL C -WEST WALL
1-AB-LD-G	14D	0.33	1-AB-LC-D	20	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL C -INTERIOR
1-AB-LD-G	21	0.37	1-AB-LD-G	14D	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	
1-AB-LD-G	21	0.37	1-AB-LD-G	14B	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	
1-AB-LD-G	21	0.37	1-AB-LC-D	20	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL C -INTERIOR
1-AB-LD-G	22	1.45	1-AB-LD-I	23	2.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -WEST WALL
1-AB-LD-G	22	1.45	1-AB-LD-G	14D	0.25	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	
1-AB-LD-G	22	1.45	1-AB-LD-G	14B	0.25	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	

Fire Area	Fire Zone	Fire Severity [Hours]	Adjacent Fire Area	Adjacent Fire Zone	Barrier Rating [Hours]	Automatic Suppression System	Permanent Opening	Fire Duration< Rating*0.75	Auto FSS Exists	Retained for Quantitative Screening?	BARRIER DESCRIPTION/ANALYSIS NOTES
1-AB-LD-G	22	1.45	1-AB-LD-A	11B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL C -WEST WALL
1-AB-LD-G	26A	0.33	TAIRWELL NO. 5		2.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -EAST WALL
1-AB-LD-G	26A	0.33	ELEVATOR NO. 3		2.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -EAST WALL
1-AB-LD-G	26A	0.33	1-AB-LD-G	30	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	
1-AB-LD-G	26A	0.33	1-AB-LB-B	26B	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -NORTH WALL
1-AB-LD-G	26A	0.33	1-AB-LB-B	171	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -WEST WALL
1-AB-LD-G	26A	0.33	1-AB-LB-A	33	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -WEST WALL
1-AB-LD-G	26A	0.33	1-AB-LB-A	31	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -WEST WALL
1-AB-LD-G	3	0.32	TAIRWELL NO. 5		2.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL D -INTERIOR
1-AB-LD-G	3	0.32	1-AB-LD-J	6	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL D -INTERIOR
1-AB-LD-G	3	0.32	1-AB-LD-I	1	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL D -NORTH WALL
1-AB-LD-G	3	0.32	1-AB-LD-G	5	0.25	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	FALSE	TRUE	NO	
1-AB-LD-G	3	0.32	1-AB-LD-F	184	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL D -WEST WALL
1-AB-LD-G	3	0.32	1-AB-LD-B	12	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL D -WEST WALL
1-AB-LD-G	3	0.32	1-AB-LD-A	11B	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL D -WEST WALL
1-AB-LD-G	30	0.17	1-AB-LD-G	26A	0.25	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	
1-AB-LD-G	36	1.07	TAIRWELL NO. 5		2.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -SOUTH WALL
1-AB-LD-G	36	1.07	1-AB-LA-E	39A	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -NORTH WALL
1-AB-LD-G	36	1.07	1-AB-LA-C	39C	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -NORTH WALL
1-AB-LD-G	36	1.07	1-AB-LA-B	37	2.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -SOUTH WALL
1-AB-LD-G	48	0.37	1-AB-LD-I	23	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -WEST WALL
1-AB-LD-G	48	0.37	1-AB-L1-C	44	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -WEST WALL
1-AB-LD-G	49	0.15	TAIRWELL NO. 5		2.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -SOUTH WALL
1-AB-LD-G	49	0.15	1-AB-LD-B	46	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -WEST WALL
1-AB-LD-G	49	0.15	1-AB-LD-A	11B	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -WEST WALL
1-AB-LD-G	49	0.15	1-AB-LA-E	45	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -NORTH WALL
1-AB-LD-G	49	0.15	1-AB-LA-B	52	2.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -SOUTH WALL
1-AB-LD-G	49	0.15	1-AB-L1-B	43	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -WEST WALL
1-AB-LD-G	5	0.50	1-AB-LD-G	3	0.25	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	
1-AB-LD-G	54	0.25	TAIRWELL NO. 5		2.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -SOUTH WALL
1-AB-LD-G	54	0.25	1-AB-LD-A	11B	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -WEST WALL
1-AB-LD-G	54	0.25	1-AB-LA-E	45	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -NORTH WALL
1-AB-LD-G	54	0.25	1-AB-LA-B	55	2.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -SOUTH WALL
1-AB-LD-G	54	0.25	1-AB-L2-E	148	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -NORTH WALL
1-AB-LD-G	54	0.25	1-AB-L2-C	147	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -WEST WALL
1-AB-LD-G	54	0.25	1-AB-L1-B	149	3.00	PREACTION SPRINKLER-PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -WEST WALL
1-AB-LD-H	2	0.82	1-CTB	XX	0.25	NO ZONE COVERAGE	FALSE	FALSE	FALSE	NO	NORTH WALL. NO FIRE PROPAGATION IS CREDIBLE THROUGH THE CONTAINMENT WALL
1-AB-LD-H	2	0.82	1-AB-LD-I	1	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	SOUTH WALL
1-AB-LD-I	1	0.97	1-AB-LD-I	4	0.25	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL D SOUTH WALL, WEST WALL
1-AB-LD-I	1	0.97	1-AB-LD-H	2	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL D -NORTH WALL
1-AB-LD-I	1	0.97	1-AB-LD-G	3	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL D -SOUTH WALL
1-AB-LD-I	1	0.97	1-AB-LD-D	8	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL D -WEST WALL
1-AB-LD-I	1	0.97	1-AB-LD-A	11B	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL D -WEST WALL
1-AB-LD-I	23	13.18	1-AB-LD-G	48	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 -NORTH WALL
1-AB-LD-I	23	13.18	1-AB-LD-G	22	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL C -EAST WALL
1-AB-LD-I	23	13.18	1-AB-LD-A	11B	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 -WEST WALL
1-AB-LD-I	23	13.18	1-AB-LB-B	26B	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL B -NORTH WALL
1-AB-LD-I	23	13.18	1-AB-LB-B	171	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL B -SOUTH WALL
1-AB-LD-I	23	13.18	1-AB-LA-C	39	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL A -SOUTH WALL
1-AB-LD-I	23	13.18	1-AB-L2-E	148	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 2 -EAST WALL
1-AB-LD-I	23	13.18	1-AB-L2-C	147	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 2 -WEST WALL
1-AB-LD-I	23	13.18	1-AB-L2-A	172	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 2 -WEST WALL
1-AB-LD-I	4	0.05	1-AB-LD-I	1	0.25	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL D NORTH WALL,EAST WALL
1-AB-LD-J	6	0.08	1-AB-LD-G	3	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-AFB-A	155	0.02	1-AFB-C	157A	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL

Fire Area	Fire Zone	Fire Severity [Hours]	Adjacent Fire Area	Adjacent Fire Zone	Barrier Rating [Hours]	Automatic Suppression System	Permanent Opening	Fire Duration< Rating*0.75	Auto FSS Exists	Retained for Quantitative Screening?	BARRIER DESCRIPTION/ANALYSIS NOTES
1-AFB-A	155	0.02	1-AFB-B	156	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	WEST WALL
1-AFB-B	156	0.02	1-AFB-C	157A	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL
1-AFB-B	156	0.02	1-AFB-A	155	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-AFB-C	157A	0.02	1-AFB-B	156	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-AFB-C	157A	0.02	1-AFB-A	155	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-AFB-C	193	0.02	1-AFB-C	194	0.25	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-AFB-C	194	0.00	1-AFB-C	193	0.25	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-AFB-D	157B	0.00	1-AFB-C	157A	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-CB-L1-A	XX	0.90	1-CB-LC-A	153	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-L1-A	XX	0.32	1-CB-LB-A	73	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-L1-A	XX	0.32	1-CB-L1-G	110	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-CB-L1-A	XX	0.90	1-CB-L1-F	108	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-L1-A	XX	0.90	1-CB-L1-E	107	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-L1-B	XX	1.83	TAIRWELL NO. 4		2.00	NO ZONE COVERAGE	FALSE	FALSE	FALSE	NO	NORTH WALL. NO CREDIBLE COMBUSTIBLE SOURCE FOR FIRE PROPAGATION
1-CB-L1-B	XX	0.17	ELEVATOR NO. 2		2.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	INTER-ZONE PROPAGATION WITHIN CB-LI-B-XX IS NOT MODELED BECAUSE OF LOW IMPACT AND LOW COMBUSTIBLE CONTENT IN MOST ZONES
1-CB-L1-B	XX	0.17	ELEVATOR NO. 1		2.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	INTER-ZONE PROPAGATION WITHIN CB-LI-B-XX IS NOT MODELED BECAUSE OF LOW IMPACT AND LOW COMBUSTIBLE CONTENT IN MOST ZONES
1-CB-L1-B	XX	0.17	1-CB-LC-A	81B	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	INTER-ZONE PROPAGATION WITHIN CB-LI-B-XX IS NOT MODELED BECAUSE OF LOW IMPACT AND LOW COMBUSTIBLE CONTENT IN MOST ZONES
1-CB-L1-B	XX	0.17	1-CB-LB-S	57A	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	INTER-ZONE PROPAGATION WITHIN CB-LI-B-XX IS NOT MODELED BECAUSE OF LOW IMPACT AND LOW COMBUSTIBLE CONTENT IN MOST ZONES
1-CB-L1-B	XX	0.17	1-CB-L3-M	57B	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	INTER-ZONE PROPAGATION WITHIN CB-LI-B-XX IS NOT MODELED BECAUSE OF LOW IMPACT AND LOW COMBUSTIBLE CONTENT IN MOST ZONES
1-CB-L1-B	XX	0.55	1-CB-L1-TSC	601	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	INTER-ZONE PROPAGATION WITHIN CB-LI-B-XX IS NOT MODELED BECAUSE OF LOW IMPACT AND LOW COMBUSTIBLE CONTENT IN MOST ZONES
1-CB-L1-B	XX	0.55	1-CB-L1-G	110	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	INTER-ZONE PROPAGATION WITHIN CB-LI-B-XX IS NOT MODELED BECAUSE OF LOW IMPACT AND LOW COMBUSTIBLE CONTENT IN MOST ZONES
1-CB-L1-B	XX	0.17	1-CB-L1-D	177	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	INTER-ZONE PROPAGATION WITHIN CB-LI-B-XX IS NOT MODELED BECAUSE OF LOW IMPACT AND LOW COMBUSTIBLE CONTENT IN MOST ZONES
1-CB-L1-B	XX	0.17	1-CB-L1-C	176	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	INTER-ZONE PROPAGATION WITHIN CB-LI-B-XX IS NOT MODELED BECAUSE OF LOW IMPACT AND LOW COMBUSTIBLE CONTENT IN MOST ZONES
1-CB-L1-B	XX	0.17	1-AB-LD-B	192	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	INTER-ZONE PROPAGATION WITHIN CB-LI-B-XX IS NOT MODELED BECAUSE OF LOW IMPACT AND LOW COMBUSTIBLE CONTENT IN MOST ZONES
1-CB-L1-B	XX	0.17	1-AB-L2-A	141A	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	INTER-ZONE PROPAGATION WITHIN CB-LI-B-XX IS NOT MODELED BECAUSE OF LOW IMPACT AND LOW COMBUSTIBLE CONTENT IN MOST ZONES
1-CB-L1-C	176	6.33	1-CB-L1-D	177	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 SOUTH WALL
1-CB-L1-C	176	6.33	1-CB-L1-B	XX	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 NORTH WALL

Fire Area	Fire Zone	Fire Severity [Hours]	Adjacent Fire Area	Adjacent Fire Zone	Barrier Rating [Hours]	Automatic Suppression System	Permanent Opening	Fire Duration< Rating*0.75	Auto FSS Exists	Retained for Quantitative Screening?	BARRIER DESCRIPTION/ANALYSIS NOTES
1-CB-L1-C	176	6.33	1-AB-L2-A	141A	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 EAST WALL
1-CB-L1-D	177	8.67	1-CB-L2-A	141A	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 EAST WALL
1-CB-L1-D	177	8.67	1-CB-L1-C	176	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 NORTH WALL
1-CB-L1-D	177	8.67	1-CB-L1-B	XX	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 WEST WALL
1-CB-L1-E	108	6.75	1-CB-LC-A	153	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 WEST WALL
1-CB-L1-E	108	6.75	1-CB-L2-B	120	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 2 SOUTH WALL
1-CB-L1-E	108	6.75	1-CB-L1-F	107	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 EAST WALL
1-CB-L1-E	108	6.75	1-CB-L1-A	XX	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 SOUTH WALL
1-CB-L1-F	107	5.70	1-CB-LB-A	73	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 EAST WALL
1-CB-L1-F	107	5.70	1-CB-L2-E	XX	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 2 SOUTH WALL
1-CB-L1-F	107	5.70	1-CB-L2-B	120	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 2 SOUTH WALL
1-CB-L1-F	107	5.70	1-CB-L1-E	108	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 WEST WALL
1-CB-L1-F	107	5.70	1-CB-L1-A	XX	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 SOUTH WALL
1-CB-L1-G	110	3.18	1-CB-LB-A	73	3.00	HALON SUPPRESSION SYSTEM-PARTIAL ZONE	FALSE	FALSE	TRUE	NO	WEST WALL
1-CB-L1-G	110	3.18	1-CB-L1-TSC	601	3.00	HALON SUPPRESSION SYSTEM-PARTIAL ZONE	FALSE	FALSE	TRUE	NO	EAST WALL
1-CB-L1-G	110	3.18	1-CB-L1-B	XX	3.00	HALON SUPPRESSION SYSTEM-PARTIAL ZONE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-L1-TSC	601	2.37	TAIRWELL NO. 3		2.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	NORTH WALL
1-CB-L1-TSC	601	2.37	1-CB-L1-TSC	605	0.25	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	WALL
1-CB-L1-TSC	601	2.37	1-CB-L1-TSC	602	1.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	BOUNDARY (LIFE SAFETY)
1-CB-L1-TSC	601	2.37	1-CB-L1-G	170	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	WEST WALL
1-CB-L1-TSC	601	2.37	1-CB-L1-B	183B	1.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	INTERIOR WALL (COMPUTER AND COMMUNICATIONS ROOM FROM CORRIDOR)
1-CB-L1-TSC	602	0.53	1-CB-L1-TSC	605	1.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	BOUNDARY (LIFE SAFETY), DOOR
1-CB-L1-TSC	602	0.53	1-CB-L1-TSC	604	1.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	BOUNDARY (LIFE SAFETY), DOOR
1-CB-L1-TSC	602	0.53	1-CB-L1-TSC	603	1.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	BOUNDARY (LIFE SAFETY), DOOR
1-CB-L1-TSC	602	0.53	1-CB-L1-TSC	601	1.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	BOUNDARY (LIFE SAFETY)
1-CB-L1-TSC	603	5.67	1-CB-L1-TSC	604	0.25	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	WALL
1-CB-L1-TSC	603	5.67	1-CB-L1-TSC	602	1.00	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	BOUNDARY (LIFE SAFETY), DOOR
1-CB-L1-TSC	603	5.67	1-CB-L1-B	XX	3.00	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	WEST WALL
1-CB-L1-TSC	604	2.02	1-CB-L1-TSC	603	0.25	NOT INSTALLED	FALSE	FALSE	TRUE	NO	WALL
1-CB-L1-TSC	604	2.02	1-CB-L1-TSC	602	1.00	NOT INSTALLED	FALSE	FALSE	TRUE	NO	BOUNDARY (LIFE SAFETY), DOOR
1-CB-L1-TSC	605	0.35	1-CB-L1-TSC	602	1.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	BOUNDARY (LIFE SAFETY), DOOR

Fire Area	Fire Zone	Fire Severity [Hours]	Adjacent Fire Area	Adjacent Fire Zone	Barrier Rating [Hours]	Automatic Suppression System	Permanent Opening	Fire Duration< Rating*0.75	Auto FSS Exists	Retained for Quantitative Screening?	BARRIER DESCRIPTION/ANALYSIS NOTES
1-CB-L1-TSC	605	0.35	1-CB-L1-TSC	601	0.25	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	WALL
1-CB-L2-A	121	3.08	1-CB-LC-A	153	3.00	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	EAST WALL
1-CB-L2-A	121	3.08	1-CB-L2-B	120	3.00	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	SOUTH WALL
1-CB-L2-B	120	4.62	1-CB-LC-A	121	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	NORTH WALL
1-CB-L2-B	120	4.62	1-CB-L2-E	XX	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH
1-CB-L2-B	120	4.62	1-CB-L2-A	12	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	NORTH WALL
1-CB-L2-B	120	4.62	1-CB-L1-F	107	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	NORTH WALL
1-CB-L2-B	120	4.62	1-CB-L1-E	108	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	NORTH WALL
1-CB-L2-E	XX	2.80	TAIRWELL NO. 4		2.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	NORTH WALL (STAIRWELL NO. 4 AND ELEVATOR NO. 2)
1-CB-L2-E	XX	1.43	TAIRWELL NO. 2		2.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL (STAIRWELL NO. 2 AND ELEVATOR NO. 2)
1-CB-L2-E	XX	0.00	1-CB-LB-S	57A	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-CB-L2-E	XX	0.72	1-CB-LB-A	73	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-L2-E	XX	2.40	1-CB-L2-B	120	3.00	NO ZONE COVERAGE	FALSE	FALSE	FALSE	NO	NORTH WALL, SCENARIO SCREENED BASED ON WALKDWON OBSERVATION
1-CB-L2-E	XX	0.72	1-CB-L1-F	107	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-L2-E	XX	1.45	1-CB-L1-D	177	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-CB-L2-E	XX	1.45	1-CB-L1-C	176	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-CB-L2-E	XX	2.40	1-AB-LD-B	192	3.00	NO ZONE COVERAGE	FALSE	FALSE	FALSE	NO	NORTH WALL, SCENARIO SCREENED BASED ON WALKDWON OBSERVATION
1-CB-L3-A	179	5.98	1-CB-LC-A	26A	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	WEST WALL
1-CB-L3-A	179	5.98	1-CB-L4-A	181	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-L3-A	179	5.98	1-CB-L3-L	137	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-L3-A	179	5.98	1-CB-L3-H	135	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	NORTH WALL
1-CB-L3-B	180	4.07	1-CB-LC-A	153	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	WEST WALL
1-CB-L3-B	180	4.07	1-CB-L3-H	135	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH
1-CB-L3-B	180	4.07	1-CB-L3-C	178	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	EAST WALL
1-CB-L3-C	178	3.52	1-CB-LB-A	73	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	EAST
1-CB-L3-C	178	3.52	1-CB-L3-H	135	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH
1-CB-L3-C	178	3.52	1-CB-L3-B	180	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	WEST
1-CB-L3-H	135	0.88	ELEVATOR NO. 1		2.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-L3-H	135	0.88	1-CB-LB-A	73	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-L3-H	135	0.88	1-CB-L3-M	125A	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL
1-CB-L3-H	135	0.88	1-CB-L3-K	XX	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL

Fire Area	Fire Zone	Fire Severity [Hours]	Adjacent Fire Area	Adjacent Fire Zone	Barrier Rating [Hours]	Automatic Suppression System	Permanent Opening	Fire Duration< Rating*0.75	Auto FSS Exists	Retained for Quantitative Screening?	BARRIER DESCRIPTION/ANALYSIS NOTES
1-CB-L3-H	135	0.88	1-CB-L3-J	126B	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL
1-CB-L3-H	135	0.88	1-CB-L3-C	178	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-L3-H	135	0.88	1-CB-L3-B	180	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-L3-H	135	0.88	1-CB-L3-A	179	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL
1-CB-L3-J	126B	1.65	1-CB-L3-M	125A	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-CB-L3-J	126B	1.65	1-CB-L3-L	137	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL
1-CB-L3-J	126B	1.65	1-CB-L3-K	XX	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	WEST WALL
1-CB-L3-J	126B	1.65	1-CB-L3-H	135	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-L3-K	XX	1.21	1-CB-LB-S	57A	3.00		FALSE	TRUE	TRUE	NO	SOUTH WALL
1-CB-L3-K	XX	1.21	1-CB-L3-L	137	3.00		FALSE	TRUE	TRUE	NO	SOUTH WALL
1-CB-L3-K	XX	1.21	1-CB-L3-J	126B	3.00		FALSE	TRUE	TRUE	NO	EAST WALL
1-CB-L3-K	XX	1.21	1-CB-L3-H	135	3.00		FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-L3-K	XX	1.21	1-AB-LD-B	81A	3.00		FALSE	TRUE	TRUE	NO	SOUTH WALL
1-CB-L3-L	137	0.37	TAIRWELL NO. 2		2.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL (STAIRWELL NO. 2 AND ELEVATOR NO. 2)
1-CB-L3-L	137	0.37	1-FB-L3-B	168	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-CB-L3-L	137	0.37	1-FB-L3-B	167	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-CB-L3-L	137	0.37	1-CB-LC-A	126A	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-L3-L	137	0.37	1-CB-LB-S	57A	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-L3-L	137	0.37	1-CB-L3-M	125A	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-L3-L	137	0.37	1-CB-L3-K	XX	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-L3-L	137	0.37	1-CB-L3-J	179	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-L3-L	137	0.37	1-CB-L3-A	179	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-L3-L	137	0.37	1-AB-LD-B	81A	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-CB-L3-L	137	0.37	1-AB-LD-B	142	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-CB-L3-L	137	0.37	1-AB-LD-B	139	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-CB-L3-M	125A	1.62	1-CB-LC-A	126A	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 3 EAST WALL
1-CB-L3-M	125A	1.62	1-CB-L3-L	137	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 3 SOUTH WALL
1-CB-L3-M	125A	1.62	1-CB-L3-J	126B	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 3 WEST WALL
1-CB-L3-M	125A	1.62	1-CB-L3-H	135	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 3 NORTH WALL
1-CB-L3-M	57B	0.00	1-CB-LC-A	81B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 EAST WALL
1-CB-L3-M	57B	0.00	1-CB-LC-A	81B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -EAST WALL
1-CB-L3-M	57B	0.00	1-CB-LA-U	169	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -NORTH WALL
1-CB-L3-M	57B	0.00	1-CB-L1-B	XX	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 NORTH WALL

Fire Area	Fire Zone	Fire Severity [Hours]	Adjacent Fire Area	Adjacent Fire Zone	Barrier Rating [Hours]	Automatic Suppression System	Permanent Opening	Fire Duration< Rating*0.75	Auto FSS Exists	Retained for Quantitative Screening?	BARRIER DESCRIPTION/ANALYSIS NOTES
1-CB-L3-M	57B	0.00	1-AB-LD-B	192	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 WEST WALL
1-CB-L4-A	170	0.23	TAIRWELL NO. 2		2.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 4 -EAST WALL (LOBBY, STAIRWELL NO. 2 AND ELEVATOR NO. 2)
1-CB-L4-A	170	0.23	1-FB-L3-B	168	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 4 -SOUTH WALL
1-CB-L4-A	170	0.23	1-FB-L3-A	167	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 4 -SOUTH WALL
1-CB-L4-A	170	0.23	1-CB-LB-S	51A	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 4 -WEST WALL
1-CB-L4-A	170	0.23	1-CB-L3-K	XX	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 3 ZONE 170 -EAST WALL
1-CB-L4-A	170	0.23	1-AB-LD-B	139	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 4 -SOUTH WALL
1-CB-L4-A	181	4.65	1-CB-L3-L	137	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 3 ZONE 181 -WEST WALL
1-CB-L4-A	181	4.65	1-CB-L3-A	179	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 3 ZONE 181 -NORTH WALL
1-CB-L4-A	181	4.65	1-CB-L1-D	177	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 3 ZONE 181 -NORTH WALL
1-CB-LA-A	101	0.81	1-CB-LA-S	100	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-LA-A	101	0.81	1-CB-LA-N	85	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-LA-A	101	0.81	1-CB-LA-D	99	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	WEST WALL
1-CB-LA-A	101	0.81	1-CB-LA-C	XX	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL
1-CB-LA-A	101	0.81	1-CB-LA-B	89	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL
1-CB-LA-B	89	0.97	1-CTB	XX	0.25	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LA-B	89	0.97	1-CB-LA-D	99	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	WEST WALL
1-CB-LA-B	89	0.97	1-CB-LA-C	XX	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-CB-LA-B	89	0.97	1-CB-LA-A	101	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-LA-C	XX	0.82	1-CB-LA-B	89	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	SOUTH WALL
1-CB-LA-C	XX	0.82	1-CB-LA-A	101	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-LA-D	104	0.25	1-EB-B	141B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 -EAST WALL
1-CB-LA-D	104	0.25	1-CTB	XX	0.25	NO ZONE COVERAGE	FALSE	FALSE	FALSE	NO	LEVEL 1 -SOUTH WALL, NO FIRE PROPAGATION IS CREDIBLE THROUGH THE CONTAINMENT WALL
1-CB-LA-D	99	0.02	1-CTB	XX	0.25	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -SOUTH WALL
1-CB-LA-D	99	0.02	1-CB-LB-G	82	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -WEST WALL
1-CB-LA-D	99	0.02	1-CB-LA-T	87	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -WEST WALL
1-CB-LA-D	99	0.02	1-CB-LA-N	86	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -EAST WALL
1-CB-LA-D	99	0.02	1-CB-LA-N	85	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -NORTH WALL
1-CB-LA-D	99	0.02	1-CB-LA-I	93	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -WEST WALL
1-CB-LA-D	99	0.02	1-CB-LA-H	92	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -WEST WALL
1-CB-LA-D	99	0.02	1-CB-LA-B	89	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -EAST WALL
1-CB-LA-D	99	0.02	1-CB-LA-A	101	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -EAST WALL
1-CB-LA-E	195	0.05	URBINE BUILDING		3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-LA-F	84	2.90	1-CB-LC-A	42B	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	NORTH WALL
1-CB-LA-F	84	2.90	1-CB-LA-N	85	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LA-G	103	0.83	1-CB-LA-N	85	3.00	PREACTION SPRINKLER-TOTAL COVERAGE, HALON	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-LA-G	103	0.83	1-CB-LA-G	91	0.25	PREACTION SPRINKLER-TOTAL COVERAGE, HALON	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LA-G	91	0.85	TAIRWELL NO. 3		3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-LA-G	91	0.85	1-CB-LA-N	85	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-LA-G	91	0.85	1-CB-LA-H	92	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	SOUTH WALL
1-CB-LA-G	91	0.85	1-CB-LA-G	103	0.25	Halon, full coverage	FALSE	FALSE	TRUE	NO	NORTH WALL
1-CB-LA-H	92	0.90	TAREWELL NO. 3		2.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL

Fire Area	Fire Zone	Fire Severity [Hours]	Adjacent Fire Area	Adjacent Fire Zone	Barrier Rating [Hours]	Automatic Suppression System	Permanent Opening	Fire Duration< Rating*0.75	Auto FSS Exists	Retained for Quantitative Screening?	BARRIER DESCRIPTION/ANALYSIS NOTES
1-CB-LA-H	92	0.90	1-CB-LA-N	94	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-LA-H	92	0.90	1-CB-LA-I	93	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	SOUTH WALL
1-CB-LA-H	92	0.90	1-CB-LA-G	91	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-LA-H	92	0.90	1-CB-LA-D	99	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-CB-LA-I	88	0.00	ELEVATOR NO. 2		3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	WEST WALL
1-CB-LA-I	88	0.00	1-FB-LC-A	132	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL
1-CB-LA-I	88	0.00	1-CTB	XX	0.25	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-CB-LA-I	88	0.00	1-CB-LA-J	158	[illegible]90	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-CB-LA-I	88	0.00	1-CB-LA-I	93	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	WEST WALL, DOOR
1-CB-LA-I	93	1.83	TAIRWELL NO. 2		3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	WEST WALL
1-CB-LA-I	93	1.83	1-CB-LA-U	169	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	WEST WALL
1-CB-LA-I	93	1.83	1-CB-LA-T	87	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL
1-CB-LA-I	93	1.83	1-CB-LA-R	97	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	WEST WALL
1-CB-LA-I	93	1.83	1-CB-LA-Q	175	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	WEST WALL
1-CB-LA-I	93	1.83	1-CB-LA-N	94	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	WEST WALL
1-CB-LA-I	93	1.83	1-CB-LA-K	95	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	WEST WALL
1-CB-LA-I	93	1.83	1-CB-LA-I	88	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	EAST WAL, DOOR
1-CB-LA-I	93	1.83	1-CB-LA-H	92	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-LA-I	93	1.83	1-CB-LA-D	99	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-CB-LA-J	158	1.00	1-CB-LA-T	87	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-CB-LA-J	158	1.00	1-CB-LA-I	93	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-CB-LA-J	158	1.00	1-CB-LA-I	88	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-CB-LA-K	95	5.92	1-CB-LC-A	153	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	NORTH WALL
1-CB-LA-K	95	5.92	1-CB-LA-U	169	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LA-K	95	5.92	1-CB-LA-R	97	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	EAST WALL
1-CB-LA-K	95	5.92	1-CB-LA-P	173	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	NORTH WALL
1-CB-LA-K	95	5.92	1-CB-LA-O	174	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	NORTH WALL
1-CB-LA-K	95	5.92	1-CB-LA-N	85	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	NORTH WALL
1-CB-LA-K	95	5.92	1-CB-LA-M	96	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LA-K	95	5.92	1-CB-LA-L	98	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	EAST WALL
1-CB-LA-K	95	5.92	1-CB-LA-I	93	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	EAST WALL
1-CB-LA-L	98	0.35	1-CB-LA-R	97	3.00	HALON SUPPRESSION SYSTEM-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL
1-CB-LA-L	98	0.35	1-CB-LA-K	95	3.00	HALON SUPPRESSION SYSTEM-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-LA-L	98	0.35	1-CB-LA-I	93	3.00	HALON SUPPRESSION SYSTEM-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-CB-LA-M	96	0.23	1-CB-LC-A	81B	3.00	HALON SUPPRESSION SYSTEM-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-CB-LA-M	96	0.23	1-CB-LA-U	169	3.00	HALON SUPPRESSION SYSTEM-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-CB-LA-M	96	0.23	1-CB-LA-K	95	3.00	HALON SUPPRESSION SYSTEM-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-LA-N	85	2.90	TAIRWELL NO. 3		2.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL, OPENING
1-CB-LA-N	85	2.90	1-CB-LB-A	73	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LA-N	85	2.90	1-CB-LA-S	100	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LA-N	85	2.90	1-CB-LA-P	173	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LA-N	85	2.90	1-CB-LA-O	174	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LA-N	85	2.90	1-CB-LA-N	94	2.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL

Fire Area	Fire Zone	Fire Severity [Hours]	Adjacent Fire Area	Adjacent Fire Zone	Barrier Rating [Hours]	Automatic Suppression System	Permanent Opening	Fire Duration< Rating*0.75	Auto FSS Exists	Retained for Quantitative Screening?	BARRIER DESCRIPTION/ANALYSIS NOTES
1-CB-LA-N	85	2.90	1-CB-LA-K	95	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LA-N	85	2.90	1-CB-LA-H	92	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LA-N	85	2.90	1-CB-LA-G	91	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LA-N	85	2.90	1-CB-LA-G	103	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LA-N	85	2.90	1-CB-LA-F	84	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	NORTH WALL
1-CB-LA-N	85	2.90	1-CB-LA-D	99	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LA-N	85	2.90	1-CB-LA-A	101	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LA-N	94	1.25	1-CB-LA-N	85	2.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-LA-N	94	1.25	1-CB-LA-K	95	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-CB-LA-O	174	11.50	1-CB-LC-A	153	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	WEST WALL
1-CB-LA-O	174	11.50	1-CB-LA-K	95	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LA-O	95	5.92	1-CB-LA-P	173	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	EAST WALL
1-CB-LA-O	95	5.92	1-CB-LA-N	85	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	NORTH WALL
1-CB-LA-P	173	10.23	1-CB-LB-A	73	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	EAST WALL
1-CB-LA-P	173	10.23	1-CB-LA-O	174	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	WEST WALL
1-CB-LA-P	173	10.23	1-CB-LA-N	94	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LA-P	173	10.23	1-CB-LA-N	85	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	NORTH WALL
1-CB-LA-P	173	10.23	1-CB-LA-K	95	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LA-Q	175	10.37	ELEVATOR NO. 2		3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LA-Q	175	10.37	1-CB-LA-U	169	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LA-Q	175	10.37	1-CB-LA-R	97	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	NORTH WALL
1-CB-LA-Q	175	10.37	1-CB-LA-I	93	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	EAST WALL
1-CB-LA-R	97	11.23	1-CB-LA-Q	175	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LA-R	97	11.23	1-CB-LA-L	98	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	NORTH WALL
1-CB-LA-R	97	11.23	1-CB-LA-K	95	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	WEST WALL
1-CB-LA-R	97	11.23	1-CB-LA-I	93	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	FALSE	TRUE	NO	EAST WALL
1-CB-LA-S	100	0.93	1-CB-LA-N	86	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-CB-LA-S	100	0.93	1-CB-LA-N	85	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-CB-LA-S	100	0.93	1-CB-LA-A	101	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-CB-LA-T	102	0.03	1-CTB	XX	0.25	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL
1-CB-LA-T	102	0.03	1-CB-LA-T	87	0.25	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	OPENING IN WEST
1-CB-LA-T	102	0.03	1-CB-LA-I	93	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-LA-T	102	0.03	1-CB-LA-D	99	3.00	PREACTION SPRINKLER-TOTAL COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-CB-LA-T	87	0.17	1-CB-LA-T	102	0.25	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	OPENING IN EAST
1-CB-LA-T	87	0.17	1-CB-LA-J	158	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-CB-LA-T	87	0.17	1-CB-LA-I	93	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-LA-T	87	0.17	1-CB-LA-I	88	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	SOUTH WALL
1-CB-LA-U	154	0.35	1-CB-LB-S	57A	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-CB-LA-U	154	0.35	1-CB-LA-U	169	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL, DOOR
1-CB-LA-U	169	1.93	ELEVATOR NO. 2		2.00	NO ZONE COVERAGE	FALSE	FALSE	FALSE	NO	PROPAGATE TO ELEVATOR ONLY. NO ADDITIONAL IMPACT.
1-CB-LA-U	169	1.93	1-CB-LC-A	81B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-LA-U	169	1.93	1-CB-LA-U	154	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	SOUTH WALL, DOOR
1-CB-LA-U	169	1.93	1-CB-LA-R	97	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-CB-LA-U	169	1.93	1-CB-LA-Q	175	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-CB-LA-U	169	1.93	1-CB-LA-M	96	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-CB-LA-U	169	1.93	1-CB-LA-K	95	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-LA-U	169	1.93	1-CB-LA-I	93	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-CB-LA-U	169	1.93	1-CB-L3-M	57B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-LB-A	59	0.05	1-CB-LB-A	73	0.25	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WALL, DOOR
1-CB-LB-A	59	0.05	1-CB-LB-A	69	0.25	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WALL, DOOR
1-CB-LB-A	69	1.13	1-CB-LB-F	74	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL B -SOUTH WALL
1-CB-LB-A	69	1.13	1-CB-LB-D	66	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL B -SOUTH WALL
1-CB-LB-A	69	1.13	1-CB-LB-A	73	0.25	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	WALL, DOOR
1-CB-LB-A	69	1.13	1-CB-LB-A	59	0.25	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	WALL, DOOR
1-CB-LB-A	72	0.05	TAIRWELL NO. 3		2.00	TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -INTERIOR

Fire Area	Fire Zone	Fire Severity [Hours]	Adjacent Fire Area	Adjacent Fire Zone	Barrier Rating [Hours]	Automatic Suppression System	Permanent Opening	Fire Duration< Rating*0.75	Auto FSS Exists	Retained for Quantitative Screening?	BARRIER DESCRIPTION/ANALYSIS NOTES
1-CB-LB-A	72	0.05	1-CB-LB-H	71	3.00	TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -SOUTH WALL
1-CB-LB-A	72	0.05	1-CB-LB-A	73	3.00	TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	WALL, DOOR
1-CB-LB-A	73	2.17	TAIRWELL NO. 3		2.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL B -HVAC DUCT CAHSE -NORTH WALL
1-CB-LB-A	73	2.17	1-CB-LC-B	XX	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -SOUTH WALL
1-CB-LB-A	73	2.17	1-CB-LC-A	42B	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -NORTH WALL
1-CB-LB-A	73	2.17	1-CB-LC-A	153	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -SOUTH WALL
1-CB-LB-A	73	2.17	1-CB-LB-K	77B	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -SOUTH WALL
1-CB-LB-A	73	2.17	1-CB-LB-B	75	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -SOUTH WALL
1-CB-LB-A	73	2.17	1-CB-LB-A	72	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	WALL, DOOR
1-CB-LB-A	73	2.17	1-CB-LB-A	69	0.25	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	WALL, DOOR
1-CB-LB-A	73	2.17	1-CB-LB-A	59	0.25	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	WALL, DOOR
1-CB-LB-A	73	2.17	1-CB-LA-P	173	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -WEST WALL
1-CB-LB-A	73	2.17	1-CB-LA-N	94	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -SOUTH WALL
1-CB-LB-A	73	2.17	1-CB-LA-N	85	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -EAST WALL
1-CB-LB-A	73	2.17	1-CB-L3-H	135	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 3 -SOUTH WALL
1-CB-LB-A	73	2.17	1-CB-L2-E	XX	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -EAST WALL
1-CB-LB-A	73	2.17	1-CB-L1-G	110	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -SOUTH WALL
1-CB-LB-A	73	2.17	1-CB-L1-F	107	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -WEST WALL
1-CB-LB-A	73	2.17	1-CB-L1-A	XX	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -SOUTH WALL
1-CB-LB-B	75	1.30	1-CB-LB-D	65	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	SOUTH WALL
1-CB-LB-B	75	1.30	1-CB-LB-A	73	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-CB-LB-C	79A	0.08	1-CB-LC-B	XX	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	SOUTH WALL
1-CB-LB-C	79A	0.08	1-CB-LB-Q	79B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-LB-C	79A	0.08	1-CB-LB-P	152	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-CB-LB-C	79A	0.08	1-CB-LB-O	56A	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-CB-LB-C	79A	0.08	1-CB-LB-J	56B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	SOUTH WALL
1-CB-LB-D	60	0.67	1-CB-LB-D	66	0.25	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	WALL, DOOR
1-CB-LB-D	62	1.63	TAIRWELL NO. 2		3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -EAST WALL
1-CB-LB-D	62	1.63	ELEVATOR NO. 2		3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -EAST WALL
1-CB-LB-D	62	1.63	1-CTB	XX	0.25	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL B -SOUTH WALL
1-CB-LB-D	62	1.63	1-CB-LB-I	83	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -EAST WALL
1-CB-LB-D	62	1.63	1-CB-LB-D	67	0.25	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	WALL, DOOR
1-CB-LB-D	65	0.87	1-CB-LB-T	61	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -SOUTH WALL

Fire Area	Fire Zone	Fire Severity [Hours]	Adjacent Fire Area	Adjacent Fire Zone	Barrier Rating [Hours]	Automatic Suppression System	Permanent Opening	Fire Duration< Rating*0.75	Auto FSS Exists	Retained for Quantitative Screening?	BARRIER DESCRIPTION/ANALYSIS NOTES
1-CB-LB-D	65	0.87	1-CB-LB-D	66	0.25	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	WALL, DOOR
1-CB-LB-D	65	0.87	1-CB-LB-B	75	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -NORTH WALL
1-CB-LB-D	65	0.87	1-CB-LB-A	73	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -EAST WALL
1-CB-LB-D	66	1.75	1-CB-LB-D	68	0.25	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	WALL
1-CB-LB-D	66	1.75	1-CB-LB-D	67	0.25	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	WALL, DOOR
1-CB-LB-D	66	1.75	1-CB-LB-D	65	0.25	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	WALL, DOOR
1-CB-LB-D	66	1.75	1-CB-LB-D	60	0.25	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	WALL, DOOR
1-CB-LB-D	66	1.75	1-CB-LB-A	59	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -NORTH WALL
1-CB-LB-D	67	0.93	1-CB-LC-B	XX	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -EAST WALL
1-CB-LB-D	67	0.93	1-CB-LB-Q	79B	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -SOUTH WALL
1-CB-LB-D	67	0.93	1-CB-LB-H	71	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -NORTH WALL
1-CB-LB-D	67	0.93	1-CB-LB-G	63	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -SOUTH WALL
1-CB-LB-D	67	0.93	1-CB-LB-F	74	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -NORTH WALL
1-CB-LB-D	67	0.93	1-CB-LB-E	76	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -EAST WALL
1-CB-LB-D	67	0.93	1-CB-LB-D	70	0.25	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	WALL, DOOR
1-CB-LB-D	67	0.93	1-CB-LB-D	66	0.25	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	WALL, DOOR
1-CB-LB-D	67	0.93	1-CB-LB-D	62	0.25	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	WALL, DOOR
1-CB-LB-D	68	0.10	1-CB-LB-D	66	0.25	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WALL
1-CB-LB-D	70	0.02	1-CB-LB-D	67	0.25	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WALL, DOOR
1-CB-LB-E	76	0.33	1-CB-LC-B	XX	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-LB-E	76	0.33	1-CB-LB-N	78A	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-CB-LB-E	76	0.33	1-CB-LB-M	78B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-CB-LB-E	76	0.33	1-CB-LB-L	77A	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-LB-E	76	0.33	1-CB-LB-H	71	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-CB-LB-E	76	0.33	1-CB-LB-D	67	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	SOUTH WALL
1-CB-LB-F	74	0.48	TAIRWELL NO. 3		2.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-LB-F	74	0.48	1-CB-LB-D	70	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	SOUTH WALL
1-CB-LB-F	74	0.48	1-CB-LB-D	67	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	SOUTH WALL
1-CB-LB-F	74	0.48	1-CB-LB-A	69	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-CB-LB-G	63	2.03	1-CB-LB-G	82	0.25	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	EAST WALL
1-CB-LB-G	63	2.03	1-CB-LB-D	67	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL B -NORTH WALL
1-CB-LB-G	63	2.03	1-CB-LB-D	62	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL B -WEST WALL
1-CB-LB-G	82	1.72	1-CTB	XX	0.25	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	LEVEL B -SOUTH WALL
1-CB-LB-G	82	1.72	1-CB-LB-G	63	0.25	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	WEST WALL
1-CB-LB-G	82	1.72	1-CB-LB-D	67	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL B -NORTH WALL
1-CB-LB-G	82	1.72	1-CB-LB-D	60	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL B -EAST WALL
1-CB-LB-G	82	1.72	1-CB-LA-T	102	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -SOUTH WALL
1-CB-LB-G	82	1.72	1-CB-LA-I	93	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -NORTH WALL
1-CB-LB-G	82	1.72	1-CB-LA-D	99	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -EAST WALL
1-CB-LB-H	71	0.78	1-CB-LB-L	77A	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-CB-LB-H	71	0.78	1-CB-LB-K	77B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL

Fire Area	Fire Zone	Fire Severity [Hours]	Adjacent Fire Area	Adjacent Fire Zone	Barrier Rating [Hours]	Automatic Suppression System	Permanent Opening	Fire Duration< Rating*0.75	Auto FSS Exists	Retained for Quantitative Screening?	BARRIER DESCRIPTION/ANALYSIS NOTES
1-CB-LB-H	71	0.78	1-CB-LB-E	76	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-CB-LB-H	71	0.78	1-CB-LB-D	70	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-CB-LB-H	71	0.78	1-CB-LB-D	67	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-CB-LB-H	71	0.78	1-CB-LB-A	72	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-LB-I	83	8.97	ELEVATOR NO. 2		3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LB-I	83	8.97	1-CB-LC-B	XX	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LB-I	83	8.97	1-CB-LB-P	152	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	NORTH WALL
1-CB-LB-I	83	8.97	1-CB-LB-D	62	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	EAST WALL
1-CB-LB-J	56B	0.55	1-CB-LC-B	XX	3.00	MANUAL SPRINKLER SYSTEM-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-CB-LB-J	56B	0.55	1-CB-LB-C	79A	3.00	MANUAL SPRINKLER SYSTEM-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-LB-K	77B	0.75	1-CB-LC-B	XX	3.00	MANUAL SPRINKLER SYSTEM-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	WEST WALL
1-CB-LB-K	77B	0.75	1-CB-LB-L	77A	3.00	MANUAL SPRINKLER SYSTEM-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL
1-CB-LB-K	77B	0.75	1-CB-LB-H	71	3.00	MANUAL SPRINKLER SYSTEM-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-CB-LB-K	77B	0.75	1-CB-LB-A	73	3.00	MANUAL SPRINKLER SYSTEM-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-LB-L	77A	0.03	1-CB-LC-B	XX	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-LB-L	77A	0.03	1-CB-LB-M	78B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-CB-LB-L	77A	0.03	1-CB-LB-K	77B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-LB-L	77A	0.03	1-CB-LB-H	71	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-CB-LB-L	77A	0.03	1-CB-LB-E	76	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	SOUTH WALL
1-CB-LB-M	78B	0.53	1-CB-LC-B	XX	3.00	MANUAL SPRINKLER SYSTEM-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-LB-M	78B	0.53	1-CB-LB-N	78A	3.00	MANUAL SPRINKLER SYSTEM-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL
1-CB-LB-M	78B	0.53	1-CB-LB-L	77A	3.00	MANUAL SPRINKLER SYSTEM-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-CB-LB-M	78B	0.53	1-CB-LB-E	76	3.00	MANUAL SPRINKLER SYSTEM-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-CB-LB-N	78A	0.12	1-CB-LC-B	XX	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	SOUTH WALL
1-CB-LB-N	78A	0.12	1-CB-LB-M	78B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-LB-N	78A	0.12	1-CB-LB-E	76	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-CB-LB-O	56A	0.10	1-CB-LB-Q	79B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-CB-LB-O	56A	0.10	1-CB-LB-P	152	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	SOUTH WALL
1-CB-LB-O	56A	0.10	1-CB-LB-D	62	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	EAST WALL
1-CB-LB-P	152	3.05	1-CB-LC-B	XX	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	WEST WALL
1-CB-LB-P	152	3.05	1-CB-LB-O	56A	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	NORTH WALL
1-CB-LB-P	152	3.05	1-CB-LB-I	83	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LB-P	152	3.05	1-CB-LB-D	62	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	EAST WALL
1-CB-LB-P	152	3.05	1-CB-LB-C	79A	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	WEST WALL
1-CB-LB-Q	79B	0.65	1-CB-LC-B	XX	3.00	MANUAL SPRINKLER SYSTEM-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-LB-Q	79B	0.65	1-CB-LC-B	XX	3.00	MANUAL SPRINKLER SYSTEM-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL

Fire Area	Fire Zone	Fire Severity [Hours]	Adjacent Fire Area	Adjacent Fire Zone	Barrier Rating [Hours]	Automatic Suppression System	Permanent Opening	Fire Duration< Rating*0.75	Auto FSS Exists	Retained for Quantitative Screening?	BARRIER DESCRIPTION/ANALYSIS NOTES
1-CB-LB-Q	79B	0.65	1-CB-LB-O	56A	3.00	MANUAL SPRINKLER SYSTEM-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	EAST WALL
1-CB-LB-Q	79B	0.65	1-CB-LB-C	79A	3.00	MANUAL SPRINKLER SYSTEM-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	SOUTH WALL
1-CB-LB-S	57A	0.07	1-CB-LC-B	XX	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL B -NORTH WALL
1-CB-LB-S	57A	0.07	1-CB-LA-U	154	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -NORTH WALL
1-CB-LB-S	57A	0.07	1-CB-L3-L	137	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 3 -SOUTH WALL
1-CB-LB-S	57A	0.07	1-CB-L3-K	XX	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 4 -FLOOR
1-CB-LB-S	57A	0.07	1-CB-L3-K	125B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 4 -EAST WALL
1-CB-LB-S	57A	0.07	1-AB-LD-B	81A	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL B -EAST WALL
1-CB-LB-T	61	0.78	1-CTB	XX	0.25	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	SOUTH WALL
1-CB-LB-T	61	0.78	1-CB-LB-T	64	0.25	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	WEST WALL, DOOR
1-CB-LB-T	61	0.78	1-CB-LB-D	65	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-LB-T	61	0.78	1-CB-LB-D	60	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	WEST WALL
1-CB-LB-T	61	0.78	1-CB-LB-A	73	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	NORTH WALL
1-CB-LB-T	64	0.30	1-CB-LB-T	61	0.25	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	EAST WALL
1-CB-LB-T	64	0.30	1-CB-LB-A	73	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-CB-LC-A	126A	1.87	1-CB-L3-M	125A	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 3 -TRAIN A FILTER/CHILLER ROOM (FIRE ZONE 126A) -WEST WALL
1-CB-LC-A	126A	1.87	1-CB-L3-L	137	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 3 -TRAIN A FILTER/CHILLER ROOM (FIRE ZONE 126A) -EAST WALL
1-CB-LC-A	126A	1.87	1-CB-L3-H	135	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 3 -TRAIN A FILTER/CHILLER ROOM (FIRE ZONE 126A) -NORTH WALL
1-CB-LC-A	126A	1.87	1-CB-L3-A	179	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 3 -TRAIN A FILTER/CHILLER ROOM (FIRE ZONE 126A) -EAST WALL
1-CB-LC-A	151	6.33	1-CB-LC-A	153	0.25	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	BOUNDARY
1-CB-LC-A	151	6.33	1-CB-LB-A	73	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL B - A ELECTRICAL CHASE (FIRE ZONES 15, 153) EAST WALL
1-CB-LC-A	153	5.70	1-CB-LC-A	151	0.25	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	BOUNDARY
1-CB-LC-A	153	5.70	1-CB-LB-A	73	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL B - A ELECTRICAL CHASE (FIRE ZONES 15, 153) NORTH WALL
1-CB-LC-A	153	5.70	1-CB-LA-N	85	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL A -HVAC SHAFT (FIRE ZONE 153) -NORTH WALL
1-CB-LC-A	153	5.70	1-CB-LA-K	95	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL A -HVAC SHAFT (FIRE ZONE 153) -SOUTH WALL
1-CB-LC-A	153	5.70	1-CB-L3-H	135	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 3 -HVAC SHAFT (FIRE ZONE 153) -SOUTH WALL
1-CB-LC-A	153	5.70	1-CB-L3-B	180	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 3 -HVAC SHAFT (FIRE ZONE 153) -EAST WALL
1-CB-LC-A	153	5.70	1-CB-L2-B	120	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 2 -HVAC SHAFT (FIRE ZONE 153) -SOUTH WALL
1-CB-LC-A	153	5.70	1-CB-L2-A	121	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 2 -HVAC SHAFT (FIRE ZONE 153) -WEST WALL
1-CB-LC-A	153	5.70	1-CB-L1-E	108	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 -HVAC SHAFT (FIRE ZONE 153) -EAST WALL
1-CB-LC-A	153	5.70	1-CB-L1-A	XX	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL 1 -HVAC SHAFT (FIRE ZONE 153) -SOUTH WALL
1-CB-LC-A	42B	3.98	1-CB-LC-B	XX	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL B - A ELECTRICAL CHASE (FIRE ZONES 15, 153) SOUTH WALL

Fire Area	Fire Zone	Fire Severity [Hours]	Adjacent Fire Area	Adjacent Fire Zone	Barrier Rating [Hours]	Automatic Suppression System	Permanent Opening	Fire Duration< Rating*0.75	Auto FSS Exists	Retained for Quantitative Screening?	BARRIER DESCRIPTION/ANALYSIS NOTES
1-CB-LC-A	42B	3.98	1-CB-LB-A	73	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL B -TRAIN A ELECTIRCAL SHAFT (FIRE ZONE 42B) -SOUTH WALL
1-CB-LC-A	42B	3.98	1-CB-LA-F	84	3.00	PREACTION SPRINKLER- PARTIAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	LEVEL A -TRAIN A ELECTRICAL SHAFT (FIRE ZONE 42B) -SOUTH WALL
1-CB-LC-A	81B	0.03	1-CB-LC-B	XX	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL B -TRAIN A MECHANICAL SHAFT (FIRE ZONE 81B) -SOUTH WALL
1-CB-LC-A	81B	0.03	1-CB-LA-U	169	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -TRAIN A MECHANICAL SHAFT (FIRE ZONE 81B) -EAST WALL
1-CB-LC-A	81B	0.03	1-CB-LA-M	96	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A -TRAIN A MECHANICAL SHAFT (FIRE ZONE 81B) -NORTH WALL
1-CB-LC-A	81B	0.03	1-CB-L3-M	57B	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 -TRAIN A MECHANICAL SHAFT (FIRE ZONE 81B) -WEST WALL
1-CB-LC-A	81B	0.03	1-CB-L2-E	XX	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 2 -TRAIN A MECHANICAL SHAFT (FIRE ZONE 81B) -EAST WALL
1-CB-LC-A	81B	0.03	1-CB-L1-B	XX	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 -TRAIN A MECHANICAL SHAFT (FIRE ZONE 81B) -EAST WALL
1-CB-LC-B	XX	0.75	*	Note (1)	3.00		FALSE	TRUE	TRUE	NO	FIRE ZONES 58, 80, 138 ALL HAVE 3-HR BARRIER, NO INTERNAL PROPAGATION SCENARIOS NEEDED
1-CTB	XX		*	Note (1)			FALSE	FALSE	TRUE	NO	
1-DB-L1-A	161	0.48	STAIRWELL		2.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	STAIRWELL
1-DB-L1-A	161	0.48	1-DB-L1-D	164	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1-WEST WALL
1-DB-L1-A	161	0.48	1-DB-L1-C	163	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -EAST WALL
1-DB-L1-A	161	0.48	1-DB-L1-B	162	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1-WEST WALL
1-DB-L1-B	162	0.52	STAIRWELL		2.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -WEST WALL (STAIRWELL)
1-DB-L1-B	162	0.52	1-DB-L1-D	164	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -EAST WALL
1-DB-L1-B	162	0.52	1-DB-L1-C	163	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 -FLOOR
1-DB-L1-B	162	0.52	1-DB-L1-A	161	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -EAST WALL
1-DB-L1-C	163	21.58	1-DB-L1-A	161	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	NORTH WALL
1-DB-L1-D	164	21.58	1-DB-L1-B	162	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	FALSE	TRUE	NO	WEST WALL
1-DPB-A	165	188.47	1-DPB-B	166	3.00	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	EAST WALL
1-DPB-B	166	113.02	1-DPB-A	165	3.00	NO ZONE COVERAGE	FALSE	FALSE	FALSE	YES	WEST WALL
1-EB-B	141B	0.00	1-CTB	XX	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-EB-B	141B	0.00	1-CB-LA-D	104	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-EB-B	141B	0.00	1-AFB-C	193	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-FB-L3-A	167	0.43	1-FB-L3-B	168	3.00	PREACTION SPRINKLER SYSTEM-NO ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 3 -EAST WALL
1-FB-L3-A	167	0.43	1-CB-L3-L	137	3.00	PREACTION SPRINKLER SYSTEM-NO ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 3 -NORTH WALL
1-FB-L3-A	167	0.43	1-AB-LD-B	139	3.00	PREACTION SPRINKLER SYSTEM-NO ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 3 -FLOOR
1-FB-L3-B	168	0.43	1-FB-L3-A	167	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL
1-FB-L3-B	168	0.43	1-CB-L3-L	137	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	NORTH WALL
1-FB-LC-A	132	0.55	1-CTB	XX	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -EAST WALL
1-FB-LC-A	132	0.55	1-AB-LD-B	38	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A SOUTH WALL

Fire Area	Fire Zone	Fire Severity [Hours]	Adjacent Fire Area	Adjacent Fire Zone	Barrier Rating [Hours]	Automatic Suppression System	Permanent Opening	Fire Duration< Rating*0.75	Auto FSS Exists	Retained for Quantitative Screening?	BARRIER DESCRIPTION/ANALYSIS NOTES
1-FB-LC-A	132	0.55	1-AB-LD-B	28	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -WEST WALL
1-FB-LC-A	132	0.55	1-AB-LD-B	139	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -WEST WALL
1-FB-LC-A	132	0.55	1-AB-LA-A	11A	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A -SOUTH WALL
1-FB-LC-A	15	1.12	1-CTB	XX	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -EAST WALL
1-FB-LC-A	15	1.12	1-CB-LC-A	42B	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL C -WEST WALL
1-FB-LC-A	15	1.12	1-AB-LD-B	40	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -SOUTH WALL
1-FB-LC-A	15	1.12	1-AB-LD-B	27	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -NORTH WALL
1-FB-LC-A	15	1.12	1-AB-LD-B	24	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL C -SOUTH WALL
1-FB-LC-A	15	1.12	1-AB-LD-A	11B	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL B -SOUTH WALL
1-FB-LC-A	15	1.12	1-AB-LC-C	18	3.00	PREACTION SPRINKLER-PARTIAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL C -SOUTH WALL
1-FB-LC-A	29	0.08	1-AB-LD-B	139	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -NORTH WALL
1-FB-LC-A	29	0.08	1-AB-L2-A	141A	3.00	PREACTION SPRINKLER-TOTAL ZONE COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 -SOUTH WALL
1-RTB-L1-A	301	0.45	1-AB-LD-B	47	3.00	???	FALSE	TRUE	TRUE	NO	LEVEL 1-NORTH WALL
1-RTB-L1-A	301	0.45	1-AB-L1-G	150	3.00	???	FALSE	TRUE	TRUE	NO	LEVEL 1 -NORTH WALL
1-RTB-L1-A	302	0.02	TAIRWELL NO. A		3.00	???	FALSE	TRUE	TRUE	NO	LEVEL 2 -WEST WALL -STAIRWELL NO. A
1-RTB-L1-A	302	0.02	1-AB-LD-B	47	3.00	???	FALSE	TRUE	TRUE	NO	NORTH WALL (Elevation 237 ft - 0 in.)
1-RTB-L1-A	302	0.02	1-AB-LA-B	52	3.00	???	FALSE	TRUE	TRUE	NO	LEVEL 1-NORTH WALL
1-RTB-L1-A	302	0.02	1-AB-L1-G	150	3.00	???	FALSE	TRUE	TRUE	NO	LEVEL 1-NORTH WALL
1-RTB-L1-A	303	0.48	TAIRWELL NO. A		2.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	WEST WALL -STAIRWELL NO. A
1-RTB-L1-A	303	0.48	1-AB-LA-B	47	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 2 -NORTH WALL
1-RTB-L1-A	303	0.48	1-AB-L2-A	53	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 2 -NORTH WALL
1-TB-L1	503		1-TB-L1	508	2.00	WET SYSTEM	FALSE	TRUE	TRUE	NO	LEVEL 1 - NORTH WALL, DOOR
1-TB-L1	503		1-TB-L1	504	2.00	WET SYSTEM	FALSE	TRUE	TRUE	NO	LEVEL 1 - EAST WALL, DOOR
1-TB-L1	504		1-TB-L1	508	2.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 - NORTH WALL, DOOR
1-TB-L1	504		1-TB-L1	503	2.00	WET SYSTEM	FALSE	TRUE	TRUE	NO	LEVEL 1 - WEST WALL, DOOR
1-TB-L1	505		1-TB-L1	508	0.25	DELUGE SYSTEM	FALSE	TRUE	TRUE	NO	LEVEL 1 - OPEN
1-TB-L1	506		1-TB-L1	508	0.00	WET SYSTEM	FALSE	FALSE	TRUE	NO	LEVEL 1 - OPEN
1-TB-L1	507		1-TB-L1	508	0.00	WET SYSTEM	FALSE	FALSE	TRUE	NO	LEVEL 1 - OPEN
1-TB-L1	508		1-TB-L2	513	2.00	WET SYSTEM PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 1 - STAIRWELLS
1-TB-L1	508		1-TB-L1	511	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 - WEST WALL
1-TB-L1	508		1-TB-L1	510	3.00	DELUGE SYSTEM	FALSE	TRUE	TRUE	NO	LEVEL 1 - EAST WALL, DOOR
1-TB-L1	508		1-TB-L1	509	1.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 - WEST WALL, DOOR
1-TB-L1	508		1-TB-L1	507	0.00	WET SYSTEM	FALSE	FALSE	TRUE	NO	LEVEL 1 - OPEN
1-TB-L1	508		1-TB-L1	506	0.00	WET SYSTEM	FALSE	FALSE	TRUE	NO	LEVEL 1 - OPEN
1-TB-L1	508		1-TB-L1	505	0.25	DELUGE SYSTEM	FALSE	TRUE	TRUE	NO	LEVEL 1 - OPEN
1-TB-L1	508		1-TB-L1	504	2.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 - SOUTH WALL, DOOR
1-TB-L1	508		1-TB-L1	503	2.00	WET SYSTEM	FALSE	TRUE	TRUE	NO	LEVEL 1 - SOUTH WALL, DOOR
1-TB-L1	509		1-TB-L1	511	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 - NORTH WALL, DOOR
1-TB-L1	509		1-TB-L1	508	1.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 - EAST WALL, DOOR
1-TB-L1	510		1-TB-L1	508	3.00	DELUGE SYSTEM	FALSE	TRUE	TRUE	NO	LEVEL 1 - WEST WALL, DOOR
1-TB-L1	511		1-TB-L1	509	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 - SOUTH WALL, DOOR
1-TB-L1	511		1-TB-L1	508	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL 1 - EAST WALL, DOOR
1-TB-L2	512		1-TB-L2	513	1.00	WET SYSTEM	FALSE	TRUE	TRUE	NO	LEVEL 2 - EAST WALL, DOOR
1-TB-L2	513		1-TB-L3	515	2.00	WET SYSTEM PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL 2 - STAIRWELLS
1-TB-L2	513		1-TB-L2	514	3.00	DELUGE SYSTEM	FALSE	TRUE	TRUE	NO	LEVEL 2 - EAST WALL, OPENING
1-TB-L2	513		1-TB-L2	512	1.00	WET SYSTEM	FALSE	TRUE	TRUE	NO	LEVEL 2 - WEST WALL, DOOR

Fire Area	Fire Zone	Fire Severity [Hours]	Adjacent Fire Area	Adjacent Fire Zone	Barrier Rating [Hours]	Automatic Suppression System	Permanent Opening	Fire Duration< Rating*0.75	Auto FSS Exists	Retained for Quantitative Screening?	BARRIER DESCRIPTION/ANALYSIS NOTES
1-TB-L2	514		1-TB-L2	513	3.00	DELUGE SYSTEM	FALSE	TRUE	TRUE	NO	LEVEL 2 - WEST WALL, OPENING
1-TB-L3	515		NONE	NONE			FALSE	FALSE	TRUE	NO	N/A
1-TB-LA	500		1-TB-LA	518	0.25	WET SYSTEM	FALSE	TRUE	TRUE	NO	LEVEL A - OPEN
1-TB-LA	500		1-TB-LA	502	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A - WEST WALL, DOOR
1-TB-LA	500		1-TB-LA	501	0.25	DELUGE SYSTEM	FALSE	TRUE	TRUE	NO	LEVEL A - OPEN
1-TB-LA	500		1-TB-L1	508	2.00	WET SYSTEM PARTIAL COVERAGE	FALSE	TRUE	TRUE	NO	LEVEL A - STAIRWELLS
1-TB-LA	501		1-TB-LA	500	0.25	DELUGE SYSTEM	FALSE	TRUE	TRUE	NO	LEVEL A - OPEN
1-TB-LA	502		1-TB-LA	500	3.00	NO ZONE COVERAGE	FALSE	TRUE	FALSE	NO	LEVEL A - EAST WALL, DOOR
1-TB-LA	518		1-TB-LA	500	0.25	WET SYSTEM	FALSE	TRUE	TRUE	NO	LEVEL A - OPEN

Notes

Note (1) No propagation is possible to any of the surrounding fire zones

All zones in 1-CB-L1-A combined into 1-CB-L1-A fire zone XX. No fire propagation to/from MCR is allowed. Only 105-1 retained for further analysis.

All zones in 1-CB-L1-B combined into 1-CB-L1-B fire zone XX

All zones in 1-CB-L2-E combined into 1-CB-L2-E fire zone XX for propagation analysis only.

All zones in 1-CB-LA-C combined into 1-CB-LA-C fire zone XX

All zones in 1-CB-L3-K combined into 1-CB-L3-K fire zone XX

Zones 58, 80& 138 in 1-CB-LC-B combined into 1-CB-LC-B fire zone XX

Zones 140A, B, C & E in 1-CTB combined into 1-CTB fire zone XX

APPENDIX 4.B

CHECKLIST FOR FIRE RISK SCOPING STUDY ISSUES

A. Effectiveness of Manual Firefighting

1. Fire Brigade
2. Fire Brigade Training and Drills
3. Fire Preplans and Fire Inspection
4. Responses to Fires
5. Administrative Records

B. Fire Barrier Assessment

1. Rating/Testing Standard
2. Fire Doors/Dampers

C. Seismic/Fire Interactions

1. Seismic-Induced Fires
2. Seismic Actuation of Fire Suppression System
3. Seismic Degradation of Fire Suppression System

D. Total Environment Equipment Survival

1. Spurious or Inadvertent Actuation
2. Equipment Survival

E. Control System Interactions

1. Control Room Evacuation
2. Remote Shutdown Capabilities

A. Effectiveness of Manual Firefighting

1. Fire Brigade

a. *What are the plant procedures that specifies the fire brigade makeup, shift requirement, etc.?*

VEGP Procedure **92000-C, Revision 10**, "Fire Protection Program

b. *How many qualified fire brigades are staffed on each shift?* 1

c. *How many people in one fire brigade?* 5

d. *Describe composition and expertise of fire brigade members.*

The Fire Team Captain (FTC) shall be qualified person designated by the shift supervisor (SS). The remaining four members of each fire team will normally be comprised of shift personnel from the Operations Department. The FTC and at least two fire team members shall have sufficient training or knowledge of plant safety related systems to understand the effects of fire and fire **suppressants** on safe shutdown capability (Procedure **92000-C, Section 3.3**).

Reference:

VEGP Procedure **92000-C, Revision 10**, Fire Protection Program, **Section 3.3**

e. *How often does each brigade member receive an annual review of physical condition?*

Annual

0

VEGP Procedure **92000-C, Revision 10**, Fire Protection Program, **Section 3.3**

f. *List the protective and firefighting equipment for fire brigade members:*

Y	SCBA	Y	Turnout Coats
Y	**Boots**	Y	Hard Hats
Y	Gloves	Y	Flash Light (Portable Light)
Y	Portable Ventilation Equipment	Y	Portable Extinguisher
	Portable Reel Hose		Water Pressure Alarm
	Fire Hose		Pump
Y	Other **Nomex Hood; Pants; Suspenders; Spanner Wrench PASS Device**		

g. *List the emergency communication equipment for fire brigade members:*

Y Telephone
Y Radio
N/A Other ______
Y PA
___ Dedicated Phone System

h. *How often are the fire brigade equipment inspected, tested, and maintained?*

Fire Brigade Equipment	Inspection/Test/ Maintenance Methods	Inspection Interval (Months)	Reference
Portable Lights	**Visual**	**Monthly**	**Procedure 14958-C**
Portable Ventilation Equipment	**Visual**	**Monthly**	**Procedure 14958-C**
Portable Extinguisher	**Visual**	**Monthly**	**Procedure 29100-C**
Portable **Generator**	**Run Generator**	**Monthly**	**Procedure 14958-C**
Water **Salvage Covers**	**Visual**	**Monthly**	**Procedure 14958-C**
Fire Hose	**Visual**	**Monthly**	
Rope	**Visual**	**Monthly**	**Procedure 14958-C**
Pike Pole	**Visual**	**Monthly**	**Procedure 14958-C**
Fire Preplans	**Visual**	**Monthly**	Procedure 14958-C
Extension Cords	**Visual**	**Monthly**	**Procedure 14958-C**

See attached Procedure 14958-C for more items.

2. Fire Brigade Training and Drills

a. *How often do the fire brigade members attend a training class, individually or as a group?* Quarterly

b. *List plant procedures/references for fire brigade training/drill requirements:*

The fire brigade training program is designed to ensure that the fire brigade is appropriately trained to fight postulated fires within the plant. The training consists of an initial qualification program followed by an on-going program of quarterly training, yearly practice, and bi-annual refresher training for each brigade member (VEGP Procedure 92000-C, **Section 3.4.8).**

In addition, the **bi-annual** refresher training is in place so that every two years every fire brigade member will have reviewed the initial fire training classroom topics. This may be done in the quarterly training classes (VEGP Procedure 92000-C, **Section 3.4.9).**

Reference:

VEGP Procedure 92000-C, **Section 3.4**

c. *Are the following topics covered in the regular training?*

- Y Plant firefighting plan and individual's responsibilities
- Y Distinguish different types of fire hazards, types of fires
- Y Location of fire fighting equipment, layout of the plant, and egress route
- Y Correct application methods for different fire suppression systems and suppressants, in fighting different types of fires (energized electrical equipment, fires in cables and cable trays and fires involving flammable and combustible liquids and gases, etc.)
- Y Proper use of communication, lighting, and emergency breathing equipment
- Y Actual fighting fires inside buildings and confined spaces
- Y Review firefighting strategies and procedures
- Y Other Type and location of fire hazards; Toxic and corrosive characteristics of combustion products.

d. *Does every fire brigade member receive a hands-on **fire fighting** training? If yes, how **often** and what would be covered?*

Fire brigade practice sessions will be held at least once per year on the proper methods of fire fighting using actual fires, breathing apparatus, and under strenuous conditions. This may be done in the quarterly training classes (VEGP Procedure 92000-C, **Section 3.4.8).**

Reference:

VEGP Procedure 92000-C, **Section 3.4.8**

e. *What is the frequency of fire drills for each fire brigade?*

Each fire brigade shift receives one fire drill per quarter, of which one per year is unannounced.

Describe a typical fire drill.

A typical fire drill starts with a simulated fire alarm to the control room. A fire technician responds to the alarm and determines if there is an actual fire. The fire technician reports back to the control room and begins evacuations of the fire area and pulls hoses into place for the fire brigade. The control room sounds the site fire alarm, and the fire brigade members respond to the locker area and don turnout gear, SCBA, and take any special equipment needed from the fire locker room. When the brigade arrives at the fire area, the Captain sets up a command post and directs the brigade members from the command post. The Security and Health Physics Departments send people to the command post to assist the brigade. In a drill, the fire hoses are pulled but are not charged with water inside the plant. The brigade members perform a search and rescue of the area and contain and extinguish the fire. At the end of the drill, all equipment is returned to the fire locker and stored. A critique is then held with all drill participants and the drill evaluators.

Reference:

VEGP Procedure 92030-C, Revision 6, Fire Drill Program.

f. *Are fire drills pre-planned to establish training objective?*

Y Yes
___ No

g. *Are drills evaluated/critiqued by independent personnel?*

___ No
Y Yes What is the evaluation process?

A critique team should be assembled of representatives from the NSFP staff, Fire Brigade Training staff and the FPSE or his designee (VEGP Procedure 92030-C, **Section 4.3.1).**

The critique should as a minimum address the following (VEGP Procedure 92030-C, Section 4.4.6):

a) Assessment of fire alarm effectiveness. b) Time required to notify and assemble the fire team. c) Selection, placement of equipment. d) Fire fighting strategies. e)Assessment of each member's knowledge of their role in the fire fighting strategy for the area involved. f)Use of fire fighting equipment including SCBA, communication equipment, and ventilation equipment. g) Assessment of Fire Team Captain's direction of the fire fighting efforts, as to thoroughness, accuracy and effectiveness. h) Assessment of the effectiveness of supporting department activities to provide support to the Fire Team Captain. i) Assessment of control room activities to coordinate the fire drill scenario and provide support to the Fire Team Captain.

At three-year intervals, a randomly selected, unannounced drill shall be critiqued by consultants performing a triennial audit of the fire drill program (VEGP Procedure 92000-C, Section 3.5)

Reference:

VEGP Procedure 92030-C, Revision 6, Fire Drill Program

VEGP Procedure **92000-C, Revision 10,** Fire Protection Program

h. *Is there an unannounced drill performed and critiqued by an independent agency?*

Y Yes How often? Every 3 years
____ No

i. *Is there any training for the fire brigade on how to react to different suppressants?*

Y Yes How often? **Within 2 years, during quarterly refresher training all initial training topics are covered.**

____ No

Reference:

VEGP Procedure 00705-C, Fire Protection Program

j. *List the safe shutdown procedures that operator can follow if needed in case of a fire.*

Procedure 17103-C Section 4.0, "If a fire exist" provides instructions for safe shutdown actions for each specific fire zone. Confirmed fires are identified by zone. This zone is located in Table 1 for all specific information, including Control Room Operator Actions.

Reference:

VEGP Procedure 17103-C, Revision 16, Annunciator Response Procedure For Fire Alarm Computer. The Control Room Operator Actions column lists applicable sections in Table 3 for Operator Actions for a confirmed fire in a safety related area.

3. Fire Preplans and Fire Inspection

a. *Are fire preplans developed for each fire area related to plant safety?*

Y Yes
___ No

b. *Are the fire preplans updated regular and used as part of the brigade training?*

Y Yes How often? **Updated as needed**
___ No

c. *Is there a site evacuation planning for fire emergency?*

___ Yes How often? **Annual Emergency Exercise**
N No **This situation would then be governed by Procedure 91001-C. A fire emergency would have to elevate to involve degradation of safety systems in order to involve site evacuation.**

d. *Is there a procedure in place for fire inspection?*

Y Yes How often? Bi-weekly
___ No

e. *List procedures/references regarding fire preplan and inspection.*

The fire fighting preplans are pre-evaluated zone specific fire protection summaries used to reduce decision time and improve decision quality. The preplans shall be used for plant and F. P. familiarization during drills and practices. During an actual fire, the preplans may serve as a F. P. outline for information and quick reference for operations and the fire team. The preplans contain the following information for each zone: radioactive, combustible, and chemical hazards; major equipment, extinguishing systems, access and egress routes; ventilation systems; general instructions and drawings (VEGP Procedure 92000-C, Section 3.9).

VEGP Procedure No. 92010-C, "Bi-weekly Fire Inspection," (Reference X-7) specifies the fire inspection as follows:

The inspector will be the **Group Team Leader (GTL) or a member of the Fire Protection Team** (VEGP Procedure 92010-C, Section 2.1). The inspector shall conduct bi-weekly fire inspections of all areas to ensure there is no degradation of the fire protection systems and/or fire protection equipment. The inspector should also ensure that no fire hazard situations exist. He will verify that all open discrepancies have either been corrected or identified on the Bi-weekly

Discrepancy Report as repeat discrepancies (VEGP Procedure 92010-C, Section 4.1).

Reference:

VEGP Procedure 92000-C, Section 3.9

VEGP Procedure No. 92010-C, Bi-weekly Fire Inspection

4. Responses to Fires

a. *Are general plant personnel knowledgeable in using portable fire extinguisher?*

____ Yes Training interval ________

N No **Not all general plant personnel are qualified to operate extinguishers, however, General Employee Training does describe employee actions during fire events.**

b. *List the plant procedures/references for reporting a fire, confirming the fire location, and conducting initial firefighting?*

Plant personnel discovering a fire shall notify the Control Room immediately at extension 4444 and report the following information (VEGP Procedure 92005-C, Section 3.2.2): a) Location of fire. b) Description of fire - what is burning and how big the fire is. c) Identity of caller. The individual reporting the fire should not attempt to extinguish the fire unless he feels confident, based on VEGP training received, that he can safely do so (VEGP Procedure 92005-C, Section 3.2.3).

Reference:

VEGP Procedure 92005-C, Fire Response Procedure

c. *List the plant procedures/references to summon the fire brigade?*

When the presence of a fire is confirmed, the SS/USS shall direct the control room personnel to sound the fire alarm (siren) over the plant PA system and make the following announcement (VEGP Procedure 92005-C, Section 3.7.1):

ATTENTION. THERE IS A FIRE IN ...(specify exact location, such as unit number, building name, floor level and equipment affected.) FIRE BRIGADE RESPOND. Repeat the announcement two more times.

Following the announcement, the Fire Team Captain (FTC) shall immediately obtain a set of master keys, dressout in protective fire fighting apparel, secure a portable radio, a copy of the area's fire fighting preplans and proceed to the fire area (VEGP Procedure 92005-C, Section 3.9.1).

Following the announcement, the shift fire team members shall proceed to the nearest fire brigade equipment locker and shall dress out in full protective apparel, including self-contained breathing apparatus (VEGP Procedure 92005-C, Section 3.9.2).

The fire team members after dressing out shall immediately proceed to the fire scene with all necessary equipment and follow the directions of the Fire Team Captain (VEGP Procedure 92005-C, Section 3.9.3).

Immediately upon arrival at the fire scene, the Fire Team Captain shall assess the situation with regards to danger to safety related equipment, fire fighting capability, and the need for notification of offsite fire department (VEGP Procedure 92005-C, Section 3.9.4).

Reference:

VEGP Procedure 92005-C, Fire Response Procedure

d. *What are the communication equipment used in the plant during a fire incident or emergency?*

Y	Telephone	Y	PA
Y	Radio	Y	Siren
___	Other ___________		

5. Administrative Records

a. *Does the plant keep record of training of each fire brigade member?*

Y Yes Reference **VEGP Procedure 60002-C "Training Administrative Policies and Procedures" and 00705C, "Fire Protection Training Program"**

___ No

b. *Does the plant keep records of test and maintenance of fire fighting equipment?*

_Y_ Yes Reference **Procedures 14958-C (Fire Brigade Equipment Monthly Inspection) and 92025-C (Fire Protection Surveillance Program)**

___ No

c. *Does the plant keep records of response times in a fire drill?*

_Y_ Yes Reference **Course Completion Record on Microfiche in Document Control**

___ No

d. *Is there any record structure for plant personnel to record a fire incident after is occurs?*

_Y_ Yes Reference VEGP Procedure 00601-C, Fire Report

___ No

e. *Does the plant keep records of combustible contents, fire duration, etc., for each fire location?*

_Y_ Yes Reference **Permanent combustibles are tracked by Combustible Loading Calculations X4C2301S012, S015 & S038. Transient Combustibles are tracked by VEGP Procedure 92015-C & VEGP 92020-C, Control**

___ No

f. *Is there any administrative procedure in place to enforce that the maximum allowable combustible content is not exceeded?*

_Y_ Yes Reference VEGP Procedure 92015-C, Use, Control and Storage of Flammable/Combustible Materials **Unit 1 and 2 FHA combustible Loading X4C2301S012, S015, and S038, Procedure 92010-C**

How often is an inspection? **Bi-weekly inspections verifies location and quantity of combustible material.**

___ No

g. *List the plant procedures/references regarding transient combustible permit and fire watch.*

VEGP Procedure 92015-C, "Use, Control and Storage of Flammable/Combustible Materials," Section 4.2 specified transient combustible permit guidelines, as follows: "Personnel wishing to transport combustibles within critical areas and/or the powerblock will determine the material and quantity needed and the destination to which the material will be transported and then refer to Tables 6, 7, 8 and 10 (of Procedure 92015-C) to determine if a transient combustible permit is required...If the maximum amount of transient combustible material needed exceeds the limits specified in Table 6 (of 92015-C), a transient combustible permit is required and will be completed as described in Section 5.0 of Procedure 92015-C."

VEGP Procedure 92027-C, "Fire Watch Program," delineates the responsibilities and duties of persons assigned to a fire watch in order to satisfy FSAR Table 9.5.1-10, Limiting Conditions for Operations or work involving burn permits, fire protection system/equipment impairment, or transient combustible permits.

Reference:

VEGP Procedure 92015-C, Use, Control and Storage of Flammable/Combustible Materials

VEGP Procedure 92027-C, Rev. 9, Fire Watch Program

B. Fire Barrier Assessment

1. Rating/Testing Standard

a. List are rating/testing standard of different types of fire barriers, e.g., fire doors, fire dampers, and penetration seals?

Fire Barriers	Code of Standard	Reference
Fire Door	NFPA 80*	VEGP-FSAR-9B, pp. 9B-57
Fire Dampers	UL Standard 555**	VEGP-FSAR-9B, pp. 9B-55
Penetration Seals	ASTM E-119***	VEGP-FSAR-9B, pp. 9B-42

Note:

*NFPA 80, Fire Doors and Windows.

**Underwriters Laboratory (UL) Standard 555: Standard for Fire Dampers and Ceiling Dampers.

***ASTM E-119, Time-Temperature Curve.

b. Who performs the testing and approves the fire barriers?

____ Manufacturer
____ Construction Company
____ Utility
_Y_ Other _See Below_

Fire Doors: Manufacturer

Dampers: Manufacturer

Seal: Manufacturer

The following are from VEGP-FSAR-9 Section 9.5.1.2.1.2, "Barriers and Access," (page 9.5.1-9):

Fire areas are isolated from each other by floors, walls, and ceiling having 3-hour fire resistance ratings. Door assemblies through fire barriers have fire ratings commensurate with those required of the fire barrier and are of certified fire resistive construction guaranteed by their manufacture. Exceptions are detailed in Appendix 9A and 9B (of VEGP-FSAR). These doors are either self-closing or automatic closing types or are normally secured closed. Key doors, the status of which are required for security purposes, are supervised, and door position is indicated on the security panel, unauthorized opening being alarmed. Other doors which are not supervised are maintained normally secured closed. Self-closing operability of the doors is monitored through administrative procedures. There are door openings that are required to be designed for pressure loads, bullet resistance, and the combined requirement of pressure and bullet resistance. These doors are specially designed to meet the VEGP criteria and therefore never generically tested, as are typically fire-rated hollow metal doors. Each door has been fabricated to listed UL label procedures for a UL 3-hour rating and the NFPA 80 and 252 standards. The construction of each door is certified by a certificate of fire label construction by the manufacturer. The manufacturer cannot affix a label to these doors and frames because they are of a special design for VEGP and have not been subjected to an actual physical UL fire test. In each case the thickness of the metal used to construct the door frame, door skin, stiffeners, and strike and butt reinforcements exceeds the thickness of metal used in standard fire-rated doors and frames. Security doors in 3-h-rated fire area boundaries that do not fall into the categories mentioned above are labeled Class A fire doors.

Penetration opening through fire area boundary barriers for ventilation systems will be protected by fire dampers having a rating equivalent to that required of the barrier. Fire dampers are closed automatically by a fusible link. To reopen a tripped fire damper requires manually resetting to open position and replacement of the fusible link... Exceptions are detailed in appendix 9A (of VEGP-FSAR).

Appendix 9B of VEGP-FSAR compared VEGP Unit 1 and 2 with requirements of the Nuclear Regulatory Commission Branch Technical Position CMEB 9.5-1. It lists in three columns the following: a) CMEB 9.5-1 Requirements, b) VEGP position, i.e., whether conformance or partial conformance, and c) Clarification of Conformance or Justification of Deviation.

CMEB 9.5-1 requirement C.5.a concerns Building Design. CMEB 9.5-1 requirement **C.5.a.(4)** requires the following:

"Penetration openings for ventilation systems should be protected by fire dampers having a rating equivalent to that required of the barrier. (See NFPA-90A, Air Conditioning and Ventilating System.) Flexible air duct coupling in ventilation and filter systems should be noncombustible."

The VEGP position to this requirement is partial conformance. The following is part of the justification:

"Penetration openings through rated fire barriers for ventilation systems are protected by fire dampers having a rating equivalent to that required of the barrier. However, there are 6 fire dampers assemblies (3 in each unit) installed (2 vertically and 3 horizontally) in 3-h fire area boundary barriers which do not bear a UL label of approval as their size exceeds the manufacturer's tested configuration."

"The manufacturer's 'as tested' configuration limits the size of a single fire damper in multiple damper assemblies to 36 in. by 36 in. VEGP oversize fire dampers comply with the single damper in multiple damper assembly size limitations. However, the VEGP oversize fire dampers do not comply with the overall damper assembly size requirements which is limited to 36 in. by 72 in. when installed in horizontal configuration and to 72 in. by 72 in. when installed in a vertical configuration."

"In spite of the fact that the oversize fire damper assemblies are without a UL label of approval, the manufacturer has certified that the fire dampers have been fabricated of the same material, with the same method, and to the same design and UL procedures as their standard UL approved 3-h multiple fire damper assembly. These oversize fire damper assemblies have been found to be acceptable by a registered fire protection engineer."

Penetration sealing systems used for piping penetrations through fire barriers provide both necessary piping flexibility and containment of smoke and flames. These may utilize noncombustible piping, boots, sleeves, and sealants in accepted combinations. Cable, cable trays, conduits, and piping penetrations at fire barriers are sealed to give the same hourly rating as that of the fire barrier.

CMEB 9.5-1 requirement C.5.a.(3) requires the following:

"Openings through fire barriers for pipe, conduit, and cable trays which separate fire areas should be sealed or closed to provide a fire resistance rating at least equal to that required of the barrier itself. Fire barrier penetrations that must maintain environmental isolation or pressure differentials should be qualified by test to maintain the barrier integrity under such conditions."

"Penetration designs should utilize only noncombustible materials and should be qualified by tests. The penetration qualification tests should use the time-temperature exposure curve specified by ASTM E-119, Fire Test of Building Construction and Materials..."

The VEGP position to this requirement is partial conformance. The following is part of the justification:

"The penetration seal test is based on testing designs which envelope the designs used rather that testing specific configuration used in the plant. This deviation is justified because testing of designs which envelope the design used provides a high level of assurance that the actual designs will provide the required level of fire resistance."

c. *Are negative pressure testing of fire barrier employed?*

_Y_ Yes **Manufacturers of both fire dampers and penetration seal materials have qualified their products to withstand certain pressures depending on the application.**

____ No

2. *Fire Doors/Dampers*

a. *List the number of fire doors/dampers for different ratings.*

Fire Rating	1 Hour	2 Hour	3 Hour
Fire Door	N/A	N/A	449
Fire Dampers	N/A	N/A	616
Penetration Seals	N/A	N/A	39,856

Reference:

Procedures 29124-C/29140-C , Fire Door Inspection (FSAR Fire Protection Surveillance); 29143-C, Fire Dampers-Visual Inspection (FSAR Fire Protection Surveillance); 29144-C, Fire Area Boundaries 18 Month Inspections.--This also includes the Fire Rated Penetration Seals.

b. *List the key manufacturer of the fire barriers (e.g., fire doors, fire dampers), reputation of manufacturer, and past failure records of the same type of barriers.*

Fire Barriers	Manufacture	Remarks on reputation and failure records
Fire Door	**Overly**	**Good Reputation**
Fire Dampers	**Air Balance Inc.**	**Good Reputation**
Penetration Seals	**ICMS**	**Good Reputation**

c. *Are the penetration seals installed and maintained to address concerns such as in NRC information Notice 88-04, "Inadequate Qualification and Documentation of Fire Barrier Penetration Seals?" (Feb 5, 1988)"This IN was issued to alert licensee to the results of an NRC review regarding fire barrier penetration seals. The NRC review was prompted by reports, inspection findings, allegations and other information that indicated that NRC requirements for fire barrier seals were not being met. The staff identified instances where installed fire barrier penetration seal designs could not be verified as qualified for the design rating of the penetration fire barrier; in some cases, the test qualification documentation was not available; in other cases, qualification documentation was available but* *incomplete or inadequate because all qualification requirements had not been satisfied, or the installed seal design configuration or design parameters that plant modifications were being made that affected existing fire penetration seals, but a technical review was not being completed to ensure that the resulting penetration design configuration was still qualified."*

_Y_ Yes
____ No   List the penetration seals and installation procedure.

In addressing CMEB 9.5-1 requirement C.5.a.(3), VEGP-FSAR-9B stated: "Acceptance criteria as set forth in NRC I.N. 88-40 were fully satisfied by the P-90 material in the tested specimens while impressive performance safety margins, in terms of remarkably low terminal cold side temperatures, were obtained."

Reference:

VEGP-FSAR-9B, pp. 9B-36

d. *Are the fire dampers installed and maintained to address concerns such as in NRC Information notice No. 89-52, "Potential Fire Damper Operational Problems," (June 8, 1989) and NRC information notice No. 83-69, "Improperly Installed Fire Dampers at Nuclear Power Plants?" (October 21, 1983)"This IN identified a potentially generic problem involving the improper installation of fire dampers in ventilation ducting that penetrate fire barriers in safety-related areas. The licensee identified that required dampers were not installed as required in the ventilation ducting in many locations, and in some instances, the dampers were not properly rated."*

_Y_ Yes   (Assures procedural action to shutdown HVAC.)
___ No   List the penetration seals and installation procedure.
All fire dampers were installed per CMEB 9.5-1 requirements with exceptions noted in column 3 starting on page 9B-42 of the FSAR. All information notices Issued after installations of the dampers are reviewed and appropriate action is taken.

Reference:

CMEB 9.5-1 Page 9B-42

e. *List the plant procedures/references for inspection/test/surveillance/maintenance of fire barriers, such as fire doors, fire dampers, and penetration seals.*

VEGP-FSAR-9, Table 9.5.1-10 **(sheet 10 of 12)** specified the surveillance requirements of fire barriers, as follows:

All fire barriers (walls, floor/ceilings, radiant energy shields, and cable tray enclosures) separating redundant safe shutdown fire areas from each other to include fire-rated assemblies in penetrations (fire doors, fire dampers, and penetration seals) shall be operable.

At least once per 18 months the required fire rated assemblies shall be verified operable by performing a visual inspection of:

- The exposed surfaces of each fire rated assembly.
- Each fire damper and associated hardware.
- At least 10 percent of each type of sealed penetration (mechanical and electrical). If apparent changes in appearance or abnormal degradations are found, a visual inspection of an additional 10 percent of each type of sealed penetration shall be made. This inspection process shall continue until a 10-percent sample with no apparent changes in appearance or abnormal degradation is found.

Each of the required fire doors shall be verified operable by:

- Verifying that each normally closed, unlocked fire door is closed at least once per 24 h.
- Verifying that doors with automatic hold-open and release mechanisms are free of obstructions at least once per 24 h.
- Verifying that each locked closed fire door is closed at least once per 7 days.
- Performing a visual inspection of the automatic hold-open and release mechanisms at least once per 6 months.
- Performing a functional test of doors with automatic hold-open and release mechanisms at least once per 18 months.

Reference:

VEGP-FSAR-9, Table 9.5.1-10 **(sheet 10 of 12)**

f. *Is the barrier failure record (on the plant) related to the following failure modes are available?*

- *Inadvertent actuation*
- *Premature failure (fails on demand)*
- *Aging*

__X__ Yes

ANY FAILURES DISCOVERED DURING SURVEILLANCE WILL BE DOCUMENTED WITHIN THE SURVEILLANCE AND/OR THE MWO, IF GENERATED. OTHER DISCOVERED FAILURES WILL BE DOCUMENTED BY MWO'S AND/OR DC'S IF GENERATED.

Fire Barrier	Problem Report
Fire Door	Approx. 5 per month
Fire Dampers	Approx. 1 per 18 months
Penetration Seals	Approx. 122 in 8 years

____ No

C. Seismic/Fire Interactions

Provide a copy of the seismic IPEEE/PRA performed for the plant.

See Seismic IPEEE submittal

The seismic-fire interaction evaluation for the VEGP IPEEE addressed the following potential interaction concerns:

- **Seismically induced fires.**
- **Seismic actuation of fire suppression systems.**
- **Seismic degradation of fire suppression systems.**

1. Seismic-Induced Fires

a. List existing plant specific assessment of seismic induced fires.

All hydrogen or other flammable gas or liquid-storage vessels in areas with safe shutdown or safety-related equipment was designed and anchored for Seismic II/I considerations. Areas with equipment containing significant amounts of combustible liquids have containment curbing to preclude inadvertent flows to surrounding areas and drainage systems. As part of the VEGP finalization program described in section 3.1.1.2.3, FP-2 (Hazards) and FP-3 (Fire Protection) consisted of plant walkdowns to verify that the as-built configuration of the plant agreed with the design bases. In addition, there were no potential seismically induced fire concerns identified by the SRTs during the seismic capability walkdown in areas containing SSEL components. Therefore, seismically induced fires are not a concern at VEGP for a HCLPF capacity of 0.3 g pga.

Reference:

FSAR 3.1.1.2.3

b. Attach a list of all locations with hydrogen lines.

c. Attach a list of all locations with flammable gas or liquid and the storage methods.

d. Attached a list of all pressurized containers with oxygen or hydrogen.

e. Are these pressurized containers anchored? (Indicate on the above list.)

f. List exiting studies which has identified seismic induced fire initiators and their impacts on seismic safe shutdown and safety related equipment.

<u>See a above for (b-f) and P&ID AX4DB176-1 thru AX4DB176-3 for all gas systems.</u>

Reference:

<u>14951-C, Fire Suppression System Operability; 92132-C, Halon Systems; 13706-C, CO2 Systems</u>

g. *List the installation and inspection procedures for the anchorage of electrical cabinet.*

<u>DC-1000-General Design Criteria (Civil/Structural), IPEEE walkdown for confirmation of electrical cabinet anchorage.</u>

h. *Inspect all electrical cabinets to make sure that they have proper anchorage and that cable could vibrate, not loosen and generate shorts during seismic movements. Please proved us information if such inspection will be performed.*

<u>IPEEE walkdown provided for confirmation of electrical cabinet anchorage.</u>

2. Seismic Actuation of Fire Suppression System

a. *List existing seismic assessments or flood analysis that addressed concerns of seismic induced inadvertent actuation of fire suppression system and its impact on seismic safe shutdown and safety-related system.*

The VEGP water suppression system is a normally dry system. Preaction sprinkler system operation is designed to be initiated by an electric fire detection device and the melting of a fusible link. The fire detection sensor detects fire and releases a tripping device to open the preaction valve, thus supplying water under pressure to fill and pressurize the system. The intent of this section is to address the possibility that seismically induced relay chatter could potentially result in inadvertent actuation of the preaction valve, thereby flooding the system.

The sealed preaction sprinkler system heads are passive components and will only open upon a rise of ambient temperature to the melting point of the fusible links on sealed sprinkler heads. Therefore, even if the sprinkler system is flooded, the sprinkler heads will not open in the absence of heat generated by a fire, which is required to melt the fusible links. Inadvertent manual or automatic operation of the preaction valve is detected by a system-actuated alarm. In the unlikely event that inadvertent operation of a sprinkler head did occur, the effect would be minimized through the following design features:

- **Drip-proof, totally enclosed, or weather-protected type II motors are installed on safety-related pumps.**

- **Safety-related electrical cable design allows water spray on cables in trays without electrical cable faulting.**

- **Safe shutdown equipment in sprinklered areas is mounted on pads and is protected with covers, shields, or watertight enclosures.**

- **Concrete floors surrounding the pads are sloped to floor drains at low points.**

Therefore, inadvertent actuation of the fire protection systems would not result in any deleterious effects to SSEL components at a HCLPF capacity of 0.3 g pga.

b. *List existing assessment to address concerns in NRC Information Notice 83-41, "Actuation of Fire Suppression System Causing Inoperability of Safety-Related Equipment?" "This information notice was issued to alert licensees to actuation of fire suppression system that degrade or jeopardized the operability of systems important to safety. IN 83-41 made reference to 10 CFR 50 Appendix A, General Design Criteria (GDC) 3 which states in part: 'Fire detection and fighting systems of appropriate capacity and capability shall be provided and designed to minimize the adverse effects of fires on structures, systems and components important to safety. Fire fighting systems shall be designed to ensure that their rupture or inadvertent operation does not significantly impair the safety capability of these structures, systems and components.'"*

"The events reported seemed to indicate that walk-down of plant equipment would have identified instances where minor modifications such as shielding equipment and sealing conduit ends would have reduced water damage that occurred without significantly reducing the effectiveness of the fire protection system."

The impact of actuation of suppression systems is minimized through the following design features:

All suppression systems in safety-related areas are either Halon or preaction sprinkler systems.

The header piping and support, up to and including sprinkler system isolation valves ad all sprinkler system piping supports in proximity of safety related equipment, are designed for SSE loads

Redundant safe shutdown equipment is located in separate fire areas to the extent practical.

Sprinkler heads are passive components, and only one head is expected to fail at any one time.

Drip-proof, totally enclosed or weather protected type II motors are installed on safety related pumps.

Safety-related electrical cable design allows water spray on cables in tray without electrical cable faulting.

Reference:

FSAR 9.5.1-19

c. *Identify fire protection systems that, if actuated due to a seismic event, could affect the seismic safe shutdown system and safety related system.*

N/A

d. *Attached existing analysis of alarm failure (e.g., false alarm) and its impact.*

Alarm failures are handled on an individual basis with DC cards written and the appropriate procedure applied to correction of the problem.

e. *Identify spurious fire alarm due to seismic event that could lead to a sequence that impact the shutdown capability. Please provide us information if any vulnerabilities are identified.*

N/A

f. *List surveillance program for actuation systems for CO_2, Halon, and water systems, and identify and correct if there is any possible problem with vibration and relay chatter and locking circuits?*

Procedures

14951-C, Fire Suppression System Operability
92132, Halon Systems Annual Inspection & Test
13706-C, Aux. Gas Systems (Carbon Dioxide)

3. Seismic Degradation of Fire Suppression System

a. *List existing studies about effect of seismic degradation of fire suppression system on safety equipment.*

The purpose of this section is to verify that fire suppression systems have been structurally installed in accordance with good industrial practice and have been reviewed for seismic considerations such that suppression system piping and components will not fall and damage safe shutdown components. It is also unlikely that leaking or cascading of the suppressant will result.

The VEGP Unit 1 fire protection piping was seismically designed at the plant SSE level meeting strict support stiffness and piping deflection criteria. The Unit 2 fire protection piping is a more flexible system which includes sway bracing. In order to verify the adequacy of the Unit 2 piping, three test segments of actual piping systems were shake tested by ANCO Engineers, Inc.[59] These test assemblies were subjected to dynamic loadings equivalent to five OBEs, after several scaling earthquakes to include the effects of fatigue, and one SSE. Each test assembly was hydrostatically tested before and after the first OBE test to demonstrate functionality. Finally, each of the test assemblies was subjected to dynamic loadings equivalent to 1.2 times SSE and 1.4 times SSE. The adequacy of the Units 1 and 2 fire water piping systems for Seismic II/I considerations was documented and accepted by the NRC in Section 9 of NUREG-1137[60]. In addition, the seismic ruggedness of the fire suppression system piping and components in areas containing SSEL components were evaluated by the SRTs during the seismic capability walkdown. Therefore, the VEGP fire suppression system is considered adequate with respect to Seismic II/I considerations at a HCLPF capacity of 0.3 g pga.

b. *List existing studies on seismic induced piping failures.*

See a. above.

c, d, e, f, g and h below were all inspected and verified to be installed correctly as part of the VEGP "FINALIZATION PROCESS WALKDOWN".

c. *Inspect the suppression system (water and Halon) and verify that all Halon cylinders are anchored according to the seismic class requirement for the safety equipment in the room that the suppression system protects.*

d. *Examine fire protection piping, identify which could be rendered inoperable or leaking due to seismic interaction with its environment; i.e., adjacent piping, block walls, etc.*

e. *Identify situations wherein a suspended ceiling may cause damage to sprinkler heads due to the horizontal movement of the ceiling.*

f. *Inspect the fire pumps to see whether there are any weak mounts or vibration mounts. Vibration mounts are usually weak during seismic events.*

g. *Examine all sprinkler heads to ensure no interactions between the sprinkler heads and adjacent piping.*

h. *This may be performed as part of seismic walkdown, please provide us the information of inspection and possible correction.*

D. Total Environment Equipment Survival

1. Spurious or Inadvertent Actuation

a. Provide existing studies or assessments regarding the impact of spurious or inadvertent actuation of fire suppression systems on safe shutdown equipment.

Any impact of spurious actuation of electrical cables is addressed in the FESSE (Fire Event Safe Shutdown Evaluation) calculations for each major Bldg. The impact of inadvertent operation of suppression systems is minimized through the following design features:

All suppression systems in safety-related areas are either Halon or preaction sprinkler systems.

The header piping and support, up to and including sprinkler system isolation valves ad all sprinkler system piping supports in proximity of safety related equipment, are designed for SSE loads.

Redundant safe shutdown equipment is located in separate fire areas to the extent practical.

Sprinkler heads are passive components, and only one head is expected to fail at any one time.

Drip-proof, totally enclosed or weather protected type II motors are installed on safety related pumps.

Safety-related electrical cable design allows water spray on cables in tray without electrical cable faulting.

b. Provide existing analyses regarding concerns discussed in NRC I & E Information Notice 83-41, "Actuation of Fire Suppression System Causing Inoperability of Safety-Related Equipment." (June 22, 1983)

In the event of a pipe break, no adverse effect results, since the system is dry within.

2. Equipment Survival

a. Provide description of ventilation equipment and technical specifications of HVAC for control room and remote shutdown panel location.

The control room is provided with two separate HVAC systems. Individual system for normal operations and individual system for emergency operations. The shutdown panels rooms on level A of the Control Bldg. have a normal water cooling coil as well as an essential water cooling coil.

b. *List locations of emergency breathing equipment and other protective equipment ready for control operator to use in performing safe shutdown in case of a fire at the control room and remote shutdown room.*

One Emergency Room Locker in Control Room & Two Control Bldg. Fire Brigade Lockers (near the TSC), are in Rooms CB 193 & CB-104.

Reference:

18038-1 & 2, Operations from Remote Shutdown Panels

c. *List plant procedures/references for post-fire cleanup, testing, specs, etc.*

Documentation and reporting of Fire Events are controlled by Procedure 00601C (Fire Investigation Report Procedure). Post Fire activities are controlled by Procedure 92005-C (Fire Response Procedure)

Reference:

00601-C and 92005-C

E. Control System Interactions

1. Control Room Evacuation

a. List control room evacuation procedures in the event of a fire.

Abnormal Operating Procedures 18038-1 & 18038-2 provides control room evacuation instructions during CR fire events.

Reference:

Procedures 18038-1 &2, Operations from Remote Shutdown Panels

b. According to NUREG/CR-5088, (for plant with old control circuit designs), one of the concern related to the control system interaction is: "Loss of control power for the operated device as a result of blown fuse before transferring to remote shutdown locations." List analysis to address the concerns.

VEGP-FSAR-9B CMEB 9.5-1 Requirement C.7.f concerns Remote Safety-Related Panels, which stated: "Redundant safety-related panels remote from the control room complex should be separated from each other by barriers having a minimum fire rating of 3 h. Panels providing remote shutdown capability should be electrically isolated from the control room complex so that a fire in either area will not affect shutdown capability from the other area. The general are housing remote safety-related panels should be provided with automatic fire detectors that alarm locally and alarm and annunciate in the control room. Combustible materials should be controlled and limited to those required for operation. Portable extinguisher and manual hose stations should be readily available and manual hose stations should be readily available in the general area."

The VEGP conforms to this requirement, and the following are clarifications:

"The redundant safe shutdown panels remote from the control room complex are separated from each other by 3-h barriers. Control devices and instruments located on the remote shutdown panels that are required for safe shutdown are electrically isolated from the control room complex so that a fire in either area will no affect shutdown capability from either area. The general areas housing the remote shutdown panels are provided with local detection which alarms in the main control room and at the local panels. Combustible materials are administratively controlled. Portable extinguisher and manual hose stations are readily available in the general area."

Reference:

VEGP-FSAR-9B, pp. 9B-113

2. *Remote Shutdown Capabilities*

a. *List locations/functions of remote shutdown panels. (provide drawings)*

Unit 1 Remote Shutdown Panel Train A, Room A75, Zone 103, Fire Area 1-CB-LA-G, Control Bldg. Level A
Unit 1 Remote Shutdown Panel Train B, Room A43, Zone 98, Fire Area 1-CB-LA-L, Control Bldg. Level A
Unit 2 Remote Shutdown Panel Train A, Room A76, Zone 103, Fire Area 2-CB-LA-G, Control Bldg. Level A
Unit 2 Remote Shutdown Panel Train B, Room A24, Zone 98, Fire Area 2-CB-LA-L, Control Bldg. Level A
Unit 1 Train A-1X3DF302
Unit 1 Train B-1X3DF31C
Unit 2 Train A-2X3DF341
Unit 2 Train B-2X3DF351

The purpose of the Remote Shutdown Panels is to provide the functions necessary to effect a unit shutdown for the condition where these functions are not available from the main control room.

Reference:

FSAR Section 9A

b. *Identify function/monitors that the shutdown panels do not have.*

The system and component controls and monitoring indicators provided on the shutdown panels are listed in the FSAR in subsection 7.4.3.

Reference:

FSAR Section 7.4

c. *List existing analyses which have demonstrated that the safe shutdown circuits have been located physically independent of, or can be isolated from, the control room.*

An analysis was completed and documented in the FESSE calculations listed:

X4C2301S08, X4C2301S09, X4C2301S010, X4C2301S011, X4C2301S025, X4C2301S026, X4C2301S027, X4C2301S031, X4C2301S032, X4C2301S033, X4C2301S034, X4C2301S035

Reference:

See above.

d. *List the location of essential control room panels, remote shutdown panels, transfer switches, fuses, motor control centers, and other devices.*

Components	Location
Control Boards	**SEE FSAR LIST 9.5.1-1**
Shutdown Panel	**SEE FSAR LIST 9.5.1-1**
Transfer Switches	**SEE FSAR LIST 9.5.1-1**
Fuses or Nonfuse Breakers	**SEE FSAR LIST 9.5.1-1**
Motor Control Center	**SEE FSAR LIST 9.5.1-1**
Monitors	**SEE FSAR LIST 9.5.1-1**
MOVs	**SEE FSAR LIST 9.5.1-1**
Other (e.g. Safeguard Sequence Cabinet)	**SEE FSAR LIST 9.5.1-1**

5. HIGH WINDS, FLOODS, AND OTHERS

The progressive screening approach described in NUREG-1407 (Reference 5-1) was used to identify potential vulnerabilities at Vogtle Electric Generating Plant (VEGP) due to high winds, floods, transportation and nearby facilities accidents, and "other" hazards. The progressive screening approach consisted of the following steps:

1. Review of the VEGP-specific hazard data and licensing bases, including the resolution of each issue or event.

2. Identification of significant plant changes since issuance of the VEGP operating license (OL) as they related to high winds, floods, military and industrial facilities within 5 mi of VEGP, onsite storage or other activities involving hazardous materials, transportation, developments that could affect the original design conditions, and other hazards.

3. Determination whether the VEGP design meets the 1975 Standard Review Plan (SRP), NUREG-75/087 (Reference 5-2), criteria.

4. Determination whether the hazard frequency is acceptably low (optional step).

5. Performance of a bounding analysis (optional step).

6. Performance of a probabilistic risk assessment (optional step).

For hazards originated from transportation and nearby facility accidents which normally would be outside plant control, updated data was gathered revealing conformance to the SRP.

A plant walkdown was conducted for high winds, floods, and other hazards to confirm the documentation used in the design review process and to look for any changes to the plant. The walkdown was conducted by Southern Nuclear Operating Company personnel based on a written procedure. No significant changes related to high winds, floods, and other hazards have occurred since the operating licenses were issued.

Because the VEGP design met the SRP criteria in all reviewed areas and no potential vulnerabilities were identified, only the first three of the above steps were necessary.

5.1 HIGH WINDS

The review of the Vogtle Electric Generating Plant (VEGP)-specific hazard data and licensing bases regarding high winds was accomplished by a review of the pertinent sections of the VEGP Final Safety Analysis Report (FSAR) (Reference 5-3). High winds include tornadoes and tornado missiles. Because both units of VEGP were granted operating licenses (OLs) within the last 10 years based on the NRC Safety Evaluation Report (SER), NUREG-1137 (Reference 5-4), using the Standard Review Plan (SRP), NUREG-0800 (Reference 5-5), this determination of conformance was a straightforward verification. The conclusion of this review is that VEGP conforms to the SRP, NUREG-75/087 (Reference 5-2), criteria regarding high winds and tornadoes.

For the identification of significant changes such as plant design since the issuance of the VEGP OL, the IPEEE has taken credit for the VEGP design change administrative controls which provide procedures for the preparation of safety and hazard evaluations in regards to high winds and tornadoes. Therefore, design changes of this type are reviewed against the SRP. A site walkdown was conducted to confirm the plant design with regard to high winds and tornadoes.

All Seismic Category I structures are designed for a wind velocity of 110 mph at 30 ft above grade for a 100-year mean recurrence interval.

Tornado loadings are based on a 290 mph tangential wind velocity and a 70 mph translational wind velocity, with a simultaneous atmospheric pressure drop of 3 psi at a rate of 2 psi per second. ANSI A58.1 and a Bechtel Topical Report (Reference 5-6) were used to transform wind velocities into effective pressure on structures and for selecting pressure coefficients corresponding to the structural geometry and physical configuration.

Safety-related systems and components are protected by missile barriers. Although the missile spectrum evaluated for VEGP is different from the SRP, the minimum thickness for VEGP's Seismic Category I walls (24 in. for 4000 psi concrete and 18 in. for 5000 psi concrete) and roofs and slabs (21 in. for 4000 psi concrete and 14 in. for 5000 psi concrete) were greater than those calculated in Table 1 of NUREG-0800, section 3.5.3. Therefore, VEGP meets the underlying regulatory requirements of the NUREG-0800 concrete barrier design criteria for tornado missiles. In evaluating this, the NRC accepted the VEGP missile spectrum as documented in the VEGP SER, NUREG-1137, section 3.5.1.4.

NUREG-75/087 does not provide a similar table of concrete thicknesses. Therefore, the concrete thickness that would be required by NUREG-75/087 is unknown. It is doubtful that NUREG-75/087 would require thicker concrete than does NUREG-0800. Because the NRC has accepted VEGP concrete thickness based on NUREG-0800, no further evaluation of conformance to NUREG-75/087 will be performed.

No significant items were noted for high winds during the plant walkdown. Based on the review and walkdown, there have been no significant changes that would adversely affect the high winds design basis at VEGP since the issuance of the OL.

5.2 FLOODS

The review of the Vogtle Electric Generating Plant (VEGP)-specific hazard data and licensing bases regarding external flooding was accomplished by a review of the pertinent sections of the VEGP Final Safety Analysis Report (FSAR) (Reference 5-3). External flooding includes flooding from a maximum precipitation, local intense precipitation, and flood-related roof load design basis. Because both units of VEGP were granted operating licences (OLs) within the last 10 years based on the NRC Safety Evaluation Report (SER), NUREG-1137 (Reference 5-4), using the Standard Review Plan (SRP), NUREG-0800 (Reference 5-5), this determination of conformance was a straightforward verification. The evaluation also included an assessment of the National Weather Service's new probable maximum precipitation (PMP) criteria presented in Generic Letter 89-22 (Reference 5-7). The conclusion of this review is that VEGP conforms to the SRP, NUREG-75/087 (Reference 5-2), criteria in regards to external flooding.

For the identification of significant changes such as plant design since the issuance of the VEGP OL, the IPEEE has taken credit for the VEGP design change administrative controls which provide procedures for the preparation of safety and hazard evaluations in regards to external floods. Therefore, design changes of this type are reviewed against the SRP. A site walkdown was conducted to confirm the plant design regarding external flooding.

The record flood at the site occurred in 1796 with an estimated water surface elevation of 116 ft msl. There have been no floods due to surges, seiches, or tsunami because the site is not located near a large body of water. Also, icing normally does not occur. During plant licensing, several flooding sources were evaluated to establish the external flooding bases for the site. These sources include stream flooding, precipitation-induced flooding, dam failure permutations, coincident wind wave activity, and various combinations. The controlling external flood was determined to be a wave runup coincident with a dam failure surge wave during a standard projected flood. The calculated water level would reach 168 ft msl on the natural slope along the plant side of the river. The probable maximum flood with wave runup may reach 165 ft msl. All safety-related structures have a grade elevation of 220 ft msl, which is well above the flood stage. The nonsafety-related makeup water river intake structure has a deck elevation of 125 ft msl and is provided as a secondary backup source for the makeup water system.

The PMP, which is based on the world record envelope and has a maximum intensity of 15 in. of rainfall in 1 h, was used to evaluate the effects of local precipitation. The roof drain system for all safety-related structures is designed to pass the runoff from the PMP. The design includes measures to guard against wind-induced seepage through roof and wall penetrations and doors where safety-related equipment could be damaged.

Scuppers connected to external downspouts are provided for the roof drainage of 100-year storms. No internal drain lines exist which could flood safety-related equipment. Additional scuppers without downspouts are provided to drain the PMP. The roofs of Seismic Category I structures are designed for 18 in. of ponded water corresponding to a load of 93.6 lb/ft^2.

No significant items were noted for external flooding during the plant walkdown. Based on the review and walkdown, there have been no significant changes that would adversely affect the external flooding design basis at VEGP since the OL issuance.

The other issue for external flooding is Generic Letter 89-22, in which the NRC adopted the latest National Weather Service PMP criteria for future plants. The footnote to this Generic Letter states that VEGP fully meets the new PMP criteria.

In conclusion, VEGP design basis for external flooding satisfies the SRP criteria and Generic Letter 89-22. No potential vulnerabilities were identified with regard to external flooding.

5.3 TRANSPORTATION AND NEARBY FACILITY ACCIDENTS

5.3.1 TRANSPORTATION

5.3.1.1 Plant-Specific Hazard Data and Licensing Bases Review

Transportation hazards in the vicinity of Vogtle Electric Generating Plant (VEGP) at the time of operating license (OL) issuance which had the potential to affect VEGP were identified and discussed in the VEGP Final Safety Analysis Report (FSAR), Section 2.2 (Reference 5-3). Per the VEGP FSAR, at the time of OL issuance the only significant transportation routes within 5 mi of VEGP were Georgia State Highway No. 23, the Seaboard Coast Railroad, a rail spur line leading to VEGP, and barge traffic on the Savannah River. The rail spur line leading to VEGP did not carry commercial traffic. There were no known military firing or bombing ranges or aircraft low-level flight holding or landing patterns in the vicinity of VEGP. There were no airports or landing strips within 10 mi of VEGP. The closest airport with commercial service was located in Augusta, Georgia, approximately 17 mi NNW of VEGP.

At the time of OL issuance, the following potential accidents involving transportation hazards were evaluated:

5.3.1.1.1 Chemical Substances Stored or Transported within a 5-Mile Radius of VEGP

Chemical substances transported within a 5-mi radius of VEGP were identified and evaluated as a potential accident. Chemicals were transported on barges (Savannah River), Georgia Highway No. 23, and the Seaboard Coast Railroad. Chemicals transported on these routes were determined to pose no threat to VEGP.

5.3.1.1.2 Explosions

Flammable chemicals capable of causing explosions were transported on the Savannah River, the Seaboard Coast Railroad, and Georgia Highway No. 23. These flammable chemicals were evaluated using Regulatory Guide 1.91 (Reference 5-8) and determined to pose no threat to VEGP.

5.3.1.1.3 Flammable Vapor Clouds (Delayed Ignition)

Flammable chemicals capable of producing a flammable vapor cloud were transported on the Savannah River, the Seaboard Coast Railroad, and Georgia Highway No. 23. These flammable chemicals were evaluated using Regulatory Guide 1.91 and determined to pose no threat to VEGP.

5.3.1.1.4 Release of Toxic Chemicals Due to a Transportation Accident

Transportation accidents on the Savannah River, the Seaboard Coast Railroad, and Georgia Highway No. 23 could release toxic chemicals in the vicinity of VEGP. Toxic chemicals transported on these routes were evaluated using the methodology given in NUREG-0570 (Reference 5-9). The VEGP control room was determined to remain habitable for all release scenarios, with operator action required only during ammonia and gasoline releases. (This operator action consists of putting on protective breathing apparatus.) Toxic chemical releases due to a transportation accident do not pose a threat to VEGP.

5.3.1.1.5 Fire Due to a Transportation Accident

Flammable materials capable of causing a fire were transported on the Savannah River, the Seaboard Coast Railroad, and Georgia Highway No. 23. These flammable materials were evaluated using the methodology given in NUREG-0570 and determined to pose no threat to VEGP.

5.3.1.1.6 Collisions With the Intake Structure

Because the intake structure and river water makeup pumps located inside the intake structure serve no safety design basis, a barge or ship colliding with the intake structure posed no safety significant threat to VEGP.

5.3.1.1.7 Liquid Spills

A spill of corrosive, cryogenic, or coagulant material into the Savannah River could be drawn into the river water intake structure and the circulating water system. Because these systems are not safety related, the spill would pose no threat to VEGP.

5.3.1.1.8 Missiles Generated by Events Near the Site

Due to the types, quantities, and distances from VEGP of potentially explosive materials, there are no credible sources of explosions capable of producing missiles which could pose a threat to VEGP.

5.3.1.1.9 Aircraft Hazards

There were no airports or landing strips within 10 mi of VEGP, no airways within 2 mi of VEGP, and no aircraft low-level flight holding or landing patterns in the vicinity of VEGP; therefore, there were no aircraft hazards which could pose a threat to VEGP.

5.3.1.2 Identification of Significant Changes Since Operating License Issuance

Numerous information sources were reviewed and a plant walkdown was conducted to determine if any changes have occurred since the OL was issued which were not reported per 10 CFR 50.71(e). As a result of this review, the only significant change identified related to the types and quantities of hazardous materials transported on the CSX Transportation Rail Line (formerly the Seaboard Coast Railroad). These materials were evaluated for control room habitability and explosive overpressure hazards using the methodology provided by Regulatory Guides 1.78 (Reference 5-10) and 1.91, respectively. A list of the previously unevaluated substances transported by CSX Transportation in the vicinity of VEGP which are potential hazards to control room habitability is provided in table 5.3-1. None of these materials exceed the screening criteria provided in Regulatory Guide 1.78 which would have required further evaluation for control room habitability concerns. The results of the evaluation of previously unevaluated substances transported by CSX Transportation in the vicinity of VEGP which could present an explosive overpressure hazard are provided in table 5.3-2. Control room habitability and explosive overpressure hazards resulting from transportation accidents do not pose a threat to the safe operation of VEGP.

5.3.1.3 Conformance to 1975 Standard Review Plan Criteria

The following SRP sections deal with transportation hazards and were reviewed to determine conformance:

5.3.1.3.1 SRP Section 2.2.1-2.2.2, Locations and Routes, Descriptions

The criteria of SRP Section 2.2.1-2.2.2 were met at the time of OL issuance because all significant transportation routes within 5 mi of VEGP were identified and descriptive information was provided to allow evaluation of possible hazards. Because there are no new transportation routes or significant developments which impact the original design conditions, VEGP conforms to SRP Section 2.2.1-2.2.2.

5.3.1.3.2 SRP Section 2.2.3, Evaluation of Potential Accidents

Chemical substances transported within a 5 mi radius of VEGP, explosions, flammable vapor clouds, the release of toxic chemicals due to a transportation accident, fires due to a transportation accident, collisions with the intake structure, liquid spills, missiles generated by events near the site, and aircraft hazards were evaluated as potential accidents resulting from transportation routes in the vicinity of VEGP. The criteria of SRP Section 2.2.3 were met at the time of OL issuance because it was determined that no potential accident posed a threat to VEGP. This was due to the distances between the transportation routes and VEGP and the type and size of typical hazardous shipments along the transportation routes. Materials which were previously unevaluated at the time of the issuance of the OL have been analyzed and determined to pose no threat to the safe operation of VEGP. Because there are no significant hazards, VEGP conforms to SRP Section 2.2.3.

5.3.1.3.3 SRP Section 3.5.1.5, Site Proximity Missiles (Except Aircraft)

The criteria of SRP Section 3.5.1.5 were met at the time of OL issuance because potential accidents which could produce missiles (explosions and flammable vapor clouds) were evaluated as not posing a threat to VEGP due to the distance between the transportation routes and VEGP and the type and size of the typical hazardous shipment along the transportation routes. The CSX Transportation Rail Line is located 4.5 mi from VEGP and does not transport materials capable of propelling a missile which could impact VEGP. Because there are no new transportation routes in the vicinity of VEGP or significant developments which impact the original design conditions, VEGP conforms to SRP Section 3.5.1.5.

5.3.1.3.4 SRP Section 3.5.1.6, Aircraft Hazards

The criteria of SRP Section 3.5.1.6 were met at the time of OL issuance because there were no identified aircraft hazards in the vicinity of VEGP. There are no identified airports or landing strips within 10 mi of VEGP. There are no aircraft low-level flight holding or landing patterns in the vicinity of VEGP. The closest airport with commercial service is located in Augusta, Georgia, approximately 17 mi NNW of VEGP. Because there are no new aviation developments which impact the original design conditions, VEGP conforms to SRP Section 3.5.1.6.

5.3.1.3.5 SRP Section 6.4, Habitability Systems

The criteria of SRP Section 6.4 were met at the time of OL issuance because the VEGP control room protection from the effects of toxic gases was in accordance with Regulatory Guide 1.78. Onsite and offsite sources of toxic gases were evaluated deterministically and shown that either the 8-h toxicity limit was not exceeded in the control room or that there was at least 2 min between detection of the toxic gas and reaching the short-term toxicity limit, such that operators had sufficient time to put on protective breathing apparatus. Previously unevaluated materials transported on the CSX Transportation Rail Line were analyzed and pose no threat to the VEGP. VEGP conforms to SRP Section 6.4.

5.3.2 NEARBY FACILITY ACCIDENTS

5.3.2.1 Plant-Specific Hazard Data and Licensing Bases Review

Nearby facilities at the time of OL issuance which had the potential to affect VEGP were identified and discussed in the VEGP FSAR, section 2.2. Per the VEGP FSAR, at the time of OL issuance the only significant nearby facilities were the Savannah River Site and Georgia Power Company's (GPC's) Plant Wilson. There were no chemical plants, refineries, storage facilities, mining or quarrying operations, military bases, missile sites, or oil and gas wells within 5 mi of VEGP.

Georgia Power Company and the Department of Energy - Savannah River have a Memorandum of Agreement (see VEGP Emergency Plan, Reference 5-11) which provides for planning and responding to emergencies originating at either VEGP or the Savannah River Site. In the event of a radiological emergency at the Savannah River Site, VEGP will be notified immediately along with state and local officials. In the event of a nonradiological emergency (i.e., toxic chemical release) at the Savannah River Site, VEGP would be notified by phone or by the dedicated FAX line connecting the two facilities. These communication pathways will enable VEGP to enter the appropriate mode of readiness (i.e., isolating the control room air intake) applicable for the type of emergency condition at the Savannah River Site. The communications protocol between the Savannah River Site and VEGP is maintained current via the VEGP Emergency Plan.

At the time of OL issuance, the following potential nearby facility accidents and onsite storage of hazardous materials were evaluated:

5.3.2.1.1 Chemical Substances Stored or Transported within a 5-Mile Radius of VEGP

Chemical substances stored within a 5-mi radius of VEGP were identified and evaluated as a potential accident at the time of OL issuance. Chemicals were stored at the Savannah River Site and GPC's Plant Wilson. Chemicals stored at these facilities were determined to pose no threat to VEGP.

5.3.2.1.2 Explosions

Flammable materials capable of causing explosions were stored at the Savannah River Site and GPC's Plant Wilson. These materials were evaluated at the time of OL issuance using Regulatory Guide 1.91 and determined to pose no threat to VEGP.

5.3.2.1.3 Flammable Vapor Clouds (Delayed Ignition)

Flammable materials capable of producing a flammable vapor cloud were stored at the Savannah River Site and GPC's Plant Wilson. These materials were evaluated at the time of OL issuance using Regulatory Guide 1.91 and determined to pose no threat to VEGP.

5.3.2.1.4 Potential Hazard from Major Depots or Storage Areas (Toxic Chemicals)

Sources for the release of toxic chemicals within 5 mi of VEGP included the Savannah River Site and GPC's Plant Wilson. Toxic chemicals stored at these facilities were evaluated using the methodology given in NUREG-0570. The VEGP control room was determined to remain habitable for all release scenarios, with operator action required only during ammonia releases. (This operator action consists of putting on protective breathing apparatus.) Toxic chemical releases from major depots or storage areas were determined not to pose a threat to VEGP.

5.3.2.1.5 Potential Hazard from On-Site Storage Tanks (Toxic Chemicals)

On-site storage tanks containing toxic chemicals were identified and evaluated at the time of OL issuance using the methodology given in NUREG-0570. The VEGP control room was determined to remain habitable for all release scenarios, with operator action required only during ammonia or hydrazine releases. (This operator action consists of putting on protective breathing apparatus.) Toxic chemical releases from onsite storage tanks were determined not to pose a threat to VEGP.

5.3.2.1.6 Fire Due to Oil or Gas Pipeline Rupture Accident

There were no oil or gas pipelines located within 5 mi of VEGP at the time of OL issuance and hence there was no threat to VEGP from pipeline rupture accidents.

5.3.2.1.7 Forest Fires

Forest fires were evaluated at the time of OL issuance for control room habitability and plant structure hazards. The release of toxic combustion products was evaluated using Regulatory Guide 1.78 and determined to pose no hazard to control room habitability. Thermal damage to VEGP safety-related structures from a forest fire was evaluated using NUREG/CR-1748 (Reference 5-12) and determined to pose no threat to VEGP. Forest fires were determined not to pose a threat to VEGP.

5.3.2.1.8 Fire Due to an Accident at an Industrial Storage Facility

Industrial storage facilities within 5 mi of VEGP capable of having an accident which could produce a fire are the Savannah River Site and GPC's Plant Wilson. The effects of a fire from these facilities were evaluated for control room habitability and plant structure hazards. The release of toxic combustion products from such a fire was evaluated using Regulatory Guide 1.78 and determined to pose no hazard to control room habitability. Thermal damage to VEGP safety-related structures from an industrial fire was evaluated using NUREG/CR-1748 and determined to pose no threat to VEGP. Fires originating at nearby industrial storage facilities were determined not to pose a threat to VEGP.

5.3.2.1.9 Fire Due to an On-Site Storage Tank Spill

On-site storage tanks containing gasoline and diesel fuel which could potentially be the source of a fire were evaluated for control room habitability, shockwave impact on safety related structures, and thermal structure hazards. Toxic gases resulting from the fire do not pose a hazard to control room habitability. Explosions were not considered a credible hazard. Thermal loads to surrounding plant structures from the fire were insignificant. Fires due to onsite storage tank spills were determined not to pose a threat to VEGP.

5.3.2.1.10 Missiles Generated by Events Near the Site

Sources of hazardous materials capable of exploding were not considered a threat to VEGP due to the quantities of materials and distances from these materials to VEGP safety-related structures.

5.3.2.2 Identification of Significant Changes Since Operating License Issuance

Numerous information sources were reviewed and a plant walkdown was conducted to determine if any changes have occurred since the OL was issued which were not reported per 10 CFR 50.71(e). As a result of this review, the only significant change identified related to the types and quantities of hazardous materials stored at the Savannah River Site. These materials were evaluated for control room habitability and explosive overpressure hazards using the methodology provided by Regulatory Guides 1.78 and 1.91, respectively. A list of the previously unevaluated substances stored or used at the Savannah River Site which are potential hazards to control room habitability is provided in table 5.3-1. None of these materials exceed the screening criteria provided in Regulatory Guide 1.78 which would have required further evaluation for control room habitability concerns. The results of the evaluation of previously unevaluated substances stored or used at the Savannah River Site which could present an explosive overpressure hazard are provided in table 5.3-2. None of these materials exceeded the screening criteria provided in Regulatory Guide 1.91 which would have required further evaluation for explosive overpressure concerns. Control room habitability and explosive overpressure hazards resulting from nearby facilities accidents do not pose a threat to the safe operation of VEGP.

5.3.2.3 Conformance to 1975 Standard Review Plan Criteria

The following SRP sections deal with hazards from nearby facility accidents and onsite storage of hazardous materials and were reviewed to determine conformance:

5.3.2.3.1 SRP Section 2.2.1-2.2.2, Location and Routes, Descriptions

The criteria given in SRP Section 2.2.1-2.2.2 were met at the time of OL issuance because all nearby facilities and hazardous materials stored onsite were identified and evaluated to confirm that they were not a hazard. Because there are no new manufacturing plants, chemical plants, refineries, storage facilities, mining and quarrying operations, military bases, missile sites, or oil and gas wells within 5 mi of VEGP which impact the original design conditions, VEGP conforms to SRP Section 2.2.1-2.2.2.

5.3.2.3.2 SRP Section 2.2.3, Evaluation of Potential Accidents

Sources of offsite accidents (stored chemical substances, explosives, flammable vapor clouds, potential hazards from major depots or storage areas, fires due to oil or gas pipeline rupture accidents, forest fires, fires due to accidents at industrial facilities, and missiles generated by events near VEGP) and onsite accidents (potential hazards from onsite storage tanks, forest fires, and fires due to onsite storage tank spills) were evaluated at the time of OL issuance. The criteria of SRP Section 2.2.3 were met because no potential accident was evaluated as posing a threat to VEGP due to the distances between nearby industrial facilities and VEGP and the types and quantities of hazardous materials stored at these facilities. Hazardous materials stored at the Savannah River Site which were previously unknown and unevaluated have been analyzed and determined to pose no threat to the safe operation of VEGP. No previously unevaluated materials are currently stored at VEGP. VEGP conforms to SRP Section 2.2.3.

5.3.2.3.3 SRP Section 3.5.1.5, Site Proximity Missiles (Except Aircraft)

The criteria of SRP Section 3.5.1.5 were met at the time of OL issuance because potential accidents which could produce missiles (explosions and flammable vapor clouds) were evaluated as not posing a threat to VEGP due to the distance between the nearby industrial facility and VEGP and the type and size of the hazardous materials stored at these facilities. The Savannah River Site is located 4.0 mi from the nearest VEGP safety-related structure and does not store materials capable of propelling a missile which could impact VEGP. Because there are no new industrial facilities in the vicinity of VEGP or significant developments which impact the original design conditions, VEGP conforms to SRP Section 3.5.1.5.

5.3.2.3.4 SRP Section 6.4, Habitability Systems

The criteria of SRP Section 6.4 were met at the time of OL issuance because the VEGP control room protection from the effects of toxic gases was in accordance with Regulatory Guide 1.78. Onsite and offsite sources of toxic gases were evaluated deterministically and shown that either the 8-h toxicity limit was not exceeded in the control room or that there was at least 2 min between detection of the toxic gas and reaching the short-term toxicity limit, such that operators had sufficient time to put on protective breathing apparatus. Previously unevaluated materials stored at the Savannah River Site were analyzed and pose no threat to VEGP. VEGP conforms to SRP Section 6.4.

5.3.3 CONCLUSIONS

The existing VEGP design is in conformance with the SRP criteria with regard to transportation and nearby facility accidents. No significant changes were identified which impacted the VEGP design. There are no potential vulnerabilities due to transportation or nearby facility accidents.

5.4 OTHERS

Pursuant to the guidelines presented in NUREG-1407 (Reference 5-1), VEGP does not need to address other external events. These events are lightning, severe temperature transients, severe weather storms, external fires (forest fires, grass fires), extraterrestrial activity (meteorite strikes, satellite falls), and volcanic activity.

REFERENCES

5-1. USNRC, NUREG-1407, "Procedural and Submittal Guidance for the Individual Plant Examination of External Events (IPEEE) for Severe Accident Vulnerabilities," June 1991.

5-2. USNRC, NUREG-75/087, "Standard Review Plan for the Review of Safety Analysis Report for Nuclear Power Plants," LWR edition, December 1975.

5-3. VEGP Final Safety Analysis Report, Rev. 3, Southern Nuclear Operating Company, December 1992.

5-4. USNRC, NUREG-1137, "Vogtle Safety Evaluation Report Related to the Operation of Vogtle Electric Generating Plant, Units 1 and 2," June 1985.

5-5. USNRC, NUREG-0800, "Standard Revew Plan for the Review of Safety Analysis Reports for Nuclear Power," LWR edition, June 1987.

5-6. Bechtel Power Corporation, Topical Report BC-TOP-3A, "Tornado and Extreme Wind Design Criteria for Nuclear Power Plants," Rev. 3, San Francisco, CA, August 1974.

5-7. USNRC, Generic Letter No. 89-22, "Potential for Increased Roof Loads and Plant Area Flood Runoff Depth at Licensed Nuclear Power Plants Due to Recent Change in Probable Maximum Precipitation Criteria Developed by the National Weather Service," October 19, 1989.

5-8. USNRC, Regulatory Guide 1.91, "Evaluations of Explosions Postulated to Occur on Transportation Routes Near Nuclear Power Plants," Rev. 1, February 1978.

5-9. USNRC, NUREG-0570, "Toxic Vapor Concentrations in the Control Room Following a Postulated Accidental Release," June 1979.

5-10. USNRC, Regulatory Guide 1.78, "Assumptions for Evaluating Habitability of a Nuclear Power Plant Control Room During a Postulated Hazardous Chemical Release," June 1974.

5-11. VEGP Emergency Plan, Rev. 19, Southern Nuclear Operating Company, January 1994.

5-12. USNRC, NUREG/CR-1748, SAND 80-2334, "Hazard to Nuclear Power Plants from Nearby Accidents Involving Hazardous Materials - Preliminary Assessment," May 1981.

6. LICENSEE PARTICIPATION AND INTERNAL REVIEW TEAM

6.1 INDIVIDUAL PLANT EXAMINATION OF EXTERNAL EVENTS PROGRAM ORGANIZATION

This section describes the organization of the Vogtle Electric Generating Plant (VEGP) Individual Plant Examination of External Events (IPEEE) program and delineates the areas of responsibility presented in figure 6.1-1.

The Southern Nuclear Operating Company (SNC) VEGP Project corporate office was responsible for the overall VEGP Individual Plant Examination (IPE) program. An engineer from the Nuclear Engineering and Licensing Department, Vogtle Project, was assigned to act as the IPE project engineer. The IPE project engineer served as the focal point for coordinating the IPEEE team activities with the plant, corporate office, architect engineer (A/E) support, Independent Review Group (IRG) activities, and SNC Technical Services (TS) Department. The team selection for the VEGP IPEEE was based upon expertise in probabilistic risk assessment (PRA) methodology, the VEGP IPE (Reference 6-1); seismic capability evaluations; fire protection; and VEGP operations, training, and maintenance.

The seismic analysis was performed by Southern Company Services, Inc. (SCS). SCS was selected based on their extensive experience in seismic analysis, experience with performance of seismic margins evaluations, and familiarity with VEGP as an A/E. The SCS Vogtle Project Support Group prepared the Safe Shutdown Equipment List (SSEL). SCS Nuclear Services performed the seismic margins analysis. This organization was able to draw upon the expertise gained from their work with the Georgia Power Company Plant Hatch pilot Electric Power Research Institute (EPRI)-sponsored seismic margins assessment (SMA) program.

The VEGP site personnel provided assistance in all aspects of the IPEEE preparation. The SSEL was prepared with the assistance of an SRO-qualified shift superintendent. The shutdown paths were reviewed by both operations and training personnel to verify that the SSEL success paths are compatible with VEGP procedures and training. The site staff also provided assistance with both seismic and fire walkdowns. The VEGP Fire Protection Team provided information for the fire risk scoping study issues, as well as details concerning fire training and plant protection systems.

SNC TS provided the IPEEE fire coordination activities with PLG, Inc., and Westinghouse. SNC TS performed the quantifications and assigned the top event impacts utilizing the IPE PRA model. PLG performed the fire assessment and containment analysis. Westinghouse provided an independent review of the PRA model top event impacts and calculations of conditional core damage frequency for each fire zone. For events other than fire and seismic, SNC TS performed the reviews. SNC Environmental performed the hazards analysis for unanalyzed chemicals identified in the IPEEE process. The transportation and nearby facility accident evaluation was performed by SNC TS. (TS also performed this evaluation for Plants Hatch and Farley.) Active interface between SNC and the contractors ensured the effective transfer of knowledge and insights gained from the review.

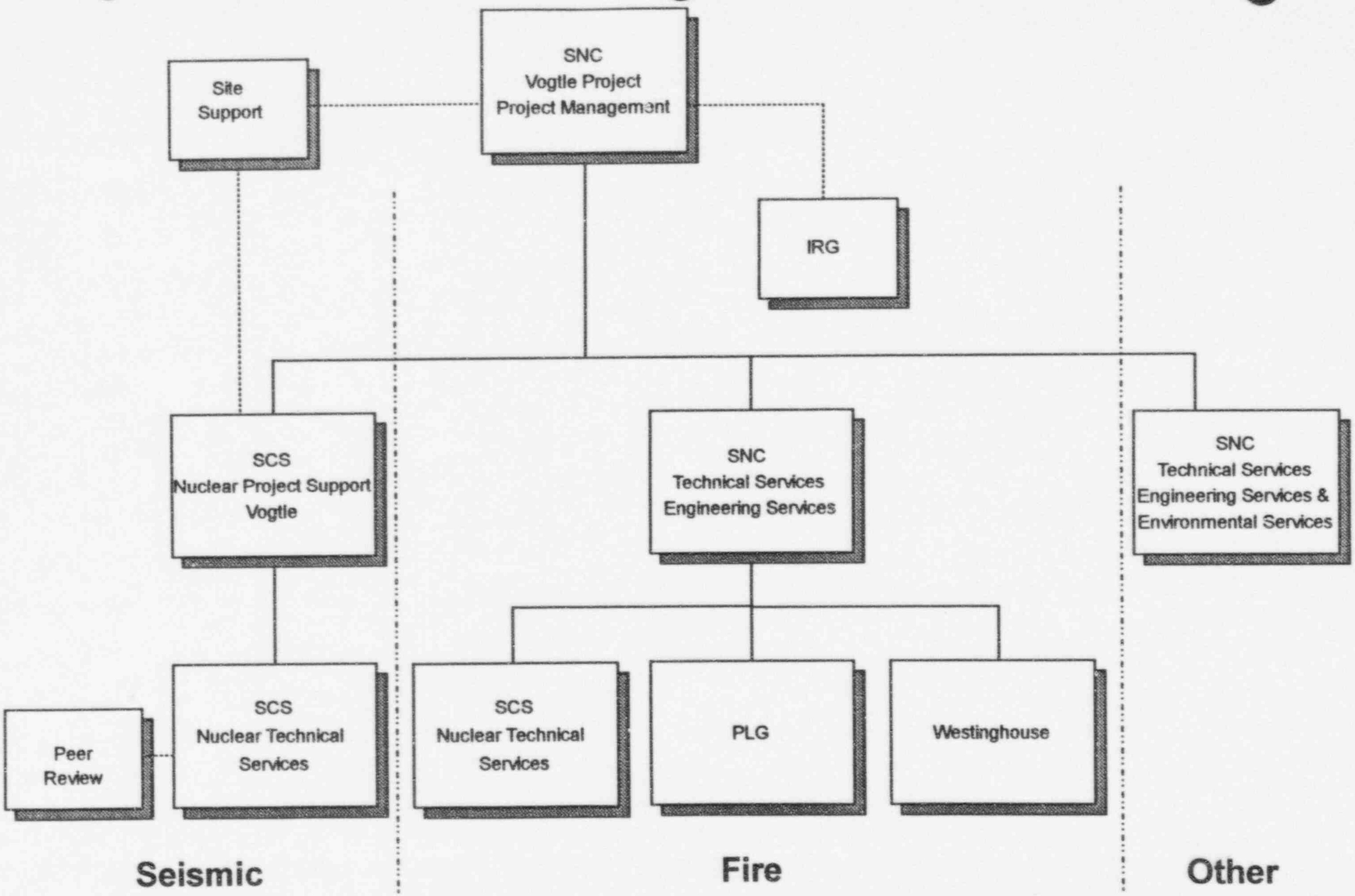


Figure 6.1-1 VEGP IPEEE Organization

6.2 COMPOSITION OF REVIEW TEAM

Seismic

The seismic margins methodology developed by the Electric Power Research Institute (EPRI) is a well-defined process which requires the utilization of specially trained personnel. The application of an independent expert peer review process was therefore deemed more appropriate than a review by an independent review group. The selection of the shutdown paths was made by system engineers in conjunction with operations staff input. The results were then reviewed by the Training Department to verify that the paths were consistent with plant procedures and training.

The independent seismic review was performed by Dr. John Reed of Jack R. Benjamin and Associates. Dr. Reed was a key author of the final version of the EPRI Seismic Margin Assessment (SMA) Methodology and taught the Add-On Seismic IPE Training Course along with Dr. Robert P. Kennedy. Dr. Reed's review of the VEGP IPEEE-Seismic evaluation consisted of a 1-day plant walkdown for each unit, a followup meeting at the Southern Company Services, Inc. (SCS), office in Birmingham, Alabama, and a review of chapter 3 of this report. During the walkdown, Dr. Reed inspected a large cross-section of Safe Shutdown Equipment List (SSEL) equipment and raceways, placing particular emphasis on outliers identified by the Seismic Review Teams (SRTs). Dr. Reed reviewed the Seismic Evaluation Work Sheets (SEWS) and associated calculations, etc., and assessed the SRTs' capability to adequately perform the SMA walkdown evaluations. The results of Dr. Reed's walkdowns are documented in Reference 6-2. At the followup meeting at SCS, Dr. Reed reviewed outlier resolutions, followup items from the plant walkdown, and other items of interest. The results of the followup meeting, as well as the overall conclusion of the review, are documented in Reference 6-3.

The mechanical and electrical systems work consisted of developing the safe shutdown paths and the SSEL by SCS systems engineers. The independent review of these items was performed by other qualified SCS systems engineers.

Fire

The fire probabilistic risk analysis (PRA) preparation and conclusions were reviewed by the IRG. It was decided that this type of review was most appropriate since the results provide an insight into relative plant vulnerabilities as a result of a fire. The IRG members were selected based upon their expertise in fire equipment, training, and protection activities at VEGP. Since the PRA aspects of the analysis relied on the PRA developed and reviewed as part of the IPE process, no additional PRA developmental review was deemed necessary. The application of the PRA model with respect to top event impacts and conditional core damage frequencies was, however, independently reviewed by the model developer, Westinghouse. The IRG was composed of the following personnel:

- Manager, Engineering Services, Southern Nuclear Operating Company (SNC).

- Supervisor Mechanical, Engineering Support Department, GPC.

- Supervisor, Operations Department, GPC.

- Team Leader, Fire Protection, Maintenance Department, GPC.

- Fire Training Instructor, Training Department, GPC.

Topics which were presented and reviewed by the IRG included the following:

- Data Collection.
  - Fire initiation frequency.
  - Equipment and cable location.
  - PRA interface.
  - Site visits.

- Screening Process.

- Review of Results.

IRG meetings were held in March 1994, May 1995, and October 1995. The meetings were held at the site and conducted in an open format. Attendance therefore included more than those assigned to the IRG and included managers and superintendents from Operations, Engineering, and Technical Support.

In addition to the IRG reviews, the SNC Vogtle Project staff conducted interim reviews of the fire zone screening process. This provided a realistic check of top event impacts and revealed additional insights on cable-to-system interaction.

6.3 AREAS OF REVIEW AND MAJOR COMMENTS

The technical review of the Vogtle Electric Generating Plant (VEGP) Individual Plant Examination for External Events (IPEEE) included all aspects of the analysis. The IPEEE review philosophy was to incorporate reviews by site and corporate personnel at intermediate stages of the analyses to facilitate the addition of comments and provide more exposure to the IPEEE process, as opposed to reviewing only the completed products. Many IRG comments and questions were editorial or were related to understanding the methodology and assumptions. However, substantive comments were received on all IPEEE topics.

For example, a detailed review of the equipment lists against the scenario procedure progression for the seismic margins assessment success paths resulted in component additions and deletions. The Vogtle Project staff review revealed that a fire scenario involving a non-Class 1E bus could have an impact on the loss of off-site power. This bus was not included in the original list of equipment since it was not deemed significant in the probabilistic risk assessment model and also not included in the fire event safe shutdown calculation.

6.4 RESOLUTION OF COMMENTS

During the IRG meetings and during the staff reviews, a technical expert responsible for the preparation of the evaluation was available to address comments during the meeting. In some cases, the comments resulted in editorial report changes; in others, revisions were made to calculations or additional documentation was gathered to support report conclusions. The final Vogtle Electric Generating Plant Individual Plant Examination for External Events report reflects the resolution of comments.

REFERENCES

6-1. VEGP Internal Plant Examination, Southern Nuclear Operating Company.

6-2. Letter from Dr. John Reed, Jack R. Benjamin & Associates, Inc., to Mr. Keith D. Wooten, Southern Company Services, Inc., Vogtle Units 1 and 2 Seismic Evaluation Peer Review, JBA Project No. 191-020, Plant Walkdown Status Report, January 10, 1994.

6-3. Letter from Dr. John Reed, Jack R. Benjamin & Associates, Inc., to Mr. Keith D. Wooten, Southern Company Services, Inc., Vogtle Units 1 and 2 Seismic Evaluation Peer Review, JBA Project No. 191-020, Final Peer Review Report, January 5, 1995.

7. PLANT IMPROVEMENTS AND UNIQUE SAFETY FEATURES

Because of the design of the Vogtle Electric Generating Plant (VEGP) with regard to external hazards, and based upon the extensive evaluation summarized in this report, no fundamental weakness or vulnerability has been identified regarding severe accidents.

Individual Plant Examination for External Events-Identified Plant Improvements

No major plant modifications have been deemed necessary due to the results of the VEGP IPEEE. Open items of a minor nature were observed and noted during the seismic walkdowns. These items are recorded in Appendixes 3.J and 3.K. The fire analysis revealed no major contributors to the core damage frequencies, and fires represented only 22.9 percent contribution to the total core melt. Therefore no plant or procedure enhancements were identified resulting from fire events. Other external events were successfully screened against the NUREG-75/087 criteria. This screening revealed no potential vulnerabilities.

Unique Safety Features

A number of important safety features contribute to the low level of risk at VEGP. While most of these safety features are shared by plants of a similar vintage, features that are more or less unique to VEGP include the following:

Train Orientation

VEGP is designed with two-train redundancy, with equipment redundancy within each train. The emergency onsite power supply consists of two diesel generators and two 4.16-kV buses. The nuclear service cooling water system consists of two redundant trains, each of which contains three 50-percent capacity pumps. The component cooling water (CCW) system is similarly configured.

Reactor Coolant Pump Qualified O-Rings

Units 1 and 2 have installed the qualified O-rings. These O-rings withstand high temperatures such as those related to loss of cooling. Therefore, the leakage from these seals during a loss of cooling (such as the loss of auxiliary component cooling water (ACCW) event or a station blackout (SBO) event is minimal and constant. Based on this feature (credited in the Internal Plant Examination [IPE]), reactor coolant pump (RCP) seal loss-of-coolant accident (LOCA) is a relatively minor issue and is not a dominant contributor to the VEGP IPE and IPEEE.

Augmented Offsite Power Source

An additional offsite power source, the standby auxiliary transformer (SAT), was added to the low-voltage switchyard during the Fall 1994 and Spring 1995 outages. The SAT serves as a swing offsite power source capable of connecting to any one of the 4.16-kV, Class 1E safety buses on either unit. The high side of the SAT is connected, by underground cable, to the combustion turbine (CT) switchyard of Georgia Power Company's Plant Wilson. The underground cable for the SAT is normally fed from the offsite grid, but can be fed from the combustion turbines of Plant Wilson if a blackout occurs of all offsite grid connections to Plant Wilson. Plant Wilson is a combustion turbine plant (six CTs) adjacent to the VEGP boundary and is under the direct authority of VEGP management.

Refueling Water Storage Tank

The refueling water storage tank (RWST) is the source of water for the safety injection (SI), centrifugal charging, residual heat removal (RHR), and containment spray pumps following an accident. The VEGP RWST is substantially larger that that of other plants; it has a capacity of 715,000 gal. This capacity provides a longer injection time and allows more time for the semiautomatic switchover from injection to recirculation.

High-Pressure Emergency Core Cooling System

The high-pressure emergency core cooling system (ECCS) consists of four injection pumps: two centrifugal charging pumps and two SI pumps. During events in which the high-pressure ECCS is required, any one of these four pumps can supply the required flow. This high level of redundancy provides added protection.

Main Steam Isolation Valves

VEGP has two main steamline isolation valves (MSIVs) and two main steam isolation bypass valves per main steamline rather than the typical single MSIV and bypass valve per steamline. The valves are situated very close to the containment building. The redundancy of the MSIVs and bypass isolation valves in each line provides positive isolation during possible steamline break situations either upstream or downstream of the valves. This reduces the contribution of secondary side breaks to the overall core damage frequency and increases the probability of containment isolation.

Main Steam Atmospheric Relief Valves

The main steam atmospheric relief valves (ARVs) are electrohydraulic and remove steam after the reactor is tripped if the condenser steam dumps are unavailable. The ARVs are also used during SBO conditions to cool down the primary and secondary systems. The valves are supplied with hydraulic stations used to open the valves locally from the floor of the main steam valve room. These valves are classified as safety related at VEGP.

Auxiliary Feedwater System

The auxiliary feedwater (AFW) system consists of two motor-driven pumps and one turbine-driven pump (TDP). Each motor-driven pump supplies water to two steam generators; the TDP is aligned to feed all four steam generators. The turbine-driven AFW pump train is supported by dc-powered motor-operated valves, is completely independent of the motor-driven AFW pumps, and is not dependent on instrument air. All three pumps can be aligned to take suction from either of two condensate storage tanks, each of which contains a minimum of 340,000 gal of water.

Pressurizer Power-Operated Relief Valves

The two pressurizer power-operated relief valves (PORVs) are solenoid-operated valves and are not dependent on an instrument air system (this is not the case at most other plants). This provides the capability to use the pressurizer PORVs on loss of instrument air events, and especially loss-of-offsite-power events.

Residual Heat Removal Suction Isolation Valves

The RHR system takes suction from the reactor coolant system hot legs by two suction lines. These lines are isolated from the hot leg by a series of two suction isolation valves on each loop. One valve in each suction line is supplied power from 480-V-ac power while the other valve in the suction line is a 480-V-ac valve supplied by an inverter which is powered by 125-V-dc power. This redundancy provides additional protection against the occurrence of an interfacing system LOCA.

Electrical dc Power Systems

The dc power system provides dc control and motive power for vital equipment. There are four safety-related 125-V-dc systems per unit. Each system consists of a battery, two 100-percent battery chargers, inverters, and distribution panels. The availability of redundant battery chargers and the redundancy of the system reduce the risk to the plant.

Component Cooling Water/Auxiliary Component Cooling Water Systems

The CCW system is a two-train closed loop cooling system with three 50-percent capacity pumps on each train that supplies cooling water to the spent fuel pool cooling heat exchanger, one RHR heat exchanger, and its associated RHR pump seal cooler. The ACCW system is a closed loop cooling system with two 100-percent capacity pumps that provides cooling to the reactor auxiliaries (specifically the RCP motor coolers, RCP thermal barriers, RCP bearing lube oil coolers, and the seal water heat exchanger). The ACCW system is not required for safe shutdown. Therefore, in the event of failure of the ACCW system and an RCP seal LOCA, the CCW system is still available to provide decay heat removal (via the RHR heat exchanger) following the LOCA. This separation of function reduces the core damage frequency for VEGP.

Control Room Habitability Systems

The control room emergency ventilation and air-conditioning system which provides heating, ventilation, and air-conditioning to the control room (consisting of the Unit 1 and Unit 2 control rooms) is divided into two redundant trains (for each unit). Each train, which can cool both Unit 1 and Unit 2, consists of a moisture eliminator, an electric preheater, a cooling coil, air filters, and a fan. Because of the high redundancy of this system, cooling of this room and the equipment in this area (such as control panels and relays) is not a concern.

Normal and Essential Chilled Water Systems

The air handling units of a majority of the engineered safety features (ESF) rooms (including the battery rooms, switchgear rooms, control room, and ESF pump rooms) have two sets of cooling coils: one is supplied by the normal chilled water system, and the other is supplied by the essential chilled water system. This level of redundancy reduces the risk of losing vital equipment due to the loss of room cooling.

Compartmentation and Redundant Safety Trains Separation

The extensive use of compartmentation in the design of VEGP allows redundant safety components to be located in separate fire zones or fire areas. This is clearly a risk-reduction design feature. The functions of the redundant safety components can only be disabled by the unlikely event of fires initiated at different plant locations simultaneously.

The compartmentation design approach also allows many nonsafety-related fire zones to be screened in the early phase of the analysis. Thus, more effort can be spent in the analysis of the potentially risk-significant fire zones.

Few Prior Actual Fire Incidents

In the fire frequency assessment step, the Bayesian data update techniques were used. The approach uses both generic and plant specific experience in estimating the frequency of fire occurrence at VEGP. The relatively fewer number of actual fire events in VEGP (two specialized events) during the 5.6 years of operating experience resulted in a relatively lower fire-initiation frequency for most of the component categories (section 4.1.4). This low fire occurrence rate is due to good house-keeping procedures, training programs, and the risk-awareness culture at VEGP.

Spatial Separation of Fire Hazards and Safety-Related Components

Fire hazardous materials are stored away from safety-related plant components. Thus, fires initiated from those materials pose insignificant risk to the plant operation.

Automatic Fire Suppression System

A high number of fire zones are protected by preaction sprinkler system or halon systems to reduce the fire exposure and the potential of fire spreading to adjacent fire zones.

Protection Features Against Inadvertent Actuation of Sprinkler System

In addition to the use of preaction sprinkler system with separate heads to protect against inadvertent actuation of the water suppression system, most electrical cabinets are installed with spray shield above the cabinets. This can protect the cabinets from spurious water spray.

Similarity Between the Two Units

The design basis and layout of Unit 1 and Unit 2 are essentially the same. This allows the fire brigade to share experience and response pathways to similar fire zones of the two units.

Containment Design

The design of the VEGP containment reduces the frequency and magnitude of potential releases. The large, dry containment provides for approximately 2.76 million ft^3 of free volume. A containment capacity evaluation revealed that the containment can withstand pressures more than twice the design pressure. The structural strength and volume features allow the containment to withstand a large mass and energy release without failing.

It is worth noting that the configuration of the reactor cavity, instrument tunnel, and seal table enclosure provides an effective structural barrier to debris dispersal from the cavity following a high-pressure vessel blowdown. However, the containment design does not facilitate flooding of the reactor cavity. Thus, the majority of VEGP core damage sequences would be expected to have significant core-concrete attack.

The robust VEGP containment would remain intact for at least 48 h before failure due to overpressure or basement meltthrough. Thus, most of the fission products would be contained for an extended period of time, allowing settling and impaction to reduce the airborne fission product inventory available for release should the containment eventually fail.

8. SUMMARY AND CONCLUSION

Vogtle Electric Generating Plant (VEGP) has performed and completed the Individual Plant Examination for External Events (IPEEE) including all credible external events. This study was performed using the Electric Power Research Institute (EPRI) seismic margins assessment (SMA) methodology, a fire probabilistic risk assessment (PRA), and a basic screening approach, defined in NUREG-1407, for other external events. The major finding from this examination is that there are no significant vulnerabilities to severe accident risk from external events.

8.1 SEISMIC ANALYSIS

The SMA review level earthquake (RLE) for VEGP is a 0.3 g peak ground acceleration (pga) NUREG CR-0098 spectrum. VEGP structures and equipment were designed for a safe shutdown earthquake (SSE) defined by a Regulatory Guide 1.60 spectrum tied to a pga of 0.2 g. However, due to conservatisms applied to the demand and/or evaluation techniques, most of the Seismic Category I structures and equipment are designed and qualified for at least 0.3 g pga capacity.

VEGP used a very thorough quality control program to ensure that the plant was constructed in accordance with the design requirements. In addition, a number of finalization programs were implemented prior to plant operation to ensure the adequacy of the as-built condition of the plant for areas such as hazards, raceway separation from hot pipes and equipment, equipment qualification, seismic separation, etc. The thoroughness of the design and construction process for VEGP, as well as the high level of conservatism inherent in the design and qualification of structures and equipment, was highly evident during the VEGP SMA.

The SMA Seismic Capability Walkdowns included a check for seismic capacity, anchorage (if applicable), and seismic spatial interaction for each component on the Safe Shutdown Equipment List (SSEL). Effects of spray, flooding, and cascade onto equipment caused by possible pipe or vessel rupture were also considered. Pending resolution of open items described in Appendixes 3.J and 3.K, all 1268 Unit 1 and 2 SSEL components were demonstrated to possess a high-confidence-low-probability-of-failure (HCLPF) capacity of at least 0.3 g pga.

Equipment required to prevent early containment failure is functionally included on the SSEL. In addition, containment penetrations in which the containment isolation valves are not already functionally included on the SSEL, or for which no other credible barrier exists, the associated containment isolation valves are included on the SSEL for containment isolation purposes. Pending resolution of open items described in Appendices J and K, all the containment isolation valves included on the SSEL were demonstrated to possess a HCLPF capacity of at least 0.3 g pga.

Seismic Category I structures housing SSEL equipment, Seismic Category II structures that could affect Seismic Category I structures housing SSEL equipment, the nuclear steam supply system (NSSS) primary coolant system, NSSS supports, reactor internals, control rod drive housings and mechanism, pressure vessels, and HVAC ducting and dampers were all screened out for a HCLPF capacity of at least 0.3 g pga.

Representative distribution systems such as Seismic Category I piping, cable trays, and electrical conduits were evaluated by each seismic review team during the walkdown and were judged to have a HCLPF capacity of at least 0.3 g pga.

Buried structures and piping, including the diesel fuel oil storage tanks, buried electrical duct banks, and Category I tunnels, were evaluated for the effects of ground shaking and differential displacements at penetrations into buildings and structures. This evaluation shows that buried structures and piping have a HCLPF capacity of a least 0.3 g pga.

A review of VEGP design documents revealed that there are no low-ruggedness relays used at VEGP for safety-related equipment.

Based on the results of the SMA evaluations described in this report, along with the conservative seismic design of the plant, VEGP has a HCLPF capacity of at least 0.3 g pga.

8.2 FIRE ANALYSIS

The internal fire analysis used a phased PRA approach to systematically evaluate all plant locations. The locations that have no or negligible fire risk were screened out at the early phase of the analysis. The relatively more risk significant locations were analyzed and screened qualitatively and quantitatively using conservative criteria in the spatial interactions analysis phase. Detailed analysis was then performed to assess the fire risk impact of the locations that were retained from the spatial interactions analysis screening.

The fire PRA provided meaningful insights into the overall risk of fire when compared to the total risk associated with the internal event core damage frequency (CDF). This risk totaled 22.7 percent of the internal events CDF which is 4.45E-5 per year. The rooms which provided the highest risk contribution included the control room, the 4.16-kV switchgear rooms, the train A lower cable spreading room, the train B electrical penetration room, and the main level A east-west corridor/cable chase in the control building. These six areas totaled almost 12 percent of the internal CDF or approximately 60 percent of the fire-induced CDF.

The fire assessment did not identify any unique containment failure modes or vulnerabilities to early containment failure. A penetration-by-penetration review revealed that VEGP is not susceptible to containment isolation failures due to internal plant fires. Also, even a conservative estimate for the fraction of the fire-initiated CDF that involves containment bypass is small. Containment performance is not significantly different than that identified in the IPE report plant damage states.

The fire risk impact for VEGP is consistent with the fire risk evaluated in the previous fire PSAs for PWR plants (see Reference 4-2 in chapter 4). Due to the relatively low fire risk contribution, no risk management options were necessary.

8.3 HIGH WINDS, FLOODS, TRANSPORTATION AND NEARBY FACILITY ACCIDENTS, AND OTHER EXTERNAL HAZARDS

A review of the pertinent sections of the VEGP Final Safety Analysis Report confirmed the VEGP-specific hazards data and licensing bases regarding high winds, floods, transportation, and nearby facility accidents, and other external hazards. Because both units of VEGP were granted operating licenses within the last 10 years based on the NRC Safety Evaluation Report NUREG-1137, using the Standard Review Plan (SRP) NUREG-0800, this determination of conformance was a straightforward verification.

VEGP design change administrative controls provide procedures for the preparation of safety and hazards evaluations to assure that all significant plant design changes implemented since operating license issuance were reviewed against the SRP criteria. In addition, a site walkdown confirmed the plant design. For hazards originating from transportation and nearby facilities which are outside of the VEGP owner controlled area, recent data revealed no impact on the original design conditions.

The other external hazards considered in this evaluation was the new external flooding criteria presented in Generic Letter 89-22 by which the NRC adopted the latest National Weather Service probable maximum precipitation (PMP) criteria for future plants. A footnote to this Generic Letter indicated VEGP fully met the new PMP criteria.

Based on the above, it was concluded that VEGP conformed to the SRP criteria and no potential vulnerabilities due to external events were revealed.