

Report 91C2687.A46

**USNRC USI A-46 Resolution
Seismic Evaluation Report
Monticello Nuclear Generating Plant**

Prepared for

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List of Acronyms

CB	Control Building
CEA	Concrete Expansion Anchor
EPRI	Electric Power Research Institute
GERS	Generic Equipment Ruggedness Spectra
GIP	Generic Implementation Procedure for the Seismic Verification of Nuclear Plant Equipment
GL	Generic Letter
GRS	Ground Response Spectrum
IAEA	International Atomic Energy Agency
IPEEE	Individual Plant Examination for External Events
FRS	Floor Response Spectra
MNGP	Monticello Nuclear Generating Plant
LAR	Limited Analytical Review
MCC	Motor Control Center
OSVS	Outlier Seismic Verification Sheet
PASS	Plant Area Summary Sheet
PSD	Power Spectral Density
S&A	Stevenson & Associates
SCE	Seismic Capability Engineer
SEWS	Screening Evaluation Work Sheet
SQUG	Seismic Qualification Utility Group
SRT	Seismic Review Team
SSE	Safe Shutdown Earthquake
SSEL	Safe Shutdown Equipment List
SSER	Supplemental Safety Evaluation Report
SVDS	Screening Verification Data Sheet
USI	Unresolved Safety Issue
NRC	Nuclear Regulatory Commission
NSP	Northern States Power Company
ZPA	Zero Period Acceleration

1. Introduction and Seismic Verification Methodology

1.1 Introduction

This report provides the documentation of the seismic adequacy evaluations performed at Northern States Power Company's Monticello Nuclear Generating Plant (MNGP) for the resolution of Unresolved Safety Issue A-46, "Seismic Qualification of Equipment in Operating Plants". USI A-46 was issued by the United States Nuclear Regulatory Commission in December, 1980 to address the concern with the seismic adequacy of mechanical and electrical equipment in older nuclear power plants. This report describes the methodology used for and the results of the seismic reviews of active mechanical and electrical equipment, selected tanks and heat exchangers, and electrical raceways.

1.2 Seismic Verification Methodology

Utilities affected by USI A-46 formed the Seismic Qualification Utility Group (SQUG) in 1982 to develop a consistent industry approach for resolving USI A-46. SQUG utilities, including NSP, with the technical and financial assistance of the Electric Power Research Institute (EPRI) conducted research and studies regarding this issue in order to formulate a thorough and reasoned program to resolve the identified concern. In February, 1987, the NRC issued Generic Letter 87-02, "Verification of Seismic Adequacy of Mechanical and Electrical Equipment in Operating Reactors, Unresolved Safety Issue (USI) A-46," requesting USI A-46 licensees to commit to a detailed approach for resolving USI A-46 [1].

Subsequently, further research conducted by SQUG (and its contractors) and reviewed by the NRC staff resulted in a detailed procedure developed by SQUG called the "Generic Implementation Procedure (GIP) for Seismic Verification of Nuclear Plant Equipment" [2]. Specifically, the NRC staff reviewed Revision 2 of the GIP and accepted (with provisos) the approach in *Supplement No. 1 to Generic Letter (GL) 87-02 that Transmit Supplemental Safety Evaluation Report No. 2 (SSER #2) on SQUG Generic Implementation Procedure, Revision 2 as Corrected on February 14, 1992 (GIP-2)* [3]. This GIP version and the clarifications, guidance and additional requirements provided by the NRC in SSER #2 are the basis for the seismic evaluation of mechanical and electrical equipment at Monticello for resolution of USI A-46. The GIP Revision 2 referred to as GIP-2 by the NRC is referred to as the GIP in this report.

Separate, but related issues pertaining to methods of analysis for above-ground flexible tanks identified in USI A-40, "Seismic Design Criteria" [4], and seismic adequacy of proximity items above and around important-to-safety equipment identified in USI A-17 [5] are explicitly addressed and resolved by implementation of the GIP.

The GIP approach relies on developing a safe shutdown equipment list (SSEL) which identifies equipment needed to achieve and maintain safe hot shutdown conditions as defined by a nuclear power plant's Technical Specifications. This equipment is then seismically reviewed in accordance with the GIP methodology. By means of plant walkdowns to specifically observe and evaluate each equipment item on the SSEL, an assessment can be made concerning its seismic adequacy. By evaluating seismic demand criteria, selected caveats to ensure similarity to the GIP equipment

classes, an anchorage evaluation, and a seismic interaction proximity assessment, the trained walkdown engineer can be satisfied that the equipment will survive the plant's design basis seismic event. The basis for this approach is rooted in detailed observations of representative, if not identical, equipment in industrial facilities that have survived earthquakes of similar or greater magnitude in California and throughout seismically active regions around the world. Each equipment assessment is documented on a Screening Evaluation Work Sheet (SEWS). Any deficiencies are documented on an Outlier Seismic Verification Sheet (OSVS).

1.3 GIP Version and Deviations from the GIP

Evaluations were performed using Revision 2 of the GIP, corrected February 14, 1992. There were no significant or programmatic deviations from the GIP in performing the seismic adequacy evaluations documented in this report.

1.4 Report Organization

Section 2 of this report discusses the development of the safe shutdown path and the resulting Safe Shutdown Equipment List (SSEL) for Monticello. The SSEL is provided in Appendix A. The safe shutdown seismic demand is discussed in Section 3 and response spectra are contained in Appendix B. The Monticello equipment walkdown and screening results for active equipment are provided in Section 4. These assessments resulted in summary level screening verification data sheets, SVDS, contained in Appendix D.

Section 5 discusses the results of the Tanks & Heat Exchangers assessment. Cable Tray & Conduit Raceway assessments are provided in Section 6. Sections 7 and 8 provide a listing of identified outliers, the issues involved, and their proposed resolution.

2. Safe Shutdown Path

This section describes the assumptions used to select the safe shutdown path. This system also describes the systems used in the safe shutdown path and how they meet the USI A-46 requirements. The four required functions of reactivity control, pressure control, inventory control and decay heat removal are covered.

2.1 Description of Safe Shutdown Path

The purpose of this section is to document the selection of equipment to provide a safe shutdown path for seismic evaluation at Monticello Nuclear Generating Plant (MNGP) using the Generic Implementation Procedure (GIP) developed by the Seismic Qualification Utility Group (SQUG).

This evaluation is required to address NRC unresolved safety issue (USI) A-46 "Seismic Qualification of Equipment in Operating Plants" set forth in NRC Generic Letter 87-02. The objective of the equipment selection process is to identify equipment that is necessary to bring the plant to and maintain it in a hot shutdown condition during the first 72 hours after a Safe Shutdown Earthquake (SSE) with or without offsite power.

MNGP is a single unit General Electric Boiling Water Reactor, owned and operated by Northern States Power Co. The unit has been in commercial operation since June 30, 1971.

2.2 Scope

MNGP used the Generic Implementation Procedure [2] as a basis for developing the Safe Shutdown Equipment List (SSEL) [6]. The SSEL will provide a primary and alternate safe shutdown path to support the four safe shutdown functions identified in Section 2.4. (Section 1.3.2 of GIP REV 2) In addition to those systems directly required to support these functions, any support systems required for safe shutdown are also identified.

2.3 General

The GIP is used as a basis to develop the Safe Shutdown Equipment List for MNGP. This list is a composite of all equipment in the primary and alternate systems that is required to meet the four safe shutdown criteria. This list is identified as the SSEL. In an attempt to maintain the list as simple as possible yet meet all the functional requirements, the safe shutdown path parallels the Appendix R pathway. The SSEL is provided in Appendix A.

2.3.1 Key Assumptions

The GIP provides utilities with a plan, methodology and supporting information to use in evaluation of safe shutdown paths. As a part of this document, some basic assumptions are documented to provide consistent evaluations. The following assumptions were used as a basis for the MNGP evaluation.

1. Offsite power may not be available for up to 72 hours following the earthquake.
2. No other extraordinary events or accidents (e.g., LOCAs, HELBs, fires, floods, extreme winds, sabotage) are postulated to occur other than the SSE and loss of offsite power.
3. If achieving and maintaining safe shutdown is dependent on a single item of equipment whose failure to perform its active function, either due to seismic loads or random failure, would prevent accomplishment of any of the four essential safe shutdown functions, an alternative method to safe shutdown by use of a different path or a different item of equipment in the same path will be identified for seismic evaluation which is not dependent on that item of equipment.
4. Where operator actions are relied upon to achieve and maintain safe shutdown, the licensee will ensure that appropriate procedures are available which consider the time within which actions must be taken, and that operators have been trained in the use of these procedures.
5. The equipment to be identified for seismic evaluation will include:
 - Active mechanical and electrical equipment which operates or changes state to accomplish a safe shutdown function.
 - Active equipment in systems which support the operation of identified safe shutdown equipment; e.g., power supplies, control systems, cooling systems, lubrication systems.
 - Instrumentation needed to confirm that the four safe shutdown functions have been achieved and are being maintained.
 - Instrumentation needed to operate the safe shutdown equipment.
 - Tanks and heat exchangers used by or in the identified safe shutdown path.
 - Cable and conduit raceways which support electrical cable for the selected safe shutdown equipment.
6. The following equipment types need not be identified for seismic evaluation.
 - Equipment which could operate but does not need to operate and which, upon loss of power, will fail in the desired position or state. This type of equipment is defined as passive for the purposes of this procedure.
 - Passive equipment such as piping; filters; and electrical penetration assemblies.
 - Self-actuated check valves and manual valves.
 - Major items of equipment in the nuclear steam supply system, their supports, and components mounted on or within this equipment such as the reactor pressure vessel, reactor fuel assemblies, reactor internals, control rods and their drive mechanisms, and reactor coolant piping.
7. The plant should be capable of being brought from normal operating conditions to a safe shutdown condition following a design basis safe shutdown earthquake (SSE).

Safe shutdown is defined as bringing the plant to and maintaining it in, a hot shutdown condition during the first 72 hours following an SSE. The hot shutdown condition for Monticello is Reactor coolant temperature greater than 212° F and reactor mode switch not in RUN.

8. Systems selected for accomplishing safe shutdown should not be dependent on a single item of equipment whose failure, either due to seismic loads or random failure would preclude safe shutdown.

An equipment failure is defined as the failure of the active functional capability of the equipment, not its structural integrity. Evaluations at Monticello assumed single active failure to develop alternative shutdown paths.

9. Procedures should be in place for operating equipment selected for safe shutdown and operators should be trained in their use. At Monticello, the SSEL is consistent with the plant specific Emergency Operating Procedures (EOPs).

2.3.2 Operations Review of SSEL

A comprehensive review of the Monticello SSEL has been performed by the Operations Department. A three part review was completed. Part one validated that the identified flow paths would fulfill the four safe shutdown functions, part two performed a "desk top" review of the SSEL against plant operating procedures, and part three performed a review by observation of a simulator scenario.

Part One Review:

Operations reviewed the methodology which identified the major systems that accomplish the four safe shutdown functions following a SSE. This review concluded that the plant could be brought to a hot shutdown condition and maintained there during the 72 hours following a SSE using those identified systems.

Part Two Review:

A "desk top" review of the SSEL was performed by the Operation Department to confirm compatibility with Monticello's normal and emergency operating procedures. This review concluded that Operations personnel will be able to establish and maintain Monticello in a safe shutdown condition, using the components identified in the SSEL by following the existing symptom-based Emergency Operating Procedures (EOPs), the Abnormal Procedures (C.4), the Annunciator Response Procedures (ARPs), and the Operations Manual (B Manual). No procedure changes were identified. This review also verified that no new operator tasks were identified with respect to relay chatter.

Part Three Review:

A simulator scenario was developed as a secondary review to confirm compatibility of plant procedures with the SSEL during a SSE coincidental with a loss of off-site power.

An observation of a simulator scenario involving a SSE coincidental with a loss of off-site power was conducted. The operating crew on the simulator consisted of licensed operators and training instructors. No problems were encountered with plant operating procedures. During follow-up interviews with participants no new concerns were identified.

In conclusion, the Operations Department has confirmed that the SSEL is compatible with existing plant operating procedures

2.4 Safe Shutdown Equipment List (SSEL)

To develop the SSEL for Monticello, a safe shutdown strategy using the systems identified for Appendix R was chosen. This minimizes the size of the SSEL while taking full advantage of safety related systems. Those components required to maintain the integrity of the reactor coolant system boundary, shut down the reactor and maintain it in a safe shutdown condition are included, whether safety or non-safety related. Those components of support systems for the shutdown path and alternates are also included.

No specific operator actions have been identified other than those already called out in existing plant procedures. The Operators are expected to respond to existing plant conditions utilizing the EOPs, abnormal and annunciator response procedures. No evaluation of inadvertent start of equipment has been made since it is anticipated that the Operators can take action to control those systems or components based on direction in existing plant procedures.

2.4.1 Methodology for SSEL Development

Those systems required to perform the safe shutdown function were identified as the primary system. To meet the requirements of the GIP, an alternate component or system was then identified for each function. Controlled P&IDs were reviewed to identify required support systems and components.

2.4.2 Reactivity Control

Adequate shutdown margin will be established using the Control Rod Drive (CRD) system. The Control Rod Drive system is considered single failure proof, and an alternate is not identified. Monticello is already analyzed for a single failure, which is a single rod stuck out. The reactor can be maintained shutdown at any time during the cycle with the remaining rods. Certain functions within the system, such as isolation of the Scram Discharge Volume, have identified primary and alternate components to provide for single failure of the primary path of these support systems. Components of the Reactor Protection system which would give a required manual or automatic Scram signal were included in the evaluation. It is expected that the operator will input a manual Scram if an automatic signal is not generated.

The Reactor Protection system and the CRDs do not require electrical support since these are designed to de-energize to function.

Since the Control Rod Drives do not require an alternate pathway, the Standby Liquid Control system (Boron Injection) is not part of a primary or alternate pathway.

Monitoring reactivity in the reactor will be performed by the Rod Positioning Indicating System (RPIS). Monitoring reactivity by the use of RPIS has been addressed under Regulatory Guide 1.97. The resolution of RG 1.97 for neutron monitoring instrumentation is relied on for the resolution of USIA-46 neutron monitoring requirement and no additional evaluation will be done on the neutron monitoring instrumentation for A-46.

2.4.3 Reactor Coolant Pressure Control

In order to provide adequate reactor coolant inventory control, it will be necessary to control and reduce reactor pressure to a level where low pressure injection systems will be capable of replacing coolant

inventory. To perform this dual function, the main steam Safety Relief Valves (SRVs) and associated support systems will be used to first reduce reactor pressure and then control it in range where injection systems can maintain coolant inventory. The Core Spray system will be used for low pressure injection. This is consistent with the MNGP EOPs. Only three SRVs are required to depressurize the reactor. There are eight valves available, and these have been allocated along divisional lines between the primary and secondary pathways. In addition, the rejection of steam to the suppression pool will remove decay heat from the reactor.

The energy removed from the reactor in the form of condensed steam is transferred to the suppression pool. The RHR system is used to remove this decay heat and transfer it to the ultimate heat sink.

To support the operation of the Safety Relief Valves (SRV), the Alternate Nitrogen System is required, as are the SRV discharge piping, and instrumentation to actuate and monitor the system. Essential electrical systems required to support the SRVs are also evaluated as part of this program.

Monitoring of the Reactor pressure is accomplished by use of the Reactor vessel pressure instrumentation.

2.4.4 Reactor Coolant System Inventory Control

Reactor coolant inventory will be maintained by operation of the Core Spray system. The Division II or "B" loop of Core Spray is the primary path, while the Division I or "A" loop is the alternate. This provides a completely independent and redundant system for an alternate pathway for Reactor coolant inventory. To accomplish this objective, the Automatic Depressurization system (designated SRVs) is used to reduce reactor pressure to the point where the Core Spray system can inject. The SRVs are then used to maintain reactor pressure below this injection pressure. A closed loop is established where Core Spray takes a suction from the suppression pool, injects to the reactor, and the water is returned to the suppression pool via the SRVs.

To support the operation of the Core Spray Systems, essential power distribution from the Diesel Generators (EDGs) to the essential buses, essential load centers and motor control centers for pumps and valves of the system are included, as are the DC distribution system to provide power to the operating logic for the system. Decay heat rejected to the suppression pool from the reactor is removed by the RHR system in the Suppression Pool Cooling mode.

Monitoring of the Reactor coolant inventory is accomplished by the Reactor vessel level instrumentation and the torus level instrumentation.

2.4.5 Decay Heat Removal

To accomplish the goal of removing decay heat from the reactor, the RHR system is used in the suppression pool cooling mode. Pressure is reduced using SRVs, and the Core Spray system is used to inject water from the suppression pool into the reactor. In this way a closed loop is established to remove decay heat and cool the suppression pool. Heat is rejected to the ultimate heat sink via the RHR service water system as it circulates through the RHR heat exchangers. To provide for a primary pathway, the Division II or "B" loop of RHR is used. The alternate or backup path is the Division I or "A" loop. The service water system is also separated by division for support of the primary and backup paths. Ventilation is provided by the respective area HVAC units.

The essential electrical power distribution system is also divided along divisional lines to support operation of the RHR and Core Spray systems. The same EDGs supply essential AC to the buses, load centers, motor control centers and large motors of the Core Spray, RHR, RHR Service Water and other support equipment. DC power is supplied through the 125 and 250 VDC systems.

Monitoring of the Reactor coolant temperature is accomplished by use of the SRV tailpipe temperature instrumentation and the suppression pool temperature monitoring system (SPOTMOS) instrumentation.

2.4.6 Safe ShutDown Equipment List

Appendix A of this report contains the SSEL for the Monticello Nuclear Generating Plant. The following three separate SSEL's are included in Appendix A.

Composite SSEL
Seismic Review SSEL

The Relay Review SSEL is included in the USI A-46 Resolution Relay Evaluation Report [21].

Many other systems or components may be available after a safe shutdown earthquake, since systems not included in the SSEL are seismically designed. This equipment may be available to the operator, and direction for it's use is in the plant EOPs.

3. Safe Shutdown Seismic Demand

The following sections describe the basis and development of the safe shutdown earthquake (SSE) response spectra. Plots of the SSE ground response spectrum and the associated floor response spectra (FRS) are provided in Appendix B.

3.1 Description Of Safe Shutdown Earthquake

The SSE ground response spectrum (GRS) used for USI A-46 resolution is the site design basis earthquake response spectrum per the MNGP Updated Safety Analysis Report (USAR). The spectrum is derived from the North 69° West component time history of the 1952 Taft earthquake, scaled to a 0.12g peak ground acceleration. The 5% damped GRS is plotted in Appendix B. The use of this GRS for resolution of USI A-46 was reviewed by the NRC and was found to be acceptable [7].

3.2 In-Structure Response Spectra

The structures at the Monticello plant include the Reactor Building, Turbine Building, Plant Control and Cable Spreading Structure, Emergency Diesel Generator Building, the Emergency Filtration Train (EFT) Building and the Intake Structure. For the resolution of USI A-46 seismic demand for equipment housed in buildings other than the Reactor Building and the EFT Building will be based on the response spectra generated with the Reactor Building model. The Reactor Building and the EFT Building have their own response spectra which will be used for the equipment housed within each building.

The floor response spectra (FRS) were presented to the NRC by NSP in response to Generic Letter 87-02 as "conservative design" spectra [6]. The NRC staff reviewed the original and subsequent modeling performed by NSP and its contractors and determined that the building modeling was adequate. The NRC staff concluded that the resulting FRS could be utilized as "conservative design" spectra as defined in the GIP [7]. Plots of selected FRS are provided in Appendix B.

3.2.1 Reactor Building

The Reactor Building is founded at elevation 888' 3" on medium sand with some gravel. It is a reinforced concrete structure from its foundation up to elevation 1027' 8". Above that a steel frame top story rises to elevation 1073' 2". The plan dimensions are 143' 6" by 140' 6" at the foundation. The Reactor Building contains the Reactor Pressure Vessel and the Reactor Pressure Vessel Shield Wall. The Reactor Pressure Vessel is a cylindrical steel shell supported on a reinforced concrete pedestal via a steel skirt. The Shield Wall is a concrete and steel thick walled cylinder supported by the same pedestal.

A Reactor Building dynamic model was developed as part of the design basis seismic analysis. The design basis model consists of two separate 2-dimensional mathematical models, one for each horizontal direction. The models are constructed from lumped masses, beam elements, spring elements and rigid elements. Each model contains three "sticks" of beam elements. Soil springs (horizontal and rotational) are used to model soil flexibility. The models are rigid in the vertical direction.

FRS associated with the SSE were generated for major elevations of the Reactor Building main structure. Documents of the plant's USAR were used as references in the effort. The FRS were calculated in a way that was consistent with the original seismic analysis of the plant. Two separate methods were used to calculate the FRS. For elevations where an original design FRS was available, that data was used to calculate RS for additional oscillator dampings. When no such data existed, FRS were generated from a full seismic response analysis of the building.

For the response analysis, FRS were calculated from a time history analysis. Modal properties of the Reactor Building were determined and the modal superposition method was used to determine the in-structure response. The North 69 degrees West component time history of the 1952 Taft earthquake, normalized to a 0.12g PGA, was the base input motion. A conservative 3% damping ratio was employed.

3.2.2 EFT Building

The EFT Building is a reinforced concrete structure supported on the east by a mat foundation and supported on the west by two heavily reinforced concrete piles. Due to the complexity of the shape of the building, a finite element model is chosen and developed rather than a lumped mass stick model. Plate, beam and spring elements are used to represent the structure.

Soil structure interaction is taken into account by coupling the structural model with the supporting soil. For the east side of the structure, soil springs were determined by using equations developed for the case of a rigid plate on a semi-infinite elastic half-space. For the west side of the structure, i.e., the portion supported by piles, equivalent springs are calculated to represent the supports.

The Bechtel Regulatory Guide 1.60 Synthetic time history was used as input for the seismic analysis of the EFT. Note that although the 1952 Taft earthquake is the design basis earthquake for the Monticello site, NSP elected to conservatively implement the Regulatory Guide 1.60 design spectra for the design of the EFT Building. This Bechtel standard time history satisfies the Regulatory Guide 1.60 design spectra. The motion is normalized to 12 percent of gravity peak acceleration to represent the horizontal SSE. The motion is normalized to 8 percent of gravity peak acceleration to represent the vertical SSE.

FRS were generated as part of the design basis seismic analysis of the EFT. A modal analysis was performed to determine natural frequencies and mode-shapes. A time history response analysis was performed using the Bechtel Regulatory Guide 1.60 Synthetic Ground Time History with peak ground accelerations of 0.12g horizontal and 0.08g vertical. A damping ratio of 7% was used for the SSE response. The response along the minor axis due to an orthogonal loading is added to the principle response in that particular direction. The response spectra are developed from the response time history at each elevation. These spectra are smoothed and widened by 15% to account for the unexpected variations of structural properties, damping, soils properties, and soil-structure interactions.

4. Screening Verification and Walkdown Results for Equipment Classes 1-20

The purpose of this section is to describe the Screening Verification and Walkdown performed for active mechanical and electrical equipment identified on the MNGP Safe Shutdown Equipment List (SSEL). The guidelines contained in this section were used to screen the equipment for seismic adequacy. If the equipment did not pass this screen, it was declared an outlier (see Section 7). Each equipment assessment is documented on a Screening Evaluation Work Sheet (SEWS). Any deficiencies are documented on an Outlier Seismic Verification Sheet (OSVS).

4.1 Seismic Evaluation Guidelines

The procedure for performing the Screening Verification and Walkdown is based on the following four seismic screening guidelines, as defined in the GIP:

1. Seismic Capacity Compared to Seismic Demand - The seismic capacity of the equipment, based on earthquake experience data, generic seismic testing data, or equipment-specific seismic qualification data, should be greater than the seismic demand imposed on the equipment by the safe shutdown earthquake (SSE).
2. Caveats - In order to use the seismic capacity defined by the earthquake experience Bounding Spectrum or the generic seismic testing Generic Equipment Ruggedness Spectra (GERS), the equipment should be similar to the equipment in the earthquake experience equipment class or the generic seismic testing equipment class and also meet the intent of the specific caveats for that class of equipment. If equipment-specific seismic qualification data is used, then any specific restrictions or caveats for that qualification data apply instead.
3. Anchorage - The equipment anchorage capacity, installation, and stiffness should be adequate to withstand the seismic demand from the SSE at the equipment location.
4. Seismic Interaction - The effect of possible seismic spatial interactions with nearby equipment, systems, and structures should not cause the equipment to fail to perform its intended safe shutdown function.

The evaluation of equipment against each of these four screening guidelines at MNGP is based upon walkdown evaluations, calculations, and other supporting data.

4.1.1 Seismic Capacity Vs. Demand

Seismic capacity of safe shutdown equipment is based on:

- Earthquake experience data with capacity defined by the Bounding Spectrum, or
- Generic seismic test data which have been compiled into Generic Equipment Ruggedness Spectra, or
- Equipment-specific seismic qualification data.

For equipment located within 40' of grade with an estimated fundamental frequency greater than 8 Hz, the ground spectrum may be compared to the Bounding Spectrum. For purposes of determining the 40' Above Grade elevation, effective grade for the site or each building must be determined. "Effective grade" at a nuclear plant is defined as the average elevation of the ground surrounding the building along its perimeter. MNGP is a soil site and grade elevation near plant structures is about 930' to 935' above sea level. Effective grade was conservatively set at 930' above sea level for all structures. Most equipment at MNGP met both the 40' rule and the 8 Hz rule and was evaluated for capacity via the Bounding Spectrum.

To a lesser extent the conservative FRS was compared to 1.5 times the bounding spectrum. The GERS were not used in the capacity versus demand comparisons nor was equipment specific qualification data used.

4.1.2 Caveat Compliance

The second screening guideline which must be satisfied to verify the seismic adequacy of an item of mechanical or electrical equipment is to confirm that (1) the equipment characteristics are generally similar to the earthquake experience equipment class or the generic seismic testing equipment class and (2) the equipment meets the intent of the specific caveats for the equipment class. This review is only necessary when the Bounding Spectrum or the GERS is used to represent the seismic capacity of an item of equipment. If equipment-specific seismic qualification data is used instead, then only the specific restrictions applicable to that equipment-specific qualification data need be applied.

Another aspect of verifying the seismic adequacy of equipment included within the scope of this procedure is explained by the *rule of the box*. For the equipment included in either the earthquake or testing equipment class, all of the components mounted on or in this equipment are considered to be part of that equipment and do not have to be evaluated separately. However, the walkdown engineers must look for suspicious details or uncommon situations that could make the equipment item vulnerable.

An item of equipment should have the same general characteristics as the equipment in the earthquake experience equipment class or the generic seismic testing equipment class. The intent of this rule is to preclude items of equipment with unusual designs and characteristics which have not demonstrated seismic adequacy in earthquakes or tests.

Caveats are defined as the set of inclusion and exclusion rules which represent specific characteristics and features particularly important for seismic adequacy of a particular class of equipment. Appendix B of the GIP contains a summary of the caveats for the earthquake experience equipment classes and for the generic seismic testing equipment classes.

The intent of the caveats should be met when evaluating an item of equipment as they are not fixed, inflexible rules. Engineering judgment is used to determine whether the specific seismic concern addressed by the caveat is met. Each item of equipment should be evaluated to determine whether it meets the specific wording of the applicable caveats and their intent. If an item of equipment meets the intent of the caveats, but the specific wording of the caveat rule is not met, then that item is considered to have met the caveat. A small number of SSEL items were judged to meet the

intent, but not the exact wording of a caveat, and these cases are reported in Table 4-1 of this report.

4.1.3 Anchorage Adequacy

MNGP verified anchorage adequacy with an approach incorporating three elements:

- Evaluation of the anchorage to verify that it is free of gross installation defects.
- Evaluation of the equipment anchorage load path to verify that there is adequate stiffness and strength.
- Comparison of the anchorage capacity with the seismic demand.

The screening approach for verifying the seismic adequacy of equipment anchorage is based upon a combination of inspections, analyses, and engineering judgment. Inspections consist of measurements and visual evaluations of the equipment and its anchorage, supplemented by use of plant documentation and drawings. Analyses compare the anchorage capacity to the seismic loading (demand) imposed upon the anchorage. These analyses were done using the guidelines in Section 4 and Appendix C of the GIP. Engineering judgment is also an important element in the evaluation of equipment anchorage. As a general rule, anchorage was rigorously analyzed using a hand calculation or the ANCHOR software package developed by Stevenson & Associates [19]. Bounding calculations were developed to cover similar items. Small equipment, weighing usually 50 pounds or less was accepted by judgment and a "tug test". The tug test simply involves pulling on the device (say, a wall-mounted transmitter) with a force that clearly exceeds the expected seismic demand for the equipment location.

The four main steps used to evaluate seismic adequacy of equipment anchorage at MNGP followed the guidance of the GIP and are shown below:

1. Anchorage Installation Inspection
2. Anchorage Capacity Determination
3. Seismic Demand Determination
4. Comparison of Capacity to Demand

The first main step in evaluating the seismic adequacy of anchorage is to check the anchorage installation and its connection to the base of the equipment. This inspection consists of visual checks and measurements along with a review of plant documentation and drawings where necessary, and an anchor bolt tightness and embedment check for anchorage utilizing concrete expansion anchors.

All accessible anchors were visually inspected. A check of the following equipment anchorage attributes was made:

1. Equipment Characteristics
2. Type of Anchorage
3. Size and Location of Anchorage

4. Installation Adequacy
5. Embedment Length
6. Gap at Threaded Anchors
7. Spacing Between Anchors
8. Edge Distance
9. Concrete Strength and Condition
10. Concrete Crack Locations and Sizes
11. Essential Relays in Cabinets
12. Equipment Base Stiffness/Prying Action
13. Equipment Base Strength/Structural Load Path
14. Embedment Steel and Pads

A discussion of the significant anchorage inspection results is included in the SEWS (in the notes). The results were incorporated into the anchorage evaluation through nominal capacities and reduction factors.

The second main step in evaluating the seismic adequacy of anchorage is to determine the allowable capacity of anchors used to secure an item of equipment. The allowable capacity is obtained by multiplying the nominal allowable capacities by the applicable capacity reduction factors. The nominal capacities and reduction factors are obtained from Appendix C of the GIP, based on the results of the anchorage installation inspection checks.

The pullout capacity allowable is based on the product of the nominal pullout capacity and the applicable capacity reduction factors:

$$P_{all} = P_{nom} RT_p RL_p RS_p RE_p RF_p RC_p RR_p$$

Where:

- P_{all} = Allowable Pullout capacity of installed anchor (kip)
- P_{nom} = Nominal allowable Pullout capacity (kip)
- RT_p = Reduction factor for the Type of expansion anchors
- RL_p = Reduction factor for short embedment Lengths
- RS_p = Reduction factor for closely Spaced anchors
- RE_p = Reduction factor for near Edge anchors
- RF_p = Reduction factor for low strength (f_c) concrete
- RC_p = Reduction factor for Cracked concrete
- RR_p = Reduction factor for expansion anchors securing equipment with essential Relays

The shear capacity allowable is based on the product of the nominal shear capacity and the applicable capacity reduction factors:

$$V_{all} = V_{nom} RT_s RL_s RS RE_s RF_s RR_s$$

Where:

- V_{all} = Allowable shear capacity of installed anchor (kip)
- V_{nom} = Nominal allowable shear capacity (kip)
- RT_s = Reduction factor for the Type of expansion anchors
- RL_s = Reduction factor for short embedment Lengths

- RS_s = Reduction factor for closely Spaced anchors
- RE_s = Reduction factor for near Edge anchors
- RF_s = Reduction factor for low strength (f_c) concrete
- RR_s = Reduction factor for expansion anchors securing equipment with essential Relays

Note that the pullout and shear capacities for anchors given above are based on having adequate stiffness in the base of the equipment and on not applying significant prying action to the anchor. If Check 12, Base Stiffness and Prying Action, from Part II, Chapter 4 of the GIP shows that stiffness is not adequate or that significant prying action is applied to the anchors, then the Seismic Capability Engineers lowered the allowable capacity loads accordingly.

The third step in evaluating the anchorage is to determine the seismic demand imposed on the equipment. The demand load is established based on the type of demand spectrum used. If the FRS are used, no additional factors of conservatism are used to establish the demand load since the FRS are deemed "conservative design" by review of the NRC. If the ground spectrum is used for demand, then 1.875 times the appropriate spectral acceleration is used where 1.875 is the product of 1.5, the median amplification factor, and 1.25, the additional anchorage factor of conservatism for non-conservative demand spectra.

The demand load is the product of the appropriate spectral acceleration value times the weight of the equipment item. Table C.1-1 of the GIP is used, in general, to establish the weight, fundamental frequency and equipment damping for the given classes of equipment. If the item is deemed rigid, the zero period acceleration (ZPA) is used. If the item is deemed flexible, either the peak of the response spectrum is used, or the largest spectral acceleration in the range above the estimated lower bound fundamental frequency is used.

The fourth and final step to complete the evaluation determines the seismic demand on the equipment anchorage and compares the seismic demand to the anchorage capacity. The demand on the anchorage is calculated using an equivalent static analysis. The demand load is applied at the equipment center of gravity and anchorage loads are determined using engineering principles. If the demand is less than the capacity, the anchorage is acceptable; otherwise, the equipment item is declared an outlier.

4.1.4 Seismic Interaction Checks

The fourth and final screening guideline used to verify the seismic adequacy of an item of mechanical or electrical equipment was to confirm that there were no adverse seismic spatial interactions with nearby equipment, systems, and structures which could cause the equipment to fail to perform its intended safe shutdown function. The interactions of concern are (1) proximity effects, (2) structural failure and falling, and (3) flexibility of attached lines and cables. Guidelines for judging interaction effects when verifying the seismic adequacy of equipment are presented in Appendix D of the GIP.

4.2 Seismic Capability Engineers and Peer Reviewer

The guidelines described in this section were applied by Seismic Capability Engineers as defined in Section 2 of the GIP. These engineers exercised engineering judgment based upon an understanding of the guidelines given in this document, the basis for these guidelines given in the

reference documents and presented in the SQUG training course, and their own seismic engineering experience.

The station walkdowns were largely conducted from September 26-30 of 1994, and February 20-March 3, May 22-26, September 11-15, and October 23-24 of 1995. The seismic capability engineers for the MNGP walkdown were Messrs. W. Djordjevic and J. J. O'Sullivan of Stevenson & Associates, and Messrs. D. Zercher and Ron Peterson of Northern States Power Company. All have been SQUG trained and certified. Their resumes and SQUG Walkdown Course Completion Certificates are provided in Appendix C. Operations Department walkdown support was provided by Mr. B. MacKissock of NSP.

An independent evaluation and peer review of the walkdown process was performed by Dr. R. P. Kennedy and Dr. John D. Stevenson during September 11-12 of 1995. As required by the GIP, the review included an assessment of the walkdown and analyses by audit and sampling to identify any gross errors. A peer review walkdown was conducted to ascertain completeness and correctness of the GIP walkdown. The review included comparing completed SEWS with equipment previously inspected by the SRT. The peer reviewers concluded that the walkdowns were being conducted competently and the findings made were appropriate. Appendix E provides documentation of the peer review.

4.3 Evaluation Results and Documentation

4.3.1 Summary of Findings

The large majority of the equipment evaluated was found to be adequate for the SSE demand. The results of the screening verification and walkdown are summarized on Screening Verification Data Sheets (SVDS) in Appendix D. More detailed documentation is contained in the Screening Evaluation Work Sheets (SEWS), kept on file by NSP. The SEWS typically contain notes, photos and calculations that support the screening judgments.

Approximately 400 SEWS were generated for SSEL equipment. In general, a SEWS was not generated for rule-of-the-box equipment. If an item is covered by rule-of-the-box, the item is covered by the SEWS for the parent item. In that manner each equipment item on the SSEL requiring a seismic verification and walkdown is addressed by a SEWS. The parent item is identified for each rule-of-the-box item.

The significant findings of the review are encompassed by the list of outliers and the discussion of reasons for outlier status. This information is presented in Section 7. A total of 42 outliers were identified. This number includes tanks and heat exchanger outliers discussed in Section 5. An OSVS form was completed for each outlier.

4.3.2 Comments About Anchorage

In general, equipment was found to be well anchored at MNGP. NSP had implemented a comprehensive program to upgrade anchorage of electrical equipment during the early 1980's [25]. As a result, additional anchorage and/or top bracing was added to many items of electrical equipment. For example, the majority of Control Room cabinets, safety related switchgear, and safety related motor control centers were upgraded with top bracing. Most instrument racks at MNGS also have top bracing.

Based on the embedment checks, inspection of abandoned anchors, and plant documentation, the predominant expansion anchor type at MNGP is the Phillips self-drilling shell anchor. For newer installations, the HILTI *Kwik-bolt* was typically found. Neither type requires a knock-down factor for anchor type.

For expansion anchors, a tightness check was performed to detect gross installation defects. The tightness check for expansion anchors was accomplished by applying a torque to the anchor by hand until the anchor was "wrench tight," i.e., tightened without excessive exertion. If the anchor bolt or nut rotates less than about 1/4 turn, then the anchor is considered tight. The tightness check was performed on all accessible expansion anchors for floor mounted equipment where the anchorage adequacy is performed by analysis rather than a "tug test". Wall mounted equipment was not subject to a tightness check as allowed by the GIP because the anchors experience loading due to gravity.

No gross installation defects were encountered in any expansion anchor tested. In a small number of cases, the nut of an anchor was turned down more than a 1/4 turn because the nut had not been fully pre-loaded. In those cases the nut was then fully pre-loaded. A random ("spot") embedment check on selected anchors was performed, inspecting them to ensure that the shell anchor and equipment base are not in contact so as to invalidate the results of the tightness check. No installation problems were found.

4.3.3 Comments About Seismic Interaction

MNGP has seismic housekeeping procedures in place to avoid seismic interaction hazards. During the plant walkdowns at MNGP, the SRT identified only a few interaction concerns resulting from improper seismic housekeeping; specifically, a small number of portable equipment items (e.g., tool carts) that presented impact hazards.

Overhead piping systems and ductwork were closely examined in all plant areas containing SSEL equipment. The SRT noted that the systems were generally well supported. One section of vertical duct in the B RHR room was identified for further analysis.

Block walls were investigated as part of the seismic interaction check. On the SEWS, the SRT noted the cases where a block wall had the potential to collapse on the equipment item under review. If the wall had been evaluated as "safety related" in response to IE bulletin 80-11, the collapse concern was dismissed [24]. In all cases, block walls in question were verified to be evaluated as "safety related". The information, including wall ID and evaluation reference, was recorded on the SEWS.

4.4 Commentary on Meeting The Intent of Caveats

There were no significant or programmatic deviations from the GIP in performance of the seismic adequacy evaluations documented in this report. As provided for in the GIP, in some cases engineering judgment determined that an item met the intent but not the specific wording of a GIP caveat. Table 4-1 lists cases where the intent but not the specific wording of a caveat was met.

4.5 Other Types of Seismic Evaluations and Interfaces

In addition to the seismic evaluations covered in this section for active mechanical and electrical equipment, seismic evaluations for two other types of equipment are covered in other sections as follows:

- Section 5 - Tanks and Heat Exchangers Review
- Section 6 - Cable and Conduit Raceways Review

A separate Relay Evaluation Report documents the results of the relay functionality review required in Section 6 of the GIP.

While these other seismic evaluations can generally be performed independently from those for active mechanical and electrical equipment, there are a few areas where an interface with the Relay Functionality Review is appropriate:

- Any cabinets containing essential relays, as determined by the relay review, should be evaluated for seismic adequacy using the guidelines contained in this section.
- A capacity reduction factor should be applied to expansion anchor bolts which secure cabinets containing essential relays. The capacity reduction factor is discussed in Section 4.4 and Appendix C of the GIP.
- Impact loading, including even mild bumping, is not allowed on cabinets containing essential relays. This limitation is discussed in Section 4.5 of the GIP.
- In-cabinet amplification factors for cabinets containing essential relays may be estimated, using the guidelines in Section 6 of the GIP, by the Seismic Capability Engineers for use in the Relay Functionality Review.

In addition spot checks were performed on relay mountings. Relays were found to be well secured to cabinets housings with no loose or missing hardware in evidence.

Table 4-1
Items Meeting Intent but Not Specific Wording of Caveats

Equipment ID and Description	Class, Caveat & Commentary
<p>C-19, C-289A, C-30 C-32, C-33</p> <p>Control Cabinets in Cable Spreading Room</p>	<p>Class 20, Anchorage Caveat 2: <i>Type of anchorage covered by GIP</i></p> <p>The anchorage of these items includes through-bolts through a 4.5" concrete and steel deck slab. The bolts are backed up by a steel angle or plate on the underside of the slab. The capacity of the bolt is judged to be equivalent to a cast in place bolt, therefore the intent of this caveat is met.</p>
<p>CRD HCU E CRD HCU W</p> <p>CRD Hydraulic Control Units, East & West</p>	<p>Class 7 and 18, Bounding Spectrum Caveat 1: <i>Equipment is included in earthquake experience equipment class</i></p> <p>Each CRD HCU set is covered by two SEWS, one for fluid operated valves (Class 7) and one for Instruments on Racks (Class 18). Together these two SEWS are judged to address the relevant seismic capacity issues and the intent of the equipment class caveat is met. The class 7 caveats address the capacity of the diaphragm operated valves that are part of the each HCU. The class 18 caveats address the capacity of the pneumatic controls (e.g., solenoid valves). In addition, an anchorage evaluation is included under class 18. The adequacy of the rack structure (stresses in tube steel frame) and mounting of components was also assessed under class 18.</p> <p>As part of the seismic interaction check, the insert/withdrawal lines were assessed for vulnerability and no concerns were found. There is a platform over each rack, made of heavy structural steel members (I-sections, angles and tubes). It is very well braced to walls, including lateral support in both directions from diagonal bracing. It is dismissed as an interaction hazard (won't collapse and won't sway into lines).</p>
<p>P-88A, P-88B, P-88C, P-88D</p> <p>ECCS Area Drain Pumps</p>	<p>Class 6, Bounding Spectrum Caveat 1: <i>Equipment is included in earthquake experience equipment class</i></p> <p>Although these pumps are referred to as a Flygt Model CS-3065 submersible pumps, they are not being used as such, but rather as single stage, vertical centrifugal "bilge" pumps. Hence, they meet Class 6 caveats and are judged acceptable.</p>

Table 4-1 (continued)

Equipment ID and Description	Class, Caveat & Commentary
RV-4236, RV-4673 Relief valves	<p>Class 7, Bounding Spectrum Caveat 4: <i>Mounted on 1" diameter pipe or larger</i></p> <p>Each is a similar small relief valve mounted off 3/4" line. The operator is small, estimated to be less than 25 pounds, and the offset is 24 inches. The seismic stress produced in the pipe is estimated to be less than that allowed for a 1" line. Therefore the intent of the caveat is met.</p>
RB-A30 Conduit in Area RB-A30	<p>Electrical Raceway, Rule 6: <i>Beam Clamps</i></p> <p>A small amount of some very light conduit was supported by beam clamps that relied on friction. The conduit supports were tug tested by SRT and judged to be acceptable for the light load. In addition the local system was judged to be stiff and would not tend to pry or loosen the supports.</p>
TC-8089C, TC-8089L	<p>Class 18, Anchorage Caveat 3: <i>Type of anchorage covered by GIP</i></p> <p>These items are very light weight instruments mounted directly to a concrete wall with #8 screws into unknown inserts. The inserts may not be covered by GIP rules but the items were tug tested and judged to be acceptable.</p>

5. Results of the Tanks and Heat Exchanger Review

This section gives the results of the tank and heat exchanger reviews performed. Tanks and heat exchangers were evaluated in accordance with the rules and procedures given in Section 7 of the GIP.

One large buried tank and two large horizontal tanks were evaluated. Two sets of air accumulator tanks, for start of diesel generators, were evaluated. The remainder of the tanks were relatively small air accumulator tanks for operation of valves. There are no vertical tanks on the MNGP SSEL. Two large vertical heat exchangers were evaluated (E-200A, E-200B).

5.1 Evaluation Methodology

The screening evaluations described in this section cover those features of tanks and heat exchangers which experience has shown can be vulnerable to seismic loading. These evaluations include the following features:

- Check that the shell of large, flat-bottom, vertical tanks will not buckle. Loading on these types of tanks include the effects of hydrodynamic loading and tank wall flexibility.
- Check that the anchor bolts and their embedments have adequate strength against breakage and pullout.
- Check that the anchorage connection between the anchor bolts and the tank shell (e.g., saddles, legs, chairs, etc.) have adequate strength.
- Check that the attached piping has adequate flexibility to accommodate the motion of large, flat-bottom, vertical tanks.

The Seismic Capability Engineers performed the evaluations such that they meet the intent of these guidelines. This review included a field inspection of the tank, the anchorage connections, and the anchor bolt installation against the guidelines described in this Section 7, Section 4.4, and Appendix C of the GIP.

The derivation and technical justification for the guidelines utilized were developed specifically for: (1) large, flat-bottom, cylindrical, vertical, storage tanks; and (2) horizontal, cylindrical tanks and heat exchangers with support saddles made of plates. The types of loading and analysis methods provided in the GIP are considered to be appropriate for these types of items. The procedures are not appropriate for other types of designs such as a waist supported vertical heat exchangers. These items were evaluated using equivalent procedures and loading conditions as allowed in Section 7 of the GIP.

The horizontal tanks covered by the screening guidelines in Section 7 of the GIP are cylindrical steel tanks and heat exchangers whose axes of symmetry are horizontal and are supported on their curved bottom by steel saddle plates. The screening guidelines are based on the assumption that the horizontal tanks are anchored to a stiff foundation, which has adequate strength to resist the seismic loads applied to the tank. Saddles are assumed to have slotted anchor bolt holes in the longitudinal direction to permit thermal growth of the tank, except for the saddle at one end of the

tank which is fixed. The saddles are assumed to be uniformly spaced a distance S apart, with the two ends of the tank overhanging the end saddles a maximum distance of $S/2$.

A simple, equivalent static method is used to determine the seismic demand on and capacity of the anchors and the supports for horizontal tanks. The screening guidelines contained in Section 7 of the GIP specifically addressed only the seismic loads due to the inertial response of horizontal tanks. If, during the Screening Verification and Walkdown of a tank, the Seismic Capability Engineers determined that the imposed nozzle loads due to the seismic response of attached piping may be significant, then these loads were included in the seismic demand applied to the anchorage and supports of the tank.

5.2 Summary of Evaluation Results

The results of the GIP tank and heat exchanger evaluations are summarized in Table 5-1. Many of the items covered under class 21 were air accumulators associated with operation of valves. The accumulators were small cylindrical tanks (typically about 1' in diameter and 2'-3' long) clamped to structural steel via large U-bolts. The SRT verified adequate load capacity by push testing along and perpendicular to the tank axis. In addition, the air line from the tank to the valve was checked for vulnerability. In other cases the accumulators were air bottles housed in a rack. In those cases the anchorage of the rack and the stability of the bottles in the rack were evaluated.

**Table 5-1
Tank & Heat Exchanger Evaluation Results**

ID and Description	Results & Comments
T-44 Diesel Oil Storage Tank	<p>Results: <i>Adequate</i></p> <p>T-44 is a buried tank about 60' long and 13' in diameter. The center line of the tank runs about 10' below grade. The tank is strapped to large concrete blocks that resist buoyant forces. The tank is close to the Diesel Fuel Pump House (near end is about 5.5' away).</p> <p>The supply nozzle is about 12' from the Pump House wall. Supply piping travels from the nozzle to wall and has bends that would accommodate relative motion between tank and Pump House. Since the tank is buried, the significant concern is relative motion between the tank and the Pump House that could break or crimp the supply line. However since both tank and Pump House are founded on soil and are very close to each other, large relative motions are not expected for the SSE. In addition the bends in the piping will accommodate relative motion. Based on this configuration the tank is judged to be acceptable.</p>
T-45A T-45B Standby Diesel Gen. Day Tanks	<p>Results: <i>Adequate</i></p> <p>Following comments apply to either T-45A or T-45B.</p> <p>Diesel day tank is a horizontal tank on two saddles. It is about 6' in diameter and 9' long. Each saddle is anchored by four 5/8" cast-in-place bolts. The tank evaluation was consistent with the GIP Section 7 procedure. This tank did not have slotted holes in one saddle therefore both saddles were credited as effective. The saddle, welding and anchorage were found to be adequate.</p>
T-79A,B,C,D,E,F T-80A,B,C,D,E,F Diesel Air Start Tanks	<p>Results: <i>Outlier</i></p> <p>Following comments apply to either set of air start tanks.</p> <p>Six air accumulator tanks clamped to a large steel rack. Each tank, about 2' in diameter and 6' long, is held by two large U-bolts. Wedge blocks, welded to the rack, prevent tank motion in one horizontal direction; however axial motion of each tank is resisted by clamping/friction. The friction resistance of all tanks could not be verified, therefore tanks were declared to be outliers due to load path concern. The anchorage of the rack was evaluated using procedures consistent with those for class 18 racks and found to be acceptable.</p>

Table 5-1 (Continued)

ID and Description	Results & Comments
E-200A E-200B	Results: <i>Outlier</i>
11 & 12 RHR Heat Exchangers	<p>Following comments apply to either E-200A and E-200B.</p> <p>Large vertical heat exchanger hung from large steel beams. Support was recently upgraded per reference 22. Cinch anchors were used in the original installation. Most cinch anchors were replaced by HILTI bolts in recent upgrade, except ten bolts located at "Detail 4" in NSP drawing NF-365401. The heat exchanger is declared an outlier because cinch anchors are not covered by the GIP. However, anchorage may be qualified based on existing reference 22 analysis and load capacity of cinch anchor reported in reference 23.</p>
Other Class 21 Items	<p>Results: <i>Adequate</i></p> <p>All other Class 21 items were air accumulators associated with operation of valves, see previous discussion in this section.</p>

6. Results of the Cable Tray and Conduit Raceway Review

6.1 Introduction and Purpose

This section gives the results of the GIP evaluation of the electrical raceways at MNGP. Electrical raceways are cable tray and conduit systems that are wall-mounted, floor supported and suspended systems. The evaluations were conducted following Section 8 of the GIP.

The seismic evaluation involves conducting a thorough plant walkdown to verify that plant raceways are bounded by the experience database and to identify representative, bounding examples of raceway systems and evaluate their adequacy.

6.2 Scope of Electrical Raceways Assessed

All power block buildings and elevations were surveyed. This included the Control Building, Reactor Building, Turbine Building, Intake Structure, Diesel Generator Pump House, Emergency Filtration Train Building and Radwaste Building. The station walkdown was conducted from September 26-30, 1994 and from May 22-26, 1995 by Seismic Capability Engineers conducting the Class of Twenty walkdowns.

All areas were evaluated against the GIP caveats. The surveys are documented on Plant Area Summary Sheets (PASS). The next section discusses the evaluation criteria at greater length.

All accessible rooms and areas were visited at MNGP encompassing practically all electrical raceways associated with SSEL equipment. Some areas were inaccessible due to radiological conditions. These areas did not contain any SSEL equipment and typically contained only conduit. In all cases these areas were judged to be acceptable based on the track record of well supported conduit and cable tray at MNGP.

6.3 Raceway Seismic Evaluation Guidelines

6.3.1 Inclusion Rules

Raceways are compared to the inclusion rule requirements of Section 8.2.2 of the GIP. The rules are summarized below.

- Cable tray spans should not exceed the 10' limit between adjacent supports and the 5' limit for cantilevers;
- Conduit spans should be within the limits required by Rule 2 of Section 8.2.2;
- On all cantilever bracket-supported systems cable trays and conduit should be secured to their supports so no tray or conduit sliding can occur;
- Channel nuts used with light metal framing systems should have nuts with teeth (ridges) stamped into the nuts (Fig.8-1 of GIP);
- Rigid boot type connection must be evaluated on a case-by-case basis
- Beam clamps should not rely on friction resistance in the direction of gravity;
- Cast-iron anchor embedment must be specially evaluated

6.3.2 Other Concerns & Seismic Interaction

In addition to the Inclusion Rules the SRT inspected the raceway systems for the Caveats known as "Other Seismic Performance Concerns" and "Seismic Interaction Review" per Sections 8.2.3 and 8.2.5 of the GIP. The rules are summarized below.

Other Seismic Performance Concerns

- Anchorages should be reviewed for adequacy in accordance with Section 8.2.3
- Visible cracks, significantly spalled concrete, serious honeycombs or other gross defects in the concrete to which the raceway supports are attached should be evaluated
- Corrosion of cable trays, conduit supports or anchorage should be evaluated
- There should not be noticeable sag of any conduit or cable tray as defined in Concern 4 of Section 8.2.3
- Broken or missing components should be repaired or replaced
- Cables should be restrained to keep them in the tray during an earthquake
- Plastic ties should be checked for aging and embrittlement
- System hard spots should be evaluated

Seismic Interaction

- The raceway systems should be reviewed for seismic proximity interaction in accordance with GIP Appendix D
- The raceway systems should be reviewed for falling hazards in accordance with GIP Appendix D
- Conduit and cables should be reviewed for sufficient flexibility to accommodate differential displacement between safe shutdown equipment and adjacent equipment and structure
- Isolated Outliers must be evaluated

6.4 Walkdown Results

6.4.1 General Description of MNGP Raceways

Raceways at MNGP were a mix of cable tray and conduit. MNGP cable tray support systems are primarily of light steel frame construction. The "Unistrut" brand framing system is predominately used. The most common cable tray hanger found is the cantilever bracket type support (single vertical member with cantilever brackets supporting tray, see Figure 8-8, Detail F of the GIP). Often the cantilever bracket included a knee brace near the top of the vertical member. There are also a large number of wall brackets supporting a single tier of tray. To a lesser extent, rigid trapeze frames hangers are used. There are only a few isolated instances of rod hanger supports. Supports were typically spaced at 6 to 8 feet. Lateral bracing to walls is sometimes used.

The hangers are generally constructed of double channel members interconnected with 4-bolt ninety degree fittings. The hangers are typically bolted to overhead channel members which may be embedded into concrete, connected to a concrete slab by expansion anchors, welded to an I-beam or clamped to I-beams.

The trays varied in size from 6" width to 24" width, with the vast majority 24" wide ladder trays with a 3.5" side wall. Trays were not typically sprayed with fire retardant. Some trays were covered but the large majority were not. Tray was typically secured to a underlying bracket support by a machine screw and nut or, when supported by a Unistrut channel member, by a bolt to a channel nut.

Conduits vary in size from 3/4" to 4" nominal diameter and are of rigid steel material. Conduit is typically clamped to a Unistrut member that is anchored to the wall or ceiling. Some conduit is clamped to cable tray hangers but rarely was the conduit weight significant relative to the tray weight. Small conduit is often supported directly by a fitting anchored to the wall.

Photographs of the various types of MNGP raceways are provided in the PASS forms. Detailed sketches of supports are attached to PASS forms.

6.4.2 Summary of Walkdown and Screening Results

For walkdown and screening purposes, the plant was divided into 54 discrete evaluation areas. The area boundaries were chosen by the SRT to provide a logical and systematic means to perform and document the evaluation. The Turbine Building, Reactor Building, EFT, and Intake evaluation areas are graphically identified in Appendix E. The location of other areas are identified on the PASS forms. A PASS form was filled out for each of the 54 evaluation areas.

Table 6-1 summarizes the results of the walkdown and screening effort. For each area the table identifies the area location, the results of inclusion rule check, the results of other seismic performance concerns check, and whether supports were chosen for limited analytical review. The large majority of the evaluation areas met all rules and checks. Four of the fifty-four areas did not pass inclusion rules or other checks. These areas are further identified in Section 7 and involved isolated cases of loose or missing hardware.

The Cable Spreading Room of the Control Building met all inclusion rules and other checks but was judged to be an outlier based on the results of the Limited Analytical Review. The results are discussed in the next section.

Channel nuts used for metal framing were spot checked and found to have ridges to help resist slipping as required. The framing hardware was consistently found to be "Unistrut brand" and there is high confidence that all channels nuts have ridges.

Clip angle fittings were consistently used to connect framing member and no rigid boot connections were found. No usage of cast iron embedments was found at MNGP. There are only a few isolated instances of rod hanger supports where these types of embedments might be used. Plastic ties were used to restrain cable to vertical runs of tray. Spot checks were performed and the ties were found to be in good repair with no embrittlement (per tug testing).

Large junction boxes were observed to be adequately supported. The conduit feeding into the junction boxes was well supported in all instances. In addition, the junction boxes were tug tested when possible. No unusual conditions were observed.

6.5 Limited Analytical Review Results

All of the raceway systems and their supports are checked against the Inclusion Rules and Caveats. The GIP evaluation procedure also requires that each plant select and evaluate 10 - 20 raceway supports. The supports should represent the most heavily loaded of the major different support configurations in use at that plant. The evaluation is called a Limited Analytical Review (LAR).

The Seismic Review team (SRT) selected twelve representative, bounding samples of the raceway supports for the LAR. The supports were selected following GIP recommendations and relied on SRT experience and engineering judgment. Because there was not a large variety of support types at MNGP, the process of choosing supports for the LAR was relatively straightforward.

The supports chosen were evaluated per Section 8.3 of the GIP. Each support was first evaluated for dead load stresses per Section 8.3.1 of the GIP (members, connections, and anchorage). If the support is acceptable per this check, and it is a rigid wall bracket, then it was screened. If it is a ceiling hanger, then it is also subject to the 3 times dead load and ductility checks per Sections 8.3.2 and 8.3.3. There were no rod hanger supports chosen and the rod hanger fatigue check was not applicable.

The results of the LAR are summarized in Table 6-3. Ten of the twelve supports chosen passed all necessary checks. The two items that did not pass the screening evaluation were in the Cable Spreading Room (Area CB-A2).

Two cantilever bracket supports in the Cable Spreading Room did not pass the dead load check. Item CB-A2-L3 is a cantilever bracket with multiple tiers (five full width and two smaller tiers). The controlling capacity was the design allowable bending stress on an overhead Unistrut P1001 member acting as a beam. Item CB-A2-L3 is also cantilever bracket with multiple tiers (six full width). The controlling capacity was the design allowable load on a Unistrut clamp fitting.

The Cable Spreading Room is tracked as an outlier per the LAR. These two supports together are representative of about seven hangers in the room. The LAR confirms the validity of screening other areas of the plant because the other supports in the LAR clearly bound the areas outside the Cable Spreading Room.

Table 6-1
Electrical Raceway Evaluation Results

ID	Bld.	El.	Location	Inclsn	Other	Inter	LAR
CB-A1	ADMIN	950	CONTROL ROOM	Yes	Yes	Yes	No
CB-A2	ADMIN	939	CABLE SPREADING RM	Yes	Yes	Yes	Yes
CB-A3	ADMIN	928	BATT RMS & RP ACCESS	Yes	Yes	Yes	No
DG-A1	TB	931	DG ROOMS	Yes	Yes	Yes	No
DPH-A1	DGPMP	935-	DIESEL PMP HOUSE	Yes	No	Yes	No
EFT-A1	EFT	933	EL 933 NORTH	Yes	Yes	Yes	No
EFT-A2	EFT	933	EL 933 SOUTH	Yes	Yes	Yes	No
EFT-A3	EFT	944	EL 944 NORTH	Yes	Yes	Yes	No
EFT-A4	EFT	944	EL 944 NORTH	Yes	Yes	Yes	No
EFT-A5	EFT	960	EL 960	Yes	Yes	Yes	No
EFT-A6	EFT	960	EFT CABLE DUCT	Yes	Yes	Yes	No
IN-A1	INTKE	919	INTAKE STRUCTURE	Yes	Yes	Yes	No
PT-A1	TB	911	PIPE TUNNEL	Yes	Yes	Yes	No
RB-A1	RX	896+	RCIC ROOM	Yes	Yes	Yes	Yes
RB-A2	RX	896+	RHR A ROOM	Yes	Yes	Yes	No
RB-A3	RX	896	RHR B ROOM	Yes	Yes	Yes	No
RB-A4	RX	896+	TANK ROOM	Yes	Yes	Yes	No
RB-A5	RX	896+	TORUS AREA	Yes	Yes	Yes	No
RB-A6	RX	896+	DRYWELL	Yes	Yes	Yes	No
RB-A7	RX	896+	HPCI ROOM	Yes	Yes	Yes	No
RB-A8	RX	935	MG SET ROOM	Yes	Yes	Yes	Yes
RB-A9	RX	935	TIP ROOM	Yes	Yes	Yes	No
RB-A10	RX	935	HCU EAST AREA	Yes	Yes	Yes	Yes
RB-A11	RX	935	ESDC ROOM	Yes	Yes	Yes	No
RB-A12	RX	935	WSDC ROOM	Yes	Yes	Yes	No
RB-A13	RX	935	HCU WEST AREA	Yes	Yes	Yes	Yes
RB-A14	RX	935+	STEAM CHASE	Yes	Yes	Yes	No
RB-A15	RX	962	RCRC PMP MTR GEN SET	Yes	Yes	Yes	No
RB-A16	RX	962	TOOL STORAGE/MAINT	Yes	Yes	Yes	No
RB-A17	RX	962	EAST SIDE GEN AREA	Yes	Yes	No	No
RB-A18	RX	962	TANK ROOMS	Yes	Yes	Yes	No
RB-A19	RX	962	WEST SIDE GEN AREA	Yes	No	Yes	No
RB-A20	RX	962	NON-REGEN/REGEN HX	Yes	Yes	Yes	No

Table 6-1 Continued

ID	Bld.	El.	Location	Inclsn	Other	Inter	LAR
RB-A21	RX	985	RECRIC MG FAN ROOM	Yes	Yes	Yes	No
RB-A22	RX	985	FP PMP/SURGE TNK RM	Yes	Yes	Yes	No
RB-A23	RX	985	SOUTH SIDE GEN AREA	Yes	Yes	Yes	No
RB-A24	RX	985	TANK ROOMS	Yes	Yes	Yes	No
RB-A25	RX	985	NORTH SIDE GEN AREA	Yes	Yes	Yes	No
RB-A26	RX	985	NORTHWEST CORNER	Yes	Yes	Yes	No
RB-A27	RX	985	PLENUM ROOM	Yes	Yes	Yes	No
RB-A28	RX	1001	SOUTH SIDE GEN AREA	Yes	Yes	Yes	No
RB-A29	RX	1001	NORTH SIDE GEN AREA	Yes	Yes	Yes	No
RB-A30	RX	1027	GENERAL AREA	Yes	Yes	Yes	No
RW-A1	RW	935	CONTROL ROOM	Yes	Yes	Yes	No
RW-A2	RW	935	OUTSIDE CONTROL RM	Yes	Yes	Yes	No
RW-A3	RW	947	ELEVATION 947'	Yes	Yes	Yes	No
RW-A4	RW	962	ELEVATION 962'	Yes	Yes	Yes	No
TB-A1	TB	911	RX FW PMP AREA	Yes	Yes	Yes	Yes
TB-A2	TB	911	CONDENSER BAY	Yes	Yes	Yes	No
TB-A3	TB	911	NORTH SIDE	Yes	Yes	Yes	No
TB-A4	TB	911	LOWER 4KV RM	Yes	Yes	Yes	No
TB-A5	TB	911	AIR EJECT/EXH AREA	Yes	Yes	Yes	No
TB-A6	TB	911	CONDSTE PMP & SOUTH	Yes	Yes	Yes	No
TB-A7	TB	931	MCC AREA & NORTH	No	Yes	Yes	Yes
TB-A8	TB	931	NONIE ELEC & HTG BLR	Yes	Yes	Yes	No
TB-A9	TB	931	NORTH CORRIDOR	Yes	Yes	Yes	Yes
TB-A10	TB	931	TB ADDITION	Yes	Yes	Yes	No
TB-A11	TB	931	UPPER 4KV RM	Yes	Yes	Yes	No
TB-A12	TB	931	OUTSIDE UPPER 4KV RM	Yes	Yes	Yes	No
TB-A13	TB	931	SOUTH-WEST CORNER	Yes	Yes	Yes	No
TB-A14	TB	951	TURBINE DECK	Yes	Yes	Yes	No
TB-A15	TB	940	CABLE CORRIDOR N SIDE	Yes	Yes	Yes	No

Inclsn: Inclusion rules per Section 8.2.2

Other: Other seismic performance concerns check per Section 8.2.3

Inter: Interaction check per Section 8.2.5

LAR: Yes if supports were chosen for limited analytical review

Table 6-2
Supports Chosen for Limited Analytical Review

No.	Location	LAR ID	Description
1	CB-A2	CB-A2-L1	Wall bracket with brace, 1 tier
2	CB-A2	CB-A2-L2	Cantilever bracket w/o brace, 4 tiers
3	CB-A2	CB-A2-L3	Cantilever bracket w/ brace, 5 large tiers, 2 smaller
4	CB-A2	CB-A2-L4	Cantilever bracket w/o brace, 6 tiers
5	RB-A1	RB-A1-L1	Vertical run on wall brackets
6	RB-A8	RB-A8-L1	Wall bracket with moment resisting fitting, 1 tier
7	RB-A10	RB-A10-L1	Rigid trapeze frame with brace, 8 tiers
8	RB-A10	RB-A10-L2	Rigid trapeze frame , 5 tiers and conduit
9	RB-A13	RB-A13-L1	Cantilever bracket w/ brace to embedded runner, 3 tiers
10	TB-A1	TB-A1-L1	Cantilever bracket w/ brace to anchored runner, 3 tiers
11	TB-A7	TB-A7-L1	Double cantilever bracket w/ brace, 6 tiers
12	TB-A9	TB-A9-L1	Sheet metal wall bracket, 1 tier

Table 6-3
Summary of Limited Analytical Review Results

No.	LAR ID	Design DL	3 X DL	Ductility	Result
1	CB-A2-L1	Yes	N/A	N/A	Screened
2	CB-A2-L2	Yes	Yes	Yes	Screened
3	CB-A2-L3	No	(No)	(Yes)	Outlier
4	CB-A2-L4	No	(No)	(Yes)	Outlier
5	RB-A1-L1	Yes	N/A	N/A	Screened
6	RB-A8-L1	Yes	N/A	N/A	Screened
7	RB-A10-L1	Yes	Yes	Yes	Screened
8	RB-A10-L2	Yes	Yes	Yes	Screened
9	RB-A13-L1	Yes	Yes	Yes	Screened
10	TB-A1-L1	Yes	Yes	Yes	Screened
11	TB-A7-L1	Yes	Yes	Yes	Screened
12	TB-A9-L1	Yes	N/A	N/A	Screened

Design DL : Dead load check per Section 8.3.1

3 X DL: Vertical capacity check per Section 8.3.2

Ductility: Ductility check per Section 8.3.3

7. Description of the Equipment Outliers

An outlier is an item of equipment which does not comply with all of the screening guidelines provided in the GIP. The GIP screening guidelines are intended to be used as a generic basis for evaluating the seismic adequacy of equipment. If an item of equipment fails to pass these generic screens, it may still be shown to be adequate by additional evaluations. An outlier may be shown to be adequate for seismic loading by performing additional evaluations such as the seismic qualification techniques currently being used in newer nuclear power plants.

Equipment outliers are listed in Table 7-1 along with the associated outlier issues. A total of 42 Class 1 to 21 equipment outliers were identified. Of these eleven result from interaction potential from the Control Room Ceiling lights. The lights are not safety chained or wired and represent a falling hazard. A total of five raceway evaluation areas were declared outliers. Four of these involved isolated cases of loose or missing hardware. Section 8 provides a discussion of the proposed resolution of outliers.

A number of pumps in the Intake Structure were declared outliers. The Reactor Building floor response spectrum was used for the evaluations. Since the Intake Structure is squat and stiff the Reactor Building spectra are likely to be very conservative at low frequencies in this case. The SRT judges the more realistic in-structure demand is appropriate for outlier evaluation of the pumps.

**Table 7-1
Equipment Outliers**

ID and Class	Outlier Issues
C-03 through C-08 C-15, C-17, C-20 C-21, C-253D Class 20	Control room ceiling 2'x4' lights are not safety chained or wired (they rest on T-bars). This is a seismic interaction hazard (lights may fall on equipment and personnel).
C-19, C-32, C-42 Class 20	These cabinets are outliers because an overhead duct which is strap hung is in direct contact with the cabinet line-up and is thus an impact hazard; this is a relay chatter concern.
C-129B Class 18	The rack is anchored to the steel angle members that support the grated floor; weld quality for joint of floor members near anchorage is cause for concern. Also the vertical duct from V-AC-4 is possible interaction hazard, see comments for V-AC-4.
C-56 Class 18	A rod hung conduit carries wires to the rack. The conduit will swing during E/Q and may pull wires. This is tracked as an "other concern" seismic interaction caveat.
C-253B Class 20	A nearby cart on wheels could the impact cabinet, this is a relay chatter concern.
D10 Class 16	Item only has three anchors, therefore item may have natural frequency below 8 Hz. The FRS does not fully envelope the Bounding Spectrum at frequency range of interest.
D312 Class 1	At time of walkdown there was a cart next to MCC that could bang against MCC; this is a relay chatter concern.
D313 Class 1	Item is judged to be below 8 Hz. The FRS does not fully envelope the Bounding Spectrum at frequency range of interest. The anchorage does not pass the GIP anchorage screening criteria.
D3A, D3B Class 15	D3A rack is an outlier because some spacers (between cells 34 & 33, 40 & 39 and 37 & 36) are missing above the batten bolts (Bounding Spectrum Caveat 4).
E-200A, E-200B Class 21	D3B rack is an outlier because the batten at the end of cell 105 is not snug and should be made snug (Bounding Spectrum Caveat 5).
E-200A, E-200B Class 21	Cinch anchors were used in the original installation. Most cinch anchors were replaced by HILTI bolts in recent upgrade, except ten bolts located at "Detail 4" in NSP drawing NF-365401. The heat exchanger is declared an outlier because cinch anchors are not covered by the GIP.
K-10A Class 12	A nearby dress-out tape rack could slide/fall and hit compressor or air lines; also nearby supply cabinet could fall and hit compressor air lines.
P-109A, P-109B P-109C, P-109D Class 6	The cantilever length to the end of the bowl is about 25', beyond the 20' limit of Bounding Spectrum Caveat 2. The FRS does not fully envelope the Bounding Spectrum in the frequency range of interest. The anchorage does not pass the GIP anchorage screening criteria.

Table 7-1 Continued

ID and Class	Outlier Issues
P-111A, P-111B Class 6	Similar to P-109 pumps, see comments for P-109 pumps.
RV-1746 Class 7	The vertical duct from V-AC-4 is possible interaction hazard, see comments for V-AC-4.
T-79A,B,C,D,E,F T-80A,B,C,D,E,F Class 21	Each tank is held to a rack by two large U-bolts. Wedge blocks, welded to the rack, prevent tank motion in one horizontal direction; however axial motion of each tank is resisted by clamping/friction. The friction resistance of all tanks could not be verified, therefore tanks were declared to be outliers due to load path concern.
V-AC-4 Class 10	The large vertical duct coming from this unit needs to be checked for strength and stability. It is judged to be a potential interaction hazard.
Y10, Y20, Y30 Class 14	Items are wall mounted distribution panels. Size and number of anchors could not be determined. Outlier pending qualification of anchorage.
Y01, Y22 Class 4	Could not perform inspection of internals to verify that coils are restrained. Outlier per Bounding Spectrum Caveat 3 pending verification of restraint.
Y72, Y82 Class 4	Coils are mounted on steel frame and frame rests on flexible pads. There are bolts through the base frame but the nuts are not tight. The item is an outlier per Bounding Spectrum Caveat 3.
CB-A2 Raceway Eval. Area	Two cantilever bracket supports did not pass LAR guidelines.
DPH-A1 Raceway Eval. Area	Concerning the conduit to P-11, the support on pump is loose.
RB-A17 Raceway Eval. Area	Conduit leading to rack C-56 could swing and pull wires, also tracked under C-56.
RB-A19 Raceway Eval. Area	For one vertical run near fire hose at SW corner against wall, vertical run does not seem to be bolted to lowest embedment.
TB-A7 Raceway Eval. Area	On main run of double cantilever bracket supported tray, one side appears to be missing screws tying tray to P2500 brackets; outlier per "Tie Downs" inclusion rule.

8. Resolution of Outliers

Table 8-1 identifies the proposed resolution of outliers. Outliers are grouped as appropriate when the proposed resolution pertains to more than one item. See Table 7-1 for a description of the outlier issues.

**Table 8-1
Proposed Outlier Resolution**

Item(s)	Outlier Resolution
All Control Room items	Support overhead lights so as to prevent falling items
C-129B	Evaluate the weld condition and upgrade if necessary, evaluate vertical duct and upgrade support if necessary
C-19, C-32, C-41	Cope duct flange and insert resilient foam or rubber to prevent impact
C-56	Attach conduit to nearby beam
C-253B	Move or restrain nearby cart
D10	Replace missing anchor
D312	Move or restrain cart
D313	Upgrade anchorage
D3A, D3B	Replace spacers and make end batten snug as needed.
E-200A, E-200B	Verify existing analysis used acceptable allowables for Cinch anchors
K-10A	Move tape rack and cabinet
P-109A, P-109B P-109C, P-109D P-111A, P-111B	Determine more realistic seismic demand for intake structure and re-evaluate pumps
T-79A,B,C,D,E,F T-80A,B,C,D,E,F	Perform tightness check on all clamps to verify no sliding for SSE
RV-1746, V-AC-4	Evaluate vertical duct and upgrade support as necessary
Y10, Y20, Y30	Identify anchorage or perform in-situ load test or install restraints as needed
Y01, Y22	Verify restraint of coils via: 1.) walkdown inspection, or 2.) manufacturer information
Y72, Y82	Install plate washers then tighten the bolts at the base of the internal frame.
DPH-A1, RB-A17 RB-A19, TB-A7	Replace or repair hardware as needed.
CB-A2	Perform analytical outlier evaluation as specified in GIP, upgrade supports as needed.

9. References

1. Generic Letter 87-02, "Verification of Seismic Adequacy of Mechanical and Electrical Equipment in Operating Reactors, Unresolved Safety Issue (USI) A-46", USNRC, Washington, D.C., February 19, 1987.
2. "Generic Implementation Procedure (GIP), for Seismic Verification of Nuclear Plant Equipment", Revision 2, Corrected, 2/14/92, Seismic Qualification Utility Group.
3. "Supplemental Safety Evaluation Report No. 2 (SSER #2) on GIP-2", USNRC, Washington, D.C., May 22, 1992.
4. USI A-40 "Seismic Design Criteria Short-Term Program", USNRC, Washington, D.C.
5. USI A-17 "Systems Interactions In Nuclear Power Plants" USNRC, Washington, D.C.
6. NSP Response to GL 87-02, Supplement 1 on SQUG Resolution of USI A-46 Monticello Nuclear Plant, Thomas M. Parker (NSP) to USNRC, dated September 21, 1992.
7. USNRC Letter "Evaluation of Monticello Nuclear Plant 120-day Response to Supplement No. 1 to Generic Letter 87-02 (TAC No. M69460)", A. H. Hsia (USNRC) to T. M. Parker (NSP), dated December 10, 1992.
8. Stevenson & Associates, "Monticello Nuclear Generating Plant Reactor Building In-Structure Response Spectra, Revision 1", Project No. 91C2687, September 1, 1992.
9. SPECTRA Software Package, Stevenson & Associates, Version 2, November, 1992.
10. EPRI Report NP-7146, "Development of In-Cabinet Amplified Response Spectra for Electrical Panels and Benchboards." Revision 0, Electric Power Research Institute, Palo Alto, CA, prepared by Stevenson & Associates, December, 1990.
11. "USI A-46 Limited Analytical Review - Cable Tray and Conduit Supports" Calculation 91C2687-C-017, Rev.0, 11/15/95, by Stevenson and Associates.
12. SQUG Letter from N.P. Smith, SQUG Chairman to J.G. Partlow of USNRC, *Subject: Revision 2A to the Generic Implementation Procedure*, dated March 26, 1993.
13. SSRAP Report, "Use of Seismic Experience Data to Show Ruggedness of Equipment in Nuclear Power Plants," Senior Seismic Review and Advisory Panel, Revision 4.0, February 28, 1991.
14. Northern States Power Company, Monticello Nuclear Generating Plant Design Drawings. (Drawing numbers are specified where referenced).
15. EPRI Report NP-5228-SL, "Seismic Verification of Nuclear Plant Equipment Anchorage (Revision 1)." Electric Power Research Institute, Palo Alto, CA, prepared by URS/John A. Blume & Associates, Engineers, June, 1991.
16. ACI 318-83, "Building Code Requirements for Reinforced Concrete", American Concrete Institute, 1983.
17. EPRI Report NP-6041-SL, "A Methodology for Assessment of Nuclear Power Plant Seismic Margin (Revision 1).", Electric Power Research Institute, Palo Alto, CA, prepared by JR Benjamin Associates et. al., August, 1991.
18. NSP, "Monticello Nuclear Generating Plant Updated Safety Analysis Report".
19. ANCHOR 3.0 Software Package (with Verification and Users Manuals), Rev.0, 8/16/90 by Stevenson and Associates.
20. NSP, Monticello Nuclear Generating Plant, USI A-46 Resolution Safe Shutdown Equipment List (SSEL), November, 1995.
21. NSP, Monticello Nuclear Generating Plant, USI A-46 Resolution Relay Evaluation Report,

- November 1995.
22. Bechtel Calculation, "RHR Heat Exchangers E-200A (10-2A) and E-200B (10-2B) Support Evaluation", Project Monticello, Job No. 10040-054, Calc. No. 054-C1, Rev. 0, 9/27/84.
 23. Lead Expansion Anchor Load Capacity in Reactor Building at the Savannah River Site", Westinghouse Savannah River Company, RTR-2661, Aug. 15, 1989
 24. "Report on the Re-evaluation of Concrete Masonry Walls at the Monticello Nuclear Generating Plant for Northern States Power", prepared by Bechtel Power Corporation, Job 10040-056, November 1980.
 25. Seismic Safety Evaluation of the Anchorage of Safety Related Equipment at the Monticello Nuclear Generating Station, prepared by URS/John A. Blume & Associates, 1982.
 26. Regulatory Guide 1.60, Revision 1, "Design Response Spectra for Seismic Design of Nuclear Power Plants" US Nuclear Regulatory Commission, December 1973.

10. Appendixes

- Appendix A: Safe Shutdown Equipment List (SSEL)
- Appendix B: Seismic Design Basis Spectra
- Appendix C: Walkdown Personnel Resumes
- Appendix D: Screening Verification Data Sheets (SVDS)
- Appendix E: Peer Review Assessment
- Appendix F: Electrical Raceway Evaluation Areas

APPENDIX A

SAFE SHUTDOWN EQUIPMENT LIST (SSEL)

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 06:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Fir. Eiv.	LOCATION Ra. or Row/Col.	Sort Notes	Normal	OP. ST.	POWER SUPPORTING SYS. REQ'D INTERCONNECTIONS	REG.				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
8066	01	152-308	13 BUS TO 15 BUS 4KV SUPPLY		TB	911	LOWER 4KV RM	S,R		YES		ROB BUS 13,D111				
8067	01	152-408	14 BUS TO 16 BUS XTIE 4KV		TB	931	UPPER 4KV RM	S,R		YES		ROB BUS 14,D211				
7198	2	152-502/SS	SYNCH 11 STANDBY DIESEL		ADMIN	951	CR	S		YES		ROB C08,D111				
8039	03	152-503	P-202C(13 RHR PUMP) 4KV SUPPLY		TB	911	LOWER 4KV RM	S		YES	NE-36404-48	ROB BUS15,D111				
8040	03	152-504	P-202A(11 RHR PUMP) 4KV SUPPLY		TB	911	LOWER 4KV RM	S		YES		ROB BUS 15,D111				
3063	2	152-505	4KV SUPPLY TO P-208A	M-122 B,2	TB	911	LOWER 4KV	S				ROB BUS 15,D111				
8105	03	152-505	4KV SUPPLY TO P-208A(11 CS)		TB	911	LOWER 4KV RM	S		YES		ROB BUS 15,D111				
8108	03	152-507	P-109C (13 RHR SW) 4KV SUPPLY		TB	911	LOWER 4KV RM	S		YES		ROB BUS 15,D111				
8109	03	152-508	P-109A (11 RHR SW) 4KV SUPPLY		TB	911	LOWER 4KV RM	S		YES		ROB BUS 15,D111				
8042	03	152-603	P-202D (14 RHR PUMP) 4KV SUPPLY		TB	931	UPPER 4KV RM	S		YES		ROB BUS 16,D211				
8041	03	152-604	P-202B (12 RHR PUMP) 4KV SUPPLY		TB	931	UPPER 4KV RM	S		YES		ROB BUS 16,D211				
3066	1	152-605	4KV SUPPLY TO P-208B	M-122 B,5	TB	931	UPPER 4KV	S	OPEN	CLOSED	YES	ROB BUS 16,D211				
8106	03	152-605	4KV SUPPLY TO P-208B(12 CS)		TB	931	UPPER 4KV RM	S		YES		ROB BUS 16,D211				
8110	03	152-607	P-109D (14 RHR SW) 4KV SUPPLY		TB	931	UPPER 4KV RM	S		YES		ROB BUS 16,C211				
8111	03	152-608	109B(12 RHR SW) 4KV SUPPLY		TB	931	UPPER 4KV RM	S		YES		ROB BUS 16,D211				
7200	1	152/602/SS	SYNCH 12 STANDBY DIESEL		ADMIN	951	CR	S		YES		ROB C08,D211				
7183	1	0 190-D6-2/CS	12 DG VOLTAGE ADJUST	NE-36403-4A	ADMIN	951'	CR	S		ON	ON	ROB C-08,12 DG				
7184	2	0 190-D6-3/CS	11 DG VOLTAGE ADJUST	NE-36403-4	ADMIN	951'	CR	S		ON	ON	ROB C-08,11 DG				
12268A	1	20 2E-S1A	SRV A HS	M-115-1 B,5	ADMIN	951	CR	S		YES		ROB C03,D11,D21				
12149A	2	20 2E-S1C	SRV C HS	M-115-1 C,3	ADMIN	951	CR	S		YES		ROB C03,D11,D21				
1229A	1	20 2E-S1D	SRV D HS	M-115-1 B,3	ADMIN	951	CR	S		YES		ROB C03,D11,D21				
12324	20	2E-53B	DIV 11 SRV LO-LO SET BYPASS	M-115-1 D,2	ADMIN	951	CR	S		YES		ROB C2530,D100				
12044A	1	20 2E-54R	SRV B HS	M-115-1 C,7	ADMIN	951	CR	S		YES		ROB C03,D11,D21				

CERTIFICATION:

The information identifying the equipment required to bring the plant to a safe shutdown condition on this Safe Shutdown Equipment List (SSEL) is, to the best of our knowledge and belief, correct and accurate. (One or more signatures of Systems or Operations Engineers)

Print or Type Name/Title
ENGINEER

Raymond
Signature
11/16/95
Date

Print or Type Name/Title
ENGINEER

Donald
Signature
11/16/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 06:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEL 2.2

LINE NO.	EQUIP TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Flr./Elev.	LOCATION Ra. or Row/Col.	Sort Notes	Normal	OP. ST.	Desired	REQD?	SMC, MD./REV. & SUPPORTING COMPONENTS	ISSUE		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
12056A	1	20	2E-54E	SRV E HS	M-115-1 B,7	ADMIN	9S1	CR	S	YES	YES		ROB C03,033			
12121A	2	20	2E-54F	SRV F HS	M-115-1 B,3	ADMIN	9S1	CR	S	YES	YES		ROB C03,033			
12045A	2	20	2E-54G	SRV G HS	M-115-1 D,6	ADMIN	9S1	CR	S	YES	YES		ROB C03,033			
12135A	2	20	2E-54H	SRV H HS	M-115-1 D,3	ADMIN	9S1	CR	S	YES	YES		ROB C03,033			
7199	2	20	52-301/SS	SYNC 103 LOAD CENTER		ADMIN	9S1	CR	S	YES	YES		ROB C06,0111			
7201	1	20	52-410/SS	SYNC 104 LOAD CENTER		ADMIN	9S1	CR	S	YES	YES		ROB C06,0211			
16005	1/2	00	5A-53A	REACTOR MANUAL SCRAM CH A		RX	9S1	C-05	S	CLOSED	OPEN	YES	MX7834-67-9 LOGIC, RPS			
16006	1/2	00	5A-53B	REACTOR MANUAL SCRAM CH B		RX	9S1	C-05	S	CLOSED	OPEN	YES	MX7834-67-10 LOGIC, RPS			
12326	1	18	SAC30A	LOW LOW WET SCRAM PERMISSIVE RELAY		RB	935	WEST	S,R	YES	YES		ROB IR-SAC30A, RPS			
12327	2	18	SAC30B	LOW LOW SET SCRAM PERMISSIVE RELAY		RB	935	WEST	S,R	YES	YES		ROB IR-SAC30A, RPS			
20001	1	00	AMN-20-B-9	DIV II 125S250 VDC Trouble	ME-961B-3	ADMIN	9S1		S,R	YES	YES		ROB C20,0-101,021			
20002	2	00	AMN-3-A-06	Core Spray Pump 11 PWR Failure	MX-7833-21-3	ADMIN	9S1		S,R	YES	YES		ROB C03,14A-K3A on C-32,021			
20003	1	00	AMN-3-A-09	Autp Blowdown Relief Vlv Leaking	MX-7831-143-1	ADMIN	9S1		S,R	YES	YES		ROB C03,TR 2-166 on C21,021			
20004	2	00	AMN-3-A-10	RHR Hx Tube/shell Lo Dif Press	MX-7905-46-12	ADMIN	9S1		S,R	YES	YES		ROB C03,DP15-10-92A,021			
20005	2	00	AMN-3-A-14	Core Spray Pump 11 OL/Man-OVRD	MX-7833-21-3	ADMIN	9S1		S,R	YES	YES		ROB C03,OL: 150/151-505 relay, Breaker 152-505,021			
20006	2	00	AMN-3-A-22	Core Spray Pump 11 Lockout	MX-7833-21-3	ADMIN	9S1		S,R	YES	YES		ROB C03,186-505 Relay, Breaker 152-505,021			
20007	1	00	AMN-3-A-25	Auto Blowdown Timer Activated	MX-7831-143-1	ADMIN	9S1		S,R	YES	YES		ROB C03,2E-K4A or 2E-K4B on C-32,021			

CERTIFICATION:

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Print or Type Name/Title
ENGINEER

Brian Sands
Signature
11/16/95
Date

Print or Type Name/Title
ENGINEER

Brian MacKenzie
Signature
11/19/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEL 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Fir. Elev.	Rm. or Row/Col.	Sort Notes	OP. ST.	Power Supporting Sys.	Req'd Interconnections	Rec. Issue			
(1)	(2)	(3)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
20008	2	00	AMN-3-A-26	RHR I Vivs Motor OL	MX-7905-46-12	ADMIN	951	5,R	YES	ROB CO3,49/OL2 on associated breaker, breakers 3321, 3336, 3341, 3337, 432 8, D21					
20009	2	00	AMN-3-A-28	RHRSM Pump 11 Trip	MX-7905-46-12	ADMIN	951	5,R	YES	ROB CO3,152-508b, Breaker 152-509, D21					
20010	2	00	AMN-3-A-29	Core Spray I V Iv Motor OL	MX-7833-21-3	ADMIN	951	5,R	YES	ROB CO3,49/OL2, Breaker 3326, D21					
20011	1	00	AMN-3-A-30	Reactor Low Press	MX-7833-21-3	ADMIN	951	5,R	YES	ROB CO3,PS-2-3-52A/B or PS-2-3-53A/B, A150 Relays 144-KSA/B, 144-K21A/B, D21					
20012	1	00	AMN-3-A-33	ADS A/B Not in AUTO	MX-7831-143-1	ADMIN	951	5,R	YES	ROB CO3,2-E-KCA/B on C-32, D21					
20013	2	00	AMN-3-A-34	RHR I Injection Vivs Motor OL	MX-7905-46-12	ADMIN	951	5,R	YES	ROB CO3,49/OL2, Breakers 3334, 3335, D21					
20014	2	00	AMN-3-A-37	Core Spray Sys 1 Inj V Iv Motor OL	MX-7833-21-3	ADMIN	951	5,R	YES	ROB CO3,49/OL2, Breaker 3325, 3324, D21					
20015	1	00	AMN-3-A-38	Reactor Low Low Level	MX-7905-46-12	ADMIN	951	5,R	YES	ROB CO3,115-672A/C, L15-672B/D, C-303A, C-303 B, D21					
20016	2	00	AMN-3-A-42	RHR Pump 11 Lockout	MX-7905-46-12	ADMIN	951	5,R	YES	ROB CO3,186-504 Relay, Breaker 152-504, D21					
20017	2	00	AMN-3-A-43	RHR Pump 13 Lockout	MX-7905-46-12	ADMIN	951	5,R	YES	ROB CO3,186-503 Relay, Breaker 152-503, D21					
20018	2	00	AMN-3-A-44	RHRSM Pump 13 Trip	MX-7905-46-12	ADMIN	951	5,R	YES	ROB CO3,152-507b, Breaker 152-507, D21					
20019	2	00	AMN-3-A-46	M2 Low Press SRV Inbd MSIV	ME-36639-11	ADMIN	951	5,R	YES	ROB CO3,PS-4237 or PS-4896, 8 Train, D21					

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Print or Type Name/Title: Bruce M. Schmitt / ENGINEER
Date: 11/16/95

Print or Type Name/Title: Bruce M. Schmitt / ENGINEER
Date: 11/19/95

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
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Program File Name & Version: SSEM 2.2

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	EQUIPMENT LOCATION		SORT NOTES	OP. ST.		POWER REQ'D?	SUPPORTING SYS. IMG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE		
						Building	Ftr. Elv. Rm. or Row/Col.		Normal	Desired						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
20020	1	00	ANN-3-A-48	N2 Low Press SRV Inbd T-rings	NE-36839-11	ADMIN	951		S,R				YES		ROB C03,PS-4662 or PS-4895,A Train,D21	
20021	2	00	ANN-3-A-50	RHR Pump 11 OL/Man-OVRD	NX-7905-46-12	ADMIN	951		S,R				YES		ROB C03,OL: 150/151-504 Relay, B Phase breaker 152-504,D21	
20022	2	00	ANN-3-A-51	RHR Pump 13 OL/Man OVRD	NX-7905-46-12	ADMIN	951		S,R				YES		ROB C03,OL: 150/151-503 Relay, B Phase breaker 152-503,D21	
20023	1	00	ANN-3-B-04	RHR Pump 12 Lockout	NX-7905-46-12	ADMIN	951		S,R				YES		ROB C03,186-604 Relay, Breaker 152-604,D21	
20024	1	00	ANN-3-B-07	Core Spray Pump 12 OL/Man OVRD	NX-7833-21-3	ADMIN	951		S,R				YES		ROB C03,OL: 150/151-605 Relay, Breaker 152-605,D21	
20025	1	00	ANN-3-B-12	RHR Pump 12 OL/Man OVRD	NX-7905-46-12	ADMIN	951		S,R				YES		ROB C03,OL: 150/151-604 Relay, Breaker 152-604,D21	
20026	1	00	ANN-3-B-13	RHRSM Pump 14 Trip	NX-7905-46-12	ADMIN	951		S,R				YES		ROB C03,152-607b, Breaker 152-607,D21	
20027	1	00	ANN-3-B-15	Core Spray Pump 123 Lockout	NX-7833-21-3	ADMIN	951		S,R				YES		ROB C03,186-605 Relay, Breaker 152-605,D21	
20028	1	00	ANN-3-B-23	Core Spray Pump 12 Pwr Failure	NX-7833-21-3	ADMIN	951		S,R				YES		ROB C03,14A-K38 on C-33,D21	
20029	1	00	ANN-3-B-28	RHR Pump 14 Lockout	NX-7905-46-12	ADMIN	951		S,R				YES		ROB C03,186-603 Relay, Breaker 152-603,D21	
20030	1	00	ANN-3-B-30	Core Spray Sys II Vlv Motor OL	NX-7833-21-3	ADMIN	951		S,R				YES		ROB C03,49/OL2, Breaker 4326,D21	
20031	1	00	ANN-3-B-35	RHR II Vlv Motor OL	NX-7905-48-12	ADMIN	951		S,R				YES		ROB C03,49/OL2, Breakers 4323,4210,4208,4337,D21	
20032	1	00	ANN-3-B-36	RHR Pup 14 OL/Man OVRD	NX-7905-48-12	ADMIN	951		S,R				YES		ROB C03,150/151-603 Relay, Breaker 152-603,D21	

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_____/ ENGINEER
Print or Type Name/Title

Brian Lunde
Signature

11/16/95
Date

_____/ ENGINEER
Print or Type Name/Title

Bruce Markov
Signature

11/19/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
 SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
 SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
 Sort Criteria: ID Number
 Filter Criteria: (Eval. Type CONTAINS 'S')
 Program File Name & Version: SSEL 2.2

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	ST. Desired	POWER REQ'D	SUPPORTING SYS. DMG. 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)
20033	1	00	ANN-3-8-37	RHRSM Pump 12 Trip	NX-7905-48-12	ADMIN	951		S,R				YES		ROB C03,152-608b, Breaker 152-608,021	
20034	1	00	ANN-3-8-38	Core Spray System II Inj Vlv Motor OLr	NX-7833-21-3	ADMIN	951		S,R				YES		ROB C03,49/0L2, Breakers 4324,4325,021	
20035	1	00	ANN-3-8-43	RHR II Injection Vlv Motor OL	NX-7905-46-12	ADMIN	951		S,R				YES		ROB C03,49/0L2, Breakers 4334,4335,021	
20036	1	00	ANN-3-8-50	RHR Logic Bus Monitor	NX-7995-46-12	ADMIN	951		S,R				YES		ROB C03,10A-KBAA/B, C-32 and C-33,021	
20037	1	00	ANN-3-8-52	RHRSM Pumps OL-AUX Annu	NX-7905-46-12	ADMIN	951		S,R				YES		ROB C03, 150/151-507,508,607,608, Breakers 152-507,152-508,152-607,152-608,021	
20039	1	00	ANN-4-8-04	Suppression Water Level HI/Low	NE-36537-31	ADMIN	951	CR	S,R				YES		ROB C04,LS-2996A or LS-2996B,021	
20040	1	00	ANN-4-8-35	Drywell-Torus HI Press	NE-36537-31	ADMIN	951		S,R				YES		ROB C04,PR-2994,021	
20042	1	00	ANN-5-A-09	Reactor Vessel L/L Wtr Level Ch A	NX-7823-4-1	ADMIN	951		S,R				YES		ROB C05,LS 2-3-657C, LS 2-3-658C,021	
20043	1	00	ANN-5-A-10	Reactor Vessel L/L Wtr Level Ch B	NX-7823-4-1	ADMIN	951		S,R				YES		ROB C05,LS 2-3-657D, LS 2-3-658D,021	
20046	1	00	ANN-5-A-46	SRV Open	NF-95915-4	ADMIN	951		S,R				YES		ROB C05,dPSH Switch, dPSH 4060A,4061C,4062C,4063C,4068A,4069A,4070A,4071A,021	
20047	1	00	ANN-5-B-04	Reactor Auto Scram Channel A	NX-7834-67-17	ADMIN	951		S,R				YES		ROB C05,5A-K13A/C/E or G, C-15,021	
20048	1	00	ANN-5-B-05	Reactor Auto Scram Channel B	NX-7834-67-17	ADMIN	951		S,R				YES		ROB C05,5A-K13B/D/F or H, C-17,021	
20049	1	00	ANN-5-B-12	Reactor Manual Scram Channel A	NX-7834-67-17	ADMIN	951		S,R				YES		ROB C05,5A-K22A, C-15,021	

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_____/ ENGINEER
 Print or Type Name/Title

Brian Kinde
 Signature

11/16/95
 Date

_____/ ENGINEER
 Print or Type Name/Title

Brian Kinde
 Signature

11/19/95
 Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEN 2.2

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Des. No./Rev./Zone	EQUIPMENT		LOCATION		SORT	NOTES	OP. ST.		POWER SUPPORTING SYS. REQ'D	DNG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
						Building	Fir. Elev.	Rm. or Row/Col.	Normal			Desired					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	
20050	1	00	ANN-5-B-13	Reactor Manual Scram Channel C	NX-7834-67-17	ADMIN	951			S,R				YES		ROB C05, SA-K228, C-17, D21	
20053	1	00	ANN-5-B-52	Torus Water HI Temp Spotwms Trouble		ADMIN	951			S,R				YES		ROB C05, TV-4072A/B, D21	
20054	2	00	ANN-6-C-06	Diesel Gen Tk T-45A Level/Flow Low	NF-36755	ADMIN	951			S,R				YES		ROB C06, LIS-1528 or FS-3236, D11	
20056	1	00	ANN-6-C-07	Diesel Gen Tk T-45B Level/Flow Low	NF-36755	ADMIN	951			S,R				YES		ROB C06, LIS-1529 or FS-3237, C06, D11	
20057	1	00	ANN-6-C-2	Diesel Oil Storage Tank T-44 Low-Low Level	NF-36755	ADMIN	951			S,R				YES		ROB C06, LIS-1522, D11	
20058	2	00	ANN-8-A-04	Y10/Y70 Instr AC Loss of Voltage	NF-36709, NE-100344	ADMIN	951			S,R				YES		ROB C08, Y74, Y75 Undervoltage Relay, C08, D11	
20059	1	00	ANN-8-A-09	Y20 Instr Ac Undervoltage	E-111, E-32	ADMIN	951			S,R				YES		ROB C08, Relay 27-12, C08, D11	
20060	1	00	ANN-8-A-14	Y30/Y80 Instr AC Loss of Voltage	NF-36709, NE-100344	ADMIN	951			S,R				YES		ROB C08, Y84, Y85 Undervoltage Relay, C08, D11	
20061	2	00	ANN-8-A-15	Battery Chgr Supply Undervoltage or HVSD	NF-36709	ADMIN	951			S,R				YES		ROB C08, HVSD, ACPFA or PLR Relay, D52, 53, 54 or D10, 20, 40, C08, D11	
20062	2	00	ANN-8-A-20	Division I 250 VDC HI/Lo Voltage	NF-36709	ADMIN	951			S,R				YES		ROB C08, D52, 53, D11, D102	
20063	2	00	ANN-8-A-24	Div I Inverter Y71 Trouble	NF-36709	ADMIN	951			S,R				YES		ROB C08, Y71 Local Annunciator, D11	
20064	1	00	ANN-8-A-29	Div 2 Inverter Y81 Trouble	NF-36709	ADMIN	951			S,R				YES		ROB C08, Y81 Local Annunciator, D11	
20065	1	00	ANN-8-B-13	No. 12 125 VDC Bus Voltage HI/Lo	NF-36710	ADMIN	951			S,R				YES		ROB C08, BVR-2, D11	
20066	2	00	ANN-8-B-19	ESW Pump 11 Lo Dsch Press	NF-36710	ADMIN	951			S,R				YES		ROB C08, PS-2438, D11	
20067	2	00	ANN-8-D-20	ESW Pump 11 OL/Man OVRD	NF-36710	ADMIN	951			S,R				YES		ROB C08, 49/0' 2, Breaker 3435, D11	

CERTIFICATION:

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_____/ ENGINEER
Print or Type Name/Title

Brian Sunde
Signature

11/16/95
Date

_____/ ENGINEER
Print or Type Name/Title

Brian Mackinnon
Signature

11/19/95
Date

HOWITCELLO NUCLEAR GENERATING PLANT
 SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
 SEISMIC REVIEW SSEL

LINE NO.	EQUIP TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dist. No./Rev./Zone	Building	Fir. Elev.	Equipment Location	No. or Row/Col.	Sort Notes	Normal	Desired	REQ'D	Dmg. No./Rev.	Supporting Sys. & Components Issue		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
20068	2	00	AMN-8-8-23	11 Diesel Gen Lockout	WF-36710	ADMIN	951		S,R	YES				ROB COB, 106-502, Breaker 152-502, D11		
20069	2	00	AMN-8-8-28	11 Diesel Gen Phase Overcurrent	WF-36710	ADMIN	951		S,R	YES				ROB COB, 151-061, D11		
20070	2	00	AMN-8-8-30	11 Diesel Eng trouble	WF-36710	ADMIN	951		S,R	YES				ROB COB, Alarm Relay, C-93, D11		
20071	2	00	AMN-8-8-34	11 Diesel Gen Running	WF-36710	ADMIN	951		S,R	YES				ROB COB, ESR relay, D11		
20072	2	00	AMN-8-C-14	No. 12 125 VDC Bus Voltage H/Low	WF-36710	ADMIN	951		S,R	YES				ROB COB, PWR-1, D11		
20073	1	00	AMN-8-C-17	ESM PUMP 12 Lo Dsch Press	WF-36710	ADMIN	951		S,R	YES				ROB COB, PS-2439, D11		
20074	1	00	AMN-8-C-20	ESM Pump 12 OL/Man OVRD	WF-36710	ADMIN	951		S,R	YES				ROB COB, 49/0L2, Breaker 4319, D11		
20075	1	00	AMN-8-C-21	12 Diesel Eng Trouble	WX-36710	ADMIN	951		S,R	YES				ROB COB, Alarm Relay, C-94, D11		
20076	1	00	AMN-8-C-23	12 Diesel Lockout	WF-36710	ADMIN	551		S,R	YES				ROB COB, 106-602, Breaker 152-602, D11		
20077	1	00	AMN-8-C-28	12 Diesel Gen Phase Overcurrent	WF-36710	ADMIN	951		S,R	YES				ROB COB, 151-062, D11		
20078	1	00	AMN-8-C-32	12 Diesel Eng Running	WF-36710	ADMIN	951		S,R	YES				ROB COB, ESR Relay, D11		
11009	1	08	AO-2-80A	A MSIV INBOARD	M-115 C,5	RX	933'	DM AZ 160	S,R 15	OPEN	CLOSED	NO		HS 16A-S1A		
11010	1	08	AO-2-80B	B MSIV INBOARD	M-115 D,5	RX	933'	DM AZ 170	S,R 15	OPEN	CLOSED	NO		HS 16A-S1B		
11011	1	08	AO-2-80C	C MSIV INBOARD	M-115 D,2	RX	933'	DM AZ 190	S,R 15	OPEN	CLOSED	NO		HS 16A-S1C		
11012	1	08	AO-2-80D	D MSIV INBOARD	M-115 C,2	RX	933'	DM AZ 200	S,R 15	OPEN	CLOSED	NO		HS 16A-S1D		
11013	2	08	AO-2-85A	A MSIV OUTBD	M-115 C,5	RX	935'	STEAM CHASE	S,R 15	OPEN	CLOSED	NO		HS 16A-S2A		
11014	2	08	AO-2-85B	B MSIV OUTBD	M-115 D,5	RX	935'	STEAM CHASE	S,R 15	OPEN	CLOSED	NO		HS 16A-S2B		
11015	2	08	AO-2-85C	C MSIV OUTBD	M-115 D,2	RX	935'	STEAM CHASE	S,R 15	OPEN	CLOSED	NO		HS 16A-S2C		
11016	2	08	AO-2-85D	D MSIV OUTBD	M-115 C,2	RX	935'	STEAM CHASE	S,R 15	OPEN	CLOSED	NO		HS 16A-S2D		
9023	2	00	AV-3147	11 RHR SW PUMP P-109A AUTO AIR VENT	M-811 B,3	INTAKE	919	MAIN ROOM	S	N/A	N/A	NO				

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Print or Type Name/Title: Brian Sunde / ENGINEER
 Signature: [Signature]
 Date: 11/16/95

Print or Type Name/Title: Bruce Mackinnon / ENGINEER
 Signature: [Signature]
 Date: 11/19/95

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

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Sort Criteria: ID Number
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LINE NO.	TRAIN CLASS	EQUIP MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Doc. No./Rev./Zone	Building	Equipment Fir-Etv.	LOCATION	Sort Notes	Normal	Desired	REQ'D	INTERCONNECTIONS	REG.		
(1)	(2)	(3)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
7108	1	20	C-94	12 DIESEL GEN CONTROL	TB	931'	12 EDG	S			NO		ROB 12 DG		
8011	20	C03	RX AB CONTAINMENT COOLING CONTROL PANEL	ADMIN	951	CR		S			NO				
8085	20	C04	RMC RECIRCULATING BENCH BOARD	ADMIN	951	CR		S			NO				
8086	20	C05	REACTOR CONTROL BENCH BOARD	ADMIN	951	CR		S			NO				
8104	20	C06	FEEDWATER AND CONDENSATE BENCHBOARD	ADMIN	950	CR		S			NO				
8082	20	C07	TURBINE BENCH BOARD	ADMIN	951	CR		S			NO				
8084	20	C08	GENERATOR AUXILIARY POWER BENCH BOARD	ADMIN	951	CR		S			NO				
8015	20	C121	JET PUMP INSTRUMENT RACK	RX	935	WEST		S			NO				
8020	20	C122	JET PUMP INSTRUMENT RACK	RX	935	EAST		S			NO				
8009	20	C129A	RHR INSTRUMENT RACK	RX	896	A RHR RH		S			NO				
8022	20	C129B	RHR INSTRUMENT RACK	RX	896	B RHR RH		S			NO				
8093	20	C15	CHANNEL A PRIMARY ISOL AND RPS VERTICAL BOARD	ADMIN	951	CR		S			NO				
8094	20	C17	CHANNEL B ISOL AND RPS VERTICAL BOARD	ADMIN	951	CR		S			NO				
8071	20	C18	FEEDWATER AND RECIRCULATION	ADMIN	939	CSR		S			NO				
8043	20	C19	PROCESS INSTRUMENT VERTICAL BOARD	ADMIN	939	CSR		S			NO				
8061	20	C20	TURBINE PLANT INSTRUMENT VERTICAL BOARD	ADMIN	951	CR		S			YES		B4305(MCC143A),B3305(ME C133A)		
8077	20	C21	NUCLEAR STEAM SUPPLY TEMPERATURE RECORDING	ADMIN	951	CR		S			NO				
8088	20	C242	EFT NON-1E PANEL	EFT	932	DIV 1 RH		S			NO				
8091	20	C243A	EFT CLASS 1E PANEL DIVISION 1	EFT	933	DIV 1 RH		S			NO				

CERTIFICATION:

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Print or Type Name/Title
Brian Gunde / ENGINEER
 Date: 11/16/95

Print or Type Name/Title
Bruce Mackintosh / ENGINEER
 Date: 11/16/95

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Date Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEL 2.2

LINE NO.	TRAIN CLASS	EQUIP MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Fir. E.Lv.	LOCATION Ra. or Rom/Coil.	Sort Notes	OP. ST.	Desired	REV'D	INTERCONNECTIONS				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
8092	20	C2448	EFT CLASS 1E PANEL DIVISION 2		EFT	933	DIV 2 RH	5								
8074	20	C253A	SRV LOW LOW SET DIV 1 CONTROL PANEL		ADMIN	939	CSR	5								
8075	20	C253B	SRV LOW LOW SET DIV 2 CONTROL PANEL		EFT	960	MAIN	5								
8076	20	C2530	DIV 11 LOLO SET BYPASS PANEL		ADMIN	951	CR	5								
8078	20	C289A	SPOTNDS PANEL		ADMIN	939	CSR	5								
8079	20	C289B	SPOTNDS PANEL		EFT	960	MAIN	5								
8095	20	C290A	SRV BLOWDOWN INSTRUMENT PANEL		RX	896	TORUS	5								
8101	18	C290B	SRV BLOWDOWN INSTRUMENT PANEL		RX	935	WEST	5								
8023	20	C292	ASDS BENCHBOARD		EFT	960	MAIN ROOM	5								
8025	20	C293	ASDS RELAY PANEL		TB	931	UPPER 4KV RH	5								
8096	20	C30	RCIC CABLE SPR RH CONTROL PANEL		ADMIN	939	CSR	5								
8012	20	C303A	ECDS DIV 1 ANALOG TRIP SYSTEM		ADMIN	931	CSR	5								
8069	20	C303B	ECDS DIV 2 ANALOG TRIP UNIT		EFT	960	MAIN	5								
8068	20	C304A	RPS-A1 AND ISOLATION ANALOG TRIP UNIT		ADMIN	939	CSR	5								
8070	20	C304B	RPS-B1 AND ISOLATION ANALOG TRIP UNIT		ADMIN	939	CSR	5								
8072	20	C304C	RPS-A2 AND ISOLATION ANALOG TRIP UNIT		EFT	960	MAIN	5								
8073	20	C304D	RPS-B2 AND ISOLATION ANALOG TRIP UNIT		EFT	960	MAIN	5								
8100	20	C311	SRV BACKUP AIR SUPPLY		TB	931	EAST	5								
8017	20	C32	A RH, CORE SPRAY, ADS CONTROL PANEL		ADMIN	939	CSR	5								

CERTIFICATION:

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Print or Type Name/Title ENGINEER

Prigand
Signature
11/16/95
Date

Print or Type Name/Title ENGINEER

Smetschek
Signature
11/19/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
 SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
 SEISMIC REVIEW SSEL

LINE NO.	EQUIP TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Des. No./Rev./Zone	Building	Equipment Location	Normal	Desired	Req'd	Supporting Sys.	Interconnections				
(1)	(2)	(3)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
8010	20	C33	B RHR, CORE SPRAY, ADS CONTROL PANEL		ADMIN	931	CSR	S		NO					
8097	20	C39	HPCI RELAY PANEL		ADMIN	939	CSR	S		NO					
8098	20	C41	INBOARD ISOLATION RELAY PANEL		ADMIN	939	CSR	S		NO					
8099	20	C42	OUTBOARD ISOLATION RELAY PANEL		ADMIN	939	CSR	S		NO					
8018	20	E55	RX LEVEL & PRESSURE BACK		RX	962	SOUTH	S		NO					
8014	20	C56	RX LEVEL & PRESSURE BACK		RX	962	SOUTH	S		NO					
4001	1	00	CRD HYDRAULIC CONTROL UNITS EAST SIDE	M-119	RX	935	EAST SIDE	S,R		NO					
4002	1	00	CRD HYDRAULIC CONTROL UNITS WEST SIDE	M-119	RX	935	WEST SIDE	S,R		NO					
4005	1	Z1	SCRAM DISCHARGE VOLUME	M-119 D,3	RX	935	11 BK	S		NO					SV-1728
4006	1	Z1	SCRAM DISCHARGE VOLUME	M-119 D,2	RX	935	12 BK	S		NO					SV-1728
9165	2	00	11 RHR HX RHRSH OUT	M-112 A,5	RX	896	A RHR ROOM	S		OPEN	OPEN				T-75A,C-03
9122	1	00	12 RHR HX RHRSH OUTLET	M-112 A,4	RX	896	B RHR ROOM	S		OPEN	OPEN				C-292, SV-1995
1027	2	07	11 RHR PUMP MINIMUM FLOW	M-121 B,4	RX	896	A RHR ROOM	S		CLOSED	CLOSED				T-75C,C-03
2021	1	07	RHR/ RHR B PUMP MIN FLOW	M-120 B,4	RX	896'	B RHR ROOM	S		CLOSE	OP/CL				C-03, SV-1997
1022	2	07	13 RHR PUMP MINIMUM FLOW	M-121 C,5	RX	896	A RHR ROOM	S		CLOSED	OPEN				CO5(POSITION INDICATION), Y20
2027	1	07	RHR/ RHR D PUMP MIN FLOW	M-120 C,4	RX	896'	B RHR ROOM	S		CLOSE	OP/CL				CO5(POSITION INDICATION), Y20
4013	1	07	SDW VENT	M-119 D,4	RX	935	11 BK	S,R	24	OP	CL				CO5(POSITION INDICATION), Y20
4015	1	07	SDW VERT	M-119 D,1	RX	935	12 BK	S,R	24	OP	CL				CO5(POSITION INDICATION), Y20
4014	2	07	SDW VERT	M-119 D,4	RX	935	11 BK	S,R	24	OP	CL				CO5(POSITION INDICATION), Y20

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Print or Type Name/Title: Blas Sandoval / ENGINEER
 Signature: [Signature]
 Date: 11/16/95

Print or Type Name/Title: Dwight Mackinnon / ENGINEER
 Signature: [Signature]
 Date: 11/19/95

LINE NO.	EQUIP TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Div. No./Rev./Zone	Building	LOCATION	Sort Notes	OP. ST.	Desired	REQ'D INTERCONNECTIONS						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
4016	2	07	CV-3-320	SDV VENT	M-119 D,1	RX	935	12 BK	S,R 24	OP	CL	YES	YES			
4003	1	07	CV-3-33A	SCRAM DISCHARGE VOLUME DRAIN LINES	M-119 C,3	RX	935	11 BK	S,R 24	OP	CL	YES	YES			
4004	1	07	CV-3-33B	SCRAM DISCHARGE VOLUME DRAIN LINES	M-119 C,2	RX	935	12 BK	S,R 24	OP	CL	YES	YES			
4011	1	07	CV-3-33C	SDV DRAIN	M-119 C,3	RX	935	11 BK	S,R 24	OP	CL	YES	YES			
4012	1	07	CV-3-330	SDV DRAIN	M-119 C,2	RX	935	12 BK	S,R 24	OP	CL	YES	YES			
5001	2	15	D1	#11 DIV 1 125 VDC BATTERY		ADMIN	928	#11 BAT RM	S			YES	YES			
5002	2	14	D10	125 VDC CHARGER FOR #11 BATTERY		ADMIN	928	DIV 1 250V BAT	S,R			YES	YES			
6029	2	14	D100	DIV 2 125/250 VDC DISTRIBUTION PANEL		EFT	932	ELE EQ DIV2 RM	S			YES	YES			
8089	20	D101		DIV 2 125/250 VDC ALARM SYSTEM PANEL		EFT	932	DIV 2 RM	S			NO	NO			
8090	20	D102		DIV 1 125/250 VDC ALARM SYSTEM PANEL		ADMIN	928	DIV1 250 BAT RM	S			NO	NO			
5005	2	14	D11	DIV 1 125VDC DISTRIBUTION CENTER		ADMIN	928	#11 125 BAT RM	S			YES	YES			
5006	2	14	D111	DIV 2 125 VDC PANEL		TB	911	LOWER 4KV RM	S			YES	YES			
5001A	1	15	D2	#12 DIV 2 125 VDC BATTERY		ADMIN	928	#12 BAT RM	S			YES	YES			
5003	1	14	D20	125 VDC CHARGER FOR #12 BATTERY		ADMIN	928	#12 125V BAT RM	S,R			YES	YES			
5007	1	14	D21	DIV 2 125 VDC DISTRIBUTION CENTER		ADMIN	928	#12 125 BAT RS	S			YES	YES			
5009	1	14	D211	DIV 2 125 VDC DISTRIBUTION PANEL		ADMIN	928	#12 125V BAT R	S			YES	YES			
6028	2	14	D31	DIV 1 125/250 VDC DISTRIBUTION PANEL	E-110 SHT.4B	ADMIN	928	DIV1 250V BATRM	S			YES	YES			
6026	2	1	D311	DIV 1 (RCIC) 250V AC MOTOR CONTROL CENTER	E-110 SHT.4B	RX	896	RCIC ROOM	S			YES	YES			

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Print or Type Name/Title: Brian Sunde / ENGINEER
 Signature: Brian Sunde
 Date: 11/16/95

Print or Type Name/Title: Bruce M. Beckwith / ENGINEER
 Signature: Bruce M. Beckwith
 Date: 11/19/95

MONTECELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 06:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEL 2.2

LINE NO.	EQUIP TRATH CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Fir./Elev.	LOCATION Rm. or Row/Col.	SORT NOTES	Normal	Desired	REQ'D	DWG. NO./REV.	SUPPORTING COMPONENTS	REG. ISSUE		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
6016	1	D312	DIV 2 (HPCI) 250V DC MOTOR CONTROL CENTER 312	E-201 SHT.3	RX	896	HPCI ROOM	S	YES							D100
6027	2	D313	DIV 1 250V DC MOTOR CONTROL CENTER 313	E-110 SHT.4B	RX	962	MG SET ROOM	S	YES							D31
6025	2	D33	125V DC DISTRIBUTION PANEL	E-110 SHT.4B	ADMIN	928	11-125V BATROOM	S	YES							D31
6020	2	D3A	#13 (DIV 1)125V/250V DC BATTERY "A" (60 CELLS)	E-110 SHT.4B	ADMIN	928	DIV1 250V BATHR S	S	YES							D52, D53, D54
6021	2	D3B	#13 (DIV 1)125V/250V DC BATTERY "B" (60 CELLS)	E-110 SHT.4B	ADMIN	928	DIV1 250V BATHR S	S	YES							D52, D53, D54
5005	2	D40	125 VDC SWING CHARGER FOR #11 AND #12 BATTERY		ADMIN	928	DIV 1 125V BAT S,R	S,R	YES							MCC 143A
6022	2	D52	CHARGER, D3A (13) BATTERY	E-110 SHT.4B	ADMIN	928	DIV1 250V BATHR S,R	S,R	YES							B3433(MCC134)
6023	2	D53	CHARGER, D3B (13) BATTERY	E-110 SHT.4B	ADMIN	928	DIV1 250V BATHR S,R	S,R	YES							B3434(MCC134)
6024	2	D54	CHARGER, SWING D3A, D3B (13) BATTERY	E-110 SHT.4B	ADMIN	928	DIV1 250V BATHR S,R	S,R	YES							B3431(MCC134)
6001	1	D6A	250V DC BATTERY DIV II	E-150B	EFT	933		S	YES							D78, D80, D90
6001A	1	D6B	250V DC BATTERY DIV II	E-150B	EFT	933		S	YES							D70, D80, D90
6017	1	D70	CHARGER, D6B (16) BATTERY	E-201 SHT.3	EFT	932	ELEC EQ DIV 200V S,R	S,R	YES							B4433(MCC144)
6018	1	D80	CHARGER, D6A (16) BATTERY	E-201 SHT.3	EFT	932	ELEC EQ DIV 200V S,R	S,R	YES							B4434(MCC144)
6019	1	D90	CHARGER, SWING D6A, D6B (16) BATTERY	E-201 SHT.3	EFT	932	ELEC EQ DIV 200V S,R	S,R	YES							B4431(MCC144)
7196	2	DG1/CS	11 EDG CONTROL SWITCH		ADMIN	951	CR	S	YES							ROB COB, D111
7197	1	DG2/CS	12 EDG CONTROL SWITCH		ADMIN	951	CR	S	YES							ROB COB, D211
7158	1	DM 8089-A1	V-SF-9 SUPPLY DAMPER	MX-9276-1-8	TB		12 DG	S	16	CLOSED	OPEN	NO				TC-8089C
7159	1	DM 8089-A2	V-SF-9 SUPPLY DAMPER	MX-9276-1-8	TB		12 DG	S	16	CLOSED	OPEN	NO				TC-8089C
7160	1	DM 8089-A3	V-SF-9 SUPPLY DAMPER	MX-9276-1-8	TB		12 DG	S	16	CLOSED	OPEN	NO				TC-8089C
7161	1	DM 8089-B1	V-SF-9 EXHAUST DAMPER	MX-9276-1-8	TB		12 DG	S	16	CLOSED	OPEN	NO				TC-8089C

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Print or Type Name/Title

Bruce Sunde
Signature

11/16/95
Date

Print or Type Name/Title

Rouven Markensack
Signature

11/16/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEN 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Fir. Elev.	LOCATION Rm. or Row/Col.	Normal	Desired	POWER SUPPORTING SYS. REQ'D	INTERCONNECTIONS	REG. & SUPPORTING COMPONENTS ISSUE				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
7162	1	0	DM 8089-B2	V-SF-9 EXHAUST DAMPER	KX-9276-1-8	TB	12 DG	5	16	CLOSED	OPEN	NO	TC-8089C			
7163	2	0	DM 8089-J1	V-SF-10 SUPPLY DAMPER	KX-9276-1-6	TB	11 DG	5	16	CLOSED	OPEN	NO	TC-8089L			
7164	2	0	DM 8089-J2	V-SF-10 SUPPLY DAMPER	KX-9276-1-8	TB	11 DG	5	16	CLOSED	OPEN	NO	TC-8089L			
7165	2	0	DM 8089-J3	V-SF-10 SUPPLY DAMPER	KX-9276-1-8	TB	11 DG	5	16	CLOSED	OPEN	NO	TC-8089L			
7165A	2	0	DM 8089-K1	V-SF-10 EXHAUST DAMPER	KX-9276-1-8	TB	11 DG	5	16	CLOSED	OPEN	NO	TC-8089L			
7165B	1	0	DM 8089-K2	V-SF-10 EXHAUST DAMPER	KX-9276-1-8	TB	11 DG	5	16	CLOSED	OPEN	NO	TC-8089L			
2151	1	18	DPF-4103	RHR SW HX 12 T/S DP CONTROL	M-120 A,6	EFT	960'		5			YES	ROB C-292, E/S-4100			
1072	0	00	DP1 10-130A	DIV 1 RHR HX DP	M-121 A,3	ADMIN	951	CR	5			YES	ROB C-03, ES-7251A			
2153	1	18	DP1-10-130B	RHR HX 12 TUBE/SHELL DP CONTROL	M-120 A,6	ADMIN	951'	CR	5			YES	ROB C03, E/S 4101			
7046	2	18	DP1-3366	DG 11 AIR CLEANER DIFF PRESS	M-133 B,6	TB	931	11 DG RH	5			NO	ROB 11 DG			
7010	1	18	DP1-3367	DG 12 AIR CLEANER DIFF PRESS	M-133 C,6	TB	931	12 DG RH	5			NO	ROB 12 DG			
2149	1	18	DP1-4103	RHR SW 12 HX T/S DP CONTROL	M-120 A,6	EFT	960'	MAIN ROOM	5			YES	ROB C-292, E/S-4100			
1072A	2	00	DP1C-10-130A	RHR HX 11 TUBE/SHELL DP CONTROL	M-121 A,3	ADMIN	951	CR	5			YES	ROB C03, ES7251A, Y70			
2154	1	18	DP1C-10-130B	RHR HX 12 TUBE/SHELL DP CONTROL	M-120 A,6	ADMIN	951'	CR	5,R			YES	ROB C03, E/S 4101, Y80			
2154A	1	18	DP1S 10-928	RHR/ RHR B-RHR SW d/p	M-120 A,6	RX	896'	B RHR ROOM	5			YES	ROB C-1298, AMN-3-8-9, D21			
1063	2	18	DP1S-10-92A	RHR HX LOW D/P ALARM	M-121 A,3	RX	896	A RHR ROOM	5			YES	ROB C-1298, AMN-3-4-10, D21			
3079	2	20	DP1S-14-43A	CS SPARGER 11 BREAK DET ALARM	M-122 C,3	RX	935	WEST SIDE	5			YES	ROB C-121, AMN-3-4-13, D21			
3080	1	20	DP1S-14-43B	CS SPARGER 12 BREAK DET ALARM	M-122 C,5	RX	935	WEST SIDE	5			YES	ROB C-121, AMN-3-4-14, D21			
12129A	2	20	DP5H-4060A	SRV F LO LO SET TAILPIPE OPM/CLS	M-115-1 B,2	ADMIN	939	CSR	5			YES	ROB C253A, ES-4059A, C			
12130A	2	20	DP5H-4060B	SRV F LO LO SET TAILPIPE INTLK	M-115-1 B,2	EFT	960	MAIN	5			YES	ROB C253B, ES-4059B			
12001A	2	20	DP5H-4061A	SRV G LO LO SET TAILPIPE INTLK	M-115-1 D,8	ADMIN	939	CSR	5			YES	ROB C253A, ES-4059A, C			

CERTIFICATION:

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Pr Int or Type Name/Title
ENGINEER

Brian Smith
Signature

11/16/95
Date

Pr Int or Type Name/Title
ENGINEER

Brian Smith
Signature

11/19/95
Date

POINTCELLO NUCLEAR GENERATING PLANT
 SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
 SEISMIC REVIEW SSEL

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Desig. No./Rev./Zone	Building	Equipment Flr. Eiv.	LOCATION Rm. or Row/Col.	Sort Notes	OP. ST.	Normal	Desired	REQ'D INTERCONNECTIONS	REG. & SUPPORTING COMPONENTS ISSUE			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
12003A	2	20	DP5H-4061B	SRV G LO LO SET TAILPIPE INTLK	M-115-1 D,8	EFT	960	MAIN	S		YES		ROB C253B, ES-4059B			
12002A	2	20	DP5H-4061C	SRV LO LO SET TAILPIPE PRESS INTLK	M-115-1 D,8	ADMIN	939	CSR	S		YES		ROB C253A, ES-4059A,C			
12004A	2	20	DP5H-4061D	SRV G LO LO SET TAILPIPE INTLK	M-115-1 C,8	EFT	960	MAIN	S		YES		ROB C253B, ES-4059B			
12009A	1	20	DP5H-4062A	SRV E LO LO SET TAILPIPE INTLK	M-115-1 A,8	ADMIN	939	CSR	S		YES		ROB C253A, ES-4059A,C			
12011A	1	20	DP5H-4062B	SRV E LO LO SET TAILPIPE INTLK	M-115-1 A,8	EFT	960	MAIN	S		YES		ROB C253B, ES-4059B			
12010A	1	20	DP5H-4062C	SRV E LO LO SET PRESS INTLK	M-115-1 A,8	ADMIN	939	CSR	S		YES		ROB C253A, ES-4059A,C			
12012A	1	20	DP5H-4062D	SRV E LO LO SET TAILPIPE INTLK	M-115-1 A,8	EFT	960	MAIN	S		YES		ROB C253B, ES-4059B			
12140A	2	20	DP5H-4063A	SRV H LO LO SET TAILPIPE INTLK	M-115-1 C,2	ADMIN	939	CSR	S		YES		ROB C253A, ES-4059A,C			
12006A	2	20	DP5H-4063B	SRV H LO LO SET TAILPIPE INTLK	M-115-1 C,2	EFT	960	MAIN	S		YES		ROB C253B, ES-4059B			
12141A	2	20	DP5H-4063C	SRV H LO LO SET PRESS INTLK	M-115-1 C,2	ADMIN	939	CSR	S		YES		ROB C253A, ES-4059A,C			
12008A	2	20	DP5H-4063D	SRV H LO LO SET TAILPIPE INTLK	M-115-1 C,2	EFT	960	MAIN	S		YES		ROB C253B, ES-4059B			
12005A	1	20	DP5H-4068A	SRV B LO LO SET TAILPIPE OPN/CLS	M-115-1 C,8	ADMIN	939	CSR	S		YES		ROB C253A, ES-4059A,C			
12265A	1	20	DP5H-4069A	SRV A LO LO SET TAILPIPE OPN/CLS	M-115-1 A,8	ADMIN	939	CSR	S		YES		ROB C253A, ES-4059A,C			
12290A	2	20	DP5H-4070A	SRV C LO LO SET TAILPIPE OPN/CLS	M-115-1 C,2	ADMIN	939	CSR	S		YES		ROB C253A, ES-4059A,C			
12278A	1	20	DP5H-4071A	SRV D LO LO SET TAILPIPE OPN/CLS	M-115-1 B,2	ADMIN	939	CSR	S		YES		ROB C253A, ES-4059A,C			
1062	2	18	DPT-10-91A	RHR HX 11 D/P CONTROL	M-121 A,3	RX	896	A RHR ROOM	S		YES		ROB C-129A, E/S-7251A			
2154B	1	18	DPT-10-91B	RHR HX 12 TUBE/SHELL DP CONTROL	M-120 A,6	RX	896'	B RHR ROOM	S		YES		ROB C-129B, ES-4100			
12129	2	18	DPT4060A	F SRV LOW LOW SET TAILPIPE D/P	M-115-1 B,2	RX	896	TORUS BOTTOM	S		YES		ROB C290A, ES-4059A,C			
12130	2	18	DPT4060B	F SRV LOW LOW SET TAILPIPE D/P	M-115-1 B,2	RX	935	WEST	S		YES		ROB C290B, ES-4059B			
12001	2	18	DPT4061A	G SRV LOW LOW SET TAILPIPE D/P	M-115-1 D,7	RX	896	TORUS BOTTOM	S		YES		ROB C290A, ES-4059A,C			
12003	2	18	DPT4061B	G SRV LOW LOW SET TAILPIPE D/P	M-115-1 D,7	RX	935	WEST	S		YES		ROB C290B, ES-4059B			
12002	2	18	DPT4061C	G SRV LOW LOW SET TAILPIPE D/P	M-115-1 D,7	RX	896	TORUS BOTTOM	S		YES		ROB C290A, ES-4059A,C			
12004	2	18	DPT4061D	G SRV LOW LOW SET TAILPIPE D/P	M-115-1 C,7	RX	935	WEST	S		YES		ROB C290B, ES-4059B			

CERTIFICATION:

The information identifying the equipment required to bring the plant to a safe shutdown condition on this Safe Shutdown Equipment List (SSEL) is, to the best of our knowledge and belief, correct and accurate. (One or more signatures of Systems or Operations Engineers)

Print or Type Name/Title: Prigun Sunde / ENGINEER
 Signature: [Signature]
 Date: 11/16/95

Print or Type Name/Title: Dwight M. Black / ENGINEER
 Signature: [Signature]
 Date: 11/19/95

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSELN 2.2

LINE NO.	EQUIP TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Req. No./Rev./Zone	Building	Fir. Elev.	LOCATION	Normal	Desired	POWER SUPPORTING SYS. REQ'D INTERCONNECTIONS	REG. & SUPPORTING COMPONENTS ISSUE					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
12009	1	18	DPT4062A	E SRV LOW LOW SET TAILPIPE D/P	M-115-1 A,7	RX	896	TORUS BOTTOM	S	YES	ROB C290A,ES-4059A,C					
12011	1	18	DPT4062B	E SRV LOW LOW SET TAILPIPE D/P	M-115-1 A,7	RX	935	WEST	S	YES	ROB C290B,ES-4059B					
12010	1	18	DPT4062C	E SRV LOW LOW SET TAILPIPE D/P	M-115-1 A,7	RX	896	TORUS BOTTOM	S	YES	ROB C290A,ES-4059A,C					
12012	1	18	DPT4062D	E SRV LOW LOW SET TAILPIPE D/P	M-115-1 A,7	RX	935	WEST	S	YES	ROB C290B,ES-4059B					
12140	2	18	DPT4063A	H SRV LOW LOW SET TAILPIPE D/P	M-115-1 C,2	RX	896	TORUS BOTTOM	S	YES	ROB C290A,ES-4059A,C					
12006	2	18	DPT4063B	H SRV LOW LOW SET TAILPIPE D/P	M-115-1 C,2	RX	935	WEST, C290B	S	YES	ROB C290B,ES-4059B					
12141	2	18	DPT4063C	H SRV LOW LOW SET TAILPIPE D/P	M-115-1 C,2	RX	896	TORUS BOTTOM	S	YES	ROB C290A,ES-4059A,C					
12008	2	18	DPT4063D	H SRV LOW LOW SET TAILPIPE D/P	M-115-1 C,2	RX	935	WEST	S	YES	ROB C290B,ES-4059B					
12005	1	18	DPT4068A	B SRV LOW LOW SET TAILPIPE D/P	M-115-1 C,7	RX	896	TORUS BOTTOM	S	YES	ROB C290A,ES-4059A,C					
12265	1	18	DPT4069A	A SRV LOW LOW SET TAILPIPE D/P	M-115-1 A,7	RX	896	TORUS BOTTOM	S	YES	ROB C290A,ES-4059A,C					
12290	2	18	DPT4070A	C SRV LOW LOW SET TAILPIPE D/P	M-115-1 C,2	RX	896	TORUS BOTTOM	S	YES	ROB C290A,ES-4059A,C					
12278	1	18	DPT4071A	D SRV LOW LOW SET TAILPIPE D/P	M-115-1 B,2	RX	896	TORUS BOTTOM	S	YES	ROB C290A,ES-4059A,C					
2150	1	18	DPY-4103	RHR SW 12 HX T/S DP ISOLATOR	M-120 A,6	EFT	960'	MAIN ROOM	S	YES	ROB C-292, E/S-4101, C-03					
2152	1	18	DPY-4109	RHR SW 12 HX T/S DP CONT OUT ISOLATION	M-120 A,6	EFT	960'	MAIN ROOM	S	YES	ROB C-292, E/S-4100					
1059	2	21	E-200A	#11 RHR HEAT EXCHANGER	M-121 B,2	RX	896	A RHR ROOM	S	NO						
2049	1	21	E-200B	RHR/ RHR B HEXER	M-120 B,6	RX	896'	B RHR ROOM	S	NO						
2095B	1	18	E/P 1729	SM/RHR 12 DP CONTROL	M-120 A,5	RX	896'	B RHR ROOM	S	YES	ROB C-292,HS-525,ES 4100					
1071	2	00	E/P-1728	RHR-SM/RHR 11 DP CONTROL	M-121 A,3	RX	896	A RHR ROOM	S	N/A	ROB C-03,E/S 7251A					
8037	20	ES 14-52A		#11 CORE SPRAY INSTRUMENT POWER SUPPLY		ADMIN	939	CSR	S	YES	ROB C19,Y-70					
8036	20	ES 14-52B		12 CS INSTRUMENT POWER SUPPLY		ADMIN	939	CSR	S	YES	ROB C19,Y-80					
8028	20	ES 4100		ASOS 24VDC POWER SUPPLY	MF-100375-2	EFT	960	MAIN	S	YES	ROB C292,Y-80					

CERTIFICATION:

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Print or Type Name/Title ENGINEER
Signature Date 11/16/95
Signature Date 11/19/95

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSELN 2.2

LINE NO.	TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Req. No./Rev./Zone	Building	Loc. or Row/Col.	Sort Notes	OP. ST.	POWER SUPPORTING SYS. REQ'D INTERCONNECTIONS	REG.						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
8033	20	ES 4101	ASDS-24VDC POWER SUPPLY	WF-100375-2	EFT	960	MAIN	S		YES					ROB C-292, Y-80	
8032	20	ES 7251B	DIV 2 INSTRUMENT POWER SUPPLY		ADMIN	951	CR	S		YES					ROB C03, Y-80	
8057	20	ES-4059A	SRV LOW LOW SET INSTRUMENT POWER SUPPLY		ADMIN	939	CSR	S		YES					ROB C253A, D33	
8058	20	ES-4059B	SRV LOW LOW SET INSTRUMENT POWER SUPPLY		EFT	960	MAIN	S		YES					ROB C253B, D100	
8059	20	ES-4059C	SRV LOW LOW SET INSTRUMENT POWER SUPPLY		ADMIN	939	CSR	S		YES					ROB C253A, Y10	
8045	20	ES-4815A	ECCS DIV 1 REACTOR LEVEL PS-1		ADMIN	939	CSR	S		YES					ROB C303A, D33	
8046	20	ES-4815B	ECCS DIV 1 REACTOR LEVEL PS-2		ADMIN	939	MAIN	S		YES					ROB C303A, D33	
8047	20	ES-4816A	ECCS DIV 2 REACTOR LEVEL PS-1		EFT	960	MAIN	S		YES					ROB C303B, D100	
8048	20	ES-4816B	ECCS DIV 2 REACTOR LEVEL PS-2		EFT	960	MAIN	S		YES					ROB C303B, D100	
8049	20	ES-4817A	RPS CHANNEL A1 REACTOR LEVEL PS-1		ADMIN	939	CSR	S		YES					ROB C304A, Y70	
8051	20	ES-4818A	RPS CHANNEL B1 REACTOR LEVEL PS-1		ADMIN	939	CSR	S		YES					ROB C304B, Y80	
8053	20	ES-4819A	RPS CHANNEL A2 REACTOR LEVEL PS-1		EFT	960	MAIN	S		YES					ROB C304C, Y70	
8055	20	ES-4820A	RPS CHANNEL B2 REACTOR LEVEL PS-1		EFT	960	MAIN	S		YES					ROB C304D, Y80	
8044	20	ES-6-11	CFW INSTRUMENT POWER SUPPLY		ADMIN	939	CSR	S		YES					ROB C18, Y20	
8027	20	ES-7251A	DIV 1 INSTRUMENT POWER SUPPLY		ADMIN	951	CR	S		YES					ROB C03, Y-70	
8083	20	ES-7251B	DIV 2 INSTRUMENT POWER SUPPLY		ADMIN	951	CR	S		YES					ROB C03, Y80	
8087	20	ES-C07C	INSTRUMENT LOOP POWER SUPPLY		ADMIN	951	CR	S		YES					ROB C07, Y30	
3036B	2	F1 14-50B	DIV 2 CS PUMP FLOW	M-122 E,5	RX	951	CR	S		YES					ROB C-03, ES4101	
9147A	1	F1-10-132A	H RX 11 SW INLET FLOW	M-112 D,4	ADMIN	951	CR	S		YES					ROB C03, E/S 10-145A	
9142A	1	F1-10-132B	RHR RX 12 INLET FLOW	M-112 D,3	ADMIN	951	CR	S		YES					ROB C03, ES4101	
1085A	2	F1-10-136A	RHR LOOP A CONT CLG FLOW	M-121 D,2	ADMIN	951	CR	S		YES					ROB C03, Y70 CRT2	

CERTIFICATION:

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Print or Type Name/Title

 Bill Sande
 Signature
 11/16/95
 Date

Print or Type Name/Title

 Dwight Mackintosh
 Signature
 11/19/95
 Date

LINE NO.	EQUIP TRASH CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Flr. Eiv.	LOCATION Re. or Row/Col.	Sort Notes	Normal	Desired	REQ'D	REG.				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
2147	1	18	FI-10-1308	RHR LOOP B CONT CLG FLOW	M-120 E,6	ADMIN	951'	CR	S	YES	YES				ROB C-03, E/S 4101	
1065A	2	18	FI-10-130A	RHR LOOP A INJECTION FLOW	M-121 C,2	ADMIN	951	CR	S	YES	YES				ROB C03, E/S 7251A	
3037A	1	18	FI-14-50A	DIV 1 CS PUMP FLOW	M-122 D,2	RX	951	CR	S	YES	YES				ROB C-03, E/S 7251A	
2126	1	18	FI-14-50B	CS LOOP 12 FLOW	M-122 E,5	ADMIN BLDG	951'	CR	S	YES	YES				ROB C03, E/S 4101	
3036A	2	18	FI-4104	CORE SPRAY LOOP B FLOW	M-122 D,5	EFT	960	MAIN	S	YES	YES				ROB C-292, E/S 4100	
9142C	1	18	FI-4105	RHR SERVICE WATER FLOW	M-112 D,4	EFT	960	MAIN	S	YES	YES				ROB C292, E/S 4099	
2059B	1	18	FI-4106	RHR CONTAINMENT COOLING FLOW	M-120 D,6	EFT	960'	C-292 ASOS	S	YES	YES				ROB C-292, E/S 4101	
9199	2	00	FIS-4224A	811 DG SERVICE WATER LO FLOW ALARM	M-112 E,2	TB	931	11 DG ROOM	S	N/A	N/A				C93, D111	
9202	1	00	FIS-4224B	812 DG SERVICE WATER LO FLOW ALARM	M-112 D,3	TB	931	12 DG ROOM	S	N/A	N/A				C94, D211	
7157C	2	05	FFM	11 MOTOR DRIVEN FUEL PUMP		TB	931	11 EDG	S,R	YES	YES				ROB 11 EDG, C111	
7157D	1	05	FFM	12 MOTOR DRIVEN FUEL PUMP		TB	931	12 EDG	S,R	YES	YES				ROB 12 EDG, C211	
19074A	1	20	FPR 6-98	REACTOR NR PRESSURE & TURBINE STM FLOW	M-116 D,2	ADMIN	951	CR	S	YES	YES				ROB C05, Y30	
1144	2	18	FS-10-121A	RHR PUMP 11 MIN FLOW CNTR	M-121 B,4	RX	896	A RHR ROOM	S	YES	YES				ROB IR-FS-10-121A, Y-20	
2044	1	18	FS-10-121B	RHR/ RHR B PUMP DISCH FLOW SWITCH	M-120 B,5	RX	896'	B RHR ROOM	S	11	YES	YES			ROB IR-FS-10-121B, Y-20	
1067	2	18	FS-10-121C	RHR PUMP 13 MIN FLOW CONTROL	M-121 B,4	RX	896	A RHR ROOM	S	N/A	N/A				ROB IR-FS-10-121A, Y-20	
2043	1	18	FS-10-121D	RHR/ RHR D PUMP DISCH FLOW SWITCH	M-120 C,5	RX	896'	B RHR ROOM	S	11	YES	YES			ROB IR-FS-10-121B, Y-20	
7039	2	18	FS-3236	DG 11 DAY TANK LOW OVERFLOW ALARM	M-133 B,5	TB	931	11 DG RM	S	YES	YES				AMH-6-C-06, D11	
7040	1	18	FS-3237	DG 12 DAY TANK LOW OVERFLOW ALARM	M-133 C,5	TB	931	12 DG RM	S	YES	YES				AMH-6-C-07, D11	
1086	2	18	FT-10-109A	RHR LOOP A INJECTION FLOW	M-121 D,2	RX	896	A RHR ROOM	S	N/A	N/A				ROB IR-FT-1-111A, E/S-7251A	
2056	1	18	FT-10-109B	RHR/ RHR B LPCI INJ FLOW	M-120 C,6	RX	896'	B RHR ROOM	S	YES	YES				ROB C-129B, E/S-7251B	
1089	2	18	FT-10-111A	RHR LOOP A CONT COOLING FLOW	M-121 D,2	RX	896	A RHR ROOM	S	N/A	N/A				ROB IR-FT-10-111A, E/S-7251A	

CERTIFICATION:

The information identifying the equipment required to bring the plant to a safe shutdown condition on this Safe Shutdown Equipment List (SSEL) is, to the best of our knowledge and belief, correct and accurate. (One or more signatures of Systems or Operations Engineers)

Print or Type Name/Title: Bruce Kunde / ENGINEER
 Signature: [Signature]
 Date: 11/16/95

Print or Type Name/Title: Bruce Makarewicz / ENGINEER
 Signature: [Signature]
 Date: 11/19/95

MORTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEL 2.2

LINE NO.	EQUIP TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Location	Room or Row/Col.	Sort Notes	OP. ST.	Power Supporting Sys.	Req'd Interconnections					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
2059	1	18	FT-10-1118	RHR/ RHR 8 CTMT COOLING FLOW TMTR	M-120 D,6	RX	935'	NEAR DM EQ HATCH 5	YES	ROB C292-IR, E/S 4100						
9147	2	00	FT-10-97A	RHR HX 11 SW INLET FLOW	M-112 D,5	TB	931	5	YES	RR-7905-46-13 E/S 10-145A						
9142	1	18	FT-10-97E	RHR HX 12 SW INLET FLOW	M-112 D,4	TB	931	5	YES	MR-7905-46-13 ES-0099						
3037B	2	18	FT-14-40A	CORE SPRAY LOOP 11 FLOW	M-122 D,2	RX	896	A RHR ROOM 5	YES	ROB IR-FT-10-113A, E/S 7251A						
3036	1	18	FT-14-40B	CORE SPRAY LOOP 12 FLOW	M-122 D,5	RX	896	B RHR ROOM 5	YES	ROB C1298, ES4100						
7156	1	05	FTM-1	12 DG FUEL TRANSFER PUMP #1		TB	931	12 DG S,R	OFF	ON	ROB 12EDG, G-3B					
7157A	1	05	FTM-1	11 EDG FUEL TRANSFER PUMP #1		TB	931	11 EDG S,R	YES	ROB 11EDG, G-3B						
7157	1	05	FTM-2	12 DG FUEL TRANSFER PUMP #2		TB	931	12 DG S,R	OFF	ON	ROB 12EDG, G-3B					
7157B	1	05	FTM-2	11 EDG FUEL TRANSFER PUMP #2		TB	931	11 EDG S,R	YES	ROB 11EDG, G-3B						
2125	1	18	FY-4104	CSP CORE SPRAY FLOW	M-122 E,5	EFT	960'	ASDS PANEL C292 5 17	YES	ROB C-292, E/S-4101						
9142B	1	18	FY-4105	RHR SERVICE WRT FLOW ISOLATOR	M-112 D,4	EFT	960	MAIN 5	YES	ROB C292, E/S 4101						
2059A	1	18	FY-4106	RHR CONTAINMENT COOLING FLOW ISOLATOR	M-120 D,6	EFT	960	C292 5	YES	ROB C-292, E/S 4101						
7045	2	17	G-3A	11 EMERGENCY DIESEL GENERATOR	M-133 B,6	TB	931	11 DG RN S,R	OFF	ON	125 VDC CONTROL LOGIC START LOGIC 0-111					
7004	1	17	G-3B	12 EMERGENCY DIESEL GENERATOR	M-133 C,6	TB	931	12 DG RN S,R	OFF	ON	125 VDC CONT LOGIC, POWER D-211					
7202	2	04	G31	11 EDG NEUTRAL GROUNDING TRANSFORMER	MR-9216-5-4	TB	931	11 EDG RN 5	YES	11 EDG						
7203	1	04	G41	12 EDG NEUTRAL GROUNDING TRANSFORMER	MR-9216-5-4	TB	931	12 EDG RN 5	YES	12 EDG						
7182	2	0	GSC-1/CS	11 DG SPEED ADJUST	ME-36403-4	ADMIN	951'	CR 5	ON	ON	ROB C-08, D111					
7181	1	0	GSC-2/CS	12 DG SPEED ADJUST	ME-36403-4A	ADMIN	951'	CR 5	ON	ON	ROB C-08, D211					
9001A	2	20	HS 10A-S20A	HS FOR P-109A		ADMIN	951	CR 5 Z3	YES	ROB C03, D111						
9002A	1	20	HS 10A-S20B	HS FOR P-109B		ADMIN	951	CR 5 Z3	YES	ROB C03, D211						

CERTIFICATION:

The information identifying the equipment required to bring the plant to a safe shutdown condition on this Safe Shutdown Equipment List (SSEL) is, to the best of our knowledge and belief, correct and accurate. (One or more signatures of Systems or Operations Engineers)

Print or Type Name/Title
 Signature: *Bruce Sande*
 Date: 11/16/95

Print or Type Name/Title
 Signature: *Bruce Mackinnon*
 Date: 11/19/95

MONTICELLO RESEARCH GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Evol. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	EQUIPMENT Fir. Elev.	LOCATION Rm. or Row/Col.	SORT	NOTES	OP. Normal	ST. Desired	POWER REQD?	SUPPORTING SYS. DNG. 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)
9003A	2	20	HS 10A-S21A	HS FOR P-109C		ADMIN	951	CR	S	23			YES		ROB C03,D111	
9004A	1	20	HS 10A-S21B	HS FOR P-109D		ADMIN	951	CR	S	23			YES		ROB C03,D211	
9005A	2	20	HS 10A-S22A	HS FO P-111A	M-811 B,4	ADMIN	951	CR	S	23			YES		ROB C08,B3435(MCC134)	
9006A	1	20	HS 10A-S22B	HS FOR P-111B		ADMIN	951	CR	S	23			YES		ROB C08,B4319(MCC143A)	
14002	1	20	HS 13A-S1	HS FOR MD-2075	M-125 E,5	ADMIN	950	CR	S	23			YES		ROB C04,B3340(MCC133A)	
14004	2	20	HS 13A-S3	HS FOR MD-2076	M-125 E,4	ADMIN	950	CR	S	23			YES		ROB C04,B3301(D33)	
3062	2	20	HS 14A-S5A	P-208A HS 14A-S5A	M-122 B,2	ADM	950	CR	S	23			YES		ROB C-03, 4KV-152-505(BUS 15)	
3065	1	20	HS 14A-S5B	P-208B HS 14A-S5B	M-122 B,5	ADM	950	CR	S	23			YES		ROB C-03, 4KV-152-605(BUS 16)	
11009A	1	20	HS 16A-S1A	HS FOR AO-2-80A	M-115 C,5	ADMIN	951	CR	S	23			YES		ROB C03,D11, Y70	
11010A	1	20	HS 16A-S1B	HS FOR AO-2-80B	M-115 D,5	ADMIN	951	CR	S	23			YES		ROB C03,D11, Y70	
11011A	1	20	HS 16A-S1C	HS FOR AO-2-80C	M-115 D,2	ADMIN	951	CR	S	23			YES		ROB C03,D11, Y70	
11012A	1	20	HS 16A-S1D	HS FOR AO-2-80D	M-115 C,2	ADMIN	951	CR	S	23			YES		ROB C03,D11, Y70	
11013A	2	20	HS 16A-S2A	HS FOR AO-2-86A	M-115 C,6	ADMIN	951	CR	S	23			YES		ROB C03,D21, Y80	
11014A	2	20	HS 16A-S2B	HS FOR AO-2-86B	M-115 E,6	ADMIN	951	CR	S	23			YES		ROB C03,D21, Y80	
11015A	2	20	HS 16A-S2C	HS FOR AO-2-86C	M-115 E,2	ADMIN	951	CR	S	23			YES		ROB C03,D21, Y80	
11016A	2	20	HS 16A-S2D	HS FOR AO-2-86D	M-115 C,1	ADMIN	951	CR	S	23			YES		ROB C03,D21, Y80	
10003	1	20	HS 23A-S2	HS FOR MD-2034	M-123 E,5	ADMIN	950	CR	S	23			YES		ROB C03,B4342	
10004	2	20	HS 23A-S3	HS FOR MD-2035	M-123 E,4	ADMIN	950	CR	S	23			YES		ROB C03,D312	
9183A	2	20	HS 3305	HS FOR V-AC-5		ADMIN	951	CR	S	23			YES		ROB C20,B3305(MCC133A)	
9007A	2	20	HS 4025A	HS FOR P-111C	M-811 B,4	ADMIN	951	CR	S	23			YES		ROB C03,B4472(MCC134)	
9008A	1	20	HS 4025B	HS FOR P-111D	M-811 B,6	ADMIN	951	CR	S	23			YES		ROB C03,B4472(MCC144)	
9109A	1	20	HS 42-403S	HS FOR V-AC-4		ADMIN	951	CR	S	23			YES		ROB C20,305(MCC143)	

CERTIFICATION:

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_____/ ENGINEER
Print or Type Name/Title

Brian Sunde
Signature

11/16/95
Date

_____/ ENGINEER
Print or Type Name/Title

Bruce Mackinok
Signature

11/19/95
Date

MORTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEN 2.2

LINE NO. (1)	TRAIN CLASS (2)	EQUIP CLASS (3)	MARK NO. (4)	SYSTEM/EQUIPMENT DESCRIPTION (5)	Bldg. No./Rev./Zone (6)	Building (7)	Elev. (8)	LOCATION (9)	SORT NOTES (10)	NOTES (11)	(12)	(13)	(14)	(15)	(16)	(17)
1033	2	20	HS-10A-52A	P-202A HANDSWITCH	M-121 A,5	ADMIN	950	CR	S	Z3	YES		YES		ROB C-03,0111	
2032A	1	20	HS-10A-52B	HS FOR P-202B	M-120 A,4	ADMIN	951	CR	S	Z3	YES		YES		ROB C03,0211	
1019	2	20	HS-10A-53A	P-202C HANDSWITCH	M-121 B,5	ADMIN	950	CR	S	Z3	YES		YES		ROB C-03,0111	
2034	1	20	HS-10A-53B	HS FOR P-202D	M-120 B-4	ADMIN	950	CR	S	Z3	YES		YES		ROB C-03,0211	
17012	1	20	HS-16A-515	HS FOR MD-2397	M-128 C,8	ADMIN	950	CR	S	Z3	OPEN	CLOSED	YES		ROB C-04,03320(D33)	
17013	2	20	HS-16AS16	HS FOR MD-2398	M-128 C,7	ADMIN	950	CR	S	Z3	OPEN	CLOSED	YES		ROB C-04,03302(D33)	
3014	2	20	HS-3324	HS FOR MD-1753	M-122 E,3	ADM	950	CR	S	Z3	YES		YES		ROB C-03,03324	
1122	2	20	HS-3334	HS FOR MD-2014 10A-S8A	M-121 C,5	ADMIN	950	CR	S	Z3	YES		YES		ROB C-03,03334(MCC133B)	
1120	2	20	HS-3335	HS FOR MD-2012 10A-S10A	M-121 C,5	ADMIN	950	CR	S	Z3	YES		YES		ROB C-03,03335(MCC133B)	
1049	2	20	HS-3336 (10A-S16A)	HANDSWITCH FOR MD-2002	M-121 B,3	ADMIN	950	CR	S	Z3	YES		YES		ROB C-03,03336(MCC133A)	
1097	2	20	HS-3337	MD-2008 HANDSW 10A-S12A	M-121 C,3	ADMIN	950	CR	S	Z3	YES		YES		ROB C-03,03337(MCC133A)	
1092	2	20	HS-3341	HS FOR MD-2006 (HS-10A-S14A)	M-121 D,2	ADMIN	950	CR	S	Z3	YES		YES		ROB C-03,03341(MCC133A)	
7025A	1/2	20	HS-42-4202/CS	CONTROL SWITCH FOR P-11	M-121 D,2	ADMIN	950	CR	S	Z3	OFF	ON	YES		ROB C06,04202(MCC142A)	
2069	1	20	HS-4208(10A-S14B)	HS FOR MD-2007	M-120 D,5	ADMIN	950'	CR	S	Z3	YES		YES		ROB C-03,04208(MCC142A)	
2047	1	20	HS-4210	HS FOR MD-2003 (10A-S16B)	M-120 C-5	ADMIN	950	CR	S	Z3	YES		YES		ROB C-03,04210(MCC142A)	
3016	1	20	HS-4324	HS FOR MD-1754	M-122 D,5	ADM	950	CR	S	Z3	YES		YES		ROB C-03,04324	
1079A	2	20	HS-4328	HS FOR MD-2033 10A-S7A	M-120 B,6	ADMIN	950	CR	S	Z3	YES		YES		ROB C03,04328	
2064A	1	20	HS-4334	HS FOR MD-2015	M-120 D,2	RB	950	CR	S	Z3	YES		YES		ROB C03,04334(MCC143B)	
2065	1	20	HS-4335	HS FOR MD-2013	M-120 D-3	ADMIN	950'	CR	S	Z3	YES		YES		ROB C-03,04335(MCC143A)	
2071	1	20	HS-4337	HS FOR MD-2009 (10A-S12B)	M-120 D-6	ADMIN	950'	CR	S	Z3	YES		YES		ROB C-03,04337	
8117	14	J-1010		SECURITY JUNCTION BOX		ADMIN	928	125 VDC DIV II	S		NO		NO			
8115	14	J-1012		SECURITY JUNCTION BOX		ADMIN	928	250 VDC DIV I	S		NO		NO			
8116	14	J-1013		SECURITY JUNCTION BOX		ADMIN	928	125 VDC DIV I	S		NO		NO			

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Print or Type Name/Title: Brian Gande / ENGINEER
Date: 11/16/95

Print or Type Name/Title: Dave Mackinnon / ENGINEER
Date: 11/19/95

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Data/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEN 2.2

LINE NO.	TRAIN CLASS	EQUIP MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building Flr. Eiv. Rm. or Row/Col.	EQUIPMENT LOCATION	Normal	Desired	REQ'D INTERCONNECTIONS	REG.						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1047	2	12	K-10A	RHDSM AUX AIR COMP	M-121 A,4	RX	935	M OF ELEVATOR	S,R	YES	YES				P-73A,MC347,83347	
2138	1	12	K-10B	B RHR AUX AIR COMPRESSOR	M-120 A,4	RX	935'	SM	S,R	YES	YES				B4454(MCC44),M4454	
7138	2	12	K-8A	11 EDG ELECTRIC/DIESEL AIR STARTER COMPRESSOR #1	M-133 B,2	TB	931	11 DG RM	S,R	OFF	ON	YES			HS ON C-93,MC346A	
7139	2	12	K-8B	11 ELECTRIC AIR STARTER COMPRESSOR #2	M-133 D,2	TB	931	11 DG RM	S,R	OFF	ON	YES			HS ON C-94,MC301A	
7136	1	12	K-9A	12 ELECTRIC AIR STARTER COMPRESSOR #1	M-133 E,2	TB	931	12 DG RM	S,R	OFF	ON	YES			HS ON C-94,MC301B	
7137	1	12	K-9B	12 EDG ELECTRIC/DIESEL AIR STARTER COMPRESSOR #2	M-133 D,2	TB	931	12 DG RM	S,R	OFF	ON	YES			HS ON C-94,MC346B	
8003	02	LC-103		480 V LOAD CENTER		TB	931	UPPER 4KV RM	S,R	YES	YES				X-30	
8006	02	LC-104		480 V LOAD CENTER		TB	931	UPPER 4KV RM	S,R	YES	YES				X-40	
19022B	2	20	LI 2-3-86	RX FLOODING LEVEL	M-116 D,6	ADMIN	951	CR	S	YES	YES				ROB C03,ES-4101	
19056A	1	20	LI 2-3-91A	RPV FUEL ZONE LEVEL	M-116 C,3	ADMIN	951	CR	S	YES	YES				ROB C03,ES-7251A,Y20	
7145	1	18	LI-1522	M# DIESEL OIL STOR TANK T44 LEVEL INDICATION	M-133 C,2	YARD	935		S	NO	NO					
19081	1	20	LI-2-3-85A	REACTOR VESSEL WATER LEVEL	M-116 D,3	ADMIN	951		S	YES	YES	HE-7831-93-3			ROB C-05,ES-7251A	
19006A	2	20	LI-2-3-85B	RX VESSEL WATER LEVEL	M-116 D,6	ADMIN	951	CONTROL ROOM	S	YES	YES				ROB C-05,ES-7251B	
19024C	2	20	LI-2-3-91B	FUEL ZONE LEVEL	M-116 C,6	ADMIN	951		S	YES	YES				ROB C-03,ES-4101	
13031	1	20	LI-2996	TORUS WATER LEVEL	M-143 B,5	ADMIN	951	CR	S	YES	YES				ROB C04,ES-C07C	
19022C	2	20	LI-4107	RX FLOODING LEVEL	M-116 D,6	EFT	960	960	S	YES	YES				ROB C292,ES-4100	
19024E	2	20	LI-4108	R~ REACTOR LEVEL	M-116 C,6	EFT	960	960	S	YES	YES				ROB C292,ES-4100	
13034	1	20	LI-7330B	PCT SUPPRESSION POOL LEVEL	M-143 C,5	EFT	960	960	S	YES	YES				ROB C-292,ES-4100	
19006A	2	20	LIS 2-3-657A	RX LO LEVEL SCRAM	M-116 D,6	ADMIN	939	CSR	S	YES	YES				ROB C304A,ES-4817A,B	
19004A	2	20	LIS 2-3-657B	RX LO LEVEL SCRAM	M-116 D,6	ADMIN	939	CSR	S	YES	YES				ROB C304B,ES 4818A,B	

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Print or Type Name/Title
ENGINEER

Bryan Zunde
Signature

11/16/95
Date

Print or Type Name/Title
ENGINEER

Dwight Mackintosh
Signature

11/19/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
 SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
 SEISMIC REVIEW SSEL

LINE NO.	EQUIP TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Location	Sort Notes	Normal	Desired	REQ'D	Supporting Sys.	Reg.				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
19079A	1	20	LIS 2-3-656A	RX LO LEVEL SCRAM	M-116 D,3	EFT	960	MAIN	S		YES	YES	ROB C304C,ES-4819A,B			
19080A	1	20	LIS 2-3-656B	RX LO LEVEL SCRAM	M-116 D,3	EFT	960	MAIN	S		YES	YES	ROB C304D,ES-4820A,B			
7041	2	18	LIS-1528	DG 11 DAV TK 45A LOW LEVEL ALARM	M-133 B,5	TB	931	11 DG RM	S		YES	YES	AMH-6-C-06,D11			
7014	1	18	LIS-1529	DG 12 DAV TANK 45B LOW LEVEL ALARM	M-133 C,5	TB	931	12 DG DAV TK RM	S		YES	YES	AMH-6-C-07,D11			
19025	2	20	LIS-2-3-73A	CONT SPRAY 2/3 CORE LEVEL INTLK	M-116 C,6	RX	935		S		YES	YES	ROB C-121,D11			
19055	1	20	LIS-2-3-73B	CONT SPRAY 2/3 CORE LEVEL INTLK	M-116 C,3	RX	935		S		YES	YES	ROB C-122,D21			
190240	2	20	LR-2-3-113	RX CORE WATER LEVEL	M-116 B,6	ADMIN	951		S		YES	YES	ROB C-03,ES-4101,Y20			
19005R	2	20	LS 2-3-657C	RX LO LO LEVEL ISOLATION	M-116 D,6	ADMIN	939	CSR	S		YES	YES	ROB C304A,ES-4817A,B			
19004B	2	20	LS 2-3-657D	RX LO LO LEVEL ISOLATION	M-116 D,5	ADMIN	939	CSR	S		YES	YES	ROB C304B,ES4818A,B			
19079B	1	20	LS 2-3-658C	RX LO LO LEVEL ISOLATION	M-116 D,3	EFT	960	MAIN	S		YES	YES	ROB C304C,ES-4819A,B			
19080B	1	20	LS 2-3-658D	RX LO LO LEVEL ISOLATION	M-116 D,3	EFT	960	MAIN	S		YES	YES	ROB C304D,ES-4820A,B			
7144	1/2	18	LS-1522	MH DIESEL OIL STOR TANK T44 HI/LO ALARM	M-133 C,2	YARD	935		S		YES	YES	AMH-6-C-2,D11			
13029	1	20	LS-2996A	TORUS WATER LEVEL ALARM	M-143 A,5	ADMIN	951	CR	S		YES	YES	ROB C07,ES-C07C			
13030	1	20	LS-2996B	TORUS WATER HI LEVEL ALARM	M-143 A,5	ADMIN	951	CR	S		YES	YES	ROB C07,ES-C07C			
7153A	2	18	LS-7210	11 EDG NORM LVL FUEL TRANSFER CUTOFF	MX-9216-5-4	TB	931	11 EDG	S	OFF	ON	YES	ROB 11 EDG			
7153	1	18	LS-7211	12 EDG NORM LVL FUEL TRANSFER CUTOFF		TB	931	12 DG	S	OFF	ON	YES	ROB 12 DG			
7154A	2	18	LS-7212	12 DG HI LVL FUEL TRANSFER CUTOFF	MX-9216-5-4	TB	931	11 EDG	S	OFF	ON	YES	ROB 11 EDG			
7154	1	18	LS-7213	12 DG HI LVL FUEL TRANSFER CUTOFF		TB	931	12 DG	S	OFF	ON	YES	ROB 12 DG			
7155A	2	18	LS-7214	11 DG LO LVL FUEL TRANSFER PUMP START	MX-9216-5-4	TB	931	11 EDG	S	OFF	ON	YES	ROB 11 EDG			
7155	1	18	LS-7215	12 DG LO LVL FUEL TRAN PUMP START		TB	931	12 DG	S	OFF	ON	YES	ROB 12 DG			
19056	1	20	LT-2-3-112A	RX WTR LEVEL A FUEL ZONE	M-116 C,3	RX	935		S		YES	YES	ROB C-122,ES-7251A			

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Print or Type Name/Title: Brian Sande / ENGINEER
 Date: 11/16/95

Print or Type Name/Title: Brian Sande / ENGINEER
 Date: 11/19/95

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINML.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEL 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Location	Sort Notes	Normal	Desired	REQ'D	INTERCONNECTIONS	REG.				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
19024	2	20	LT-2-3-112B	RX WTR LEVEL B FUEL ZONE	M-116 C,6	RX	935		S		YES				ROB C-121,ES-4100,Y20	
19005	2	20	LT-2-3-57A	LO RX LEVEL SCRAM ISOLATION	M-116 D,6	RX	962		S		YES				ROB C-55,ES-4817A,B	
19004	2	20	LT-2-3-57B	LO RX LEVEL SCRAM ISOLATION	M-116 D,5	RX	962		S		YES				ROB C-55,ES-4818A,B	
19079	1	20	LT-2-3-58A	LO RX LEVEL SCRAM ISOLATION	M-116 D,3	RX	962		S		YES				ROB C-56,ES-4819A,B	
19080	1	20	LT-2-3-58B	LO RX LEVEL SCRAM ISOLATION	M-116 D,3	RX	962		S		YES				ROB C-56,ES-4820A,B	
19022	2	20	LT-2-3-61	REACTOR FLOODING LEVEL	M-116 D,6	RX	962		S		YES				ROB C55,ES-4100	
19003	2	20	LT-2-3-72A	LO LO RX LVL ECCS INITIATION	M-116 D,5	RX	962		S		YES				ROB C-55,ES-4815A,B	
19077	1	20	LT-2-3-72B	LO-LO REACTOR LVL ECCS INITIATION	M-116 D,3	RX	962		S		YES				ROB C-56,ES-4816A,B	
19007	2	20	LT-2-3-72C	LO LO RX LEVEL ECCS INITIATION	M-116 D,5	RX	962		S		YES				ROB C-55,ES-4815A,B	
19078	1	20	LT-2-3-72D	LO-LO REACTOR LVL ECCS INITIATION	M-116 D,3	RX	962		S		YES				ROB C-56,ES-4816A,B	
19082	1	20	LT-2-3-85A	REACTOR VESSEL WATER LEVEL (FROM COLUMN B)	M-116 D,2	RX	962		S		YES				ROB C-56,ES-7251A	
19006	2	20	LT-2-3-85B	RX VESSEL WATER LEVEL	M-116 D,6	RX	962		S		YES			NR-1831-83-3	ROB C-55,ES-7251B	
13032	1	18	LT-2996	TORIUS WATER LEVEL	M-143 A,5	RX	896	TORIUS BOTTOM	S		YES				ES-C07C	
13042	2	18	LT-7338A	TORIUS WIDE RANGE LEVEL	M-143 C,4	RX	896		S		YES				ES-7251A	
13033	1	18	LT-7338B	TORIUS WIDE RANGE LEVEL	M-143 B,5	RX	896	TORIUS BOTTOM	S		YES				ES-4100	
19022A	2	20	LY-4107	RS FLOODING LVL ISOLATION	M-116 D,6	EFT	960		S		YES				ROB C292,E/5 4101	
19024A	2	20	LY-4108	RPV REACTOR LEVEL ISOLATION	M-116 C,6	EFT	960		S		YES				ROB C-292,ES-4101	
19024F	2	20	LY-4203	PW VESSEL FLOODING LEVEL ISOLATION	M-116 C,6	ADMIN	951	CR	S		YES				ROB C03,ES-4101	
13035	1	20	LY-7338B	TORIUS WIDE RANGE LEVEL	M-143 C,5	EFT	960	MAIN	S		YES				ROB C-292,ES-4100,ES-4101	
8001	01	MCC133A		480 V MCC		TB	911	EAST	S		YES				LC103	
8064	01	MCC133B		480 VAC MOTOR CONTROL CENTER 133B		TB	911	EAST	S		YES				LC103	
2263	01	MCC134		480 VAC MOTOR CONTROL CENTER 134		EFT	944	POWR EQ DIVI RM S	S		YES				LC103	

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Signature
/ ENGINEER
Date: 11/16/95

Signature
/ ENGINEER
Date: 11/19/95

LINE NO.	TRAIN CLASS	EQUIP MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Fir. Elev.	LOCATION Rm. or Row/Col.	Sort Notes	Normal	Desired	REQ'D	INTERCONNECTIONS	REG. ISSUE			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
8024	01	MCC142A	480C AC MOTOR CONTROL CENTER		TB	931	EAST	S			YES		LC104			
8112	01	MCC142B	480 VAC MCC		TB	931	EAST	S			YES		MCC142A			
8002	01	MCC143A	480 V MCC		TB	931	EAST	S			YES		LC104			
8065	01	MCC143B	480 VAC MOTOR CONTROL CENTER		EFT	931	EAST	S			YES		LC103			
8035	01	MCC144	480V LOAD CENTER		EFT	932	DIV 2 RM	S			YES		LC104			
3013	2	MD-1753	11 CS INJ INBOARD ISOLATION VALVE	M-122 E,3	RX	974	DOG HOUSE CLERIC S,R		CLOSED	OPEN	YES		C-03,83324(MCC23)			
3015	1	MD-1754	12 CS INJ INBOARD ISOLATION VALVE	M-122 D,4	RX	962	RMCU HX BACK RM S,R		CLOSED	OPEN	YES		C-292,C-03,84324(MCC143 A)			
1048	2	MD-2002	11 RHR HX BYPASS	M-121 B,3	RX	896	A RHR ROOM	R,S	OPEN	CLOSED	YES		HS-3336,83336(MCC133A)			
2046	1	MD-2003	RHR/ RHR B HXER BYPASS	M-120 B,5	RX	896'	B RHR ROOM	S,R	OPEN	CLOSED	YES		84210(MCC42),HS-4210			
1091	2	MD-2006	11 RHR DISCHARGE TO TORUS	M-121 D,3	RX	923	TORUS CATWALK	R,S	CLOSED	OPEN	YES		HS-3341,83341(MCC33)			
2067	1	MD-2007	RHR/ RHR B DISCH TO TORUS	M-120 D,6	RX	945'	DM EQ HATCH	S,R	CLOSE	OPEN	YES		C-292,HS-525,507,HS-420 8,84208(MCC142A)			
1096	2	MD-2008	TORUS COOLING ISOL	M-121 C,3	RX	923	TORUS CATWALK	S,R	CLOSED	OPEN	YES		HS-3337,83337(MCC33)			
2070	1	MD-2009	RHR/ RHR B TORUS COOLING TEST RTN	M-120 C,6	EX	923'	TORUS CATWALK	S,R	CLOSE	OPEN	YES		C-292,C-03,HS-4337,8433 7(MCC133A)			
1119	2	MD-2012	11 RHR LPCI OUTBOARD INJECTION	M-121 C,4	RX	935	ESDC	S,R Z1	OPEN	OPEN	YES		HS-3335,83335(MCC133B)			
2064	1	MD-2013	RHR/ RHR B LPCI INJ OUTRD	M-120 D,3	RX	935'	MSDC	S,R	OPEN	CLOSE	YES		C-03,HS-4335,84335(MCC1 43B)			
1121	2	MD-2014	11 RHR LPCI INBOARD INJECTION	M-121 C,5	RX	935	ESDC	S,R Z1	CLOSED	CLOSED	YES		HS-3334,83334(MCC133B)			
2066	1	MD-2015	RHR/ RHR B LPCI INJ INRD	M-120 D,2	RX	935'	MSDC ROOM	S,R	CLOSE	CLOSE	YES		HS-4334,84335(MCC143B)			
1079	2	MD-2033	RHR LOOPS CROSSTIE	M-120 C,6	RX	923	TORUS CATWALK	R,S	OPEN	CLOSED	YES		C-03,HS-4326,84326(MCC4 3)			
10001	1	MD-2034	HPCI INBOARD STEAM SUPPLY	M-123 E,5	RX	RYNELL 951	DM AZ 150	S,R	OPEN	CLOSED	YES		84342(MCC143A),HS 23A-52			
10002	2	MD-2035	HPCI OUTBOARD STEAM SUPPLY	M-123 E,4	RX	935	STEAM CHASE	S,R	OPEN	CLOSED	YES		831205(0312),HS-23A-53			

CERTIFICATION:

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Print or Type Name/Title: Brian Sunde / ENGINEER
 Signature: Brian Sunde
 Date: 11/16/95

Print or Type Name/Title: James MacBain / ENGINEER
 Signature: James MacBain
 Date: 11/19/95

MONTECELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEN 2.2

LINE NO.	EQUIP TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	LOCATION	OP. ST.	POWER SUPPORTING SYS. REQ'D	INTERCONNECTIONS REG.							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
14001	1	08	MO-2075	RCIC STEAM SUPPLY INBOARD ISOLATION	M-125 E,5	RX DRYWELL 951	DM AZ 200	S,R	OPEN	CLOSED	YES				B3340(D33),HS-134-S1	
14003	2	08	MO-2076	RCIC STEAM SUPPLY OUTBOARD ISOLATION	M-125 E,4	RX 935	STEAM CHASE	S,R	OPEN	CLOSED	YES				D31104(D311),HS-134-S3	
17001	1	06	MO-2397	RMCU INLET INBOARD ISOL	M-128 C,8	RX 962	CW AZ 040	S,R	OPEN	CLOSED	YES				B3328(D33),HS-164-S15	
17002	2	08	MO-2398	RMCU INLET OUTBOARD ISOL	M-128 C,7	RX 974	RMCU ROOM	S,R	OPEN	CLOSED	YES				D31309(D31),HS-164-S16	
7191	1	08	MVST1	AIR START SOLENOID CKT 1		TB 931	12 DG	S,R	OFF	ON	YES				ROB 12 DG,0211	
7193	2	08	MVST1	AIR START SOLENOID CKT 1		TB 931	11 DG	S,R	OFF	ON	YES				ROB 11 DG,0111	
7192	1	08	MVST2	AIR START SOLENOID CKT 2		TB 931	12 DG	S,R	OFF	ON	YES				ROB 12 DG,0211	
7194	2	08	MVST2	AIR START SOLENOID CKT 2		TB 931	11 DG	S,R	OFF	ON	YES				ROB 11 DG,0111	
7171	1	0	N/A	12 DG FREQUENCY METER		ADMIN 951'	CR	S	ON	ON	YES				ROB C-08,12 DG	
7172	2	0	N/A	11 DG FREQUENCY METER		ADMIN 951'	CR	S	ON	ON	YES				ROB C-08,11 DG	
7173	1	0	N/A	12 DG AC AMPHETER METER		ADMIN 951'	CR	S	ON	ON	YES				ROB C-08,12 DG	
7174	2	0	N/A	11 DG AC AMPHETER METER		ADMIN 951'	CR	S	ON	ON	YES				ROB C-08,11 DG	
7175	1	0	N/A	12 DG AC VOLTAGE METER		ADMIN 951'	CR	S	ON	ON	YES				ROB C-08,12 DG	
7176	2	0	N/A	11 DG AC VOLTAGE METER		ADMIN 951'	CR	S	ON	ON	YES				ROB C-08,11 DG	
7177	1	0	N/A	12 DG AC KILOWATT METER		ADMIN 951'	CR	S	ON	ON	YES				ROB C-08,12 DG	
7178	2	0	N/A	11 DG AC KILOWATT METER		ADMIN 951'	CR	S	ON	ON	YES				ROB C-08,11 DG	
7179	1	0	N/A	16 BUS VOLTAGE METER		ADMIN 951'	CR	S	ON	ON	YES				ROB C-08,16 BUS	
7180	2	0	N/A	15 BUS VOLTAGE METER		ADMIN 951'	CR	S	ON	ON	YES				ROB C-08,15 BUS	
12301	2	00	M2 BOTTLES	ALT M2 SUPPLY TRAIN B BOTTLES AND BOTTLE BACK	M-131 SHT 10 B,8	TB 921	EAST	S			NO				ROB IR-PCV-4079	
12300	1	00	M2 BOTTLES	ALT M2 SUPPLY TRAIN A AND BOTTLE BACK	M-131 SHT 10 C,8	TB 931	EAST	S			NO				ROB IR-PCV-4079	

CERTIFICATION:

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Print or Type Name/Title
Bryan S. Sade / ENGINEER

Signature
Date 11/16/95

Print or Type Name/Title
Bryan S. Sade / ENGINEER

Signature
Date 11/16/95

HONTECILLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEL 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Bus. No./Rev./Zone	Building	Equipment Flr.-Elev.	LOCATION: Rm. or Row/Col.	Normal	Desired	OP. ST.	POWER SUPPORTING SYS.	RED'D INTERCONNECTIONS				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
7138A	2	20	K2346A	11 EDG AIR CMPSR 1 (K-8A) LOCAL DISCONNECT SWITCH		TB	931	11 EDG RH	5		YES	B3346(MCC133A)				
7137A	1	12	K2346B	12 EDG AIR CMPSR 2 (K-8B) LOCAL DISCONNECT SWITCH		TB	931	12 EDG RH	5		YES	B3346(MCC133A)				
1047A	2	20	K2347	MOTOR STARTER FOR K-10A	E-108 SHIT 12	RX	935	M OF ELEVATOR	5		YES	P-73A				
7139A	2	20	M4301A	11 EDG AIR CMPSR 2 (K-8B) LOCAL DISCONNECT SWITCH		TB	931	11 EDG RH	5		YES	B4301(MCC143A)				
7136A	1	20	M4301B	12 EDG AIR CMPSR 1 (K-9A) LOCAL DISCONNECT SWITCH		TB	931	12 EDG RH	5		YES	B4301(MCC143A)				
2138A	1	20	M4454	MOTOR STARTER FOR K-10B	E-108 SHIT 12-1	RX	935	SM	5		YES	B4454(MCC144)				
9001	2	06	P-109A	11 RHR SW PUMP	M-811 B,3	INTAKE	919	MAIN ROOM	5,R	OFF	ON	YES	152-507(BUS15)			
9002	1	06	P-109B	12 RHR SW PUMP	M-811 B,8	INTAKE	919	MAIN ROOM	5,R	OFF	ON	YES	152-607(BUS16)			
9003	2	06	P-109C	13 RHR SW PUMP	M-811 B,3	INTAKE	919	MAIN ROOM	5,R	OFF	ON	YES	152-508(BUS15)			
9004	1	06	P-109D	14 RHR SW PUMP	M-811 B,8	INTAKE	919	MAIN ROOM	5,R	OFF	ON	YES	152-608(BUS16)			
7025	1	05	P-11	DIESEL OIL XFER PUMP	M-133 C,3	FD PMP HOU	935	MAIN ROOM	5,R	OFF	ON	YES	B-4202(MCC142A), HS-529, HS-527, HS-42-4202			
9005	2	06	P-111A	11 ESW (EDG-ESW) PUMP	M-811 B,4	INTAKE	919	MAIN ROOM	5,R	OFF	ON	YES	B3435(MCC134)			
9006	1	06	P-111B	12 ESW (EDG-ESW) PUMP	M-811 B,6	INTAKE	919	MAIN ROOM	5,R	OFF	ON	YES	B4319(MCC143)			
9007	2	06	P-111C	13 ESW (EDG-ESW) PUMP	M-811 B,4	INTAKE	919	MAIN ROOM	5,R	OFF	ON	YES	B3472(MCC134)			
9008	1	06	P-111D	14 ESW (EDG-ESW) PUMP	M-811 B,6	INTAKE	919	MAIN ROOM	5,R	OFF	ON	YES	B4472(MCC144)			
1032	2	06	P-202A	11 RHR PUMP	M-121 B,4	RX	896	A RHR ROOM	5,R	N/A	N/A	YES	152-504(BUS15), HS-104-5 ZA			
2030	1	06	P-202B	RHR/ RHR B PUMP # 12	M-120 B,4	RX	896'	B RHR ROOM	5,R	3	OFF	RHM	YES	152-603(BUS16), HS-104-5 ZB		
1018	2	06	P-202C	13 RHR PUMP	M-121 A,4	RX	896	A RHR ROOM	5,R	N/A	N/A	YES	152-503(BUS15), HS-104-5 3A			

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Print or Type Name/Title
ENGINEER

Brian Gude
Signature
11/16/95
Date

Print or Type Name/Title
ENGINEER

Brian Mackinnon
Signature
11/16/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Data/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEN 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Location	Room or Row/Col.	Sort Notes	OP. ST.	Power Supporting Sys. Req'd	Interconnections Reg.					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
2033	1	06	P-202D	RHR/ RHR D PUMP # 14	M-120 B,4	RX	896'	B RHR ROOM	S,R	3	OFF	RUN	YES			152-604(BUS16),HS-104-S 38
3061	2	06	P-208A	11 CORE SPRAY PUMP	M-122 B,2	RX	896	A RHR ROOM	S,R		OFF	ON	YES			152-505(BUS15),HS-144-S 5A
3064	1	06	P-208B	12 CORE SPRAY PUMP	M-122 B,5	RX	896	B RHR ROOM	S,R		OFF	ON	YES			152-605(BUS16),HS-144-S 5B
8029	14	P-73A	4ROW POWER PANEL			RB	962	MG SET RM	S				YES			MCC133A
1251	06	P-88A	ECCS AREA DRAIN PUMP		M-122 A,3	RX	896	A RHR ROOM	S				NO			
1252	06	P-88B	ECCS AREA DRAIN PUMP		M-122 A,3	RX	896	A RHR ROOM	S				NO			
2247	06	P-88C	ECCS AREA DRAIN PUMP		M-122 A,5	RX	896	B RHR ROOM	S				NO			
2248	06	P-88D	ECCS AREA DRAIN PUMP		M-122 A,5	RX	896	B RHR ROOM	S				NO			
9247	2	07	PCV-3004	11/13 RHINOSH PUMP MOTORS COOLING WATER HEADER INLET	M-811 C,2	INTAKE	919	MAIN ROOM	S		OPEN	OPEN	NO			
9062	1	07	PCV-3005	12/14 RHINOSH PUMP MOTORS COOLING HEADER INLET	M-811 C,7	INTAKE	919	MAIN ROOM	S		OPEN	OPEN	NO			
12175	1	00	PCV-4879	ALT N2 A	M-131 SHT 10 D,7	TB	931	EAST	S		OPEN	OPEN	NO			ROB IR-PCV-4879
12069	2	00	PCV-4881	ALT N2 B	M-131 SHT 10	TB	931	EAST	S		OPEN	OPEN	NO			ROB IR-PCV-4881
12179	1	00	PCV-4897	ALT N2 A	M-131 SHT 10 D,7	TB	931	EAST	S		OPEN	OPEN	NO			ROB IR-PCV-4879
12073	2	00	PCV-4898	ALT N2 B	M-131 SHT 10 B,7	TB	931	EAST	S		OPEN	OPEN	NO			ROB IR-PCV-4881
12180	1	00	PCV-4903	ALT N2 A	M-131 SHT 10 D,7	TB	931	EAST	S		OPEN	OPEN	NO			ROB IR-PCV-4879
12176	1	00	PCV-4904	ALT N2 A	M-131 SHT 10 D,7	TB	931	EAST	S		OPEN	OPEN	NO			ROB IR-PCV-4879
12074	2	00	PCV-4905	ALT N2 B	M-131 SHT 10 B,7	TB	931	EAST	S		OPEN	OPEN	NO			ROB IR-PCV-4881
12070	2	00	PCV-4906	ALT N2 B	M-131 SHT 10 B,7	TB	931	EAST	S		OPEN	OPEN	NO			ROB IR-PCV-4881
3047A	1	18	PI-14-48A	DIV 1 CS PUMP PRESSURE	M-122 C,2	RX	951	CR	S				YES			ROB C-03,ES 14-52A
3048A	2	18	PI-14-48B	DIV 2 CS PUMP PRESSURE	M-122 C,6	RX	951	CR	S				YES			ROB C-03,ES 14-52B

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Print or Type Name/Title
/ ENGINEER
Date 11/16/95

Brian Sander
Signature

Print or Type Name/Title
/ ENGINEER
Date 11/19/95

Scott Mackintosh
Signature

PONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
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Program File Name & Version: SSEN 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Room or Row/Col.	LOCATION	OP. ST.	Normal	Desired	REQ'D	INTERCONNECTIONS	REG.			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
19095	18	P1-2-3-60A	LOCAL RPV LEVEL	M-116 D,6	RX	962	5	NO					ROB C-55			
19061	1	P1-2-3-60B	RX VESSEL PRESS	M-116 D,3	RX	962	5	NO					ROB C-56			
13017	2	P1-3051	TORUS PRESSURE	M-143 B,4	RX	923	5	CRD PUMP ROOM	M/A	N/A			ROB 1R-P1-3051			
13039	1	P1-7251B	PCT WIDE RANGE PRESS	M-143 C,5	EFT	960	5	MAIN					ROB C-292,ES-4100			
190248	2	PLR-4102	RPV RX PRESS/LVL	M-116 C,6	EFT	960	5						ROB C292,ES-4100			
13043	2	PLR-7251A	DM PRESS, TORUS LEVEL, DM RAD	M-143 C,4	ADMIN	951	5	CR					ROB C03,ES-7251A,V70			
13036	1	PLR-7251B	DM PRESSURE, TORUS LEVEL, DM RAD	M-143 C,5	ADMIN	951	5	CR					ROB C03,ES-4101,Y80			
13023	2	PR-2994	DRYWELL AND TORUS PRESSURE	M-143 C,4	ADMIN BLD	951	5	CR					ROB C04,ES-7251A, AMN-4-B-4			
1074	2	PS-10-105A	RHR PUMP 11 PRESSURE APR INTLK	M-121 B,4	RX	896	5	A RHR ROOM					ROB C-129A,D-11			
1073	2	PS-10-105E	RHR PUMP 11 PRESSURE APR INTLK	M-121 B,4	RX	896	5	A RHR ROOM					ROB C-129A,D-11			
3049	2	PS-14-44A	CS PUMP 11 DISCH PRESS APR INTLK	M-122 C,2	RX	896	5	A RHR ROOM					ROB C-129A,D11			
3050	1	PS-14-44B	CS PUMP 12 DISCH PRESS APR INTLK	M-122 C,6	RX	896	5	B RHR ROOM					ROB C-129B,D-21			
3051	2	PS-14-44C	CS PUMP 11 DISCH PRESS APR INTLK	M-122 C,2	RX	896	5	A RHR ROOM					ROB C-129A,D-11			
3052	1	PS-14-44D	CS PUMP 12 DISCH PRESS APR INTLK	M-122 C,6	RX	896	5	B RHR ROOM					ROB C-129B,D-21			
19070	1	PS-2-3-52A	LO RX PRESS-ECCS VALVE PERMIT	M-116 D,3	RX	962	5						ROB C-56,D11			
19015	2	PS-2-3-52B	LO RX PRESS - ECCS VALVE PERMIT	M-116 D,6	RX	962	5						ROB C-55,D21			
19045	2	PS-2-3-53A	LO RX PRESS-ECCS PUMP STRT PERMIT	M-116 C,6	RX	935	5						ROB C-121,D11			
19094	1	PS-2-3-53B	LO RX PRESS-ECCS PUMP STRT PERMIT	M-0116 C,2	RX	935	5						ROB C-122,ES-7251A			
7112	1	PS-3232	12 DG LEFT BANK START AIR COMPRESSOR 1 CONTROL	M-133 E,2	TB	931	5	12 DG RM					ROB E-9A,K3401B			
7114	1	PS-3233	12 DG RIGHT BANK START AIR COMPRESSOR 2 CONTROL	M-133 D,2	TB	931	5	12 DG RM					ROB K-9B,K3346B			
7113	2	PS-3234	11 DG LEFT BANK START AIR COMPRESSOR 1 CONTROL	M-133 B,2	TB	931	5	11 DG RM					ROB E-6A,K3346A			

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Print or Type Name/Title: Brigitte / ENGINEER
Signature: [Signature] Date: 11/16/95

Print or Type Name/Title: Duane / ENGINEER
Signature: [Signature] Date: 11/19/95

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

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)
12150	2	18	PS-7354	C SRV BELLOWS LEAK ALARM	M-115-1 D,4	RX	951	DW	S				YES		D11,D21	
12289	1	18	PS-7355	D SRV BELLOW LEAK ALARM	M-115-1 B,4	RX	951	DW	S				YES		D11,D21	
12063	1	18	PS-7900	E SRV BELLOW LEAK ALARM	M-115-1 B,5	RX	951	DW	S				YES		D33	
12125	2	18	PS-7901	F SRV BELLOWS LEAK ALARM	M-115-1 B,4	RX	951	DW	S				YES		D33	
12043	2	18	PS-7902	G SRV BELLOWS LEAK ALARM	M-115-1 D,5	RX	951	DW MEZZ	S				YES		D33	
12142	2	18	PS-7903	H SRV BELLOWS LEAK ALARM	M-115-1 D,4	RX	951	DW	S				YES		D33	
19086C	1	20	PSHL-4064A	SRV E LOW LOW SET PRESS INTLK	M-115-1 B,7	ADMIN	939	CSR	S				YES		ROB C253A,ES-4059A,C	
19038A	2	20	PSHL-4064B	SRV E LOW LOW SET PRESS INTLK	M-115-1 B,7	EFT	960	MAIN	S				YES		ROB C253B,ES-4059B	
19085A	1	20	PSHL-4064C	SRV E LOW LOW SET PRESS INTLK	M-115-1 C,7	ADMIN	939	CSR	S				YES		ROB C253A,ES-4059A,C	
19039A	2	20	PSHL-4064D	SRV E LOW LOW SET PRESS INTKL	M-115-1 B,7	EFT	960	MAIN	S				YES		ROB C253B,ES-4059B	
19086B	1	20	PSHL-4065A	SRV G LOW LOW SET PRESS INTKL	M-115-1 B,7	ADMIN	939	CSR	S				YES		ROB C253A,ES-4059A,C	
19028B	2	20	PSHL-4065B	SRV G LOW LOW SET PRESS INTKL	M-115-1 B,7	EFT	960	MAIN	S				YES		ROB C253B,ES-4059B	
19085B	1	20	PSHL-4065C	SRV G LOW LOW SET PRESS INTKL	M-115-1 C,7	ADMIN	939	CSR	S				YES		ROB C253A,ES-4059A,C	
19039B	2	20	PSHL-4065D	SRV G LOW LOW SET PRESS INTKL	M-115-1 B,7	EFT	960	MAIN	S				YES		ROB C253B,ES-4059B	
19086A	2	20	PSHL-4066A	SRV H LOW LOW SET PRESS INTKL	M-115-1 B,8	ADMIN	939	CSR	S				YES		ROB C253A,ES-4059A,C	
19038C	2	20	PSHL-4066B	SRV H LOW LOW SET PRESS INTKL	M-115-1 B,8	EFT	960	MAIN	S				YES		ROB C253B,ES-4059B	
19085C	1	20	PSHL-4066C	SRV H LOW LOW SET PRESS INTKL	M-115-1 C,8	ADMIN	939	CSR	S				YES		ROB C253A,ES-4059A,C	
19039C	2	20	PSHL-4066D	SRV H LOW LOW SET PRESS INTKL	M-115-1 B,8	EFT	960	MAIN	S				YES		ROB C253B,ES-4059B	
3047	2	18	PT-14-38A	CS PUMP 11 DISCHARGE PRESSURE	M-122 C,2	RX	896	A RHR ROOM	S		-	-	YES		ROB C129A,ES 14-52A	
3048	1	18	PT-14-38B	CS PUMP 12 DISCHARGE PRESSURE	M-122 C,6	RX	896	B RHR ROOM	S		-	-	YES		ROB C129B,ES 14-52B	
13044		20	PT-2994A	DW PRESS NARROW RANGE	M-143 C,4	RX	962		S				YES		ES-7251A	
13018	2	18	PT-2994B	TORUS PRESSURE NARROW RANGE	M-143 B,4	RX	923	CRD PUMP ROOM	S		N/A	N/A	YES		ROB IR-RB923-01,ES-7251A	

CERTIFICATION:

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_____/ ENGINEER
Print or Type Name/Title

Brian Ginde
Signature

11/16/95
Date

_____/ ENGINEER
Print or Type Name/Title

Bruce Mackinnon
Signature

11/19/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEN 2.2

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. DNG. 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)
19086	1	18	PT-4067A	LOW LOW SET REACTOR PRESSURE	M-115-1 B,8	RX	935		S				YES		ROB C-122,ES-4059A,C	
19038	2		PT-4067B	LOW LOW SET REACTOR PRESSURE	M-115-1 B,8	RX	935		S				YES		ROB C-121,ES 4059B	
19085	1		PT-4067C	LOW LOW SET REACTOR PRESSURE	M-115-1 C,8	RX	935		S				YES		ROB C-122,ES-4059A,C	
19039	2	18	PT-4067D	LOW LOW SET REACTOR PRESSURE	M-115-1 B,8	RX	935		S				YES		ROB C-121,ES 4059B	
19074	1	20	PT-6-58	FW MAIN STEAM LEAK DETECTION	M-116 D,2	RX	952		S				YES		ROB C-56,ES-6-111	
13045	2	20	PT-7251A	DW WIDE RANGE PRES	M-143 C,4	RX	962		S				YES		ES-7251A	
13038	1	20	PT-7251B	DRYWELL WIDE RANGE PRESS	M-143 C,5	RX	985		S				YES		ES-4100	
13037	1	20	PY 7251B	PCT WIDE RANGE ISOLATOR	M-143 C,5	EFT	960	MAIN	S				YES		ROB C292,ES-4101	
7026	1	07	RV-1523	XFER PUMP DISCHARGE RELIEF VALVE	M-133 D,3	FO PMP HOU	935	MAIN ROOM	S		CLOSED	CLOSED	NO			
3040	2	07	RV-1745	11 CS PUMP DISCH RV TO ORW	M-122 D,2	RX	896	A RHR ROOM	S	15	CLOSED	CLOSED				
3039	1	07	RV-1746	12 CS PUMP DISCH RV TO ORW	M-122 D,6	RX	896	B RHR ROOM	S	15	CLOSED	CLOSED				
1035	2	08	RV-1990	RHR 11 PUMP SUCTION RV	M-121 B,5	RX	896	A RHR ROOM	S		CLOSED	CLOSED	NO			
2019	1	G7	RV-1991	RHR/ RHR B PUMP SUCTION RELIEF	M-120 B,3	RX	896'	B RHR ROOM	S		CLOSE	CLOSED	NO			
1015	2	07	RV-1992	RHR 13 PUMP SUCTION RV	M-121 B,5	RX	896	A RHR ROOM	S		CLOSED	CLOSED	NO			
2020	1	07	RV-1993	RHR/ RHR D PUMP SUCTION RELIEF	M-120 C,3	RX	896'	B RHR ROOM	S		CLOSE	CLOSED	NO			
12268	1	07	RV-2-71A	A SRV	M-115-1 B,5	RX	951	DW WEST	S		CLOSED	OP/CL	NO			
12044	1	07	RV-2-71B	B SRV	M-115-1 C,5	RX	951	DW NORTH	S		CLOSED	OP/CL	NO			
12149	2	08	RV-2-71C	C SRV	M-115-1 C,4	RX	951	DW AZ 225	S		CLOSED	OP/CL	NO			
12284	1	07	RV-2-71D	D SRV	M-115-1 B,4	RX	951	DW	S		CLOSED	OP/CL	NO			
12056	1	07	RV-2-71E	E SRV	M-115-1 B,5	RX	951	DW WEST	S		CLOSED	CLOSED	NO			
12121	2	07	RV-2-71F	F SRV	M-115-1 B,4	RX	951	DW EAST	S		CLOSED	OP/CL	NO			
12045	2	07	RV-2-71G	G SRV	M-115-1 C,5	RX	951	DW WEST	S		CLOSED	OP/CL	NO			
12135	2	07	RV-2-71H	H SRV	M-115-1 C,4	RX	951	DW EAST	S		CLOSED	OP/CL	NO			

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_____/ ENGINEER
Print or Type Name/Title

Brian Kinde
Signature

11/16/95
Date

_____/ ENGINEER
Print or Type Name/Title

Brian M. Knorr
Signature

11/16/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:55
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	EQUIPMENT Fir. Elev.	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)
1090	2	07	RV-2004	RHR LOOP A DISCHARGE LINE RV	M-121 D,2	RX	923	TORUS CATWALK	S		CLOSED	CLOSED	NO			
2110	1	07	RV-2005	RHR LOOP B DISCHARGE LINE RV	M-120 D,6	RX	935'	WSDC ROOM	S		CLOSED	CLOSED	NO			
1108	2	07	RV-2025	RHR HEAD SPRAY LINE RV	M-121 E,4	RX	962	SOUTH	S		CLOSED	CLOSED	NO			
1007	2	07	RV-2031	SD COOLING SUCTION SUPPLY	M-121 B,6	RX	935	E SD COOLING RM	S		CLOSED	CLOSED	NO			
9242	2	07	RV-3038	11 LOOP MOTOR COOLING HEADER	M-811 B,3	INTAKE	919	MAIN ROOM	S		CLOSED	CLOSED	NO			
9066	1	07	RV-3039	12/14 LOOP MOTOR COOLING HEADER	M-811 B,7	INTAKE	919	MAIN ROOM	S		CLOSED	CLOSED	NO			
9155	2	00	RV-3202	11 HX TUBE SIDE	M-112 C,5	RX	896	A RHR ROOM	S		CLOSED	CLOSED	NO			
9134	1	00	RV-3203	12 HX TUBE SIDE	M-112 C,4	RX	896	B RHR ROOM	S		CLOSED	CLOSED	NO			
7054	2	07	RV-3216	11 DG AIR TK T-79A RV	M-133 B,3	TB	931	11 DG RM	S		CLOSED	CLOSED	NO			
7055	2	07	RV-3217	11 DG AIR TK T-79B RV	M-133 B,3	TB	931	11 DG RM	S		CLOSED	CLOSED	NO			
7056	2	07	RV-3218	11 DG AIR TK T-79C RV	M-133 B,4	TB	931	11 DG RM	S		CLOSED	CLOSED	NO			
7057	2	07	RV-3219	11 DG AIR TK T-79D RV	M-133 A,3	TB	931	11 DG RM	S		CLOSED	CLOSED	NO			
7058	2	07	RV-3220	11 DG AIR TK T-79E RV	M-133 A,3	TB	931	11 DG RM	S		CLOSED	CLOSED	NO			
7059	2	07	RV-3221	11 DG AIR TK T-79F RV	M-133 A,4	TB	931	11 DG RM	S		CLOSED	CLOSED	NO			
7134	2	07	RV-3222	DIESEL AIR START COMPRESSOR (K-8A)	M-133 B,2	TB	931	11 DG RM	S	15	CLOSED	CLOSED	NO			
7135	2	07	RV-3223	DIESEL AIR START COMPRESSOR (K-8B)	M-133 A,2	TB	931	11 DG RM	S	15	CLOSED	CLOSED	NO			
7060	1	07	RV-3224	12 DG AIR TK T-80A RV	M-133 E,3	TB	931	12 DG RM	S		CLOSED	CLOSED	NO			
7061	1	07	RV-3225	12 DG AIR TK T-80B RV	M-133 E,3	TB	931	12 DG RM	S		CLOSED	CLOSED	NO			
7062	1	07	RV-3226	12 DG AIR TK T-80C RV	M-133 E,4	TB	931	12 DG RM	S		CLOSED	CLOSED	NO			
7063	1	07	RV-3227	12 DG AIR TK T-80D RV	M-133 D,3	TB	931	12 DG RM	S		CLOSED	CLOSED	NO			
7064	1	07	RV-3228	12 DG AIR TK T-80E RV	M-133 D,3	TB	931	12 DG RM	S		CLOSED	CLOSED	NO			
7065	1	07	RV-3229	12 DG AIR TK T-80F RV	M-133 D,4	TB	931	12 DG RM	S		CLOSED	CLOSED	NO			
7132	1	07	RV-3230	DIESEL AIR START COMPRESSOR (K-9A)	M-133 E,2	TB	931	12 DG RM	S		CLOSED	CLOSED	NO			

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_____/ ENGINEER
Print or Type Name/Title

Brian Sunde
Signature

11/16/95
Date

_____/ ENGINEER
Print or Type Name/Title

Brian Sunde
Signature

11/19/95
Date

MONTECELLO NUCLEAR GENERATING PLANT
 SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
 SETS/SHIC REVIEW SSEL

LINE NO.	EQUIP TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Desig. No./Rev./Zone	Building	Equipment Fir. Ev.	LOCATION Rm. or Row/Col.	Sort Notes	Normal	Desired	Req'd Interconnections	Reg.				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
7133	1	07	RV-3231	DIESEL AIR START COMPRESSOR (K-98)	M-133 D,2	TB	931	12 DG RM	S		CLOSED	CLOSED	NO			
12269	1	07	RV-3242	A SRV DISCHARGE 2" VAC RV	M-115-1 A,5	RX	951	DM WEST	S		CLOSED	CLOSED	NO			
12270	1	07	RV-3242A	A SRV DISCHARGE 8" VAC RV	M-115-1 B,5	RX	951	DM WEST	S		CLOSED	CLOSED	NO			
12049	1	07	RV-3243	B SRV DISCHARGE 2" VAC RV	M-115-1 C,6	RX	951	DM WEST	S		CLOSED	CLOSED	NO			
12048	1	07	RV-3243A	B SRV DISCHARGE 8" VAC RV	M-115-1 C,6	RX	951	DM WEST	S		CLOSED	CLOSED	NO			
12295	2	07	RV-3244	C SRV DISCHARGE 2" VAC	M-115-1 C,4	RX	951	DM NORTH	S		CLOSED	CLOSED	NO			
12294	2	07	RV-3244A	C SRV DISCHARGE 8" VAC	M-115-1 C,4	RX	951	DM NORTH	S		CLOSED	CLOSED	NO			
12282	1	07	RV-3245	D SRV DISCHARGE 2" VAC	M-115-1 A,4	RX	951	DM EAST	S		CLOSED	CLOSED	NO			
12283	1	07	RV-3245A	D SRV DISCHARGE 8" VAC	M-115-1 B,4	RX	951	DM EAST	S		CLOSED	CLOSED	NO			
12078	2	00	RV-4236	ALT N2 B	M-131 SHT 10 B,7	TB	931	EAST	S		CLOSED	CLOSED	NO			
1064	2	07	RV-4281	A RHR HX RV SHELL SIDE	M-121 A,2	RX	896	A RHR ROOM	S		CLOSED	CLOSED	NO			
2209C	1	07	RV-4291	A RHR HX RV SHELL SIDE	M-121 B,2	RX	896	A RHR	S		CLOSED	CLOSED	NO			
2055	1	07	RV-4282	RHR/ RHR B HXER RELIEF VALVE	M-120 B,6	RX	896	B RHR ROOM	S		CLOSE	CLOSED	NO			
12183	1	00	RV-4673	ALT N2 A	M-131 SHT 10 D,7	TB	931	EAST	S		CLOSED	CLOSED	NO			
12230	1	07	RV-4878	ALT N2 A	M-131 SHT 10 D,5	RX	935	WEST	S		CLOSED	CLOSED	NO			
12113	2	07	RV-4880	ALT N2 B RELIEF	M-131 SHT 10 B,5	RX	935	WEST	S		CLOSED	CLOSED	NO			
12057	1	07	RV-7440	E SRV DISCHARGE 2" VAC RV	M-115-1 B,6	RX	951	DM WEST	S		CLOSED	CLOSED	NO			
12059	1	07	RV-7440A	E SRV DISCHARGE 8" VAC RV	M-115-1 A,6	RX	951	DM WEST	S		CLOSED	CLOSED	NO			
12123	2	07	RV-7441	F SRV DISCHARGE 2" VAC RV	M-115-1 A,4	RX	951	DM EAST	S		CLOSED	CLOSED	NO			
12122	2	07	RV-7441A	F SRV DISCHARGE 8" VAC RV	M-115-1 B,4	RX	951	DM EAST	S		CLOSED	CLOSED	NO			
12046	2	07	RV-7467	G SRV DISCHARGE 2" VAC RV	M-115-1 C,5	RX	951	DM NORTH	S		CLOSED	CLOSED	NO			
12047	2	07	RV-7467A	G SRV DISCHARGE 8" VAC RV	M-115-1 C,5	RX	951	DM NORTH	S		CLOSED	CLOSED	NO			
12137	2	07	RV-7468	H SRV DISCHARGE 2" VAC RV	M-115-1 C,4	RX	951	DM EAST	S		CLOSED	CLOSED	NO			

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 Engineer
 Date: 11/16/95

 Signature
 Date: 11/16/95

 Signature
 Date: 11/16/95

MONTECELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
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Program File Name & Version: SSEN 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Fir. Elev.	Location Rm. or Row/Col.	Sort Notes	OP. ST.	Normal	Desired	REQ'D INTERCONNECTIONS, REG. & SUPPORTING COMPONENTS ISSUE				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
12138	2	07	RV-7468A	H SRV DISCHARGE 8" VAC RV	M-115-1 C,4	RX	951	DM EAST	S	CLOSED	CLOSED	NO				
1052	2	08	SV-1728	CV-1728 (11 RHR HX RHRSM OUTLET)SV	M-121 A,3	RX	896	A RHR ROOM	R,S	YES	YES	Y20				
2095	1	08	SV-1729	CV-1729 (12 RHR HX RHRSM OUT) SV	M-120 A,5	RX	896'	B RHR ROOM	R,S	YES	YES	Y80				
1030	2	08	SV-1994	SV FOR CV-1994 R11 RHR MINIMUM FLOW	M-121 B,4	RX	896	A RHR ROOM	S,R,14	CLOSED	CLOSED	YES				FS-10-121A,Y-20
2133	1	08	SV-1995	SV FOR CV-1995 R12 RHR MIN FLOW	M-120 B,4	RX	896'	B RHR ROOM	R,S	YES	YES	ROB CV-1995,C03,Y-20,C33,C-292				
1029	2	08	SV-1996	SV FOR CV-1996 R13 RHR MINIMUM FLOW	M-121 C,5	RX	896	A RHR ROOM	S,R,14	CLOSED	CLOSED	YES				FS-10-121C,Y-20
2132	1	08	SV-1997	SV FOR CV-1997 R14 RHR MIN FLOW	M-120 C,4	RX	896'	B RHR ROOM	R,S	YES	YES	ROB CV-1997,C03,C33,Y-20				
12247	1	08	SV-2-71A	A SRV AIR OPERATOR SV	M-115-1 B,6	RX	951	DM WEST	S,R	CLOSED	OPEN	YES				C03,HS-51A,D11,D21
12013	1	08	SV-2-71B	B SRV PILOT	M-115-1 C,6	RX	951	DM WEST	S,R	CLOSED	OPEN	YES				C03,HS-54B,D11,D21
12148	2	08	SV-2-71C	C SRV AIR OPERATOR SV	M-115-1 C,3	RX	951	DM EAST	S,R	YES	YES	C03,HS-51C,D11,D21				
12285	1	08	SV-2-71D	D SRV PILOT A/S	M-115-1 B,4	RX	951	DM EAST	S,R	CLOSED	OPEN	YES				C03,HS-51D,D11,D21
12245	1	08	SV-2-71E	E SRV ALT W2 A A/S	M-115-1 B,7	RX	951	DM	S,R	CLOSED	OPEN	YES				C03,HS-54E,D33
12119	2	08	SV-2-71F	F SRV PILOT A/S	M-115-1 B,3	RX	951	DM EAST	S,R	CLOSED	OPEN	YES				C03,HS-54F,D33
12041	2	08	SV-2-71G	G SRV PILOT A/S	M-115-1 D,5	RX	951	DM WEST	S,R	CLOSED	OPEN	YES				C03,C05,HS-54G,D33
12134	2	08	SV-2-71H	H SRV PILOT A/S	M-115-1 D,4	RX	951	DM EAST	S,R	CLOSED	OPEN	YES				C03,HS-54H,D33
12244	1	08	SV-2-71J	E SRV ALT W2 A A/S	M-115-1 B,7	RX	951	DM	S,R	CLOSED	OPEN	YES				C292,HS-519,D100
12042	2	08	SV-2-71K	G SRV PILOT A/S	M-115-1 D,5	RX	951	DM WEST	S,R	CLOSED	OPEN	YES				C292,HS-520,D100
12136	2	08	SV-2-71L	H SRV PILOT A/S	M-115-1 D,4	RX	951	DM	S,R	CLOSED	OPEN	YES				C292,HS-531,HS-521,HS-538,D100
12120	2	08	SV-2-71M	F SRV ASDS PILOT A/S	M-115-1 B,3	RX	951	DM EAST	S,R	CLOSED	OPEN	YES				C292,HS-522,D100

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Print or Type Name/Title
/ ENGINEER
Signature
Date
11/16/95

Print or Type Name/Title
/ ENGINEER
Signature
Date
11/19/95

MORTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
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Program File Name & Version: SSEL 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dep. No./Rev./Zone	Building	LOCATION	Normal	OP. ST.	Normal	Desired	REQ'D	INTERCONNECTIONS	REG.			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
4035	1	08	SV-3-29	EAST/WEST SOV VENT/DRN VLVS AIR SUPPLY SOL VLV	M-119 B,2	RX	935		S,R	ME	DE	YES				ROB IR-SV-3-29, V20
4017	1	08	SV-3-31A	INBOARD VENT/DR RPS CH A	M-119 B,2	RX	935	12 BK	S,R	ME	DE	YES				ROB IR-SV-3-29,RPS
4018	1	08	SV-3-31B	INBOARD VENT/DR RPS CH B	M-119 B,2	RX	935	12 BK	S,R	ME	DE	YES				ROB IR-SV-3-29,RPS
4019	2	08	SV-3-31C	OUTBOARD VENT/DR RPS CH A	M-119 B,2	RX	935	12 BK	S,R	ME	DE	YES				ROB IR-SV-3-31C,RPS
4020	2	08	SV-3-31D	OUTBOARD VENT/DR RPS CH B	M-119 B,2	RX	935	12 BK	S,R	ME	DE	YES				ROB IR-SV-3-31C,RPS
7146	1/2	21	T-44	DIESEL OIL STORAGE TANK	M-133 B,2	BURIED	935		S			NO				
7042	2	21	T-45A	STANDBY DIESEL GENERATOR DAY TANK	M-133 B,5	TB	935	11 DG DAY TX	S			NO				
7013	1	21	T-45B	STANDBY DIESEL GENERATOR DAY TANK	M-133 C,5	TB	931	12 DG DAY TX	BN S			NO				
12170	2	21	T-49A	A MSIV (AO-2-80A) ACCUMULATOR	M-131 SHT 10 A,3	RX	933	DM NORTH	S			NO				
12165	2	21	T-49B	B MSIV (AO-2-80B) ACCUMULATOR	M-131 SHT 10 A,3	RX	933	DM NORTH	S			NO				
12156	2	21	T-49C	C MSIV (AO-2-80C) ACCUMULATOR	M-131 SHT 10 B,3	RX	933	DM NORTH	S			NO				
12161	2	21	T-49D	D MSIV (AO-2-80D) ACCUMULATOR	M-131 SHT 10 A,3	RX	933	DM NORTH	S			NO				
12257	2	21	T-57A	ALT H2 ACCUMULATOR	M-131 SHT 12 B,3	RX	951	DM	S			NO				
12258	2	21	T-57B	ALT H2 ACCUMULATOR	M-131 SHT 12 B,3	RX	951	DM	S			NO				
12252	1	21	T-57C	ALT H2 ACCUMULATOR	M-131 SHT 12 C,3	RX	951	DM EAST	S			NO				
12249	1	21	T-57D	ALT H2 ACCUMULATOR	M-131 SHT 12 C,3	RX	951	DM EAST	S			NO				
12256	2	21	T-57E	ALT H2 ACCUMULATOR	M-131 SHT 12 B,3	RX	951	DM	S			NO				
12251	1	21	T-57F	ALT H2 ACCUMULATOR	M-131 SHT 12 C,3	RX	951	DM EAST	S			NO				
12259	2	21	T-57G	ALT H2 ACCUMULATOR	M-131 SHT 12 B,3	RX	951	DM	S			NO				
12250	1	21	T-57H	ALT H2 ACCUMULATOR	M-131 SHT 12 C,3	RX	951	DM EAST	S			NO				
1045	2	00	T-75A	ACCUMULATOR FOR SV-1994	M-121 A,4	RX	896	A RHR ROOM	S		N/A	N/A				
2028	1	21	T-75B	RHR/ RHR B PUMP HIGH FLOW ACCUM	M-120 A,4	RX	896'	B RHR ROOM	S		N/A	N/A				

CERTIFICATION:

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Print or Type Name/Title
ENGINEER

Barbara S. Sisk
Signature
11/16/95
Date

Print or Type Name/Title
ENGINEER

Donald M. Kynock
Signature
11/19/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
 SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
 SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
 Sort Criteria: ID Number
 Filter Criteria: (Eval. Type CONTAINS 'S')
 Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	EQUIPMENT Fir. Elev.	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)
1046	2	00	T-75C	ACCUMULATOR FOR SV-1995	M-121 C,5	RX	896	A	RHR ROOM	S	N/A	N/A	NO			
2029	1	21	T-75D	RHR/ RHR D PUMP MIN FLOW ACCUM	M-120 C,5	RX	896'	B	RHR ROOM	S	N/A		NO			
7066	2	21	T-79A	11 DG AIR TK A	M-133 B,3	TB	931	11	DG RM	S			NO			
7067	2	21	T-79B	11 DG AIR TK B	M-133 B,3	TB	931	11	DG RM	S			NO			
7068	2	21	T-79C	11 DG AIR TK C	M-133 B,4	TB	931	11	DG RM	S			NO			
7069	2	21	T-79D	11 DG AIR TK D	M-133 A,3	TB	931	11	DG RM	S			NO			
7070	2	21	T-79E	11 DG AIR TK E	M-133 A,3	TB	941	11	DG RM	S			NO			
7071	2	21	T-79F	11 DG AIR TK F	M-133 A,4	TB	931	11	DG RM	S			NO			
7072	1	21	T-80A	12 DG AIR TK A	M-133 E,3	TB	931	12	DG RM	S			NO			
7073	1	21	T-80B	12 DG AIR TK B	M-133 E,3	TB	931	12	DG RM	S			NO			
7074	1	21	T-80C	12 DG AIR TK C	M-133 E,4	TB	931	12	DG RM	S			NO			
7075	1	21	T-80D	12 DG AIR TK D	M-133 D,3	TB	931	12	DG RM	S			NO			
7076	1	21	T-80E	12 DG AIR TK E	M-133 D,3	TB	931	12	DG RM	-			NO			
7077	1	21	T-80F	12 DG AIR TK F	M-133 D,4	TB	931	12	DG RM	S			NO			
7165C	2	18	TC 8089C	CONTROLLER FOR V-SF-9 DAMPERS		TB	931	11	EDG RM	S			NO			
7165D	1	18	TC 8089L	CONTROLLER FOR V-SF-10 DAMPERS		TB	931	12	EDG RM	S			NO			
12272	1	19	TE-2-113A	A SRV TEMP ELEMENT	M-115-1 A,5	RX	951	DM	S			YES		TR2-166, Y20		
12050	1	19	TE-2-113B	B SRV TEMP ELEMENT	M-115-1 C,6	RX	951	DM	S			YES		TR2-166, Y20		
12293	2	19	TE-2-113C	C SRV TEMP ELEMENT	M-115-1 C,4	RX	951	DM	S			YES		TR2-166, Y20		
12281	1	19	TE-2-113D	D SRV TEMP ELEMENT	M-115-1 A,4	RX	951	DM	S			YES		C21, TR-2-166, Y20		
12058	1	18	TE-2-113E	E SRV TEMP ELEMENT	M-115-1 A,6	RX	951	DM	S			YES		TR2-166, Y20		
12124	2	19	TE-2-113F	F SRV TEMP ELEMENT	M-115-1 A,4	RX	951	DM	S			YES		TR2-166, Y20		
12051	2	19	TE-2-113G	G SRV TEMP ELEMENT	M-115-1 C,5	RX	951	DM	S			YES		TR2-166, Y20		

CERTIFICATION:

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_____/ ENGINEER
 Print or Type Name/Title

Brian Sunde
 Signature

11/16/95
 Date

_____/ ENGINEER
 Print or Type Name/Title

Bruce MacKinnon
 Signature

11/19/95
 Date

MONTECELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINERS 'S')
Program File Name & Version: SSEL 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Desig. No./Rev./Zone	Building	Equipment	Location	Sort Notes	OP. ST.	Req'd Interconnections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
12139	2	19	TE-2-113H	H SRV TEMP ELEMENT	M-115-1 C,4	RX	951	DI	S	YES	YES					C03, TR-2-166, Y20
13009	2	19	TE-4073A	TORUS SENSOR 1-SRV71H / RC1C DISCHARGE AREA	M-143 B,5	RX	TORUS 916	TORUS PH X-231A S	S	N/A	N/A	N/A				C289A, TY-4072A
13001	1	19	TE-4073B	TORUS SENSOR 1-SRV71H / RC1C DISCHARGE AREA	M-143 B,4	RX	TORUS 916	TORUS PH X-231B S	S	N/A	N/A	N/A				C289B, TY-4072B
13010	2	19	TE-4074A	TORUS SENSOR 2-SRV71C DISCHARGE AREA	M-143 B,5	RX	TORUS 916	TORUS PH X-232A S	S	N/A	N/A	N/A				C289A, TY-4072A
13002	1	19	TE-4074B	TORUS SENSOR 2-SRV71C DISCHARGE AREA	M-143 B,4	RX	TORUS 916	TORUS PH X-232B S	S	N/A	N/A	N/A				C289B, TY-4072B
13011	2	19	TE-4075A	TORUS SENSOR 3-SRV71B DISCHARGE AREA	M-143 B,5	RX	TORUS 916	TORUS PH X-233A S	S	N/A	N/A	N/A				C289A, TY-4072A
13003	1	19	TE-4075B	TORUS SENSOR 3-SRV71B DISCHARGE AREA	M-143 B,4	RX	TORUS 916	TORUS PH X-233B S	S	N/A	N/A	N/A				C289B, TY-4072B
13012	2	19	TE-4076A	TORUS SENSOR 4-SRV71G HP/CI DISCHARGE AREA	M-143 B,5	RX	TORUS 916	TORUS PH X-234A S	S	N/A	N/A	N/A				C289A, TY-4072A
13004	1	19	TE-4076B	TORUS SENSOR 4-SRV71G HP/CI DISCHARGE AREA	M-143 B,4	RX	TORUS 916	TORUS PH X-234B S	S	N/A	N/A	N/A				C289B, TY-4072B
13013	2	19	TE-4077A	TORUS SENSOR 5-SRV71A DISCHARGE AREA	M-143 B,5	RX	TORUS 916	TORUS PH X-235A S	S	N/A	N/A	N/A				C289A, TY-4072A
13005	1	19	TE-4077B	TORUS SENSOR 5-SRV71A DISCHARGE AREA	M-143 B,4	RX	TORUS 916	TORUS PH X-235B S	S	N/A	N/A	N/A				C289B, TY-4072B
13014	2	19	TE-4078A	TORUS SENSOR 6-SRV71E DISCHARGE AREA	M-143 B,5	RX	TORUS 916	TORUS PH X-236A S	S	N/A	N/A	N/A				C289A, TY-4072A
13006	1	19	TE-4078B	TORUS SENSOR 6-SRV71E DISCHARGE AREA	M-143 B,4	RX	TORUS 916	TORUS PH X-236B S	S	N/A	N/A	N/A				C289B, TY-4072B
13015	2	19	TE-4079A	TORUS SENSOR 7-SRV71F DISCHARGE AREA	M-143 B,5	RX	TORUS 916	TORUS PH X-237A S	S	N/A	N/A	N/A				C289A, TY-4072A
13007	1	19	TE-4079B	TORUS SENSOR 7-SRV71F DISCHARGE AREA	M-143 B,4	RX	TORUS 916	TORUS PH X-237B S	S	N/A	N/A	N/A				C289B, TY-4072B

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Print or Type Name/Title
/ ENGINEER

Brian Stude
Signature
11/16/95
Date

Print or Type Name/Title
/ ENGINEER

Edward Mackintosh
Signature
11/19/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEM 2.2

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. --->	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)
13016	2	19	TE-4080A	TORUS SENSOR 8-SRV71D DISCHARGE AREA	M-143 B,5	RX TORUS	916	TORUS PH X-237A	S	N/A	N/A	YES	C289A,TY-4072A	
13008	1	19	TE-4080B	TORUS SENSOR 8-SRV71D DISCHARGE AREA	M-143 B,4	RX TORUS	916	TORUS PH X-238B	S	N/A	N/A	YES	C289B,TY-4072B	
13024	1	19	TE-4247A1	DRYWELL TEMP ELEMENT	M-143 C,4	RX	932	DW	S	N/A	N/A	YES	C21,TR-23-115	
13026	2	19	TE-4247C1	DRYWELL TEMP ELEMENT	M-143 C,5	RX	950	DW	S	N/A	N/A	YES	C21,TR-23-115	
13025	1	19	TE-4247F1	DRYWELL TEMP ELEMENT	M-143 C,4	RX	970	DW	S	N/A	N/A	YES	C21,TR-23-115	
13027	2	19	TE-4247H1	DRYWELL TEMP ELEMENT	M-143 C,5	RX	994	DW	S	N/A	N/A	YES	C21,TR-23-115	
13020	1	20	TI-4072A	DIVISION 1 TORUS TEMP	M-143 B,5	ADMIN BLDG	951	CR	S	N/A	N/A	YES	ROB C03,Y70	
13022	2	20	TI-4072B	DIVISION 2 TORUS TEMP	M-143 A,3	ADMIN BLDG	951	CR	S	N/A	N/A	YES	ROB C03,Y80	
12139A	2	20	TR-2-166	SRV TAILPIPE TEMPERATURE RECORDER	M-115-1 C,4	ADMIN	951	CR	S			YES	ROB C21,Y20	
13028		20	TR-23-115	HPCI SYSTEM TEMP RECORDER	M-143 C,4	ADMIN	951	CR	S	N/A	N/A	YES	ROB C21,Y20	
13040	2	20	TR-4072A	SPOTMDS RECORDER DIV 1	M-143 B,4	ADMIN	939	CS	S			YES	ROB C289A,Y70	
13041	1	20	TR-4072B	SPOTMDS RECORDER DIV 2	M-143 B,3	EFT	960	MAIN	S			YES	ROB C289B,Y80	
13019	1	20	TY-4072A	DIVISION 1 TORUS TEMP	M-143 B,5	ADMIN BLDG	939	CSR	S	N/A	N/A	YES	ROB C289A,Y70	
13021	2	20	TY-4072B	DIVISION 2 TORUS TEMP	M-143 B,3	EFT	960	MAIN ROOM	S	N/A	N/A	YES	ROB C289B,Y80	
9109	1	10	V-AC-4	B RHR ROOM COOLING UNIT	M-112 C,2	RX	896	B RHR ROOM	S,R			YES	B4305(MCC143A),HS 42-4035	
9183	2	10	V-AC-5	A RHR ROOM AIR COOLING UNIT	M-112 B,1	RX	896	A RHR ROOM	S,R			YES	B3305(MCC133A),HS 42-3305	
7152	2	9	V-SF-10	11 DIESEL ROOM VENT FAN	NE-36375-19A	TB		11 DG	S,R	OFF	ON	YES	MCC-3474 (MCC 134A)	
7151	1	9	V-SF-9	12 DIESEL ROOM VENT FAN	NE-36375-19	TB		12 DG	S,R	OFF	ON	YES	MCC-4317 (MCC143A)	
8004		04	X-30	TRANSFORMER		TB	911	LOWER 4KV RM	S			YES	BUS 15	
8007		04	X-40	TRANSFORMER		TB	931	UPPER 4KV RM	S			YES	BUS 16	

CERTIFICATION:

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_____/ ENGINEER
Print or Type Name/Title

Brian Sunde
Signature
11/16/95
Date

_____/ ENGINEER
Print or Type Name/Title

Bruce MacKenzie
Signature
11/19/95
Date

HONTECELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'S')
Program File Name & Version: SSEP 2.2

LINE NO.	TRAIN CLASS	EQUIP MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Desig. No./Rev./Zone	Building	Equipment Location	Normal	Desired	REQ'D	DWG. NO./REV.	SUPPORTING COMPONENTS	ISSUE				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
8102	4	Y01	11 STANDBY INTRUMENT AC TRANSFORMER			TB	911	EAST	S		YES				B3304(MCC133)	
6009	2	Y10	DIV 1 CLASS NON-IE UNIT INST 120VAC DIST PANEL	E-1508		ADMIN	939	CSR	S		YES				Y77	
8026	14	Y20	CLASS NON-IE INSTRUMENT 120VDC DISTRIBUTION PANEL			ADMIN	939	CSR	S		YES				Y21	
8062	14	Y21	INSTRUMENT AC TRANSFER SWITCH			ADMIN	939	CSR	S		YES				Y01, Y22	
8103	4	Y22	12 INSTRUMENT AC TRANSFORMER			TB	911	EAST	S		YES				B43118(MCC143)	
6002	1	Y30	DIV 2 CLASS NON-IE UNIT 120VAC INST AC DIST PANEL	E-1508		ADMIN	939	CSR	S		YES				Y87	
6015	2	Y70	DIV 1 UNINTERRUPTIBLE 120VAC CLASS IE DIST PANEL	E-1508		EFF	944	PWR EQ DIV 1 RM S	S		YES				Y75	
6010	2	Y71	DIV 1 120VAC CLASS IE INVERTER	E-1508		EFF	944	PWR EQ DIV 1 RM S,R	S		YES				D31	
6031	2	Y72	120 VDC TRANSFORMER FEEDING Y73			EFF	944	DIV1 RM	S		YES				MCC 144	
6011	2	Y73	ALTERNATE 120VAC TO UPS (Y71)	E-1508		EFF	944	PWR EQ DIV 1 RM S	S		YES				Y71, Y72	
6012	2	Y74	FUSED DISCONNECT SWITCH TO PANEL Y10	E-1508		EFF	944	PWR EQ DIV 1 RM S	S		YES				Y73	
6013	2	Y75	FUSED DISCONNECT SWITCH TO PANEL Y70	E-1508		EFF	944	PWR EQ DIV 1 RM S	S		YES				Y73	
6014	2	Y77	120-120/240VAC TRANSFORMER TO PANEL Y10	E-1508		EFF	944	PWR EQ DIV 1 RM S	S		YES				Y74	
6003	1	Y80	DIV 2 UNINTERRUPTIBLE 120VAC CLASS IE DIST PANEL	E-1508		EFF	939	MAIN ROOM	S		YES				Y85	
6004	1	Y81	DIV 2 120VAC CLASS IE INVERTER	E-1508		EFF	960	MAIN ROOM	S,R		YES				D100	
6030	1	Y82	DIV 2 120 VDC TRANSFORMER Y83			EFF	960	MAIN	S		YES				MCC 144	
6005	1	Y83	ALTERNATE 120VAC TO UPS (Y81)	E-1508		EFF	960	MAIN ROOM	S		YES				Y81, Y82	
6006	1	Y84	FUSED DISCONNECT SWITCH TO PANEL Y30	E-1508		EFF	960	MAIN ROOM	S		YES				Y83	

CERTIFICATION:

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Pr-Int or Type Name/Title
ENGINEER

Blas Sandoval
Signature

11/16/95
Date

Pr-Int or Type Name/Title
ENGINEER

Raymond A. Bunker
Signature

11/19/95
Date

MORTICELLO NUCLEAR GENERATING PLANT
 SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
 SEISMIC REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
 Sort Criteria: ID Number
 Filter Criteria: (Eval. Type CONTAINS 'S')
 Program File Name & Version: SSEN 2.2

LINE NO.	EQUIP TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	EQUIPMENT Fir. Elev.	LOCATION Rm. or Row/Col.	SORT	NOTES	OP. ST. Normal?	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)
6007	1	14	Y85	FUSED DISCONNECT SWITCH TO PANEL Y80	E-1508	EFT	960	MAIN ROOM	S			YES			Y83	
6008	1	4	Y87	120-120/240VAC TRANSFORMER TO PANEL Y30	E-1508	EFT	960	MAIN ROOM	S			YES			Y84	

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_____/ ENGINEER
 Print or Type Name/Title

Brian Sunde
 Signature

11/16/95
 Date

_____/ ENGINEER
 Print or Type Name/Title

Brian Sunde
 Signature

11/19/95
 Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

LINE NO.	TRAIN CLASS	MARK NO.	EQUIP CLASS	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Fir. Eiv.	LOCATION	Sort Notes	OP. ST.	Req'd Interconnections					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
8066	01	152-308		13 BUS TO 15 BUS 4KV SUPPLY		TB	911	LOWER 4KV RM	S,R	YES	ROB BUS 13,0111					
8067	01	152-408		14 BUS TO 16 BUS XTIE 4KV		TB	931	UPPER 4KV RM	S,R	YES	ROB BUS 14,0211					
7198	2	152-502/SS		SYNC 11 STANDBY DIESEL		ADMIN	951	CR	S	YES	ROB COB,0111					
8039	03	152-503		P-202C(13 RHR PUMP) 4KV SUPPLY		TB	911	LOWER 4KV RM	S	YES	NE-36404-48					
8040	03	152-504		P-202A(11 RHR PUMP) 4KV SUPPLY		TB	911	LOWER 4KV RM	S	YES	ROB BUS 15,0111					
3063	2	152-505		4KV SUPPLY TO P-208A	M-122 B,2	TB	911	LOWER 4KV	S		ROB BUS 15,0111					
8105	03	152-505		4KV SUPPLY TO P-208A(11 CS)		TB	911	LOWER 4KV RM	S	YES	ROB BUS 15,0111					
8108	03	152-507		P-109C (13 RHRSM) 4KV SUPPLY		TB	911	LOWER 4KV RM	S	YES	ROB BUS 15,0111					
8109	03	152-508		P-109A (11 RHR'S) 4KV SUPPLY		TB	911	LOWER 4KV RM	S	YES	ROB BUS 15,0111					
8042	03	152-603		P-202B (14 RHR PUMP) 4KV SUPPLY		TB	931	UPPER 4KV RM	S	YES	ROB BUS 16,0211					
8041	03	152-604		P-202B (12 RHR PUMP) 4KV SUPPLY		TB	931	UPPER 4KV RM	S	YES	ROB BUS 16,0211					
3066	1	152-605		4KV SUPPLY TO P-208B	M-122 B,5	TB	931	UPPER 4KV	S	OPEN	ROB BUS 16,0211					
8106	03	152-605		4KV SUPPLY TO P-208B(12 CS)		TB	931	UPPER 4KV RM	S	YES	ROB BUS 16,0211					
8110	03	152-607		P-109B (14 RHRSM) 4KV SUPPLY		TB	931	UPPER 4KV RM	S	YES	ROB BUS 16,0211					
8111	03	152-608		109B(12 RHRSM) 4KV SUPPLY		TB	931	UPPER 4KV RM	S	YES	ROB BUS 16,0211					
7200	1	152/602/SS		SYNC 12 STANDBY DIESEL		ADMIN	951	CR	S	YES	ROB COB,0211					
7183	1	190-06-2/CS		12 DG VOLTAGE ADJUST	NE-36403-4A	ADMIN	951'	CR	S	ON	ON	ON	ON	ON	ON	ON
7184	2	190-06-1/CS		11 DG VOLTAGE ADJUST	NE-36403-4	ADMIN	951'	CR	S	ON	ON	ON	ON	ON	ON	ON
12260A	1	2E-S1A		SRV A HS	M-115-1 B,5	ADMIN	951	CR	S	YES	ROB CO3,011,021					
12149A	2	2E-S1C		SRV C HS	M-115-1 C,3	ADMIN	951	CR	S	YES	ROB CO3,011,021					
1226A	1	2E-S1D		SRV D HS	M-115-1 B,3	ADMIN	951	CR	S	YES	ROB CO3,011,021					
12324	20	2E-S3B		DIV 11 SRV LO-LO SET BYPASS	M-115-1 D,2	ADMIN	951	CR	S	YES	ROB C253B,0100					
12044A	1	2E-S4B		SRV B HS	M-115-1 C,7	ADMIN	951	CR	S	YES	ROB CO3,011,021					

CERTIFICATION:

The information identifying the equipment required to bring the plant to a safe shutdown condition on this Safe Shutdown Equipment List (SSEL) is, to the best of our knowledge and belief, correct and accurate. (One or more signatures of Systems or Operations Engineers)

Print or Type Name/Title: Bryan Guade / ENGINEER
Date: 11/16/95

Print or Type Name/Title: Bryan Guade / ENGINEER
Date: 11/16/95

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEM 2.2

LINE NO.	TRAIN CLASS	EQUIP MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	EQUIPMENT Flr. Elev.	LOCATION Rm. or Row/Col.	Sort Notes	Normal	Desired	REQ'D	INTERCONNECTIONS				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
12056A	1	20	ZE-54E	SRV E HS	M-115-1 B,7	ADMIN	951	CR	S	YES	YES	ROB C03,033				
12121A	2	20	ZE-54F	SRV F HS	M-115-1 B,3	ADMIN	951	CR	S	YES	YES	ROB C03,033				
12045A	2	20	ZE-54G	SRV G HS	M-115-1 D,6	ADMIN	951	CR	S	YES	YES	ROB C03,033				
12135A	2	20	ZE-54H	SRV H HS	M-115-1 D,3	ADMIN	951	CR	S	YES	YES	ROB C03,033				
7199	2	20	52-301/SS	SYNC 103 LOAD CENTER	ADMIN	951	CR	CR	S	YES	YES	ROB C08,0111				
7201	1	20	52-410/SS	SYNC 104 LOAD CENTER	ADMIN	951	CR	CR	S	YES	YES	ROB C08,0211				
16005	1/2	00	5A-53A	REACTOR MANUAL SCRAM CH A	RX	951	C-05	C-05	S	CLOSED	OPEN	YES	NO7834-67-9 LOGIC,RPS			
16006	1/2	00	5A-53B	REACTOR MANUAL SCRAM CH B	RX	951	C-05	C-05	S	CLOSED	OPEN	YES	NO7834-67-10 LOGIC,RPS			
12326	1	18	5AC30A	LOW LOW WET SCRAM PERMISSIVE RELAY	RB	935	WEST	WEST	S,R	YES	YES	ROB IR-5AC30A,RPS				
12327	2	18	5AC30B	LOW LOW SET SCRAM PERMISSIVE RELAY	RB	935	WEST	WEST	S,R	YES	YES	ROB IR-5AC30A,RPS				
20001	1	00	AWH-20-B-9	D1v 11 125A250 VDC Trouble	ADMIN	951			S,R	YES	YES	ROB C20,0-101,021				
20002	2	00	AWH-3-A-06	Core Spray Pump 11 PWR Failure	ADMIN	951			S,R	YES	YES	ROB C03,144-K3A on C-32,021				
20003	1	00	AWH-3-A-09	Autp B blowdown Relief Vlv Leaking	ADMIN	951			S,R	YES	YES	ROB C03,TR 2-166 on C21,021				
20004	2	00	AWH-3-A-10	RHR Hx Tube/she11 Lo Dif Press	ADMIN	951			S,R	YES	YES	ROB C03,0P1S-10-92A,021				
20005	2	00	AWH-3-A-14	Core Spray Pump 11 OL/Man-OVRD	ADMIN	951			S,R	YES	YES	ROB C03,0L: 150/151-505 relay,Breaker 152-505,021				
20006	2	00	AWH-3-A-22	Core Spray Pump 11 Lockout	ADMIN	951			S,R	YES	YES	ROB C03,186-505 Relay,Breaker 152-505,021				
20007	1	00	AWH-3-A-25	Auto B blowdown Timer Activated	ADMIN	951			S,R	YES	YES	ROB C03,ZE-K4A or ZE-K4B on C-32,021				

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Print or Type Name/Title
/ ENGINEER

Brian Gude
Signature
11/16/95
Date

Print or Type Name/Title
/ ENGINEER

James M. Johnson
Signature
11/16/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
 SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
 COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
 Sort Criteria: ID Number
 Filter Criteria: <none>
 Program File Name & Version: SSEN 2.2

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Des. No./Rev./Zone	Building	EQUIPMENT Fir. Elev.	LOCATION Rm. or Row/Col.	SORT	NOTES	OP. Normal	ST. Desired	POWER REQ'D?	SUPPORTING SYS. DNG. 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)
20020	1	00	ANN-3-A-48	N2 Low Press SRV Inbd T-rings	NE-36839-11	ADMIN	951		S,R				YES		ROB C03,PS-4662 or PS-4895,A Train,D21	
20021	2	00	ANN-3-A-50	RHR Pump 11 OL/Man-OVRD	NX-7905-46-12	ADMIN	951		S,R				YES		ROB C03,OL: 150/151-504 Relay, B Phase breaker 152-504,D21	
20022	2	00	ANN-3-A-51	RHR Pump 13 OL/Man OVRD	NX-7905-46-12	ADMIN	951		S,R				YES		ROB C03,OL: 150/151-503 Relay, B Phase breaker 152-503,D21	
20023	1	00	ANN-3-B-04	RHR Pump 12 Lockout	NX-7905-46-12	ADMIN	951		S,R				YES		ROB C03,186-604 Relay, Breaker 152-604,D21	
20024	1	00	ANN-3-B-07	Core Spray Pump 12 OL/Man OVRD	NX-7833-21-3	ADMIN	951		S,R				YES		ROB C03,OL: 150/151-605 Relay, Breaker 152-605,D21	
20025	1	00	ANN-3-B-12	RHR Pump 12 OL/Man OVRD	NX-7905-46-12	ADMIN	951		S,R				YES		ROB C03,OL: 150/151-604 Relay, Breaker 152-604,D21	
20026	1	00	ANN-3-B-13	RHR SW Pump 14 Trip	NX-7905-46-12	ADMIN	951		S,R				YES		ROB C03,152-607b, Breaker 152-607,D21	
20027	1	00	ANN-3-B-15	Core Spray Pump 123 Lockout	NX-7833-21-3	ADMIN	951		S,R				YES		ROB C03,186-605 Relay, Breaker 152-605,D21	
20028	1	00	ANN-3-B-23	Core Spray Pump 12 Pur Failure	NX-7833-21-3	ADMIN	951		S,R				YES		ROB C03,14A-K38 on C-33,D21	
20029	1	00	ANN-3-B-28	RHR Pump 14 Lockout	NX-7905-46-12	ADMIN	951		S,R				YES		ROB C03,186-603 Relay, Breaker 152-603,D21	
20030	1	00	ANN-3-B-30	Core Spray Sys II Viv Motor OL	NX-7833-21-3	ADMIN	951		S,R				YES		ROB C03,49/OL2, Breaker 4326,D21	
20031	1	00	ANN-3-B-35	RHR II Viv Motor OL	NX-7905-48-12	ADMIN	951		S,R				YES		ROB C03,49/OL2, Breakers 4323,4210,4208,4337,D21	
20032	1	00	ANN-3-B-36	RHR Pup 14 OL/Man OVRD	NX-7905-46-12	ADMIN	951		S,R				YES		ROB C03,150/151-603 Relay, Breaker 152-603,D21	

CERTIFICATION:

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_____/ ENGINEER
 Print or Type Name/Title

Brian Ginde
 Signature

11/16/95
 Date

_____/ ENGINEER
 Print or Type Name/Title

Bruce Mankin
 Signature

11/19/95
 Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEM 2.2

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	EQUIPMENT Flr. Elev.	LOCATION Rm. or Row/Col.	SORT	NOTES	OP. ST. Normal	OP. 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)
20033	1	00	ANN-3-B-37	RHRSM Pump 12 Trip	NX-7905-48-12	ADMIN	951		S,R				YES		ROB C03,152-608b, Breaker 152-608,D21	
20034	1	00	ANN-3-B-38	Core Spray System II Inj Vlv Motor OLR	NX-7833-21-3	ADMIN	951		S,R				YES		ROB C03,49/DL2, Breakers 4324,4325,D21	
20035	1	00	ANN-3-B-43	RHR II Injection Vlv Motor OLR	NX-7905-46-12	ADMIN	951		S,R				YES		ROB C03,49/DL2, Breakers 4334,4335,D21	
20036	1	00	ANN-3-B-50	RHR Logic Bus Monitor	NX-7995-46-12	ADMIN	951		S,R				YES		ROB C03,10A-E84A/B, C-32 and C-33,D21	
20037	1	00	ANN-3-B-52	RHRSM Pumps OL-AUX Annu	NX-7905-46-12	ADMIN	951		S,R				YES		ROB C03, 150/151-507,508,607,608, Breakers 152-507,152-508,152-607,152-608,D21	
20039	1	00	ANN-4-B-04	Suppression Water Level HI/Low	NE-36537-31	ADMIN	951	CR	S,R				YES		ROB C04,LS-2996A or LS-2996B,D21	
20040	1	00	ANN-4-B-35	Drywell-Torus HI Press	NE-36537-31	ADMIN	951		S,R				YES		ROB C04,PR-2994,D21	
20042	1	00	ANN-5-A-09	Reactor Vessel L/L Wtr Level Ch A	NX-7823-4-1	ADMIN	951		S,R				YES		ROB C05,LS 2-3-657C, LS 2-3-658C,D21	
20043	1	00	ANN-5-A-10	Reactor Vessel L/L Wtr Level Ch B	NX-7823-4-1	ADMIN	951		S,R				YES		ROB C05,LS 2-3-657D, LS 2-3-658D,D21	
20046	1	00	ANN-5-A-46	SRV Open	NF-95915-4	ADMIN	951		S,R				YES		ROB C05,dPSH Switch, dPSH 4060A,4061C,4062C,4063C,4068A,4069A,4070A,4071A,D21	
20047	1	00	ANN-5-B-04	Reactor Auto Scram Channel A	NX-7834-67-17	ADMIN	951		S,R				YES		ROB C05,5A-K13A/C/E or G, C-15,D21	
20048	1	00	ANN-5-B-05	Reactor Auto Scram Channel B	NX-7834-67-17	ADMIN	951		S,R				YES		ROB C05,5A-K13B/D/F or H, C-17,D21	
20049	1	00	ANN-5-B-12	Reactor Manual Scram Channel A	NX-7834-67-17	ADMIN	951		S,R				YES		ROB C05,5A-K22A, C-15,D21	

CERTIFICATION:

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_____/ ENGINEER
Print or Type Name/Title

Brian Lunde
Signature

11/16/95
Date

_____/ ENGINEER
Print or Type Name/Title

Brian Lunde
Signature

11/16/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DRIF / 11/16/95 / 06:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Location	OP. ST.	POWER SUPPORTING SYS.	REQ'D INTERCONNECTIONS	REG.						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
20050	1	00	AMN-5-B-13	Reactor Manual Scram Channel B	MX-7834-67-17	ADMIN	951	ADMIN	951	S,R	YES	YES	YES	ROB COS, SA-K228, C-17, D21		
20053	1	00	AMN-5-B-52	Torus Water HI Temp Spotwos Trouble		ADMIN	951	ADMIN	951	S,R	YES	YES	YES	ROB COS, TY-6072A/9, D21		
20054	2	00	AMN-6-C-06	Diesel Gen Tk I-45A Level/Flow Low	NF-36755	ADMIN	951	ADMIN	951	S,R	YES	YES	YES	ROB COS, L15-1528 or FS-3236, D11		
20056	1	00	AMN-6-C-07	Diesel Gen Tk I-45B Level/Flow Low	NF-36755	ADMIN	951	ADMIN	951	S,R	YES	YES	YES	ROB COS, L15-1529 or FS-3237, C06, D11		
20057	1	00	AMN-6-C-2	Diesel Oil Storage Tank T-44 Low-High Level	NF-36755	ADMIN	951	ADMIN	951	S,R	YES	YES	YES	ROB COS, L15-1522, D11		
20058	2	00	AMN-8-A-04	Y10/Y70 Instr AC Loss of Voltage	NF-36709, NE-100344	ADMIN	951	ADMIN	951	S,R	YES	YES	YES	ROB COS, Y74, Y75 Undervoltage Relay, C06, D11		
20059	1	00	AMN-8-A-09	Y20 Instr Ac Undervoltage	E-111, E-32	ADMIN	951	ADMIN	951	S,R	YES	YES	YES	ROB COS, Re lay 27-12, C06, D11		
20060	1	00	AMN-8-A-14	Y30/Y80 Instr AC Loss of Voltage	NF-36709, NE-100344	ADMIN	951	ADMIN	951	S,R	YES	YES	YES	ROB COS, Y84, Y85 Undervoltage Relay, C06, D11		
20061	2	00	AMN-8-A-15	Battery Chgr Supply Undervoltage or HVSD	NF-36709	ADMIN	951	ADMIN	951	S,R	YES	YES	YES	ROB COS, HVSD, ACPFA or PLR Re lay, DS2, S3, S4 or D10, 20, 40, C06, D11		
20062	2	00	AMN-8-A-20	Division I 250 VDC HI/Lo Voltage	NF-36709	ADMIN	951	ADMIN	951	S,R	YES	YES	YES	ROB COS, DS2, S3, D11, D102		
20063	2	00	AMN-8-A-24	Div I Inverter Y71 Trouble	NF-36709	ADMIN	951	ADMIN	951	S,R	YES	YES	YES	ROB COS, Y71 Local Annunciator, D11		
20064	1	00	AMN-8-A-29	Div 2 Inverter Y81 Trouble	NF-36709	ADMIN	951	ADMIN	951	S,R	YES	YES	YES	ROB COS, Y81 Local Annunciator, D11		
20065	1	00	AMN-8-B-13	No. 12 125 VDC Bus Voltage HI/Lo	NF-36710	ADMIN	951	ADMIN	951	S,R	YES	YES	YES	ROB COS, BVR-2, D11		
20066	2	00	AMN-8-B-19	ESM Pump 11 Lo Dsch Press	NF-36710	ADMIN	951	ADMIN	951	S,R	YES	YES	YES	ROB COS, PS-2436, D11		
20067	2	00	AMN-8-B-20	ESM Pump 17 OL/Man OVRD	NF-36710	ADMIN	951	ADMIN	951	S,R	YES	YES	YES	ROB COS, 49/OL2, Breaker 3435, D11		

CERTIFICATION:

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Print or Type Name/Title
/ ENGINEER

Bryan Gude
Signature
11/16/95
Date

Print or Type Name/Title
/ ENGINEER

Bryan Gude
Signature
11/16/95
Date

POINTCELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEN 2.2

LINE NO.	EQUIP CLASS	MASK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Location	OP. ST.	POWER SUPPORTING SYS.	REQ'D INTERCONNECTIONS							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
20068	2	00	AMH-8-B-23	11 Diesel Gen Lockout	MF-36710	ADMIN	951	ADMIN	S,R	YES	YES	YES	YES	YES	ROB COB,186-502, Breaker 152-502,011	
20069	2	00	AMH-8-B-28	11 Diesel Gen Phase Overcurrent	MF-36710	ADMIN	951	ADMIN	S,R	YES	YES	YES	YES	YES	ROB COB,151-061,011	
20070	2	00	AMH-8-B-30	11 Diesel Eng trouble	MF-36710	ADMIN	951	ADMIN	S,R	YES	YES	YES	YES	YES	ROB COB,Alarm Relay, C-93,011	
20071	2	00	AMH-8-B-34	11 Diesel Gen Running	MF-36710	ADMIN	951	ADMIN	S,R	YES	YES	YES	YES	YES	ROB COB,ESR relay,011	
20072	2	00	AMH-8-C-14	No. 12 125 VDC Bus Voltage HI/Low	MF-36710	ADMIN	951	ADMIN	S,R	YES	YES	YES	YES	YES	ROB COB,8VR-1,011	
20073	1	00	AMH-8-C-17	ESM PUMP 12 Lo Bsch Press	MF-36710	ADMIN	951	ADMIN	S,R	YES	YES	YES	YES	YES	ROB COB,PS-2439,011	
20074	1	00	AMH-8-C-20	ESM Pump 12 OL/Man OVRD	MF-36710	ADMIN	951	ADMIN	S,R	YES	YES	YES	YES	YES	ROB COB,49/0L2, Breaker 4319,011	
20075	1	00	AMH-8-C-21	12 Diesel Eng Trouble	KX-36710	ADMIN	951	ADMIN	S,R	YES	YES	YES	YES	YES	ROB COB,Alarm Relay, C-94,011	
20076	1	00	AMH-8-C-23	12 Diesel Lockout	MF-36710	ADMIN	951	ADMIN	S,R	YES	YES	YES	YES	YES	ROB COB,186-602, Breaker 152-602,011	
20077	1	00	AMH-8-C-28	12 Diesel Gen Phase Overcurrent	MF-36710	ADMIN	951	ADMIN	S,R	YES	YES	YES	YES	YES	ROB COB,151-062,011	
20078	1	00	AMH-8-C-32	12 Diesel Eng Running	MF-36710	ADMIN	951	ADMIN	S,R	YES	YES	YES	YES	YES	ROB COB,ESR Relay,011	
11009	1	08	AO-2-80A	A MSIV INBOARD	M-115 C,5	RX	933'	DM AZ 160	S,R 15	OPEN	CLOSED	NO	NO	NO	HS 16A-S1A	
11010	1	08	AO-2-80B	B MSIV INBOARD	M-115 D,5	RX	933'	DM AZ 170	S,R 15	OPEN	CLOSED	NO	NO	NO	HS 16A-S1B	
11011	1	08	AO-2-80C	C MSIV INBOARD	M-115 D,2	RX	933'	DM AZ 190	S,R 15	OPEN	CLOSED	NO	NO	NO	HS 16A-S1C	
11012	1	08	AO-2-80D	D MSIV INBOARD	M-115 C,2	RX	933'	DM AZ 200	S,R 15	OPEN	CLOSED	NO	NO	NO	HS 16A-S1D	
11013	2	08	AO-2-86A	A MSIV OUTBD	M-115 C,5	RX	935'	STEAM CHASE	S,R 15	OPEN	CLOSED	NO	NO	NO	HS 16A-S2A	
11014	2	08	AO-2-86B	B MSIV OUTBD	M-115 D,5	RX	935'	STEAM CHASE	S,R 15	OPEN	CLOSED	NO	NO	NO	HS 16A-S2B	
11015	2	08	AO-2-86C	C MSIV OUTBD	M-115 D,2	RX	935'	STEAM CHASE	S,R 15	OPEN	CLOSED	NO	NO	NO	HS 16A-S2C	
11016	2	08	AO-2-86D	D MSIV OUTBD	M-115 C,2	RX	935'	STEAM CHASE	S,R 15	OPEN	CLOSED	NO	NO	NO	HS 16A-S2D	
9023	2	00	AV-3147	11 RHR SW PUMP P-109A AUTO AIR VENT	M-811 B,3	INTAKE	919	MAIN ROOM	S	N/A	N/A	N/A	N/A	N/A	N/A	N/A

CERTIFICATION:

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Print or Type Name/Title: Brian Gunde / ENGINEER
Signature: [Signature] Date: 11/16/95

Print or Type Name/Title: Bruce Mackinnon / ENGINEER
Signature: [Signature] Date: 11/16/95

MONTICELLO NUCLEAR GENERATING PLANT
 SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
 COMPOSITE SSEL

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Desig. No./Rev./Zone	Building	EQUIPMENT P. ETV.	LOCATION	Sort Notes	Normal	OP. ST.	POWER SUPPORTING SYS. REQ'D	INTERCONNECTIONS					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	
9017	1	00	AV-3148	14 RHR SW PUMP P-1090 AUTO AIR VENT	M-811 B, 8	INTAKE	919	MAIN ROOM	S	N/A	N/A	NO					
9022	2	00	AV-3149	13 RHR SW PUMP P-109C AUTO AIR VENT	M-811 B, 3	INTAKE	919	MAIN ROOM	S	N/A	N/A	NO					
9018	1	00	AV-3150	12 RHR SW PUMP P-109B AUTO AIR VENT	M-811 B, 8	INTAKE	919	MAIN ROOM	S	N/A	N/A	NO					
9021	2	00	AV-3155	11 ESM PUMP P-111A DISCHARGE AIR VENT	M-811 B, 4	INTAKE	919	MAIN ROOM	S	N/A	N/A	NO					
9019	1	00	AV-3156	12 ESM PUMP P-111B DISCHARGE AIR VENT	M-811 B, 6	INTAKE	919	MAIN ROOM	S	N/A	N/A	NO					
9024	2	00	AV-4024	13 ESM PUMP P-111C DISCHARGE AIR VENT	M-811 B, 3	INTAKE	919	MAIN ROOM	S	N/A	N/A	NO					
9020	1	00	AV-4026	14 ESM PUMP P-111D DISCHARGE AIR VENT	M-811 C, 5	INTAKE	919	MAIN ROOM	S	N/A	N/A	NO					
8114	01	83300		MCC1338/1428 NORMAL SOURCE		TB	911	EAST	S, R	YES	YES					ROB MCC1338	
8107	01	84231		MCC142A/B CROSS TIE		TB	931	EAST	S, R	YES	YES						ROB MCC1420
8113	01	84300		MCC1338/1428 ALTERNATE SOURCE		TB	931	EAST	S, R	YES	YES						ROB MCC1438
7187	1	5	BPM-1	DC-BOOSTER PUMP MOTOR	KX-9216-5-3	TB	931	12 DG	S, R	OFF	OH						ROB 12EDG, D-211
7189	2	5	BPM-1	DC-BOOSTER PUMP MOTOR	KX-9216-5-3	TB	931	11 DG	S, R	OFF	OH						ROB 11EDG, D-111
7188	2	5	BPM-2	DC-BOOSTER PUMP MOTOR	KX-9216-5-3	TB	931	12 DG	S, R	OFF	OH						ROB 12 EDG, D-111
7190	1	5	BPM-2	DC-BOOSTER PUMP MOTOR	KX-9216-5-3	TB	931	11 DG	S, R	OFF	OH						ROB 11 EDG, D-211
8005	03	BUS 15		4160 SWITCHGEAR		TB	911	LOWER 4KV RM	S, R	YES	YES						OFFSITE/EDG
8008	03	BUS 16		4160 SWITCHGEAR		TB	931	UPPER 4KV RM	S, R	YES	YES						OFFSITE, EDG
7169	2	20	C-91	11 DIESEL GEN ELECTRICAL		TB	931'	11 EDG	S	NO	NO						
7167	1	20	C-92	12 DIESEL GEN ELECTRICAL		TB	931'	12 EDG	S	NO	NO						
7170	2	20	C-93	11 DIESEL GEN CONTROL		TB	931'	11 EDG	S	NO	NO						ROB 11 DG

CERTIFICATION:

The information identifying the equipment required to bring the plant to a safe shutdown condition on this Safe Shutdown Equipment List (SSEL) is, to the best of our knowledge and belief, correct and accurate. (One or more signatures of Systems or Operations Engineers)

Print or Type Name/Title: Debra Sunde / ENGINEER
 Signature: [Signature]
 Date: 11/16/95

Print or Type Name/Title: George Mabeberneck / ENGINEER
 Signature: [Signature]
 Date: 11/19/95

LINE NO.	TRAIN CLASS	EQUIP MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	LOCATION Ra. or Row/Col.	OP. ST.	POWER SUPPORTING SYS. REQ'D INTERCONNECTIONS REG.								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
7168	1	20	C-94	12 DIESEL GEN CONTROL		TB	931'	12 EDG	S							ROB 12 DG
8011	20	C03	RX AA CONTAINMENT COOLING CONTROL PANEL			ADMIN	951	CR	S							
8085	20	C04	RMC RECIRCULATING BENCH BOARD			ADMIN	951	CR	S							
8086	20	C05	REACTOR CONTROL BENCH BOARD			ADMIN	951	CR	S							
8104	20	C06	FEEDWATER AND CONDENSATE BENCHBOARD			ADMIN	950	CR	S							
8082	20	C07	TURBINE BENCH BOARD			ADMIN	951	CR	S							
8084	20	C08	GENERATOR AUXILIARY POWER BENCH BOARD			ADMIN	951	CR	S							
8015	20	C121	JET PUMP INSTRUMENT RACK			RX	935	WEST	S							
8020	20	C122	JET PUMP INSTRUMENT RACK			RX	935	EAST	S							
8009	20	C129A	RHR INSTRUMENT RACK			RX	896	A RHR RH	S							
8022	20	C129B	RHR INSTRUMENT RACK			RX	896	B RHR RH	S							
8053	20	C15	CHANNEL A PRIMARY ISOL AND RPS VERTICAL BOARD			ADMIN	951	CR	S							
8054	20	C17	CHANNEL B ISOL AND RPS VERTICAL BOARD			ADMIN	951	CR	S							
8071	20	C18	FEEDWATER AND RECIRCULATION			ADMIN	939	CSR	S							
8043	20	C19	PROCESS INSTRUMENT VERTICAL BOARD			ADMIN	939	CSR	S							
8061	20	C20	TURBINE PLANT INSTRUMENT VERTICAL BOARD			ADMIN	951	CR	S							84305(MCC123A),83305(ME C133A)
8077	20	C21	NUCLEAR STEAM SUPPLY TEMPERATURE RECORDING			ADMIN	951	CR	S							
8088	20	C242	EFT NON-IE PANEL			EFT	932	DIV 1 RH	S							
8091	20	C243A	EFT CLASS 1E PANEL DIVISION 1			EFT	933	DIV 1 RH	S							

CERTIFICATION:

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Print or Type Name/Title / ENGINEER

Bryan J. ...
 Signature
 11/16/95
 Date

Print or Type Name/Title / ENGINEER

... ..
 Signature
 11/19/95
 Date

MONTECELLO NUCLEAR GENERATING PLANT
 SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
 COMPOSITE SSEL

LINE NO.	TRASH CLASS	EQUIP MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Fir. Elev.	EQUIPMENT LOCATION	LOCATIONS	OP. ST.	POWER SUPPORTING SYS.	REQ'D INTERCONNECTIONS				
(1)	(2)	(3)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
8092	20	C2448	EFT CLASS 1E PANEL DIVISION 2	EFT	933	DIV 2	RH	S	NO	NO					
8074	20	C253A	SRV LOW SET DIV 1 CONTROL PANEL	ADMIN	939	CSR		S	NO	NO					
8075	20	C253B	SRV LOW SET DIV 2 CONTROL PANEL	EFT	960	MAIN		S	NO	NO					
8076	20	C253D	DIV 11 LOLO SET BYPASS PANEL	ADMIN	951	CR		S	NO	NO					
8078	20	C289A	SPOTPHOS PANEL	ADMIN	939	CSR		S	NO	NO					
8079	20	C289B	SPOTPHOS PANEL	EFT	960	MAIN		S	NO	NO					
8095	20	C290A	SRV BLOWDOWN INSTRUMENT PANEL	RX	896	TORUS		S	NO	NO					
8101	18	C290B	SRV BLOWDOWN INSTRUMENT PANEL	RX	935	WEST		S	NO	NO					
8023	20	C292	ASDS BENCHCARD	EFT	960	MAIN ROOM		S	NO	NO					
8025	20	C293	ASDS RELAY PANEL	TB	931	UPPER 4KV RM		S	NO	NO					
8096	20	C30	RCIC CABLE SPR RM CONTROL PANEL	ADMIN	939	CSR		S	NO	NO					
8012	20	C303A	ECCS DIV 1 ANALOG TRIP SYSTEM	ADMIN	931	CSR		S	NO	NO					
8069	20	C303B	ECCS DIV 2 ANALOG TRIP UNIT	EFT	960	MAIN		S	NO	NO					
8068	20	C304A	RPS-A1 AND ISOLATION ANALOG TRIP UNIT	ADMIN	939	CSR		S	NO	NO					
8070	20	C304B	RPS-B1 AND ISOLATION ANALOG TRIP UNIT	ADMIN	939	CSR		S	NO	NO					
8072	20	C304C	RPS-A2 AND ISOLATION ANALOG TRIP UNIT	EFT	960	MAIN		S	NO	NO					
8073	20	C304D	RPS-B2 AND ISOLATION ANALOG TRIP UNIT	EFT	960	MAIN		S	NO	NO					
8100	20	C311	SRV BACKUP AIR SUPPLY	TB	931	EAST		S	NO	NO					
8017	20	C32	A RHRS, CORE SPRAY, ADS CONTROL PANEL	ADMIN	939	CSR		S	NO	NO					

CERTIFICATION:

The information identifying the equipment required to bring the plant to a safe shutdown condition on this Safe Shutdown Equipment List (SSEL) is, to the best of our knowledge and belief, correct and accurate. (One or more signatures of Systems or Operations Engineers)

Print or Type Name/Title: Bryan Guide / ENGINEER
 Signature: [Signature]
 Date: 11/16/95

Print or Type Name/Title: [Signature] / ENGINEER
 Signature: [Signature]
 Date: 11/19/95

MONTICELLO NUCLEAR GENERATING PLANT
 SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
 COMPOSITE SSEL

LINE NO.	EQUIP TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Flr./Elev.	LOCATION No. or Row/Col.	OP. ST.	POWER SUPPORTING SYS.	REQ'D INTERCONNECTIONS						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
8010	20	C33	B RHR, CORE SPRAY, ADS CONTROL PANEL		ADMIN	931	CSR	NO								
8097	20	C39	MPCI RELAY PANEL		ADMIN	939	CSR	NO								
8098	20	C41	INBOARD ISOLATION RELAY PANEL		ADMIN	939	CSR	NO								
8099	20	C42	OUTBOARD ISOLATION RELAY PANEL		ADMIN	939	CSR	NO								
8018	20	C55	RX LEVEL & PRESSURE RACK		RX	962	SOUTH	NO								
8014	20	C56	RX LEVEL & PRESSURE RACK		RX	962	SOUTH	NO								
4001	1	00	CRD HCU		RX	935	EAST SIDE	NO								
4002	1	00	CRD HCU		RX	935	WEST SIDE	NO								
4005	1	21	CRD16A		RX	935	11 BK	NO								
4006	1	21	CRD16B		RX	935	12 BK	NO								
9165	2	00	CV-1728		RX	896	A RHR ROOM	NO	OPEN	OPEN				SV-1728		
9122	1	00	CV-1729		RX	896	B RHR ROOM	NO	OPEN	OPEN				SV-1728		
1027	2	07	CV-1994		RX	896	A RHR ROOM	NO	CLOSED	CLOSED				T-75A,C-03		
2021	1	07	CV-1995		RX	896'	B RHR ROOM	NO	CLOSE	OP/CL				C-292, SV-1995		
1022	2	07	CV-1996		RX	896	A RHR ROOM	NO	CLOSED	OPEN				T-75C,C-03		
2027	1	07	CV-1997		RX	896'	B RHR ROOM	NO	CLOSE	OP/CL				C-03, SV-1997		
4013	1	07	CV-3-32A		RX	935	11 BK	YES	OP	CL				COS(POSITION INDICATION), Y20		
4015	1	07	CV-3-32B		RX	935	12 BK	YES	OP	CL				COS(POSITION INDICATION), Y20		
4014	2	07	CV-3-32C		RX	935	11 BK	YES	OP	CL				COS(POSITION INDICATION), Y20		

CERTIFICATION:

The information identifying the equipment required to bring the plant to a safe shutdown condition on this Safe Shutdown Equipment List (SSEL) is, to the best of our knowledge and belief, correct and accurate. (One or more signatures of Systems or Operations Engineers)

Print or Type Name/Title: Bray Sander / ENGINEER
 Signature: [Signature]
 Date: 11/16/95

Print or Type Name/Title: [Signature] / ENGINEER
 Signature: [Signature]
 Date: 11/16/95

MONTICELLO NUCLEAR GENERATING PLANT
 SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
 COMPOSITE SSEL

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Fir. Elev.	LOCATION	OP. ST.	POWER SUPPORTING SYS.	REQ'D INTERCONNECTIONS	REG.				
(1)	(2)	(3)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
4016	2	07	CV-3-32D	M-119 D,1	RX	935	12 BK	OP	CL	YES					
4003	1	07	CV-3-33A		RX	935	11 BK	OP	CL	YES					
4004	1	07	CV-3-33B		RX	935	12 BK	OP	CL	YES					
4011	1	07	CV-3-33C	M-119 C,3	RX	935	11 BK	OP	CL	YES					
4012	1	07	CV-3-33D	M-119 C,2	RX	935	12 BK	OP	CL	YES					
5001	2	15	01		ADMIN	928	811 BAT RM	S		YES					
5002	2	14	010		ADMIN	928	DIV 1 250V BAT	S,R		YES					
6029	2	14	0100		EFT	932	ELE EQ DIV2 RM	S		YES					
8089	20	0101			EFT	932	DIV 2 RM	S		NO					
8090	20	0102			ADMIN	928	DIV1 250 BAT RM	S		NO					
5005	2	14	011		ADMIN	928	811 125 BAT RM	S		YES					
5008	2	14	0111		TB	911	LOWER 4KV RM	S		YES					
5001A	1	15	02		ADMIN	928	812 BAT RM	S		YES					
5003	1	14	020		ADMIN	928	812 125V BAT RM	S,R		YES					
5007	1	14	021		ADMIN	928	812 125 BAT RS	S		YES					
5009	1	14	0211		ADMIN	928	812 125V BAT R	S		YES					
6028	2	14	031	E-110 SHT. 4B	ADMIN	928	DIV1 250V BATRM	S		YES					
6026	2	1	0311	E-110 SHT. 4B	RX	896	RCIC ROOM	S		YES					

CERTIFICATION:

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Print or Type Name/Title: Brian Gaudin / ENGINEER
 Signature: Brian Gaudin
 Date: 11/16/95

Print or Type Name/Title: Barney MacIntosh / ENGINEER
 Signature: Barney MacIntosh
 Date: 11/19/95

MENTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEN 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION		Deg. No./Rev./Zone	EQUIPMENT LOCATION		SORT NOTES	OP. ST. --> POWER SUPPORTING SYS. REQ'D INTERCONNECTIONS REG. Normal Desired REQ'D DMC. MD./REV. & SUPPORTING COMPONENTS ISSUE				ID					
			(1)	(2)		(3)	(4)		(5)	(6)	(7)	(8)		(9)	(10)	(11)	(12)	(13)
6016	1	D312	DIV 2 (HPCI) 250W DC MOTOR CONTROL CENTER 312	E-201 SHT.3	RX	896	HPCI ROOM	S	YES									D100
6027	2	D313	DIV 1 250W DC MOTOR CONTROL CENTER 313	E-110 SHT.4B	RX	962	MG SET ROOM	S	YES									D31
6025	2	D33	125V DC DISTRIBUTION PANEL	E-110 SHT.4B	ADMIN	928	11-125V BATHROOM	S	YES									D31
6020	2	D3A	#13 (DIV 1)125/250W DC BATTERY "A" (60 CELLS)	E-110 SHT.4B	ADMIN	928	DIV1 250W BATHR	S	YES									D52,D53,D54
6021	2	D3B	#13 (DIV 1)125/250W DC BATTERY "B" (60 CELLS)	E-110 SHT.4B	ADMIN	928	DIV1 250W BATHR	S	YES									D52,D53,D54
5005	2	D40	125 VDC SWING CHARGER FOR #11 AND #12 BATTERY	E-110 SHT.4B	ADMIN	928	DIV 1 125V BAT	S,R	YES									MCC 143A
6022	2	D52	CHARGER, D3A (13) BATTERY	E-110 SHT.4B	ADMIN	928	DIV1 250W BATHR	S,R	YES									B3433(MCC134)
6023	2	D53	CHARGER, D3B (13) BATTERY	E-110 SHT.4B	ADMIN	928	DIV1 250W BATHR	S,R	YES									B3434(MCC134)
6024	2	D54	CHARGER, SWING D3A,D3B (13) BATTERY	E-110 SHT.4B	ADMIN	928	DIV1 250W BATHR	S,R	YES									B3431(MCC134)
6001	1	D6A	250W DC BATTERY DIV 11	E-1508	EFT	933		S	YES									D78,D80,D90
6001A	1	D6B	250W DC BATTERY DIV 11	E-1508	EFT	933		S	YES									D70,D80,D90
6017	1	D70	CHARGER, D6B (16) BATTERY	E-201 SHT.3	EFT	932	ELEC EQ DIV 200	S,R	YES									B4433(MCC144)
6018	1	D80	CHARGER, D6A (16) BATTERY	E-201 SHT.3	EFT	932	ELEC EQ DIV 200	S,R	YES									B4434(MCC144)
6019	1	D90	CHARGER, SWING D6A,D6B (16) BATTERY	E-201 SHT.3	EFT	932	ELEC EQ DIV 200	S,R	YES									B4431(MCC144)
7196	2	DG1/CS	11 EDG CONTROL SWITCH		ADMIN	951	CR	S	YES									ROB C08,D111
7197	1	DG2/CS	12 EDG CONTROL SWITCH		ADMIN	951	CR	S	YES									ROB C08,D211
7158	1	DM 8089-A1	V-SF-9 SUPPLY DAMPER	MX-9276-1-8	TB		12 DG	S	16	CLOSED	OPEN	NO						TC-8089C
7159	1	DM 8089-A2	V-SF-9 SUPPLY DAMPER	MX-9276-1-8	TB		12 DG	S	16	CLOSED	OPEN	NO						TC-8089C
7160	1	DM 8089-A3	V-SF-9 SUPPLY DAMPER	MX-9276-1-8	TB		12 DG	S	16	CLOSED	OPEN	NO						TC-8089C
7161	1	DM 8089-B1	V-SF-9 EXHAUST DAMPER	MX-9276-1-8	TB		12 DG	S	16	CLOSED	OPEN	NO						TC-8089C

CERTIFICATION:

The information identifying the equipment required to bring the plant to a safe shutdown condition on this Safe Shutdown Equipment List (SSEL) is, to the best of our knowledge and belief, correct and accurate. (One or more signatures of Systems or Operations Engineers)

Print or Type Name/Title: Blaine Suckale / ENGINEER
Signature: [Signature] Date: 11/16/95

Print or Type Name/Title: Bruce Mackenroth / ENGINEER
Signature: [Signature] Date: 11/19/95

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEM 2.2

LINE NO.	MAIN CLASS	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	EQUIPMENT Fir. Elev.	LOCATION Rm. or Row/Col.	SORT	NOTES	OP. Normal	ST. Destred	POWER REQ'D?	SUPPORTING SYS. DMG. NO./REV.	REQ'D & SUPPORTING COMPONENTS	INTERCONNECTIONS	REG. ISSUE
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	
7162	1	0	DM 8089-B2	V-SF-9 EXHAUST DAMPER	NX-9276-1-8	TB		12 DG	S	16	CLOSED	OPEN	NO			TC-8089C	
7163	2	0	DM 8089-J1	V-SF-10 SUPPLY DAMPER	NX-9276-1-8	TB		11 DG	S	16	CLOSED	OPEN	NO			TC-8089L	
7164	2	0	DM 8089-J2	V-SF-10 SUPPLY DAMPER	NX-9276-1-8	TB		11 DG	S	16	CLOSED	OPEN	NO			TC-8089L	
7165	2	0	DM 8089-J3	V-SF-10 SUPPLY DAMPER	NX-9276-1-8	TB		11 DG	S	16	CLOSED	OPEN	NO			TC-8089L	
7165A	2	0	DM 8089-K1	V-SF-10 EXHAUST DAMPER	NX-9276-1-8	TB		11 DG	S	16	CLOSED	OPEN	NO			TC-8089L	
7165B	1	0	DM 8089-K2	V-SF-10 EXHAUST DAMPER	NX-9276-1-8	TB		11 DG	S	16	CLOSED	OPEN	NO			TC-8089L	
2151	1	18	DPC-4103	RHR SW HX 12 T/S DP CONTROL	M-120 A,6	EFT	960'	MAIN ROOM	S				YES			ROB C-292, E/S-4100	
1072	2	00	DPI 10-130A	DIV 1 RHR HX DP	M-121 A,3	ADMIN	951	CR	S				YES			ROB C-03,ES-7251A	
2153	1	18	DPI-10-130B	RHR HX 12 TUBE/SHELL DP CONTROL	M-120 A,6	ADMIN	951'	CR	S				YES			ROB C03,E/S 4101	
7046	2	18	DPI-3366	DG 11 AIR CLEANER DIFF PRESS	M-133 B,6	TB	931	11 DG RM	S				NO			ROB 11 DG	
7010	1	18	DPI-3367	DG 12 AIR CLEANER DIFF PRESS	M-133 C,6	TB	931	12 DG RM	S				NO			ROB 12 DG	
2149	1	18	DPI-4103	RHR SW 12 HX T/S DP CONTROL	M-120 A,6	EFT	960'	MAIN ROOM	S				YES			ROB C-292, E/S-4100	
1072A	2	00	DPIC-10-130A	RHR HX 11 TUBE/SHELL DP CONTROL	M-121 A,3	ADMIN	951	CR	S				YES			ROB C03,ES7251A,Y70	
2154	1	18	DPIC-10-130B	RHR HX 12 TUBE/SHELL DP CONTROL	M-120 A,6	ADMIN	951'	CR	S,R				YES			ROB C03,E/S 4101,Y80	
2154A	1	18	DPIS 10-92B	RHR/ RHR B-RHRSW d/p	M-120 A,6	RX	896'	B RHR ROOM	S				YES			ROB C-129B,ANN-3-B-9,D21	
1063	2	18	DPIS-10-92A	RHR HX LOW D/P ALARM	M-121 A,3	RX	896	A RHR ROOM	S				YES			ROB C-129A,ANN-3-A-10,D21	
3079	2	20	DPIS-14-43A	CS SPARGER 11 BREAK DET ALARM	M-122 C,3	RX	935	WEST SIDE	S	-	-	-	YES			ROB C-121,ANN-3-A-13,D21	
3080	1	20	DPIS-14-43B	CS SPARGER 12 BREAK DET ALARM	M-122 C,5	RX	935	WEST SIDE	S	-	-	-	YES			ROB C-121,ANN-3-B-14,D21	
12129A	2	20	DPSH-4060A	SRV F LO LO SET TAILPIPE OPN/CLS	M-115-1 B,2	ADMIN	939	CSR	S				YES			ROB C253A,ES-4059A,C	
12130A	2	20	DPSH-4060B	SRV F LO LO SET TAILPIPE INTLK	M-115-1 B,2	EFT	960	MAIN	S				YES			ROB C253B,ES-4059B	
12001A	2	20	DPSH-4061A	SRV G LO LO SET TAILPIPE INTLK	M-115-1 D,8	ADMIN	939	CSR	S				YES			ROB C253A,ES-4059A,C	

CERTIFICATION:

The information identifying the equipment required to bring the plant to a safe shutdown condition on this Safe Shutdown Equipment List (SSEL) is, to the best of our knowledge and belief, correct and accurate. (One or more signatures of Systems or Operations Engineers)

_____/ ENGINEER
Print or Type Name/Title

Brian Ginde
Signature

11/16/95
Date

_____/ ENGINEER
Print or Type Name/Title

Brian Ginde
Signature

11/16/95
Date

MORTICELLO NUCLEAR GENERATING PLANT
 SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
 COMPOSITE SSEL

LINE NO.	TRAIN CLASS	MARK NO.	EQUIP DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Fir. Eiv.	LOCATION	Sort Notes	OP. ST.	POWER SUPPORTING SYS.	REQ'D INTERCONNECTIONS					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
12003A	2	20	DP5H-4061B	SRV G LO LO SET TAILPIPE INTLK	M-115-1 D,8	EFT	960	MAIN	S	YES	ROB C253B, ES-4059B					
12002A	2	20	DP5H-4061C	SRV LO LO SET TAILPIPE PRESS INTLK	M-115-1 D,8	ADMIN	939	CSR	S	YES	ROB C253A, ES-4059A, C					
12004A	2	20	DP5H-4061D	SRV G LO LO SET TAILPIPE INTLK	M-115-1 C,8	EFT	960	MAIN	S	YES	ROB C253B, ES-4059B					
12009A	1	20	DP5H-4062A	SRV E LO LO SET TAILPIPE INTLK	M-115-1 A,8	ADMIN	939	CSR	S	YES	ROB C253A, ES-4059A, C					
12011A	1	20	DP5H-4062B	SRV E LO LO SET TAILPIPE INTLK	M-115-1 A,8	EFT	960	MAIN	S	YES	ROB C253B, ES-4059B					
12010A	1	20	DP5H-4062C	SRV E LO LO SET PRESS INTLK	M-115-1 A,8	ADMIN	939	CSR	S	YES	ROB C253A, ES-4059A, C					
12012A	1	20	DP5H-4062D	SRV E LO LO SET TAILPIPE INTLK	M-115-1 A,8	EFT	960	MAIN	S	YES	ROB C253B, ES-4059B					
12140A	2	20	DP5H-4063A	SRV H LO LO SET TAILPIPE INTLK	M-115-1 C,2	ADMIN	939	CSR	S	YES	ROB C253A, ES-4059A, C					
12006A	2	20	DP5H-4063B	SRV H LO LO SET TAILPIPE INTLK	M-115-1 C,2	EFT	960	MAIN	S	YES	ROB C253B, ES-4059B					
12141A	2	20	DP5H-4063C	SRV H LO LO SET PRESS INTLK	M-115-1 C,2	ADMIN	939	CSR	S	YES	ROB C253A, ES-4059A, C					
12008A	2	20	DP5H-4063D	SRV H LO LO SET TAILPIPE INTLK	M-115-1 C,2	EFT	960	MAIN	S	YES	ROB C253B, ES-4059B					
12005A	1	20	DP5H-4068A	SRV B LO LO SET TAILPIPE OPN/CLS	M-115-1 C,8	ADMIN	939	CSR	S	YES	ROB C253A, ES-4059A, C					
12265A	1	20	DP5H-4069A	SRV A LO LO SET TAILPIPE OPN/CLS	M-115-1 A,8	ADMIN	939	CSR	S	YES	ROB C253A, ES-4059A, C					
12290A	2	20	DP5H-4070A	SRV C LO LO SET TAILPIPE OPN/CLS	M-115-1 C,2	ADMIN	939	CSR	S	YES	ROB C253A, ES-4059A, C					
12278A	1	20	DP5H-4071A	SRV D LO LO SET TAILPIPE OPN/CLS	M-115-1 B,2	ADMIN	939	CSR	S	YES	ROB C253A, ES-4059A, C					
1062	2	18	DPT-10-91A	RHR HX 11 D/P CONTROL	M-121 A,3	RX	896	A RHR ROOM	S	YES	ROB C-129A, E/S-7251A					
2154B	1	18	DPT-10-91B	HR HX 12 TUBE/SHELL DP CONTROL	M-120 A,6	RX	896'	B RHR ROOM	S	YES	ROB C-129B, ES-4100					
12129	2	18	DPT4060A	F SRV LOW LOW SET TAILPIPE D/P	M-115-1 B,2	RX	896	TORUS BOTTOM	S	YES	ROB C290A, ES-4059A, C					
12130	2	18	DPT4060B	F SRV LOW LOW SET TAILPIPE D/P	M-115-1 B,2	RX	935	WEST	S	YES	ROB C290B, ES-4059B					
12001	2	18	DPT4061A	G SRV LOW LOW SET TAILPIPE D/P	M-115-1 D,7	RX	896	TORUS BOTTOM	S	YES	ROB C290A, ES-4059A, C					
12003	2	16	DPT4061B	G SRV LOW LOW SET TAILPIPE D/P	M-115-1 D,7	RX	935	WEST	S	YES	ROB C290B, ES-4059B					
12002	2	18	DPT4061C	G SRV LOW LOW SET TAILPIPE D/P	M-115-1 D,7	RX	896	TORUS BOTTOM	S	YES	ROB C290A, ES-4059A, C					
12004	2	18	DPT4061D	G SRV LOW LOW SET TAILPIPE D/P	M-115-1 C,7	RX	935	WEST	S	YES	ROB C290B, ES-4059B					

CERTIFICATION:

The information identifying the equipment required to bring the plant to a safe shutdown condition on this Safe Shutdown Equipment List (SSEL) is, to the best of our knowledge and belief, correct and accurate; (One or more signatures of Systems or Operations Engineers)

Print or Type Name/Title / ENGINEER
 Signature: Brian Kinde Date: 11/16/95
 Print or Type Name/Title / ENGINEER
 Signature: Brian Kinde Date: 11/16/95

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Fir./E.V.	LOCATION Ra. or Row/Col.	SORT NOTES	OP. ST. (12)	Desired (13)	REQ'D INTERCONNECTIONS (14)	REQ. & SUPPORTING COMPONENTS ISSUE (15)	REG. (17)
12009	1	18	DPT4062A E SRV LOW LOW SET TAILPIPE D/P	M-115-1 A,7	RX	896	TORIUS BOTTOM S		YES		ROB C290A,ES-4059A,C		
12011	1	18	DPT4062B E SRV LOW LOW SET TAILPIPE D/P	M-115-1 A,7	RX	935	WEST S		YES		ROB C290B,ES-4059B		
12010	1	18	DPT4062C E SRV LOW LOW SET TAILPIPE D/P	M-115-1 A,7	RX	896	TORIUS BOTTOM S		YES		ROB C290A,ES-4059A,C		
12012	1	18	DPT4062D E SRV LOW LOW SET TAILPIPE D/P	M-115-1 A,7	RX	935	WEST S		YES		ROB C290B,ES-4059B		
12140	2	18	DPT4063A H SRV LOW LOW SET TAILPIPE D/P	M-115-1 C,2	RX	896	TORIUS BOTTOM S		YES		ROB C290A,ES-4059A,C		
12006	2	18	DPT4063B H SRV LOW LOW SET TAILPIPE D/P	M-115-1 C,2	RX	935	WEST, C290B S		YES		ROB C290B,ES-4059B		
12141	2	18	DPT4063C H SRV LOW LOW SET TAILPIPE D/P	M-115-1 C,2	RX	896	TORIUS BOTTOM S		YES		ROB C290A,ES-4059A,C		
12008	2	18	DPT4063D H SRV LOW LOW SET TAILPIPE D/P	M-115-1 C,2	RX	935	WEST S		YES		ROB C290B,ES-4059B		
12005	1	18	DPT4068A B SRV LOW LOW SET TAILPIPE D/P	M-115-1 C,7	RX	896	TORIUS BOTTOM S		YES		ROB C290A,ES-4059A,C		
12265	1	18	DPT4069A A SRV LOW LOW SET TAILPIPE D/P	M-115-1 A,7	RX	896	TORIUS BOTTOM S		YES		ROB C290A,ES-4059A,C		
12290	2	18	DPT4070A C SRV LOW LOW SET TAILPIPE D/P	M-115-1 C,2	RX	896	TORIUS BOTTOM S		YES		ROB C290A,ES-4059A,C		
12278	1	18	DPT4071A D SRV LOW LOW SET TAILPIPE D/P	M-115-1 B,2	RX	896	TORIUS BOTTOM S		YES		ROB C290A,ES-4059A,C		
2150	1	18	DPV-4103 RHR SW 12 HX T/S DP ISOLATOR	M-120 A,6	EFT	960'	MAIN ROOM S		YES		ROB C-292, E/S-4101, C-03		
2152	1	18	DPV-4109 RHR SW 12 HX T/S DP CENT OUT ISOLATOR	M-120 A,6	EFT	960'	MAIN ROOM S		YES		ROB C-292, E/S-4100		
1059	2	21	E-200A #11 RHR HEAT EXCHANGER	M-121 B,2	RX	896	A RHR ROOM S		NO				
2049	1	21	E-200B RHR/ RHR B HXER	M-120 B,6	RX	896'	B RHR ROOM S		NO				
2095B	1	18	E/P 1729 SW/RHR 12 DP CONTROL	M-120 A,5	RX	896'	B RHR ROOM S		YES		ROB C-292,HS-525,ES 4100		
1071	2	00	E/P-1728 RHR-SM/RHR 11 DP CONTROL	M-121 A,3	RX	896	A RHR ROOM S		N/A	N/A	ROB L-03,E/S 725JA		
8037	20	ES 14-52A	#11 CORE SPRAY INSTRUMENT POWER SUPPLY		ADMIN	939	CSR S		YES		ROB C19,Y-70		
8036	20	ES 14-52B	12 CS INSTRUMENT POWER SUPPLY		ADMIN	939	CSR S		YES		ROB C19,Y-80		
8028	20	ES 4100	ASDS 24VDC POWER SUPPLY	MF-100375-2	EFT	960	MAIN S		YES		ROB C292,Y-80		

CERTIFICATION:

The information identifying the equipment required to bring the plant to a safe shutdown condition on this Safe Shutdown Equipment List (SSEL) is, to the best of our knowledge and belief, correct and accurate. (One or more signatures of Systems or Operations Engineers)

Print or Type Name/Title: Raymond G. Gunders / ENGINEER
 Date: 11/16/95

Print or Type Name/Title: Raymond G. Gunders / ENGINEER
 Date: 11/19/95

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Fir. Elev.	LOCATION	LOC. Rm. or Row/Col.	SORT NOTES	Normal	Desired	REQ'D	REC.			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
8033	20	ES 4101	AGDS-24VDC POWER SUPPLY	WF-100375-2	EFT	960	MAIN	S	S	YES	YES	ROB C-292, Y-40				
8032	20	ES 7251B	DIV 2 INSTRUMENT POWER SUPPLY		ADMIN	951	CR	S	S	YES	YES	ROB C03, Y-60				
8057	20	ES-4059A	SRV LOW LOW SET INSTRUMENT POWER SUPPLY		ADMIN	939	CSR	S	S	YES	YES	ROB C253A, D33				
8058	20	ES-4059B	SRV LOW LOW SET INSTRUMENT POWER SUPPLY		EFT	960	MAIN	S	S	YES	YES	ROB C253B, D100				
8059	20	ES-4059C	SRV LOW LOW SET INSTRUMENT POWER SUPPLY		ADMIN	939	CSR	S	S	YES	YES	ROB C253A, Y10				
8045	20	ES-4815A	ECCS DIV 1 REACTOR LEVEL PS-1		ADMIN	939	CSR	S	S	YES	YES	ROB C303A, D33				
8046	20	ES-4815B	ECCS DIV 1 REACTOR LEVEL PS-2		ADMIN	939	MAIN	S	S	YES	YES	ROB C303A, D33				
8047	20	ES-4816A	ECCS DIV 2 REACTOR LEVEL PS-1		EFT	960	MAIN	S	S	YES	YES	ROB C303B, D100				
8048	20	ES-4816B	ECCS DIV 2 REACTOR LEVEL PS-2		EFT	960	MAIN	S	S	YES	YES	ROB C303B, D100				
8049	20	ES-4817A	RPS CHANNEL A1 REACTOR LEVEL PS-1		ADMIN	939	CSR	S	S	YES	YES	ROB C304A, Y70				
8051	20	ES-4818A	RPS CHANNEL B1 REACTOR LEVEL PS-1		ADMIN	939	CSR	S	S	YES	YES	ROB C304B, Y80				
8053	20	ES-4819A	RPS CHANNEL A2 REACTOR LEVEL PS-1		EFT	960	MAIN	S	S	YES	YES	ROB C304C, Y70				
8055	20	ES-4820A	RPS CHANNEL B2 REACTOR LEVEL PS-1		EFT	960	MAIN	S	S	YES	YES	ROB C304D, Y80				
8044	20	ES-6-11	CFW INSTRUMENT POWER SUPPLY		ADMIN	939	CSR	S	S	YES	YES	ROB C18, Y20				
8027	20	ES-7251A	DIV 1 INSTRUMENT POWER SUPPLY		ADMIN	951	CR	S	S	YES	YES	ROB C03, Y-70				
8083	20	ES-7251B	DIV 2 INSTRUMENT POWER SUPPLY		ADMIN	951	CR	S	S	YES	YES	ROB C03, Y80				
9087	20	ES-C07C	INSTRUMENT LOOP POWER SUPPLY		ADMIN	951	CR	S	S	YES	YES	ROB C07, Y30				
3036B 2	18	F1 14-50B	DIV 2 CS PUMP FLOW	M-122 E, 5	RX	951	CR	S	S	YES	YES	ROB C-03, ES4101				
9147A 1	18	F1-10-132A	H RX 11 SW INLET FLOW	M-112 D, 4	ADMIN	951	CR	S	S	YES	YES	ROB C03-E/Y'S 10-145A				
9142A 1	18	F1-10-132B	RHR RX 12 INLET FLOW	M-112 D, 3	ADMIN	951	CR	S	S	YES	YES	ROB C03, ES4101				
1089A 2	18	F1-10-136A	RHR LOOP A CONT CLG FLOW	M-121 D, 2	ADMIN	951	CR	S	S	YES	YES	ROB C03, Y70 CRT2				

CERTIFICATION:

The information identifying the equipment required to bring the plant to a safe shutdown condition on this Safe Shutdown Equipment List (SSEL) is, to the best of our knowledge and belief, correct and accurate. (One or more signatures of Systems or Operations Engineers)

Print or Type Name/Title: Blaine / ENGINEER
 Signature: [Signature]
 Date: 11/16/95

Print or Type Name/Title: Blaine / ENGINEER
 Signature: [Signature]
 Date: 11/16/95

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

LINE NO.	TRAIN CLASS	EQUIP MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Div. No./Rev./Zone	Building	LOCATION	OP. ST.	POWER SUPPORTING SYS.	REQ'D INTERCONNECTIONS							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
2147	1	18	FI-10-1368	RHR LOOP B CONT CLG FLOW	M-120 E,6	ADMIN	951'	CR	5	YES	YES	YES	ROB C-03,ES-4101			
1086A	2	18	FI-10-130A	RHR LOOP A INJECTION FLOW	M-121 C,2	ADMIN	951	CR	5	YES	YES	YES	ROB C03,E/S 7251A			
3037A	1	18	FI-14-50A	DIV 1 CS PUMP FLOW	M-122 D,2	RX	951	CR	5	YES	YES	YES	ROB C-03,ES 7251A			
2126	1	18	FI-14-50B	CS LOOP 12 FLOW	M-122 E,5	ADMIN BLDG	951'	CR	5	YES	YES	YES	ROB C03,E/S 4101			
3036A	2	18	FI-4104	CORE SPRAY LOOP B FLOW	M-122 D,5	EFT	960	MAIN	5	YES	YES	YES	ROB C-292,ES4100			
9142C	1	18	FI-4105	RHR SERVICE WATER FLOW	M-112 D,4	EFT	960	MAIN	5	YES	YES	YES	ROB C292,E/S 4099			
2059B	1	18	FI-4106	RHR CONTAINMENT COOLING FLOW	M-120 D,6	EFT	960'	C-292 ASDS	5	YES	YES	YES	ROB C-292,E/S 4101			
9199	2	00	FIS-4224A	#11 DG SERVICE WATER LO FLOW ALARM	M-112 E,2	TB	931	11 DG ROOM	5	N/A	N/A	YES	C93,0111			
9202	1	00	FIS-4224B	#12 DG SERVICE WATER LO FLOW ALARM	M-112 D,3	TB	931	12 DG ROOM	5	N/A	N/A	YES	C94,0211			
7157C	2	05	FPM	11 MOTOR DRIVEN FUEL PUMP		TB	931	11 EDG	5,R	YES	YES	YES	ROB 11 EDG,C111			
7157D	1	05	FPM	12 MOTOR DRIVEN FUEL PUMP		TB	931	12 EDG	5,R	YES	YES	YES	ROB 12 EDG,C211			
19074A	1	20	FPR 6-98	REACTOR NR PRESSURE & TURBINE STH FLOW	M-116 D,2	ADMIN	951	CR	5	YES	YES	YES	ROB C05,Y30			
3144	2	18	FS-10-121A	RHR PUMP 11 MIN FLOW CNTR	M-121 B,4	RX	896	A RHR ROOM	5	YES	YES	YES	ROB IR-FS-10-121A,Y-20			
2044	1	18	FS-10-121B	RHR/ RHR B PUMP DISCH FLOW SWITCH	M-120 B,5	RX	896'	B RHR ROOM	5	11	YES	YES	ROB IR-FS-10-121B,Y-20			
1067	2	18	FS-10-121C	RHR PUMP 13 MIN FLOW CONTROL	M-121 B,4	RX	896	A RHR ROOM	5	N/A	N/A	YES	ROB IR-FS-10-121A,Y-20			
2043	1	18	FS-10-121D	RHR/ RHR D PUMP DISCH FLOW SWITCH	M-120 C,5	RX	896'	B RHR ROOM	5	11	YES	YES	ROB IR-FS-10-121B,Y-20			
7039	2	18	FS-3236	DG 11 DAY TANK LOW OVERFLOW ALARM	M-133 B,5	TB	931	11 DG RM	5	YES	YES	YES	ANH-6-C-06,D11			
7040	1	18	FS-3237	DG 12 DAY TANK LOW OVERFLOW ALARM	M-133 C,5	TB	931	12 DG RM	5	YES	YES	YES	ANH-6-C-07,D11			
1086	2	18	FT-10-109A	RHR LOOP A INJECTION FLOW	M-121 D,2	RX	896	A RHR ROOM	5	N/A	N/A	YES	ROB IR-FT-1-111A, E/S-7251A			
2056	1	18	FT-10-109B	RHR/ RHR B LPCI INJ FLOW	M-120 C,6	RX	896'	B RHR ROOM	5	YES	YES	YES	ROB C-129B,E/S-7251B			
1089	2	18	FT-10-111A	RHR LOOP A CONT COOLING FLOW	M-121 D,2	RX	896	A RHR ROOM	5	N/A	N/A	YES	ROB IR-FT-10-111A,E/S-7251A			

CERTIFICATION:

The information identifies the equipment required to bring the plant to a safe shutdown condition on this Safe Shutdown Equipment List (SSEL) is, to the best of our knowledge and belief, correct and accurate. (One or more signatures of Systems or Operations Engineers)

Print or Type Name/Title / ENGINEER
Raymond / Signature
11/16/95 / Date

Print or Type Name/Title / ENGINEER
Shawn / Signature
11/19/95 / Date

LINE NO.	EQUIP TRAIL CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Flr. Elev.	Location Rm. or Row/Col.	Sort Notes	Normal	Desired	REQ'D INTERCONNECTIONS REG. & SUPPORTING COMPONENTS ISSUE				
(1)	(2)	(3)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
2059	1	18	FT-10-111B	RHR/ RHR B CTMT COOLING FLOW TMT	M-120 D, 6	RX	935'	NEAR DW EQ HATCH S		YES	ROB C292-1R, E/S 4100				
9147	2	00	FT-10-97A	RHR HX 11 SW INLET FLOW	M-112 D, 5	TB	931			YES	NR-7905-46-13 E/S 10-145A				
9142	1	18	FT-10-97B	RHR HX 12 SW INLET FLOW	M-112 D, 4	TB	931			YES	NR-7905-46-13 ES4099				
30378	2	18	FT-14-40A	CORE SPRAY LOOP 11 FLOW	M-122 D, 2	RX	896	A RHR ROOM		YES	ROB 1R-FT-10-111A, E/S 7251A				
3036	1	18	FT-14-40B	CORE SPRAY LOOP 12 FLOW	M-122 D, 5	RX	896	B RHR ROOM		YES	ROB C1298, ES4100				
7156	1	05	FTM-1	12 DG FUEL TRANSFER PUMP #1		TB	931	12 DG	OFF	ON	ROB 12EDG, G-38				
7157A	1	05	FTM-1	11 EDG FUEL TRANSFER PUMP #1		TB	931	11 EDG		YES	ROB 11EDG, G-38				
7157	1	05	FTM-2	12 DG FUEL TRANSFER PUMP #2		TB	931	12 DG	OFF	ON	ROB 12EDG, G-38				
7157B	1	05	FTM-2	11 EDG FUEL TRANSFER PUMP #2		TB	931	11 EDG		YES	ROB 11EDG, G-38				
2125	1	18	FY-4104	CSP CORE SPRAY FLOW	M-122 E, 5	EFT	960'	ASDS PANEL C292 S 17		YES	ROB C-292, E/S 4101				
9142B	1	18	FY-4105	RHR SERVICE NRT FLOW ISOLATOR	M-112 D, 4	EFT	960	MAIN		YES	ROB C292, E/S 4101				
2059A	1	18	FY-4106	RHR CONTAINMENT COOLING FLOW ISOLATOR	M-120 D, 6	EFT	960	C292		YES	ROB C-292, E/S 4101				
7045	2	17	G-3A	11 EMERGENCY DIESEL GENERATOR	M-133 B, 6	TB	931	11 DG RH	OFF	ON	125 VDC CONTROL LOGIC START LOGIC D-111				
7004	1	17	G-3B	12 EMERGENCY DIESEL GENERATOR	M-133 C, 6	TB	931	12 DG RH	OFF	ON	125 VDC CONT LOGIC, POWER D-211				
7202	2	04	G31	11 EDG NEUTRAL GROUNDING TRANSFORMER	NR-9216-5-4	TB	931	11 EDG RH		YES	11 EDG				
7203	1	04	G41	12 EDG NEUTRAL GROUNDING TRANSFORMER	NR-9216-5-4	TB	931	12 EDG RH		YES	12 EDG				
7182	2	0	G5C-1/CS	11 DG SPEED ADJUST	NE-36403-4	ADMIN	951'	CR	ON	ON	ROB C-06, D111				
7181	1	0	G5C-2/CS	12 DG SPEED ADJUST	NE-36403-4A	ADMIN	951'	CR	ON	ON	ROB C-06, D211				
9001A	2	20	HS 10A-S20A	HS FOR P-109A		ADMIN	951	CR		YES	ROB C03, D111				
9002A	1	20	HS 10A-S20B	HS FOR P-109B		ADMIN	951	CR		YES	ROB C03, D211				

CERTIFICATION:

The information identifying the equipment required to bring the plant to a safe shutdown condition on this Safe Shutdown Equipment List (SSEL) is, to the best of our knowledge and belief, correct and accurate. (One or more signatures of Systems or Operations Engineers)

Print or Type Name/Title: Brian Ginde / ENGINEER
 Signature: Brian Ginde
 Date: 11/16/95

Print or Type Name/Title: Brian Mackenok / ENGINEER
 Signature: Brian Mackenok
 Date: 11/16/95

DOMITICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEL 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Des. No./Rev./Zone	Building	Equipment	Location	Sort Notes	Normal	Desired	REQ'D INTERCONNECTIONS	REG. ISSUE				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
9003A	2	20	HS 10A-S21A	HS FOR P-109C		ADMIN	951	CR	S	Z3	YES				ROB C03,0111	
9004A	1	20	HS 10A-S21B	HS FOR P-109D		ADMIN	951	CR	S	Z3	YES				ROB C03,0211	
9005A	2	20	HS 10A-S22A	HS FO P-111A	M-811 B,4	ADMIN	951	CR	S	Z3	YES				ROB C08,83435(MCC134)	
9006A	1	20	HS 10A-S22B	HS FOR P-111B		ADMIN	951	CR	S	Z3	YES				ROB C08,84319(MCC143A)	
14002	1	20	HS 13A-S1	HS FOR MD-2075	M-125 E,5	ADMIN	950	CR	S	Z3	YES				ROB C04,83340(MCC133A)	
14004	2	20	HS 13A-S3	HS FOR MD-2076	M-125 E,4	ADMIN	950	CR	S	Z3	YES				ROB C04,01301(D33)	
3062	2	20	HS 14A-S5A	P-208A HS 14A-S5A	M-122 B,2	ADM	950	CR	S	Z3	YES				ROB C-03, AKV-152-505(BUS 15)	
3065	1	20	HS 14A-S5B	P-208B HS 14A-S5B	M-122 B,5	ADM	950	CR	S	Z3	YES				ROB C-03, AKV-152-605(BUS 16)	
11009A	1	20	HS 16A-S1A	HS FOR A0-2-80A	M-115 C,5	ADMIN	951	CR	S	Z3	YES				ROB C03,011, Y70	
11010A	1	20	HS 16A-S1B	HS FOR A0-2-80B	M-115 D,5	ADMIN	951	CR	S	Z3	YES				ROB C03,011, Y70	
11011A	1	20	HS 16A-S1C	HS FOR A0-2-80C	M-115 D,2	ADMIN	951	CR	S	Z3	YES				ROB C03,011, Y70	
11012A	1	20	HS 16A-S1D	HS FOR A0-2-80D	M-115 C,2	ADMIN	951	CR	S	Z3	YES				ROB C03,011, Y70	
11013A	2	20	HS 16A-S2A	HS FOR A0-2-86A	M-115 C,6	ADMIN	951	CR	S	Z3	YES				ROB C03,021, Y80	
11014A	2	20	HS 16A-S2B	HS FOR A0-2-86B	M-115 E,6	ADMIN	951	CR	S	Z3	YES				ROB C03,021, Y80	
11015A	2	20	HS 16A-S2C	HS FOR A0-2-86C	M-115 E,2	ADMIN	951	CR	S	Z3	YES				ROB C03,021, Y80	
11016A	2	20	HS 16A-S2D	HS FOR A0-2-86D	M-115 C,1	ADMIN	951	CR	S	Z3	YES				ROB C03,021, Y80	
10003	1	20	HS 23A-S2	HS FOR MD-203A	M-123 E,5	ADMIN	950	CR	S	Z3	YES				ROB C03,021, Y80	
10004	2	20	HS 23A-S3	HS FOR MD-203S	M-123 E,4	ADMIN	950	CR	S	Z3	YES				ROB C03,84342	
9183A	2	20	HS 3305	HS FOR V-AC-5		ADMIN	951	CR	S	Z3	YES				ROB C03,0312	
9007A	2	20	HS 4025A	HS FOR P-111C	M-811 B,4	ADMIN	951	CR	S	Z3	YES				ROB C20,83305(MCC133A)	
9008A	1	20	HS 4025B	HS FOR P-111D	M-811 B,6	ADMIN	951	CR	S	Z3	YES				ROB C03,83472(MCC134)	
9105A	1	20	HS 42-403S	HS FOR V-AC-4		ADMIN	951	CR	S	Z3	YES				ROB C03,84472(MCC144)	
											YES				ROB C20,305(MCC143)	

CERTIFICATION:

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Print or Type Name/Title: Brian Kunde / ENGINEER
Signature: [Signature]
Date: 11/16/95

Print or Type Name/Title: [Signature] / ENGINEER
Signature: [Signature]
Date: 11/19/95

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEM 2.2

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	EQUIPMENT		LOCATION		SORT	NOTES	OP. ST.		POWER REQ'D	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
						Building	Fir. Elev.	Rm. or Row/Col.				Normal	Desired				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	
1033	2	20	HS-10A-S2A	P-202A HANDSWITCH	M-121 A,5	ADMIN	950	CR	S	23				YES		ROB C-03,0111	
2032A	1	20	HS-10A-S2B	HS FOR P-202B	M-120 A,4	ADMIN	951	CR	S	23				YES		ROB C03,0211	
1019	2	20	HS-10A-S3A	P-202C HANDSWITCH	M-121 B,5	ADMIN	950	CR	S	23				YES		ROB C-03,0111	
2034	1	20	HS-10A-S3B	HS FOR P-202D	M-120 B-4	ADMIN	950	CR	S	23				YES		ROB C-03,0211	
17012	1	20	HS-16A-S15	HS FOR MD-2397	M-128 C,8	ADMIN	950	CR	S	23	OPEN	CLOSED	YES			ROB C-04,03320(033)	
17013	2	20	HS-16AS16	HS FOR MD-2398	M-128 C,7	ADMIN	950	CR	S	23	OPEN	CLOSED	YES			ROB C-04,03302(033)	
3014	2	20	HS-3324	HS FOR MD-1753	M-122 E,3	ADM	950	CR	S	23				YES		ROB C-03,83324	
1122	2	20	HS-3334	HS FOR MD-2014 10A-S8A	M-121 C,5	ADMIN	950	CR	S	23				YES		ROB C-03,83334(MCC133B)	
1120	2	20	HS-3335	HS FOR MD-2012 10A-S10A	M-121 C,5	ADMIN	950	CR	S	23				YES		ROB C-03,83335(MCC133B)	
1049	2	20	HS-3336 (10A-S16A)	HANDSWITCH FOR MD-2002	M-121 B,3	ADMIN	950	CR	S	23				YES		ROB C-03,83336(MCC133A)	
1097	2	20	HS-3337	MD-2008 HANDSW 10A-S12A	M-121 C,3	ADMIN	950	CR	S	23				YES		ROB C-03,83337(MCC133A)	
1092	2	20	HS-3341	HS FOR MD-2006 (HS-10A-S14A)	M-121 D,2	ADMIN	950	CR	S	23				YES		ROB C-03,83341(MCC133A)	
7025A	1/2	20	HS-42-4202/CS	CONTROL SWITCH FOR P-11		ADMIN	950	CR	S		OFF	ON	YES			ROB C06,84202(MCC142A)	
2069	1	20	HS-4208(10A-S14B)	HS FOR MD-2007	M-120 D,5	ADMIN	950'	CR	S	23				YES		ROB C-03,84208(MCC142A)	
2047	1	20	HS-4210	HS FOR MD-2003 (10A-S16B)	M-120 C-5	ADMIN	950	CR	S	23				YES		ROB C-03,84210(MCC142A)	
3016	1	20	HS-4324	HS FOR MD-1754	M-122 D,5	ADM	950	CR	S	23				YES		ROB C-03,84324	
1079A	2	20	HS-4328	HS FOR MD-2033 10A-S7A	M-120 B,6	ADMIN	950	CR	S	23				YES		ROB C03,84328	
2064A	1	20	HS-4334	HS FOR MD-2015	M-120 D,2	RB	950	CR	S	23				YES		ROB C03,84334(MCC143B)	
2065	1	20	HS-4335	HS FOR MD-2013	M-120 D-3	ADMIN	950'	CR	S	23				YES		ROB C-03,84335(MCC143A)	
2071	1	20	HS-4337	HS FOR MD-2009 (10A-S12B)	M-120 D-6	ADMIN	950'	CR	S	23				YES		ROB C-03,84337	
12325A	1	20	HS-533	MASTER ASDS TRANSFER SWITCH		EFT	960	MAIN	R					NO		ROB C292	
8117		14	J-1010	SECURITY JUNCTION BOX		ADMIN	928	125 VDC DIV II	S					NO			
8115		14	J-1012	SECURITY JUNCTION BOX		ADMIN	928	250 VDC DIV I	S					NO			

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_____/ ENGINEER
Print or Type Name/Title

Brian Kinde
Signature

11/16/95
Date

_____/ ENGINEER
Print or Type Name/Title

Bruce McKeel
Signature

11/19/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 06:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEN 2.2

LINE NO.	EQUIP TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	EQUIPMENT Loc. or Room/Col.	LOCATION	Sort Notes	OP. ST.	Normal	Desired	REG'D INTERCONNECTIONS				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
8116	14	J-1013	SECURITY JUNCTION BOX		ADMIN	928	125 VDC DIV 1 S				NO					
1047	2	K-104	RHR SW AUX AIR COMP	M-121 A,4	RX	935	N OF ELEVATOR S,R				YES				P-73A, M3347, B3347	
2138	1	K-108	B RHR AUX AIR COMPRESSOR	M-120 A,4	RX	935	SW S,R				YES				B4454(MC744), M4454	
7138	2	K-8A	11 EDG ELECTRIC/DIESEL AIR STARTER COMPRESSOR #1	M-133 B,2	TB	931	11 DG RM S,R				OFF	ON			HS OM C-93, M3346A	
7139	2	K-8B	11 ELECTRIC AIR STARTER COMPRESSOR #2	M-133 D,2	TB	931	11 DG RM S,R				OFF	ON			HS OM C-94, M3301A	
7136	1	K-9A	12 ELECTRIC AIR STARTER COMPRESSOR #1	M-133 E,2	TB	931	12 DG RM S,R				OFF	ON			HS OM C-94, M3301B	
7137	1	K-9B	12 EDG ELECTRIC/DIESEL AIR STARTER COMPRESSOR #2	M-133 D,2	TB	931	12 DG RM S,R				OFF	ON			HS OM C-94, M3346B	
8003	02	LC-103	480 V LOAD CENTER		TB	931	UPPER 4KV RM S,R				YES				X-30	
8006	02	LC-104	480 V LOAD CENTER		TB	931	UPPER 4KV RM S,R				YES				X-40	
190228	2	LI 2-3-86	RX FLOODING LEVEL	M-116 D,6	ADMIN	951	CR S				YES				ROB C03, ES-4101	
19056A	1	LI 2-3-91A	RPV FUEL ZONE LEVEL	M-116 C,3	ADMIN	951	CR S				YES				ROB C03, ES-7251A, Y20	
7145	1	LI-1522	MW DIESEL OIL STOR TANK T44 LEVEL INDICATION	M-133 C,2	YARD	935	S				NO					
190081	1	LI-2-3-85A	REACTOR VESSEL WATER LEVEL	M-116 D,3	ADMIN	951	S				YES				ROB C-05, ES-7251A	
19006A	2	LI-2-3-85B	RX VESSEL WATER LEVEL	M-116 D,6	ADMIN	951	CONTROL ROOM S				YES				ROB C-05, ES-7251B	
19024C	2	LI-2-3-91B	FUEL ZONE LEVEL	M-116 C,6	ADMIN	951	S				YES				ROB C-03, ES-4101	
13031	1	LI-2996	TORIUS WATER LEVEL	M-143 B,5	ADMIN	951	CR S				YES				ROB C04, ES-C07C	
19022C	2	LI-4107	RX FLOODING LEVEL	M-116 D,6	EFT	960	S				YES				ROB C292, ES-4100	
19024E	2	LI-4108	RPV REACTOR LEVEL	M-116 C,6	EFT	960	S				YES				ROB C292, ES-4100	
13034	1	LI-7338B	PCT SUPPRESSION POOL LEVEL	M-143 C,5	EFT		S				YES				ROB C-292, ES-4100	
19005A	2	LI 2-3-657A	RX LO LEVEL SCRAM	M-116 D,6	ADMIN	939	CSR S				YES				ROB C304A, ES-4817A, B	

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Print or Type Name/Title
/ ENGINEER

Brian Sunde
Signature
11/16/95
Date

Print or Type Name/Title
/ ENGINEER

Brian Sunde
Signature
11/16/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEM 2.2

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	EQUIPMENT Flr. Elev.	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)
19004A	2	20	LIS 2-3-657B	RX LO LEVEL SCRAM	M-116 D,6	ADMIN	939	CSR	S				YES		ROB C304B,ES-4818A,B	
19079A	1	20	LIS 2-3-658A	RX LO LEVEL SCRAM	M-116 D,3	EFT	960	MAIN	S				YES		ROB C304C,ES-4819A,B	
19080A	1	20	LIS 2-3-658B	RX LO LEVEL SCRAM	M-116 D,3	EFT	960	MAIN	S				YES		ROB C304D,ES-4820A,B	
7041	2	18	LIS-1528	DG 11 DAY TK 45A LOW LEVEL ALARM	M-133 B,5	TB	931	11 DG RM	S				YES		ANN-6-C-06,D11	
7014	1	18	LIS-1529	DG 12 DAY TANK 45B LOW LEVEL ALARM	M-133 C,5	TB	931	12 DG DAY TK RM	S				YES		ANN-6-C-07,D11	
19025	2	20	LIS-2-3-73A	CONT SPRAY 2/3 CORE LEVEL INTLK	M-116 C,6	RX	935		S				YES		ROB C-121,D11	
19055	1	20	LIS-2-3-73B	CONT SPRAY 2/3 CORE LEVEL INTLK	M-116 C,3	RX	935		S				YES		ROB C-122,D21	
19024D	2	20	LR-2-3-113	RX CORE WATER LEVEL	M-116 B,6	ADMIN	951		S				YES		ROB C-03,ES-4101,Y20	
19005B	2	20	LS 2-3-657C	RX LO LO LEVEL ISOLATION	M-116 D,6	ADMIN	939	CSR	S				YES		ROB C304A,ES-4617A,B	
19004B	2	20	LS 2-3-657D	RX LO LO LEVEL ISOLATION	M-116 D,5	ADMIN	939	CSR	S				YES		ROB C304B,ES4818A,B	
19079B	1	20	LS 2-3-658C	RX LO LO LEVEL ISOLATION	M-116 D,3	EFT	960	MAIN	S				YES		ROB C304C,ES-4819A,B	
19080B	1	20	LS 2-3-658D	RX LO LO LEVEL ISOLATION	M-116 D,3	EFT	960	MAIN	S				YES		ROB C304D,ES-4820A,B	
7144	1/2	18	LS-1522	MN DIESEL OIL STOR TANK T44 HI/LO ALARM	M-133 C,2	YARD	935		S				YES		ANN-6-C-2,D11	
13029	1	20	LS-2996A	TORUS WATER LEVEL ALARM	M-143 A,5	ADMIN	951	CR	S				YES		ROB C07,ES-C07C	
13030	1	20	LS-2996B	TORUS WATER HI LEVEL ALARM	M-143 A,5	ADMIN	951	CR	S				YES		ROB C07,ES-C07C	
7153A	2	18	LS-7210	11 EDG NORM LVL FUEL TRANSFER CUTOUT	NX-9216-5-4	TB	931	11 EDG	S		OFF	ON	YES		ROB 11 EDG	
7153	1	18	LS-7211	12 EDG NORM LVL FUEL TRANSFER CUTOUT		TB	931	12 DG	S		OFF	ON	YES		ROB 12 DG	
7154A	2	18	LS-7212	12 DG HI LVL FUEL TRANSFER CUTOUT	NX-9216-5-4	TB	931	11 EDG	S		OFF	ON	YES		ROB 11 EDG	
7154	1	18	LS-7213	12 DG HI LVL FUEL TRANSFER CUTOUT		TB	931	12 DG	S		OFF	ON	YES		ROB 12 DG	
7155A	2	18	LS-7214	11 DG LO LVL FUEL TRANSFER PUMP START	NX-9216-5-4	TB	931	11 EDG	S		OFF	ON	YES		ROB 11 EDG	
7155	1	18	LS-7215	12 DG LO LVL FUEL TRAN PUMP START		TB	931	12 DG	S		OFF	ON	YES		ROB 12 DG	

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_____/ ENGINEER
Print or Type Name/Title

Brian Sunde
Signature

11/16/95
Date

_____/ ENGINEER
Print or Type Name/Title

Brian Sunde
Signature

11/16/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEL 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Fir. Elev.	LOCATION Ra. or Row/Col.	Sort Notes	Normal	Desired	REQ'D INTERFUNCTIONS	REG. & SUPPORTING COMPONENTS ISSUE				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
8063	01	MCC134	480 VAC MOTOR CONTROL CENTER 134		EFT	944	POWER EQ DIV1 RM 5			YES		LC103				
8034	01	MCC142A	480V AC MOTOR CONTROL CENTER		TR	931	EAST			YES		LC104				
8112	01	MCC142B	480 VAC MCC		TR	931	EAST			YES		MCC142A				
8002	01	MCC143A	480 V MCC		TR	931	EAST			YES		LC104				
8065	01	MCC143B	480 VAC MOTOR CONTROL CENTER		EFT	931	EAST			YES		LC103				
8035	01	MCC144	480V LOAD CENTER		EFT	932	DIV 2 RM 5			YES		LC104				
3071	2	MD-1741	11 CS PUMP TORUS SUCTION	M-122 A,3	RX	896	A RHR ROOM	R 21	OPEN	OPEN		C-03				
3073	1	MD-1742	12 CS PUMP TORUS SUCTION	M-122 A,4	RX	896	B RHR ROOM	R 21	OPEN	OPEN		C-03				
3028	2	MD-1749	11 CORE SPRAY TEST LINE TO TORUS	M-122 C,2	RX	923	TORUS CATWALK	R 21	CLOSED	CLOSED		C-03				
3030	1	MD-1750	12 CORE SPRAY TEST LINE TO TORUS	M-122 C,5	RX	923	TORUS CATWALK	R 21	CLOSED	CLOSED		C-292,C-03				
3009	2	MD-1751	11 CS INJ OUTBOARD ISOLATION VALVE	M-122 D,2	RX	962	EAST	R 21	OPEN	OPEN		C-03,B3325(MCC133)				
3011	1	MD-1752	12 CS INJ OUTBOARD ISOLATION VALVE	M-122 D,5	RX	962	RMCU HX BACK RM R	R 21	OPEN	OPEN		C-292,C-03,B4325(MCC43)				
3013	2	MD-1753	11 CS INJ INBOARD ISOLATION VALVE	M-122 E,3	RX	974	DOG HOUSE CLERIC S,R		CLOSED	OPEN		C-03,B3324(MCC33)				
3015	1	MD-1754	12 CS INJ INBOARD ISOLATION VALVE	M-122 D,4	RX	962	RMCU HX BACK RM S,R		CLOSED	OPEN		C-292,C-03,B4324(MCC143 A)				
1001	2	MD-1906	11 RHR SUCTION FROM TORUS	M-121 B,6	RX	896	A RHR ROOM	R 21	OPEN	OPEN		C-03/MS-3321				
2001	1	MD-1907	RHR/ TORUS SUCTION	M-120 B,2	RX	896'	B RHR ROOM	R 21	OPEN	OPEN		C-03,C-292,MS-4323				
1003	2	MD-1908	11 RHR SHUTDOWN COOLING SUCTION	M-121 B,6	RX	896	A RHR ROOM	R 21	CLOSED	CLOSED		C-03/MS-3332				
2005	1	MD-1909	RHR/ B SDC SUCTION	M-120 A,2	RX	896'	B RHR ROOM	R 21	CLOSE	CLOSE		C-03/MS-4321				
1048	2	MD-2002	11 RHR HX BYPASS	M-121 B,3	RX	896	A RHR ROOM	R,S	OPEN	CLOSED		MS-3336,B3336(MCC133A)				
2046	1	MD-2003	RHR/ RHR B INER BYPASS	M-120 B,5	RX	896'	B RHR ROOM	S,R	OPEN	CLOSED		B4210(MCC42),MS-4210				
1091	2	MD-2006	11 RHR DISCHARGE TO TORUS	M-121 D,3	RX	923	TORUS CATWALK	R,S	CLOSED	OPEN		MS-3341,B3341(MCC33)				
2067	1	MD-2007	RHR/ RHR B DISCH TO TORUS	M-120 D,6	RX	945'	DM EQ HATCH	S,R	CLOSE	OPEN		C-292,MS-525,S07,MS-420 B,B4208(MCC142A)				

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Print or Type Name/Title
ENGINEER

Ray Sude
Signature
Date 11/16/95

Print or Type Name/Title
ENGINEER

Blair M. ...
Signature
Date 11/19/95

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
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Program File Name & Version: SSEL 2.2

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	EQUIPMENT Fir. Elev.	LOCATION Rm. or Row/Col.	-----> SORT NOTES	<-- OP. Normal	ST. Desired	POWER REQ'D?	SUPPORTING SYS. DNG. 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)
1096	2	08	MO-2008	TORUS COOLING ISOL	M-121 C,3	RX	923	TORUS CATWALK	S,R	CLOSED	OPEN	YES		HS-3337,83337(MCC33)	
2070	1	08	MO-2009	RHR/ RHR B TORUS COOLING TEST RTM	M-120 C,6	RX	923'	TORUS CATWALK	S,R	CLOSE	OPEN	YES		C-292,C-03,HS-4337,84337(MCC133A)	
1094	2	08	MO-2010	TORUS SPRAY VLV	M-121 C,3	RX	923	TORUS CATWALK	R 21	CLOSED	CLOSED	NO		C-03/HS-3338	
2073	1	08	MO-2011	RHR/ RHR B TORUS SPRAY INJ	M-120 C,5	RX	923'	TORUS CATWALK	R 21	CLOSE	CLOSE	NO		C-03/HS-4338	
1119	2	08	MO-2012	11 RHR LPCI OUTBOARD INJECTION	M-121 C,4	RX	935	ESDC	S,R 21	OPEN	OPEN	YES		HS-3335,83335(MCC133B)	
2064	1	08	MO-2013	RHR/ RHR B LPCI INJ OUTBD	M-120 D,3	RX	935'	WSDC	S,R	OPEN	CLOSE	YES		C-03,HS-4335,84335(MCC143B)	
1121	2	08	MO-2014	11 RHR LPCI INBOARD INJECTION	M-121 C,5	RX	935	ESDC	S,R 21	CLOSED	CLOSED	YES		HS-3334,83334(MCC133B)	
2066	1	08	MO-2015	RHR/ RHR B LPCI INJ INBD	M-120 D,2	RX	935'	WSDC ROOM	S,R	CLOSE	CLOSE	YES		HS-4334,84335(MCC143B)	
1106	2	08	MO-2020	11 RHR CONTAINMENT SPRAY OUTBOARD ISOLATION	M-121 E,5	RX	935	EAST	R 21	CLOSED	CLOSED	NO		C-03/HS-3339	
2078	1	08	MO-2021	"B" RHR CTMT SPRAY OUTBD ISOL	M-120 E-2	RX	962'	WEST	R 21	CLOSED	CLOSED	NO		480V MCC 143, C-03, 84339	
1110	2	08	MO-2026	RHR HEAD SPRAY OUTBOARD ISOLATION	M-121 D,6	RX	974	974 CUBICLE	R 21	CLOSED	CLOSED	NO		C-03	
1010	2	08	MO-2030	RHR SHUTDOWN COOLING SUPPLY OUTBOARD ISOLATION	M-121 C,6	RX	935	EAST, ELEV 942	R 21	CLOSED	CLOSED	NO		C-03	
1114	2	08	MO-2032	RHR DISCHARGE TO WASTE SURGE TANK	M-121 C,3	RX	923	TORUS CATWALK	R 21	CLOSED	CLOSED	NO			
1079	2	08	MO-2033	RHR LOOPS CROSS TIE	M-120 C,6	RX	923	TORUS CATWALK	R,S	OPEN	CLOSED	YES		C-03,HS-4328,84328(MCC43)	
10001	1	08	MO-2034	HPCI INBOARD STEAM SUPPLY	M-123 E,5	RX	DRYWELL 951	DM AZ 150	S,R	OPEN	CLOSED	YES		84342(MCC143A),HS 23A-S2	
10002	2	08	MO-2035	HPCI OUTBOARD STEAM SUPPLY	M-123 E,4	RX	935	STEAM CHASE	S,R	OPEN	CLOSED	YES		831205(D312),HS-23A-S3	
14001	1	08	MO-2075	RCIC STEAM SUPPLY INBOARD ISOLATION	M-125 E,5	RX	DRYWELL 951	DM AZ 200	S,R	OPEN	CLOSED	YES		83340(D33),HS-13A-S1	
14003	2	08	MO-2076	RCIC STEAM SUPPLY OUTBOARD ISOLATION	M-125 E,4	RX	935	STEAM CHASE	S,R	OPEN	CLOSED	YES		D31104(P211),HS-13A-S3	

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_____/ ENGINEER
Print or Type Name/Title

Brian Sunde
Signature

11/16/95
Date

_____/ ENGINEER
Print or Type Name/Title

Brian Mackenok
Signature

11/19/95
Date

PORTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEM 2.2

LINE NO.	TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Fir. Elev.	LOCATION Re. or Row/Col.	OP. ST. Normal	Desired	REQ'D INTERCONNECTIONS	REG. & SUPPORTING COMPONENTS ISSUE					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
11025	1	08	MD-2373	IMBD MS LIME DRIN UPSTREAM MSIVS	M-115 B,5	RX	933	DM AZ 180	R	Z1	CLOSED	CLOSED	YES		CO3,84333	
17001	1	08	MD-2397	RMCU INLET INBOARD ISOL	M-128 C,8	RX	962	DM AZ 040	S,R		OPEN	CLOSED	YES		83328(B03),MS-16A-S15	
17002	2	08	MD-2398	RMCU INLET OUTBOARD ISOL	M-128 C,7	RX	974	RMCU ROOM	S,R		OPEN	CLOSED	YES		031309(B01),MS-16A-S16	
7191	1	08	MS11	AIR START SOLENOID CKT 1		TB	931	12 DG	S,R		OFF	ON	YES		ROB 12 DG,0211	
7193	2	08	MS11	AIR START SOLENOID CKT 1		TB	931	11 DG	S,R		OFF	ON	YES		ROB 11 DG,0111	
7192	1	08	MS12	AIR START SOLENOID CKT 2		TB	931	12 DG	S,R		OFF	ON	YES		ROB 12 DG,0211	
7194	2	08	MS12	AIR START SOLENOID CKT 2		TB	931	11 DG	S,R		OFF	ON	YES		ROB 11 DG,0111	
7171	1	0	N/A	12 DG FREQUENCY METER		ADMIN	951'	CR	S		ON	ON	YES		ROB C-08,12 DG	
7172	2	0	N/A	11 DG FREQUENCY METER		ADMIN	951'	CR	S		ON	ON	YES		ROB C-08,11 DG	
7173	1	0	N/A	12 DG AC AMPHETER METER		ADMIN	951'	CR	S		ON	ON	YES		ROB C-08,12 DG	
7174	2	0	N/A	11 DG AC AMPHETER METER		ADMIN	951'	CR	S		ON	ON	YES		ROB C-08,11 DG	
7175	1	0	N/A	12 DG AC VOLTAGE METER		ADMIN	951'	CR	S		ON	ON	YES		ROB C-08,12 DG	
7176	2	0	N/A	11 DG AC VOLTAGE METER		ADMIN	951'	CR	S		ON	ON	YES		ROB C-08,11 DG	
7177	1	0	N/A	12 DG AC KILOWATT METER		ADMIN	951'	CR	S		ON	ON	YES		ROB C-08,12 DG	
7178	2	0	N/A	11 DG AC KILOWATT METER		ADMIN	951'	CR	S		ON	ON	YES		ROB C-08,11 DG	
7179	1	0	N/A	16 BUS VOLTAGE METER		ADMIN	951'	CR	S		ON	ON	YES		ROB C-08,BUS 16	
7180	2	0	N/A	15 BUS VOLTAGE METER		ADMIN	951'	CR	S		ON	ON	YES		ROB C-08,BUS 15	
12301	2	00	M2 BOTTLES	ALT M2 SUPPLY TRAIN B BOTTLES AND BOTTLE RACK	M-131 SHT 10 B,8	TB	931	EAST	S		NO	NO	NO		ROB IR-PCV-4879	
12300	1	00	M2 BOTTLES	ALT M2 SUPPLY TRAIN A AND BOTTLE RACK	M-131 SHT 10 C,8	TB	931	EAST	S		NO	NO	NO		ROB IR-PCV-4879	
71304	2	20	M3346A	11 EDG AIR CHPSR 1 (K-8A) LOCAL DISCONNECT SWITCH		TB	931	11 EDG RM	S		YES	YES	YES		83346(MC1134)	
7137A	1	12	M3346B	12 EDG AIR CHPSR 2 (K-8B) LOCAL DISCONNECT SWITCH		TB	931	12 EDG RM	S		YES	YES	YES		83346(MC1134)	

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Print or Type Name/Title

Signature

Brian Sunde
Signature

11/16/95
Date

Print or Type Name/Title

Signature

Sweet Macbarnock
Signature

11/16/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEL 2.2

LINE NO.	TRAIN CLASS	EQUIP MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Location	Normal	OP. ST.	POWER SUPPORTING SYS.	REQ'D INTERLOCKS						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1047A	2	20	M3347	MOTOR STARTER FOR K-10A	E-108 SHT 12	RX	935	H OF ELEVATOR	S		YES	YES			P-73A	
7135A	2	20	M4301A	11 EDG AIR CMPSR 2 (K-98) LOCAL DISCONNECT SWITCH		T8	931	11 EDG RN	S		YES	YES			B4301(MCC143A)	
7136A	1	20	M4301B	12 EDG AIR CMPSR 1 (K-9A) LOCAL DISCONNECT SWITCH		T8	931	12 EDG RN	S		YES	YES			B4301(MCC143A)	
2138A	1	20	M4454	MOTOR STARTER FOR K-10B	E-108 SHT 12-1	RX	935	SM	S						B4454(MCC144)	
9001	2	06	P-109A	11 RHR SW PUMP	M-811 B,3	INTAKE	919	MAIN ROOM	S,R		OFF	ON	YES		152-507(BUS15)	
9002	1	06	P-109B	12 RHR SW PUMP	M-811 B,3	INTAKE	919	MAIN ROOM	S,R		OFF	ON	YES		152-607(BUS16)	
9003	2	06	P-109C	13 RHR SW PUMP	M-811 B,3	INTAKE	919	MAIN ROOM	S,R		OFF	ON	YES		152-508(BUS15)	
9004	1	06	P-109D	14 RHR SW PUMP	M-811 B,3	INTAKE	919	MAIN ROOM	S,R		OFF	ON	YES		152-608(BUS16)	
7025	1	05	P-11	DIESEL OIL XFER PUMP	M-133 C,3	FO PHP HOU	935	MAIN ROOM	S,R		OFF	ON	YES		B-4202(MCC142A),RS-529,RS-527,RS-42-4202	
9005	2	06	P-111A	11 ESW (EDG-ESW) PUMP	M-811 B,4	INTAKE	919	MAIN ROOM	S,R		OFF	ON	YES		B3435(MCC134)	
9006	1	06	P-111B	12 ESW (EDG-ESW) PUMP	M-811 B,6	INTAKE	919	MAIN ROOM	S,R		OFF	ON	YES		B4319(MCC143)	
9007	2	06	P-111C	13 ESW (EDG-ESW) PUMP	M-811 B,4	INTAKE	919	MAIN ROOM	S,R		OFF	ON	YES		B3472(MCC134)	
9008	1	06	P-111D	14 ESW (EDG-ESW) PUMP	M-811 B,6	INTAKE	919	MAIN ROOM	S,R		OFF	ON	YES		B4472(MCC144)	
1032	2	06	P-202A	11 RHR PUMP	M-121 B,4	RX	896	A RHR ROOM	S,R		N/A	N/A	YES		152-504(BUS15),RS-10A-S 2A	
2030	1	06	P-202B	RHR/ RHR B PUMP # 12	M-120 B,4	RX	896'	B RHR ROOM	S,R	3	OFF	RUN	YES		152-603(BUS16),RS-10A-S 2B	
1018	2	06	P-202C	13 RHR PUMP	M-121 A,4	RX	896	A RHR ROOM	S,R		N/A	N/A	YES		152-503(BUS15),RS-10A-S 3A	
2033	1	06	P-202D	RHR/ RHR D PUMP # 14	M-120 B,4	RX	896'	B RHR ROOM	S,R	3	OFF	RUN	YES		152-604(BUS16),RS-10A-S 3B	
3061	2	06	P-206A	11 CORE SPRAY PUMP	M-122 B,2	RX	896	A RHR ROOM	S,R		OFF	ON	YES		152-505(BUS15),RS-14A-S 5A	

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Print or Type Name/Title: Brian Sude / ENGINEER
Date: 11/16/95

Print or Type Name/Title: Bruce MacKinnon / ENGINEER
Date: 11/19/95

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEL 2.2

LINE NO.	EQUIP TRAIL CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Tag. No./Rev./Zone	Building	Equipment Fir. Elev.	LOCATION Rm. or Row/Col.	Sort Notes	OP. ST. Normal	Desired	REQ'D INTERCONNECTIONS	REG. ISSUE				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
3064	1	06	P-208B	12 CORE SPRAY PUMP	M-122 B,5	RX	896	B RHR ROOM	S,R	OFF	ON	YES				152-605(BUS16),HS-14A-S 5B
8029	14	P-73A	480W POWER PANEL			RB	962	MG SET RM	S			YES				MCC133A
1251	06	P-88A	EDCS AREA DRAIN PUMP	M-122 A,3	RX	896	A RHR ROOM	S				NO				
1252	06	P-88B	EDCS AREA DRAIN PUMP	M-122 A,3	RX	896	A RHR ROOM	S				NO				
2247	06	P-88C	EDCS AREA DRAIN PUMP	M-122 A,5	RX	896	B RHR ROOM	S				NO				
2248	06	P-88D	EDCS AREA DRAIN PUMP	M-122 A,5	RX	896	B RHR ROOM	S				NO				
9247	2	07	PCV-3004	11/13 RHRWSW PUMP MOTOR'S COOLING WATER HEADER INLET	M-811 C,2	INTAKE	919	MAIN ROOM	S	OPEN	OPEN	NO				
9062	1	07	PCV-3005	12/14 RHRWSW PUMP MOTOR'S COOLING HEADER INLET	M-811 C,7	INTAKE	919	MAIN ROOM	S	OPEN	OPEN	NO				
12175	1	00	PCV-4679	ALT N2 A	M-131 SHT 10 D,7	TB	931	EAST	S	OPEN	OPEN	NO				ROB IR-PCV-4679
12069	2	00	PCV-4681	ALT N2 B	M-131 SHT 10	TB	931	EAST	S	OPEN	OPEN	NO				ROB IR-PCV-4681
12179	1	00	PCV-4697	ALT N2 A	M-131 SHT 10 D,7	TB	931	EAST	S	OPEN	OPEN	NO				ROB IR-PCV-4679
12073	2	00	PCV-4698	ALT N2 B	M-131 SHT 10 B,7	TB	931	EAST	S	OPEN	OPEN	NO				ROB IR-PCV-4681
12180	1	00	PCV-4903	ALT N2 A	M-131 SHT 10 D,7	TB	931	EAST	S	OPEN	OPEN	NO				ROB IR-PCV-4679
12176	1	00	PCV-4904	ALT N2 A	M-131 SHT 10 D,7	TB	931	EAST	S	OPEN	OPEN	NO				ROB IR-PCV-4679
12074	2	00	PCV-4905	ALT N2 B	M-131 SHT 10 B,7	TB	931	EAST	S	OPEN	OPEN	NO				ROB IR-PCV-4681
12070	2	00	PCV-4906	ALT N2 B	M-131 SHT 10 B,7	TB	931	EAST	S	OPEN	OPEN	NO				ROB IR-PCV-4681
3047A	1	18	PI-14-48A	DIV 1 CS PUMP PRESSURE	M-122 C,2	RX	951	CR	S			YES				ROB C-03,ES 14-52A
3048A	2	18	PI-14-48B	DIV 2 CS PUMP PRESSURE	M-122 C,6	RX	951	CR	S			YES				ROB C-03,ES 14-52B
19095	18	PI-2-3-60A	LOCAL RPV LEVEL	M-116 D,6	RX	962			S			NO				ROB C-55
19061	1	20	PI-2-3-60B	RX VESSEL PRESS	M-116 D,3	RX	962		S			NO				ROB C-56
13017	2	18	PI-3051	TORUS PRESSURE	M-143 B,4	RX	923	CRD PUMP ROOM	S	N/A	N/A	NO				ROB IR-PI-3051

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Print or Type Name/Title
/ ENGINEER
Signature
Date
11/16/95

Print or Type Name/Title
/ ENGINEER
Signature
Date
11/19/95

MORTICELO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEM 2.2

LINE NO.	TRAIN CLASS	EQUIP MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	LOCATION Ra. or Row/Col.	SORT NOTES	Normal	Desired	REQ'D	SYS. NO./REV.	SUPPORTING COMMENTS	ISSUE			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
13039	1	20	PI-7251B	PCT WIDE RANGE PRESS	M-143 C,5	EFT	960	MAIN	S	YES	N/A	YES	ROB C-292, ES-4100			
190248	2	20	PLR-4102	RPV RX PRESS/LVL	M-116 C,6	EFT	960		S	YES	N/A	YES	ROB C292, ES-4100			
13043	2	20	PLR-7251A	DM PRESS, TORUS LEVEL, DM RAD	M-143 C,4	ADMIN	951	CR	S	YES	N/A	YES	ROB C03, ES-7251A, V70			
13036	1	20	PLR-7251B	DM PRESSURE, TORUS LEVEL, DM RAD	M-143 C,5	ADMIN	951	CR	S	YES	N/A	YES	ROB C03, ES-4101, V80			
13023	2	20	PR-2994	DRYWELL AND TORUS PRESSURE	M-143 C,4	ADMIN BLD	951	CR	S	YES	N/A	YES	ROB C04, ES-7251A, AMH-4-8-4			
1074	2	18	PS-10-105A	RHR PUMP 11 PRESSURE APR INTLK	M-121 B,4	RX	896	A RHR ROOM	S	YES	N/A	YES	ROB C-129A, D-11			
1073	2	08	PS-10-105E	RHR PUMP 11 PRESSURE APR INTLK	M-121 B,4	RX	896	A RHR ROOM	S	YES	N/A	YES	ROB C-129A, D-11			
3049	2	18	PS-14-44A	CS PUMP 11 DISCH PRESS APR INTLK	M-122 C,2	RX	896	A RHR ROOM	S	-	-	YES	ROB C-129A, D11			
3050	1	18	PS-14-44B	CS PUMP 12 DISCH PRESS APR INTLK	M-122 C,6	RX	896	B RHR ROOM	S	-	-	YES	ROB C-1290, D-21			
3051	2	18	PS-14-44C	CS PUMP 11 DISCH PRESS APR INTLK	M-122 C,2	RX	896	A RHR ROOM	S	-	-	YES	ROB C-129A, D-11			
3052	1	18	PS-14-44D	CS PUMP 12 DISCH PRESS APR INTLK	M-122 C,6	RX	896	B RHR ROOM	S	-	-	YES	ROB C-1290, D-21			
19070	1	20	PS-2-3-52A	LO RX PRESS-ECCS VALVE PERMIT	M-116 D,3	RX	962		S	YES	N/A	YES	ROB C-56, D11			
19015	2	20	PS-2-3-52B	LO RX PRESS - ECCS VALVE PERMIT	M-116 D,6	RX	962		S	YES	N/A	YES	ROB C-55, D21			
19045	2	20	PS-2-3-53A	LO RX PRESS-ECCS PUMP STRT PERMIT	M-116 C,6	RX	935		S	YES	N/A	YES	ROB C-121, D11			
19094	1	18	PS-3-53B	LO RX PRESS-ECCS PUMP STRT PERMIT	M-0116 C,2	RX	935		S	YES	N/A	YES	ROB C-122, ES-7251A			
7112	1	18	PS-3232	12 DG LEFT BANK START AIR COMPRESSOR 1 CONTROL	M-133 E,2	TB	931	12 DG RM	S	YES	N/A	YES	ROB K-9A, K0401B			
7114	1	18	PS-3233	12 DG RIGHT BANK START AIR COMPRESSOR 2 CONTROL	M-133 D,2	TB	931	12 DG RM	S	YES	N/A	YES	ROB K-9B, K0346B			
7113	2	18	PS-3234	11 DG LEFT BANK START AIR COMPRESSOR 1 CONTROL	M-133 B,2	TB	931	11 DG RM	S	YES	N/A	YES	ROB K-8A, K0346A			
7115	2	18	PS-3235	11 DG RIGHT BANK START AIR COMPRESSOR 2 CONTROL	M-133 A,2	TB	931	11 DG RM	S	YES	N/A	YES	ROB K-8B, K0301A			
12066	2	18	PS-4237	ALT NITROGEN SUPPLY TRAIN B HI/LO	M-131 SHT 10 B,7	TB	931	EAST	S	YES	N/A	YES	ROB C311, V80, C03, AMH-3-A-46			

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Print or Type Name/Title: Brigitte Saude / ENGINEER
Signature: [Signature]
Date: 11/16/95

Print or Type Name/Title: Bruce M. Kunk / ENGINEER
Signature: [Signature]
Date: 11/19/95

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	LOCATION	Sort Notes	OP. ST.	POWER SUPPORTING SYS.	REQ'D INTERCONNECTIONS						
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
12172	1	18	PS-4662	ALT NO A	M-131 SHT 10 D,7	TB	931	EAST	S		YES					ROB C311,C03,AMH-3-A-46, V80
12185	1	18	PS-4895	ALT NO A	M-131 SHT 10 D,6	TB	931	EAST	S		YES					ROB IR-PCV-4879,AMH-3-A-46, D21
12080	2	18	PS-4896	ALT NO B	M-131 SHT 10 B,6	TB	931	EAST	S		YES					ROB IR-PCV-4881,AMH-3-A-46, D21
16001	1/2	00	PS-7110	TURB CONTROL VALVE FAST CLOSURE		TB	951	TURBINE	S		CLOSED	OPEN	NO	NR-7834-67-8		RPS SCRAM LOGIC
16002	1/2	00	PS-7111	TURB CONTROL VALVE FAST CLOSURE		TB	951	TURBINE	S		CLOSED	OPEN	NO			RPS SCRAM LOGIC
16003	1/2	00	PS-7112	TURB CONTROL VALVE FAST CLOSURE		TB	951	TURBINE	S		CLOSED	OPEN	NO	NO7834-67-7		RPS SCRAM LOGIC
16004	1/2	00	PS-7113	TURB CONTROL VALVE FAST CLOSURE		TB	951	TURBINE	S		CLOSED	OPEN	NO			RPS SCRAM LOGIC
1235	2	18	PS-7192	RHR LOOP A AIR COMP CONTROL	M-121 A-4	RX	935	S.EAST	S		YES					NE347,P73A
2174	1	18	PS-7193	RHR LOOP "B" AIR COMP CONTROL	M-120 A,4	RX	935'	SW	S							84454(MCC144)
7052	2	20	PS-7218	11 DIESEL LOW START AIR PRESS ALARM	M-133 B,6	TB	931	11 DG RH	S		YES					ROB 11 EDG,0111
7009	1	20	PS-7219	12 DIESEL LOW START AIR PRESS ALARM	M-133 C,6	TB	931	12 DG RH	S		YES					ROB 12EDG,0211
7049	2	20	PS-7220	11 DIESEL LOW START AIR PRESS ALARM	M-133 B,5	TB	931	11 DG RH	S		YES					ROB 11EDG,0111
7012	1	20	PS-7221	12 DIESEL LOW START AIR PRESS ALARM	M-133 C,6	TB	931	12 DG RH	S		YES					ROB 12EDG,0211
12276	1	18	PS-7352	A SRV BELLOW LEAK ALARM	M-115-1 B,5	RX	951	DM	S		YES					011,021
12055	1	18	PS-7353	B SRV BELLOW LEAK ALARM	M-115-1 D,7	RX	951	DM MEZZ	S		YES					C03,011,021
12150	2	18	PS-7354	C SRV BELLOW LEAK ALARM	M-115-1 D,4	RX	951	DM	S		YES					011,021
12289	1	18	PS-7355	D SRV BELLOW LEAK ALARM	M-115-1 B,4	RX	951	DM	S		YES					011,021
12063	1	18	PS-7900	E SRV BELLOW LEAK ALARM	M-115-1 B,5	RX	951	DM	S		YES					033

CERTIFICATION:

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Print or Type Name/Title
/ ENGINEER

Richard
Signature

11/16/95
Date

Print or Type Name/Title
/ ENGINEER

Shane Moore
Signature

11/19/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEL 2.2

LINE NO.	EQUIP TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Flr./Elev.	LOCATION Re. or Room/Col.	Sort Notes	Normal	Desired	REQ'D	SYS. INTERCONNECTIONS	REG. ISSUE			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
12125	2	18	PS-7901	F SRV BELLWMS LEAK ALARM	M-115-1 B,4	RX	951	DM	S	YES	YES	D033				
12043	2	18	PS-7902	G SRV BELLWMS LEAK ALARM	M-115-1 D,5	RX	951	DM MEZZ	S	YES	YES	D033				
12142	2	18	PS-7903	H SRV BELLWMS LEAK ALARM	M-115-1 D,4	RX	951	DM	S	YES	YES	D033				
19096C	1	20	PSHL-4064A	SRV E LOW LOW SET PRESS INTLK	M-115-1 B,7	ADMIN	939	CSR	S	YES	YES	ROB C253A,ES-4059A,C				
19038A	2	20	PSHL-4064B	SRV E LOW LOW SET PRESS INTLK	M-115-1 B,7	EFT	960	MAIN	S	YES	YES	ROB C253B,ES-4059B				
19085A	1	20	PSHL-4064C	SRV E LOW LOW SET PRESS INTLK	M-115-1 C,7	ADMIN	939	CSR	S	YES	YES	ROB C253A,ES-4059A,C				
19039A	2	20	PSHL-4064D	SRV E LOW LOW SET PRESS INTLK	M-115-1 B,7	EFT	960	MAIN	S	YES	YES	ROB C253B,ES-4059B				
19065B	1	20	PSHL-4065A	SRV G LOW LOW SET PRESS INTLK	M-115-1 B,7	ADMIN	939	CSR	S	YES	YES	ROB C253A,ES-4059A,C				
19028B	2	20	PSHL-4065B	SRV G LOW LOW SET PRESS INTLK	M-115-1 B,7	EFT	960	MAIN	S	YES	YES	ROB C253B,ES-4059B				
19085B	1	20	PSHL-4065C	SRV G LOW LOW SET PRESS INTLK	M-115-1 C,7	ADMIN	939	CSR	S	YES	YES	ROB C253A,ES-4059A,C				
19039B	2	20	PSHL-4065D	SRV G LOW LOW SET PRESS INTLK	M-115-1 B,7	EFT	960	MAIN	S	YES	YES	ROB C253B,ES-4059B				
19085A	2	20	PSHL-4066A	SRV H LOW LOW SET PRESS INTLK	M-115-1 B,8	ADMIN	939	CSR	S	YES	YES	ROB C253A,ES-4059A,C				
19038C	2	20	PSHL-4066B	SRV H LOW LOW SET PRESS INTLK	M-115-1 B,8	EFT	960	MAIN	S	YES	YES	ROB C253B,ES-4059B				
19085C	1	20	PSHL-4066C	SRV H LOW LOW SET PRESS INTLK	M-115-1 C,8	ADMIN	939	CSR	S	YES	YES	ROB C253A,ES-4059A,C				
19039C	2	20	PSHL-4066D	SRV H LOW LOW SET PRESS INTLK	M-115-1 B,8	EFT	960	MAIN	S	YES	YES	ROB C253B,ES-4059B				
3047	2	18	PT-14-30A	CS PUMP 11 DISCHARGE PRESSURE	M-122 C,2	RX	896	A RHR ROOM	S	-	-	ROB C129A,ES 14-52A				
3048	1	18	PT-14-30B	CS PUMP 12 DISCHARGE PRESSURE	M-122 C,6	RX	896	B RHR ROOM	S	-	-	ROB C129B,ES 14-52B				
13044	20	PT-2994A	DM PRESS NARROW RANGE	M-143 C,4	RX	962			S	YES	YES	ES-7251A				
13018	2	18	PT-2994B	TORUS PRESSURE NARROW RANGE	M-143 B,4	RX	923	CCD PUMP ROOM	S	N/A	N/A	ROB IR-88923-01,ES-7251A				
19086	1	18	PT-4067A	LOW LOW SET REACTOR PRESSURE	M-115-1 B,8	RX	935		S	YES	YES	ROB C-122,ES-4059A,C				
19038	2	PT-4067B	LOW LOW SET REACTOR PRESSURE	M-115-1 B,8	RX	935		S	YES	YES	ROB C-121,ES 4059B					
19085	1	PT-4067C	LOW LOW SET REACTOR PRESSURE	M-115-1 C,8	RX	935		S	YES	YES	ROB C-122,ES-4059A,C					

CERTIFICATION:

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Print or Type Name/Title
ENGINEER

B. J. Sander
Signature

11/16/95
Date

Print or Type Name/Title
ENGINEER

B. J. Sander
Signature

11/19/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSELN 2.2

LINE NO.	TRAIN CLASS	EQUIP MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Eq. No./Rev./Zone	Building	EQUIPMENT LOCATION	Sort Notes	Normal	Desired	REQ'D	POWER SUPPORTING SYS.	REQ'D INTERCONNECTIONS				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
19039	2	18	PT-4067D	LOW LOW SET REACTOR PRESSURE	M-115-1 B,8	RX	935		S		YES					ROB C-121, ES-40598
19074	1	20	PT-6-56	FW MAIN STEAM LEAK DETECTION	M-116 D,2	RX	962		S		YES					ROB C-56, ES-6-111
13045	2	20	PT-7251A	DM WIDE RANGE PRES	M-143 C,4	RX	962		S		YES					ES-7251A
13038	1	20	PT-7251B	DRYWELL WIDE RANGE PRESS	M-143 C,5	RX	965		S		YES					ES-4100
13037	1	20	PV 7251B	PCT WIDE RANGE ISOLATOR	M-143 C,5	EFT	960	MAIN	S		YES					ROB C292, ES-4101
7026	1	07	RV-1523	XFER PUMP DISCHARGE RELIEF VALVE	M-133 D,3	FO PMP MON	935	WASH ROOM	S		CLOSED	CLOSE	NO			
3040	2	07	RV-1745	11 CS PUMP DISCH RV TO ORV	M-122 D,2	RX	896	A RHR ROOM	S	15	CLOSED	CLOSED				
3039	1	07	RV-1746	12 CS PUMP DISCH RV TO ORV	M-122 D,6	RX	896	B RHR ROOM	S	15	CLOSED	CLOSED				
1035	2	08	RV-1990	RHR 11 PUMP SUCTION RV	M-121 B,5	RX	896	A RHR ROOM	S		CLOSED	CLOSED	NO			
2019	1	07	RV-1991	RHR/ RHR B PUMP SUCTION RELIEF	M-120 B,3	RX	896	B RHR ROOM	S		CLOSE	CLOSED	NO			
1013	2	07	RV-1992	RHR 13 PUMP SUCTION RV	M-121 B,5	RX	896	A RHR ROOM	S		CLOSED	CLOSED	NO			
2020	1	07	RV-1993	RHR/ RHR D PUMP SUCTION RELIEF	M-120 C,3	RX	896	B RHR ROOM	S		CLOSE	CLOSED	NO			
12268	1	07	RV-2-71A	A SRV	M-115-1 B,5	RX	951	DM WEST	S		CLOSED	OP/VCL	NO			
12044	1	07	RV-2-71B	B SRV	M-115-1 C,5	RX	951	DM NORTH	S		CLOSED	OP/VCL	NO			
12149	2	08	RV-2-71C	C SRV	M-115-1 C,4	RX	951	DM AZ 225	S		CLOSED	OP/VCL	NO			
12204	1	07	RV-2-71D	D SRV	M-115-1 B,4	RX	951	6J	S		CLOSED	OP/VCL	NO			
12056	1	07	RV-2-71E	E SRV	M-115-1 B,5	RX	951	DM WEST	S		CLOSED	CLOSED	NO			
12121	2	07	RV-2-71F	F SRV	M-115-1 B,4	RX	951	DM EAST	S		CLOSED	OP/VCL	NO			
12045	2	07	RV-2-71G	G SRV	M-115-1 C,5	RX	951	DM WEST	S		CLOSED	OP/VCL	NO			
12135	2	07	RV-2-71H	H SRV	M-115-1 C,4	RX	951	DM EAST	S		CLOSED	OP/VCL	NO			
1090	2	07	RV-2004	RHR LOOP A DISCHARGE LINE RV	M-121 D,2	RX	923	TORUS CATWALK	S		CLOSED	CLOSED	NO			
2110	1	07	RV-2005	RHR LOOP B DISCHARGE LINE RV	M-120 D,6	RX	935	WDC ROOM	S		CLOSED	CLOSED	NO			
1108	2	07	RV-2025	RHR HEAD SPRAY LINE RV	M-121 E,4	RX	962	SOUTH	S		CLOSED	CLOSED	NO			

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Print or Type Name/Title
ENGINEER

Brigitte Stude
Signature

11/16/95
Date

Print or Type Name/Title
ENGINEER

Thomas M. Krenck
Signature

11/19/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEN 2.2

LINE NO.	TRAIN CLASS	EQUIP MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	EQUIPMENT Flr. Elev.	LOCATION Rm. or Row/Coil	SORT NOTES	OP. ST.	POWER SUPPORTING SYS. REQ'D INTERCONNECTIONS	REG. NO./REV. & SUPPORTING COMPONENTS ISSUE					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1007	2	07	RV-2031	SD COOLING SUCTION SUPPLY	M-121 B,6	RX	935	E SD COOLING RM S		CLOSED	CLOSED	NO				
9242	2	07	RV-3038	11 LOOP MOTOR COOLING HEADER	M-811 B,3	INTAKE	919	MAIN ROOM S		CLOSED	CLOSED	NO				
9066	1	07	RV-3039	12/14 LOOP MOTOR COOLING HEADER	M-811 B,7	INTAKE	919	MAIN ROOM S		CLOSED	CLOSED	NO				
9155	2	00	RV-3202	11 RX TUBE SIDE	M-112 C,5	RX	896	A RHR ROOM S		CLOSED	CLOSED	NO				
9134	1	00	RV-3203	12 RX TUBE SIDE	M-112 C,4	RX	896	B RHR ROOM S		CLOSED	CLOSED	NO				
7054	2	07	RV-3216	11 DG AIR TK T-79A RV	M-133 B,3	TB	931	11 DG RM S		CLOSED	CLOSED	NO				
7055	2	07	RV-3217	11 DG AIR TK T-79B RV	M-133 B,3	TB	931	11 DG RM S		CLOSED	CLOSED	NO				
7056	2	07	RV-3218	11 DG AIR TK T-79C RV	M-133 B,4	TB	931	11 DG RM S		CLOSED	CLOSED	NO				
7057	2	07	RV-3219	11 DG AIR TK T-79D RV	M-133 A,3	TB	931	11 DG RM S		CLOSED	CLOSED	NO				
7058	2	07	RV-3220	11 DG AIR TK T-79E RV	M-133 A,3	TB	931	11 DG RM S		CLOSED	CLOSED	NO				
7059	2	07	RV-3221	11 DG AIR TK T-79F RV	M-133 A,4	TB	931	11 DG RM S		CLOSED	CLOSED	NO				
7134	2	07	RV-3222	DIESEL AIR START COMPRESSOR (K-8A)	M-133 B,2	TB	931	11 DG RM S	15	CLOSED	CLOSED	NO				
7135	2	07	RV-3223	DIESEL AIR START COMPRESSOR (K-8B)	M-133 A,2	TB	931	11 DG RM S	15	CLOSED	CLOSED	NO				
7060	1	07	RV-3224	12 DG AIR TK T-80A RV	M-133 E,3	TB	931	12 DG RM S		CLOSED	CLOSED	NO				
7061	1	07	RV-3225	12 DG AIR TK T-80B RV	M-133 E,3	TB	931	12 DG RM S		CLOSED	CLOSED	NO				
7062	1	07	RV-3226	12 DG AIR TK T-80C RV	M-133 E,4	TB	931	12 DG RM S		CLOSED	CLOSED	NO				
7063	1	07	RV-3227	12 DG AIR TK T-80D RV	M-133 D,3	TB	931	12 DG RM S		CLOSED	CLOSED	NO				
7064	1	07	RV-3228	12 DG AIR TK T-80E RV	M-133 D,3	TB	931	12 DG RM S		CLOSED	CLOSED	NO				
7065	1	07	RV-3229	12 DG AIR TK T-80F RV	M-133 D,4	TB	931	12 DG RM S		CLOSED	CLOSED	NO				
7132	1	07	RV-3230	DIESEL AIR START COMPRESSOR (K-9A)	M-133 E,2	TB	931	12 DG RM S		CLOSED	CLOSED	NO				
7133	1	07	RV-3231	DIESEL AIR START COMPRESSOR (K-9B)	M-133 D,2	TB	931	12 DG RM S		CLOSED	CLOSED	NO				
12269	1	07	RV-3242	A SRV DISCHARGE 2 VAC RV	M-115-1 A,5	RX	951	DM WEST S		CLOSED	CLOSED	NO				
12270	1	07	RV-3242A	A SRV DISCHARGE B VAC RV	M-115-1 B,5	RX	951	DM WEST S		CLOSED	CLOSED	NO				

CERTIFICATION:

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Print or Type Name/Title
Brian Sunde / ENGINEER
 Date: 11/16/95

Print or Type Name/Title
James M. McKinnon / ENGINEER
 Date: 11/19/95

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSELN 2.2

LINE NO.	TRAIN CLASS	EQUIP MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Flr. Lvl.	LOCATION Rm. or Row/Col.	SRRT NOTES	Normal	Desired	REQ'D	SYS. REQ'D	INTERCONNECTIONS	REG.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
12049	1	07	RV-3243	B SRV DISCHARGE 2" VAC RV	M-115-1 C,6	RX	9S1	DM WEST	S	CLOSED	CLOSED	NO				
12048	1	07	RV-3243A	B SRV DISCHARGE 8" VAC RV	M-115-1 C,6	RX	9S1	DM WEST	S	CLOSED	CLOSED	NO				
12295	2	07	RV-3244	C SRV DISCHARGE 2 VAC	M-115-1 C,4	RX	9S1	DM NORTH	S	CLOSED	CLOSED	NO				
12294	2	07	RV-3244A	C SRV DISCHARGE 8 VAC	M-115-1 C,4	RX	9S1	DM NORTH	S	CLOSED	CLOSED	NO				
12282	1	07	RV-3245	D SRV DISCHARGE 2 VAC	M-115-1 A,4	RX	9S1	DM EAST	S	CLOSED	CLOSED	NO				
12283	1	07	RV-3245A	D SRV DISCHARGE 8 VAC	M-115-1 B,4	RX	9S1	DM EAST	S	CLOSED	CLOSED	NO				
12078	2	00	RV-4236	ALT N2 B	M-131 SHT 10 B,7	TB	931	FAST	S	CLOSED	CLOSED	NO				
1064	2	07	RV-4281	A RHR HX RV SHELL SIDE	M-121 A,2	RX	896	A RHR ROOM	S	CLOSED	CLOSED	NO				
2209C	1	07	RV-4281	A RHR HX RV SHELL SIDE	M-121 B,2	RX	896	ARHR	S	CLOSED	CLOSED	NO				
2055	1	07	RV-4282	RHR/ RHR B HXER RELIEF VALVE	M-120 B,6	RX	896'	B RHR ROOM	S	CLOSE	CLOSED	NO				
12183	1	00	RV-4673	ALT N2 A	M-131 SHT 10 D,7	TB	931	EAST	S	CLOSED	CLOSED	NO				
12230	1	07	RV-4878	ALT N2 A	M-131 SHT 10 D,5	RX	935	WEST	S	CLOSED	CLOSED	NO				
12113	2	07	RV-4880	ALT N2 B RELIEF	M-131 SHT 10 B,5	RX	935	WEST	S	CLOSED	CLOSED	NO				
12057	1	07	RV-7440	E SRV DISCHARGE 2 VAC RV	M-115-1 B,6	RX	951	DM WEST	S	CLOSED	CLOSED	NO				
12059	1	07	RV-7440A	E SRV DISCHARGE 8" VAC RV	M-115-1 A,6	RX	951	DM WEST	S	CLOSED	CLOSED	NO				
12123	2	07	RV-7441	F SRV DISCHARGE 2" VAC RV	M-115-1 A,4	RX	951	DM EAST	S	CLOSED	CLOSED	NO				
12122	2	07	RV-7441A	F SRV DISCHARGE 8" VAC RV	M-115-1 B,4	RX	951	DM EAST	S	CLOSED	CLOSED	NO				
12046	2	07	RV-7467	G SRV DISCHARGE 2 VAC RV	M-115-1 C,5	RX	951	DM NORTH	S	CLOSED	CLOSED	NO				
12047	2	07	RV-7467A	G SRV DISCHARGE 8" VAC RV	M-115-1 C,5	RX	951	DM NORTH	S	CLOSED	CLOSED	NO				
12137	2	07	RV-7468	H SRV DISCHARGE 2" VAC RV	M-115-1 C,4	RX	951	DM EAST	S	CLOSED	CLOSED	NO				
12136	2	07	RV-7468A	H SRV DISCHARGE 8" VAC RV	M-115-1 C,4	RX	951	DM EAST	S	CLOSED	CLOSED	NO				
1052	2	08	SV-1728	CV-1728 (11 RHR HX RHRSH OUTLET)SV H-121 A,3		RX	896	A RHR ROOM	R,S	CLOSED	CLOSED	NO	YES	Y20		
2095	1	08	SV-1729	CV-1729 (12 RHR HX RHRSH OUT) SV H-120 A,5		RX	896'	B RHR ROOM	R,S	CLOSED	CLOSED	NO	YES	Y80		

CERTIFICATION:

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Print or Type Name/Title ENGINEER
Signature Date 11/16/95

Print or Type Name/Title ENGINEER
Signature Date 11/19/95

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DRF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEL 2.2

LINE NO.	EQUIP TRAIL CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Flr./E.V.	LOCATION Rm. or Row/Col.	Sort Notes	Normal	Desired	REQ'D	DMG. NO./REV.	SUPPORTING COMPONENTS	ISSUE		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1030	2	08	SV-1994	SV FOR CV-1994 #11 RHR MINIMUM FLOW	M-121 B,4	RX	896	A RHR ROOM	S,R	14	CLOSED	CLOSED	YES	FS-10-121A, Y-20		
2133	1	08	SV-1995	SV FOR CV-1995 #12 RHR MIN FLOW	M-120 B,4	RX	896'	B RHR ROOM	R,S		YES			ROB CV-1995, C03, Y-20, C33, C-292		
1029	2	08	SV-1996	SV FOR CV-1996 #13 RHR MINIMUM FLOW	M-121 C,5	RX	896	A RHR ROOM	S,R	14	CLOSED	CLOSED	YES	FS-10-121C, Y-20		
2132	1	08	SV-1997	SV FOR CV-1997 #14 RHR MIN FLOW	M-120 C,4	RX	896'	B RHR ROOM	R,S		YES	NR-7905-6-19		ROB CV-1997, C03, C33, Y-20		
12273	1	08	SV-2-32A	A SRV BELLOW LEAK TEST	M-115-1 B,5	RX	951	DM WEST	R	20	CLOSED	CLOSED	YES	C03, HS-58, HS-55, Y20		
12052	1	08	SV-2-32B	B SRV BELLOW LEAK TEST	M-115-1 D,7	RX	951	DM	R	20	CLOSED	CLOSED	YES	C03, HS-58, HS-55, Y20		
12151	2	08	SV-2-32C	C SRV BELLOW LEAK TEST SV	M-115-1 D,3	RX	951	DM	R	20	CLOSED	CLOSED	YES	C03, HS-58, HS-55, Y20		
12286	1	08	SV-2-32D	D SRV BELLOW LEAK TEST	M-115-1 B,4	RX	951	DM EAST	R	20	CLOSED	CLOSED	YES	C03, HS-58, HS-55, Y20		
12060	1	08	SV-2-32E	E SRV BELLOW LEAK TEST	M-115-1 B,6	RX	951	DM	R	20	CLOSED	CLOSED	YES	C03, HS-58, HS-55, Y20		
12126	2	08	SV-2-32F	F SRV BELLOW LEAK TEST	M-115-1 B,4	RX	951	DM EAST	R	20	CLOSED	CLOSED	YES	C03, HS-58, HS-55, Y20		
12038	2	08	SV-2-32G	G SRV BELLOW LEAK TEST	M-115-1 D,5	RX	951	DM WEST	R	20	CLOSED	CLOSED	YES	C03, HS-58 & 55, Y20		
12143	2	08	SV-2-32H	H SRV BELLOW LEAK TEST	M-115-1 D,4	RX	951	DM EAST	R	20	CLOSED	CLOSED	YES	C03, HS-58, HS-55, Y20		
12274	1	08	SV-2-33A	A SRV BELLOW LEAK TEST	M-115-1 B,6	RX	951	DM WEST	R	20	CLOSED	CLOSED	YES	C03, HS-58, HS-55, Y20		
12053	1	08	SV-2-33B	B SRV BELLOW LEAK TEST	M-115-1 D,7	RX	951	DM WEST	R	20	CLOSED	CLOSED	YES	C03, HS-58, HS-55, Y20		
12298	2	08	SV-2-33C	C SRV BELLOW LEAK TEST	M-115-1 D,3	RX	951	DM EAST	R	20	CLOSED	CLOSED	YES	C03, HS-58, HS-55, Y20		
12287	1	08	SV-2-33D	D SRV BELLOW LEAK TEST	M-115-1 B,4	RX	951	DM EAST	R	20	CLOSED	CLOSED	YES	C03, HS-58, HS-55, Y20		
12061	1	08	SV-2-33E	E SRV BELLOW LEAK TEST	M-115-1 B,6	RX	951	DM WEST	R	20	CLOSED	CLOSED	YES	C03, HS-58, HS-55, Y20		
12127	2	08	SV-2-33F	F SRV BELLOW LEAK TEST	M-115-1 B,4	RX	951	DM EAST	R	20	CLOSED	CLOSED	YES	C03, HS-58, HS-55, Y20		
12039	2	08	SV-2-33G	G SRV BELLOW LEAK TEST	M-115-1 D,6	RX	951	DM WEST	R	20	CLOSED	CLOSED	YES	C03, HS-58 & 55, Y20		
12145	2	08	SV-2-33H	H SRV BELLOW LEAK TEST	M-115-1 D,4	RX	951	DM EAST	R	20	CLOSED	CLOSED	YES	C03, HS-58, HS-55HS-56, Y20		

CERTIFICATION:

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Print or Type Name/Title: Brigitte Sunde / ENGINEER Date: 11/16/95
 Print or Type Name/Title: Bruce M. Kozak / ENGINEER Date: 11/19/95

DOMITICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEDH 2.2

LINE NO.	TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Fir. Elev.	LOCATION Rm. or Row/Col.	Sort Notes	Normal	OP. ST.	Power Supporting Sys. Req'd	Interconnections Reg.				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
12275	1	08	SV-2-34A	A SRV BELLOW LEAK TEST	M-115-1 B,6	RX	951	DM WEST	R 20	CLOSED	CLOSED	YES	CO3,HS-58,HS-55,HS-56,Y 20			
12054	1	08	SV-2-34B	B SRV BELLOW LEAK TEST	M-115-1 D,7	RX	951	DM WEST	R 20	CLOSED	CLOSED	YES	CO3,HS-58,HS-55,HS-56,Y 20			
12299	08	SV-2-34C	C SRV BELLOW LEAK TEST	M-115-1 D,3	RX	951	DM EAST	R 20	CLOSED	CLOSED	YES	CO3,HS-58,HS-55,HS-56,Y 20				
12288	1	08	SV-2-34D	D SRV BELLOW LEAK TEST	M-115-1 B,4	RX	951	DM EAST	R 20	CLOSED	CLOSED	YES	CO3,HS-58,HS-55,HS-56,Y 20			
12062	1	08	SV-2-34E	E SRV BELLOW LEAK TEST	M-115-1 B,6	RX	951	DM WEST	R 20	CLOSED	CLOSED	YES	CO3,HS-58,HS-55,HS-56,Y 20			
12128	2	08	SV-2-34F	F SRV BELLOW LEAK TEST	M-115-1 B,3	RX	951	DM EAST	R 20	CLOSED	CLOSED	YES	CO3,HS-58,HS-55,HS-56,Y 20			
12040	2	08	SV-2-34G	G SRV BELLOW LEAK TEST	M-115-1 D,6	RX	951	DM WEST	R 20	CLOSED	CLOSED	YES	CO3,HS-58,HS-55,HS-56,Y 20			
12144	2	08	SV-2-34H	H SRV BELLOW LEAK TEST	M-115-1 D,4	RX	951	DM EAST	R 20	CLOSED	CLOSED	YES	CO3,HS-58,HS-55,HS-56,Y 20			
12247	1	08	SV-2-71A	A SRV AIR OPERATOR SV	M-115-1 B,6	RX	951	DM WEST	S,R	CLOSED	OPEN	YES	CO3,HS-51A,D11,D21			
12013	1	08	SV-2-71B	B SRV PILOT	M-115-1 C,6	RX	951	DM WEST	S,R	CLOSED	OPEN	YES	CO3,HS-54B,D11,D21			
12148	2	08	SV-2-71C	C SRV AIR OPERATOR SV	M-115-1 C,3	RX	951	DM EAST	S,R	CLOSED	OPEN	YES	CO3,HS-51C,D11,D21			
12285	1	08	SV-2-71D	D SRV PILOT A/S	M-115-1 B,4	RX	951	DM EAST	S,R	CLOSED	OPEN	YES	CO3,HS-51D,D11,D21			
12245	1	08	SV-2-71E	E SRV ALT NZ A A/S	M-115-1 B,7	RX	951	DM WEST	S,R	CLOSED	OPEN	YES	CO3,HS-54E,D33			
12119	2	08	SV-2-71F	F SRV PILOT A/S	M-115-1 B,3	RX	951	DM EAST	S,R	CLOSED	OPEN	YES	CO3,HS-54F,D33			
12041	2	08	SV-2-71G	G SRV PILOT A/S	M-115-1 D,5	RX	951	DM WEST	S,R	CLOSED	OPEN	YES	CO3,C05,HS-54G,D33			
12134	2	08	SV-2-71H	H SRV PILOT A/S	M-115-1 D,4	RX	951	DM EAST	S,R	CLOSED	OPEN	YES	CO3,HS-54H,D33			
12244	1	08	SV-2-71J	E SRV ALT NZ A A/S	M-115-1 B,7	RX	951	DM WEST	S,R	CLOSED	OPEN	YES	C292,HS-519,D100			
12042	2	08	SV-2-71K	G SRV PILOT A/S	M-115-1 D,5	RX	951	DM WEST	S,R	CLOSED	OPEN	YES	C292,HS-520,D100			
12136	2	08	SV-2-71L	H SRV PILOT A/S	M-115-1 D,4	RX	951	DM WEST	S,R	CLOSED	OPEN	YES	C292,HS-531,HS-521,HS-5 28,D100			

CERTIFICATION:

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Print or Type Name/Title: Brigitte Sande / ENGINEER
Signature: [Signature]
Date: 11/16/95

Print or Type Name/Title: Lawrence Kuzick / ENGINEER
Signature: [Signature]
Date: 11/19/95

MORTICELLO NUCLEAR GENERATING PLANT
 SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
 COMPOSITE SSEL

LINE NO.	EQUIP TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	LOCATION	Eq. or Room/Col.	SOFT WP'S	Desired REQ'D	OP. ST.	POWER SUPPORTING SYS.	REQ'D INTERCONNECTIONS			
(1)	(2)	(3)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
12120	2	08	SV-2-71M	F SRV ASDS PILOT A/S	M-115-1 B,3	RX	951	DM EAST	S,R	CLOSED	OPEN	YES	C29C,HS-S22,0100		
11037	2	08	SV-2370	FLANGE LEAK OFF CONTROL VALVE	M-115 E,2	RX	905	DM AZ 000	R	Z1	CLOSED	CLOSED	YES	CO4	
11029	1	08	SV-2371	REACTOR HEAD VENT TO CRW	M-115 E,5	RX	920	DM AZ 170	R	Z1	CLOSED	CLOSED	YES	CO4	
4025	1	08	SV-3-29	EAST/WEST SDW VENT/DRN VLVS AIR SUPPLY SOL VLV	M-119 B,2	RX	935		S,R	ME	DE	YES	ROB IR-SV-3-29,V20		
4017	1	08	SV-3-31A	INBOARD VENT/DR RPS CH A	M-119 B,2	RX	935	12 BK	S,R	ME	DE	YES	ROB IR-SV-3-29,RPS		
4018	1	08	SV-3-31B	INBOARD VENT/DR RPS CH B	M-119 B,2	RX	935	12 BK	S,R	ME	DE	YES	ROB IR-SV-3-29,RPS		
4019	2	08	SV-3-31C	OUTBOARD VENT/DR RPS CH A	M-119 B,2	RX	935	12 BK	S,R	ME	DE	YES	ROB IR-SV-3-31C,RPS		
4020	2	08	SV-3-31D	OUTBOARD VENT/DR RPS CH B	M-119 B,2	RX	935	12 BK	S,R	ME	DE	YES	ROB IR-SV-3-31C,RPS		
1054	2	08	SV-4015A	A RHR LOOP SAMPLE ISOL	HF-96042	RX	896	A RHR ROOM	R	Z1			120 VAC		
2097	1	08	SV-4015B	B LOOP RHR SAMPLE ISOL	HF-96042	RX	896	B RHR ROOM	R	Z1	CLOSED	CLOSED	YES	C-291A/C-285A	
1084	2	08	SV-4033A	AGCS ROMB CLG PMP IHL	MH-94896 A,6	RX	985	H OF ELEVATOR	R	Z1	CLOSED	CLOSED	YES	C-285B	
2090	1	08	SV-4033B	B CGCS RECOMBINER COOLING PUMP INLET	MH-94897 A,6	RX	985'	WEST	R	Z1	CLOSED	CLOSED	YES	C-291A/C-285A	
1085	2	08	SV-4034A	AGCS ROMB CLG PMP BYP	MH-94896 A,6	RX	985	H OF ELEVATOR	R	Z1	CLOSED	CLOSED	YES	C-285B	
2091	1	08	SV-4034B	B CGCS RECOMBINER COOLING PUMP BYPASS	MH-94897 A,6	RX	985'	WEST	R	Z1	CLOSED	CLOSED	YES	C311	
12228	1	08	SV-4234	ALT IN A	M-131 SHT 10 B,6	RX	935	WEST	R	Z1	OPEN	OPEN	YES	C311,C03,Y80	
12105	2	08	SV-4235	ALT IN B MANIFOLD ISOL	M-131 SHT 10 B,6	TB	931	FW CMS HELB RM	R	Z1	OPEN	OPEN	YES		
7146	1/2	21	T-44	DIESEL OIL STORAGE TANK	M-133 B,2	BURIED	935		S				NO		
7042	2	21	T-45A	STANDBY DIESEL GENERATOR DAY TANK	M-133 B,5	TB	931	11 DG DAY TK RM 5	S				NO		
7013	1	21	T-45B	STANDBY DIESEL GENERATOR DAY TANK	M-133 C,5	TB	931	12 DG DAY TK RM 5	S				NO		
12170	2	21	T-49A	A MSIV (A0-2-80A) ACCUMULATOR	M-131 SHT 10 A,3	RX	933	DM NORTH	S				NO		
12165	2	21	T-49B	B MSIV (A0-2-80B) ACCUMULATOR	M-131 SHT 10 A,3	RX	933	DM NORTH	S				NO		

CERTIFICATION:

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Print or Type Name/Title: Brigitte Sunde / ENGINEER
 Signature: [Signature]
 Date: 11/16/95

Print or Type Name/Title: Dore Mackenroek / ENGINEER
 Signature: [Signature]
 Date: 11/19/95

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP TRAIN	CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	EQUIPMENT		LOCATION		SORT	NOTES	OP. ST.		POWER REQ'D	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
						Building	Fir. Elev.	Rm. or Row/Col.				Normal	Desired				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	
12156	2	21	T-49C	C NSIV (A0-2-80C) ACCUMULATOR	M-131 SHY 10 B,3	RX	933	DW NORTH	S					NO			
12161	2	21	T-49D	D NSIV (A0-2-80D) ACCUMULATOR	M-131 SHY 10 A,3	RX	933	DW NORTH	S					NO			
12257	2	21	T-57A	ALT N2 ACCUMULATOR	M-131 SHY 12 B,3	RX	951	DW	S					NO			
12258	2	21	T-57B	ALT N2 ACCUMULATOR	M-131 SHY 12 B,3	RX	951	DW	S					NO			
12252	1	21	T-57C	ALT N2 ACCUMULATOR	M-131 SHY 12 C,3	RX	951	DW EAST	S					NO			
12249	1	21	T-57D	ALT N2 ACCUMULATOR	M-131 SHY 12 C,3	RX	951	DW EAST	S					NO			
12256	2	21	T-57E	ALT N2 ACCUMULATOR	M-131 SHY 12 B,3	RX	951	DW	S					NO			
12251	1	21	T-57F	ALT N2 ACCUMULATOR	M-131 SHY 12 C,3	RX	951	DW EAST	S					NO			
12259	2	21	T-57G	ALT N2 ACCUMULATOR	M-131 SHY 12 B,3	RX	951	DW	S					NO			
12250	1	21	T-57H	ALT N2 ACCUMULATOR	M-131 SHY 12 C,3	RX	951	DW EAST	S					NO			
1045	2	00	T-75A	ACCUMULATOR FOR SV-1994	M-121 A,4	RX	896	A RHR ROOM	S			H/A	H/A	NO			
2028	1	21	T-75B	RHR/ RHR B PUMP MIN FLOW ACCUM	M-120 A,4	RX	896	B RHR ROOM	S			H/A		NO			
1046	2	00	T-75C	ACCUMULATOR FOR SV-1996	M-121 C,5	RX	896	A RHR ROOM	S			H/A	H/A	NO			
2029	1	21	T-75D	RHR/ RHR D PUMP MIN FLOW ACCUM	M-120 C,5	RX	896	B RHR ROOM	S			H/A		NO			
7066	2	21	T-79A	11 DG AIR TK A	M-133 B,3	TB	931	11 DG RM	S					NO			
7067	2	21	T-79B	11 DG AIR TK B	M-133 B,3	TB	931	11 DG RM	S					NO			
7068	2	21	T-79C	11 DG AIR TK C	M-133 B,4	TB	931	11 DG RM	S					NO			
7069	2	21	T-79D	11 DG AIR TK D	M-133 A,3	TB	931	11 DG RM	S					NO			
7070	2	21	T-79E	11 DG AIR TK E	M-133 A,3	TB	941	11 DG RM	S					NO			
7071	2	21	T-79F	11 DG AIR TK F	M-133 A,4	TB	931	11 DG RM	S					NO			
7072	1	21	T-80A	12 DG AIR TK A	M-133 E,3	TB	931	12 DG RM	S					NO			
7073	1	21	T-80B	12 DG AIR TK B	M-133 E,3	TB	931	12 DG RM	S					NO			
7074	1	21	T-80C	12 DG AIR TK C	M-133 E,4	TB	931	12 DG RM	S					NO			

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_____/ ENGINEER
Print or Type Name/Title

Brian Sunde
Signature

11/16/95
Date

_____/ ENGINEER
Print or Type Name/Title

Bruce Mackinok
Signature

11/19/95
Date

ORTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEM 2.2

LINE NO.	TRAIN CLASS	EQUIP MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Des. No./Rev./Zone	Building	Equipment Loc. or Row/Col.	Normal	Desired	REQ'D	INTERCONNECTIONS	REG.					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
7075	1	21	T-800	12 DG AIR TK D	M-133 D,3	TB	931	12 DG RM	S		NO					
7076	1	21	T-80E	12 DG AIR TK E	M-133 D,3	TB	931	12 DG RM	S		NO					
7077	1	21	T-80F	12 DG AIR TK F	M-133 D,4	TB	931	12 DG RM	S		NO					
7165C	2	18	TC 8089C	CONTROLLER FOR V-SF-9 DAMPERS		TB	931	11 EDG RM	S		NO					
7165D	1	18	TC 8089L	CONTROLLER FOR V-SF-10 DAMPERS		TB	931	12 EDG RM	S		NO					
12272	1	19	TE-2-113A	A SRV TEMP ELEMENT	M-115-1 A,5	RX	951	DM	S		YES				TR2-166, Y20	
12060	1	19	TE-2-113B	B SRV TEMP ELEMENT	M-115-1 C,6	RX	951	DM	S		YES				TR2-166, Y20	
12293	2	19	TE-2-113C	C SRV TEMP ELEMENT	M-115-1 C,4	RX	951	DM	S		YES				TR2-167, Y20	
12281	1	19	TE-2-113D	D SRV TEMP ELEMENT	M-115-1 A,4	RX	951	DM	S		YES				C21, TR-2-166, Y20	
12058	1	18	TE-2-113E	E SRV TEMP ELEMENT	M-115-1 A,6	RX	951	DM	S		YES				TR2-166, Y20	
12124	2	19	TE-2-113F	F SRV TEMP ELEMENT	M-115-1 A,4	RX	951	DM	S		YES				TR2-166, Y20	
12051	2	19	TE-2-113G	G SRV TEMP ELEMENT	M-115-1 C,5	RX	951	DM	S		YES				TR2-166, Y20	
12139	2	19	TE-2-113H	H SRV TEMP ELEMENT	M-115-1 C,4	RX	951	DM	S		YES				C03, TR-2-166, Y20	
13009	2	19	TE-4073A	TORUS SENSOR 1-SRV71H / RC1C DISCHARGE AREA	M-143 B,5	RX	TORUS 916	TORUS PH X-231A	S	N/A	N/A	YES			C289A, TY-4072A	
13001	1	19	TE-4073B	TORUS SENSOR 1-SRV71H / RC1C DISCHARGE AREA	M-143 B,4	RX	TORUS 916	TORUS PH X-231B	S	N/A	N/A	YES			C289B, TY-4072B	
13010	2	19	TE-4074A	TORUS SENSOR 2-SRV71C DISCHARGE AREA	M-143 B,5	RX	TORUS 916	TORUS PH X-232A	S	N/A	N/A	YES			C289A, TY-4072A	
13002	1	19	TE-4074B	TORUS SENSOR 2-SRV71C DISCHARGE AREA	M-143 B,4	RX	TORUS 916	TORUS PH X-232B	S	N/A	N/A	YES			C289B, TY-4072B	
13011	2	19	TE-4075A	TORUS SENSOR 3-SRV71B DISCHARGE AREA	M-143 B,5	RX	TORUS 916	TORUS PH X-233A	S	N/A	N/A	YES			C289A, TY-4072A	
13003	1	19	TE-4075B	TORUS SENSOR 3-SRV71B DISCHARGE AREA	M-143 B,4	RX	TORUS 916	TORUS PH X-233B	S	N/A	N/A	YES			C289B, TY-4072B	

CERTIFICATION:

The information identifying the equipment required to bring the plant to a safe shutdown condition on this Safe Shutdown Equipment List (SSEL) is, to the best of our knowledge and belief, correct and accurate. (One or more signatures of Systems or Operations Engineers)

Print or Type Name/Title
ENGINEER

Bryan Sunde
Signature

11/16/95
Date

Print or Type Name/Title
ENGINEER

Brian Sunde
Signature

11/19/95
Date

MONTECELLO NUCLEAR GENERATING PLANT
 SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
 COMPOSITE SSEL

Data Base File Name/Data/Time: FINAL.DBF / 11/16/95 / 08:27:56
 Sort Criteria: ID Number
 Filter Criteria: <none>
 Program File Name & Version: SSEM 2.2

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	EQUIPMENT Fir. Elev.	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)
13012	2	19	TE-4076A	TORUS SENSOR 4-SRV71G HPCI DISCHARGE AREA	M-143 B,5	RX TORUS	916	TORUS PH X-234A	S		N/A	N/A	YES		C289A, TY-4072A	
13004	1	19	TE-4076B	TORUS SENSOR 4-SRV71G / HPCI DISCHARGE AREA	M-143 B,4	RX TORUS	916	TORUS PH X-234B	S		N/A	N/A	YES		C289B, TY-4072B	
13013	2	19	TE-4077A	TORUS SENSOR 5-SRV71A DISCHARGE AREA	M-143 B,5	RX TORUS	916	TORUS PH X-235A	S		N/A	N/A	YES		C289A, TY-4072A	
13005	1	19	TE-4077B	TORUS SENSOR 5-SRV71A DISCHARGE AREA	M-143 B,4	RX TORUS	916	TORUS PH X-235B	S		N/A	N/A	YES		C289B, TY-4072B	
13014	2	19	TE-4078A	TORUS SENSOR 6-SRV71E DISCHARGE AREA	M-143 B,5	RX TORUS	916	TORUS PH X-236A	S		N/A	N/A	YES		C289A, TY-4072A	
13006	1	19	TE-4078B	TORUS SENSOR 6-SRV71E DISCHARGE AREA	M-143 B,4	RX TORUS	916	TORUS PH X-236B	S		N/A	N/A	YES		C289B, TY-4072B	
13015	2	19	TE-4079A	TORUS SENSOR 7-SRV71F DISCHARGE AREA	M-143 B,5	RX TORUS	916	TORUS PH X-237A	S		N/A	N/A	YES		C289A, TY-4072A	
13007	1	19	TE-4079B	TORUS SENSOR 7-SRV71F DISCHARGE AREA	M-143 B,4	RX TORUS	916	TORUS PH X-237B	S		N/A	N/A	YES		C289B, TY-4072B	
13016	2	19	TE-4080A	TORUS SENSOR 8-SRV71D DISCHARGE AREA	M-143 B,5	RX TORUS	916	TORUS PH X-237A	S		N/A	N/A	YES		C289A, TY-4072A	
13008	1	19	TE-4080B	TORUS SENSOR 8-SRV71D DISCHARGE AREA	M-143 B,4	RX TORUS	916	TORUS PH X-238B	S		N/A	N/A	YES		C289B, TY-4072B	
13024	1	19	TE-4247A1	DRYWELL TEMP ELEMENT	M-143 C,4	RX	932	DM	S		N/A	N/A	YES		C21, TR-23-115	
13026	2	19	TE-4247C1	DRYWELL TEMP ELEMENT	M-143 C,5	RX	950	DM	S		N/A	N/A	YES		C21, TR-23-115	
13025	1	19	TE-4247F1	DRYWELL TEMP ELEMENT	M-143 C,4	RX	970	DM	S		N/A	N/A	YES		C21, TR-23-115	
13027	2	19	TE-4247H1	DRYWELL TEMP ELEMENT	M-143 C,5	RX	994	DM	S		N/A	N/A	YES		C21, TR-23-115	
13020	1	20	TI-4072A	DIVISION 1 TORUS TEMP	M-143 B,5	ADMIN BLDG	951	CR	S		N/A	N/A	YES		ROB C03, Y70	
13022	2	20	TI-4072B	DIVISION 2 TORUS TEMP	M-143 A,3	ADMIN BLDG	951	CR	S		N/A	N/A	YES		ROB C03, Y80	
12139A	2	20	TR-2-166	SRV TAILPIPE TEMPERATURE RECORDER	M-115-1 C,4	ADMIN	951	CR	S				YES		ROB C21, Y20	
13028		20	TR-23-115	HPCI SYSTEM TEMP RECORDER	M-143 C,4	ADMIN	951	CR	S		N/A	N/A	YES		ROB C21, Y20	

CERTIFICATION:

The information identifying the equipment required to bring the plant to a safe shutdown condition on this Safe Shutdown Equipment List (SSEL) is, to the best of our knowledge and belief, correct and accurate. (One or more signatures of Systems or Operations Engineers)

_____/ ENGINEER
 Print or Type Name/Title

Brian Sunde
 Signature

11/16/95
 Date

_____/ ENGINEER
 Print or Type Name/Title

Brian MacKenzie
 Signature

11/19/95
 Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

LINE NO.	TRAIN CLASS	EQUIP MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Des. No./Rev./Zone	Building	Equipment Flr. E.V.	LOCATION	Eq. or Row/Col.	Sort Notes	Normal	Desired	REQ'D	SYS. REQ'D	INTERCONNECTIONS	REG.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
13040	2	20	TR-4072A	SPOTNS RECORDER DIV 1	M-143 B,4	ADMIN	939	CS	S	YES	YES			ROB C289A, Y70		
13041	1	20	TR-4072B	SPOTNS RECORDER DIV 2	M-143 B,3	EFT	960	MAIN	S	YES	YES			ROB C289B, Y80		
13019	1	20	TY-4072A	DIVISION 1 TORUS TEMP	M-143 B,5	ADMIN BLDG	939	CSR	S	N/A	N/A	YES		ROB C289A, Y70		
13021	2	20	TY-4072B	DIVISION 2 TORUS TEMP	M-143 B,3	EFT	960	MAIN ROOM	S	N/A	N/A	YES		ROB C289B, Y80		
9109	1	10	V-AC-4	B RHR ROOM COOLING UNIT	M-112 C,2	RX	896	B RHR ROOM	S,R	YES	YES			B4305(MCC143A),RS 42-4035		
9183	2	10	V-AC-5	A RHR ROOM AIR COOLING UNIT	M-112 B,1	RX	896	A RHR ROOM	S,R	YES	YES			B3305(MCC133A),RS 42-3305		
7152	2	9	V-SF-10	11 DIESEL ROOM VENT FAN	ME-36375-19A	TB		11 DG	S,R	OFF	ON	YES		MCC-3474 (MCC 134A)		
7151	1	9	V-SF-9	12 DIESEL ROOM VENT FAN	ME-36375-19	TB		12 DG	S,R	OFF	ON	YES		MCC-4317 (MCC143A)		
8004	04	X-30		TRANSFORMER		TB	911	LOWER 4KV RH	S	YES	YES			BUS 15		
8007	04	X-40		TRANSFORMER		TB	931	UPPER 4KV RH	S	YES	YES			BUS 16		
8102	4	Y01		11 STANDBY INSTRUMENT AC TRANSFORMER		TB	911	EAST	S	YES	YES			B3304(MCC133)		
6009	2	14	Y10	NON-IE UNIT INST PANEL	E-1508	ADMIN	939	CSR	S	YES	YES			Y77		
8026	14	Y20		CLASS NON-IE INSTRUMENT 120VDC DISTRIBUTION PANEL		ADM	939	CSR	S	YES	YES			Y21		
8062	14	Y21		INSTRUMENT AC TRANSFER SWITCH		ADMIN	939	CSR	S	YES	YES			Y01, Y22		
8103	4	Y22		12 INSTRUMENT AC TRANSFORMER		TB	911	EAST	S	YES	YES			B4318(MCC143)		
6002	1	14	Y30	DIV 2 CLASS NON-IE UNIT 120VAC INST AC DIST PANEL	E-1508	ADMIN	939	CSR	S	YES	YES			Y87		
6015	2	14	Y70	DIV 1 UNINTERRUPTIBLE 120VAC CLASS 1E DIST PANEL	E-1508	EFT	944	PMR EQ DIV 1 RM	S	YES	YES			Y75		
6010	2	16	Y71	DIV 1 120VAC CLASS 1E INVERTER	E-1508	EFT	944	PMR EQ DIV 1 RM	S,R	YES	YES			D31		
6031	2	4	Y72	120 VDC TRANSFORMER FEEDING Y73		EFT	944	DIV1 RM	S	YES	YES			MCC 144		

CERTIFICATION:

The information identifying the equipment required to bring the plant to a safe shutdown condition on this Safe Shutdown Equipment List (SSEL) is, to the best of our knowledge and belief, correct and accurate. (One or more signatures of Systems or Operations Engineers)

Print or Type Name/Title ENGINEER

David Sander
Signature
11/16/95
Date

Print or Type Name/Title ENGINEER

David M. Kunkel
Signature
11/19/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
COMPOSITE SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: <none>
Program File Name & Version: SSEL 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Flr.-Elev.	LOCATION	Normal	Desired	REQ'D	SYS. REQ'D	INTERCONNECTIONS	REG.
(1)	(2)	(3)	(5)	(6)	(7)	(8)	(9)	(12)	(13)	(14)	(15)	(16)	(17)
6011	2	14	Y73	E-1508	EFT	944	PMR EQ DIV 1 RM S	YES	YES			Y71, Y72	
6012	2	14	Y74	E-1508	EFT	944	PMR EQ DIV 1 RM S	YES	YES			Y73	
6013	2	14	Y75	E-1508	EFT	944	PMR EQ DIV 1 RM S	YES	YES			Y73	
6014	2	4	Y77	E-1508	EFT	944	PMR EQ DIV 1 RM S	YES	YES			Y74	
6003	1	14	Y80	E-1508	EFT	939	MAIN ROOM S	YES	YES			Y85	
6004	1	16	Y81	E-1508	EFT	960	MAIN ROOM S,R	YES	YES			0100	
6030	1	4	Y82	E-1508	EFT	960	MAIN S	YES	YES			MCC 144	
6005	1	14	Y83	E-1508	EFT	960	MAIN ROOM S	YES	YES			Y81, Y82	
6006	1	14	Y84	E-1508	EFT	960	MAIN ROOM S	YES	YES			Y83	
6007	1	14	Y85	E-1508	EFT	960	MAIN ROOM S	YES	YES			Y83	
6008	1	4	Y87	E-1508	EFT	960	MAIN ROOM S	YES	YES			Y84	

CERTIFICATION:

The information identifying the equipment required to bring the plant to a safe shutdown condition on this Safe Shutdown Equipment List (SSEL) is, to the best of our knowledge and belief, correct and accurate. (One or more signatures of Systems or Operations Engineers)

Print or Type Name/Title ENGINEER

Brian Sunde
Signature

11/16/95
Date

Print or Type Name/Title ENGINEER

Brian Sunde
Signature

11/16/95
Date

APPENDIX B
SEISMIC DESIGN BASIS SPECTRA

Northern States Power Company
Monticello Nuclear Generating Plant
5% Damped

BUILDING : YD
ELEVATION : 930
DIRECTION : Horz
DESCRIP : Ground

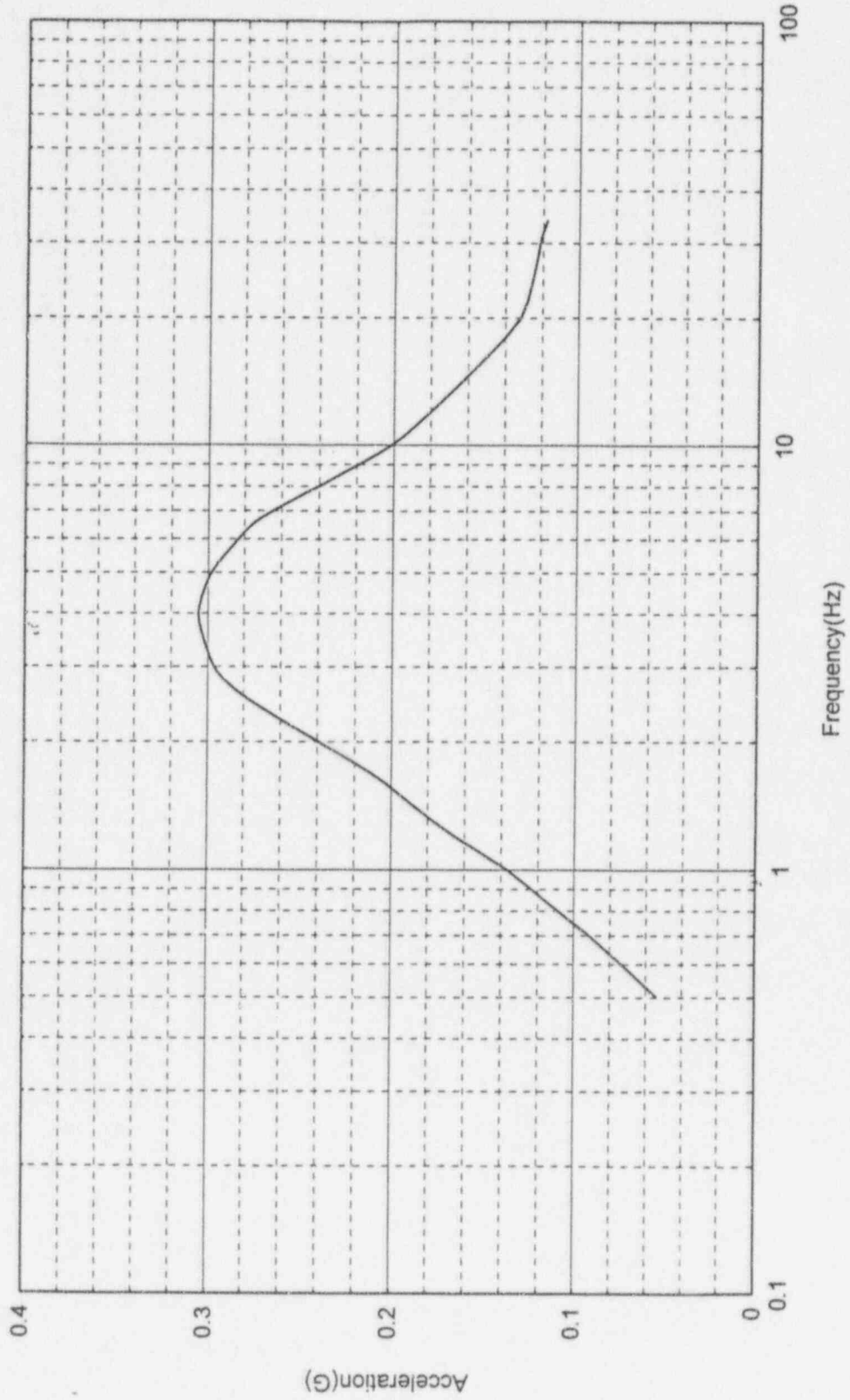


Figure B-1

Northern States Power Company
Monticello Nuclear Generating Plant
5% Damped Floor Response Spectrum

BUILDING : RX
ELEVATION : 935
DIRECTION : Horiz
DESCRIP :

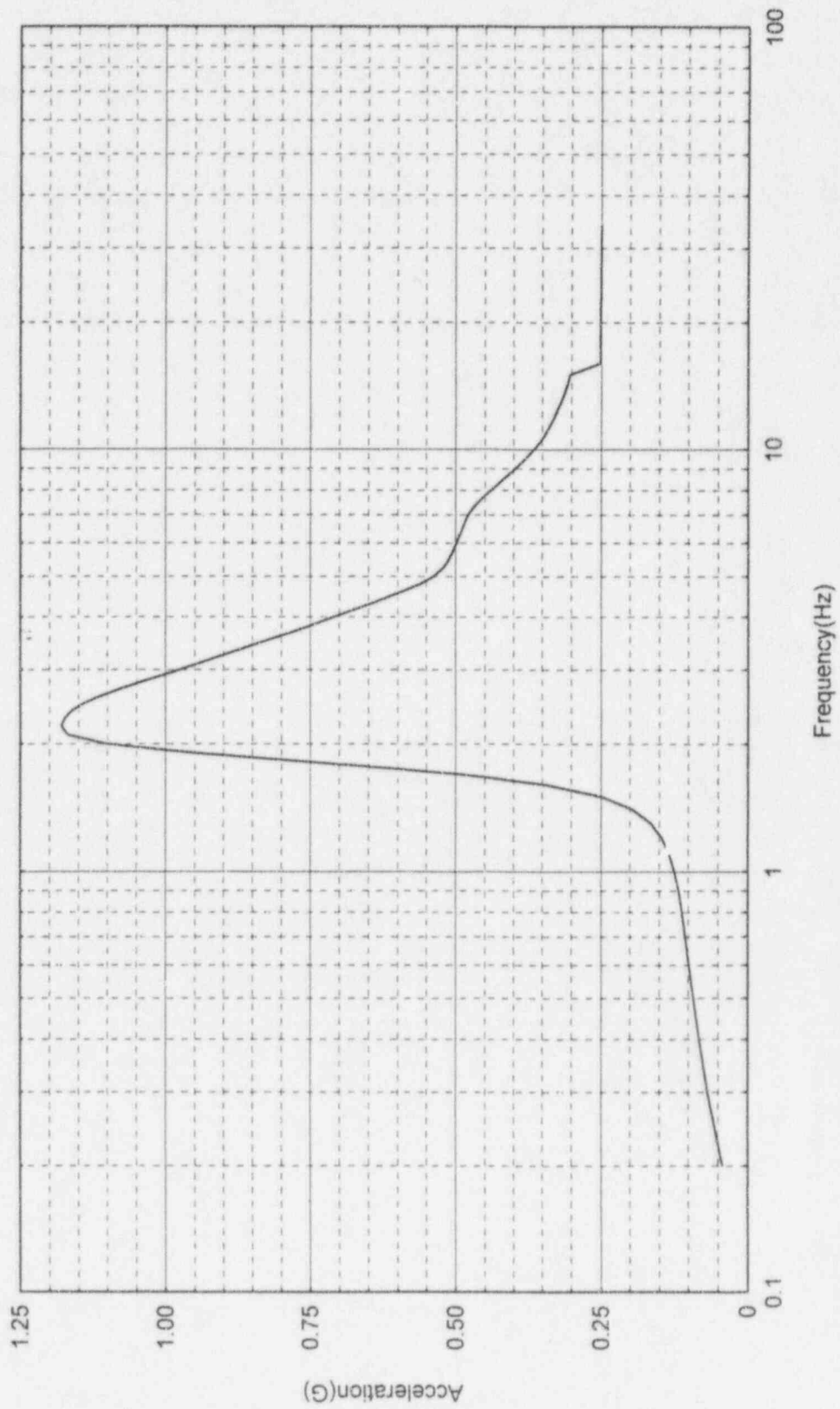


Figure B-2

Northern States Power Company
Monticello Nuclear Generating Plant
5% Damped Floor Response Spectrum

BUILDING : RX
ELEVATION : 963
DIRECTION : Horz
DESCRIP :

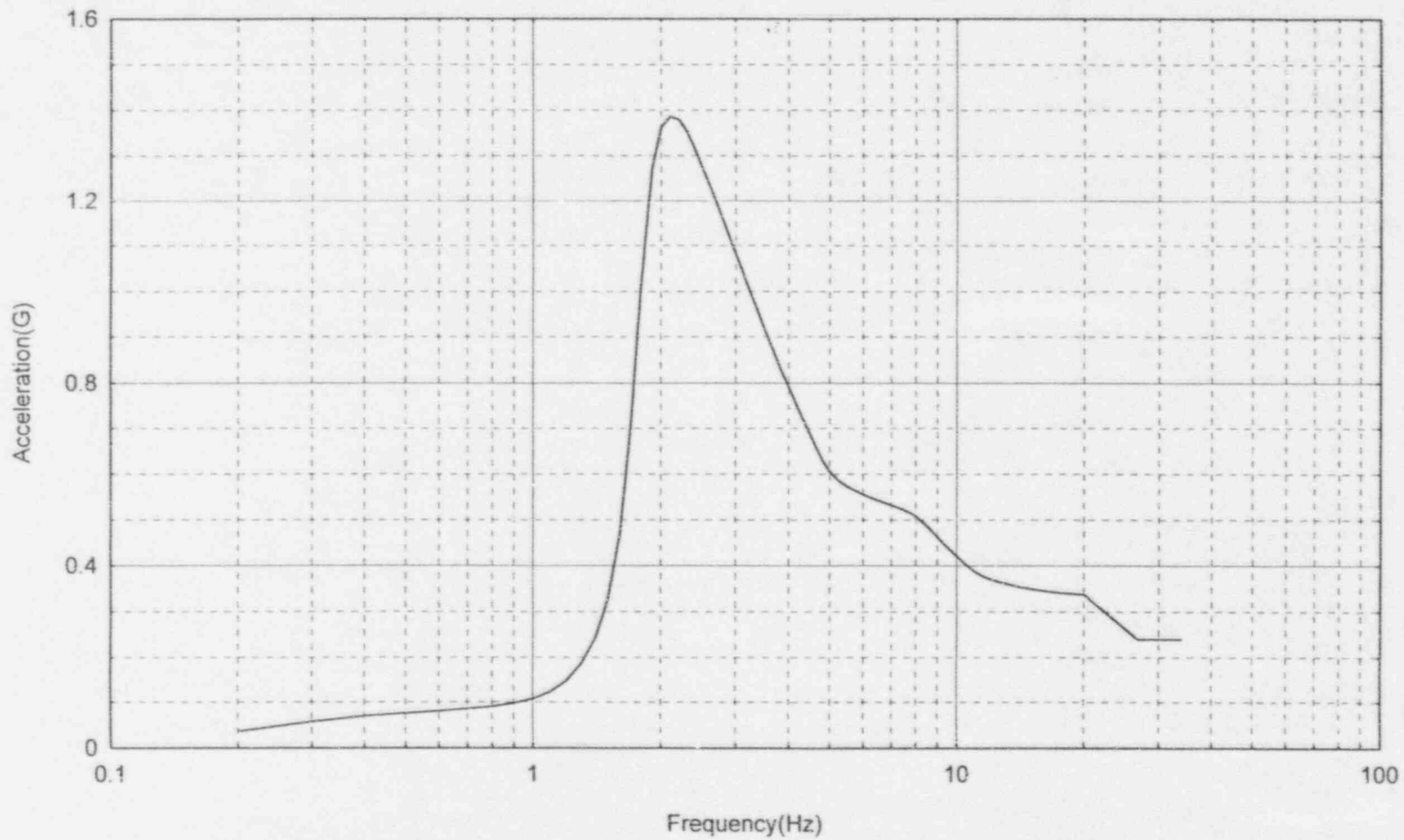


Figure B-3

Northern States Power Company
Monticello Nuclear Generating Plant
5% Damped Floor Response Spectrum

BUILDING : RX
ELEVATION : 986
DIRECTION : Horz
DESCRIP :

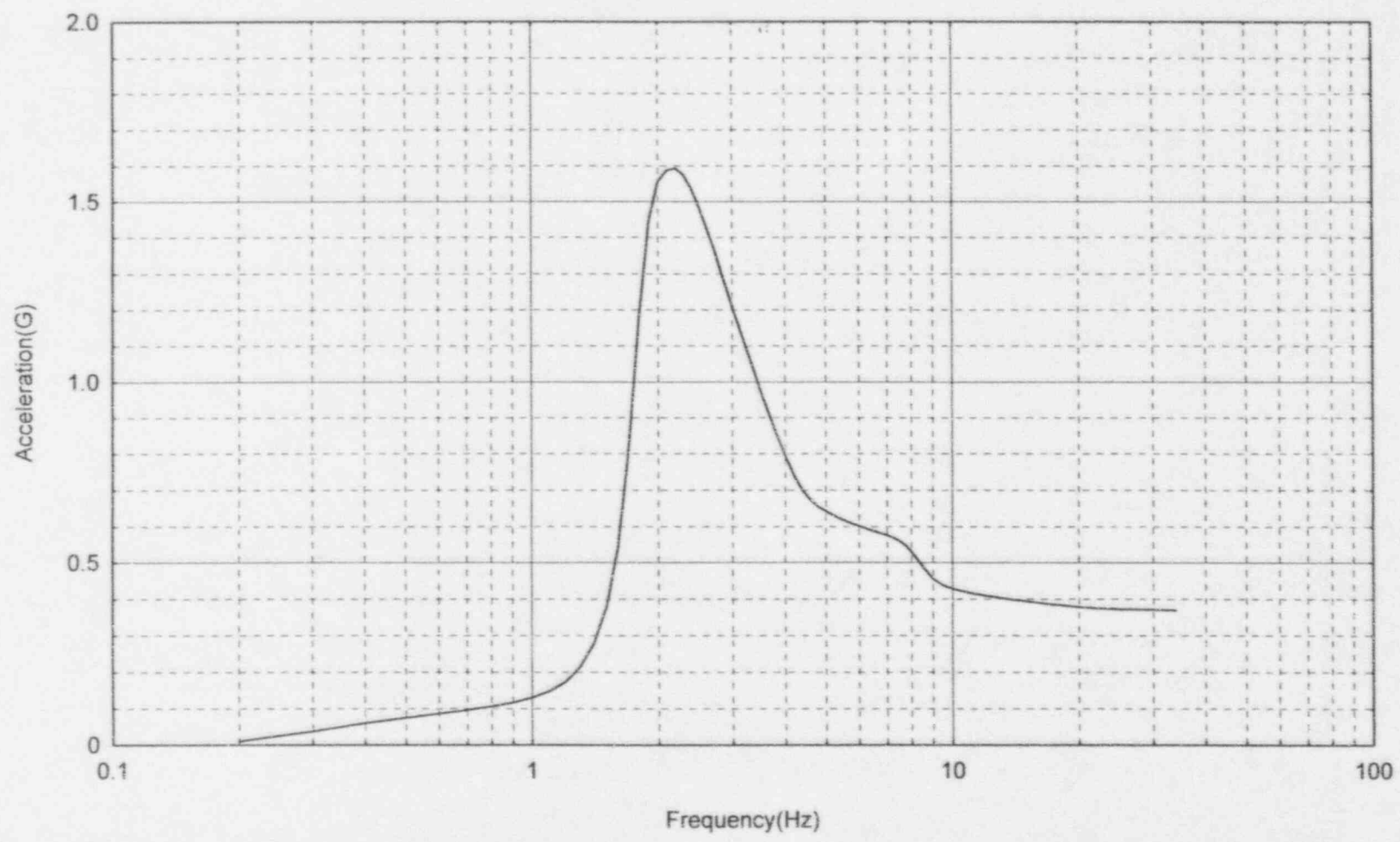


Figure B-4

Northern States Power Company
Monticello Nuclear Generating Plant
5% Damped Floor Response Spectrum

BUILDING : RX
ELEVATION : 1001
DIRECTION : Horiz
DESCRIP :

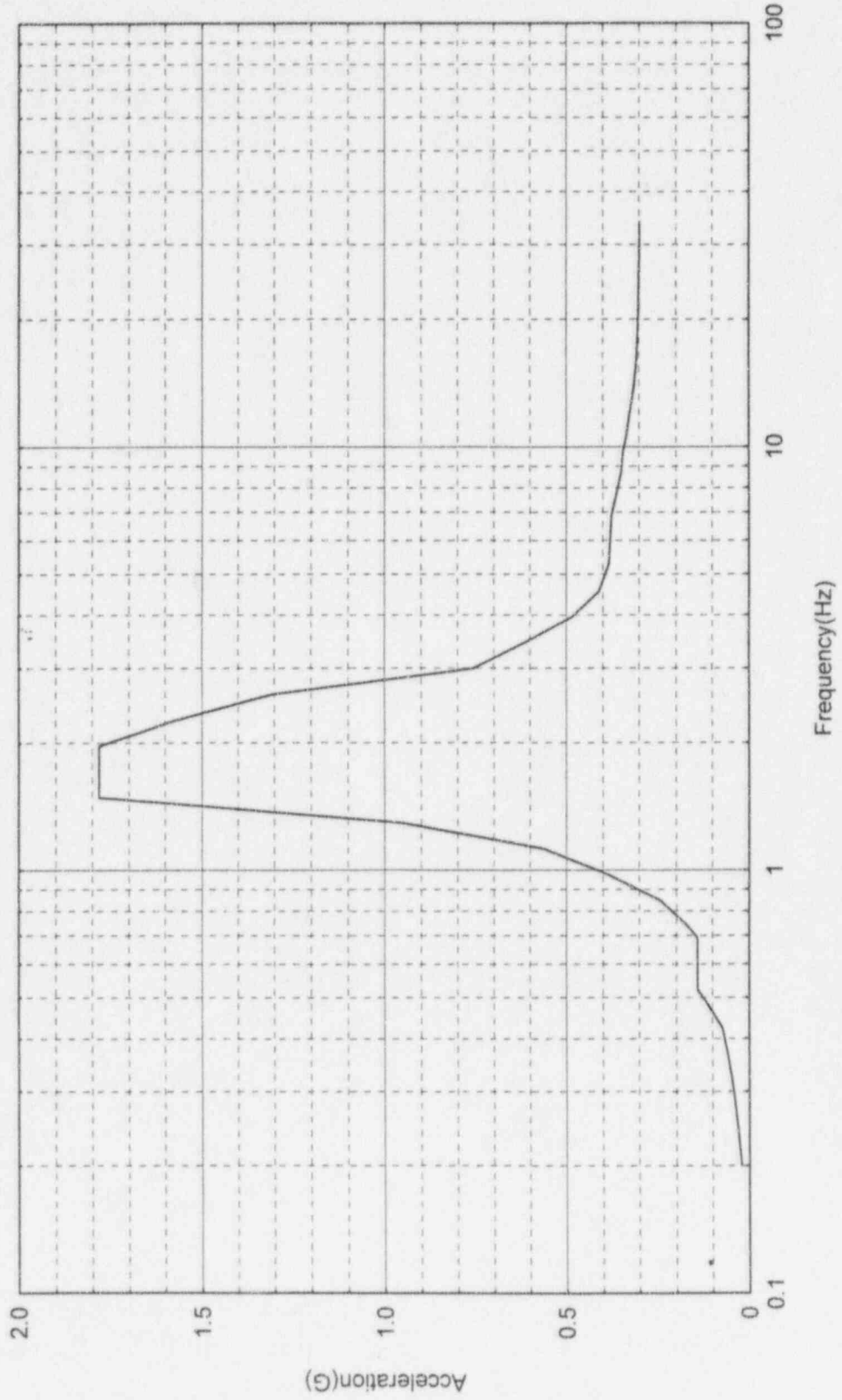


Figure B-5

Northern States Power Company
Monticello Nuclear Generating Plant
5% Damped Floor Response Spectrum

BUILDING : EFT
ELEVATION : 932
DIRECTION : E/W
DESCRIP : Node 20

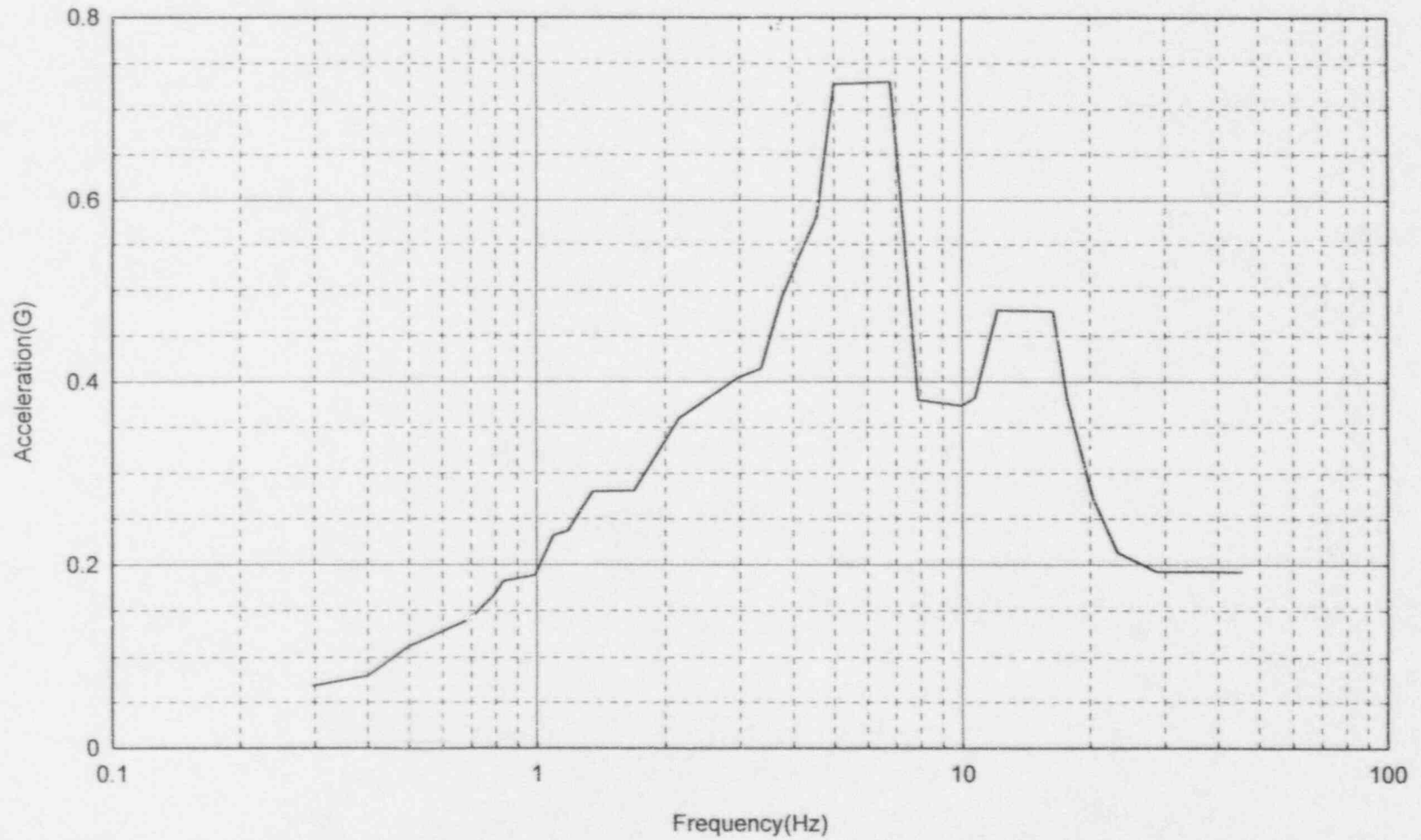


Figure B-6

Northern States Power Company
Monticello Nuclear Generating Plant
5% Damped Floor Response Spectrum

BUILDING : EFT
ELEVATION : 932
DIRECTION : N/S
DESCRIP : Node 20

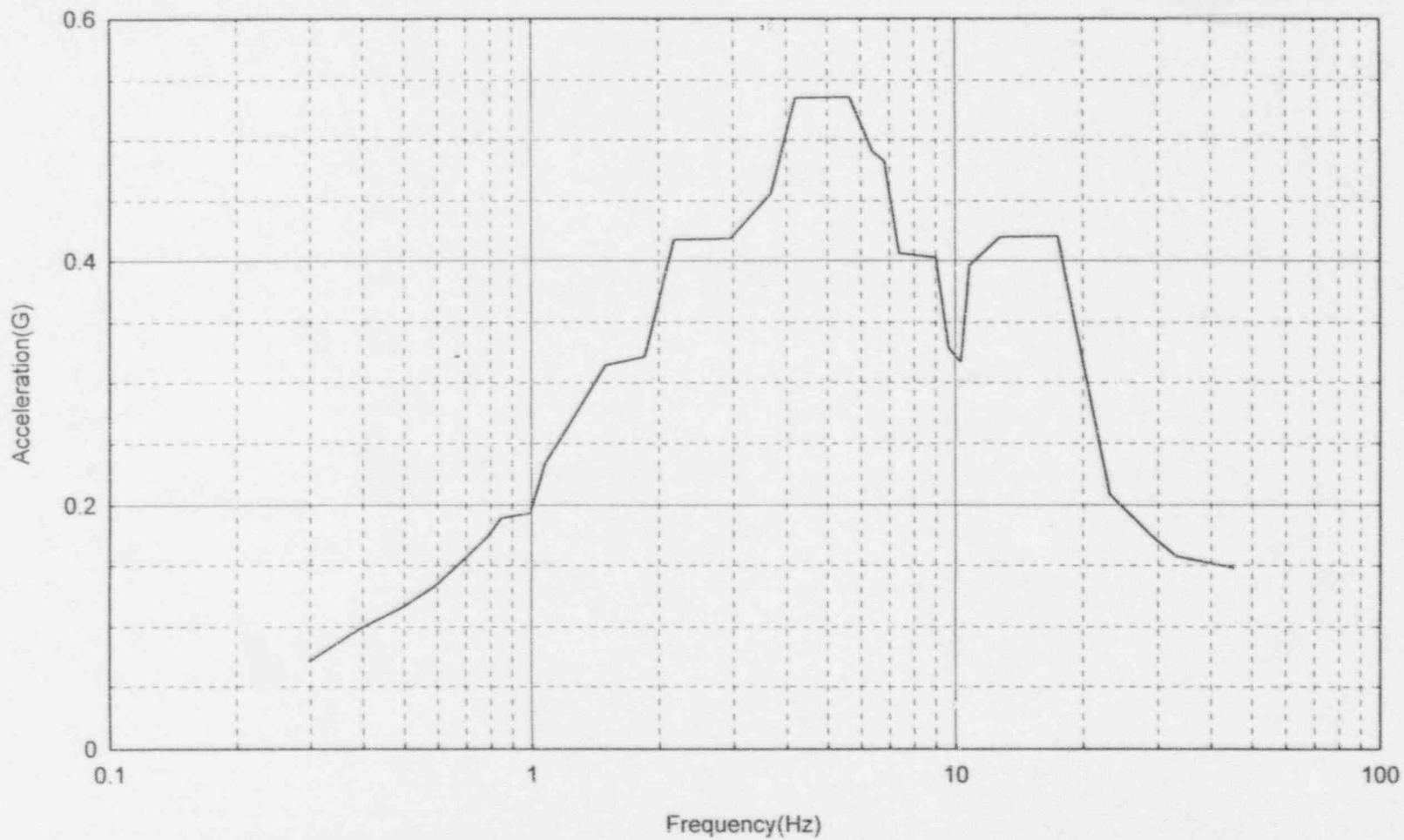


Figure B-7

Northern States Power Company
Monticello Nuclear Generating Plant
5% Damped Floor Response Spectrum

BUILDING : EFT
ELEVATION : 932
DIRECTION : EW
DESCRIP : Node 34

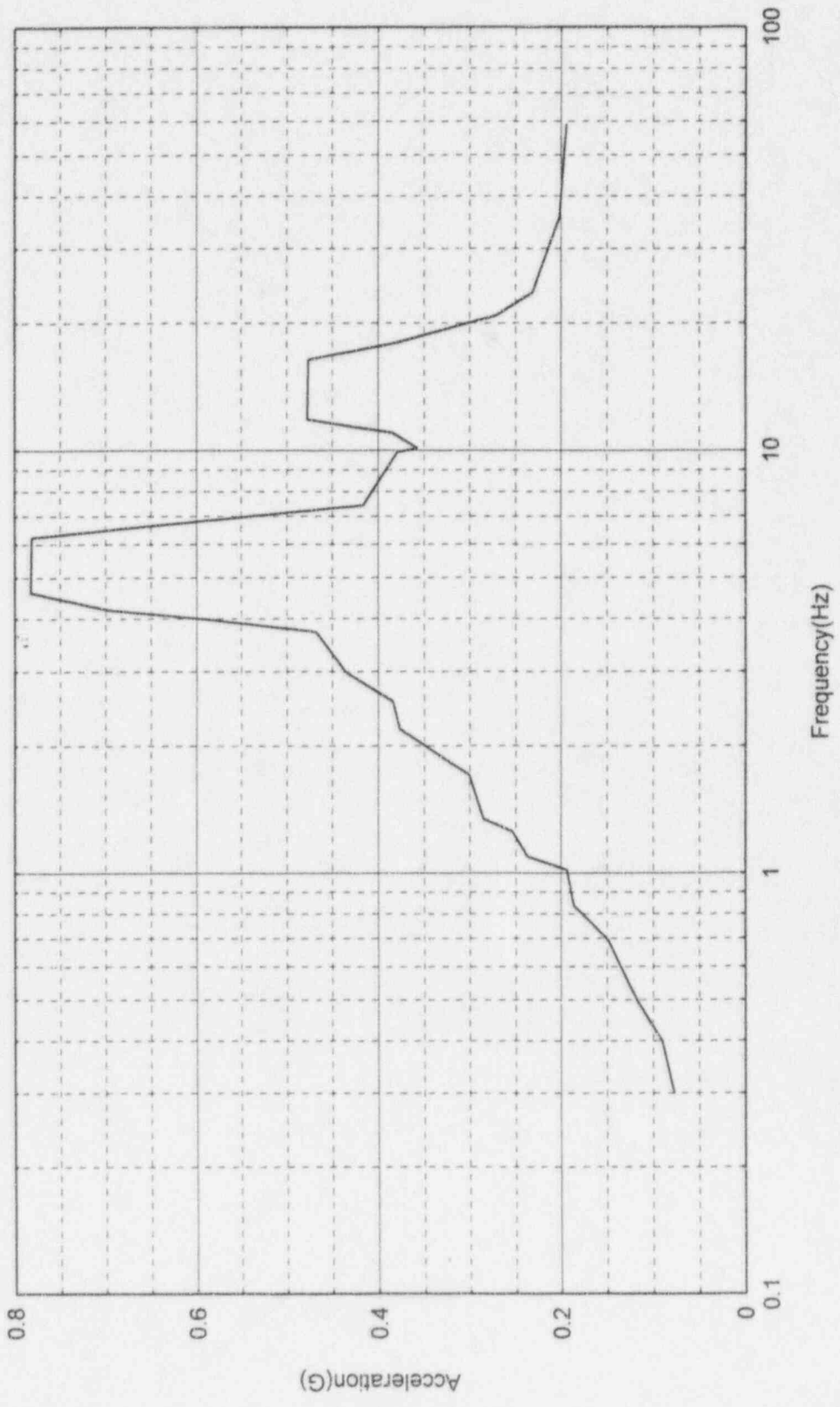


Figure B-8

Northern States Power Company
Monticello Nuclear Generating Plant
5% Damped Floor Response Spectrum

BUILDING : EFT
ELEVATION : 932
DIRECTION : N/S
DESCRIP : Node 34

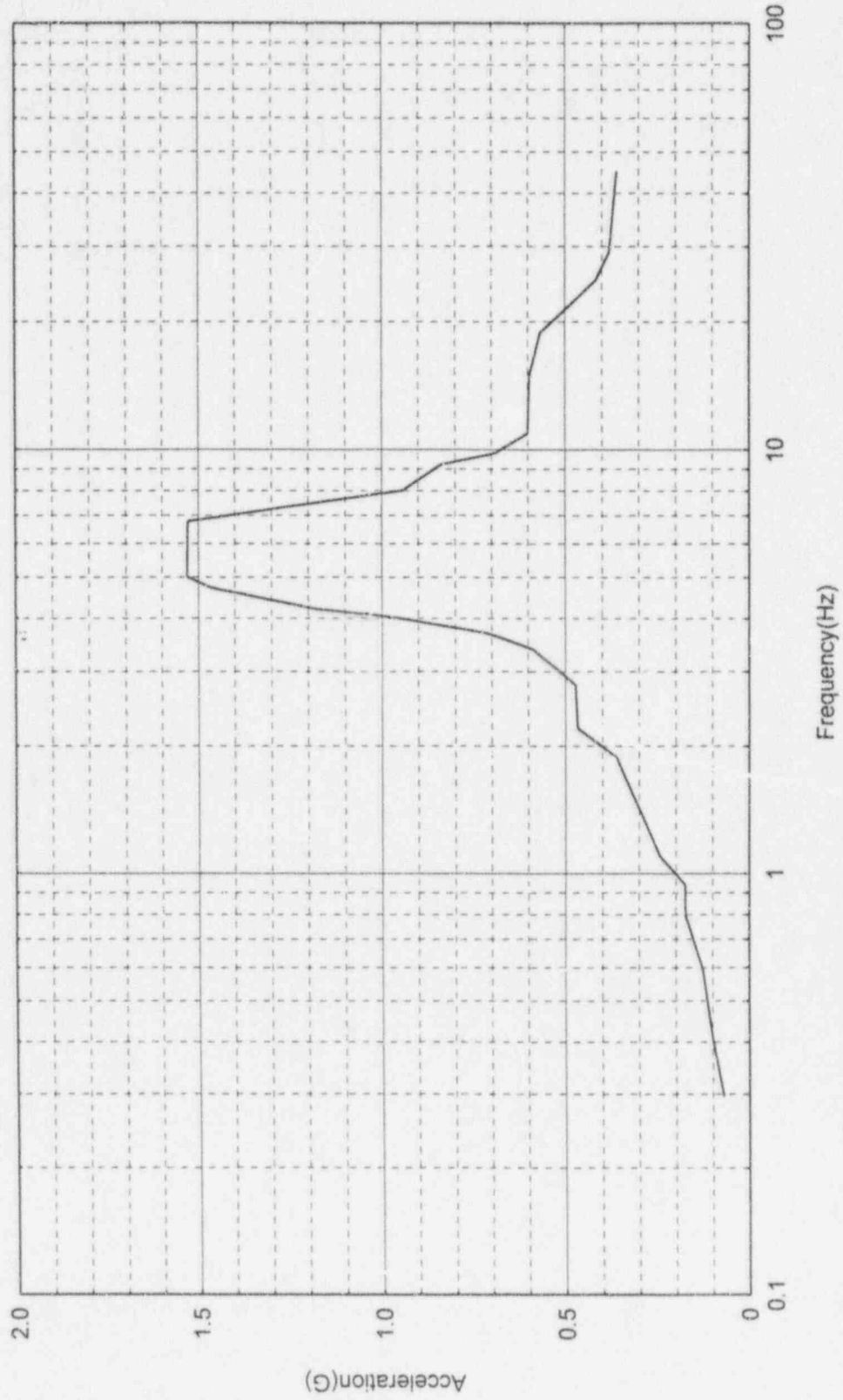


Figure B-9

Northern States Power Company
Monticello Nuclear Generating Plant
5% Damped Floor Response Spectrum

BUILDING : EFT
ELEVATION : 944
DIRECTION : EW
DESCRIP : Node 41

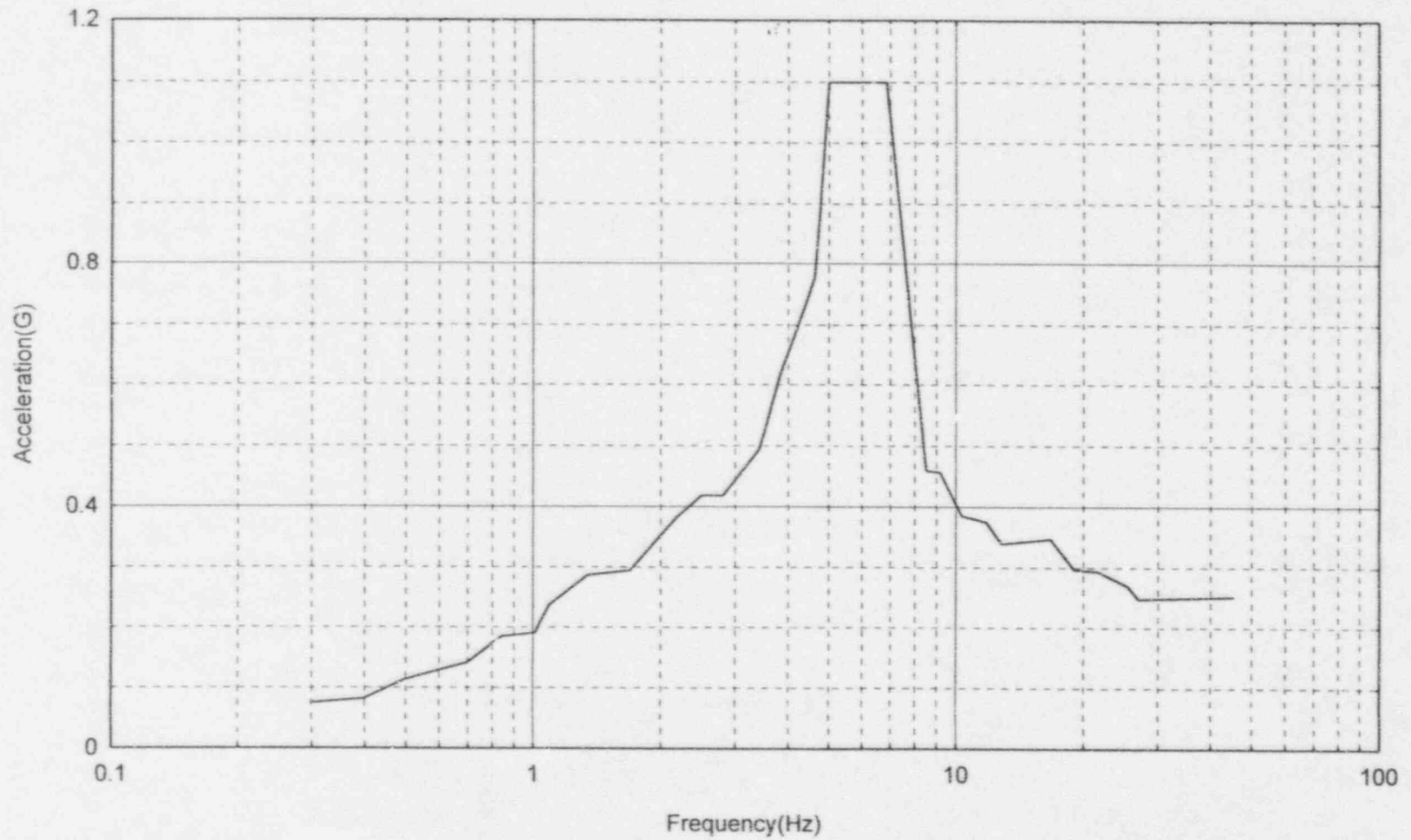


Figure B-10

Northern States Power Company
Monticello Nuclear Generating Plant
5% Damped Floor Response Spectrum

BUILDING : EFT
ELEVATION : 944
DIRECTION : N/S
DESCRIP : Node 41

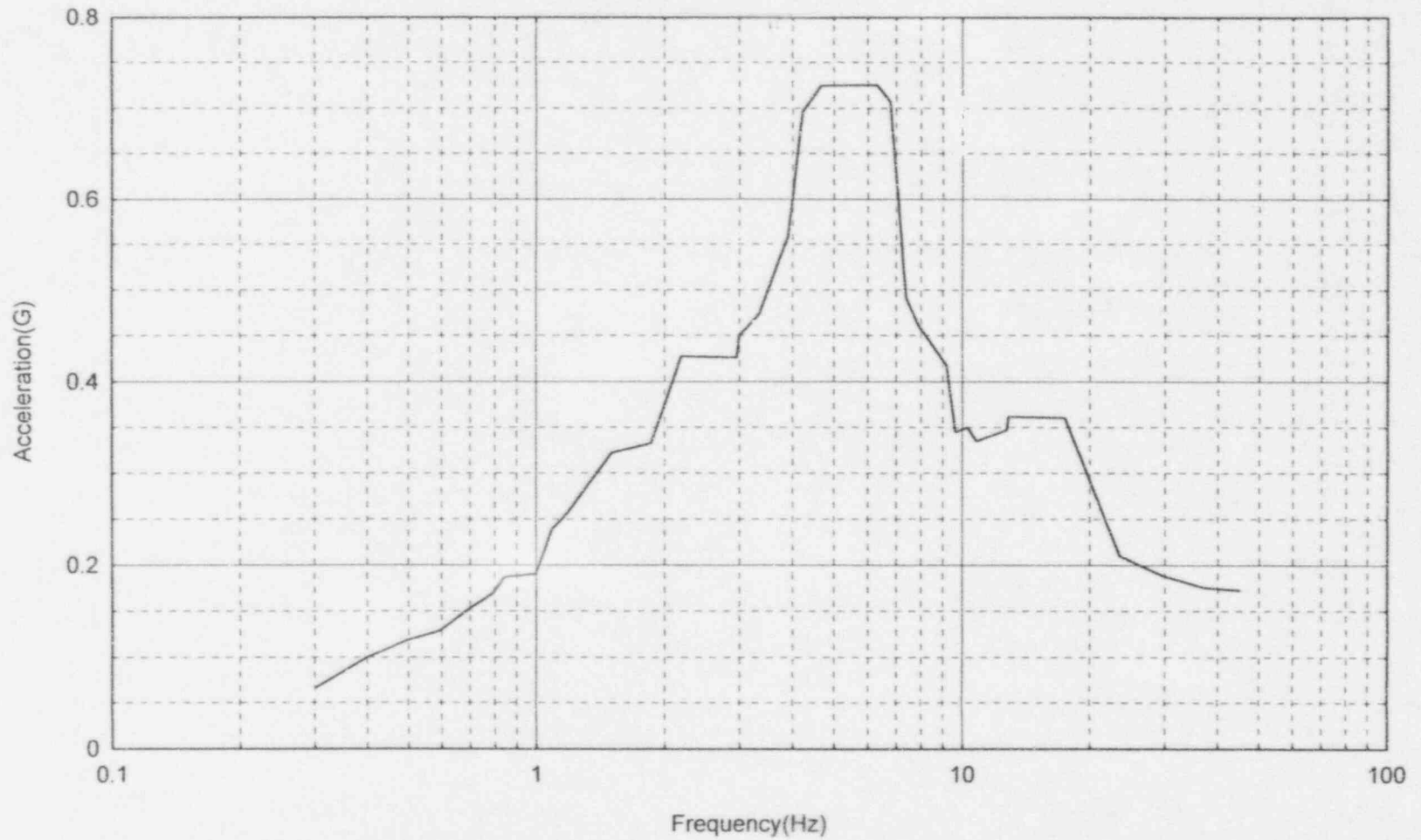


Figure B-11

Northern States Power Company
Monticello Nuclear Generating Plant
5% Damped Floor Response Spectrum

BUILDING : EFT
ELEVATION : 944
DIRECTION : E/W
DESCRIP : Node 55

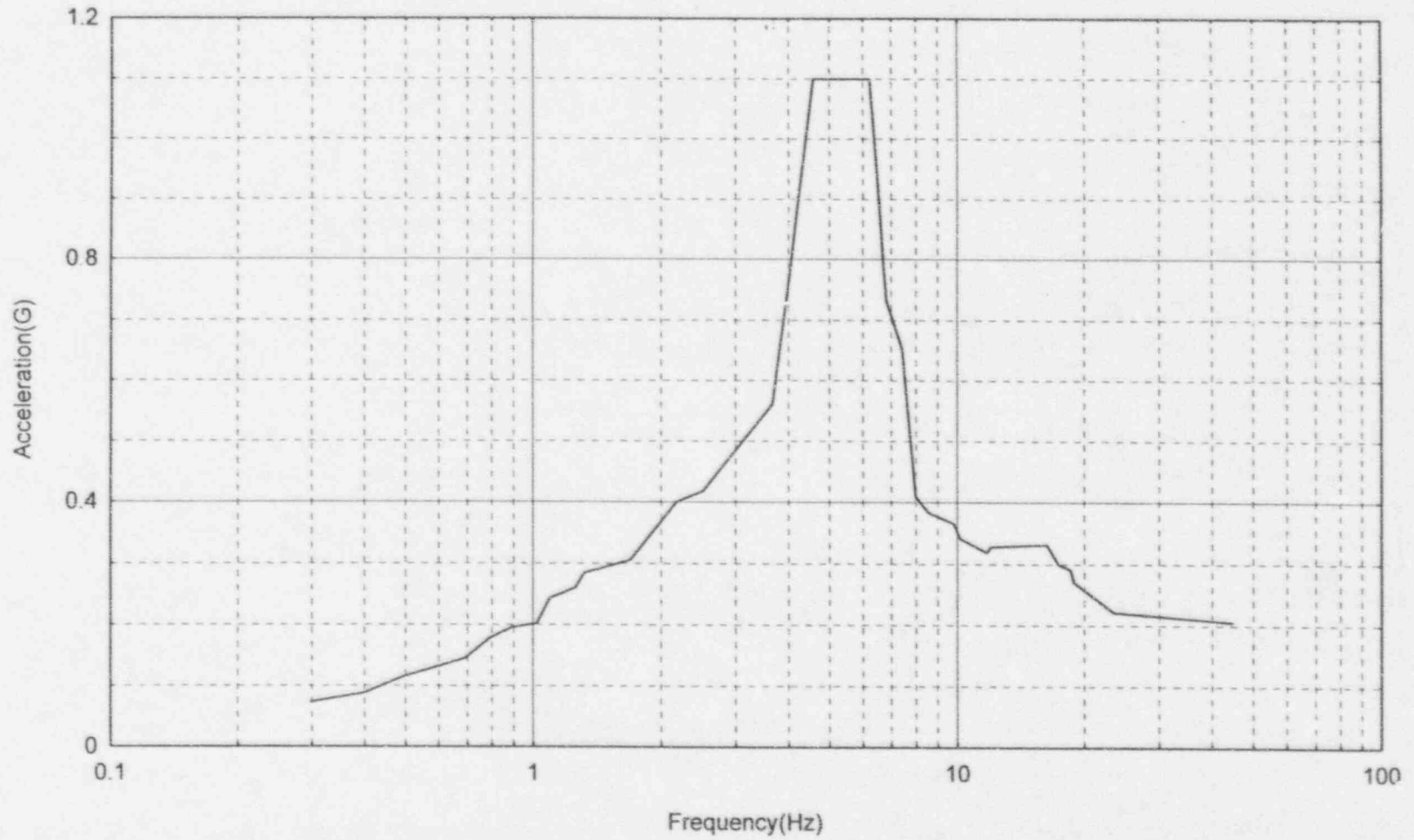


Figure B-12

Northern States Power Company
Monticello Nuclear Generating Plant
5% Damped Floor Response Spectrum

BUILDING : EFT
ELEVATION : 944
DIRECTION : N/S
DESCRIP : Node 55

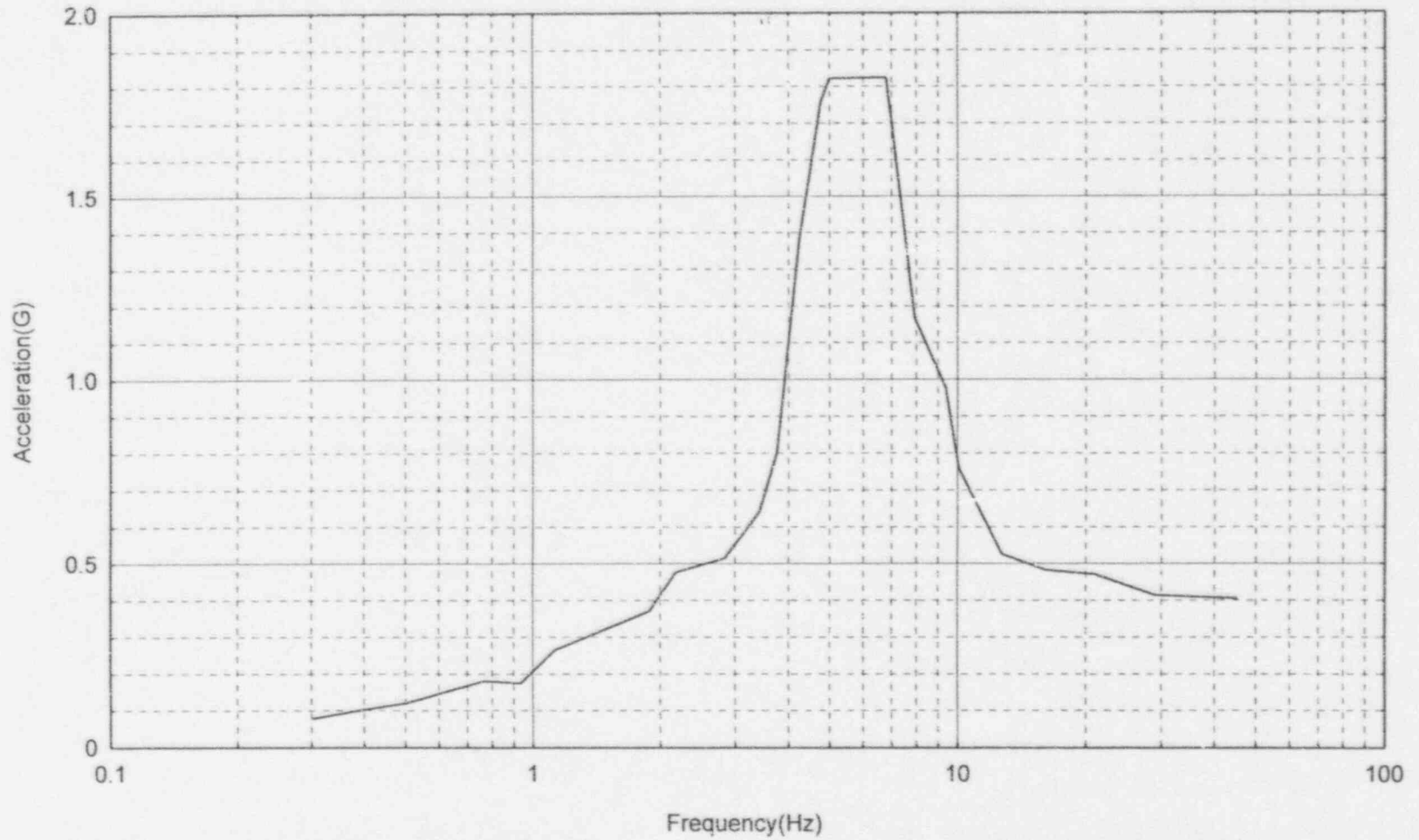


Figure B-13

Northern States Power Company
Monticello Nuclear Generating Plant
5% Damped Floor Response Spectrum

BUILDING : EFT
ELEVATION : 960
DIRECTION : EW
DESCRIP : Node 62

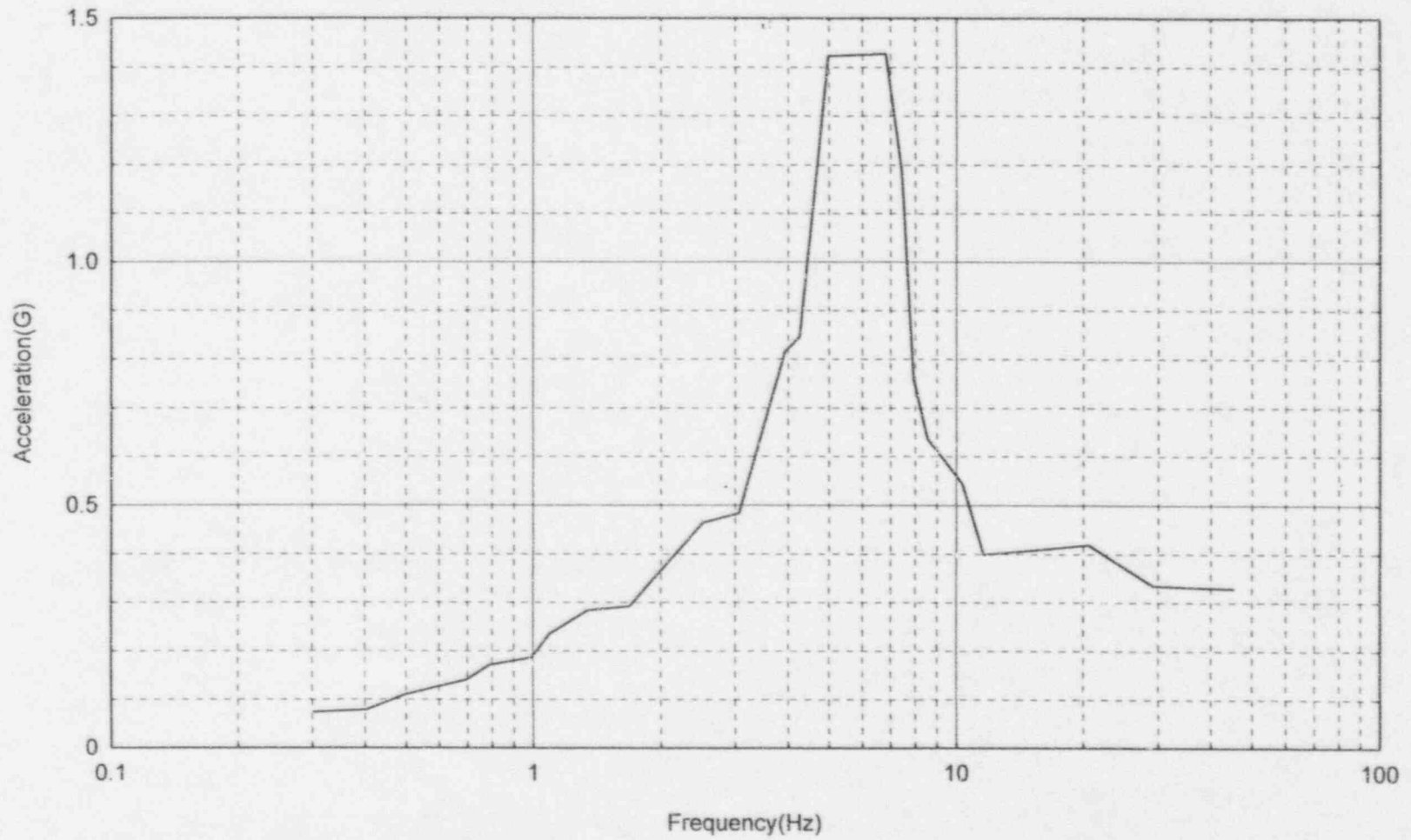


Figure B-14

Northern States Power Company
Monticello Nuclear Generating Plant
5% Damped Floor Response Spectrum

BUILDING : EFT
ELEVATION : 960
DIRECTION : N/S
DESCRIP : Node 62

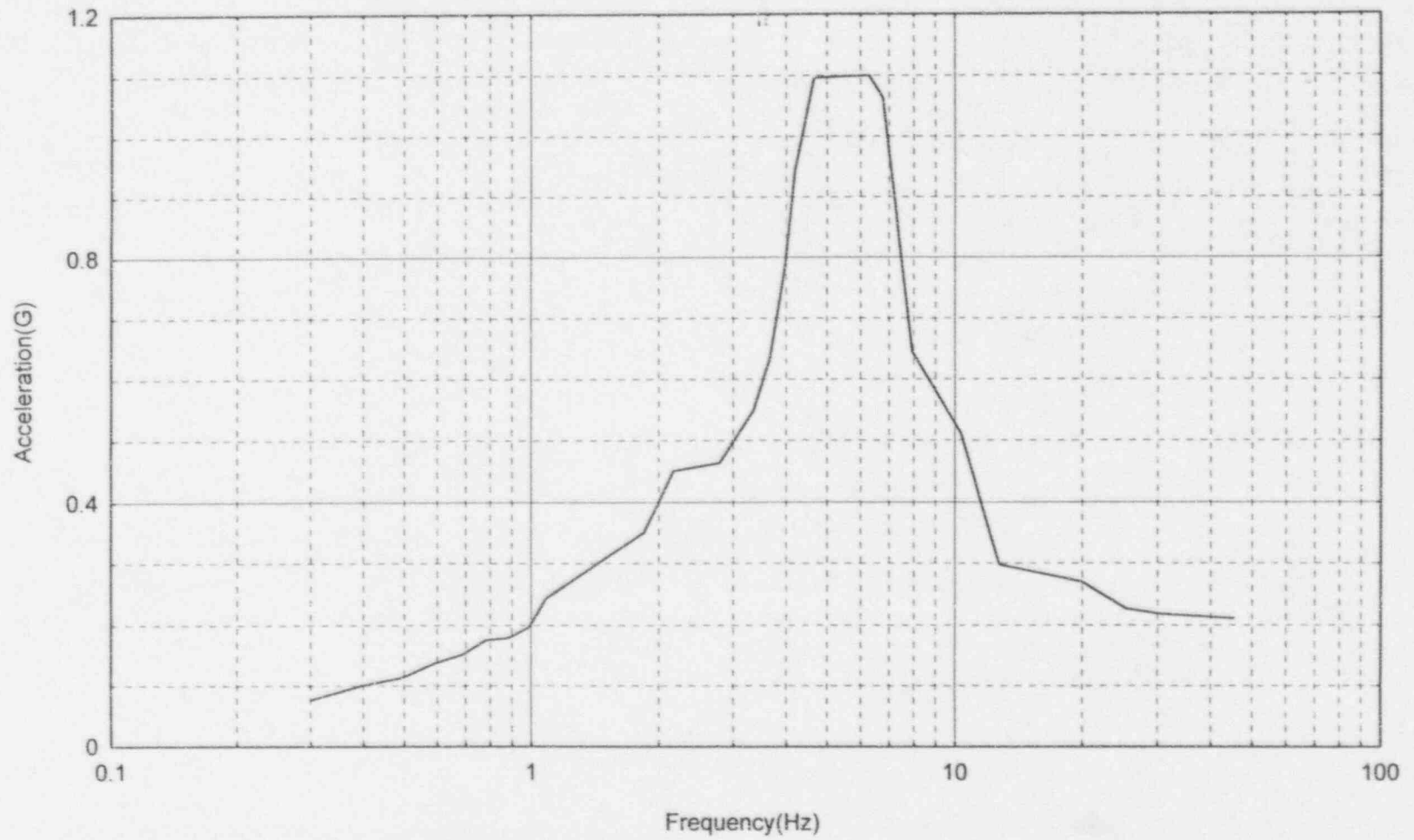


Figure B-15

Northern States Power Company
Monticello Nuclear Generating Plant
5% Damped Floor Response Spectrum

BUILDING : EFT
ELEVATION : 960
DIRECTION : EW
DESCRIP : Node 76

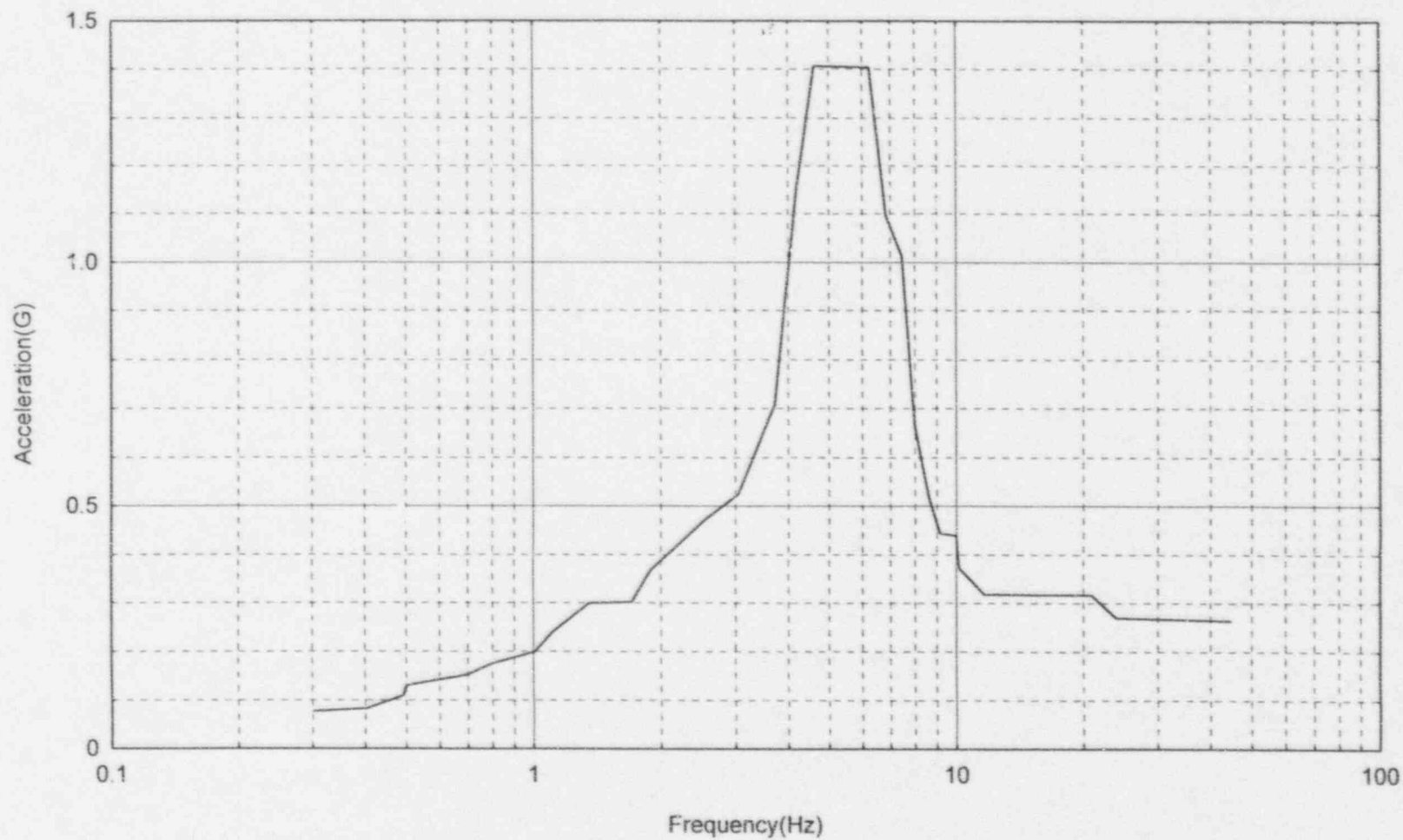


Figure B-16

Northern States Power Company
Monticello Nuclear Generating Plant
5% Damped Floor Response Spectrum

BUILDING : EFT
ELEVATION : 960
DIRECTION : N/S
DESCRIP : Node 76

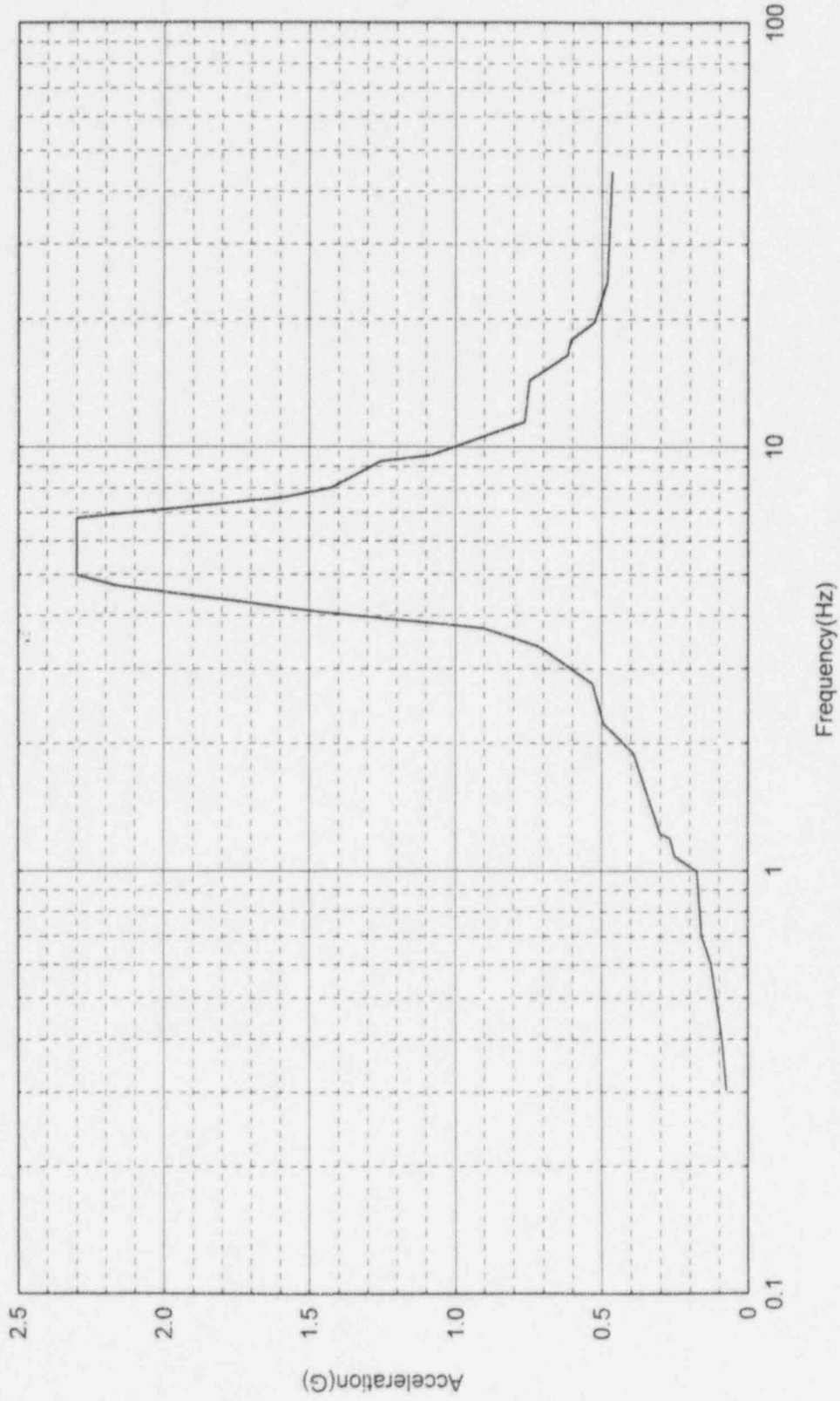


Figure B-17

APPENDIX C

WALKDOWN PERSONNEL RESUMES

WALTER DJORDJEVIC

EDUCATION:

B.S. - Civil Engineering, University of Wisconsin at Madison, 1974

M.S. - Structural Engineering, Massachusetts Institute of Technology, 1976

REGISTRATION:

State of California, State of Wisconsin, Commonwealth of Massachusetts, State of Michigan

PROFESSIONAL HISTORY:

Stevenson & Associates, Inc., Vice President and General Manager of the Boston area office, 1983 - present

URS/John A. Blume & Associates, Engineers, Boston, Massachusetts, General Manager, 1980 - 1983; San Francisco, California, Supervisory Engineer, 1979 - 1980

Impell Corporation, San Francisco, California, Senior Engineer, 1976 - 1979

Stone & Webster Engineering Corporation, Boston, Massachusetts, Engineer, 1974 - 1976

PROFESSIONAL EXPERIENCE:

Mr. Djordjevic founded the Stevenson & Associates Boston area office in 1983 and serves as Vice President and General Manager. He is currently performing numerous seismic walkdowns for resolution of the USI A-46 and seismic IPEEE issues, and serving as the Project Manager for the Kewaunee, Point Beach and Palisades projects, all joint A-46 and Seismic PRA projects.

Mr. Djordjevic is expert in the area of seismic fragility analysis and dynamic qualification of electrical and mechanical equipment. He has participated in and managed over twenty major projects involving the evaluation and qualification of vibration sensitive equipment and seismic hardening of equipment. As demonstrated by his committee work and publications, Mr. Djordjevic has participated in and contributed steadily to the development of equipment qualification and vibration hardening methodology.

Mr. Djordjevic's previous walkdown experience included all of the SEP plants (8 plants), Nine Mile - Unit 1, D.C. Cook - Units 1 & 2, the Hanford Reservation Purex facility and the Savannah River Plant Reservation L-Reactor. He has personally participated in seismic walkdowns at 26 U.S. nuclear units.

Representative projects include overseeing the SEP shake-table testing of electrical raceways, in-situ testing of control panels and instrumentation racks at various nuclear facilities, equipment anchorage walkdowns and evaluations at various nuclear facilities, principal author of the *CERTIVALVE* software package to evaluate nuclear service valves, and contributing author in the development of the *ANCHOR* and *EDASP* software packages commercially distributed by Stevenson & Associates.

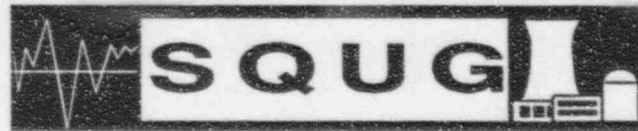
Mr. Djordjevic has been involved extensively in the reassessment of safety-related equipment for commercial nuclear facilities and government U.S. Department of Energy facilities, for which he maintains an active Q-clearance status. He has served on advisory groups and review teams touring older existing nuclear facilities to assess safety and has performed earthquake reconnaissance at such installations following seismic events.

PROFESSIONAL GROUPS:

Member, Institute of Electrical and Electronics Engineers, Nuclear Power Engineering Committee Working Group SC 2.5 (IEEE-344)

Chairman, American Society of Civil Engineers Nuclear Structures and Materials Committee, Working Group for the Analysis and Design of Electrical Cable Support Systems

Member, American Society of Mechanical Engineers Operation, Application, and Components Committee on Valves, Working Group SC-5



Certificate of Achievement

This is to Certify that

Walter Djordjevic

has Completed the SQUG Training Course for

*Demonstrating Seismic Adequacy of New and Replacement Equipment
and Subcomponents Using GIP and STERI Methods*

Held May 1-3, 1995

Neil P. Smith, Commonwealth Edison
SQUG Chairman

Patrick Butler, MPR Associates
Course Coordinator

Robert P. Kassawara, EPRI
SQUG Program Manager

JOHN J. O'SULLIVAN

EDUCATION

BSE - Princeton University, 1983
MS - Massachusetts Institute of Technology, 1988

PROFESSIONAL HISTORY

Stevenson & Associates, Woburn, MA, Senior Engineer, 1988 - present
Draper Laboratories, Cambridge, MA, Draper Fellow, 1986 - 1988
RCA Astro-Electronics, Hightstown, NJ, Design Engineer, 1983 - 1986

PROFESSIONAL EXPERIENCE

Mr. O'Sullivan is currently a senior engineer at S&A. His background includes design, analysis and testing of civil and mechanical structures, development of analytical software packages, and project engineering of comprehensive structural evaluation programs.

While at S&A, his experience has included full scale testing of safety related equipment for the nuclear power industry, structural analysis software development, extensive analytical work in the area of structural dynamics, and project engineering of safety evaluation programs. He has also worked in the area of control and measurement of structure-borne vibrations at micro-electronics production facilities.

He has completed training as a Seismic Qualification Engineer related to the Nuclear Regulatory Commission's USI-A46 program for the seismic verification of electrical and mechanical equipment at operating nuclear power facilities. He has served as a Seismic Qualification Engineer for work at the Pilgrim and Monticello plants. He has conducted walkdowns and evaluations at Connecticut Yankee and Millstone Units 1 and 2 for the seismic margin assessments of those plants.

Mr. O'Sullivan has performed full scale dynamic testing of safety related electrical cabinets (at the Grand Gulf, Nine Mile Point and Connecticut Yankee plants). He also developed a program for the generation of in-cabinet demand spectra that is used in the USI-A46 evaluation of relays (program *GENRS*).

Mr. O'Sullivan has extensive computer and software development skills and has created a number of commercial, PC based, engineering software packages. Applications include analysis of equipment base anchorages by using linear programming theory (program *ANCHOR*), a Windows-based program for the analysis of motor operated valves (*MOVALVE*), and a Windows-based program for seismic response of buildings and equipment (*EDASPw*).

Mr. O'Sullivan is also actively involved in prediction, measurement and control of vibration in microelectronics facilities. For manufacturing clients such as IBM and the Digital Equipment Corp., he

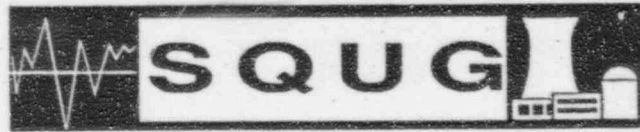
has conducted many site surveys and performed vibration testing of various types of structures, from buildings to sensitive electronic equipment. He has developed a highly flexible PC-based multi-channel vibration monitoring system for use in tracking structural vibrations.

While at RCA Astro-Electronics and Draper Laboratories, Mr. O'Sullivan was involved in the design and analysis of spacecraft structures. His experience includes structural design of Space Shuttle payloads, analysis of Space Station design concepts, and performance analysis of space-based structures under active control.

KEY PUBLICATIONS

"Guidelines for Development of In-Cabinet Seismic Demand for Devices Mounted in Electrical Cabinets," EPRI NP-7146-SL R1, June 1995.

"Vibration Monitoring in Microelectronic Facilities," SPIE Symposium on Optical Science and Engineering, Vol. 1619, November, 1991.



Certificate of Achievement

This is to Certify that

John O'Sullivan

has Completed the SQUG Walkdown Screening
and Seismic Evaluation Training Course
Held August 10-14, 1992



David A. Freed, MPR Associates
SQUG Training Coordinator

Neil P. Smith, Commonwealth Edison
SQUG Chairman

Robert P. Kassawara, EPRI
SQUG Program Manager

DENNIS ZERCHER

Education: Sept. 1970 to May 1974: Michigan Technological University, BS Civil Engineering

May 1974 to May 1975: Michigan Technological University
- course work completed for a Master of Science Civil Engineering

P.E. Registration: State of Wisconsin, State of Minnesota

EXPERIENCE

Jan 1990 - Present Senior Civil engineer at NSP. Project engineer for the decommissioning of Pathfinder Nuclear plant. Responsible for obtaining the NRC license for Pathfinder vessel as a Type A shipping container and contributed to the Decommissioning Plan submitted to the NRC. Project engineer responsible for various modifications at the Monticello Nuclear Plant.

Jan. 1988- Jan 1990 Project Control Supervisor at NSP. Duties included budgeting, scheduling, and cost reporting.

Nov 1984- Jan 1988: Contract engineer through Strom Engineering at NSP Nuclear Engineering and Construction Department. Performed technical audits of A/E's on stress analysis that was completed for equipment and systems installed in NSP's nuclear power plants. Also involved in piping analysis, and scheduling.

Jan. 1983 - Nov. 1984: Structural Engineer for Engineering Software Associates, Plymouth, Mn. Work included the seismic qualification of spent nuclear fuel storage racks and structural analysis of various types of equipment and structures.

June 1980 - Jan 1983: Project engineer for PaR Systems Corporation, St. Paul, Mn. Work included the structural analysis and seismic qualification of spent nuclear fuel storage racks and remote handling equipment for nuclear fuel. Provided the analysis of the operational and seismic loading conditions.

April 1976 - April 1980: Structural Engineer for Fluidyne Engineering Corporation, Minneapolis, Mn. Work included the

structural design of aerospace test facilities and energy systems.

June 1975 - Jan. 1976: Structural Engineer for Clyde Iron Works, Duluth, Mn. Work included the structural design of gantry mounted cranes including the gantry, turn table and booms.



Certificate of Achievement

This is to Certify that

Dennis Zercher

has Completed the SQUG Walkdown Screening
and Seismic Evaluation Training Course
Held August 2-6, 1993



David A. Freed, MPR Associates
SQUG Training Coordinator

Neil P. Smith, Commonwealth Edison
SQUG Chairman

Robert P. Kassawara, EPRI
SQUG Program Manager

RONALD L. PETERSON

1516 Victory Memorial Parkway
Minneapolis, MN 55412
(612) 529-8345

WORK EXPERIENCE

14 years of civil engineering in the electric power industry. Estimated, designed and managed numerous construction projects. Performed inspections and structural evaluations at both nuclear and coal-fired facilities.

Familiar with AISC, ACI, UBC, fire protection and life safety codes. Interacted extensively with various regulatory agencies and insurance underwriters.

Experienced in supervising architect/engineering consultants and individual contract employees.

Experienced with computer spreadsheets, data retrieval, word processing and structural analysis software.

Additional experience includes overseas assignment. (Complete work history attached).

EDUCATION

University of Minnesota, Minneapolis
Bachelor of Civil Engineering - June 1981

AFFILIATIONS

Chi Epsilon Honor Society

REGISTRATION

Registered Professional Engineer (P.E.),
Minnesota Board of Architecture, Engineering, Land Surveying
and Landscape Architecture
License Number 17860

PERSONAL DATA

S.S. #: 474-70-6206
D.O.B.: 28 February 1957
Status: Single
Height: 6'-1"
Weight: 190 lbs
Health: Excellent

REFERENCES

References available on request

Ronald L. Peterson

WORK HISTORY

March 1988
to
Present

Employer: Northern States Power Company - Minneapolis, MN
Position: Sr. Civil Engineer

Employed as civil project engineer for utility's engineering & construction department. Primary responsibilities include engineering and administering various construction and repair projects at both nuclear and coal-fired power plants. Specific duties include inspection, evaluation, scoping, estimating, hiring & supervising A/E's, coordinating with regulators & underwriters, reviewing drawings and specifications, preparing engineering reports, preparing contract documents and reviewing/administering construction change orders. Projects to date have included coal handling and storage systems, office buildings, warehouses, fab shops, security systems, elevator installation, site road construction, site landscaping, computer and telephone network systems, various safety upgrades.

Jan 1984
to
Feb 1988

Employer: Bechtel Power Corporation - Los Angeles, CA
Client: Northern States Power Company of Minnesota

Seconded to client's construction department for project engineering position at the Monticello Nuclear Generating Plant (see specific duties listed above). Projects included fire protection upgrades, storm & sanitary sewers, laboratory construction and ventilation modifications.

April 1983
to
Jan 1984

Employer: Bechtel Power Corporation - Ann Arbor, MN
Client: Consumers Power of Michigan

Performed seismic analysis and drawing review for cable tray support requalification of cable spreading room at the Midland Nuclear Generating Station - Unit 1

March 1982
to
April 1983

Employer: Bechtel Power Corporation - Ann Arbor, MI
Client: Consumers Power of Michigan

Served as field engineer on 5-man resident engineering team resolving on-site construction/engineering problems at the Palisades Nuclear Generating Plant. Performed walk-downs and interference evaluations.

July 1981
to
Feb 1982

Employer: Bechtel Power Corporation - Ann Arbor, MI
Client: Consumers Power of Michigan

Performed structural design, analysis and review for various modifications to the Palisades Nuclear Generating Plant. Projects included seismic block wall upgrades, cable/raceway support and underground piping layout.

April 1979
to
Dec 1979

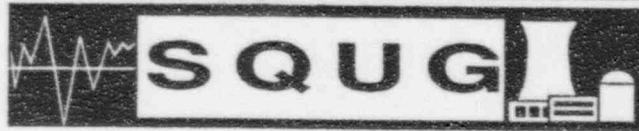
Employer: Rutledge Construction Company - Hopkins, MN
Client: Various industries in the Minneapolis area

Worked as construction craft laborer for local contractor. Performed carpentry, masonry block-laying, cement finishing and equipment operation for various industrial and commercial remodeling projects.

Sept 1978
to
March 1979

Employer: Holmes & Narver Inc. - Orange, CA
Client: U.S. National Science Foundation

Overseas employment as materials coordinator for construction support of NSF's Antarctic Research Program. Supervised storage and shipping of construction material to interior bases from main coastal facility.



Certificate of Achievement

This is to Certify that

Ron Peterson

has Completed the SQUG Walkdown Screening
and Seismic Evaluation Training Course
Held August 2-6, 1993



David A. Freed, MPR Associates
SQUG Training Coordinator

Neil P. Smith, Commonwealth Edison
SQUG Chairman

Robert P. Kassawara, EPRI
SQUG Program Manager

APPENDIX D

SCREENING VERIFICATION DATA SHEETS (SVDS)

Monticello Nuclear Generating Plant
SCREENING VERIFICATION DATA SHEET (SVDS)

Eq. Cl	Eq. ID	Rev No	Sys/Eq. Desc	Bldg.	Fl. El.	Rm or Rw/Cl	Base El.	<40'?	Cap. Spec.	Demd. Spec.	Cap > Demd?	Caveats OK?	Anchor OK?	Interact OK?	Equip OK?
2	LC-103	0	/ 480 V LOAD CENTER	TB	911.00	LOWER 4KV RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
2	LC-104	0	/ 480 V LOAD CENTER	TB	931.00	UPPER 4KV RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
6	P-202A	0	/ 11 RHR PUMP	RX	896.00	A RHR ROOM	896.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
6	P-202C	0	/ 13 RHR PUMP	RX	896.00	A RHR ROOM	896.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
6	P-208A	0	/ 11 CORE SPRAY PUMP	RX	896.00	A RHR ROOM	896.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
6	P-86A	0	/ ECCS AREA DRAIN PUMP	RX	896.00	A RHR ROOM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
6	P-88B	0	/ ECCS AREA DRAIN PUMP	RX	896.00	A RHR ROOM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
6	P-88C	0	/ ECCS AREA DRAIN PUMP	RX	896.00	B RHR ROOM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
6	P-88D	0	/ ECCS AREA DRAIN PUMP	RX	896.00	B RHR ROOM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
7	AO-2-80A	0	/ INBOARD MSIV	RX	933.00	DW NORTH	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	AO-2-80B	0	/ INBOARD MSIV	RX	933.00	DW NORTH	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	AO-2-80C	0	/ INBOARD MSIV	RX	933.00	DW NORTH	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	AO-2-80D	0	/ INBOARD MSIV	RX	933.00	DW NORTH	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	AO-2-86A	0	/ A MSIV OUTBD	RX	935.00	STEAM CHASE	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	AO-2-86B	0	/ B MSIV OUTBD	RX	935.00	STEAM CHASE	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	AO-2-86C	0	/ C MSIV OUTBD	RX	935.00	STEAM CHASE	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	AO-2-86D	0	/ D MSIV OUTBD	RX	935.00	STEAM CHASE	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	CV-1728	0	/ 11 RHR HX RHRSW OUT	RX	896.00	A RHR ROOM	896.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	CV-1994	0	/ 11 RHR PUMP MINIMUM FLOW	RX	896.00	A RHR ROOM	896.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	CV-1996	0	/ 13 RHR PUMP MINIMUM FLOW	RX	896.00	A RHR ROOM	896.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-1990	0	/ RHR 11 PUMP SUCTION RV	RX	896.00	A RHR ROOM	896.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-1992	0	/ RHR 13 PUMP SUCTION RV	RX	896.00	A RHR ROOM	896.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-2-71A	0	/ A SRV	RX	951.00	DW WEST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-2-71B	0	/ B SRV	RX	951.00	DW NORTH	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-2-71C	0	/ C SRV	RX	951.00	DW AZ 225	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-2-71D	0	/ D SRV	RX	951.00	DW	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-2-71E	0	/ E SRV	RX	951.00	DW WEST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-2-71F	0	/ F SRV	RX	951.00	DW EAST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-2-71G	0	/ G SRV	RX	951.00	DW WEST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-2-71H	0	/ H SRV	RX	951.00	DW EAST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-2004	0	/ RHR LOOP A DISCHARGE LINE RV	RX	923.00	TORUS CATWALK	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes

Certification:


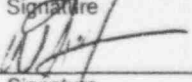
Certification:

All the information contained on this Screening Verification Data Sheet (SVDS) is, to the best of our knowledge and belief, correct and accurate. "All information" includes each entry and conclusion (whether verified to be seismically adequate or not).

The information provided to the Seismic Capability Engineers regarding systems and operations of the equipment contained in the SVDS is, to the best of our knowledge and belief, correct and accurate.

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Approved: (One signature of Systems or Operations Engineer is required if the Seismic Capability Engineers deem it necessary.)

D. Zercher		11-16-95		
Print or Type Name	Signature	Date	Print or Type Name	Signature
W. Djordjevic		11/8/95		
Print or Type Name	Signature	Date	Print or Type Name	Signature

Monticello Nuclear Generating Plant
SCREENING VERIFICATION DATA SHEET (SVDS)

Eq. Cl	Eq. ID	Rev No	Sys/Eq. Desc	Bldg.	Fl. El.	Rm or Rw/Ci	Base El.	<40'?	Cap. Spec.	Demd. Spec.	Cap > Demd?	Caveats OK?	Anchor OK?	Interact OK?	Equip OK?
7	RV-2005	0	/ RHR LOOP B DISCHARGE LINE RV	RX	935.00	WSDC ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-2031	0	/ SD COOLING SUCTION SUPPLY	RX	935.00	E SD COOLING RM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3242	0	/ A SRV DISCHARGE 2 VAC RV	RX	951.00	DW WEST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3242A	0	/ A SRV DISCHARGE 8 VAC RV	RX	951.00	DW WEST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3243	0	/ B SRV DISCHARGE 2 VAC RV	RX	951.00	DW WEST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3243A	0	/ B SRV DISCHARGE 8 VAC RV	RX	951.00	DW WEST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3244	0	/ C SRV DISCHARGE 2 VAC	RX	951.00	DW NORTH	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3244A	0	/ C SRV DISCHARGE 8 VAC	RX	951.00	DW NORTH	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3245	0	/ D SRV DISCHARGE 2 VAC	RX	951.00	DW EAST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3245A	0	/ D SRV DISCHARGE 8 VAC	RX	951.00	DW EAST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-7440	0	/ E SRV DISCHARGE 2 VAC RV	RX	951.00	DW WEST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-7440A	0	/ E SRV DISCHARGE 8 VAC RV	RX	951.00	DW WEST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-7441	0	/ F SRV DISCHARGE 2 VAC RV	RX	951.00	DW EAST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-7441A	0	/ F SRV DISCHARGE 8 VAC RV	RX	951.00	DW EAST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-7467	0	/ G SRV DISCHARGE 2 VAC RV	RX	951.00	DW NORTH	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-7467A	0	/ G SRV DISCHARGE 8 VAC RV	RX	951.00	DW NORTH	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-7468	0	/ H SRV DISCHARGE 2 VAC RV	RX	951.00	DW EAST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-7468A	0	/ H SRV DISCHARGE 8 VAC RV	RX	951.00	DW EAST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	MO-1753	0	/ 11 CS INJ INBOARD ISOLATION VLV	RX	974.00	DOG HOUSE CUBIC	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	MO-1754	0	/ 12 CS INJ INBOARD ISOLATION VALVE	RX	962.00	RWCU HX BACK RM	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	MO-2002	0	/ 11 RHR HX BYPASS	RX	896.00	A RHR ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	MO-2006	0	/ 11 RHR DISCHARGE TO TORUS	RX	923.00	TORUS CATWALK	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	MO-2008	0	/ TORUS COOLING ISOL	RX	923.00	TORUS CATWALK	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	MO-2009	0	/ RHR/RHR B TORUS COOLING TEST RTN	RX	923.00	TORUS CATWALK	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	MO-2012	0	/ 11 RHR LPCI OUTBOARD INJECTION	RX	935.00	ESDC	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	MO-2013	0	/ RHR/RHR B LPCI INJ OUTBD	RX	935.00	WSDC	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	MO-2014	0	/ 11 RHR LPCI INBOARD INJECTION	RX	935.00	ESDC	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	MO-2015	0	/ RHR B LPCI INJ INBOARD	RX	935.00	WSDC	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	MO-2033	0	/ RHR LOOPS CROSSTIE	RX	923.00	TORUS CATWALK	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	MO-2034	0	/ HPCI INBOARD STEAM SUPPLY	RX	951.00	DW AZ 150	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes

Certification:

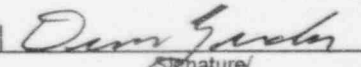

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D. Zercher		11-16-95		
Print or Type Name	Signature	Date	Print or Type Name	Signature
W. Djordjevic		11/8/95		
Print or Type Name	Signature	Date	Print or Type Name	Signature

Monticello Nuclear Generating Plant
SCREENING VERIFICATION DATA SHEET (SVDS)

Eq. Cl	Eq. ID	Rev No	Sys/Eq. Desc	Bldg.	Fl. El.	Rm or Rm/Cl	Base El.	<40'?	Cap. Spec.	Demd. Spec.	Cap > Demd?	Caveats OK?	Anchor OK?	Interact OK?	Equip OK?
8	MO-2035	0	/ HPCI OUTBOARD STEAM SUPPLY ISOLATION	RX	935.00	STEAM CHASE	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	MO-2075	0	/ RCIC STEAM SUPPLY INBOARD ISOLATION	RX	951.00	DW AZ 200	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	MO-2076	0	/ RCIC STEAM SUPPLY OUTBOARD ISOLATION	RX	935.00	STEAM CHASE	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	MO-2397	0	/ RWCU INLET INBOARD ISOL	RX	962.00	DW AZ 040	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	MO-2398	0	/ RWCU INLET OUTBOARD ISOL	RX	974.00	RWCU ROOM	986.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	SV-1728	0	/ CV-1728 (11 RHR HX RHR SW OUTLET)SV	RX	896.00	A RHR ROOM	896.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	SV-2-71A	0	/ A SRV ALT N2 A A/S	RX	951.00	DW WEST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	SV-2-71B	0	/ B SRV PILOT	RX	951.00	DW WEST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	SV-2-71C	0	/ C SRV ALT N2 B SUPPLY	RX	951.00	DW EAST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	SV-2-71D	0	/ D SRV PILOT A/S	RX	951.00	DW EAST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	SV-2-71E	0	/ E SRV ALT N2 A A/S	RX	951.00	DW	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	SV-2-71F	0	/ F SRV PILOT A/S	RX	951.00	DW EAST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	SV-2-71G	0	/ G SRV PILOT A/S	RX	951.00	DW WEST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	SV-2-71H	0	/ H SRV PILOT A/S	RX	951.00	DW EAST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	SV-2-71J	0	/ E SRV ALT N2 A A/S	RX	951.00	DW	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	SV-2-71K	0	/ G SRV PILOT A/S	RX	951.00	DW WEST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	SV-2-71L	0	/ H SRV PILOT A/S	RX	951.00	DW	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	SV-2-71M	0	/ F SRV ASDS PILOT A/S	RX	951.00	DW EAST	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
10	DM 8089-A1	0	/ V-SF-9 SUPPLY DAMPER	TB	951.00	12 DG	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
10	DM 8089-A2	0	/ V-SF-9 SUPPLY DAMPER	TB	951.00	12 DG	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
10	DM 8089-A3	0	/ V-SF-9 SUPPLY DAMPER	TB	951.00	12 DG	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
10	DM 8089-J1	0	/ V-SF-10 SUPPLY DAMPER	TB	951.00	11 DG	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
10	DM 8089-J2	0	/ V-SF-10 SUPPLY DAMPER	TB	951.00	11 DG	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
10	DM 8089-J3	0	/ V-SF-10 SUPPLY DAMPER	TB	951.00	11 DG	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
14	D100	0	/ DIV 11 125/250 VDC DISTRIBUTION PANEL	EFT	932.00	ELEC EQ DIV 2 R	932.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
14	D11	0	/ DIV 1 125VDC DISTRIBUTION CENTER	ADMIN	928.00	#11 125 BAT RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
14	D21	0	/ DIV 11 125 VDC DISTRIBUTION PANEL	ADMIN	928.00	#12 125 BAT RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes

Certification:



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D. Zercher		11-16-95		
Print or Type Name	Signature	Date	Print or Type Name	Signature
W. Djordjevic		11/8/95		
Print or Type Name	Signature	Date	Print or Type Name	Signature

Monticello Nuclear Generating Plant
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14	D33	0	/ 125 VDC DISTRIBUTION CENTER	ADMIN	928.00	#11 125 BAT RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
15	D1	0	/ #11 BATTERY 125VDC	ADMIN	928.00	#11 125 BAT RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
15	D2	0	/ #12 BATTERY 125VDC	ADMIN	928.00	#12 125 BAT RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
15	D3A	0	/ #13 (DIV 1) 125/250VDC BATTERY A	ADMIN	928.00	250 VDC DIV 1 RM	935.00	Yes	BS	GRS	Yes	No	Yes	Yes	No
15	D3B	0	/ #13 (DIV 1) 125/250VDC BATTERY B	ADMIN	928.00	250 VDC DIV 1 RM	935.00	Yes	BS	GRS	Yes	No	Yes	Yes	No
15	D6A	0	/ #16 (DIV 2) 125/250VDC BATTERY A	EFT	933.00		932.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
15	D6B	0	/ #16 (DIV 2) 125/250VDC BATTERY B	EFT	933.00		932.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
16	D52	0	/ CHARGER, D3A (13) BATTERY	ADMIN	928.00	DIV1 250V BATRM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
16	D53	0	/ CHARGER, D3B (13) BATTERY	ADMIN	928.00	DIV1 250V BATRM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
16	D54	0	/ CHARGER, SWING D3A,D3B (13) BATTERY	ADMIN	928.00	DIV1 250V BATRM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
16	D70	0	/ CHARGER, D6B (16) BATTERY	EFT	932.00	ELEC EQ DIV 2RM	932.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
16	D80	0	/ CHARGER, D6A (16) BATTERY	EFT	932.00	ELEC EQ DIV 2RM	932.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
16	D90	0	/ CHARGER, SWING D6A,D6B (16) BATTERY	EFT	932.00	ELEC EQ DIV 2RM	932.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	C-129A	0	/ RHR INSTRUMENT RACK	RX	896.00	A RHR RM	935.00	N/A	ABS	CRS	Yes	Yes	Yes	Yes	Yes
18	DPI-7846A	0	/ RHR LOOP A D/P	RX	896.00	A RHR ROOM	896.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	IR-DPT-7845A	0	/ RHR 11/13 PUMP D/P RACK	RX	896.00	A RHR ROOM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	IR-FT-10-111A	0	/ RHR LOOP A CONT COOLING FLOW INSTR RACK	RX	896.00	A RHR RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	PS-7110	0	/ TURB CONTROL VALVE FAST CLOSURE	TB	951.00	TURBINE	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	PS-7111	0	/ TURB CONTROL VALVE FAST CLOSURE	TB	951.00	TURBINE	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	PS-7112	0	/ TURB CONTROL VALVE FAST CLOSURE	TB	951.00	TURBINE	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	PS-7113	0	/ TURB CONTROL VALVE FAST CLOSURE	TB	951.00	TURBINE	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	PS-7352	0	/ A SRV BELLOW LEAK ALARM	RX	951.00	DW	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	PS-7353	0	/ B SRV BELLOW LEAK ALARM	RX	951.00	DW MEZZ	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	PS-7354	0	/ C SRV BELLOW LEAK ALARM	RX	951.00	DW	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	PS-7355	0	/ D SRV BELLOW LEAK ALARM	RX	951.00	DW	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	PS-7900	0	/ E SRV BELLOW LEAK ALARM	RX	951.00	DW	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	PS-7901	0	/ F SRV BELLOW LEAK ALARM	RX	951.00	DW	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes

Certification:

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D. Zercher		11-16-95		
Print or Type Name	Signature	Date	Print or Type Name	Signature
W. Djordjevic		11/8/95		
Print or Type Name	Signature	Date	Print or Type Name	Signature

Monticello Nuclear Generating Plant
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18	PS-7902	0	/ G SRV BELLOWS LEAK ALARM	RX	951.00	DW MEZZ	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	PS-7903	0	/ H SRV BELLOWS LEAK ALARM	RX	951.00	DW	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
19	TE-2-113A	0	/ A SRV TEMP ELEMENT	RX	951.00	DW	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-2-113B	0	/ B SRV TEMP ELEMENT	RX	951.00	DW	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-2-113C	0	/ C SRV TEMP ELEMENT	RX	951.00	DW	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-2-113D	0	/ D SRV TEMP ELEMENT	RX	951.00	DW	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-2-113E	0	/ E SRV TEMP ELEMENT	RX	951.00	DW	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-2-113F	0	/ F SRV TEMP ELEMENT	RX	951.00	DW	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-2-113G	0	/ G SRV TEMP ELEMENT	RX	951.00	DW	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-2-113H	0	/ H SRV TEMP ELEMENT	RX	951.00	DW	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-4073A	0	/ TORUS SENSOR 1-SRV71H / RCIC DISCHARGE AREA	RX	916.00	TORUS PN X-231A	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-4073B	0	/ TORUS SENSOR 1-SRV71H / RCIC DISCHARGE AREA	RX	916.00	TORUS PN X-231B	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-4074A	0	/ TORUS SENSOR 2-SRV71C DISCHARGE AREA	RX	916.00	TORUS PN X-232A	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-4074B	0	/ TORUS SENSOR 2-SRV71C DISCHARGE AREA	RX	916.00	TORUS PN X-232B	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-4075A	0	/ TORUS SENSOR 3-SRV71B DISCHARGE AREA	RX	916.00	TORUS PN X-233A	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-4075B	0	/ TORUS SENSOR 3-SRV71B DISCHARGE AREA	RX	916.00	TORUS PN X-233B	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-4076A	0	/ TORUS SENSOR 4-SRV71G HPCI DISCHARGE AREA	RX	916.00	TORUS PN X-234A	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-4076B	0	/ TORUS SENSOR 4-SRV71G / HPCI DISCHARGE AREA	RX	916.00	TORUS PN X-234B	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-4077A	0	/ TORUS SENSOR 5-SRV71A DISCHARGE AREA	RX	916.00	TORUS PN X-235A	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-4077B	0	/ TORUS SENSOR 5-SRV71A DISCHARGE AREA	RX	916.00	TORUS PN X-235B	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-4078A	0	/ TORUS SENSOR 6-SRV71E DISCHARGE AREA	RX	916.00	TORUS PN X-236A	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes

Certification:



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Print or Type Name	Signature	Date	Print or Type Name	Signature	Date
W. Djordjevic		11/8/95			
Print or Type Name	Signature	Date	Print or Type Name	Signature	Date

Eq. Cl	Eq. ID	Rev No	Sys/Eq. Desc	Bldg.	Fl. El.	Rm or Rw/Ci	Base El.	<40'?	Cap. Spec.	Demd Spec	Cap > Demd?	Caveats OK?	Anchor OK?	Interact OK?	Equip OK?
19	TE-4078B	0	/ TORUS SENSOR 6-SRV71E DISCHARGE AREA	RX	916.00	TORUS PN X-236B	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-4079A	0	/ TORUS SENSOR 7-SRV71F DISCHARGE AREA	RX	916.00	TORUS PN X-237A	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-4079B	0	/ TORUS SENSOR 7-SRV71F DISCHARGE AREA	RX	916.00	TORUS PN X-237B	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-4080A	0	/ TORUS SENSOR 8-SRV71D DISCHARGE AREA	RX	916.00	TORUS PN X-237A	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-4080B	0	/ TORUS SENSOR 8-SRV71D DISCHARGE AREA	RX	916.00	TORUS PN X-238B	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-4247A1	0	/ TEMP ELEMENT	RX	932.00		935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-4247C1	0	/ TEMP ELEMENT	RX	950.00		963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-4247F1	0	/ TEMP ELEMENT	RX	970.00		986.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
19	TE-4247H1	0	/ TEMP ELEMENT	RX	994.00		1001.00	N/A	ABS	CRS	Yes	Yes	N/A	Yes	Yes
20	C-03	0	/ RX A& CONTAINMENT COOLING CONTROL PANEL	ADMIN	951.00	CR	963.00	Yes	BS	GRS	Yes	Yes	Yes	No	No
20	C-04	0	/ RWC RECIRCULATING BENCH BOARD	ADMIN	951.00	CR	963.00	Yes	BS	GRS	Yes	Yes	Yes	No	No
20	C-05	0	/ REACTOR CONTROL BENCH BOARD	ADMIN	951.00	CR	963.00	Yes	BS	GRS	Yes	Yes	Yes	No	No
20	C-06	0	/ FEEDWATER AND CONDINSATE BENCHBOARD	ADMIN	951.00	CR	963.00	Yes	BS	GRS	Yes	Yes	Yes	No	No
20	C-07	0	/ TURBINE BENCH BOARD	ADMIN	951.00	CR	963.00	Yes	BS	GRS	Yes	Yes	Yes	No	No
20	C-08	0	/ GENERATOR AUXILLARY POWER BENCH BOARD	ADMIN	951.00	CR	963.00	Yes	BS	GRS	Yes	Yes	Yes	No	No
20	C-15	0	/ CHANNEL A PRIMARY ISOL AND RPS VERTICAL BOARD	ADMIN	951.00	CR	963.00	Yes	BS	GRS	Yes	Yes	Yes	No	No
20	C-17	0	/ CHANNEL B ISOL AND RPS VERTICAL BOARD	ADMIN	951.00	CR	963.00	Yes	BS	GRS	Yes	Yes	Yes	No	No
20	C-19	0	/ PROCESS INSTRUMENT VERTICAL BOARD	ADMIN	939.00	CSR	963.00	Yes	BS	GRS	Yes	Yes	Yes	No	No
20	C-21	0	/ NUCLEAR STEAM SUPPLY TEMPERATURE RECORDING	ADMIN	951.00	CR	963.00	Yes	BS	GRS	Yes	Yes	Yes	No	No
20	C-292	0	/ ASDS BENCHBOARD	EFT	960.00	MAIN ROOM	960.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes

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W. Djordjevic		11/8/95			
Print or Type Name	Signature	Date	Print or Type Name	Signature	Date

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20	C-30	0	/ RCIC CABLE SPR RM CONROL PANEL	ADMIN	939.00	CSR	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	C-32	0	/ A RHR, CORE SPRAY, ADS CONTROL PANEL	ADMIN	939.00	CSR	963.00	Yes	BS	GRS	Yes	Yes	Yes	No	No
20	C-41	0	/ INBOARD ISOLATION RELAY PANEL	ADMIN	939.00	CSR	963.00	Yes	BS	GRS	Yes	Yes	Yes	No	No
20	C-91	0	/ 11 DIESEL GEN ELECTRICAL	TB	931.00	11 EDG	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	C-92	0	/ 12 DIESEL GEN ELECTRICAL	TB	931.00	12 EDG	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes

Certification:

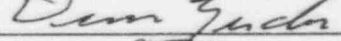
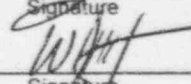
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1	D311	0	/ DIV 1 (RCIC) 250V DC MOTOR CONTROL CENTER 311	RX	896.00	RCIC ROOM	896.00	N/A	ABS	CRS	Yes	Yes	Yes	Yes	Yes
1	D312	0	/ DIV 2 (HPCI) 250V DC MOTOR CONTROL CENTER 312	RX	896.00	HPCI ROOM	896.00	N/A	ABS	CRS	Yes	Yes	Yes	No	No
1	D313	0	/ DIV 1 250V DC MOTOR CONTROL CENTER 313	RX	962.00	MG SET ROOM	963.00	N/A	ABS	CRS	No	No	No	Yes	No
1	MCC133A	0	/ 480 V MCC (B33A)	TB	911.00	EAST	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
1	MCC133B	0	/ 480V MCC	TB	911.00	EAST	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
1	MCC134	0	/ 480 V MCC (B34)	EFT	944.00		944.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
1	MCC142A	0	/ 480 V MCC (B42A)	TB	931.00	EAST	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
1	MCC142B	0	/ 480V MCC	TB	931.00	EAST	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
1	MCC143A	0	/ 480 V MCC (B43A)	TB	931.00	EAST	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
1	MCC143B	0	/ 480V MCC	TB	931.00	EAST	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
1	MCC144	0	/ 480 V MCC (B44)	EFT	933.00		932.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
3	BUS 15	0	/ 4160 SWITCHGEAR	TB	911.00	LOWER 4KV RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
3	BUS 16	0	/ 4160 SWITCHGEAR	TB	931.00	UPPER 4KV RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
4	G31	0	/ #11 DG NEUTRAL GROUNDING CABINET	TB	931.00	11 DG RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
4	G41	0	/ #12 DG NEUTRAL GROUNDING CABINET	TB	931.00	12 DG RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
4	X30	0	/ TRANSFORMER	TB	911.00	LOWER 4KV RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
4	X40	0	/ TRANSFORMER	TB	931.00	UPPER 4KV RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
4	Y01	0	/ 11 STANDBY INSTRUMENT AC TRANSFORMER	TB	931.00	EAST	935.00	Yes	BS	GRS	Yes	Unk	Yes	Yes	Unk
4	Y22	0	/ 12 INSTRUMENT AC TRANSFORMER	TB	931.00	EAST	935.00	Yes	BS	GRS	Yes	Unk	Yes	Yes	Unk
4	Y72	0	/ 120 VDC TRANSFORMER FEEDING Y73	EFT	944.00	DIV1 RM	944.00	Yes	BS	GRS	Yes	No	Yes	Yes	No
4	Y77	0	/ 120-120/240VAC TRANSFORMER TO PANEL Y10	EFT	944.00	PWR EQ DIV 1 RM	944.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
4	Y82	0	/ DIV 2 120 VDC TRANSFORMER Y83	EFT	960.00	MAIN	960.00	Yes	BS	GRS	Yes	No	Yes	Yes	No
4	Y87	0	/ 120-120/240VAC TRANSFORMER TO PANEL Y30	EFT	960.00	MAIN ROOM	960.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
5	P-11	0	/ DIESEL OIL XFER PUMP	FO PMP HOU	935.00	MAIN ROOM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
6	P-109A	0	/ 11 RHR SW PUMP	INTAKE	919.00	MAIN ROOM	935.00	N/A	ABS	CRS	No	No	No	Yes	No

Certification:


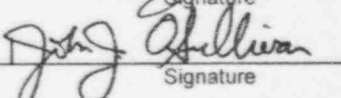
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J.J. O'Sullivan		11/13/95		
Print or Type Name	Signature	Date	Print or Type Name	Signature

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6	P-109B	0	/ 12 RHR SW PUMP	INTAKE	919.00	MAIN ROOM	935.00	N/A	ABS	CRS	No	No	No	Yes	No
6	P-109C	0	/ 13 RHR SW PUMP	INTAKE	919.00	MAIN ROOM	935.00	N/A	ABS	CRS	No	No	No	Yes	No
6	P-109D	0	/ 14 RHR SW PUMP	INTAKE	919.00	MAIN ROOM	935.00	N/A	ABS	CRS	No	No	No	Yes	No
6	P-111A	0	/ 11 ESW (EDG-ESW) PUMP	INTAKE	919.00	MAIN ROOM	935.00	N/A	ABS	CRS	No	No	No	Yes	No
6	P-111B	0	/ 12 ESW (EDG-ESW) PUMP	INTAKE	919.00	MAIN ROOM	935.00	N/A	ABS	CRS	No	No	No	Yes	No
6	P-111C	0	/ 13 ESW (EDG-ESW) PUMP	INTAKE	919.00	MAIN ROOM	935.00	N/A	ABS	CRS	Yes	Yes	Yes	Yes	Yes
6	P-111D	0	/ 14 ESW (EDG-ESW) PUMP	INTAKE	919.00	MAIN ROOM	935.00	N/A	ABS	CRS	Yes	Yes	Yes	Yes	Yes
6	P-202B	0	/ RHR/ RHR B PUMP # 12	RX	896.00	B RHR ROOM	896.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
6	P-202D	0	/ RHR/ RHR D PUMP # 14	RX	896.00	B RHR ROOM	896.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
6	P-208B	0	/ 12 CORE SPRAY PUMP	RX	896.00	B RHR ROOM	896.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
7	AV-3147	0	/ 11 RHR SW PUMP P-109A AUTO AIR VENT	INTAKE	919.00	MAIN ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	AV-3148	0	/ 14 RHR SW PUMP P-109D AUTO AIR VENT	INTAKE	919.00	MAIN ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	AV-3149	0	/ 13 RHR SW PUMP P-109C AUTO AIR VENT	INTAKE	919.00	MAIN ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	AV-3150	0	/ 12 RHR SW PUMP P-109B AUTO AIR VENT	INTAKE	919.00	MAIN ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	AV-3155	0	/ 11 ESW PUMP P-111A DISCHARGE AIR VENT	INTAKE	919.00	MAIN ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	AV-3156	0	/ 12 ESW PUMP P-111B DISCHARGE AIR VENT	INTAKE	919.00	MAIN ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	AV-4024	0	/ 13 ESW PUMP P-111C DISCHARGE AIR VENT	INTAKE	919.00	MAIN ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	AV-4026	0	/ 14 ESW PUMP P-111D DISCHARGE AIR VENT	INTAKE	919.00	MAIN ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	CRD HCU E FV	0	/ CRD HYDRALIC CONTROL UNITS EAST SIDE	RX	935.00	EAST SIDE	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	CRD HCU W FV	0	/ CRD HYDRALIC CONTROL UNITS WEST SIDE	RX	935.00	WEST SIDE	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	CV-1729	0	/ 12 RHR HX RHRSW OUTLET	RX	896.00	B RHR ROOM	896.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	CV-1995	0	/ RHR/ RHR B PUMP MIN FLOW	RX	896.00	B RHR ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes

Certification:

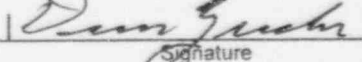
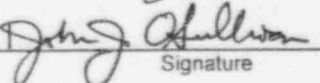
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D. Zercher		11-16-95		
Print or Type Name	Signature	Date	Print or Type Name	Signature
J.J. O'Sullivan		11/13/95		
Print or Type Name	Signature	Date	Print or Type Name	Signature

Monticello Nuclear Generating Plant
SCREENING VERIFICATION DATA SHEET (SVDS)

Eq. Cl	Eq. ID	Rev. No	Sys/Eq. Desc	Bldg.	Fl. El.	Rm or Rw/Cl	Base El.	<40'?	Cap. Spec.	Demd. Spec.	Cap > Demd?	Current	Anchor OK?	Interact OK?	Equip OK?
7	CV-1997	0	/ RHR/ RHR D PUMP MIN FLOW	RX	896.00	B RHR ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	CV-3-32A	0	/ SDV VENT	RX	935.00	11 BK	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	CV-3-32B	0	/ SDV VENT	RX	935.00	12 BK	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	CV-3-32C	0	/ SDV VENT	RX	935.00	11 BK	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	CV-3-32D	0	/ SDV VENT	RX	935.00	12 BK	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	CV-3-33A	0	/ SCRAM DISCHARGE VOLUME DRAIN LINES	RX	935.00	11 BK	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	CV-3-33B	0	/ SCRAM DISCHARGE VOLUME DRAIN LINES	RX	935.00	12 BK	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	CV-3-33C	0	/ SDV DRAIN	RX	935.00	11 BK	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	CV-3-33D	0	/ SDV DRAIN	RX	935.00	12 BK	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	PCV-3004	0	/ 11/13 RHRWSW PUMP MOTORS COOLING WATER HEADER INLET	INTAKE	919.00	MAIN ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	PCV-3005	0	/ 12/14 RHRWSW PUMP MOTORS COOLING WATER HEADER INLET	INTAKE	919.00	MAIN ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-1523	0	/ XFER PUMP DISCHARGE RELIEF VALVE	FO PMP HOU	935.00	MAIN ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-1745	0	/ 11 CS PUMP DISCH RV TO ORW	RX	896.00	A RHR ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-1746	0	/ 12 CS PUMP DISCH RV TO ORW	RX	896.00	B RHR ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Unk	Unk
7	RV-1991	0	/ RHR/ RHR B PUMP SUCTION RELIEF	RX	896.00	B RHR ROOM	896.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-1993	0	/ RHR/ RHR D PUMP SUCTION RELIEF	RX	896.00	B RHR ROOM	896.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3038	0	/ 11 LOOP MOTOR COOLING HEADER	INTAKE	919.00	MAIN ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3039	0	/ 12/14 LOOP MOTOR COOLING HEADER	INTAKE	919.00	MAIN ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3202	0	/ 11 HX TUBE SIDE	RX	896.00	A RHR ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3203	0	/ 12 HX TUBE SIDE	RX	896.00	B RHR ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3216	0	/ 11 DG AIR TK T-79A RV	TB	931.00	11 DG RM	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3217	0	/ 11 DG AIR TK T-79B RV	TB	931.00	11 DG RM	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3218	0	/ 11 DG AIR TK T-79C RV	TB	931.00	11 DG RM	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3219	0	/ 11 DG AIR TK T-79D RV	TB	931.00	11 DG RM	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3220	0	/ 11 DG AIR TK T-79E RV	TB	931.00	11 DG RM	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3221	0	/ 11 DG AIR TK T-79F RV	TB	931.00	11 DG RM	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3222	0	/ DIESEL AIR START COMPRESSOR (K-8A)	TB	931.00	11 DG RM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes

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Print or Type Name	Signature	Date	Print or Type Name	Signature
J.J. O'Sullivan	<i>J.J. O'Sullivan</i>	11/13/95		
Print or Type Name	Signature	Date	Print or Type Name	Signature

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7	RV-3223	0	/ DIESEL AIR START COMPRESSOR (K-8B)	TB	931.00	11 DG RM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3224	0	/ 12 DG AIR TK T-80A RV	TB	931.00	12 DG RM	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3225	0	/ 12 DG AIR TK T-80B RV	TB	931.00	12 DG RM	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3226	0	/ 12 DG AIR TK T-80C RV	TB	931.00	12 DG RM	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3227	0	/ 12 DG AIR TK T-80D RV	TB	931.00	12 DG RM	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3228	0	/ 12 DG AIR TK T-80E RV	TB	931.00	12 DG RM	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3229	0	/ 12 DG AIR TK T-80F RV	TB	931.00	12 DG RM	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3230	0	/ DIESEL AIR START COMPRESSOR (K-9A)	TB	931.00	12 DG RM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-3231	0	/ DIESEL AIR START COMPRESSOR (K-9B)	TB	931.00	12 DG RM	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-4236	0	/ ALT N2 B RELIEF	TB	931.00	EAST	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-4281	0	/ A RHR HX RV SHELL SIDE	RX	896.00	A RHR ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-4282	0	/ RHR/RHR B HXER RELIEF VALVE	RX	896.00	B RHR ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-4673	0	/ ALT N2 A RELIEF	TB	931.00	EAST	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-4878	0	/ ALT N2 A RELIEF	RX	935.00	WEST	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
7	RV-4880	0	/ ALT N2 B RELIEF	RX	935.00	WEST	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	MO-2003	0	/ RHR/RHR B HXER BYPASS	RX	896.00	B RHR ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	MO-2007	0	/ RHR/RHR B DISCH TO TORUS	RX	935.00	DW EQ HATCH	963.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	SV-1729	0	/ SV FOR CV-1729 #12 RHR HX RHRSW OUT	RX	896.00	B RHR ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
8	SV-1995	0	/ SV FOR CV-1995 #12 RHR MIN FLOW	RX	896.00	B RHR ROOM	935.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
9	V-SF-10	0	/ 11 DIESEL ROOM VENT FAN	TB	951.00	11 DG	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
9	V-SF-9	0	/ 12 DIESEL ROOM VENT FAN	TB	951.00	12 DG	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
10	DM 8089-B1	0	/ V-SF-9 EXHAUST DAMPER	TB	951.00	12 DG	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
10	DM 8089-B2	0	/ V-SF-9 EXHAUST DAMPER	TB	951.00	12 DG	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
10	DM 8089-K1	0	/ V-SF-10 EXHAUST DAMPER	TB	951.00	11 DG	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
10	DM 8089-K2	0	/ V-SF-10 EXHAUST DAMPER	TB	951.00	11 DG	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
10	V-AC-4	0	/ RHR B AIR HANDLER	RX	896.00	B RHR ROOM	896.00	N/A	ABS	CRS	Yes	Yes	Yes	Unk	Unk
10	V-AC-5	0	/ RHR A AIR HANDLER	RX	911.00	A RHR RM	935.00	N/A	ABS	CRS	Yes	Yes	Yes	Yes	Yes
12	K-10A	0	/ RHRSW AUX AIR COMP	RX	935.00	N OF ELEVATOR	935.00	Yes	BS	GRS	Yes	Yes	Yes	No	No
12	K-10B	0	/ B RHR AUX AIR COMPRESSOR	RX	935.00	SW	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes

Certification:


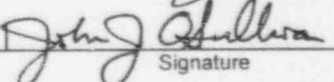
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J.J. O'Sullivan		11/3/95		
Print or Type Name	Signature	Date	Print or Type Name	Date

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12	K-8A	0	/ 11 EDG ELECTRIC/DIESEL AIR STARTER COMPRESSOR #1	TB	931.00	11 DG RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
12	K-8B	0	/ 11 ELECTRIC AIR STARTER COMPRESSOR #2	TB	931.00	11 DG RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
12	K-9A	0	/ 12 ELECTRIC AIR STARTER COMPRESSOR #1	TB	931.00	12 DG RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
12	K-9B	0	/ 12 EDG ELECTRIC/DIESEL AIR STARTER COMPRESSOR #2	TB	931.00	12 DG RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
14	D111	0	/ DIV II 125 VDC PANEL	TB	911.00	LOWER 4KV RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
14	D211	0	/ DIV II 125 VDC PANEL	TB	931.00	UPPER 4KV RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
14	D31	0	/ DIV I 125/250 VDC DISTRIBUTION PANEL	ADMIN	928.00	DIV1 250V BATRM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
14	P-73A	0	/ 480V POWER PANEL	RX	962.00	MG SET RM	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
14	Y10	0	/ DIV 1 CLASS NON-1E UNINT INST 120VAC DIST PANEL	ADMIN	939.00	CSR	963.00	Yes	BS	GRS	Yes	Yes	Unk	Yes	Unk
14	Y20	0	/ NON- 1E INST 120VDC DIST PANEL	ADMIN	939.00	CSR	963.00	Yes	BS	GRS	Yes	Yes	Unk	Yes	Unk
14	Y21	0	/ INSTRUMENT AC TRANSFER SWITCH	ADMIN	939.00	CSR	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
14	Y30	0	/ DIV 2 CLASS NON-1E UNINT 120VAC INST AC DIST PANEL	ADMIN	939.00	CSR	963.00	Yes	BS	GRS	Yes	Yes	Unk	Yes	Unk
14	Y70	0	/ DIV 1 UNINTERRUPTIBLE 120VAC CLASS 1E DIST PANEL	EFT	944.00	PWR EQ DIV 1 RM	944.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
14	Y73	0	/ ALTERNATE 120VAC TO UPS (Y71)	EFT	944.00	PWR EQ DIV 1 RM	944.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
14	Y74	0	/ FUSED DISCONNECT SWITCH TO PANEL Y10	EFT	944.00	PWR EQ DIV 1 RM	944.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
14	Y75	0	/ FUSED DISCONNECT SWITCH TO PANEL Y70	EFT	944.00	PWR EQ DIV 1 RM	944.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
14	Y80	0	/ DIV 2 UNINTERRUPTIBLE 120VAC CLASS 1E DIST PANEL	EFT	960.00	MAIN ROOM	960.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
14	Y83	0	/ ALTERNATE 120VAC TO UPS (Y81)	EFT	960.00	MAIN ROOM	944.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
14	Y84	0	/ FUSED DISCONNECT SWITCH TO PANEL Y30	EFT	960.00	MAIN ROOM	944.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
14	Y85	0	/ FUSED DISCONNECT SWITCH TO PANEL Y80	EFT	960.00	MAIN ROOM	944.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes

Certification:


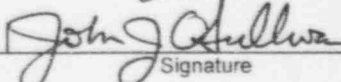
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Print or Type Name	Signature	Date	Print or Type Name	Signature

Monticello Nuclear Generating Plant
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16	D10	0	/ 125 VDC CHARGER FOR #11 BATT	ADMIN	928.00	125 VDC DIV I RM	935.00	N/A	ABS	CRS	No	Yes	Yes	Yes	No
16	D20	0	/ 125 VDC Charger	ADMIN	928.00	125 VDC DIV II RM	935.00	N/A	ABS	CRS	Yes	Yes	Yes	Yes	Yes
16	D40	0	/ 125 VDC Charger	ADMIN	928.00	250 VDC DIV I RM	935.00	N/A	ABS	CRS	Yes	Yes	Yes	Yes	Yes
16	Y71	0	/ DIV 1 120VAC CLASS 1E INVERTER	EFT	944.00	PWR EQ DIV 1 RM	944.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
16	Y81	0	/ DIV 2 120VAC CLASS 1E INVERTER	EFT	960.00	MAIN ROOM	960.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
17	G-3A	0	/ 11 EMERGENCY DIESEL GENERATOR	TB	931.00	11 DG RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
17	G-3B	0	/ 12 EMERGENCY DIESEL GENERATOR	TB	931.00	12 DG RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	C-121	0	/ JET PUMP INSTRUMENT RACK	RX	935.00	WEST	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	C-122	0	/ JET PUMP INSTRUMENT RACK	RX	935.00	EAST	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	C-129B	0	/ RHR INSTRUMENT RACK	RX	896.00	B RHR RM	935.00	N/A	ABS	CRS	Yes	Unk	Unk	Unk	Unk
18	C-290A	0	/ SRV BLOWDOWN INST PANEL	RX	896.00	TORUS	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	C-290B	0	/ SRV BLOWDOWN INST PANEL	RX	935.00		935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	C-292-IR	0	/ INSTRUMENT RACK	RX	935.00		935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	C-55	0	/ RX LEVEL & PRESSURE RACK	RX	962.00	SOUTH	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	C-56	0	/ RX LEVEL & PRESSURE RACK	RX	962.00	SOUTH	963.00	Yes	BS	GRS	Yes	Yes	Yes	No	No
18	CRD HCU E	0	/ CRD HYDRALIC CONTROL UNITS EAST SIDE	RX	935.00	EAST SIDE	935.00	N/A	ABS	CRS	Yes	Yes	Yes	Yes	Yes
18	CRD HCU W	0	/ CRD HYDRALIC CONTROL UNITS WEST SIDE	RX	935.00	WEST SIDE	935.00	N/A	ABS	CRS	Yes	Yes	Yes	Yes	Yes
18	FIS-4224A	0	/ #11 DG SERVICE WATER LO FLOW ALARM	TB	931.00	11 DG ROOM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	FIS-4224B	0	/ #12 DG SERVICE WATER LO FLOW ALARM	TB	931.00	12 DG ROOM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	FS-3236	0	/ DG 11 DAY TANK LOW OVERFLOW ALARM	TB	931.00	11 DG RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	FS-3237	0	/ DG 12 DAY TANK LOW OVERFLOW ALARM	TB	931.00	12 DG RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	FT-10-97A	0	/ RHR HX 11 SW INLET FLOW	TB	931.00		935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	FT-10-97B	0	/ RHR HX 12 SW INLET FLOW	TB	931.00		935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	IR-FS-10-121A	0	/ RHR PUMP 13 MIN FLOW CONTROL RACK	RX	896.00	A RHR ROOM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes

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18	IR-FS-10-121B	0	/ RHR PUMP 13 MIN FLOW CONTROL RACK	RX	896.00	B RHR ROOM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	IR-PCV-4879	0	/ ALT N2 A RACK	TB	931.00	EAST	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	IR-PCV-4881	0	/ ALT N2 B RACK	TB	931.00	EAST	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	IR-PI-3051	0	/ TORUS INSTRUMENT RACK	RX	923.00	CRD PUMP ROOM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	IR-SV-3-29	0	/ EAST/WEST SDV VENT/DRN VLVS AIR SUPPLY SOL VLV RACK	RX	935.00		935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	IR-SV-3-31C	0	/ OUTBOARD VENT/AR RPS CH A RACK	RX	935.00	12 BK	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	LI-1522	0	/ MN DIESEL OIL STOR TANK T44 LEVEL INDICATION	YD	931.00	T-44	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	LIS-1528	0	/ DG 11 DAY TK 45A LOW LEVEL ALARM	TB	931.00	11 DG RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	LIS-1529	0	/ DG 12 DAY TANK 45B LOW LEVEL ALARM	TB	931.00	12 DG DAY TK RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	LS-1522	0	/ MN DIESEL OIL STOR TANK T44 HI/LO ALARM	YD	931.00	T-44	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	LT-2996	0	/ TORUS WATER LEVEL	RX	896.00	TORUS BOTTOM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	LT-7338A	0	/ TORUS WIDE RANGE LEVEL	RX	896.00		935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	LT-7338B	0	/ TORUS WIDE RANGE LEVEL	RX	896.00	TORUS BOTTOM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	PS-7192	0	/ RHR LOOP A AIR COMP CONTROL	RX	935.00	N OF ELEVATOR	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	PS-7193	0	/ RHR LOOP B AIR COMP CONTROL	RX	935.00	SW	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	PT-2994A	0	/ DW PRESS NARROW RANGE	RX	985.00		986.00	N/A	ABS	CRS	Yes	Yes	Yes	Yes	Yes
18	PT-7251A	0	/ DW WIDE RANGE PRES	RX	963.00		963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	PT-7251B	0	/ DRYWELL WIDE RANGE PRESS	RX	985.00		986.00	N/A	ABS	CRS	Yes	Yes	Yes	Yes	Yes
20	C-18	0	/ FEEDWATER AND RECIRCULATION	ADMIN	939.00	CSR	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	C-20	0	/ TURBINE PLANT INSTRUMENT VERTICAL BOARD	ADMIN	951.00	CR	963.00	Yes	BS	GRS	Yes	Yes	Yes	No	No
20	C-242	0	/ EFT NON-1E PANEL	EFT	932.00	DIV 1 RM	932.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	C-243A	0	/ EFT FLOW CONTOLLERS PANEL DIV I	EFT	933.00		932.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	C-244B	0	/ EFT FLOW CONTOLLERS PANEL DIV II	EFT	933.00		932.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	C-253A	0	/ SRV Panel	ADMIN	939.00	CSR	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	C-253B	0	/ SRV Panel	EFT	960.00	MAIN ROOM	960.00	Yes	BS	GRS	Yes	Yes	Yes	No	No

Certification:

Certification:

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Approved: (One signature of Systems or Operations Engineer is required if the Seismic Capability Engineers deem it necessary.)

D. Zercher		11-16-95	
Print or Type Name	Signature	Date	Print or Type Name
J.J. O'Sullivan		11/13/95	
Print or Type Name	Signature	Date	Print or Type Name

Monticello Nuclear Generating Plant
SCREENING VERIFICATION DATA SHEET (SVDS)

Eq. Cl	Eq. ID	Rev No	Sys/Eq. Desc	Bldg.	Fl El.	Rm or Rw/Cl	Base El.	<40'?	Cap. Spec.	Demd. Spec.	Cap > Demd?	Caveats OK?	Anchor OK?	Interact OK?	Equip OK?
20	C-253D	0	/ DIV II LOLO SET BYPASS PANEL	ADMIN	951.00	CR	963.00	Yes	BS	GRS	Yes	Yes	Yes	No	No
20	C-289A	0	/ SPOTMOS PANEL	ADMIN	939.00	CSR	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	C-289B	0	/ SPOTMOS PANEL	EFT	960.00	MAIN	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	C-293	0	/ ASDS RELAY PANEL	TB	931.00	UPPER 4KV RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	C-303A	0	/ ECCS DIV I ANALOG TRIP SYSTEM	ADMIN	939.00	CSR	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	C-303B	0	/ ECCS DIV II ANALOG TRIP SYSTEM	EFT	960.00	MAIN ROOM	960.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	C-304A	0	/ RPS-A1 AND ISOLATION ANALOG TRIP UNIT	ADMIN	939.00	CSR	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	C-304B	0	/ RPS-B1 AND ISOLATION ANALOG TRIP UNIT	ADMIN	939.00	CSR	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	C-304C	0	/ RPS-A2 AND ISOLATION ANALOG TRIP UNIT	EFT	960.00	MAIN	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	C-304D	0	/ RPS-B2 AND ISOLATION ANALOG TRIP UNIT	EFT	960.00	MAIN	963.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	C-311	0	/ SRV BACKUP AIR SUPPLY	TB	931.00	EAST	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	C-33	0	/ B RHR, CORE SPRAY, ADS CONTROL PANEL	ADMIN	931.00	CSR	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	C-39	0	/ HPCI RELAY PANEL	ADMIN	939.00	CSR	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	C-42	0	/ OUTBOARD ISOLATION RELAY PANEL	ADMIN	939.00	CSR	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	D101	0	/ DIV 2 125/250 VDC ALARM SYSTEM PANEL	EFT	932.00	DIV 2 RM	932.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	D102	0	/ DIV 1 125/250 VDC ALARM SYSTEM PANEL	ADMIN	928.00	DIV1 250 BAT RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	N3346A	0	/ 11 EDG AIR CMPSR 1 (K-8A) LOCAL DISCONNECT SWITCH	TB	931.00	11 EDG RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	N3346B	0	/ 12 EDG AIR CMPSR 2 (K-9B) LOCAL DISCONNECT SWITCH	TB	931.00	12 EDG RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	N3347	0	/ MOTOR STARTER FOR K-10A	RX	935.00	N OF ELEVATOR	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	N4301A	0	/ 11 EDG AIR CMPSR 2 (K-8B) LOCAL DISCONNECT SWITCH	TB	931.00	11 EDG RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
20	N4301B	0	/ 12 EDG AIR CMPSR 1 (K-9A) LOCAL DISCONNECT SWITCH	TB	931.00	12 EDG RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes

Certification:

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D. Zercher		11-16-95			
Print or Type Name	Signature	Date	Print or Type Name	Signature	Date
J.J. O'Sullivan		11/13/95			
Print or Type Name	Signature	Date	Print or Type Name	Signature	Date

Monticello Nuclear Generating Plant
 SCREENING VERIFICATION DATA SHEET (SVDS)

Eq. Cl	Eq. ID	Rev No	Sys/Eq. Desc	Bldg.	Fl. El.	Rm or Rw/Cl	Base El.	<40'?	Cap. Spec.	Demd. Spec	Cap > Demd?	Caveats OK?	Anchor OK?	Interact OK?	Equip OK?
7	RV-2025	0	/ RHR HEAD SPRAY LINE RV	RX	974.00	SOUTH	986.00	Yes	BS	GRS	Yes	Yes	N/A	Yes	Yes
18	IR-5AK30A	0	/ RACK FOR 5AK30A & 5 AK30B RELAYS	RX	935.00	WEST	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	TC-8089C	0	/ TEMPERATURE CONTROLLER	TB	931.00	11 EDG RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes
18	TC-8089L	0	/ TEMPERATURE CONTROLLER	TB	931.00	12 EDG RM	935.00	Yes	BS	GRS	Yes	Yes	Yes	Yes	Yes

Certification:

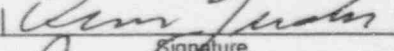

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D. Zercher		11-16-95			
Print or Type Name	Signature	Date	Print or Type Name	Signature	Date
R. Peterson		11-16-95			
Print or Type Name	Signature	Date	Print or Type Name	Signature	Date

APPENDIX E
PEER REVIEW ASSESSMENT



September 15, 1995

Dennis Zercher
Northern States Power Company
Monticello Nuclear Generating Station
2875 Highway 75
Monticello, Minnesota 55652

Subject: Monticello Nuclear Generating Station (MNGS) A46-Seismic Third Party Audit

Dear Mr. Zercher:

Please let this letter serve as a report on the peer review walkdown for the A-46 (SQUG) evaluation of the Monticello Nuclear Generating Station. The site visit portion of the peer review was conducted by Drs. R. F. Kennedy and J. D. Stevenson on September 11, 1995. Walkdowns were conducted after the Screening Evaluation Worksheets (SEWS) were first reviewed. Also, after the walkdown itself, an additional sampling of SEWS chosen based on the peer walkdown was reviewed and found to be in good order. A listing of the SEWS selected for review is provided in Attachment 1. Outlier Screening Verification Sheets (OSVS) were not completed at the time of the peer review and, therefore, were not reviewed. Determination of in-cabinet amplification factors by the SRT was also not reviewed by the peer reviewers.

General and specific comments on the walkdowns and the SEWS reviewed are provided below.

Accessible areas of the plant were reviewed excluding the Drywell (Primary Containment) and high radiation areas. Areas which were inaccessible due to radiological concerns were the Primary Containment, and a few areas in the Reactor building including the Reactor Water Cleanup Room and Main Steam Tunnels. Corner rooms in the Reactor building were accessible and thus were visited.

The walkdown has been well conducted and results are in accordance with the guidance of the Generic Implementation Plan (GIP). The vast majority of the findings noted in this letter were already found and documented by the walkdown team, so the peer reviewers believe

4160V and 480V Load Center Room

Bus 15 The medium voltage switchgear was energized and thus could not be internally inspected by the peer reviewers. The medium voltage switchgear anchorage, along with that of many other Monticello electrical equipment, was upgraded in the early 1980s in voluntary compliance with the issues noted in USNRC Information Notice 80-21. The switchgear is braced to the rear R/C wall and plug welded to embedded channels in the floor. It was noted that the plug welds themselves were inspected by a plant weld inspector to ensure their structural integrity. No issues were identified by the peer reviewers.

LC104 The load center is a new installation installed to current seismic criteria. It is not braced to the rear wall. The peer reviewers were able to inspect one panel in the rear and confirm that it is plug welded to embedded channels. Other load center cubicles were not internally inspected because they were energized.

Cable Spreading Room

C-32 Cabinet The SRT identified that the duct is in contact with the top of the cabinet and thus poses an impact (interaction) hazard. The peer reviewers agree with this finding and suggested coping the duct stiffener and inserting neoprene to diminish the impact as a possible fix.

C-253A The cabinet is about 1/4" away from cabinet Y-25. This gap should be checked with a simple spectral displacement calculation.

C-27 This cabinet is an outlier because it contains a flexible RPIS Translation Electronics rack with circuit boards that could pop out under seismic load. The peer reviewers agree with this finding and suggested restraining members across the exposed edges of the boards.

Battery Rooms

Station Batteries The station batteries have some spacers missing above the fore-aft cross-ties which connect the battens. This was identified by the SRT as an outlier and the peer reviewers agree.

D10 Charger The D10 charger is missing one of four concrete expansion anchors. This was identified by the SRT as an outlier and the peer reviewers agree.

There were no other findings in the room.

this walkdown to have been conducted in a thorough and professional manner. The MNGS plant has been found to be in very good condition with respect to seismic ruggedness owing to good original design and modifications made to meet information bulletins and notices during the past fifteen years. The so-called "seismic housekeeping" was found to be very good. Very few unanchored items such as desks, bookcases, ladders and the like were found in the proximity of safety-related equipment.

The comments and observations as given below document the areas visited and any findings that were made:

Specific A-46 Related Comments

Diesel Generator Area

Equipment in Area The peer reviewer agrees with the judgments of the SRT, in general. Equipment reviewed included the diesel generator (DG) itself and its support equipment including the static exciter, diesel fuel oil day tanks, local control panel and the air start tanks. The diesel generator skid is well supported and no issues were identified. The air receiver tanks are horizontal tanks that are "cradle" supported from the reinforced concrete (R/C) wall and held into the cradle by 1/2" diameter rod U-shaped clamps. The SRT adjudged this restraint system as an outlier due to dependence on friction and uncertainty as to clamping force. The peer reviewers agree with the SRT outlier judgment and suggested that, for outlier resolution, all clamps be subjected to a tightness check. The sight glass on the lube oil tank is relatively short and not seen as a seismic hazard. The diesel fuel oil day tank is a horizontal saddle supported tank. The SEWS was not completed at the time of this review pending identification of the grout pad doweling and reinforcement. Clearly, the anchorage forces and saddle stresses need to be checked, however, the overall design appears stout. Finally, an approximately 4' high panel, G41, adjacent to the static exciter and some conduit needs to be checked for positive anchorage as it could pose an interaction hazard to surrounding conduit.

The air handling equipment is located on the elevation above the DG room. Fan V-SF-10 was reviewed. The SRT identified a drain pipe as a potential interaction hazard, subject to further review. The peer reviewers noted that they would not have identified this drain line as a problem in their personal judgment. The power actuated louvers which fail open to allow in-flow of outside air to the DG rooms were adjudged seismic acceptable by the SRT and the peer reviewers concurred.

Turbine Building - General Areas

MCC B43B The peer reviewer were able to inspect the base anchorage which consisted of 1/2" diameter concrete expansion anchors in only some of the cubicles. Although the MCC is top braced to a R/C wall, it still needs to be anchored at the base at minimum in every other cabinet front and rear side. As such, this does not appear to be the case with this MCC. A SEWS had not been completed for this MCC at the time of the peer review pending bolt tightness check and anchorage inspection.

Intake Structure

PI-7331 The SRT identified this and other similar indicators as potentially weak due to their narrow inlet lines. The peer reviewers suggested a "tug test" to determine if the mounting was, in fact, weak. This was subsequently performed and the SRT concluded the indicators are acceptable by judgment.

P-109A, B, C, D (SW Pumps) The SW pumps exceed the 20° rule and their anchorage does not meet GIP rules when all of the knockdown factors are applied. A major reason for the anchorage not passing is due to artificially high demand since the MNGS seismic criteria directs the Reactor building "equivalent floor" response spectrum be used as seismic input. In this instance, the results are considered very conservative. The peer reviewers agree that the pumps are outliers and suggested MNGS take measures to predict a more suitable seismic demand for the Intake Structure as an outlier resolution task.

Main Control Room

Control Room Ceiling The ceiling appears to be adequately secured such that there will be no general failure of the ceiling. The SRT found the light panels themselves were not safety chained and declared the ceiling, thus the control room cabinets, as outliers. The peer reviewers agree and MNGS is issuing a work order to chain the light panels.

Control Room Cabinets The control room cabinets are well anchored. A filing cabinet behind cabinet C-03 was noted by the peer reviewers; however, both the SRT and the peer reviewers agreed that the filing cabinet would not fall into C-03. No other interactions were noted. The "seismic housekeeping" in the control room is excellent.

Reactor Building

K-10A This compressor has an adjacent unanchored rack which poses an interaction hazard. The SRT made this finding and the peer reviewers concur with the finding.

Hydraulic Control Units (HCU) In addition to anchorage and frame integrity, the overhead lines of the HCUs should be checked for vulnerabilities. In particular, the lateral support of steel framing surrounding the lines should be checked.

V-AC-4, 5 The fans are mounted on neoprene pads. The SRT suggested a reasonable lateral capacity could be obtained for the isolators. The peer reviewers agreed, but noted that neoprene isolators should not be subject to tensile loads; otherwise, they would be declared outliers.

Pressure Transmitters The pressure transmitters seen throughout the building appear sound and have been tug tested by the SRT to ensure they are secure.

Rack 129B The SRT made the rack an outlier due to an adjacent long and large vertical duct hung on rods. The rods connect to the stiffeners of the duct via small size angles which are already bent due to the dead load. A remedial fix to the duct support should be considered in the opinion of the SRT and the peer reviewers.

Rack C-56 The SRT identified this rack as an outlier because a conduit leading to the rack has a long unsupported span. There is potential for the conduit to swing and pull wiring. The peer reviewers agreed with this judgment. The conduit should be attached to an overhead beam.

SV-4033B The safety valve's location is greater than 40' above grade and the floor response spectrum (FRS) exceeds 1.5 times the bounding spectrum (BS) below about 2 Hz. The peer reviewers suggest that it would be very reasonable to adjudge the system fundamental frequency at 4 Hz or higher where the FRS is below 1.5BS.

MCC D311 This MCC had concrete expansion anchors properly installed and tightness checked. The peer reviewers had no issues with this equipment.

EFT Building

C243A, C244B, C253B, C303B Y81 Inverter & Y80 Distribution Panel All cabinets and equipment were well anchored and no issues were identified except with C253B which had a potential interaction concern with an adjacent cart.

MCC B34 No issues identified.

MCC B44 The SRT is reviewing the interaction with an overhead conduit pull-box. The peer reviewers in their judgment did not consider the pull-box an impact hazard.

Chargers D70, D80 and D90 The SRT identified weak way bending of the base channel as the only issue remaining to be assessed - all other issues having been dispositioned. The peer reviewers agreed.

D100 Distribution Panel No issues identified.

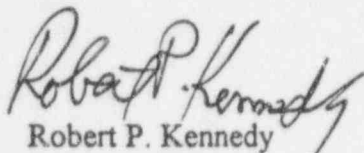
Cable-Trays - General

Ten preliminary LARs were available for review. A number of the supports chosen for LAR did not pass the GIP Section 8 review when conservative assumptions of tray fill were used (full trays assumed in most cases). The SRT is in process of determining more accurate values for tray fill. The peer reviewers commented that unless the large majority of the LARs passed the review, then the scope of review should be expanded until the SRT could bound the problem areas and/or type of support.

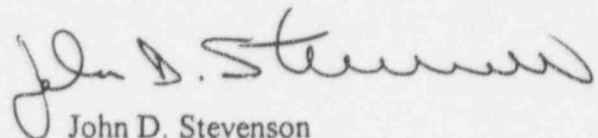
If you have questions or comments, please contact the undersigned.

Very truly yours,

Very truly yours,



Robert P. Kennedy
Seismic Walkdown Peer Reviewer

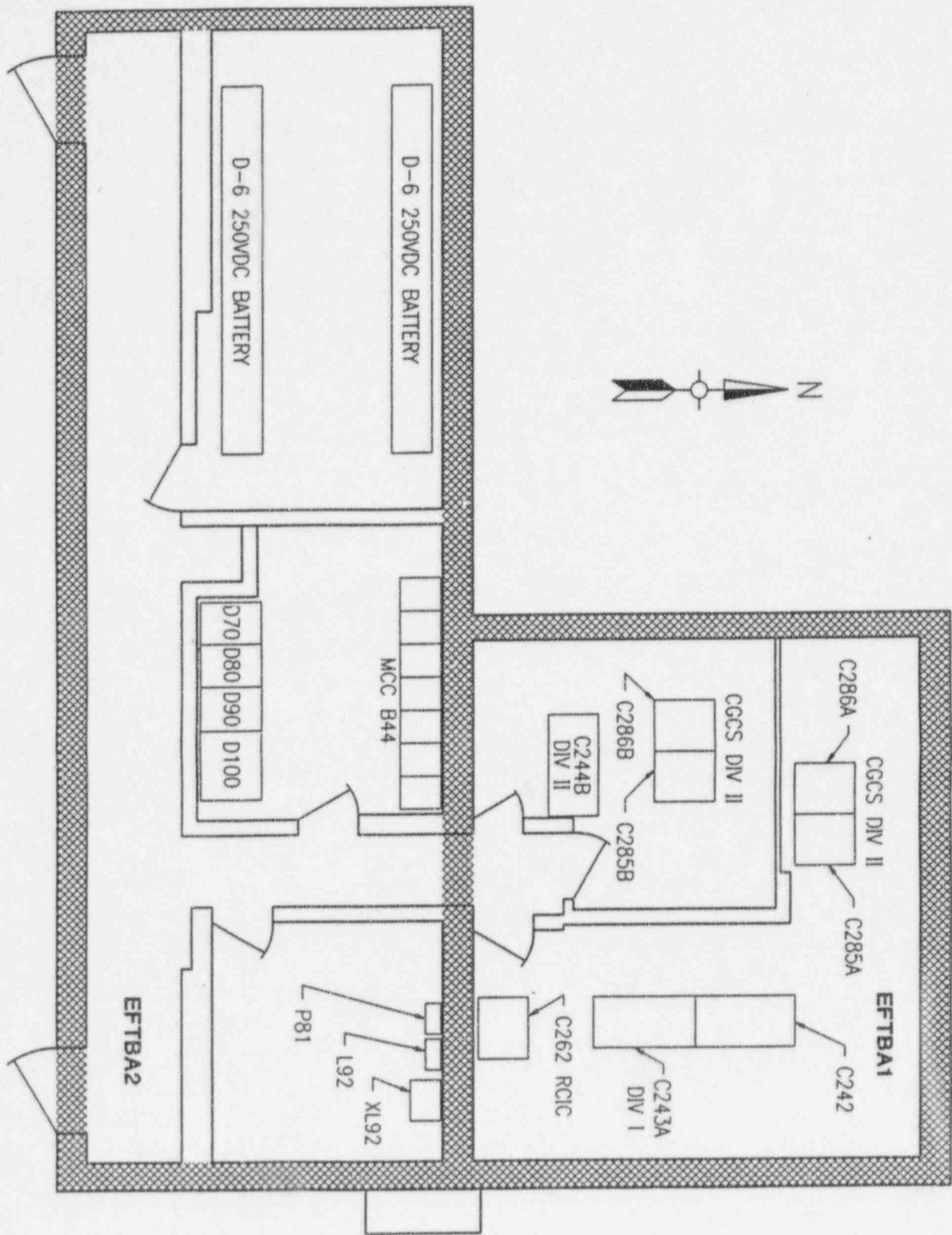


John D. Stevenson
Seismic Walkdown Peer Reviewer

Attachment 1
SEWS Reviewed by Peer Reviewers

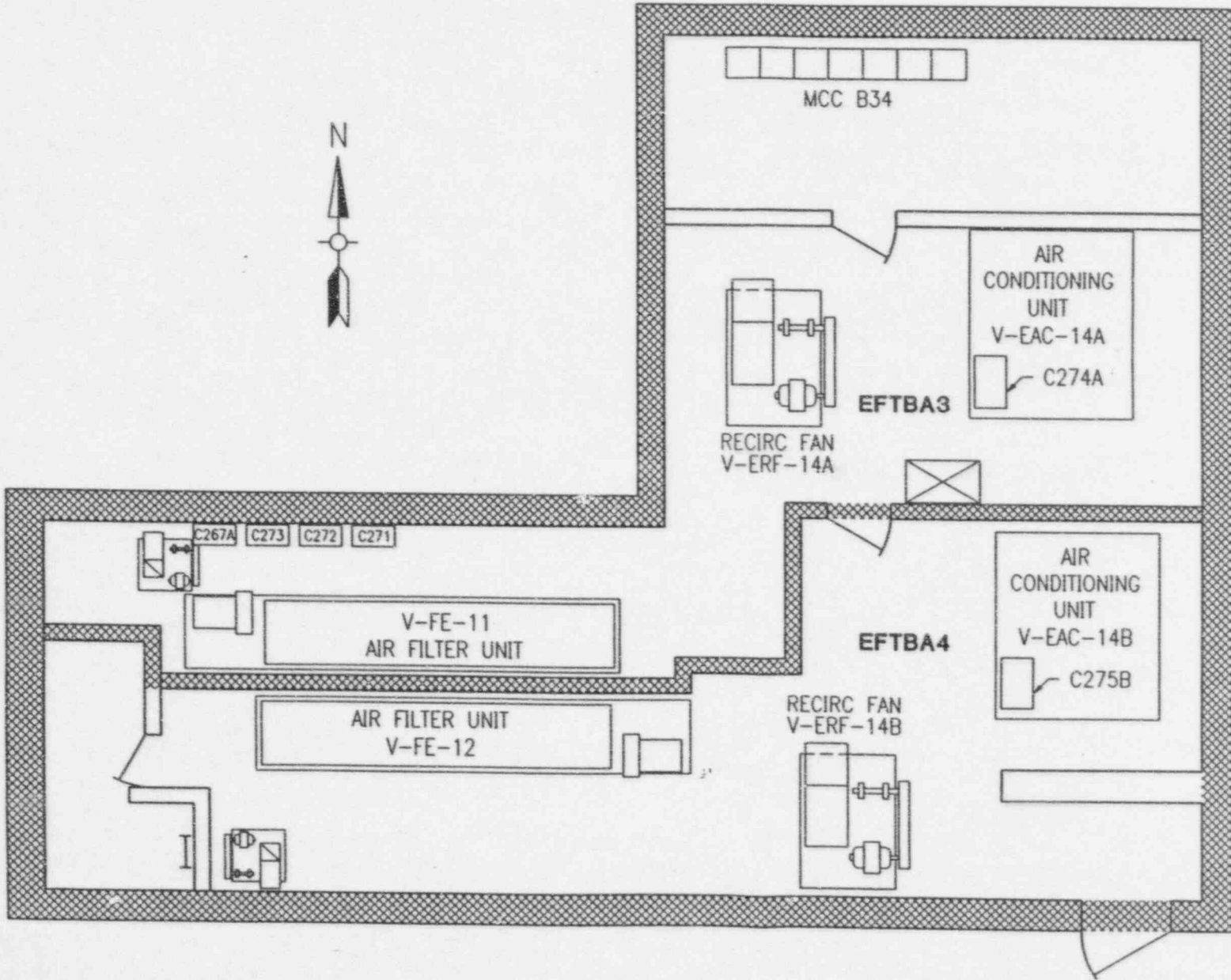
P-111A
PI-7361B
K-9B
D-111
B-33A
X-30
C-33
C-03
C-129B
D312
MO1741
PI-14-36A
K-10A
MO2012
MO2398
D100
334

APPENDIX F
ELECTRICAL EVALUATION AREAS



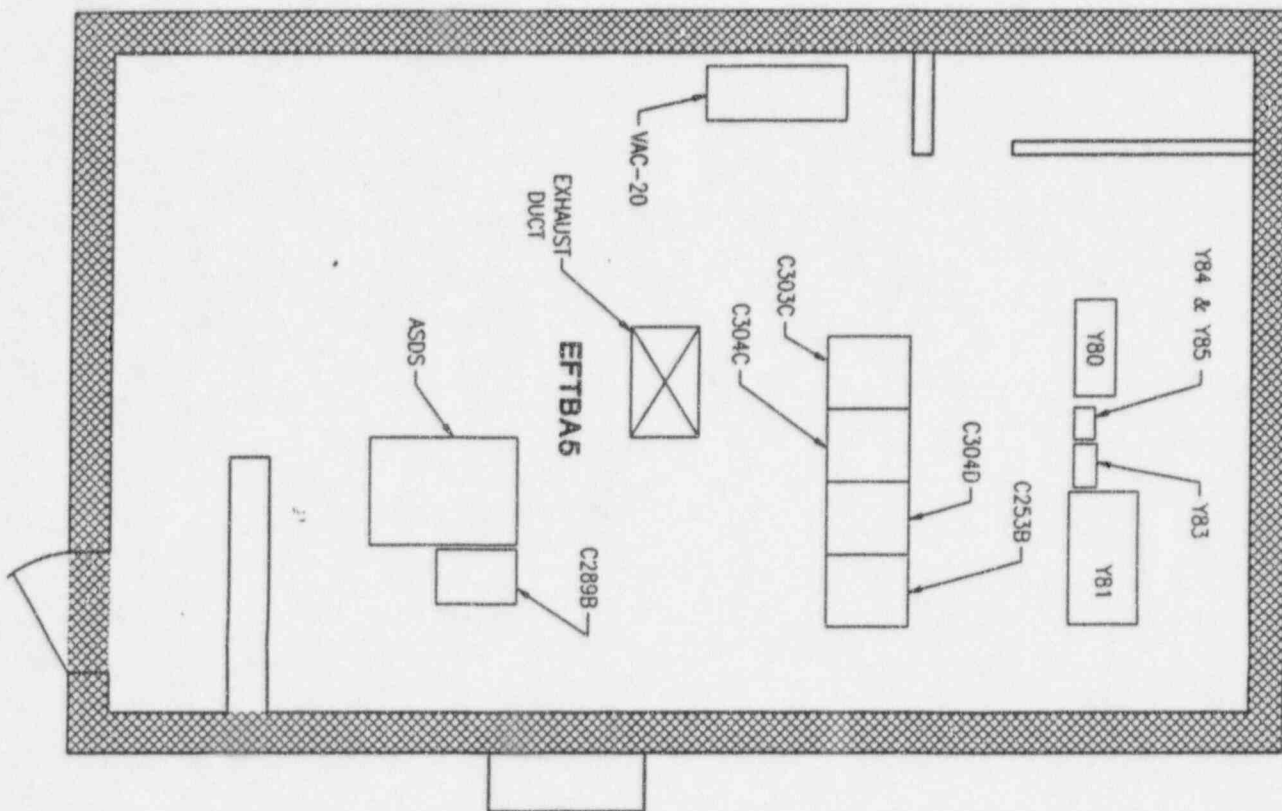
EFT BUILDING
 ELEV 933'

Figure F-1



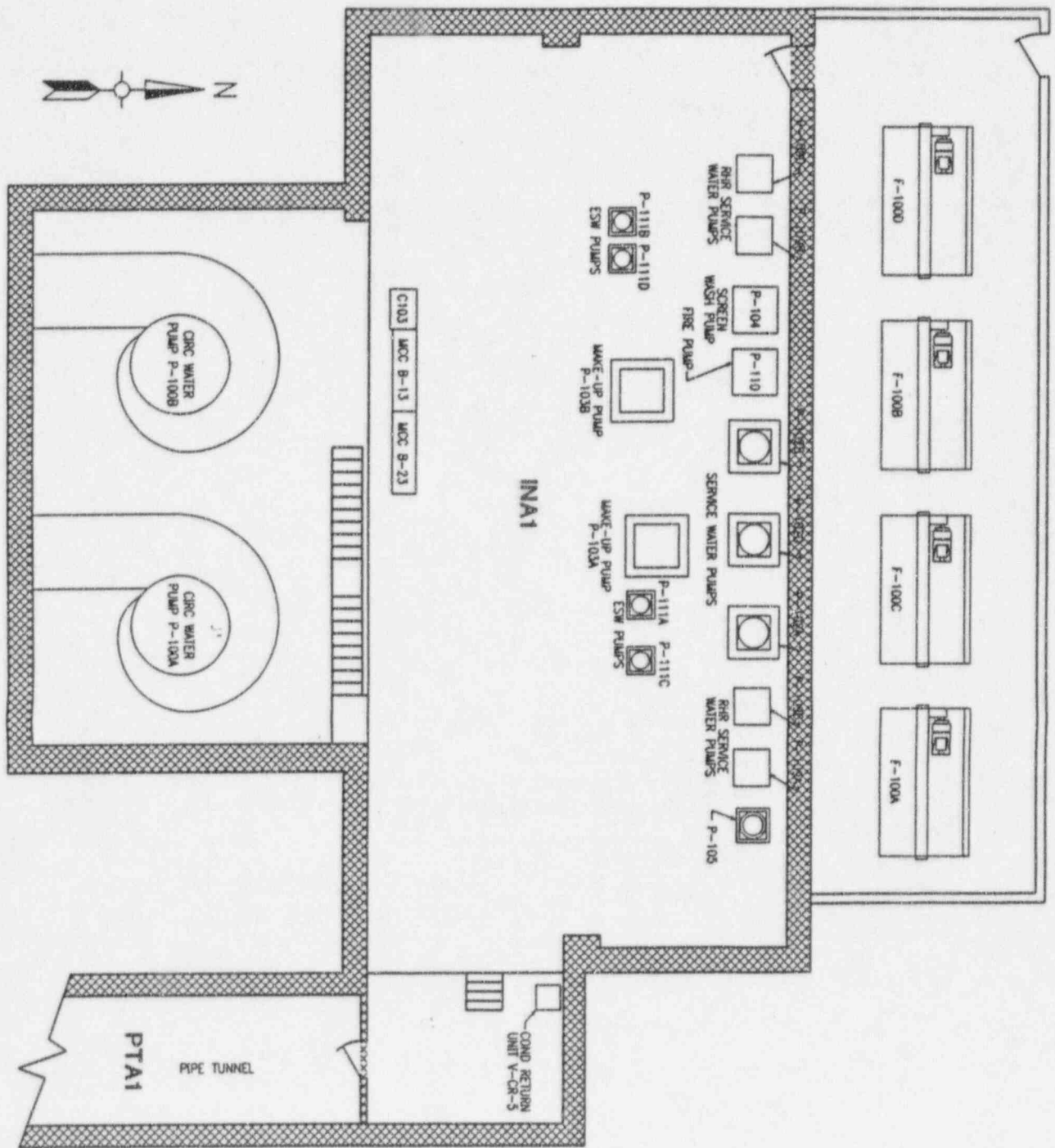
EFT BUILDING
ELEV 944'

Figure F-2



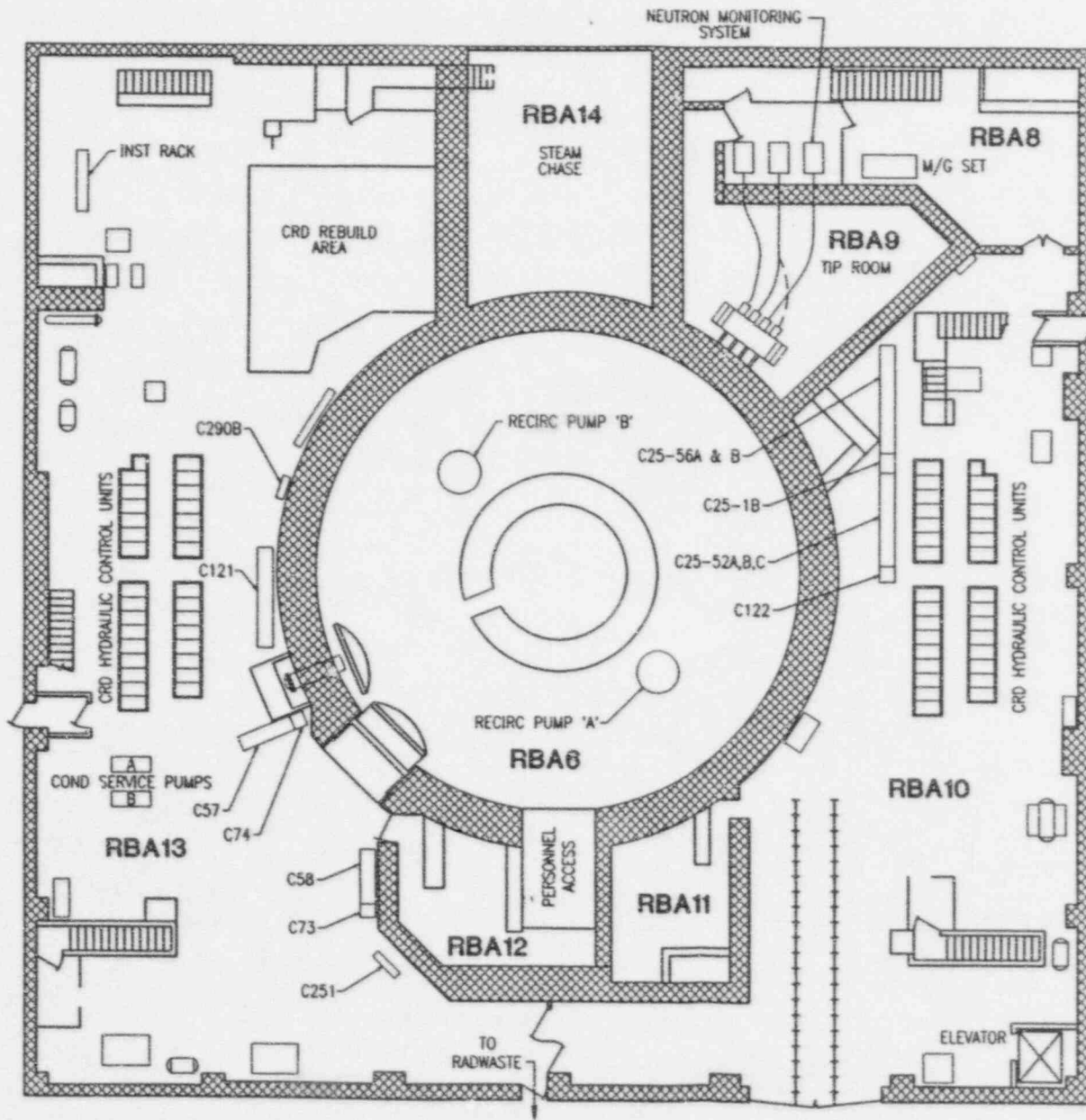
EFT BUILDING
ELEV 960'

Figure F-3



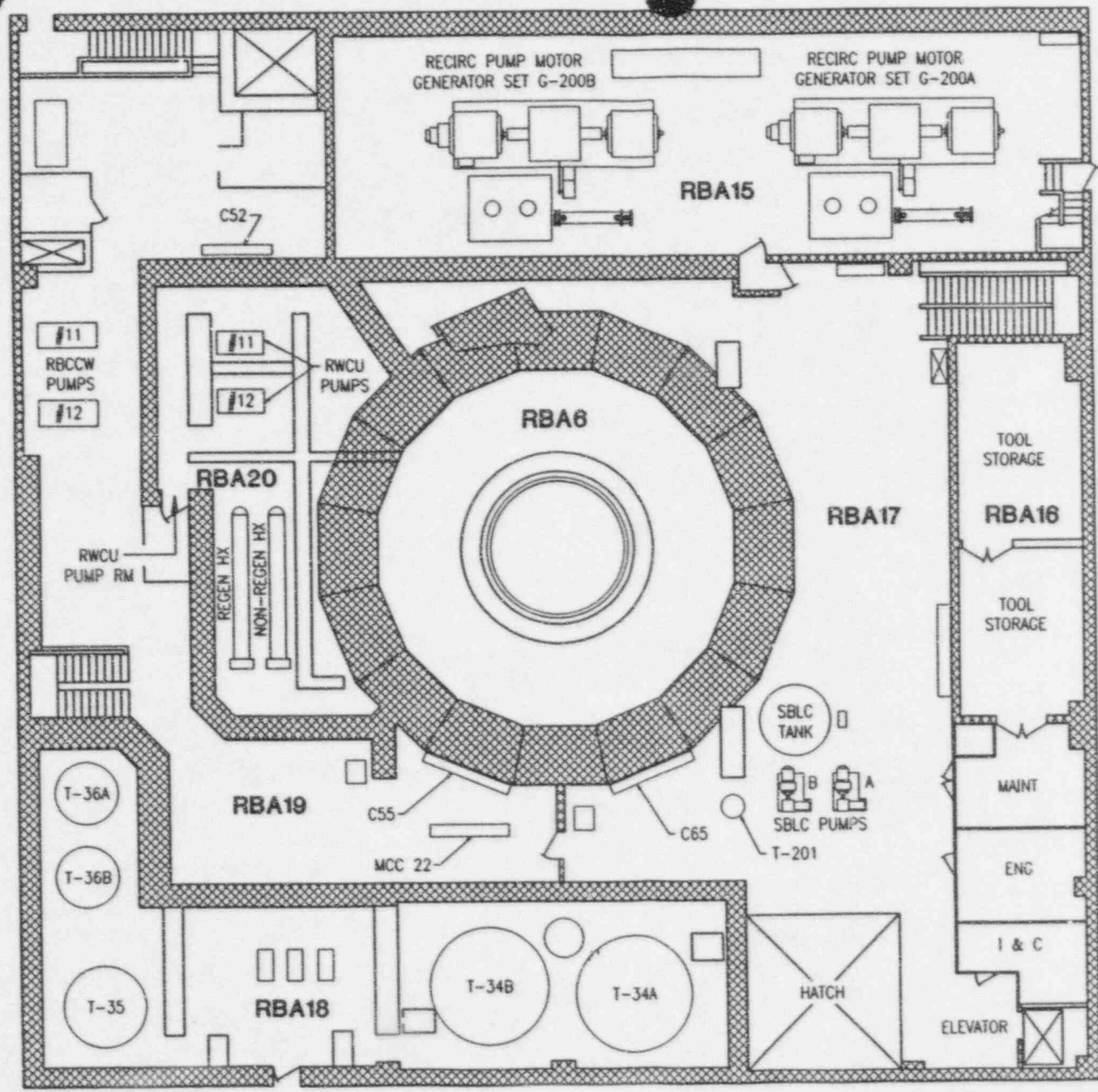
INTAKE STRUCTURE

Figure F-4



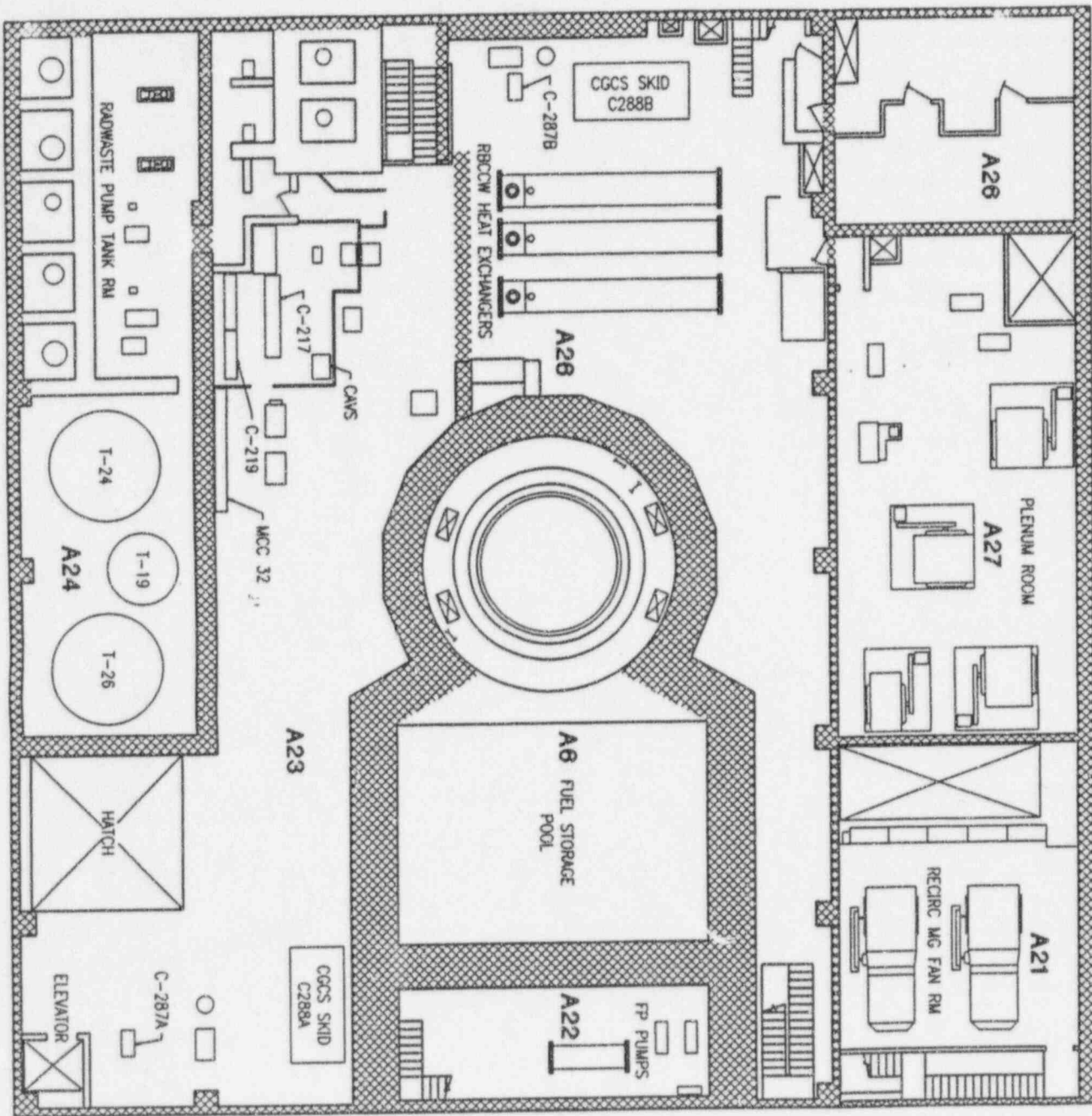
REACTOR BUILDING
ELEV 935'

Figure F-5



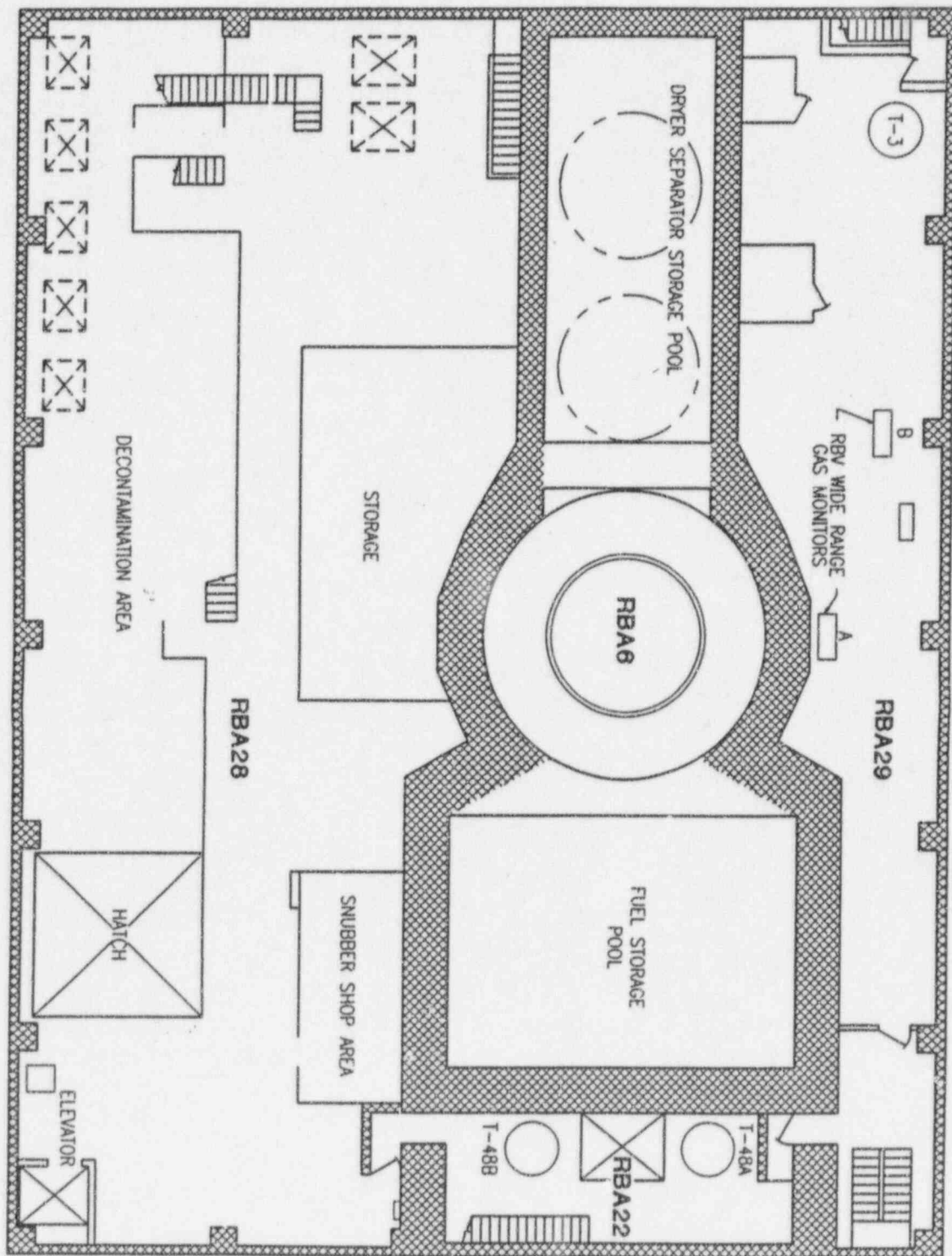
REACTOR BUILDING
ELEV 962'

Figure F-6



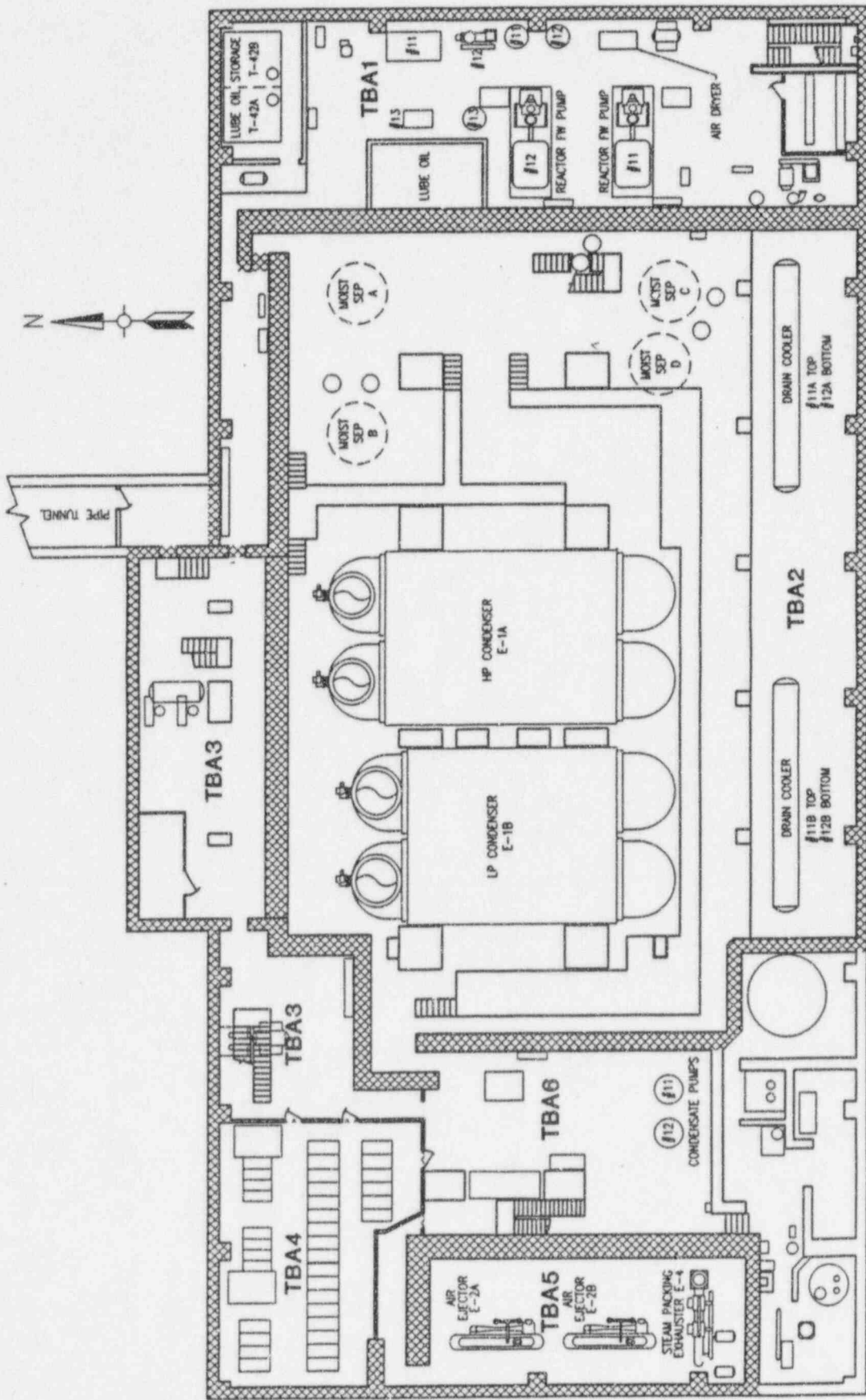
REACTOR BUILDING
ELEV 985'

Figure F-7



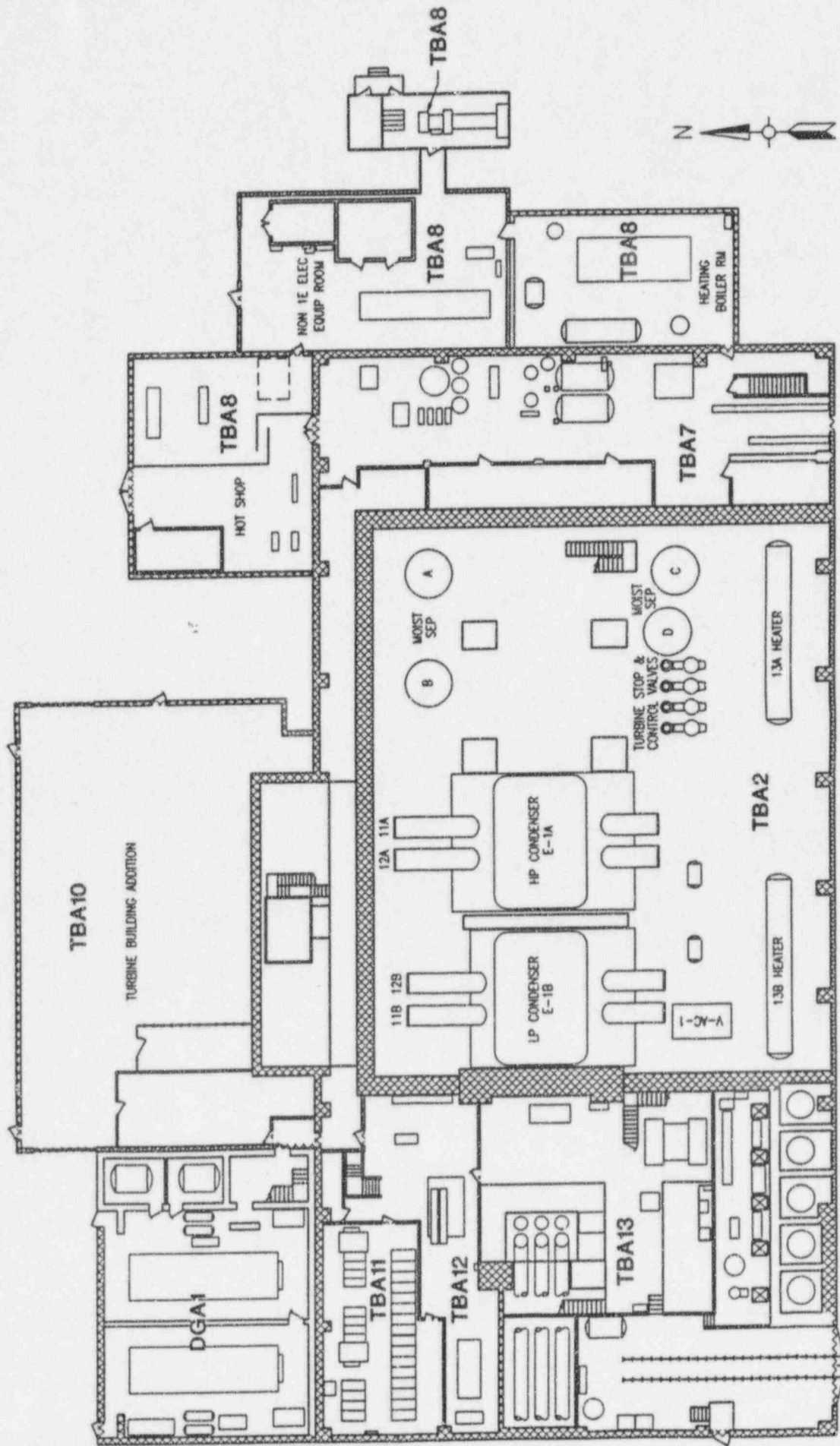
REACTOR BUILDING
ELEV 1001'

Figure F-8



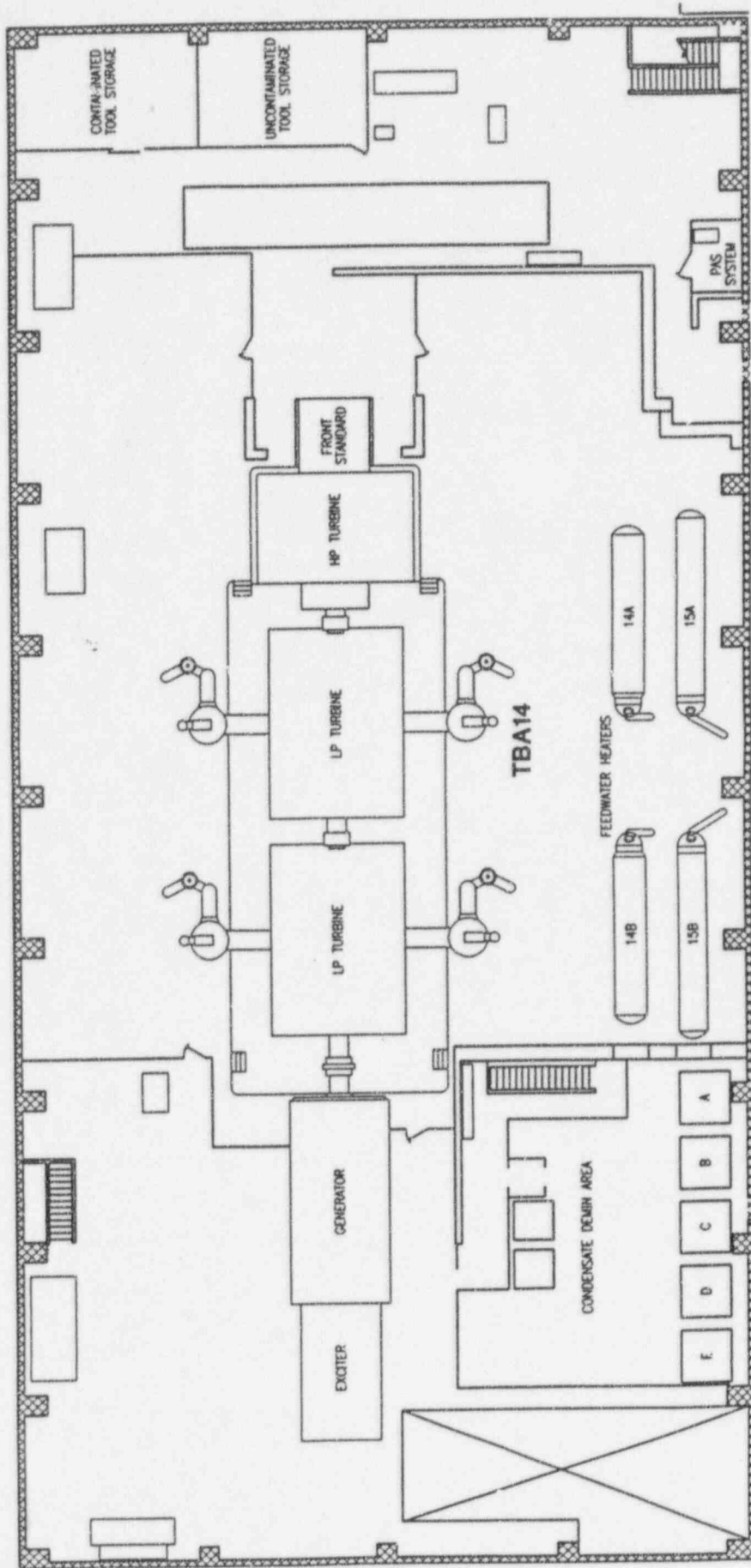
**TURBINE BUILDING
ELEV 911'**

Figure F-9



**TURBINE BUILDING
ELEV 931'**

Figure F-10



TURBINE BUILDING
ELEV 951'



Figure F-11

USNRC USI A-46 Resolution
Relay Evaluation Report
Monticello Nuclear Generating Plant

November, 1995

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1. INTRODUCTION

This report documents the USI A-46 relay seismic functionality review for Northern States Power Company's (NSP's) Monticello Nuclear Generating Plant (MNGP). This work was performed by NSP in order to address NRC Generic Letter 87-02, "Verification of Seismic Adequacy of Mechanical and Electrical Equipment in Operating Reactors, Unresolved Safety Issue (USI), A-46" [1] for MNGP.

A review of relays associated with safe shutdown equipment is required as part of the resolution of NRC USI A-46, "Seismic Qualification of Equipment in Operating Plants". The purpose of the relay functionality review is to verify that safe shutdown systems would not be prevented from performing their safe shutdown functions because of relay (contact) chatter during the period of strong ground motion associated with a Design Basis Earthquake.

2. RELAY SCREENING AND EVALUATION METHODOLOGY

The relay functionality review was performed according to Section 6 of the "Generic Implementation Procedure (GIP) for Seismic Verification of Nuclear Plant Equipment" [2] and the "Procedure for Evaluating Nuclear Power Plant Relay Seismic Functionality" [4]. Comparison of Zero Period Acceleration (ZPA) capacities was included as discussed in the *Supplemental Safety Evaluation Report No. 2 (SSER #2) on GIP-2* [3].

The process used to identify and evaluate the relays required to safely shut down the plant in the event of an SSE is contained in References 2 and 4 and is summarized as follows:

1. Safe shutdown systems were identified, including those specific components which must operate for the systems to meet their functional requirements, or whose malfunction could interfere with meeting system functional requirements. The relays which affected operation of this set of systems and associated components were evaluated. The Seismic Evaluation Report [8] summarizes the identification of the safe shutdown equipment.
2. The relays/circuits which affect the safe shutdown system equipment were evaluated. A simplified failure modes and effects analysis was used to examine the consequences of relay malfunction. This step screened from further consideration those relays, or complete circuits of relays, whose malfunction would not prevent system/component functioning or cause other unacceptable conditions. Checks were also made for generically rugged devices (solid state relays and mechanically actuated contacts) and for the small group of relays and devices considered vulnerable to minor impact. Some relays were screened from further evaluation where operator actions to restore/reset systems are acceptable; i.e., adequate indication, time, access, procedures, and only a small number of systems identified. Those relays which could not be so screened are

designated "essential" and required evaluation to determine if they have adequate seismic ruggedness for their specific application.

3. LEAD RELAY REVIEW ENGINEER

The lead relay review engineer was Mr. D. Wacha of Northern States Power Company who has been SQUG trained and certified. His résumé and SQUG Relay Evaluation Training Course completion certificate are provided in Appendix A.

4. RELAY REVIEW SSEL

The Relay Review Safe Shutdown Equipment List (SSEL) identifies the plant equipment for which a relay functionality review is performed. The Relay Review SSEL includes those items of equipment which could inadvertently change state, operate or not operate due to relay chatter in the control circuits of this equipment. The Relay Review SSEL is a subset of the Composite SSEL contained in the Seismic Evaluation Report [8].

The resolution of USI A-46 requires verification of the seismic adequacy of the equipment necessary to achieve and maintain a safe shutdown condition for MNGP during the first 72 hours following a Safe Shutdown Earthquake (SSE). The key assumptions used in the USI A-46 review are:

1. The unit will be operating normally, with the reactor coolant system at or near normal operating pressure and temperature, prior to the SSE;
2. The earthquake will not cause a loss of coolant accident (LOCA);
3. No other extraordinary event or accident; e.g., fire, flood, or LOCA will occur simultaneously with the SSE;
4. Loss of off-site power may occur as a result of the earthquake; and
5. There should be sufficient redundancy such that the failure of the active function of a single component will not prevent safe shutdown.

Discussion of the development of the SSEL is contained in the Seismic Evaluation Report. The Relay Review SSEL is provided in Appendix B.

5. FUNCTIONAL SCREENING RESULTS

The results of the relay functional screening are provided in Appendix C. The relays are grouped according to the Component/Subsystem and line number as given on the Relay Review SSEL. For each component/subsystem, the following information is listed:

- Relay Designation - plant specific identification number (where available) or designation as show on applicable schematic diagram.

- Relay Type - relay manufacturer and model number.
- Panel - panel that the relay is located in (if applicable).
- Low Ruggedness - whether the relay is a low ruggedness relay.
- Resolution - results of functional review:
 - CA - Chatter acceptable
 - NV - Not vulnerable (mechanically actuated contacts and solid state relays).
 - GERS - Seismically adequate based on Generic Equipment Ruggedness Spectra (GERS)
 - SWGR - Seismically adequate based on switchgear GERS.
 - TEST - Seismically adequate based on test data.
 - NA - Component not affected by relays.
 - CR - Corrective action required.
 - OA - Operator action.

Other devices which have contacts, such as control switches and instrumentation (pressure switches, level switches, etc.) which are used in relay logic control circuits, are also addressed in the relay evaluation.

Relays whose malfunction (i.e. chatter) is unacceptable and that are not mechanically actuated or solid state relays are considered essential relays and require evaluation of their seismic capacities.

6. ESSENTIAL RELAYS AND SEISMIC CAPACITY EVALUATIONS

The seismic adequacy of relays which were identified as essential was evaluated by comparing the seismic capacity of specific relay types with the plant-specific seismic demand. Seismic capacity was based on the Generic Equipment Ruggedness Spectra (GERS) contained in EPRI documents NP-5223-SL [5], NP-7147-SL [6], NP-7147-SL Volume 2: Addendum 1 [7], and NP-7147-SL Addendum 2 [8]. Where GERS were not available for a specific relay type, vendor test data was used where available.

The results of the essential relay seismic capacity evaluations are provided in Appendix C. The relays are grouped according to the Component/Subsystem and line number as given on the Relay Review SSEL. For each component/subsystem, the following information is listed:

- Relay Designation - plant specific identification number (where available) or designation as show on applicable schematic diagram.
- Relay Type - relay manufacturer and model number.
- Panel - panel that the relay is located in (if applicable).
- Floor Elevation - Plant floor elevation where the relays are mounted.
- Resolution - results of the seismic capacity evaluation. Seismic demand and capacity levels are listed in the format of x.x/y.yg with x.x being the g value in the 4 to 16 Hz range and y.y being the ZPA g value.

7. DESCRIPTION OF RELAY OUTLIERS

The seismic capacity review resulted in a number of relays for which GERS or specific vendor qualification were not available. These relays are considered outliers and will require additional evaluations.

Relay outliers are listed in Table 7-1.

Table 7-1
 Relay Outliers

No.	Relay Designation and Panel	Subsystem/Component used in
1	ECRA (C91)	G-3A (EDG 11)
2	ECRA (C92)	G-3B (EDG 12)
3	ESR1 (C91)	G-3A (EDG 11)
4	ESR1 (C92)	G-3B (EDG 12)
5	ESR2 (C91)	G-3A (EDG 11)
6	ESR2 (C92)	G-3B (EDG 12)
7	ESRX1 (C91)	P-111A -- 11 EDG-ESW pump, V-SF-10 -- 11 EDG supply fan
8	ESRX1 (C92)	P-111B -- 12 EDG-ESW pump, V-SF-9 -- 12 EDG supply fan
9	ESRX2 (C91)	P-111A -- 11 EDG-ESW pump, V-SF-10 -- 11 EDG supply fan
10	ESRX2 (C92)	P-111B -- 12 EDG-ESW pump, V-SF-9 -- 12 EDG supply fan
11	ESTR (C91)	G-3A (EDG 11)
12	ESTR (C92)	G-3B (EDG 12)
13	FFC (C91)	G-3A (EDG 11)
14	FFC (C92)	G-3B (EDG 12)
15	FFCO (C91)	G-3A (EDG 11)
16	FFCO (C92)	G-3B (EDG 12)
17	FPR (C91)	EDG 11 FPM -- motor driven fuel pump
18	FPR (C92)	EDG 12 FPM -- motor driven fuel pump
19	FSR1 (C91)	G-3A (EDG 11)
20	FSR1 (C92)	G-3B (EDG 12)
21	FSR2 (C91)	G-3A (EDG 11)
22	FSR2 (C92)	G-3B (EDG 12)
23	GV (C91)	G-3A (EDG 11)
24	GV (C92)	G-3B (EDG 12)
25	MSR1 (C91)	G-3A (EDG 11)
26	MSR1 (C92)	G-3B (EDG 12)
27	MSR2 (C91)	G-3A (EDG 11)
28	MSR2 (C92)	G-3B (EDG 12)
29	NFLD (C93)	G-3A (EDG 11)
30	NFLD (C94)	G-3B (EDG 12)
31	NFLDA (C93)	G-3A (EDG 11)
32	NFLDA (C94)	G-3B (EDG 12)
33	OT (C93)	G-3A (EDG 11)
34	OT (C94)	G-3B (EDG 12)
35	OTR (C91)	G-3A (EDG 11)
36	OTR (C92)	G-3B (EDG 12)

Table 7-1 (continued)

37	PFD1 (C91)	G-3A (EDG 11)
38	PFD1 (C92)	G-3B (EDG 12)
39	PFD2 (C91)	G-3A (EDG 11)
40	PFD2 (C92)	G-3B (EDG 12)
41	PFDA1 (C91)	G-3A (EDG 11)
42	PFDA1 (C92)	G-3B (EDG 12)
43	PFDA2 (C91)	G-3A (EDG 11)
44	PFDA2 (C92)	G-3B (EDG 12)
45	SFA (C93)	G-3A (EDG 11)
46	SFA (C94)	G-3B (EDG 12)
47	SFB1 (C91)	G-3A (EDG 11)
48	SFB1 (C92)	G-3B (EDG 12)
49	SFB2 (C91)	G-3A (EDG 11)
50	SFB2 (C92)	G-3B (EDG 12)
51	SFD1 (C91)	G-3A (EDG 11)
52	SFD1 (C92)	G-3B (EDG 12)
53	SFD2 (C91)	G-3A (EDG 11)
54	SFD2 (C92)	G-3B (EDG 12)
55	SSP1 (C91)	G-3A (EDG 11)
56	SSP1 (C92)	G-3B (EDG 12)
57	SSP2 (C91)	G-3A (EDG 11)
58	SSP2 (C92)	G-3B (EDG 12)
59	STR1 (C91)	G-3A (EDG 11), 11 EDG MVST1 -- air start solenoid, 11 EDG BPM-1 -- booster pump motor
60	STR1 (C92)	G-3B (EDG 12), 12 EDG MVST1 -- air start solenoid, 12 EDG BPM-1 -- booster pump motor
61	STR2 (C91)	G-3A (EDG 11), 11 EDG MVST2 -- air start solenoid, 11 EDG BPM-2 -- booster pump motor
62	STR2 (C92)	G-3B (EDG 12), 12 EDG MVST2 -- air start solenoid, 12 EDG BPM-2 -- booster pump motor
63	VSR1 (C91)	G-3A (EDG 11)
64	VSR1 (C92)	G-3B (EDG 12)
65	VSR2 (C91)	G-3A (EDG 11)
66	VSR2 (C92)	G-3B (EDG 12)
67	ZSR1 (C91)	G-3A (EDG 11)
68	ZSR1 (C92)	G-3B (EDG 12)
69	ZSR2 (C91)	G-3A (EDG 11)
70	ZSR2 (C92)	G-3B (EDG 12)

8. RESOLUTION OF RELAY OUTLIERS

The following relays have been scheduled for replacement for reasons other than USI-A-46 resolution. The replacement relays will be seismically qualified for their intended use.

PFD1 (C91)	PFD1 (C92)	PFD2 (C91)	PFD2 (C92)
PFDA1 (C91)	PFDA1 (C92)	PFDA2 (C91)	PFDA2 (C92)
SFB1 (C91)	SFB1 (C92)	SFB2 (C91)	SFB2 (C92)
SFD1 (C91)	SFD1 (C92)	SFD2 (C91)	SFD2 (C92)
SSP1 (C91)	SSP1 (C92)	SSP2 (C91)	SSP2 (C92)

The remaining relays from Table 7-1 require further evaluations to determine their seismic adequacy.

9. DEVIATIONS FROM THE GIP

There were no significant or programmatic deviations from the GIP in performing the relay functionality evaluations documented in this report.

10. REFERENCES

1. Generic Letter 87-02, "Verification of Seismic Adequacy of Mechanical and Electrical Equipment in Operating Reactors, Unresolved Safety Issue (USI), A-46", USNRC, Washington, D.C., February 19, 1987.
2. "Generic Implementation Procedure (GIP), for Seismic Verification of Nuclear Plant Equipment", Revision 2, Corrected, 2/14/92, Seismic Qualification Utility Group.
3. "Supplemental Safety Evaluation Report No. 2 (SSER #2) on GIP-2", USNRC, Washington, D.C., May 22, 1992.
4. "Procedure for Evaluating Nuclear Power Plant Relay Seismic Functionality", December 1990, EPRI NP-7148-SL.
5. "Generic Seismic Ruggedness of Power Plant Equipment", Revision 1, August 1991, EPRI NP-5223-SL.
6. "Seismic Ruggedness of Relays", August 1991, EPRI NP-7147-SL.
7. "Seismic Ruggedness of Relays", Volume 2: Addendum 1, September 1993, EPRI NP-7147-SL.
8. "Seismic Ruggedness of Relays", Addendum 2, April 1995, EPRI NP-7147-SL.
9. "Report 91C2687.A46, USNRC USI A-46 Resolution, Seismic Evaluation Report, Monticello Nuclear Generating Plant", Stevenson & Associates, November, 1995.

11. APPENDIXES

- A. Résumé of Lead Relay Reviewer
- B. Relay Review SSEL
- C. Functional Screening Results
- D. Essential Relays Seismic Capacity Evaluations

APPENDIX A Résumé of Lead Relay Reviewer

DuWayne A. Wacha
Senior Electrical Engineer
Generation Services Department
Northern States Power

EXPERIENCE

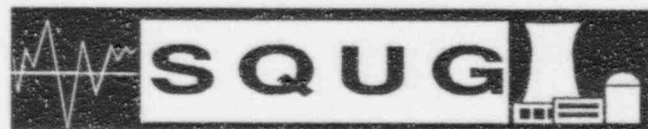
- 11/91-Present Member of Project Engineering group providing support for the operation of the Monticello Nuclear Generating Plant. Responsible for maintaining the plant AC load study. Has a working knowledge of DAPPER and AFAULT computer analysis programs. Projects and programs involved with include: 480 volt load center/transformer replacement, relay replacement, instrument setpoint calculations, and seismic review of relays.
- 9/88-10/91 Lead I&C Engineer, Nuclear Engineering Department, Nebraska Public Power District, Columbus, Nebraska. Responsible for directing and reviewing the work of five engineers. Responsibilities included review of design changes, calculations, purchase orders, and drawings generated by the engineers. Work on Regulatory Guide 1.97 program included preparing the final submittal to the NRC and was involved in the NRC compliance audit. Responsible for implementing a methodology for calculating instrument setpoints.
- 6/82-9/88 Electrical/I&C Engineer, Nuclear Engineering Department, Nebraska Public Power District, Columbus, Nebraska. Member of the off-site engineering group providing support for the operation of Cooper Nuclear Station. Involved in all stages of projects from design through installation/construction. Projects and programs included: Environmental Qualification - including review of test reports and generation of equipment qualification data packages; modification of reactor water level instrumentation to meet the requirements of RG 1.97; refurbishment of motor control centers to meet environmental qualification requirements; Emergency Operations Facility construction; Fire Protection clean water supply; Site Security.

EDUCATION

North Dakota State University, Fargo, North Dakota,
B.S. in Electrical and Electronics Engineering, 1982

PROFESSIONAL STATUS

Registered Professional Engineer in Nebraska and Minnesota.



Certificate of Achievement

This is to Certify that

DuWayne A. Wacha

has Completed the
SQUG Relay Evaluation Training Course
Held March 22-24, 1993

Jess O. Bettack

Jess O. Bettack, MPR Associates

APPENDIX B
RELAY REVIEW SSEL

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 20061 Plant System: ANN Component/Subsystem: ANN-8-A-15				
ACPFA		D52		CA
ACPFA		D54		CA
ACPFA		D53		CA
BYPASS SWITCH		D10		NV
BYPASS SWITCH		D40		NV
BYPASS SWITCH		D20		CA
HVSD		D54		CA
HVSD		D52		CA
HVSD		D53		CA
PLR		D10		CA
PLR		D20		CA
PLR		D40		CA
SW-1		D54		NV
SW-1		D53		NV
SW-1		D52		NV
SSEL Line Number: 20062 Plant System: ANN Component/Subsystem: ANN-8-A-20				
27-1	MBC-3200	D102	No	CA
27-2	MBC-3200	D102	No	CA
59-1	MBC-3200	D102	No	CA
59-2	MBC-3200	D102	No	CA
ARI	P&B KRP11DG	D102	No	CA
SSEL Line Number: 20063 Plant System: ANN Component/Subsystem: ANN-8-A-24				
Y71 Common Alarm		Y71		OA
SSEL Line Number: 20064 Plant System: ANN Component/Subsystem: ANN-8-A-29				
Y81 Common Alarm		Y81		OA
SSEL Line Number: 20065 Plant System: ANN Component/Subsystem: ANN-8-B-13				
BVR-2		D21		CA
SSEL Line Number: 20066 Plant System: ANN Component/Subsystem: ANN-8-B-19				
10A-K70A	GE CR2820	C32	No	CA
PS-2438	Ashcroft 4000		No	CA
SSEL Line Number: 20067 Plant System: ANN Component/Subsystem: ANN-8-B-20				
10A-S22A	GE SBM	C08	No	NV
49/OL	GE 7700 MCC	B3435	No	CA
SSEL Line Number: 20068 Plant System: ANN Component/Subsystem: ANN-8-B-23				
186-502	GE HEA	A502	No	CA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 20069 Plant System: ANN Component/Subsystem: ANN-8-B-28				
151/DG1	GE 12IAC77A12A	A502	No	SWGR
SSEL Line Number: 20070 Plant System: ANN Component/Subsystem: ANN-8-B-30				
ALM		C93		CA
SSEL Line Number: 20071 Plant System: ANN Component/Subsystem: ANN-8-B-34				
ESR		C91		CA
SSEL Line Number: 20072 Plant System: ANN Component/Subsystem: ANN-8-C-14				
BVR-1		D11		CA
SSEL Line Number: 20073 Plant System: ANN Component/Subsystem: ANN-8-C-17				
10A-K70B	GE CR2820	C33	No	CA
PS-2439	Ashcroft 61S		No	CA
SSEL Line Number: 20074 Plant System: ANN Component/Subsystem: ANN-8-C-20				
10A-S22B	GE SBM	C08	No	NV
42/OL	GE 7700 MCC	B4319	No	CA
SSEL Line Number: 20075 Plant System: ANN Component/Subsystem: ANN-8-C-21				
ALM		C94		CA
SSEL Line Number: 20076 Plant System: ANN Component/Subsystem: ANN-8-C-23				
186-602	GE HEA	A602	No	CA
SSEL Line Number: 20077 Plant System: ANN Component/Subsystem: ANN-8-C-28				
151/DG2	GE 12IAC77A12A	A602	No	SWGR
SSEL Line Number: 20078 Plant System: ANN Component/Subsystem: ANN-8-C-32				
ESR		C92		CA
SSEL Line Number: 11009 Plant System: MST Component/Subsystem: AO-2-80A				
16A-S1A	GE SBM	C03	No	NV
16A-S3A	GE CR2940	C03	No	NV
POS-IO, POS-IC		AO-2-80A	No	NV
SSEL Line Number: 11010 Plant System: MST Component/Subsystem: AO-2-80B				
16A-S1B	GE SBM	C03	No	NV
16A-S3B	GE CR2940	C03	No	NV

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
POS-IO, POS-IC		AO-2-80B	No	NV
SSEL Line Number: 11011 Plant System: MST Component/Subsystem: AO-2-80C				
16A-S1C	GE SBM	C03	No	NV
16A-S3C	GE CR2940	C03	No	NV
POS-IO, POS-IC		AO-2-80C	No	NV
SSEL Line Number: 11012 Plant System: MST Component/Subsystem: AO-2-80D				
16A-S1D	GE SBM	C03	No	NV
16A-S3D	GE CR2940	C03	No	NV
POS-IO, POS-IC		AO-2-80D	No	NV
SSEL Line Number: 11013 Plant System: MST Component/Subsystem: AO-2-86A				
16A-S2A	GE SBM	C03	No	NV
16A-S4A	GE CR2940	C03	No	NV
POS-IO, POS-IC		AO-2-86A	No	NV
SSEL Line Number: 11014 Plant System: MST Component/Subsystem: AO-2-86B				
16A-S2B	GE SBM	C03	No	NV
16A-S4B	GE CR2940	C03	No	NV
POS-IO, POS-IC		AO-2-86B	No	NV
SSEL Line Number: 11015 Plant System: MST Component/Subsystem: AO-2-86C				
16A-S2C	GE SBM	C03	No	NV
16A-S4C	GE CR2940	C03	No	NV
POS-IO, POS-IC		AO-2-86C	No	NV
SSEL Line Number: 11016 Plant System: MST Component/Subsystem: AO-2-86D				
16A-S2D	GE SBM	C03	No	NV
16A-S4D	GE CR2940	C03	No	NV
POS-IO, POS-IC		AO-2-86D	No	NV
SSEL Line Number: 8114 Plant System: 480 Component/Subsystem: B3300				
152-502/a	GE-AMH-4.76-250	A502	No	SWGR
152-502/CS	GE SBM	C08	No	NV
152X-33		C327		CA
152Y-33		C327	No	CA
27-33		C327		CA
27-33A		C327		CA
27-33B		C327		CA
52-307/a	ABB K1600S	LC-103	No	SWGR
52-3300/a	GE AK-2-15	B3300	No	SWGR
59-33		C327		CA
81-33		C327		CA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
94P-33		C327		CA
CLOSE	GE AK-2-15	B3300	No	NV
SSEL Line Number: 8107 Plant System: 480 Component/Subsystem: B4231				
183-6Y	GE 12HFA154E22H	A602	No	CA
183-6Y1	GE 12HFA154E22H	A610	No	CA
K82	Agastat EGPD	C293	No	GERS
SSEL Line Number: 8113 Plant System: 480 Component/Subsystem: B4300				
52-3300/b	GE AK-2-15	B3300	No	SWGR
52-3300/BA	GE AK-2-15	B3300	No	SWGR
52-407/a	ABB K1600S	LC-104	No	SWGR
52-4300/b	GE AK-2-15	B4300	No	SWGR
CLOSE	GE AK-2-15	B4300	No	NV
SSEL Line Number: 7189 Plant System: DOL Component/Subsystem: BPM-1 (11 DG)				
STR1	8299025	C91		CR
SSEL Line Number: 7187 Plant System: DOL Component/Subsystem: BPM-1 (12 DG)				
STR1	8299025	C92		CR
SSEL Line Number: 7190 Plant System: DOL Component/Subsystem: BPM-2 (11 DG)				
STR2	8299025	C91		CR
SSEL Line Number: 7188 Plant System: DOL Component/Subsystem: BPM-2 (12 DG)				
STR2	8299025	C92		CR
SSEL Line Number: 8000 Plant System: 4kV Component/Subsystem: BUS 15 & 16 1AR Lockout				
1AR Transformer lockout logic				CA
SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-501)				
152-501/CS	GE SBM	C08	No	NV
152-501/POS	GE-AMH-4.76-250	A501	No	CA
152-501/SS		C08	No	NV
186-5	GE HEA	A501	No	CA
CS/CLOSE	GE-AMH-4.76-250	A501	No	NV
SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-502)				
102-5	GE 12HGA14B07	A502	No	SWGR
127/DG1	GE 12HGA11	A502	No	CA
127/DG1X	GE 12HGA11	A502	No	CA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
151V-502	GE 12IJC51A13A	A502	No	GERS
152-308/b	GE-AMH-4.76-250	A308	No	SWGR
152-501/b	GE-AMH-4.76-250	A501	No	SWGR
152-502/CL/MS	GE-AMH-4.76-250	A502	No	SWGR
152-502/CS	GE SBM	C08	No	NV
152-502/IS	GE-AMH-4.76-250	A502	No	SWGR
152-502/POS, 152-502/a, 152-502/b	GE-AMH-4.76-250	A502	No	SWGR
152-502/SM/LS	GE-AMH-4.76-250	A502	No	SWGR
152-502/SS		C08	No	NV
152-502Y	GE-AMH-4.76-250	A502	No	SWGR
152-511/b	GE-AMH-4.76-250	A511	No	SWGR
155-DG1	GE 12ICW51A4A	C91	No	SWGR
167-502	GE 12ICW52A1A	A502	No	TEST
183-5X	GE 12HFA154E22H	A502	No	SWGR
183-5Y	GE 12HFA154E22H	A502	No	CA
186-5	GE HEA	A501	No	SWGR
186-502	GE HEA	A502	No	SWGR
187-502	GE 12JD52A11A	A502	No	GERS
95-31	GE 12HFA151A2H	A511	No	CA
97-29	Agastat 2414	C08	No	CA
97-53	Agastat E7014PB	A510	No	CA
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A502	No	NV
EDG Interlocks				-
EDG Interlocks				-

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-503)

Breaker evaluated as part of RHR P-202C (Line Number 1018).

NA

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-504)

Breaker evaluated as part of RHR P-202A (Line Number 1032).

NA

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-505)

Breaker evaluated as part of CSP P-208A (Line Number 3061).

NA

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-506)

14A-K17A	GE 12HFA151A2F	C32	No	CA
150/151-506	GE 12IAC66B4A	A506	No	CA
150G-506	GE 12PJC11AV1A	A506	No	CA
152-506/1S	GE-AMH-4.76-250	A506	No	SWGR
152-506/CL/MS	GE-AMH-4.76-250	A506	No	SWGR

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
152-506/POS, 152-506/a, 152-506/b	GE-AMH-4.76-250	A506	No	SWGR
152-506/SM/LS	GE-AMH-4.76-250	A506	No	SWGR
152-506Y	GE-AMH-4.76-250	A506	No	SWGR
183-5X	GE 12HFA154E22H	A502	No	CA
183-5X1	GE 12HFA154E22H	A511	No	CA
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A506	No	NV
PS-3-201A	SOR 6NAA21VPP		No	CA
SB-S4A	GE SBM	C05	No	NV

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-507)

Breaker evaluated as part of RSW P-109C (Line Number 9003).

NA

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-508)

Breaker evaluated as part of RSW P-109A (Line Number 9001).

NA

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-509)

150/151-509	GE 12IAC77B36A	A509	No	GERS
150G-509	GE 12PJC11AV1A	A509	No	SWGR
151-509	GE 12IAC77A11A	A509	No	GERS
152-502/a	GE-AMH-4.76-250	A502	No	SWGR
152-509/CL/MS	GE-AMH-4.76-250	A509	No	SWGR
152-509/CS	GE SBM	C08	No	NV
152-509/IS	GE-AMH-4.76-250	A509	No	SWGR
152-509/POS, 152-509/a, 152-509/b	GE-AMH-4.76-250	A509	No	SWGR
152-509/SM/LS	GE-AMH-4.76-250	A509	No	SWGR
152-509Y	GE-AMH-4.76-250	A509	No	SWGR
186-5	GE HEA	A501	No	SWGR
52-301/b	ABB K1600S	LC-103	No	SWGR
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A509	No	NV

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-510)

150/151-510	GE 12IAC66B4A	A510	No	CA
150G-510	GE 12PJC11AV1A	A510	No	CA
152-510/CL/MS	GE-AMH-4.76-250	A510	No	SWGR
152-510/CS	GE SBM	C07	No	NV
152-510/IS	GE-AMH-4.76-250	A510	No	SWGR
152-510/POS, 152-510/a, 152-510/b	GE-AMH-4.76-250	A510	No	SWGR
152-510/SM/LS	GE-AMH-4.76-250	A510	No	SWGR
152-510Y	GE-AMH-4.76-250	A510	No	SWGR
183-5Y	GE 12HFA154E22H	A502	No	CA
183-5Y1	GE 12HFA154E22H	A511	No	CA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
186-510	GE HEA	A510	No	CA
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A510	No	NV
PS-7084	PENN V440X000		No	CA

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-511)

102-5X	GE 12HGA14B07	A511	No	SWGR
127/RT	GE 12NGV13B21A	A610	No	CA
127/ST	GE 12NGV13B21A	A610	No	CA
152-308/b	GE-AMH-4.76-250	A308	No	SWGR
152-501/b	GE-AMH-4.76-250	A501	No	SWGR
152-502/b	GE-AMH-4.76-250	A502	No	SWGR
152-511/CL/MS	GE-AMH-4.76-250	A511	No	SWGR
152-511/CS	GE SBM	C08	No	NV
152-511/IS	GE-AMH-4.76-250	A511	No	SWGR
152-511/POS, 152-511/a, 152-511/b	GE-AMH-4.76-250	A511	No	SWGR
152-511/SM/LS	GE-AMH-4.76-250	A511	No	SWGR
152-511/SS		C08	No	NV
152-511Y	GE-AMH-4.76-250	A511	No	SWGR
162-511	Agastat	A511	No	SWGR
183-5X1	GE 12HFA154E22H	A511	No	SWGR
183-5Y1	GE 12HFA154E22H	A511	No	CA
186-5	GE HEA	A501	No	SWGR
186/RT	GE HEA	A511	No	SWG
95-31	GE 12HFA151A2H	A511	No	CA
97-28	Agastat 2414	C08	No	CA
97-29	Agastat 2414	C08	No	GE S
97-44	Agastat GPD	A510	No	CA
97-53	Agastat E7014PB	A510	No	GERS
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A511	No	NV

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 Essential Bus Transfer Logic

127-5	GE 12NGV15A21	A505	No	TEST
127-5A	ITE27N	A510	No	GERS
127-5B	ITE27N	A510	No	GERS
127-5C	ITE27N	A510	No	GERS
127-5X	GE 12NGV15A21	A505	No	TEST
127-5Y	ITE27H	A510	No	GERS
127-5Z	ITE27H	A510	No	GERS
152-502/b	GE-AMH-4.76-250	A502	No	SWGR
152-511/b	GE-AMH-4.76-250	A511	No	SWGR
1LO/CS	GE CR2940	C08	No	NV
97-44	Agastat GP	A510	No	GERS
97-45	Agastat GP	A510	No	GERS
97-51	Agastat EGPD	A510	No	GERS

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
97-52	Agastat EGPD	A510	No	GERS
SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 Lockout				
151-308	GE 12IAC53A101A	A308	No	GERS
151-511	GE 12IAC53A101A	A511	No	GERS
151N-308	GE 12IAC53A10A	A308	No	GERS
186-5	GE HEA	A501	No	GERS
SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-601)				
152-601/CS	GE SBM	C08	No	NV
152-601/POS	GE-AMH-4.76-250	A601	No	CA
152-601/SS		C08	No	NV
186-6	GE HEA	A601	No	CA
CS/CLOSE	GE-AMH-4.76-250	A601	No	NV
SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-602)				
102-6	GE 12HGA14B07	A602	No	SWGR
127/DG2	GE 12HGA11	A602	No	CA
127/DG2X	GE 12HGA11	A602	No	CA
151V-602	GE 12IJC51A13A	A602	No	GERS
152-408/b	GE-AMH-4.76-250	A408	No	SWGR
152-601/b	GE-AMH-4.76-250	A601	No	SWGR
152-602/CL/MS	GE-AMH-4.76-250	A602	No	SWGR
152-602/CS	GE SBM	C08	No	NV
152-602/IS	GE-AMH-4.76-250	A602	No	SWGR
152-602/POS, 152-602/a, 152-602/b	GE-AMH-4.76-250	A602	No	SWGR
152-602/SM/LS	GE-AMH-4.76-250	A602	No	SWGR
152-602/SS		C08	No	NV
152-602Y	GE-AMH-4.76-250	A602	No	SWGR
152-610/b	GE-AMH-4.76-250	A610	No	SWGR
155-DG2	GE 12ICW51A4A	C92	No	SWGR
167-602	GE 12ICW52A1A	A602	No	TEST
183-6X	GE 12HFA154E22H	A602	No	SWGR
183-6Y	GE 12HFA154E22H	A602	No	CA
186-6	GE HEA	A601	No	SWGR
186-602	GE HEA	A602	No	SWGR
187-602	GE 12IJD52A11A	A602	No	GERS
95-32	GE 12HFA151A2H	A610	No	CA
97-31	Agastat 2414	C08	No	CA
97-56	Agastat E7014PB	A601	No	CA
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A602	No	NV
EDG Interlocks				-
EDG Interlocks				-
K62	Agastat EGPD	C293	No	GERS
K63	Agastat EGPD	C293	No	GERS

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
K64	Agastat EGPD	C293	No	GERS
S14	GE SBM	C292	No	NV

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-603)

Breaker evaluated as part of RHR P-202D (Line Number 2033).

- NA

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-604)

Breaker evaluated as part of RHR P-202B (Line Number 2030).

- NA

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-605)

Breaker evaluated as part of CSP P-208B (Line Number 3064).

- NA

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-606)

14A-K17B	GE 12HFA151A2F	C33	No	CA
150/151-606	GE 12IAC66B4A	A606	No	CA
150G-606	GE 12PJC11AV1A	A606	No	CA
152-606/1S	GE-AMH-4.76-250	A606	No	SWGR
152-606/CL/MS	GE-AMH-4.76-250	A606	No	SWGR
152-606/POS, 152-606/a, 152-606/b	GE-AMH-4.76-250	A606	No	SWGR
152-606/SM/LS	GE-AMH-4.76-250	A606	No	SWGR
152-606Y	GE-AMH-4.76-250	A606	No	SWGR
183-6X	GE 12HFA154E22H	A602	No	CA
183-6X1	GE 12HFA154E22H	A610	No	CA
3B-S4B	GE SBM	C05	No	NV
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A606	No	NV
K83	Agastat EGPD	C293	No	GERS
K86	Agastat EGPD	C293	No	GERS
PS-3-201B	SOR 6NAA21VPP		No	CA

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-607)

Breaker evaluated as part of RSW P-109D (Line Number 9004).

- NA

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-608)

Breaker evaluated as part of RSW P-109B (Line Number 9002).

- NA

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-609)

150/151-609	GE 12IAC77B36A	A609	No	GERS
150G-609	GE 12PJC11AV1A	A609	No	SWGR

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
151-609	GE 12IAC77A11A	A609	No	GERS
152-602/a	GE-AMH-4.76-250	A602	No	SWGR
152-609/CL/MS	GE-AMH-4.76-250	A609	No	SWGR
152-609/CS	GE SBM	C08	No	NV
152-609/IS	GE-AMH-4.76-250	A609	No	SWGR
152-609/POS, 152-609/a, 152-609/b	GE-AMH-4.76-250	A609	No	SWGR
152-609/SM/LS	GE-AMH-4.76-250	A609	No	SWGR
152-609Y	GE-AMH-4.76-250	A609	No	SWGR
186-6	GE HEA	A601	No	SWGR
52-401/b	ABB K1600S	A401	No	SWGR
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A609	No	NV
K74	Agastat EGPD	C293	No	GERS
K75	Agastat EGPD	C293	No	GERS
K76	Agastat EGPD	C293	No	GERS
S18	GE SBM	C292	No	NV

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-610)

102-6X	GE 12HGA14B07	A610	No	SWGR
127/RT	GE 12NGV13B21A	A610	No	CA
127/ST	GE 12NGV13B21A	A610	No	CA
152-408/b	GE-AMH-4.76-250	A408	No	SWGR
152-601/b	GE-AMH-4.76-250	A601	No	SWGR
152-602/b	GE-AMH-4.76-250	A602	No	SWGR
152-610/CL/MS	GE-AMH-4.76-250	A610	No	SWGR
152-610/CS	GE SBM	C08	No	NV
152-610/IS	GE-AMH-4.76-250	A610	No	SWGR
152-610/POS, 152-610/a, 152-610/b	GE-AMH-4.76-250	A610	No	SWGR
152-610/SM/LS	GE-AMH-4.76-250	A610	No	SWGR
152-610/SS		C08	No	NV
152-610Y	GE-AMH-4.76-250	A610	No	SWGR
162-610	Agastat	A610	No	SWGR
183-6X1	GE 12HFA154E22H	A610	No	SWGR
183-6Y1	GE 12HFA154E22H	A610	No	CA
186-6	GE HEA	A601	No	SWGR
186/RT	GE HEA	A511	No	SWGR
95-32	GE 12HFA151A2H	A610	No	CA
97-30	Agastat 2414	C08	No	CA
97-31	Agastat 2414	C08	No	GERS
97-46	Agastat GPD	A601	No	CA
97-56	Agastat E7014PB	A601	No	GERS
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A610	No	NV
K71	Agastat EGPD	C293	No	GERS
K73	Agastat EGPD	C293	No	GERS
K76	Agastat EGPD	C293	No	GERS
K77	Agastat EGPD	C293	No	GERS

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
K91	Agastat EGPD	C293	No	GERS
S38	GE SBM	C292	No	NV

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 Essential Bus Transfer Logic

127-6	GE 12NGV15A21	A605	No	TEST
127-6A	ITE27N	A601	No	GERS
127-6B	ITE27N	A601	No	GERS
127-6C	ITE27N	A601	No	GERS
127-6X	GE 12NGV15A21	A605	No	TEST
127-6Y	ITE27H	A601	No	GERS
127-6Z	ITE27H	A601	No	GERS
152-602/b	GE-AMH-4.76-250	A602	No	SWGR
152-610/b	GE-AMH-4.76-250	A610	No	SWGR
2LO/CS	GE CR2940	C08	No	NV
97-46	Agastat GP	A601	No	GERS
97-47	Agastat GP	A601	No	GERS
97-54	Agastat EGPD	A601	No	GERS
97-55	Agastat EGPD	A601	No	GERS

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 Lockout

151-408	GE 12IAC53A101A	A408	No	GERS
151-610	GE 12IAC53A101A	A610	No	GERS
151N-408	GE 12IAC53A10A	A408	No	GERS
186-6	GE HEA	A601	No	GERS

SSEL Line Number: 4001 Plant System: CRH Component/Subsystem: CRD HCU -- East

5A-K13A, B, C, D, E, F, G, H	GE CR305D102	C15	No	CA
5A-K14A, B, C, D Reactor Manual Control Reactor SCRAM Logic	GE CR305D102	C15	No	CA CA CA

SSEL Line Number: 4002 Plant System: CRH Component/Subsystem: CRD HCU -- West

5A-K13A, B, C, D, E, F, G, H	GE CR305D102	C15	No	CA
5A-K14A, B, C, D Reactor Manual Control Reactor SCRAM Logic	GE CR305D102	C15	No	CA CA CA

SSEL Line Number: 4013 Plant System: CRH Component/Subsystem: CV-3-32A

POS. I. C.	NAMCO EA180	CV-3-32A	No	CA
POS. I. O.	NAMCO EA180	CV-3-32A	No	CA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 4015 Plant System: CRH Component/Subsystem: CV-3-32B				
POS. I. C.	NAMCO EA180	CV-3-32B	No	CA
POS. I. O.	NAMCO EA180	CV-3-32B	No	CA
SSEL Line Number: 4014 Plant System: CRH Component/Subsystem: CV-3-32C				
POS. I. C.	NAMCO EA180	CV-3-32C	No	CA
POS. I. O.	NAMCO EA180	CV-3-32C	No	CA
SSEL Line Number: 4016 Plant System: CRH Component/Subsystem: CV-3-32D				
POS. I. C.	NAMCO EA180	CV-3-32D	No	CA
POS. I. O.	NAMCO EA180	CV-3-32D	No	CA
SSEL Line Number: 4003 Plant System: CRH Component/Subsystem: CV-3-33A				
POS. I. C.	NAMCO EA180	CV-3-33A	No	CA
POS. I. O.	NAMCO EA180	CV-3-33A	No	CA
SSEL Line Number: 4004 Plant System: CRH Component/Subsystem: CV-3-33B				
POS. I. C.	NAMCO EA180	CV-3-33B	No	CA
POS. I. O.	NAMCO EA180	CV-3-33B	No	CA
SSEL Line Number: 4011 Plant System: CRH Component/Subsystem: CV-3-33C				
POS. I. C.	NAMCO EA180	CV-3-33C	No	CA
POS. I. O.	NAMCO EA180	CV-3-33C	No	CA
SSEL Line Number: 4012 Plant System: CRH Component/Subsystem: CV-3-33D				
POS. I. C.	NAMCO EA180	CV-3-33D	No	CA
POS. I. O.	NAMCO EA180	CV-3-33D	No	CA
SSEL Line Number: 5002 Plant System: 125 Component/Subsystem: D10				
Battery Charger Controls	Exide US 130-3-50	D10	No	OA
SSEL Line Number: 5003 Plant System: 125 Component/Subsystem: D20				
Battery Charger Controls	Exide US 130-3-50	D20	No	OA
SSEL Line Number: 5005 Plant System: 125 Component/Subsystem: D40				
Battery Charger Controls	Exide US 130-3-50	D40	No	OA
SSEL Line Number: 6022 Plant System: 250 Component/Subsystem: D52				
Battery Charger Controls	C&D Batteries	D52	No	OA

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<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 6023 Plant System: 250 Component/Subsystem: D53				
Battery Charger Controls	C&D Batteries	D53	No	OA
SSEL Line Number: 6024 Plant System: 250 Component/Subsystem: D54				
Battery Charger Controls	C&D Batteries	D54	No	OA
SSEL Line Number: 6017 Plant System: 250 Component/Subsystem: D70				
Battery Charger Controls	C&D Batteries	D70	No	OA
SSEL Line Number: 6018 Plant System: 250 Component/Subsystem: D80				
Battery Charger Controls	C&D Batteries	D80	No	OA
SSEL Line Number: 6019 Plant System: 250 Component/Subsystem: D90				
Battery Charger Controls	C&D Batteries	D90	No	OA
SSEL Line Number: 2154 Plant System: RHR Component/Subsystem: DPIC-10-130B				
K2	P&B MDR 163-1	C292	No	GERS
K3	P&B MDR 163-1	C292	No	GERS
SSEL Line Number: 7157C Plant System: DOL Component/Subsystem: FPM (11 DG)				
FPR		C91		CR
SSEL Line Number: 7157D Plant System: DOL Component/Subsystem: FPM (12 DG)				
FPR		C92		CR
SSEL Line Number: 7157A Plant System: DOL Component/Subsystem: FTM-1 (11 DG)				
FTC1	8474707	C93	No	CA
SSEL Line Number: 7156 Plant System: DOL Component/Subsystem: FTM-1 (12 DG)				
FTC1	8474707	C94	No	CA
SSEL Line Number: 7157B Plant System: DOL Component/Subsystem: FTM-2 (11 DG)				
FTC2	8474707	C93	No	CA
SSEL Line Number: 7157 Plant System: DOL Component/Subsystem: FTM-2 (12 DG)				
FTC2	8474707	C94	No	CA
SSEL Line Number: 7045 Plant System: DGN Component/Subsystem: G-3A				
14A-K11A	GE 12HFA151A2F	C32	No	GERS
14A-K22A	GE 12HFA151A2F	C32	No	GERS

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
152-502/a, 152-502/b	GE-AMH-4.76-250	A502	No	SWGR
152-502/b	GE-AMH-4.76-250	A502	No	SWGR
186-502	GE HEA	A502	No	GERS
190-DG1/CS	GE SBM	C08	No	NV
95-7	GE 12HFA151A2H	C08	No	GERS
95-8	GE 12HFA151A2H	C08	No	GERS
97-28	Agastat 2414	C08	No	GERS
97-29	Agastat 2414	C08	No	GERS
97-44	Agastat GPD	A510	No	GERS
97-45	Agastat GPD	A510	No	GERS
ALS	8289742	C93	No	NV
DG1/CS	GE SBM	C08	No	NV
ECR	Agastat E7012	C91	No	GERS
ECRA	SQD Class 8501	C91		CR
ENG START	8265676	C93		NV
ENG. STOP L	8411134	C93	No	NV
ENG. STOP R	8411134	C93	No	NV
ESR1	SQD Class 7001	C91		CR
ESR2	SQD Class 7001	C91		CR
ESTD	Agastat E7022	C91	No	GERS
ESTR	SQD Class 7001	C91		CR
FFC	SQD Class 8504	C91		CR
FFCO	Wilmar WUV-1-120-HB	C91		CR
FSR1	SQD Class 7001	C91		CR
FSR2	SQD Class 7001	C91		CR
FTC1	8474707	C93	No	CA
FTC2	8474707	C93	No	CA
FTH	8398823	C93		CA
FTL	8398823	C93		CA
FUEL PRIME	8265676	C93	No	NV
GCS	8309733	C93	No	NV
GOV. HS	LIMIT SWITCH		No	NV
GOV. LS	LIMIT SWITCH		No	NV
GP	8370794	C91		CA
GS	8370794	C91		CA
GSC1/CS	GE SBM	C08	No	NV
GV	Wilmar WUV-1-120-H	C91		CR
LS-7210 (FTS-N)	MAGNETROL A103-X	G-3A	No	CA
LS-7212 (FTS-H)	MAGNETROL A153-XTDN	G-3A	No	CA
LS-7214 (FTS-L)	MAGNETROL A153-XTDN	G-3A	No	CA
MRV	D78067	C91	No	NV
MSR1	SQD Class 7001	C91		CR
MSR2	SQD Class 7001	C91		CR
NFLD	8411979	C93		CR
NFLDA	8411979	C93		CR
OL1 RESET		C93	No	NV
OL2 RESET		C93	No	NV

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
OT	8411979	C93		CR
OTR	SQD Class 7001	C91		CR
PFD1	SQD EQ1935-G2	C91	No	CR
PFD2	SQD EQ1935-G2	C91	No	CR
PFDA1	SQD EQ2423-G1	C91	No	CR
PFDA2	SQD EQ2423-G2	C91	No	CR
RESET/PB		C08	No	NV
SCS	8289742	C91	No	NV
SFA	8411979	C93		CR
SFB1	SQD EQ1935-G2	C91	No	CR
SFB2	SQD EQ1935-G2	C91	No	CR
SFD1	SQD EQ1935-G2	C91	No	CR
SFD2	SQD EQ1935-G2	C91	No	CR
SSP1	8409614	C91		CR
SSP2	8409614	C91		CR
STLO1	SQD EQ1933-G2	C91	No	GERS
STLO2	SQD EQ1933-G2	C91	No	GERS
STOP/PB		C93	No	NV
STR1	8299025	C91		CR
STR2	8299025	C91		CR
VCS		C91	No	NV
VSR1	SQD Class 7001	C91		CR
VSR2	SQD Class 7001	C91		CR
ZSR1	SQD Class 7001	C91		CR
ZSR2	SQD Class 7001	C91		CR

SSEL Line Number: 7004 Plant System: DGN Component/Subsystem: G-3B

14A-K11B	GE 12HFA151A2F	C33	No	GERS
14A-K22B	GE 12HFA151A2F	C33	No	GERS
152-602/a, 152-602/b	GE-AMH-4.76-250	A602	No	SWGR
152-602/b	GE-AMH-4.76-250	A602	No	SWGR
186-602	GE HEA	A602	No	GERS
190-DG2/CS	GE SBM	C08	No	NV
95-7	GE 12HFA151A2H	C08	No	GERS
95-8	GE 12HFA151A2H	C08	No	GERS
97-30	Agastat 2414	C08	No	GERS
97-31	Agastat 2414	C08	No	GERS
97-46	Agastat GPD	A601	No	GERS
97-47	Agastat GPD	A601	No	GERS
ALS	8289742	C94		NV
DC2/CS	GE SBM	C08	No	NV
ECR	Agastat E7012	C92	No	GERS
ECRA	SQD Class 8501	C92		CR
ENG START	8265676	C94	No	NV
ENG. STOP L	8411134	C94		NV
ENG. STOP R	8411134	C94		NV
ESR1	SQD Class 7001	C92		CR

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
ESR2	SQD Class 7001	C92		CR
ESTD	Agastat E7022	C92	No	GERS
ESTR	SQD Class 7001	C92		CR
FFC	SQD Class 8504	C92		CR
FFCO	Wilmar WUV-1-120-HB	C92		CR
FSR1	SQD Class 7001	C92		CR
FSR2	SQD Class 7001	C92		CR
FTC1	8474707	C94	No	CA
FTC2	8474707	C94	No	CA
FTH	8398823	C94		CA
FTL	8398823	C94		CA
FUEL PRIME	8265676	C94		NV
GCS	8309733	C94	No	NV
GOV. HS	LIMIT SWITCH		No	NV
GOV. LS	LIMIT SWITCH		No	NV
GP	8370794	C92		CA
GS	8370794	C92		CA
GSC2/CS	GE SBM	C08	No	NV
GV	Wilmar WUV-1-120-H	C92		CR
K65	Agastat EGPD	C293	No	GERS
K66	Agastat EGPD	C293	No	GERS
K68	Agastat EGPD	C293	No	GERS
K69	Agastat EGPD	C293	No	GERS
K70	Agastat EGPD	C293	No	GERS
K84	Agastat EGPD	C293	No	CA
LS-7211 (FTS-N)	MAGNETROL A103-X	G-3B		CA
LS-7213 (FTS-H)	MAGNETROL A153-XTDN	G-3B		CA
LS-7215 (FTS-L)	MAGNETROL A153-XTDN	G-3B		CA
MRV	D78067	C92	No	NV
MSR1	SQD Class 7001	C92		CR
MSR2	SQD Class 7001	C92		CR
NFLD	8411979	C94		CR
NFLDA	8411979	C94		CR
OL1 RESET		C94	No	NV
OL2 RESET		C94	No	NV
OT	8411979	C94		CR
OTR	SQD Class 7001	C92		CR
PFD1	SQD EQ1935-G2	C92	No	CR
PFD2	SQD EQ1935-G2	C92	No	CR
PFDA1	SQD EQ2423-G1	C92	No	CR
PFDA2	SQD EQ2423-G2	C92	No	CR
RESET/PB		C08	No	NV
S15	GE SBM	C292	No	NV
S16	GE SBM	C292	No	NV
S28	GE SBM	C292	No	NV
S28	GE SBM	C292	No	NV
SCS	8289742	C92	No	NV

PORTICELLO NUCLEAR GENERATOR PLANT
 SAFE SHUTDOWN EQUIPMENT LISTS (SSEL)
 RELAY REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
 Sort Criteria: ID Number
 Filter Criteria: (Eval. Type CONTAINS 'R')
 Program File Name & Version: SSEL 2.2

LINE NO.	EQUIP TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Flr. Ekv.	LOCATION Rm. or Row/Col.	Sort Notes	OP. ST. (12)	Desired Req'd? (13)	DWG. NO./REV. (14)	POWER SUPPORTING SYS. REQ'D INTERCONNECTIONS REG. & SUPPORTING COMPONENTS ISSUE (15)	REG. (17)
8056	01	152-308	13 BUS TO 15 BUS 4KV SUPPLY		TB	911	LOWER 4KV RM	S,R	YES			ROB BUS 13,0111	
8067	01	152-408	14 BUS TO 16 BUS XTIE 4KV		TB	931	UPPER 4KV RM	S,R	YES			ROB BUS 14,0211	
12326	1	5AC30A	LOW LOW MET SCRAM PERMISSIVE RELAY		RB	935	WEST	S,R	YES			ROB IR-5AC30A,RPS	
12327	2	5AC30B	LOW LOW SET SCRAM PERMISSIVE RELAY		RB	935	WEST	S,R	YES			ROB IR-5AC30A,RPS	
20001	1	AMH-20-B-9	Dlv 11 1258250 VDC Trouble	ME-961B-3	ADMIN	951		S,R	YES			ROB C20, D-101, D21	
20002	2	AMH-3-A-06	Core Spray Pump 11 PWR Failure	MX-7833-21-3	ADMIN	951		S,R	YES			ROB C03,14A-K3A on C-32, D21	
20003	1	AMH-3-A-09	Autp Blowdown Relief Vlv Leaking	MX-7831-143-1	ADMIN	951		S,R	YES			ROB C03, TR 2-166 on C21, D21	
20004	2	AMH-3-A-10	RHR Hx Tube/she 11 Lo Dif Press	MX-7905-46-12	ADMIN	951		S,R	YES			ROB C03, TR 10-92A, D21	
20005	2	AMH-3-A-14	Core Spray Pump 11 OL/Man-OVRD	MX-7833-21-3	ADMIN	951		S,R	YES			ROB C03, OL: 150/151-505 relay, Breaker 152-505, D21	
20006	2	AMH-3-A-22	Core Spray Pump 11 Lockout	MX-7833-21-3	ADMIN	951		S,R	YES			ROB C03, 106-505 Relay, Breaker 152-505, D21	
20007	1	AMH-3-A-25	Auto Blowdown Timer Activated	MX-7831-143-1	ADMIN	951		S,R	YES			ROB C03, 2E-K44 or 2E-K48 on C-32, D21	
20008	2	AMH-3-A-26	RHR 1 Vlv Motor OL	MX-7905-46-12	ADMIN	951		S,R	YES			ROB C03, 49/OL2 on associated breaker, Breakers 3321, 3336, 3341, 3337, 432 B, D21	
20009	2	AMH-3-A-28	RHRSM Pump 11 Trip	MX-7905-46-12	ADMIN	951		S,R	YES			ROB C03, 152-508B, Breaker 152-508, D21	
20010	2	AMH-3-A-29	Core Spray 1 Vlv Motor OL	MX-7833-21-3	ADMIN	951		S,R	YES			ROB C03, 49/OL2, Breaker 3326, D21	

CERTIFICATION:

The information identifying the equipment required to bring the plant to a safe shutdown condition on this Safe Shutdown Equipment List (SSEL) is, to the best of our knowledge and belief, correct and accurate. (One or more signatures of Systems or Operations Engineers)

Print or Type Name/Title ENGINEER
 Signature Date 11/16/95
 Print or Type Name/Title ENGINEER
 Signature Date 11/19/95

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
RELAY REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'R')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Des. No./Rev./Zone	Building	Room or Row/Col.	OP. ST.	POWER SUPPORTING SYS.	REQ'D INTERCONNECTIONS							
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
20011	1	00	AMH-3-A-30	Reactor Low Press	MX-7833-21-3	ADMIN	951	S,R	YES	ROB CO3,PS-2-3-52A/B or PS-2-3-53A/B, Also Relays 14A-K0A/B,14A-K21A,B,02						
20012	1	00	AMH-3-A-33	ADS A/B Not In AUTO	MX-7831-143-1	ADMIN	951	S,R	YES	ROB CO3,49/0L2,Breakers 3334,3335,021						
20013	2	00	AMH-3-A-34	RHR I Injection Vlv Motor OL	MX-7905-46-12	ADMIN	951	S,R	YES	ROB CO3,49/0L2,Breaker 3325,3326,021						
20014	2	00	AMH-3-A-37	Core Spray Sys 1 Inj Vlv Motor OL	MX-7833-21-3	ADMIN	951	S,R	YES	ROB CO3,115-672A/C, Lis-672B/D,C-303A,C-303 B,021						
20015	1	00	AMH-3-A-38	Reactor Low Low Level	MX-7905-46-12	ADMIN	951	S,R	YES	ROB CO3,106-504 Relay,Breaker 152-504,021						
20016	2	00	AMH-3-A-42	RHR Pump 11 Lockout	MX-7905-46-12	ADMIN	951	S,R	YES	ROB CO3,106-503 Relay,Breaker 152-503,021						
20017	2	00	AMH-3-A-43	RHR Pump 13 Lockout	MX-7905-46-12	ADMIN	951	S,R	YES	ROB CO3,152-507b, Breaker 152-507,021						
20018	2	00	AMH-3-A-44	RHRSS Pump 13 Trip	MX-7905-46-12	ADMIN	951	S,R	YES	ROB CO3,PS-4237 or PS-4896,B Train,021						
20019	2	00	AMH-3-A-46	N2 Low Press SRV Inhd MSIV	ME-36839-11	ADMIN	951	S,R	YES	ROB CO3,PS-4662 or PS-4895,A Train,021						
20020	1	00	AMH-3-A-48	N2 Low Press SRV Inhd T-rings	ME-36839-11	ADMIN	951	S,R	YES	ROB CO3,OL: 150/151-504 Relay, B Phase breaker 152-504,021						
20021	2	00	AMH-3-A-50	RHR Pump 11 OL/Man OVRD	MX-7905-46-12	ADMIN	951	S,R	YES	ROB CO3,OL: 150/151-503 Relay, B Phase breaker 152-503,021						
20022	2	00	AMH-3-A-51	RHR Pump 13 OL/Man OVRD	MX-7905-46-12	ADMIN	951	S,R	YES							

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Print or Type Name/Title
Signature
Date

Bryan Sandel
Signature
11/16/95
Date

Shawn M. McElroy
Signature
11/19/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
RELAY REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'R')
Program File Name & Version: SSEM 2.2

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	EQUIPMENT		LOCATION		SORT	NOTES	OP. ST.		POWER REQD?	SUPPORTING 'S' / DMG. NO./EV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
						Building	Fir. Elev.	Rm. or Row/Col.				Normal	Desired				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	
20023	1	00	ANN-3-8-04	RHR Pump 12 Lockout	NX-7905-46-12	ADMIN	951			S,R				YES		ROB C03,136-604 Relay, Breaker 152-604,D21	
20024	1	00	ANN-3-8-07	Core Spray Pump 12 OL/Man OVRD	NX-7833-21-3	ADMIN	951			S,R				YES		ROB C03,OL: 150/151-605 Relay, Breaker 152-605,D21	
20025	1	00	ANN-3-8-12	RHR Pump 12 OL/Man OVRD	NX-7905-46-12	ADMIN	951			S,R				YES		ROB C03,OL: 150/151-604 Relay, Breaker 152-604,D21	
20026	1	00	ANN-3-8-13	RHRSM Pump 14 Trip	NX-7905-46-12	ADMIN	951			S,R				YES		ROB C03,152-607b, Breaker 152-607,D21	
20027	1	00	ANN-3-8-15	Core Spray Pump 123 Lockout	NX-7833-21-3	ADMIN	951			S,R				YES		ROB C03,186-605 Relay, Breaker 152-605,D21	
20028	1	00	ANN-3-8-23	Core Spray Pump 12 Pwr Failure	NX-7833-21-3	ADMIN	951			S,R				YES		ROB C03,14A-K38 on C-33,D21	
20029	1	00	ANN-3-8-28	RHR Pump 14 Lockout	NX-7905-46-12	ADMIN	951			S,R				YES		ROB C03,186-603 Relay, Breaker 152-603,D21	
20030	1	00	ANN-3-8-30	Core Spray Sys II Vlv Motor OL	NX-7833-21-3	ADMIN	951			S,R				YES		ROB C03,49/OL2, Breaker 4326,D21	
20031	1	00	ANN-3-8-35	RHR II Vlv Motor OL	NX-7905-48-12	ADMIN	951			S,R				YES		ROB C03,49/OL2, Breakers 4323,4210,4208,4337,D21	
20032	1	00	ANN-3-8-36	RHR Pup 14 OL/Man OVRD	NX-7905-48-12	ADMIN	951			S,R				YES		ROB C03,150/151-603 Relay, Breaker 152-603,D21	
20033	1	00	ANN-3-8-37	RHRSM Pump 12 Trip	NX-7905-48-12	ADMIN	951			S,R				YES		ROB C03,152-608b, Breaker 152-608,D21	
20034	1	00	ANN-3-8-38	Core Spray System II Inj Vlv Motor OLR	NX-7833-21-3	ADMIN	951			S,R				YES		ROB C03,49/OL2, Breakers 4324,4325,D21	
20035	1	00	ANN-3-8-43	RHR II Injection Vlv Motor OL	NX-7905-46-12	ADMIN	951			S,R				YES		ROB C03,49/OL2, Breakers 4334,4335,D21	
20036	1	00	ANN-3-8-50	RHR Logic Bus Monitor	NX-7995-46-12	ADMIN	951			S,R				YES		ROB C03,10A-KB4A/B, C-32 and C-33,D21	

CERTIFICATION:

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_____/ ENGINEER
Print or Type Name/Title

Brian Swide
Signature

11/16/95
Date

_____/ ENGINEER
Print or Type Name/Title

Bruce Markumak
Signature

11/19/95
Date

MONTECELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
RELAY REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'R')
Program File Name & Version: SSEN 2.2

LINE NO.	TRAIN	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	EQUIPMENT		LOCATION		SORT	NOTES	OP. ST.		POWER REQ'D	SUPPORTING SYS. DWG. NO./REV.	REQ'D INTERCONNECTIONS & SUPPORTING COMPONENTS	REG. ISSUE
						Building	Fir. Elev.	Rm. or Row/Col.	Normal			Desired					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	
20037	1	00	ANN-3-B-52	RHRSH Pumps OL-ALX Annu	NX-7905-46-12	ADMIN	951			S,R				YES		ROB C03, 150/151-507,508,607,608, Breakers 152-507,152-508,152-607,152-608,D21	
20039	1	00	ANN-4-B-04	Suppression Water Level Hi/Low	NE-36537-31	ADMIN	951	CR		S,R				YES		ROB C04,LS-2996A or LS-2996B,D21	
20040	1	00	ANN-4-B-35	Drywell-Torus Hi Press	NE-36537-31	ADMIN	951			S,R				YES		ROB C04,PR-2994,D21	
20042	1	00	ANN-5-A-09	Reactor Vessel L/L Wtr Level Ch A	NX-7823-4-1	ADMIN	951			S,R				YES		ROB C05,LS 2-3-657C, LS 2-3-658C,D21	
20043	1	00	ANN-5-A-10	Reactor Vessel L/L Wtr Level Ch B	NX-7823-4-1	ADMIN	951			S,R				YES		ROB C05,LS 2-3-657D, LS 2-3-658D,D21	
20046	1	00	ANN-5-A-46	SRV Open	MF-95915-4	ADMIN	951			S,R				YES		ROB C05,dPSH Switch, dPSH 4060A,4061C,4062C,4063C,4068A,4069A,4070A,4071A,D21	
20047	1	00	ANN-5-B-04	Reactor Auto Scram Channel A	NX-7834-67-17	ADMIN	951			S,R				YES		ROB C05,SA-K13A/C/E or G, C-15,D21	
20048	1	00	ANN-5-B-05	Reactor Auto Scram Channel B	NX-7834-67-17	ADMIN	951			S,R				YES		ROB C05,SA-K13B/D/F or H, C-17,D21	
20049	1	00	ANN-5-B-12	Reactor Manual Scram Channel A	NX-7834-67-17	ADMIN	951			S,R				YES		ROB C05,SA-K22A, C-15,D21	
20050	1	00	ANN-5-B-13	Reactor Manual Scram Channel B	NX-7834-67-17	ADMIN	951			S,R				YES		ROB C05,SA-K22B, C-17,D21	
20053	1	00	ANN-5-B-52	Torus Water Hi Temp Spotmos Trouble		ADMIN	951			S,R				YES		ROB C05,TY-4072A/B,D21	
20054	2	00	ANN-6-C-06	Diesel Gen Tk T-45A Level/Flow Low	MF-36755	ADMIN	951			S,R				YES		ROB C06, LIS-1528 or FS-3236,D11	
20056	1	00	ANN-6-C-07	Diesel Gen Tk T-45B Level/Flow Low	MF-36755	ADMIN	951			S,R				YES		ROB C06, LIS-1529 or FS-3237,C06,D11	

CERTIFICATION:

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_____/ ENGINEER
Print or Type Name/Title

Brian Sunde
Signature

11/16/95
Date

_____/ ENGINEER
Print or Type Name/Title

Bruce Marknot
Signature

11/19/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
RELAY REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINERS 'R')
Program File Name & Version: SSEL 2.2

LINE NO.	EQUIP TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Location	Rel. or Rom/Coil	Sort Notes	Normal	Desired	REQ'D	POWER SUPPORTING SYS.	REQ'D INTERCONNECTIONS	REG.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
20057	1	00	AMN-6-C-2	Diesel Oil Storage Tank T-44 Low-High Level	NF-36755	ADMIN	951	S,R	YES	YES			ROB CO6, L15-1522, D11			
20058	2	00	AMN-8-A-04	Y10/Y70 Instr AC Loss of Voltage	NF-36709, NE-100344	ADMIN	951	S,R	YES	YES			ROB CO6, V74, V75 Undervoltage Relay, CO6, D11			
20059	1	00	AMN-8-A-09	Y20 Instr AC Undervoltage	E-111, E-32	ADMIN	951	S,R	YES	YES			ROB CO6, Relay 27-12, CO6, D11			
20060	1	00	AMN-8-A-14	Y30/Y80 Instr AC Loss of Voltage	NF-36709, NE-100344	ADMIN	951	S,R	YES	YES			ROB CO6, Y94, Y85 Undervoltage Relay, CO6, D11			
20061	2	00	AMN-8-A-15	Battery Chgr Supply Undervoltage or HWSO	NF-36709	ADMIN	951	S,R	YES	YES			ROB CO6, HWSO, ACPFA or PLR Relay, DS2, S3, S4 or D10, 20, 40, CO6, D11			
20062	2	00	AMN-8-A-20	Division 1 250 VDC Hi/Lo Voltage	NF-36709	ADMIN	951	S,R	YES	YES			ROB CO6, DS2, S3, D11, D102			
20063	2	00	AMN-8-A-24	Div 1 Inverter Y71 Trouble	NF-36709	ADMIN	951	S,R	YES	YES			ROB CO6, Y71 Local Annunciator, D11			
20064	1	00	AMN-8-A-29	Div 2 Inverter Y81 Trouble	NF-36709	ADMIN	951	S,R	YES	YES			ROB CO6, Y81 Local Annunciator, D11			
20065	1	00	AMN-8-B-13	No. 12 125 VDC Bus Voltage Hi/Lo	NF-36710	ADMIN	951	S,R	YES	YES			ROB CO6, BVR-2, D11			
20066	2	00	AMN-8-B-19	ESM Pump 11 Lo Dsch Press	NF-36710	ADMIN	951	S,R	YES	YES			ROB CO6, PS-2438, D11			
20067	2	00	AMN-8-B-20	ESM Pump 11 OL/Man OVRD	NF-36710	ADMIN	951	S,R	YES	YES			ROB CO6, 49/OL2, Breaker 3435, D11			
20068	2	00	AMN-8-B-23	11 Diesel Gen Lockout	NF-36710	ADMIN	951	S,R	YES	YES			ROB CO6, 186-502, Breaker 152-502, D11			
20069	2	00	AMN-8-B-28	11 Diesel Gen Phase Overcurrent	NF-36710	ADMIN	951	S,R	YES	YES			ROB CO6, 151-061, D11			
20070	2	00	AMN-8-B-30	11 Diesel Eng trouble	NF-36710	ADMIN	951	S,R	YES	YES			ROB CO6, Alamo Relay, C-93, D11			
20071	2	00	AMN-8-B-34	11 Diesel Gen Running	NF-36710	ADMIN	951	S,R	YES	YES			ROB CO6, ESR relay, D11			
20072	2	00	AMN-8-C-14	No. 12 125 VDC Bus Voltage Hi/Low	NF-36710	ADMIN	951	S,R	YES	YES			ROB CO6, BVR-1, D11			

CERTIFICATION:

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Print or Type Name/Title
ENGINEER

Brigitte Sunde
Signature
11/16/95
Date

Print or Type Name/Title
ENGINEER

Samuel Macdonald
Signature
11/16/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
RELAY REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'R')
Program File Name & Version: SSEM 2.2

LINE NO.	TRAIN CLASS	EQUIP MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	EQUIPMENT LOCATION	OP. ST.	Desired REQ'D	DWG. NO./REV.	SUPPORTING COMPONENTS	REG. ISSUE					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
20073	1	00	AMH-8-C-17	ESM PUMP 12 Lo Dsch Press	WF-36710	ADMIN	951	ADMIN	5,R	5,R	YES	ROB	C08,PS-2439,011			
20074	1	00	AMH-8-C-20	ESM Pump 12 O/L/Man OVRD	WF-36710	ADMIN	951	ADMIN	5,R	5,R	YES	ROB	C08,49/0L2, Breaker 4319,011			
20075	1	00	AMH-8-C-21	12 Diesel Eng Trouble	WX-36710	ADMIN	951	ADMIN	5,R	5,R	YES	ROB	C08,Alarms Relay, C-94,011			
20076	1	00	AMH-8-C-23	12 Diesel Lockout	WF-36710	ADMIN	951	ADMIN	5,R	5,R	YES	ROB	C08,186-602, Breaker 152-602,011			
20077	1	00	AMH-8-C-28	12 Diesel Gen Phase Overcurrent	WF-36710	ADMIN	951	ADMIN	5,R	5,R	YES	ROB	C08,151-062,011			
20078	1	00	AMH-8-C-32	12 Diesel Eng Running	WF-36710	ADMIN	951	ADMIN	5,R	5,R	YES	ROB	C08,ESR Relay,011			
11009	1	08	AD-2-80A	A MSIV INBOARD	M-115 C,5	RX	933'	DM AZ 160	5,R	15	OPEN	CLOSED	NO	HS	16A-S1A	
11010	1	08	AD-2-80B	B MSIV INBOARD	M-115 D,5	RX	933'	DM AZ 170	5,R	15	OPEN	CLOSED	NO	HS	16A-S1B	
11011	1	08	AD-2-80C	C MSIV INBOARD	M-115 D,2	RX	933'	DM AZ 190	5,R	15	OPEN	CLOSED	NO	HS	16A-S1C	
11012	1	08	AD-2-80D	D MSIV INBOARD	M-115 C,2	RX	933'	DM AZ 200	5,R	15	OPEN	CLOSED	NO	HS	16A-S1D	
11013	2	08	AD-2-86A	A MSIV OUTBD	M-115 C,5	RX	935'	STEAM CHASE	5,R	15	OPEN	CLOSED	NO	HS	16A-S2A	
11014	2	08	AD-2-86B	B MSIV OUTBD	M-115 D,5	RX	935'	STEAM CHASE	5,R	15	OPEN	CLOSED	NO	HS	16A-S2B	
11015	2	08	AD-2-86C	C MSIV OUTBD	M-115 D,2	RX	935'	STEAM CHASE	5,R	15	OPEN	CLOSED	NO	HS	16A-S2C	
11016	2	08	AD-2-86D	D MSIV OUTBD	M-115 C,2	RX	935'	STEAM CHASE	5,R	15	OPEN	CLOSED	NO	HS	16A-S2D	
8114	01		83300	MCC133B/143B NORMAL SOURCE		TB	911	EAST	5,R		YES	ROB	MCC133B			
8107	01		84231	MCC142A/B CROSS TIE		TB	931	EAST	5,R		YES	ROB	MCC142B			
8113	01		84300	MCC133B/143B ALTERNATE SOURCE		TB	931	EAST	5,R		YES	ROB	MCC133B			
7187	1	5	BPM-1	DC-BOOSTER PUMP MOTOR	WX-9216-5-3	TB	951	12 DG	5,R		OFF	ON	YES	ROB	12ED6, D-211	
7189	2	5	BPM-1	DC-BOOSTER PUMP MOTOR	WX-9216-5-3	TB	931	11 DG	5,R		OFF	ON	YES	ROB	11ED6, D-111	
7188	2	5	BPM-2	DC-BOOSTER PUMP MOTOR	WX-9216-5-3	TB	931	12 DG	5,R		OFF	ON	YES	ROB	12 ED6, D-111	
7190	1	5	BPM-2	DC-BOOSTER PUMP MOTOR	WX-9216-5-3	TB	931	11 DG	5,R		OFF	ON	YES	ROB	11 ED6, D-211	

CERTIFICATION:

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Print or Type Name/Title
Patricia Sander / ENGINEER
 Date: 11/16/95

Print or Type Name/Title
Bruce Mackintosh / ENGINEER
 Date: 11/19/95

PORTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
RELAY REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'R')
Program File Name & Version: SSEL 2.2

LINE NO.	EQUIP TRAHN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Flr. Eiv. Rm. or Row/Col.	LOCATION	Sort Notes	OP. ST.	Desired	REQ'D INTERCONNECTIONS	REG.				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
8005	03	BUS 15	4160 SWITCHGEAR		TB	911	LOWER 4KV RM	S,R	YES				YES			OFFSITE/EDG
8008	03	BUS 16	4160 SWITCHGEAR		TB	931	UPPER 4KV RM	S,R	YES				YES			OFFSITE, EDG
4001	1	00	CRD HYDRAULIC CONTROL UNITS EAST SIDE	M-119	PX	935	EAST SIDE	S,R	NO				NO			
4002	1	00	CRD HYDRAULIC CONTROL UNITS WEST SIDE	M-119	RX	935	WEST SIDE	S,R	NO				NO			
4013	1	07	CV-3-32A	M-119 D,4	RX	935	11 BK	S,R 24	OP	CL	YES		YES			COS(POSITION INDICATION), Y20
4015	1	07	CV-3-32B	M-119 D,1	RX	935	12 BK	S,R 24	OP	CL	YES		YES			COS(POSITION INDICATION), Y20
4014	2	07	CV-3-32C	M-119 D,4	RX	935	11 BK	S,R 24	OP	CL	YES		YES			COS(POSITION INDICATION), Y20
4016	2	07	CV-3-32D	M-119 D,1	RX	935	12 BK	S,R 24	OP	CL	YES		YES			COS(POSITION INDICATION), Y20
4003	1	07	CV-3-33A	M-119 C,3	RX	935	11 BK	S,R 24	OP	CL	YES		YES			COS, Y20
4004	1	07	CV-3-33B	M-119 C,2	RX	935	12 BK	S,R 24	OP	CL	YES		YES			COS, Y20
4011	1	07	CV-3-33C	M-119 C,3	RX	935	11 BK	S,R 24	OP	CL	YES		YES			COS(POSITION INDICATION), Y20
4012	1	07	CV-3-33D	M-119 C,2	RX	935	12 BK	S,R 24	OP	CL	YES		YES			COS(POSITION INDICATION), Y20
5002	2	14	D10		ADMIN	928	DIV 1 250V BAT	S,R			YES		YES			MCC 133A
5003	1	14	D20		ADMIN	928	812 125V BAT RM	S,R			YES		YES			MCC 142A
5005	2	14	D40		ADMIN	928	DIV 1 125V BAT	S,R			YES		YES			MCC 143A
6022	2	16	D52		ADMIN	928	DIV1 250V BATHM	S,R			YES		YES			B3433(MCC134)
6023	2	16	D53		ADMIN	928	DIV1 250V BATHM	S,R			YES		YES			B3434(MCC134)
6024	2	16	D54		ADMIN	928	DIV1 250V BATHM	S,R			YES		YES			B3431(MCC134)

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Print or Type Name/Title
Bryan Stude / ENGINEER
Date 11/16/95

Signature
Bryan Stude

Print or Type Name/Title
Bryan Stude / ENGINEER
Date 11/16/95

Signature
Bryan Stude

MONTELELO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
RELAY REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DRF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'R')
Program File Name & Version: SSEN 2.2

LINE NO.	TRAIN CLASS	EQUIP MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Fr. Eiv.	LOCATION Ra. or Row/Col.	Sort Notes	Normal	Desired	REQ'D INTERCONNECTIONS	RES.				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
6017	1	16	D70	CHARGER, DGB (16) BATTERY	E-201 SHT.3	EFT	932	ELEC EQ DIV 20M S,R	YES	YES	B4433(MCC144)					
6018	1	16	D80	CHARGER, DGA (16) BATTERY	E-201 SHT.3	EFT	932	ELEC EQ DIV 20M S,R	YES	YES	B4434(MCC144)					
6019	1	16	D90	CHARGER, SWING DGA, DGB (16) BATTERY	E-201 SHT.3	EFT	932	ELEC EQ DIV 20M S,R	YES	YES	B4431(MCC144)					
2154	1	18	DP1C-10-130B	RHR HX 12 TUBE/SHELL DP CONTROL	M-120 A,6	ADMIN	951'	CR	YES	YES	RO6 C03,E/S 4101,Y80					
7157C	2	05	FPM	11 MOTOR DRIVEN FUEL PUMP		TB	931	11 EDG	YES	YES	RO8 11 EDG,C111					
7157D	1	05	FPM	12 MOTOR DRIVEN FUEL PUMP		TB	931	12 EDG	YES	YES	RO8 12 EDG,C211					
7156	1	05	FTM-1	12 DG FUEL TRANSFER PUMP #1		TB	931	12 DG	OFF	ON	RO8 12EDG,G-3B					
7157A	1	05	FTM-1	11 EDG FUEL TRANSFER PUMP #1		TB	931	11 EDG	YES	YES	RO8 11EDG,G-3B					
7157	1	05	FTM-2	12 DG FUEL TRANSFER PUMP #2		TB	931	12 DG	OFF	ON	RO8 12EDG,G-3B					
7157B	1	05	FTM-2	11 EDG FUEL TRANSFER PUMP #2		TB	931	11 EDG	YES	YES	RO8 11EDG,G-3B					
7045	2	17	G-3A	11 EMERGENCY DIESEL GENERATOR	M-133 B,6	TB	931	11 DG RM	OFF	ON	125 VDC CONTROL LOGIC START LOGIC D-111					
7004	1	17	G-3B	12 EMERGENCY DIESEL GENERATOR	M-133 C,6	TB	931	12 DG RM	OFF	ON	125 VDC COMT LOGIC, POWER D-211					
12325A	1	20	HS-533	MASTER ACIDS TRANSFER SWITCH		EFT	960	MAIN	NO	NO	RO8 C292					
1047	2	12	K-10A	RHRSM AUX AIR COMP	M-121 A,4	RX	935	M OF ELEVATOR	YES	YES	P-73A,M3347,B3347					
2136	1	12	K-10B	B RHR AUX AIR COMPRESSOR	M-120 A,4	RX	935'	SW	YES	YES	B4454(MCC44),M4454					
7138	2	12	K-8A	11 EDG ELECTRIC/DIESEL AIR STARTER COMPRESSOR #1	M-133 B,2	TB	931	11 DG RM	OFF	ON	HS ON C-93,M3346A					
7139	2	12	K-8B	11 ELECTRIC AIR STARTER COMPRESSOR #2	M-133 D,2	TB	931	11 DG RM	OFF	ON	HS ON C-94,M3301A					
7136	1	12	K-9A	12 ELECTRIC AIR STARTER COMPRESSOR #1	M-133 E,2	TB	931	12 DG RM	OFF	ON	HS ON C-94,M3301B					
7137	1	12	K-9B	12 EDG ELECTRIC/DIESEL AIR STARTER COMPRESSOR #2	M-133 D,2	TB	931	12 DG RM	OFF	ON	HS ON C-94,M3346B					
8003	02	LC-103		480 V LOAD CENTER		TB	931	UPPER 4KV RM	YES	YES	X-30					

CERTIFICATION:

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Print or Type Name/Title
ENGINEER
Signature
Date
11/16/95
11/19/95

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
RELAY REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'R')
Program File Name & Version: SSEL 2.2

LINE NO.	TRAIN CLASS	EQIP MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Flr./Elev.	LOCATION Rm. or Row/Col.	SOFT NOTES	Normal	Desired	REQ'D INTERCONNECTIONS REG.				
(1)	(2)	(3)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
8006	02	LC-104	480 V LOAD CENTER		TB	931	UPPER 4KV RM	S,R			YES			X-40	
3071	2	MD-1741	11 CS PUMP TORUS SUCTION	M-122 A,3	RX	896	A RHR ROOM	R	21	OPEN	OPEN			C-03	
3073	1	MD-1742	12 CS PUMP TORUS SUCTION	M-122 A,4	RX	896	B RHR ROOM	R	21	OPEN	OPEN				
3028	2	MD-1749	11 CORE SPRAY TEST LINE TO TORUS	M-122 C,2	RX	923	TORUS CATWALK	R	21	CLOSED	CLOSED			C-03	
3030	1	MD-1750	12 CORE SPRAY TEST LINE TO TORUS	M-122 C,5	RX	923	TORUS CATWALK	R	21	CLOSED	CLOSED			C-292,C-03	
3009	2	MD-1751	11 CS INJ OUTBOARD ISOLATION VALVE	M-122 D,2	RX	962	EAST	R	21	OPEN	OPEN			C-03,83325(MCC33)	
3011	1	MD-1752	12 CS INJ OUTBOARD ISOLATION VALVE	M-122 D,5	RX	962	RMCU HX BACK RM	R	21	OPEN	OPEN			C-292,C-03,84325(MCC43)	
3013	2	MD-1753	11 CS INJ INBOARD ISOLATION VALVE	M-122 E,3	RX	974	DOG HOUSE CLURIC S,R			CLOSED	OPEN			C-03,83324(MCC33)	
3015	1	MD-1754	12 CS INJ INBOARD ISOLATION VALVE	M-122 D,4	RX	962	RMCU HX BACK RM	S,R		CLOSED	OPEN			C-292,C-03,84324(MCC143 A)	
1001	2	MD-1966	11 RHR SUCTION FROM TORUS	M-121 B,6	RX	896	A RHR ROOM	R	21	OPEN	OPEN			C-03/MS-3321	
2001	1	MD-1967	RHR/ TORUS SUCTION	M-120 B,2	RX	896'	B RHR ROOM	R	21	OPEN	OPEN			C-03,/C-292,MS-4323	
1003	2	MD-1968	11 RHR SHUTDOWN COOLING SUCTION	M-121 B,6	RX	896	A RHR ROOM	R	21	CLOSED	CLOSED			C-03/MS-3332	
2005	1	MD-1969	RHR/ B SDC SUCTION	M-120 A,2	RX	896'	B RHR ROOM	R	21	CLOSE	CLOSE			C-03,/MS-4321	
1048	2	MD-2002	11 RHR HX BYPASS	M-121 B,3	RX	896	A RHR ROOM	R,S		OPEN	CLOSED			MS-3336,83336(MCC133A)	
2046	1	MD-2003	RHR/ RHR B INJER BYPASS	M-120 B,5	RX	896'	B RHR ROOM	S,R		OPEN	CLOSED			B4210(MCC42),MS-4210	
1091	2	MD-2006	11 RHR DISCHARGE TO TORUS	M-121 D,3	RX	923	TORUS CATWALK	R,S		CLOSED	OPEN			MS-3341,83341(MCC33)	
2067	1	MD-2007	RHR/ RHR B DISCH TO TORUS	M-120 D,6	RX	945'	DM EQ HATCH	S,R		CLOSE	OPEN			C-292,MS-525,S07,MS-420 B,84208(MCC142A)	
1096	2	MD-2008	TORUS COOLING ISOL	M-121 C,3	RX	923	TORUS CATWALK	S,R		CLOSED	OPEN			MS-3337,83337(MCC33)	
2070	1	MD-2009	RHR/ RHR B TORUS COOLING TEST RTN	M-120 C,6	RX	923'	TORUS CATWALK	S,R		CLOSE	OPEN			C-292,C-03,MS-4337,84337(MCC133A)	
1094	2	MD-2010	TORUS SPRAY VLV	M-121 C,3	RX	923	TORUS CATWALK	R	21	CLOSED	CLOSED			C-03/MS-3338	
2073	1	MD-2011	RHR/ RHR B TORUS SPRAY INJ	M-120 C,5	RX	923'	TORUS CATWALK	R	21	CLOSE	CLOSE			C-03/MS-4338	

CERTIFICATION:

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Print or Type Name/Title: Brian Stude / ENGINEER
Date: 11/16/95

Print or Type Name/Title: James Mackintosh / ENGINEER
Date: 11/19/95

HENTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
RELAY REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'R')
Program File Name & Version: SSEL 2.2

LINE NO.	EQUIP CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Fir. Elev.	EQUIPMENT LOCATION	Rm. or Row/Col.	SORT NOTES	Normal	Desired	REQ'D INTERCONNECTIONS REG. & SUPPORTING COMPONENTS ISSUE				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1119	2	08	MO-2012	RHR LPCI OUTBOARD INJECTION	M-121 C,4	RX	935	ESDC	S,R	21	OPEN	OPEN	YES		HS-3335,83335(MCC133B)	
2064	1	08	MO-2013	RHR/RHR B LPCI INJ OUTBD	M-120 D,3	RX	935'	WSDC	S,R		OPEN	CLOSE	YES		C-03,HS-4335,84335(MCC143B)	
1121	2	08	MO-2014	RHR LPCI INBOARD INJECTION	M-121 C,5	RX	935	ESDC	S,R	21	CLOSED	CLOSED	YES		HS-3334,83334(MCC133B)	
2066	1	08	MO-2015	RHR/RHR B LPCI INJ INBD	M-120 D,2	RX	935'	WSDC ROOM	S,R		CLOSE	CLOSE	YES		HS-4334,84335(MCC143B)	
1106	2	08	MO-2020	RHR CONTAINMENT SPRAY OUTBOARD ISOLATION	M-121 E,5	RX	935	EAST	R	21	CLOSED	CLOSED	NO		C-03/MS-3339	
2078	1	08	MO-2021	"B" RHR CTMT SPRAY OUTBD ISOL	M-120 E,2	RX	962'	WEST	R	21	CLOSED	CLOSED	NO		480W MCC 143, C-03, BKR-4339	
1110	2	08	MO-2026	RHR HEAD SPRAY OUTBOARD ISOLATION	M-121 D,6	RX	974	974 CUBICLE	R	21	CLOSED	CLOSED	NO		C-03	
1010	2	08	MO-2030	RHR SHUTDOWN COOLING SUPPLY OUTBOARD ISOLATION	M-121 C,6	RX	935	EAST, ELEV 942	R	21	CLOSED	CLOSED	NO		C-03	
1114	2	08	MO-2032	RHR DISCHARGE TO WASTE SURGE TANK	M-121 C,3	RX	923	TORUS CATWALK	R	21	CLOSED	CLOSED	NO		C-03,HS-4328,84328(MCC43)	
1079	2	08	MO-2033	RHR LOOPS CROSS TIE	M-120 C,6	RX	923	TORUS CATWALK	R,S		OPEN	CLOSED	YES		84342(MCC143A),RS 23A-52	
10001	1	08	MO-2034	HPCI INBOARD STEAM SUPPLY	M-123 E,5	RX	DRYWELL 951	DM AZ 150	S,R		OPEN	CLOSED	YES		831205(0312),MS-23A-53	
10002	2	08	MO-2035	HPCI OUTBOARD STEAM SUPPLY	M-123 E,4	RX	935	STEAM CHASE	S,R		OPEN	CLOSED	YES		83340(033),MS-13A-51	
14001	1	08	MO-2075	RCIC STEAM SUPPLY INBOARD ISOLATION	M-125 E,5	RX	DRYWELL 951	DM AZ 200	S,R		OPEN	CLOSED	YES		031104(0311),MS-13A-53	
14003	2	08	MO-2076	RCIC STEAM SUPPLY OUTBOARD ISOLATION	M-125 E,4	RX	935	STEAM CHASE	S,R		OPEN	CLOSED	YES		C03,84333	
11025	1	08	MO-2373	INBD MS LINE DRN UPSTREAM MSIVS	M-115 B,5	RX	933	DM AZ 180	R	21	CLOSED	CLOSED	YES		83328(033),MS-16A-515	
17001	1	08	MO-2397	RMCU INLET INBOARD ISOL	M-128 C,8	RX	962	DM AZ 040	S,R		OPEN	CLOSED	YES		031309(031),MS-16A-516	
17002	2	08	MO-2398	RMCU INLET OUTBOARD ISOL	M-128 C,7	RX	974	RMCU ROOM	S,R		OPEN	CLOSED	YES		ROB 12 DG,0211	
7191	1	08	MS71	AIR START SOLENOID CKT 1		TB	931	12 DG	S,R		OFF	ON	YES		ROB 11 DG,0111	
7193	2	08	MS71	AIR START SOLENOID CKT 1		TB	931	11 DG	S,R		OFF	ON	YES			

CERTIFICATION:

The information identifying the equipment required to bring the plant to a safe shutdown condition on this Safe Shutdown Equipment List (SSEL) is, to the best of our knowledge and belief, correct and accurate. (One or more signatures of Systems or Operations Engineers)

Print or Type Name/Title: Bryan Gaudin / ENGINEER
Signature: Bryan Gaudin
Date: 11/16/95

Print or Type Name/Title: Brian Mackinnon / ENGINEER
Signature: Brian Mackinnon
Date: 11/16/95

DOMITICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
RELAY REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'R')
Program File Name & Version: SSEM 2.2

LINE NO.	EQUIP TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Bldg. No./Rev./Zone	Building	Equipment Fir. Ev.	LOCATION	Rm. or Row/Col.	SORT NOTES	OP. ST. -->			POWER SUPPORTING SYS. REQ'D INTERCONNECTIONS REG.			
										Normal	Desired	REQ'D		DAG. NO./REV.	& SUPPORTING COMPONENTS ISSUE	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
7192	1	08	MPST2	AIR START SOLENOID CKT 2		TB	931	12 DG	S,R	OFF	ON	YES		ROB 12 DG, D211		
7194	2	08	MPST2	AIR START SOLENOID CKT 2		TB	931	11 DG	S,R	OFF	ON	YES		ROB 11 DG, D111		
9001	2	06	P-109A	11 RHR SW PUMP			919	INTAKE	S,R	OFF	ON	YES		152-507(BUS15)		
9002	1	06	P-109B	12 RHR SW PUMP			919	INTAKE	S,R	OFF	ON	YES		152-607(BUS16)		
9003	2	06	P-109C	13 RHR SW PUMP			919	INTAKE	S,R	OFF	ON	YES		152-508(BUS15)		
9004	1	06	P-109D	14 RHR SW PUMP			919	INTAKE	S,R	OFF	ON	YES		152-608(BUS16)		
7025	1	05	P-11	DIESEL OIL XFER PUMP			935	FO PMP HOU	S,R	OFF	ON	YES		B-4202(MCC142A), HS-529, HS-527, HS-42-4202		
9005	2	06	P-111A	11 ESW (EDG-ESW) PUMP			919	INTAKE	S,R	OFF	ON	YES		B3435(MCC134)		
9006	1	06	P-111B	12 ESW (EDG-ESW) PUMP			919	INTAKE	S,R	OFF	ON	YES		B4319(MCC143)		
9007	2	06	P-111C	13 ESW (EDG-ESW) PUMP			919	INTAKE	S,R	OFF	ON	YES		B3472(MCC134)		
9008	1	06	P-111D	14 ESW (EDG-ESW) PUMP			919	INTAKE	S,R	OFF	ON	YES		B4472(MCC144)		
1032	2	06	P-202A	11 RHR PUMP			896	RX	S,R	N/A	N/A	YES		152-504(BUS15), HS-10A-S 2A		
2030	1	06	P-202B	RHR/ RHR B PUMP # 12			896'	RX	S,R	3	OFF	RUN	YES	152-603(BUS16), HS-10A-S 2B		
1018	2	06	P-202C	13 RHR PUMP			896	RX	S,R	N/A	N/A	YES		152-503(BUS15), HS-10A-S 3A		
2033	1	06	P-202D	RHR/ RHR D PUMP # 14			896'	RX	S,R	3	OFF	RUN	YES	152-604(BUS16), HS-10A-S 3B		
3061	2	06	P-208A	11 CORE SPRAY PUMP			896	RX	S,R	OFF	ON	YES		152-505(BUS15), HS-14A-S 5A		
3064	1	06	P-208B	12 CORE SPRAY PUMP			896	RX	S,R	OFF	ON	YES		152-605(BUS16), HS-14A-S 5B		
1052	2	08	SV-1728	CV-1728 (11 RHR HX RHR SW OUTLET) SV			896	RX	R,S			YES		Y20		
2095	1	08	SV-1729	CV-1729 (12 RHR HX RHR SW OUT) SV			896'	RX	R,S			YES		Y80		

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Print or Type Name/Title / ENGINEER

Patricia Sunde
Signature
Date: 11/16/95

Print or Type Name/Title / ENGINEER

Lucretia M. Kunk
Signature
Date: 11/19/95

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
RELAY REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval. Type CONTAINS 'R')
Program File Name & Version: SSEL 2.2

LINE NO.	EQUIP TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	LOCATION	Rel. or Row/Col.	Sort Notes	Normal	Desired	REQ'D INTERCONNECTIONS					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
1030	2	08	SV-1994	SV FOR CV-1994 #11 RHR MINIMUM FLOW	M-121 B,4	RX	896	A RHR ROOM	S,R	14	CLOSED	CLOSED	YES	FS-10-121A,V-20		
2133	1	08	SV-1995	SV FOR CV-1995 #12 RHR MIN FLOW	M-120 B,4	RX	896'	B RHR ROOM	R,S		YES					
1029	2	08	SV-1996	SV FOR CV-1996 #13 RHR MINIMUM FLOW	M-121 C,5	RX	896	A RHR ROOM	S,R	14	CLOSED	CLOSED	YES	FS-10-121C,V-20		
2132	1	08	SV-1997	SV FOR CV-1997 #14 RHR MIN FLOW	M-120 C,4	RX	896'	B RHR ROOM	R,S		YES					
12273	1	08	SV-2-32A	A SRV BELLOW LEAK TEST	M-115-1 B,5	RX	951	DM WEST	R	20	CLOSED	CLOSED	YES	ROB CV-1997,C03,C33,V-20		
12052	1	08	SV-2-32B	B SRV BELLOW LEAK TEST	M-115-1 D,7	RX	951	DM	R	20	CLOSED	CLOSED	YES	C03,HS-58,HS-55,Y20		
12151	2	08	SV-2-32C	C SRV BELLOW LEAK TEST SV	M-115-1 D,3	RX	951	DM	R	20	CLOSED	CLOSED	YES	C03,HS-58,HS-55,Y20		
12286	1	08	SV-2-32D	D SRV BELLOW LEAK TEST	M-115-1 B,4	RX	951	DM EAST	R	20	CLOSED	CLOSED	YES	C03,HS-58,HS-55,Y20		
12060	1	08	SV-2-32E	E SRV BELLOW LEAK TEST	M-115-1 B,6	RX	951	DM	R	20	CLOSED	CLOSED	YES	C03,HS-58,HS-55,Y20		
12126	2	08	SV-2-32F	F SRV BELLOW LEAK TEST	M-115-1 B,4	RX	951	DM EAST	R	20	CLOSED	CLOSED	YES	C03,HS-58,HS-55,Y20		
12038	2	08	SV-2-32G	G SRV BELLOW LEAK TEST	M-115-1 D,5	RX	951	DM WEST	R	20	CLOSED	CLOSED	YES	C03,HS-58 & 55,Y20		
12143	2	08	SV-2-32H	H SRV BELLOW LEAK TEST	M-115-1 D,4	RX	951	DM EAST	R	20	CLOSED	CLOSED	YES	C03,HS-58,HS-55,Y20		
12274	1	08	SV-2-33A	A SRV BELLOW LEAK TEST	M-115-1 B,6	RX	951	DM WEST	R	20	CLOSED	CLOSED	YES	C03,HS-58,HS-55,Y20		
12053	1	08	SV-2-33B	B SRV BELLOW LEAK TEST	M-115-1 D,7	RX	951	DM WEST	R	20	CLOSED	CLOSED	YES	C03,HS-58,HS-55,Y20		
12298	2	08	SV-2-33C	C SRV BELLOW LEAK TEST	M-115-1 D,3	RX	951	DM EAST	R	20	CLOSED	CLOSED	YES	C03,HS-58,HS-55,Y20		
12287	1	08	SV-2-33D	D SRV BELLOW LEAK TEST	M-115-1 B,4	RX	951	DM EAST	R	20	CLOSED	CLOSED	YES	C03,HS-58,HS-55,Y20		
12061	1	08	SV-2-33E	E SRV BELLOW LEAK TEST	M-115-1 B,6	RX	951	DM WEST	R	20	CLOSED	CLOSED	YES	C03,HS-58,HS-55,Y20		
12127	2	08	SV-2-33F	F SRV BELLOW LEAK TEST	M-115-1 B,4	RX	951	DM EAST	R	20	CLOSED	CLOSED	YES	C03,HS-58,HS-55,Y20		
12039	2	08	SV-2-33G	G SRV BELLOW LEAK TEST	M-115-1 D,6	RX	951	DM WEST	R	20	CLOSED	CLOSED	YES	C03,HS-58 & 55,Y20		
12145	2	08	SV-2-33H	H SRV BELLOW LEAK TEST	M-115-1 D,4	RX	951	DM EAST	R	20	CLOSED	CLOSED	YES	C03,HS-58,HS-55HS-56,Y20		

CERTIFICATION:

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Print or Type Name/Title: Brian Sunde / ENGINEER
Signature: Brian Sunde
Date: 11/16/95

Print or Type Name/Title: Dwight Mackintosh / ENGINEER
Signature: Dwight Mackintosh
Date: 11/19/95

MONTECELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
RELAY REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
Filter Criteria: (Eval). Type CONTAINS 'R'
Program File Name & Version: SSEN 2.2

LINE NO.	TRAIN CLASS	EQUIP MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	EQUIPMENT Fir. E.V.	LOCATION Ba. or Room/Cel.	Sort Notes	OP. ST. Normal	Desired REQ'D	DWG. NO./REV.	SUPPORTING COMPONENTS	ISSUE			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
12275	1	08	SV-2-34A	A SRV BELLOW LEAK TEST	M-115-1 B,6	RX	951	DM WEST	R	20	CLOSED	CLOSED	YES			CO3,HS-58,HS-55,HS-56,Y 20
12054	1	08	SV-2-34B	B SRV BELLOW LEAK TEST	M-115-1 D,7	RX	951	DM WEST	R	20	CLOSED	CLOSED	YES			CO3,HS-58,HS-55,HS-56,Y 20
12299	08	SV-2-34C	C SRV BELLOW LEAK TEST	M-115-1 D,3		RX	951	DM EAST	R	20	CLOSED	CLOSED	YES			CO3,HS-58,HS-55,HS-56,Y 20
12288	1	08	SV-2-34D	D SRV BELLOW LEAK TEST	M-115-1 B,4	RX	951	DM EAST	R	20	CLOSED	CLOSED	YES			CO3,HS-58,HS-55,HS-56,Y 20
12062	1	08	SV-2-34E	E SRV BELLOW LEAK TEST	M-115-1 B,6	RX	951	DM WEST	R	20	CLOSED	CLOSED	YES			CO3,HS-58,HS-55,HS-56,Y 20
12128	2	08	SV-2-34F	F SRV BELLOW LEAK TEST	M-115-1 B,3	RX	951	DM EAST	R	20	CLOSED	CLOSED	YES			CO3,HS-58,HS-55,HS-56,Y 20
12040	2	08	SV-2-34G	G SRV BELLOW LEAK TEST	M-115-1 D,6	RX	951	DM WEST	R	20	CLOSED	CLOSED	YES			CO3,HS-58,HS-55,HS-56,Y 20
12144	2	08	SV-2-34H	H SRV BELLOW LEAK TEST	M-115-1 D,4	RX	951	DM EAST	R	20	CLOSED	CLOSED	YES			CO3,HS-58,HS-55,HS-56,Y 20
12247	1	08	SV-2-71A	A SRV AIR OPERATOR SV	M-115-1 B,6	RX	951	DM WEST	S,R		CLOSED	OPEN	YES			CO3,HS-51A,D11,D21
12013	1	08	SV-2-71B	B SRV PILOT	M-115-1 C,6	RX	951	DM WEST	S,R		CLOSED	OPEN	YES			CO3,HS-54B,D11,D21
12148	2	08	SV-2-71C	C SRV AIR OPERATOR SV	M-115-1 C,3	RX	951	DM EAST	S,R		CLOSED	OPEN	YES			CO3,HS-51C,D11,D21
12285	1	08	SV-2-71D	D SRV PILOT A/S	M-115-1 B,4	RX	951	DM EAST	S,R		CLOSED	OPEN	YES			CO3,HS-51D,D11,D21
12245	1	08	SV-2-71E	E SRV ALT #2 A A/S	M-115-1 B,7	RX	951	DM	S,R		CLOSED	OPEN	YES			CO3,HS-54E,D33
12119	2	08	SV-2-71F	F SRV PILOT A/S	M-115-1 B,3	RX	951	DM EAST	S,R		CLOSED	OPEN	YES			CO3,HS-54F,D33
12041	2	08	SV-2-71G	G SRV PILOT A/S	M-115-1 D,5	RX	951	DM WEST	S,R		CLOSED	OPEN	YES			CO3,CO5,HS-54G,D33
12134	2	08	SV-2-71H	H SRV PILOT A/S	M-115-1 D,4	RX	951	DM EAST	S,R		CLOSED	OPEN	YES			CO3,HS-54H,D33
12244	1	08	SV-2-71J	E SRV ALT #2 A A/S	M-115-1 B,7	RX	951	DM	S,R		CLOSED	OPEN	YES			C292,HS-519,D100
12042	2	08	SV-2-71K	G SRV PILOT A/S	M-115-1 D,5	RX	951	DM WEST	S,R		CLOSED	OPEN	YES			C292,HS-520,D100
12136	2	08	SV-2-71L	H SRV PILOT A/S	M-115-1 D,4	RX	951	DM	S,R		CLOSED	OPEN	YES			C292,HS-531,HS-521,HS-5 3B,D100

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Print or Type Name/Title
ENGINEER

Brian Sande
Signature

11/16/95
Date

Print or Type Name/Title
ENGINEER

Brian Sande
Signature

11/19/95
Date

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
RELAY REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
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Program File Name & Version: SSEM 2.2

LINE NO.	TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Flr./E.V.	LOCATION Rm. or Row/Col.	Sort Notes	OP. ST. Normal	Desired REQ'D	DWG. NO./REV.	SUPPORTING SYS. & SUPPORTING COMPONENTS	REG. ISSUE			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
12120	2	08	SV-2-71M	F SRV ASDS PILOT A/S	M-115-1 B,3	RX	951	0M EAST	S,R	CLOSED	OPEN	YES	C292, NS-522, D100			
11037	2	08	SV-2370	FLANGE LEAK OFF CONTROL VALVE	M-115 E,2	RX	985	0M AZ 000	R	21	CLOSED	CLOSED	YES	CO4		
11029	1	08	SV-2371	REACTOR HEAD VENT TO COM	M-115 E,5	RX	920	0M AZ 170	R	21	CLOSED	CLOSED	YES	CO4		
4035	1	08	SV-3-29	EAST/WEST SOW VENT/DRN VLVS AIR SUPPLY SOL VLV	M-119 B,2	RX	935		S,R	ME	DE	YES	ROB IR-SV-3-29, Y20			
4017	1	08	SV-3-31A	INBOARD VENT/DR RPS CH A	M-119 B,2	RX	935	12 BK	S,R	ME	DE	YES	ROB IR-SV-3-29, RPS			
4018	1	08	SV-3-31B	INBOARD VENT/DR RPS CH B	M-119 B,2	RX	935	12 BK	S,R	ME	DE	YES	ROB IR-SV-3-29, RPS			
4019	2	08	SV-3-31C	OUTBOARD VENT/AR RPS CH A	M-119 B,2	RX	935	12 BK	S,R	ME	DE	YES	ROB IR-SV-3-31C, RPS			
4020	2	08	SV-3-31D	OUTBOARD VENT/DR RPS CH B	M-119 B,2	RX	935	12 BK	S,R	ME	DE	YES	ROB IR-SV-3-31C, RPS			
1054	2	08	SV-4015A	A RHR LOOP SAMPLE ISOL	MF-96042	RX	896	A RHR ROOM	R	21	CLOSED	CLOSED	YES	120 VAC		
2097	1	08	SV-4015B	B LOOP RHR SAMPLE ISOL	MF-96042	RX	896	B RHR ROOM	R	21	CLOSED	CLOSED	YES	C-291A/C-285A		
1084	2	08	SV-4033A	AGGCS RCHB CLG PMP INL	MH-94896 A,6	RX	985	N OF ELEVATOR	R	21	CLOSED	CLOSED	YES	C-285B		
2090	1	08	SV-4033B	B CGCS RECOMB/NER COOLING PUMP INLET	MH-94897 A,6	RX	985'	WEST	R	21	CLOSED	CLOSED	YES	C-291A/C-285A		
1085	2	08	SV-4034A	AGGCS RCHB CLG PMP BYP	MH-94896 A,6	RX	985	N OF ELEVATOR	R	21	CLOSED	CLOSED	YES	C-285B		
2091	1	08	SV-4034B	B CGCS RECOMB/NER COOLING PUMP BYPASS	MH-94897 A,6	RX	985'	WEST	R	21	CLOSED	CLOSED	YES	C311		
12228	1	08	SV-4234	ALT #2 A	M-131 SHT 10 D,6	RX	935	WEST	R	21	OPEN	OPEN	YES	C311, C03, Y80		
12105	2	08	SV-4235	ALT #2 B WHARFOLD ISOL	M-131 SHT 10 B,6	TB	931	FW CHS HELB RM R	R	21	OPEN	OPEN	YES	B4305(MCC143A), NS 42-4035		
9109	1	10	V-AC-4	B RHR ROOM COOLING UNIT	M-112 C,2	RX	896	B RHR ROOM	S,R				YES	B3305(MCC133A), NS 42-3305		
9183	2	10	V-AC-5	A RHR ROOM AIR COOLING UNIT	M-112 B,1	RX	896	A RHR ROOM	S,R				YES	MCC-3474 (MCC 134A)		
7152	2	9	V-SF-10	11 DIESEL ROOM VENT FAN	ME-36375-19A	TB		11 DG	S,R	OFF	ON	YES	MCC-4317 (MCC143A)			
7151	1	9	V-SF-9	12 DIESEL ROOM VENT FAN	ME-36375-19	TB		12 DG	S,R	OFF	ON	YES				

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Print or Type Name/Title
Brian Sunde / ENGINEER
 Signature Date: 11/16/95

Print or Type Name/Title
Brian Sunde / ENGINEER
 Signature Date: 11/19/95

MONTICELLO NUCLEAR GENERATING PLANT
SAFE SHUTDOWN EQUIPMENT LIST (SSEL)
RELAY REVIEW SSEL

Data Base File Name/Date/Time: FINAL.DBF / 11/16/95 / 08:27:56
Sort Criteria: ID Number
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LINE NO.	EQUIP TRAIN CLASS	MARK NO.	SYSTEM/EQUIPMENT DESCRIPTION	Dwg. No./Rev./Zone	Building	Equipment Location	Sort Notes	OP. ST.	Normal	Desired	REQ'D	Power	Supporting	SYS.	REQ'D	Interconnections	REG.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
6010	2	16	Y71	DIV 1 120WAC CLASS 1E INVERTER	E-1508	EFT	944	PWR EQ DIV 1 IN S,R			YES						
6004	1	16	Y81	DIV 2 120WAC CLASS 1E INVERTER	E-1508	EFT	960	MAIN ROOM	S,R		YES						

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Print or Type Name/Title
ENGINEER

Brian Ginde
Signature

11/16/95
Date

Print or Type Name/Title
ENGINEER

Dwight Mackintosh
Signature

11/19/95
Date

APPENDIX C
FUNCTIONAL SCREENING RESULTS

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 8066 Plant System: 4kV Component/Subsystem: 152-308				
152-301/b	GE-AMH-4.76-250	A301	No	CA
152-302/b	GE-AMH-4.76-250	A302	No	CA
152-308/CL/MS	GE-AMH-4.76-250	A308	No	SWGR
152-308/CS	GE SBM	C08	No	NV
152-308/IS	GE-AMH-4.76-250	A308	No	SWGR
152-308/POS, 152-308/a, 152-308/b	GE-AMH-4.76-250	A308	No	SWGR
152-308/SM/LS	GE-AMH-4.76-250	A308	No	SWGR
152-308/SS		C08	No	NV
152-308Y	GE-AMH-4.76-250	A308	No	SWGR
162-3	Agastat 2412	A308	No	GERS
186-3	GE HEA	A301	No	SWGR
186-5	GE HEA	A501	No	SWGR
97-28	Agastat 2414	C08	No	GERS
97-29	Agastat 2414	C08	No	GERS
97-44	Agastat GP	A510	No	SWGR
97-45	Agastat GP	A510	No	SWGR
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A308	No	NV

SSEL Line Number: 8066 Plant System: 4kV Component/Subsystem: 152-308 (BUS-13 Lockout)				
151-301	GE 12IAC51A101A	A301	No	CA
151-302	GE 12IAC51A101A	A302	No	CA
151N-301	GE 12IAC53A10A	A301	No	CA
151N-302	GE 12IAC53A10A	A302	No	CA
186-3	GE HEA	A301	No	CA

SSEL Line Number: 8067 Plant System: 4kV Component/Subsystem: 152-408				
152-401/b	GE-AMH-4.76-250	A401	No	CA
152-402/b	GE-AMH-4.76-250	A402	No	CA
152-408/CL/MS	GE-AMH-4.76-250	A408	No	SWGR
152-408/CS	GE SBM	C08	No	NV
152-408/IS	GE-AMH-4.76-250	A408	No	SWGR
152-408/POS, 152-408/a, 152-408/b	GE-AMH-4.76-250	A408	No	SWGR
152-408/SM/LS	GE-AMH-4.76-250	A408	No	SWGR
152-408/SS		C08	No	NV
152-408Y	GE-AMH-4.76-250	A408	No	SWGR
162-4	Agastat 2412	A408	No	GERS
186-4	GE HEA	A401	No	SWGR
186-6	GE HEA	A601	No	SWGR
97-30	Agastat 2414	C08	No	GERS
97-31	Agastat 2414	C08	No	GERS
97-46	Agastat GP	A601	No	SWGR
97-47	Agastat GP	A601	No	SWGR

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A408	No	NV
K79	Agastat EGPD	C293	No	GERS
K83	Agastat EGPD	C293	No	GERS

SSEL Line Number: 8067 Plant System: 4kV Component/Subsystem: 152-408 (BUS-14 Lockout)

151-401	GE 12IAC51A101A	A401	No	CA
151-402	GE 12IAC51A101A	A402	No	CA
151N-401	GE 12IAC53A10A	A401	No	CA
151N-402	GE 12IAC53A10A	A401	No	CA
186-4	GE HEA	A401	No	CA

SSEL Line Number: 12000 Plant System: APR Component/Subsystem: ADS Logic - A

10A-K85A	GE 12HGA11A52F	C32	No	CA
10A-K85B	GE 12HGA11A52F	C33	No	CA
10A-K92A	GE 12HGA11A52F	C32	No	CA
10A-K92B	GE 12HGA11A52F	C33	No	CA
14A-K23A	GE 12HGA11A52F	C32	No	CA
14A-K23B	GE 12HGA11A52F	C33	No	CA
14A-K25A	GE 12HGA11A52F	C32	No	CA
14A-K25B	GE 12HGA11A52F	C33	No	CA
14A-K7A	GE 12HFA151A2F	C32	No	CA
14A-K8A	GE 12HFA151A2F	C32	No	CA
2E-K10A	GE 12HGA11A52F	C32	No	CA
2E-K12A	GE 12HGA11A52F	C32	No	CA
2E-K5A	Agastat ETR14D3G	C32	No	GERS
2E-K6A	GE 12HFA151A2F	C32	No	CA
2E-K7A	GE 12HFA151A2F	C32	No	CA
2E-S7A	GE CR2940	C03	No	NV

SSEL Line Number: 12000 Plant System: APR Component/Subsystem: ADS Logic - B

10A-K85A	GE 12HGA11A52F	C32	No	CA
10A-K85B	GE 12HGA11A52F	C33	No	CA
10A-K92A	GE 12HGA11A52F	C32	No	CA
10A-K92B	GE 12HGA11A52F	C33	No	CA
14A-K23A	GE 12HGA11A52F	C32	No	CA
14A-K23B	GE 12HGA11A52F	C33	No	CA
14A-K25A	GE 12HGA11A52F	C32	No	CA
14A-K25B	GE 12HGA11A52F	C33	No	CA
14A-K7B	GE 12HFA151A2F	C33	No	CA
14A-K8B	GE 12HFA151A2F	C33	No	CA
2E-K10B	GE 12HGA11A52F	C32	No	CA
2E-K12B	GE 12HGA11A52F	C32	No	CA
2E-K1B	GE 12HFA151A2H	C32	No	CA
2E-K5B	Agastat ETR14D3G	C32	No	GERS
2E-K6B	GE 12HFA151A2F	C32	No	CA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
2E-K7B	GE 12HFA151A2F	C32	No	CA
2E-S7B	GE CR2940	C03	No	NV

SSEL Line Number: 20000 Plant System: ANN Component/Subsystem: Alarm Logic on all control circuit drawings

All			No	CA
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SSEL Line Number: 20001 Plant System: ANN Component/Subsystem: ANN-20-B-9

#1 Relay Ckt. #3	Technology Incorporated	C242A	No	CA
27-1	MBC-3200	D101	No	CA
27-2	MBC-3200	D101	No	CA
59-1	MBC-3200	D101	No	CA
59-2	MBC-3200	D101	No	CA
74	GE 12HGA17D52	D101	Yes	CA
86	GE HEA61A	D101	No	GERS
ACPFA		D70		CA
ACPFA		D90		CA
ACPFA		D80		CA
ARI	P&B KRP11DG	D101	No	CA
HVSD		D70		CA
HVSD		D80		CA
HVSD		D90		CA
Isolator Output #19		C244B		CA
MA	GE-196-DSP	D101	No	OA
SW-1		D70		NV
SW-1		D80		NV
SW-1		D90		NV

SSEL Line Number: 20002 Plant System: ANN Component/Subsystem: ANN-3-A-06

14A-K3A	GE 12HFA151A2F	C32	No	CA
14A-K4A	GE 12HFA151A2F	C32	No	CA

SSEL Line Number: 20003 Plant System: ANN Component/Subsystem: ANN-3-A-09

TR-2-166	DR3-1A	C21	No	CA
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SSEL Line Number: 20004 Plant System: ANN Component/Subsystem: ANN-3-A-10

10A-K83A	GE 12HGA11A52F	C32	Yes	CA
DPIS-10-92A	BARTON 288	C-129A	No	CA

SSEL Line Number: 20005 Plant System: ANN Component/Subsystem: ANN-3-A-14

14A-S5A	GE SBM	C03	No	NV
150/151-505	GE IAC66	A505	No	TEST

SQJG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 20006 Plant System: ANN Component/Subsystem: ANN-3-A-22				
186-505	GE HEA	A505	No	CA
SSEL Line Number: 20007 Plant System: ANN Component/Subsystem: ANN-3-A-25				
2E-K4A	GE 12HGA11A52F	C32	No	CA
2E-K4B	GE 12HGA11A52F	C32	No	CA
SSEL Line Number: 20008 Plant System: ANN Component/Subsystem: ANN-3-A-26				
49/OL	GE 7700 MCC	B3321	No	CA
49/OL	GE 7700 MCC	B4328	No	CA
49/OL	GE 7700 MCC	B3322	No	CA
49/OL	GE 7700 MCC	B3337	No	CA
49/OL	GE 7700 MCC	B3309	No	CA
49/OL	GE 7700 MCC	B3339	No	CA
49/OL	GE 7700 MCC	B3338	No	CA
49/OL	GE 7700 MCC	B3336	No	CA
49/OL	GE 7700 MCC	B3341	No	CA
SSEL Line Number: 20009 Plant System: ANN Component/Subsystem: ANN-3-A-28				
152-508/b	GE-AMH-4.76-250	A508	No	CA
SSEL Line Number: 20010 Plant System: ANN Component/Subsystem: ANN-3-A-29				
42/OL	GE 7700 MCC	B3326	No	CA
42/OL	GE 7700 MCC	B3327	No	CA
SSEL Line Number: 20011 Plant System: ANN Component/Subsystem: ANN-3-A-30				
14A-K21A	GE 12HFA151A2F	C32	No	CA
14A-K21B	GE 12HFA151A2F	C33	No	CA
14A-K9A	GE 12HFA151A2F	C32	No	CA
14A-K9B	GE 12HFA151A2F	C33	No	CA
SSEL Line Number: 20012 Plant System: ANN Component/Subsystem: ANN-3-A-33				
2E-K3A	GE 12HFA151A2F	C32	No	CA
2E-K3B	GE 12HFA151A2F	C32	No	CA
SSEL Line Number: 20013 Plant System: ANN Component/Subsystem: ANN-3-A-34				
49/OL	GE 7700 MCC	B3334	No	CA
49/OL	GE 7700 MCC	B3335	No	CA
SSEL Line Number: 20014 Plant System: ANN Component/Subsystem: ANN-3-A-37				
42/OL	GE 7700 MCC	B3324	No	CA
42/OL	GE 7700 MCC	B3325	No	CA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 20015 Plant System: ANN Component/Subsystem: ANN-3-A-38				
10A-K7A	GE 12HFA151A2F	C32	No	CA
10A-K7B	GE 12HFA151A2F	C33	No	CA
10A-K8A	GE 12HFA151A2F	C32	No	CA
10A-K8B	GE 12HFA151A2F	C33	No	CA
SSEL Line Number: 20016 Plant System: ANN Component/Subsystem: ANN-3-A-42				
186-504	GE HEA	A504	No	CA
SSEL Line Number: 20017 Plant System: ANN Component/Subsystem: ANN-3-A-43				
186-503	GE HEA	A503	No	CA
SSEL Line Number: 20018 Plant System: ANN Component/Subsystem: ANN-3-A-44				
152-507/b	GE-AMH-4.76-250	A507	No	CA
SSEL Line Number: 20019 Plant System: ANN Component/Subsystem: ANN-3-A-46				
4235X	Agastat GP	C311	No	CA
PS-4237	ASCO SB12BR		No	CA
PS-4896	ASCO SB22BR		No	CA
SSEL Line Number: 20020 Plant System: ANN Component/Subsystem: ANN-3-A-48				
4234X	Agastat GP	C311	No	CA
PS-4662	ASCO SB12BR		No	CA
PS-4895	ASCO SB22BR		No	CA
SSEL Line Number: 20021 Plant System: ANN Component/Subsystem: ANN-3-A-50				
10A-S2A	GE SBM	C03	No	NV
150/151-504	GE IAC66	A504	No	TEST
SSEL Line Number: 20022 Plant System: ANN Component/Subsystem: ANN-3-A-51				
10A-S3A	GE SBM	C03	No	NV
150/151-503	GE IAC66	A503	No	TEST
SSEL Line Number: 20023 Plant System: ANN Component/Subsystem: ANN-3-B-04				
186-604	GE HEA	A604	No	CA
SSEL Line Number: 20024 Plant System: ANN Component/Subsystem: ANN-3-B-07				
14A-S5B	GE SBM	C03	No	NV
150/151-605	GE IAC66B4A	A605	No	TEST

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 20025 Plant System: ANN Component/Subsystem: ANN-3-B-12				
10A-S2B	GE SBM	C03	No	NV
150/151-604	GE IAC66	A604	No	TEST
SSEL Line Number: 20026 Plant System: ANN Component/Subsystem: ANN-3-B-13				
152-607/b	GE-AMH-4.76-250	A607	No	CA
SSEL Line Number: 20027 Plant System: ANN Component/Subsystem: ANN-3-B-15				
186-605	GE HEA	A605	No	CA
SSEL Line Number: 20028 Plant System: ANN Component/Subsystem: ANN-3-B-23				
14A-K3B	GE 12HFA151A2F	C33	No	CA
14A-K4B	GE 12HFA151A2F	C33	No	CA
SSEL Line Number: 20029 Plant System: ANN Component/Subsystem: ANN-3-B-28				
186-603	GE HEA	A603	No	CA
SSEL Line Number: 20030 Plant System: ANN Component/Subsystem: ANN-3-B-30				
42/OL	GE 7700 MCC	B4326	No	SWGR
42/OL	GE 7700 MCC	B4327	No	CA
SSEL Line Number: 20031 Plant System: ANN Component/Subsystem: ANN-3-B-35				
49/OL	GE 7700 MCC	B4323	No	CA
49/OL	GE 7700 MCC	B4321	No	CA
49/OL	GE 7700 MCC	B4210	No	CA
49/OL	GE 7700 MCC	B4337	No	CA
49/OL	GE 7700 MCC	B4208	No	CA
49/OL	GE 7700 MCC	B4338	No	CA
49/OL	GE 7700 MCC	B4209	No	CA
49/OL	GE 7700 MCC	B4339	No	CA
SSEL Line Number: 20032 Plant System: ANN Component/Subsystem: ANN-3-B-36				
10A-S3B	GE SBM	C03	No	NV
150/151-603	GE IAC66	A603	No	TEST
SSEL Line Number: 20033 Plant System: ANN Component/Subsystem: ANN-3-B-37				
152-608/b	GE-AMH-4.76-250	A608	No	CA
SSEL Line Number: 20034 Plant System: ANN Component/Subsystem: ANN-3-B-38				
42/OL	GE 7700 MCC	B4324	No	CA
42/OL	GE 7700 MCC	B4325	No	CA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 20035 Plant System: ANN Component/Subsystem: ANN-3-B-43				
49/OL	GE 7700 MCC	B4334	No	CA
49/OL	GE 7700 MCC	B4335	No	CA
SSEL Line Number: 20036 Plant System: ANN Component/Subsystem: ANN-3-B-50				
10A-K84A	GE 12HGA11A52F	C32	Yes	CA
10A-K84B	GE 12HGA11A52F	C33	Yes	CA
SSEL Line Number: 20037 Plant System: ANN Component/Subsystem: ANN-3-B-52				
150/151-507	GE IAC66	A507	No	TEST
150/151-508	GE IAC66	A508	No	TEST
150/151-607	GE IAC66	A607	No	TEST
150/151-608	GE IAC66	A608	No	TEST
Aux. Annunciator Panel	RI AN-1196	C03		CA
SSEL Line Number: 20039 Plant System: ANN Component/Subsystem: ANN-4-B-04				
LS-2996A/B	GE 560	C07		CA
SSEL Line Number: 20040 Plant System: ANN Component/Subsystem: ANN-4-B-35				
PR-2994	GE 521	C04		CA
SSEL Line Number: 20042 Plant System: ANN Component/Subsystem: ANN-5-A-09				
16A-K1A	GE 12HFA151A9F	C15	No	CA
16A-K1C	GE 12HFA151A9F	C15	No	CA
SSEL Line Number: 20043 Plant System: ANN Component/Subsystem: ANN-5-A-10				
16A-K1B	GE 12HFA151A9F	C17	No	CA
16A-K1D	GE 12HFA151A9F	C17	No	CA
SSEL Line Number: 20046 Plant System: ANN Component/Subsystem: ANN-5-A-46				
K16C	Agastat EGPB	C253A	No	CA
K18	Agastat EGPB	C253A	No	CA
K19	Agastat EGPB	C253A	No	CA
K20	Agastat EGPB	C253A	No	CA
K21	Agastat EGPB	C253A	No	CA
K22A	Agastat EGPB	C253A	No	CA
K2C	Agastat EGPB	C253A	No	CA
K9C	Agastat EGPB	C253A	No	CA
SSEL Line Number: 20047 Plant System: ANN Component/Subsystem: ANN-5-B-04				
5A-K13A	GE CR305D102	C15	No	CA
5A-K13C	GE CR305D102	C15	No	CA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
5A-K13E	GE CR305D102	C15	No	CA
5A-K13G	GE CR305D102	C15	No	CA
SSEL Line Number: 20048 Plant System: ANN Component/Subsystem: ANN-5-B-05				
5A-K13B	GE CR305D102	C17	No	CA
5A-K13D	GE CR305D102	C17	No	CA
5A-K13F	GE CR305D102	C17	No	CA
5A-K13H	GE CR305D102	C17	No	CA
SSEL Line Number: 20049 Plant System: ANN Component/Subsystem: ANN-5-B-12				
5A-K22A	GE 12HFA51A49F	C15	No	CA
SSEL Line Number: 20050 Plant System: ANN Component/Subsystem: ANN-5-B-13				
5A-K22B	GE 12HFA151A9F	C17	No	CA
SSEL Line Number: 20053 Plant System: ANN Component/Subsystem: ANN-5-B-52				
TY-4072A	S/P	C289A		CA
TY-4072B	S/P	C289B		CA
SSEL Line Number: 20057 Plant System: ANN Component/Subsystem: ANN-6-C-02				
LIS-1522	S/J 2007		No	CA
SSEL Line Number: 20054 Plant System: ANN Component/Subsystem: ANN-6-C-06				
FS-3236	MERCOID 101-G4870		No	CA
LIS-1528	S/P INDUSTRIAL JR.		No	CA
SSEL Line Number: 20056 Plant System: ANN Component/Subsystem: ANN-6-C-07				
FS-3237	MERCOID 101-G4820		No	CA
K14	P&B MDR 163-1	C292	No	CA
LIS-1529	S/P INDUSTRIAL JR.		No	CA
SSEL Line Number: 20058 Plant System: ANN Component/Subsystem: ANN-8-A-04				
UV	P&B MDR 163-1	Y74	No	CA
UV	P&B MDR 163-1	Y75	No	CA
SSEL Line Number: 20059 Plant System: ANN Component/Subsystem: ANN-8-A-09				
27-12		Y20		CA
SSEL Line Number: 20060 Plant System: ANN Component/Subsystem: ANN-8-A-14				
UV	P&B MDR 163-1	Y84	No	CA
UV	P&B MDR 163-1	Y85	No	CA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 20061 Plant System: ANN Component/Subsystem: ANN-8-A-15				
ACPFA		D52		CA
ACPFA		D54		CA
ACPFA		D53		CA
BYPASS SWITCH		D10		NV
BYPASS SWITCH		D40		NV
BYPASS SWITCH		D20		CA
HVSD		D54		CA
HVSD		D52		CA
HVSD		D53		CA
PLR		D10		CA
PLR		D20		CA
PLR		D40		CA
SW-1		D54		NV
SW-1		D53		NV
SW-1		D52		NV
SSEL Line Number: 20062 Plant System: ANN Component/Subsystem: ANN-8-A-20				
27-1	MBC-3200	D102	No	CA
27-2	MBC-3200	D102	No	CA
59-1	MBC-3200	D102	No	CA
59-2	MBC-3200	D102	No	CA
ARI	P&B KRP11DG	D102	No	CA
SSEL Line Number: 20063 Plant System: ANN Component/Subsystem: ANN-8-A-24				
Y71 Common Alarm		Y71		OA
SSEL Line Number: 20064 Plant System: ANN Component/Subsystem: ANN-8-A-29				
Y81 Common Alarm		Y81		OA
SSEL Line Number: 20065 Plant System: ANN Component/Subsystem: ANN-8-B-13				
BVR-2		D21		CA
SSEL Line Number: 20065 Plant System: ANN Component/Subsystem: ANN-8-B-19				
10A-K70A	GE CR2820	C32	No	CA
PS-2438	Ashcroft 4000		No	CA
SSEL Line Number: 20067 Plant System: ANN Component/Subsystem: ANN-8-B-20				
10A-S22A	GE SBM	C08	No	NV
49/OL	GE 7700 MCC	B3435	No	CA
SSEL Line Number: 20068 Plant System: ANN Component/Subsystem: ANN-8-B-23				
186-502	GE HEA	A502	No	CA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 20069 Plant System: ANN Component/Subsystem: ANN-8-B-28				
151/DG1	GE 12IAC77A12A	A502	No	SWGR
SSEL Line Number: 20070 Plant System: ANN Component/Subsystem: ANN-8-B-30				
ALM		C93		CA
SSEL Line Number: 20071 Plant System: ANN Component/Subsystem: ANN-8-B-34				
ESR		C91		CA
SSEL Line Number: 20072 Plant System: ANN Component/Subsystem: ANN-8-C-14				
BVR-1		D11		CA
SSEL Line Number: 20073 Plant System: ANN Component/Subsystem: ANN-8-C-17				
10A-K70B	GE CR2820	C33	No	CA
PS-2439	Ashcroft 61S		No	CA
SSEL Line Number: 20074 Plant System: ANN Component/Subsystem: ANN-8-C-20				
10A-S22B	GE SBM	C08	No	NV
42/OL	GE 7700 MCC	B4319	No	CA
SSEL Line Number: 20075 Plant System: ANN Component/Subsystem: ANN-8-C-21				
ALM		C94		CA
SSEL Line Number: 20076 Plant System: ANN Component/Subsystem: ANN-8-C-23				
186-602	GE HEA	A602	No	CA
SSEL Line Number: 20077 Plant System: ANN Component/Subsystem: ANN-8-C-28				
151/DG2	GE 12IAC77A12A	A602	No	SWGR
SSEL Line Number: 20078 Plant System: ANN Component/Subsystem: ANN-8-C-32				
ESR		C92		CA
SSEL Line Number: 11009 Plant System: MST Component/Subsystem: AO-2-80A				
16A-S1A	GE SBM	C03	No	NV
16A-S3A	GE CR2940	C03	No	NV
POS-IO, POS-IC		AO-2-80A	No	NV
SSEL Line Number: 11010 Plant System: MST Component/Subsystem: AO-2-80B				
16A-S1B	GE SBM	C03	No	NV
16A-S3B	GE CR2940	C03	No	NV

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
POS-IO, POS-IC		AO-2-80B	No	NV
SSEL Line Number: 11011 Plant System: MST Component/Subsystem: AO-2-80C				
16A-S1C	GE SBM	C03	No	NV
16A-S3C	GE CR2940	C03	No	NV
POS-IO, POS-IC		AO-2-80C	No	NV
SSEL Line Number: 11012 Plant System: MST Component/Subsystem: AO-2-80D				
16A-S1D	GE SBM	C03	No	NV
16A-S3D	GE CR2940	C03	No	NV
POS-IO, POS-IC		AO-2-80D	No	NV
SSEL Line Number: 11013 Plant System: MST Component/Subsystem: AO-2-86A				
16A-S2A	GE SBM	C03	No	NV
16A-S4A	GE CR2940	C03	No	NV
POS-IO, POS-IC		AO-2-86A	No	NV
SSEL Line Number: 11014 Plant System: MST Component/Subsystem: AO-2-86B				
16A-S2B	GE SBM	C03	No	NV
16A-S4B	GE CR2940	C03	No	NV
POS-IO, POS-IC		AO-2-86B	No	NV
SSEL Line Number: 11015 Plant System: MST Component/Subsystem: AO-2-86C				
16A-S2C	GE SBM	C03	No	NV
16A-S4C	GE CR2940	C03	No	NV
POS-IO, POS-IC		AO-2-86C	No	NV
SSEL Line Number: 11016 Plant System: MST Component/Subsystem: AO-2-86D				
16A-S2D	GE SBM	C03	No	NV
16A-S4D	GE CR2940	C03	No	NV
POS-IO, POS-IC		AO-2-86D	No	NV
SSEL Line Number: 8114 Plant System: 480 Component/Subsystem: B3300				
152-502/a	GE-AMH-4.76-250	A502	No	SWGR
152-502/CS	GE SBM	C08	No	NV
152X-33		C327		CA
152Y-33		C327	No	CA
27-33		C327		CA
27-33A		C327		CA
27-33B		C327		CA
52-307/a	ABB K1600S	LC-103	No	SWGR
52-3300/a	GE AK-2-15	B3300	No	SWGR
59-33		C327		CA
81-33		C327		CA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
94P-33		C327		CA
CLOSE	GE AK-2-15	B3300	No	NV

SSEL Line Number: 8107 Plant System: 480 Component/Subsystem: B4231

183-6Y	GE 12HFA154E22H	A602	No	CA
183-6Y1	GE 12HFA154E22H	A610	No	CA
K82	Agastat EGPD	C293	No	GERS

SSEL Line Number: 8113 Plant System: 480 Component/Subsystem: B4300

52-3300/b	GE AK-2-15	B3300	No	SWGR
52-3300/BA	GE AK-2-15	B3300	No	SWGR
52-407/a	ABB K1600S	LC-104	No	SWGR
52-4300/b	GE AK-2-15	B4300	No	SWGR
CLOSE	GE AK-2-15	B4300	No	NV

SSEL Line Number: 7189 Plant System: DOL Component/Subsystem: BPM-1 (11 DG)

STR1	8299025	C91		CR
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SSEL Line Number: 7187 Plant System: DOL Component/Subsystem: BPM-1 (12 DG)

STR1	8299025	C92		CR
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SSEL Line Number: 7190 Plant System: DOL Component/Subsystem: BPM-2 (11 DG)

STR2	8299025	C91		CR
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SSEL Line Number: 7188 Plant System: DOL Component/Subsystem: BPM-2 (12 DG)

STR2	8299025	C92		CR
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SSEL Line Number: 8000 Plant System: 4kV Component/Subsystem: BUS 15 & 16 1AR Lockout

1AR Transformer lockout logic				CA
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SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-501)

152-501/CS	GE SBM	C08	No	NV
152-501/POS	GE-AMH-4.76-250	A501	No	CA
152-501/SS		C08	No	NV
186-5	GE HEA	A501	No	CA
CS/CLOSE	GE-AMH-4.76-250	A501	No	NV

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-502)

102-5	GE 12HGA14B07	A502	No	SWGR
127/DG1	GE 12HGA11	A502	No	CA
127/DG1X	GE 12HGA11	A502	No	CA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
151V-502	GE 12IJC51A13A	A502	No	GERS
152-308/b	GE-AMH-4.76-250	A308	No	SWGR
152-501/b	GE-AMH-4.76-250	A501	No	SWGR
152-502/CL/MS	GE-AMH-4.76-250	A502	No	SWGR
152-502/CS	GE SBM	C08	No	NV
152-502/IS	GE-AMH-4.76-250	A502	No	SWGR
152-502/POS, 152-502/a, 152-502/b	GE-AMH-4.76-250	A502	No	SWGR
152-502/SM/LS	GE-AMH-4.76-250	A502	No	SWGR
152-502/SS		C08	No	NV
152-502Y	GE-AMH-4.76-250	A502	No	SWGR
152-511/b	GE-AMH-4.76-250	A511	No	SWGR
155-DG1	GE 12ICW51A4A	C91	No	SWGR
167-502	GE 12ICW52A1A	A502	No	TEST
183-5X	GE 12HFA154E22H	A502	No	SWGR
183-5Y	GE 12HFA154E22H	A502	No	CA
186-5	GE HEA	A501	No	SWGR
186-502	GE HEA	A502	No	SWGR
187-502	GE 12JD52A11A	A502	No	GERS
95-31	GE 12HFA151A2H	A511	No	CA
97-29	Agastat 2414	C08	No	CA
97-53	Agastat E7014PB	A510	No	CA
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A502	No	NV
EDG Interlocks				-
EDG Interlocks				-

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-503)

Breaker evaluated as part of RHR P-202C (Line Number 1018).

NA

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-504)

Breaker evaluated as part of RHR P-202A (Line Number 1032).

NA

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-505)

Breaker evaluated as part of CSP P-208A (Line Number 3061).

NA

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-506)

14A-K17A	GE 12HFA151A2F	C32	No	CA
150/151-506	GE 12IAC66B4A	A506	No	CA
150G-506	GE 12PJC11AV1A	A506	No	CA
152-506/1S	GE-AMH-4.76-250	A506	No	SWGR
152-506/CL/MS	GE-AMH-4.76-250	A506	No	SWGR

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
152-506/POS, 152-506/a, 152-506/b	GE-AMH-4.76-250	A506	No	SWGR
152-506/SM/LS	GE-AMH-4.76-250	A506	No	SWGR
152-506Y	GE-AMH-4.76-250	A506	No	SWGR
183-5X	GE 12HFA154E22H	A502	No	CA
183-5X1	GE 12HFA154E22H	A511	No	CA
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A506	No	NV
PS-3-201A	SOR 6NAA21VPP		No	CA
SB-S4A	GE SBM	C05	No	NV

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-507)

Breaker evaluated as part of RSW P-109C (Line Number 9003).

NA

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-508)

Breaker evaluated as part of RSW P-109A (Line Number 9001).

NA

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-509)

150/151-509	GE 12IAC77B36A	A509	No	GERS
150G-509	GE 12PJC11AV1A	A509	No	SWGR
151-509	GE 12IAC77A11A	A509	No	GERS
152-502/a	GE-AMH-4.76-250	A502	No	SWGR
152-509/CL/MS	GE-AMH-4.76-250	A509	No	SWGR
152-509/CS	GE SBM	C08	No	NV
152-509/IS	GE-AMH-4.76-250	A509	No	SWGR
152-509/POS, 152-509/a, 152-509/b	GE-AMH-4.76-250	A509	No	SWGR
152-509/SM/LS	GE-AMH-4.76-250	A509	No	SWGR
152-509Y	GE-AMH-4.76-250	A509	No	SWGR
186-5	GE HEA	A501	No	SWGR
52-301/b	ABB K1600S	LC-103	No	SWGR
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A509	No	NV

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-510)

150/151-510	GE 12IAC66B4A	A510	No	CA
150G-510	GE 12PJC11AV1A	A510	No	CA
152-510/CL/MS	GE-AMH-4.76-250	A510	No	SWGR
152-510/CS	GE SBM	C07	No	NV
152-510/IS	GE-AMH-4.76-250	A510	No	SWGR
152-510/POS, 152-510/a, 152-510/b	GE-AMH-4.76-250	A510	No	SWGR
152-510/SM/LS	GE-AMH-4.76-250	A510	No	SWGR
152-510Y	GE-AMH-4.76-250	A510	No	SWGR
183-5Y	GE 12HFA154E22H	A502	No	CA
183-5Y1	GE 12HFA154E22H	A511	No	CA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
186-510	GE HEA	A510	No	CA
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A510	No	NV
PS-7084	PENN V440X000		No	CA

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-511)

102-5X	GE 12HGA14B07	A511	No	SWGR
127/RT	GE 12NGV13B21A	A610	No	CA
127/ST	GE 12NGV13B21A	A610	No	CA
152-308/b	GE-AMH-4.76-250	A308	No	SWGR
152-501/b	GE-AMH-4.76-250	A501	No	SWGR
152-502/b	GE-AMH-4.76-250	A502	No	SWGR
152-511/CL/MS	GE-AMH-4.76-250	A511	No	SWGR
152-511/CS	GE SBM	C08	No	NV
152-511/IS	GE-AMH-4.76-250	A511	No	SWGR
152-511/POS, 152-511/a, 152-511/b	GE-AMH-4.76-250	A511	No	SWGR
152-511/SM//LS	GE-AMH-4.76-250	A511	No	SWGR
152-511/SS		C08	No	NV
152-511Y	GE-AMH-4.76-250	A511	No	SWGR
162-511	Agastat	A511	No	SWGR
183-5X1	GE 12HFA154E22H	A511	No	SWGR
183-5Y1	GE 12HFA154E22H	A511	No	CA
186-5	GE HEA	A501	No	SWGR
186/RT	GE HEA	A511	No	SWGR
95-31	GE 12HFA151A2H	A511	No	CA
97-28	Agastat 2414	C08	No	CA
97-29	Agastat 2414	C08	No	GERS
97-44	Agastat GPD	A510	No	CA
97-53	Agastat E7014PB	A510	No	GERS
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A511	No	NV

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 Essential Bus Transfer Logic

127-5	GE 12NGV15A21	A505	No	TEST
127-5A	ITE27N	A510	No	GERS
127-5B	ITE27N	A510	No	GERS
127-5C	ITE27N	A510	No	GERS
127-5X	GE 12NGV15A21	A505	No	TEST
127-5Y	ITE27H	A510	No	GERS
127-5Z	ITE27H	A510	No	GERS
152-502/b	GE-AMH-4.76-250	A502	No	SWGR
152-511/b	GE-AMH-4.76-250	A511	No	SWGR
1LO/CS	GE CR2940	C08	No	NV
97-44	Agastat GP	A510	No	GERS
97-45	Agastat GP	A510	No	GERS
97-51	Agastat EGPD	A510	No	GERS

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
97-52	Agastat EGPD	A510	No	GERS
SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 Lockout				
151-308	GE 12IAC53A101A	A308	No	GERS
151-511	GE 12IAC53A101A	A511	No	GERS
151N-308	GE 12IAC53A10A	A308	No	GERS
186-5	GE HEA	A501	No	GERS
SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-601)				
152-601/CS	GE SBM	C08	No	NV
152-601/POS	GE-AMH-4.76-250	A601	No	CA
152-601/SS		C08	No	NV
186-6	GE HEA	A601	No	CA
CS/CLOSE	GE-AMH-4.76-250	A601	No	NV
SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-602)				
102-6	GE 12HGA14B07	A602	No	SWGR
127/DG2	GE 12HGA11	A602	No	CA
127/DG2X	GE 12HGA11	A602	No	CA
151V-602	GE 12IJC51A13A	A602	No	GERS
152-408/b	GE-AMH-4.76-250	A408	No	SWGR
152-601/b	GE-AMH-4.76-250	A601	No	SWGR
152-602/CL/MS	GE-AMH-4.76-250	A602	No	SWGR
152-602/CS	GE SBM	C08	No	NV
152-602/IS	GE-AMH-4.76-250	A602	No	SWGR
152-602/POS, 152-602/a,	GE-AMH-4.76-250	A602	No	SWGR
152-602/b				
152-602/SM/LS	GE-AMH-4.76-250	A602	No	SWGR
152-602/SS		C08	No	NV
152-602Y	GE-AMH-4.76-250	A602	No	SWGR
152-610/b	GE-AMH-4.76-250	A610	No	SWGR
155-DG2	GE 12ICW51A4A	C92	No	SWGR
167-602	GE 12ICW52A1A	A602	No	TEST
183-6X	GE 12HFA154E22H	A602	No	SWGR
183-6Y	GE 12HFA154E22H	A602	No	CA
186-6	GE HEA	A601	No	SWGR
186-602	GE HEA	A602	No	SWGR
187-602	GE 12IJD52A11A	A602	No	GERS
95-32	GE 12HFA151A2H	A610	No	CA
97-31	Agastat 2414	C08	No	CA
97-56	Agastat E7014PB	A601	No	CA
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A602	No	NV
EDG Interlocks				-
EDG Interlocks				-
K62	Agastat EGPD	C293	No	GERS
K63	Agastat EGPD	C293	No	GERS

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
K64	Agastat EGPD	C293	No	GERS
S14	GE SBM	C292	No	NV

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-603)

Breaker evaluated as part of RHR P-202D (Line Number 2033).

- NA

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-604)

Breaker evaluated as part of RHR P-202B (Line Number 2030).

- NA

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-605)

Breaker evaluated as part of CSP P-208B (Line Number 3064).

- NA

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-606)

14A-K17B	GE 12HFA151A2F	C33	No	CA
150/151-606	GE 12IAC66B4A	A606	No	CA
150G-606	GE 12PJC11AV1A	A606	No	CA
152-606/1S	GE-AMH-4.76-250	A606	No	SWGR
152-606/CL/MS	GE-AMH-4.76-250	A606	No	SWGR
152-606/POS, 152-606/a, 152-606/b	GE-AMH-4.76-250	A606	No	SWGR
152-606/SM/LS	GE-AMH-4.76-250	A606	No	SWGR
152-606Y	GE-AMH-4.76-250	A606	No	SWGR
183-6X	GE 12HFA154E22H	A602	No	CA
183-6X1	GE 12HFA154E22H	A610	No	CA
3B-S4B	GE SBM	C05	No	NV
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A606	No	NV
K83	Agastat EGPD	C293	No	GERS
K86	Agastat EGPD	C293	No	GERS
PS-3-201B	SOR 6NAA21VPP		No	CA

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-607)

Breaker evaluated as part of RSW P-109D (Line Number 9004).

- NA

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-608)

Breaker evaluated as part of RSW P-109B (Line Number 9002).

- NA

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-609)

150/151-609	GE 12IAC77B36A	A609	No	GERS
150G-609	GE 12PJC11AV1A	A609	No	SWGR

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
151-609	GE 12IAC77A11A	A609	No	GERS
152-602/a	GE-AMH-4.76-250	A602	No	SWGR
152-609/CL/MS	GE-AMH-4.76-250	A609	No	SWGR
152-609/CS	GE SBM	C08	No	NV
152-609/IS	GE-AMH-4.76-250	A609	No	SWGR
152-609/POS, 152-609/a, 152-609/b	GE-AMH-4.76-250	A609	No	SWGR
152-609/SM/LS	GE-AMH-4.76-250	A609	No	SWGR
152-609Y	GE-AMH-4.76-250	A609	No	SWGR
186-6	GE HEA	A601	No	SWGR
52-401/b	ABB K1600S	A401	No	SWGR
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A609	No	NV
K74	Agastat EGPD	C293	No	GERS
K75	Agastat EGPD	C293	No	GERS
K76	Agastat EGPD	C293	No	GERS
S18	GE SBM	C292	No	NV

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-610)

102-6X	GE 12HGA14B07	A610	No	SWGR
127/RT	GE 12NGV13B21A	A610	No	CA
127/ST	GE 12NGV13B21A	A610	No	CA
152-408/b	GE-AMH-4.76-250	A408	No	SWGR
152-601/b	GE-AMH-4.76-250	A601	No	SWGR
152-602/b	GE-AMH-4.76-250	A602	No	SWGR
152-610/CL/MS	GE-AMH-4.76-250	A610	No	SWGR
152-610/CS	GE SBM	C08	No	NV
152-610/IS	GE-AMH-4.76-250	A610	No	SWGR
152-610/POS, 152-610/a, 152-610/b	GE-AMH-4.76-250	A610	No	SWGR
152-610/SM/LS	GE-AMH-4.76-250	A610	No	SWGR
152-610/SS		C08	No	NV
152-610Y	GE-AMH-4.76-250	A610	No	SWGR
162-610	Agastat	A610	No	SWGR
183-6X1	GE 12HFA154E22H	A610	No	SWGR
183-6Y1	GE 12HFA154E22H	A610	No	CA
186-6	GE HEA	A601	No	SWGR
186/RT	GE HEA	A511	No	SWGR
95-32	GE 12HFA151A2H	A610	No	CA
97-30	Agastat 2414	C08	No	CA
97-31	Agastat 2414	C08	No	GERS
97-46	Agastat GPD	A601	No	CA
97-56	Agastat E7014PB	A601	No	GERS
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A610	No	NV
K71	Agastat EGPD	C293	No	GERS
K73	Agastat EGPD	C293	No	GERS
K76	Agastat EGPD	C293	No	GERS
K77	Agastat EGPD	C293	No	GERS

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
K91	Agastat EGPD	C293	No	GERS
S38	GE SBM	C292	No	NV

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 Essential Bus Transfer Logic

127-6	GE 12NGV15A21	A605	No	TEST
127-6A	ITE27N	A601	No	GERS
127-6B	ITE27N	A601	No	GERS
127-6C	ITE27N	A601	No	GERS
127-6X	GE 12NGV15A21	A605	No	TEST
127-6Y	ITE27H	A601	No	GERS
127-6Z	ITE27H	A601	No	GERS
152-602/b	GE-AMH-4.76-250	A602	No	SWGR
152-610/b	GE-AMH-4.76-250	A610	No	SWGR
2LO/CS	GE CR2940	C08	No	NV
97-46	Agastat GP	A601	No	GERS
97-47	Agastat GP	A601	No	GERS
97-54	Agastat EGPD	A601	No	GERS
97-55	Agastat EGPD	A601	No	GERS

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 Lockout

151-408	GE 12IAC53A101A	A408	No	GERS
151-610	GE 12IAC53A101A	A610	No	GERS
151N-408	GE 12IAC53A10A	A408	No	GERS
186-6	GE HEA	A601	No	GERS

SSEL Line Number: 4001 Plant System: CRH Component/Subsystem: CRD HCU -- East

5A-K13A, B, C, D, E, F, G, H	GE CR305D102	C15	No	CA
5A-K14A, B, C, D	GE CR305D102	C15	No	CA
Reactor Manual Control				CA
Reactor SCRAM Logic				CA

SSEL Line Number: 4002 Plant System: CRH Component/Subsystem: CRD HCU -- West

5A-K13A, B, C, D, E, F, G, H	GE CR305D102	C15	No	CA
5A-K14A, B, C, D	GE CR305D102	C15	No	CA
Reactor Manual Control				CA
Reactor SCRAM Logic				CA

SSEL Line Number: 4013 Plant System: CRH Component/Subsystem: CV-3-32A

POS. I. C.	NAMCO EA180	CV-3-32A	No	CA
POS. I. O.	NAMCO EA180	CV-3-32A	No	CA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 4015 Plant System: CRH Component/Subsystem: CV-3-32B				
POS. I. C.	NAMCO EA180	CV-3-32B	No	CA
POS. I. O.	NAMCO EA180	CV-3-32B	No	CA
SSEL Line Number: 4014 Plant System: CRH Component/Subsystem: CV-3-32C				
POS. I. C.	NAMCO EA180	CV-3-32C	No	CA
POS. I. O.	NAMCO EA180	CV-3-32C	No	CA
SSEL Line Number: 4016 Plant System: CRH Component/Subsystem: CV-3-32D				
POS. I. C.	NAMCO EA180	CV-3-32D	No	CA
POS. I. O.	NAMCO EA180	CV-3-32D	No	CA
SSEL Line Number: 4003 Plant System: CRH Component/Subsystem: CV-3-33A				
POS. I. C.	NAMCO EA180	CV-3-33A	No	CA
POS. I. O.	NAMCO EA180	CV-3-33A	No	CA
SSEL Line Number: 4004 Plant System: CRH Component/Subsystem: CV-3-33B				
POS. I. C.	NAMCO EA180	CV-3-33B	No	CA
POS. I. O.	NAMCO EA180	CV-3-33B	No	CA
SSEL Line Number: 4011 Plant System: CRH Component/Subsystem: CV-3-33C				
POS. I. C.	NAMCO EA180	CV-3-33C	No	CA
POS. I. O.	NAMCO EA180	CV-3-33C	No	CA
SSEL Line Number: 4012 Plant System: CRH Component/Subsystem: CV-3-33D				
POS. I. C.	NAMCO EA180	CV-3-33D	No	CA
POS. I. O.	NAMCO EA180	CV-3-33D	No	CA
SSEL Line Number: 5002 Plant System: 125 Component/Subsystem: D10				
Battery Charger Controls	Exide US 130-3-50	D10	No	OA
SSEL Line Number: 5003 Plant System: 125 Component/Subsystem: D20				
Battery Charger Controls	Exide US 130-3-50	D20	No	OA
SSEL Line Number: 5005 Plant System: 125 Component/Subsystem: D40				
Battery Charger Controls	Exide US 130-3-50	D40	No	OA
SSEL Line Number: 6022 Plant System: 250 Component/Subsystem: D52				
Battery Charger Controls	C&D Batteries	D52	No	OA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 6023 Plant System: 250 Component/Subsystem: D53				
Battery Charger Controls	C&D Batteries	D53	No	OA
SSEL Line Number: 6024 Plant System: 250 Component/Subsystem: D54				
Battery Charger Controls	C&D Batteries	D54	No	OA
SSEL Line Number: 6017 Plant System: 250 Component/Subsystem: D70				
Battery Charger Controls	C&D Batteries	D70	No	OA
SSEL Line Number: 6018 Plant System: 250 Component/Subsystem: D80				
Battery Charger Controls	C&D Batteries	D80	No	OA
SSEL Line Number: 6019 Plant System: 250 Component/Subsystem: D90				
Battery Charger Controls	C&D Batteries	D90	No	OA
SSEL Line Number: 2154 Plant System: RHR Component/Subsystem: DPIC-10-130B				
K2	P&B MDR 163-1	C292	No	GERS
K3	P&B MDR 163-1	C292	No	GERS
SSEL Line Number: 7157C Plant System: DOL Component/Subsystem: FPM (11 DG)				
FPR		C91		CR
SSEL Line Number: 7157D Plant System: DOL Component/Subsystem: FPM (12 DG)				
FPR		C92		CR
SSEL Line Number: 7157A Plant System: DOL Component/Subsystem: FTM-1 (11 DG)				
FTC1	8474707	C93	No	CA
SSEL Line Number: 7156 Plant System: DOL Component/Subsystem: FTM-1 (12 DG)				
FTC1	8474707	C94	No	CA
SSEL Line Number: 7157B Plant System: DOL Component/Subsystem: FTM-2 (11 DG)				
FTC2	8474707	C93	No	CA
SSEL Line Number: 7157 Plant System: DOL Component/Subsystem: FTM-2 (12 DG)				
FTC2	8474707	C94	No	CA
SSEL Line Number: 7045 Plant System: DGN Component/Subsystem: G-3A				
14A-K11A	GE 12HFA151A2F	C32	No	GERS
14A-K22A	GE 12HFA151A2F	C32	No	GERS

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
152-502/a, 152-502/b	GE-AMH-4.76-250	A502	No	SWGR
152-502/b	GE-AMH-4.76-250	A502	No	SWGR
186-502	GE HEA	A502	No	GERS
190-DG1/CS	GE SBM	C08	No	NV
95-7	GE 12HFA151A2H	C08	No	GERS
95-8	GE 12HFA151A2H	C08	No	GERS
97-28	Agastat 2414	C08	No	GERS
97-29	Agastat 2414	C08	No	GERS
97-44	Agastat GPD	A510	No	GERS
97-45	Agastat GPD	A510	No	GERS
ALS	8289742	C93	No	NV
DG1/CS	GE SBM	C08	No	NV
ECR	Agastat E7012	C91	No	GERS
ECRA	SQD Class 8501	C91		CR
ENG START	8265676	C93		NV
ENG. STOP L	8411134	C93	No	NV
ENG. STOP R	8411134	C93	No	NV
ESR1	SQD Class 7001	C91		CR
ESR2	SQD Class 7001	C91		CR
ESTD	Agastat E7022	C91	No	GERS
ESTR	SQD Class 7001	C91		CR
FFC	SQD Class 8504	C91		CR
FFCO	Wilmar WUV-1-120-HB	C91		CR
FSR1	SQD Class 7001	C91		CR
FSR2	SQD Class 7001	C91		CR
FTC1	8474707	C93	No	CA
FTC2	8474707	C93	No	CA
FTH	8398823	C93		CA
FTL	8398823	C93		CA
FUEL PRIME	8265676	C93	No	NV
GCS	8309733	C93	No	NV
GOV. HS	LIMIT SWITCH		No	NV
GOV. LS	LIMIT SWITCH		No	NV
GP	8370794	C91		CA
GS	8370794	C91		CA
GSC1/CS	GE SBM	C08	No	NV
GV	Wilmar WUV-1-120-H	C91		CR
LS-7210 (FTS-N)	MAGNETROL A103-X	G-3A	No	CA
LS-7212 (FTS-H)	MAGNETROL A153-XTDN	G-3A	No	CA
LS-7214 (FTS-L)	MAGNETROL A153-XTDN	G-3A	No	CA
MRV	D78067	C91	No	NV
MSR1	SQD Class 7001	C91		CR
MSR2	SQD Class 7001	C91		CR
NFLD	8411979	C93		CR
NFLDA	8411979	C93		CR
OL1 RESET		C93	No	NV
OL2 RESET		C93	No	NV

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
OT	8411979	C93		CR
OTR	SQD Class 7001	C91		CR
PFD1	SQD EQ1935-G2	C91	No	CR
PFD2	SQD EQ1935-G2	C91	No	CR
PFDA1	SQD EQ2423-G1	C91	No	CR
PFDA2	SQD EQ2423-G2	C91	No	CR
RESET/PB		C08	No	NV
SCS	8289742	C91	No	NV
SFA	8411979	C93		CR
SFB1	SQD EQ1935-G2	C91	No	CR
SFB2	SQD EQ1935-G2	C91	No	CR
SFD1	SQD EQ1935-G2	C91	No	CR
SFD2	SQD EQ1935-G2	C91	No	CR
SSP1	8409614	C91		CR
SSP2	8409614	C91		CR
STLO1	SQD EQ1933-G2	C91	No	GERS
STLO2	SQD EQ1933-G2	C91	No	GERS
STOP/PB		C93	No	NV
STR1	8299025	C91		CR
STR2	8299025	C91		CR
VCS		C91	No	NV
VSR1	SQD Class 7001	C91		CR
VSR2	SQD Class 7001	C91		CR
ZSR1	SQD Class 7001	C91		CR
ZSR2	SQD Class 7001	C91		CR

SSEL Line Number: 7004 Plant System: DGN Component/Subsystem: G-3B

14A-K11B	GE 12HFA151A2F	C33	No	GERS
14A-K22B	GE 12HFA151A2F	C33	No	GERS
152-602/a, 152-602/b	GE-AMH-4.76-250	A602	No	SWGR
152-602/b	GE-AMH-4.76-250	A602	No	SWGR
186-602	GE HEA	A602	No	GERS
190-DG2/CS	GE SBM	C08	No	NV
95-7	GE 12HFA151A2H	C08	No	GERS
95-8	GE 12HFA151A2H	C08	No	GERS
97-30	Agastat 2414	C08	No	GERS
97-31	Agastat 2414	C08	No	GERS
97-46	Agastat GPD	A601	No	GERS
97-47	Agastat GPD	A601	No	GERS
ALS	8289742	C94		NV
DC2/CS	GE SBM	C08	No	NV
ECR	Agastat E7012	C92	No	GERS
ECRA	SQD Class 8501	C92		CR
ENG START	8265676	C94	No	NV
ENG. STOP L	8411134	C94		NV
ENG. STOP R	8411134	C94		NV
ESR1	SQD Class 7001	C92		CR

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
ESR2	SQD Class 7001	C92		CR
ESTD	Agastat E7022	C92	No	GERS
ESTR	SQD Class 7001	C92		CR
FFC	SQD Class 8504	C92		CR
FFCO	Wilmar WUV-1-120-HB	C92		CR
FSR1	SQD Class 7001	C92		CR
FSR2	SQD Class 7001	C92		CR
FTC1	8474707	C94	No	CA
FTC2	8474707	C94	No	CA
FTH	8398823	C94		CA
FTL	8398823	C94		CA
FUEL PRIME	8265676	C94		NV
GCS	8309733	C94	No	NV
GOV. HS	LIMIT SWITCH		No	NV
GOV. LS	LIMIT SWITCH		No	NV
GP	8370794	C92		CA
GS	8370794	C92		CA
GSC2/CS	GE SBM	C08	No	NV
GV	Wilmar WUV-1-120-H	C92		CR
K65	Agastat EGPD	C293	No	GERS
K66	Agastat EGPD	C293	No	GERS
K68	Agastat EGPD	C293	No	GERS
K69	Agastat EGPD	C293	No	GERS
K70	Agastat EGPD	C293	No	GERS
K84	Agastat EGPD	C293	No	CA
LS-7211 (FTS-N)	MAGNETROL A103-X	G-3B		CA
LS-7213 (FTS-H)	MAGNETROL A153-XTDN	G-3B		CA
LS-7215 (FTS-L)	MAGNETROL A153-XTDN	G-3B		CA
MRV	D78067	C92	No	NV
MSR1	SQD Class 7001	C92		CR
MSR2	SQD Class 7001	C92		CR
NFLD	8411979	C94		CR
NFLDA	8411979	C94		CR
OL1 RESET		C94	No	NV
OL2 RESET		C94	No	NV
OT	8411979	C94		CR
OTR	SQD Class 7001	C92		CR
PFD1	SQD EQ1935-G2	C92	No	CR
PFD2	SQD EQ1935-G2	C92	No	CR
PFDA1	SQD EQ2423-G1	C92	No	CR
PFDA2	SQD EQ2423-G2	C92	No	CR
RESET/PB		C08	No	NV
S15	GE SBM	C292	No	NV
S16	GE SBM	C292	No	NV
S28	GE SBM	C292	No	NV
S28	GE SBM	C292	No	NV
SCS	8289742	C92	No	NV

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SFA	8411979	C94		CR
SFB1	SQD EQ1935-G2	C92	No	CR
SFB2	SQD EQ1935-G2	C92	No	CR
SFD1	SQD EQ1935-G2	C92	No	CR
SFD2	SQD EQ1935-G2	C92	No	CR
SSP1	8409614	C92		CR
SSP2	8409614	C92		CR
STLO1	SQD EQ1933-G2	C92	No	GERS
STLO2	SQD EQ1933-G2	C92	No	GERS
STOP/PB		C94	No	NV
STR1	8299025	C92		CR
STR2	8299025	C92		CR
VCS		C92	No	NV
VSR1	SQD Class 7001	C92		CR
VSR2	SQD Class 7001	C92		CR
ZSR1	SQD Class 7001	C92		CR
ZSR2	SQD Class 7001	C92		CR

SSEL Line Number: 10000 Plant System: HPC Component/Subsystem: HPCI Isolation

23A-K10	GE 12HFA151A2F	C39	No	CA
23A-K2	GE 12HFA151A2F	C39	No	CA
23A-K24	GE 12HGA11A52F	C39	No	CA
23A-K27	GE 12HFA151A2F	C39	No	CA
23A-K32	GE 12HGA11J52	C41	No	CA
23A-K33	GE 12HGA11J52	C41	No	CA
23A-K34	GE 12HFA151A2F	C41	No	CA
23A-K35	GE 12HFA151A2F	C41	No	CA
23A-K38	GE 12HGA11A52F	C39	Yes	CA
23A-K39	Agastat E7014	C39	No	CA
23A-K4	GE 12HFA151A2F	C39	No	CA
23A-K40	Agastat E7014	C39	No	CA
23A-K41	GE 12HFA151A2F	C41	No	CA
23A-K5	GE 12HGA11A52F	C39	No	CA
23A-K6	GE 12HGA11A52F	C39	No	CA
23A-K8	GE 12HGA11A52F	C39	No	CA
23A-K9	GE 12HFA151A2F	C39	No	CA
23A-S20	GE CR2940	C03	No	NV
23A-S25	GE CR2940	C03	No	CA
DPIS-23-76A, B	BARTON 580A-0	C122	No	CA
DPIS-23-77A, B	BARTON 288A	C122	No	CA
PS-23-68A, B, C, D	BKD B2T-M12SS	214	No	CA
PS-7414	SOR 9N-AA45	C122	No	CA
PS-7415	SOR 9N-AA45	C122	No	CA
TS-23-101A, B, C, D	FENWAL 01-170230-090		No	CA
TS-23-102A, B, C, D	FENWAL 01-170230-090		No	CA
TS-23-103A, B, C, D	FENWAL 01-170230-090		No	CA
TS-23-104A, B, C, D	FENWAL 01-170230-090		No	CA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 12325A Plant System: ASD Component/Subsystem: HS-33 Master ASDS				
Panel Transfer				

HE		C94	-	
K18	P&B MDR 163-1	C292	No	GERS
K6	P&B MDR 163-1	C292	No	GERS
K80	Agastat	C292	No	CA
K93	Agastat EGPD	C292	No	GERS
S25	GE SBM	C292	No	NV
S26	GE SBM	C292	No	NV
S27	GE SBM	C292	No	NV
S33	GE CR2940	C292	No	NV

SSEL Line Number: 1000 Plant System: RHR Component/Subsystem: Initiation Logic - A

10A-K10A	GE 12HFA151A2F	C32	No	GERS
10A-K11A	GE 12HFA151A2F	C32	No	CA
10A-K14A	GE 12HFA151A2F	C32	No	CA
10A-K15A	GE 12HFA151A2F	C32	No	GERS
10A-K16A	GE 12HFA151A2F	C32	No	GERS
10A-K17A	GE 12HFA151A2F	C32	No	GERS
10A-K20A	GE 12HFA151A2F	C32	No	GERS
10A-K23A	GE 12HGA11A52F	C32	No	GERS
10A-K23B	GE 12HGA11A52F	C33	No	GERS
10A-K24A	GE 12HGA11A52F	C32	No	GERS
10A-K24B	GE 12HGA11A52F	C33	No	GERS
10A-K25A	GE 12HGA11A52F	C32	No	GERS
10A-K25B	GE 12HGA11A52F	C33	No	GERS
10A-K26A	GE 12HGA11A52F	C32	No	GERS
10A-K26B	GE 12HGA11A52F	C33	No	GERS
10A-K27A (NC, DE Contact)	GE 12HGA11A52F	C32	Yes	CA
10A-K27A (NO Contact)	GE 12HGA11A52F	C32	No	GERS
10A-K28A	Agastat E7014	C32	No	GERS
10A-K30A	GE 12HFA151A2F	C32	No	GERS
10A-K31A	GE 12HGA11A52F	C32	No	GERS
10A-K31B	GE 12HGA11A52F	C33	No	GERS
10A-K32A	GE 12HGA11A52F	C32	No	GERS
10A-K32B	GE 12HGA11A52F	C33	No	GERS
10A-K33A	GE 12HGA11A52F	C32	No	GERS
10A-K34A	Agastat E7014	C32	No	GERS
10A-K35A	GE 12HGA11A52F	C32	No	GERS
10A-K35B	GE 12HGA11A52F	C33	No	GERS
10A-K36A	GE 12HGA11A52F	C32	No	GERS
10A-K36B	GE 12HGA11A52F	C33	No	GERS
10A-K37A	GE 12HFA151A2F	C32	No	GERS
10A-K37B	GE 12HFA151A2F	C33	No	CA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
10A-K39A	GE 12HFA151A2F	C32	No	GERS
10A-K3A	GE 12HFA151A2F	C32	No	GERS
10A-K40A	Agastat E7014	C32	No	GERS
10A-K40B	Agastat E7014	C33	No	GERS
10A-K43A	GE 12HFA151A2F	C32	No	GERS
10A-K44A	GE 12HFA151A2F	C32	No	GERS
10A-K45A	GE CR120K	C32	No	CA
10A-K49A	GE 12HFA151A2F	C32	No	GERS
10A-K4A	GE 12HFA151A2F	C32	No	GERS
10A-K51A	GE 12HFA151A2F	C32	No	GERS
10A-K58A	GE 12HFA151A2F	C32	No	GERS
10A-K5A	GE 12HFA151A2F	C32	No	GERS
10A-K5B	GE 12HFA151A2F	C33	No	GERS
10A-K60A	GE 12HGA11A52F	C32	No	GERS
10A-K60B	GE 12HGA11A52F	C33	No	GERS
10A-K63A (NC, DE Contact)	GE 12HGA11A52F	C32	Yes	CA
10A-K64A	GE 12HGA11A52F	C32	Yes	CA
10A-K65A	GE 12HGA11A52F	C32	No	GERS
10A-K65B	GE 12HGA11A52F	C33	No	GERS
10A-K69A (NC, DE Contact)	GE 12HGA11A52F	C32	Yes	CA
10A-K69A (NO Contact)	GE 12HGA11A52F	C32	No	GERS
10A-K6A	GE 12HFA151A2F	C32	No	GERS
10A-K6B	GE 12HFA151A2F	C33	No	GERS
10A-K72A	GE 12HGA11A52F	C32	No	GERS
10A-K72B	GE 12HGA11A52F	C33	No	GERS
10A-K73A	GE 12HFA151A2F	C32	No	GERS
10A-K74A	GE 12HFA151A2F	C32	No	GERS
10A-K75A (DE, NC contact)	GE 12HGA11A52F	C32	Yes	CA
10A-K75A (NO contact)	GE 12HGA11A52F	C32	No	GERS
10A-K76A	Agastat E7014	C32	No	GERS
10A-K77A	Agastat E7014	C32	No	GERS
10A-K78A	Agastat E7014	C32	No	GERS
10A-K7A	GE 12HFA151A2F	C32	No	GERS
10A-K7B	GE 12HFA151A2F	C33	No	GERS
10A-K86A	GE 12HGA11A52F	C32	No	GERS
10A-K86B	GE 12HGA11A52F	C33	No	GERS
10A-K87A	GE 12HFA151A2F	C32	No	CA
10A-K88A	GE 12HGA11A52F	C32	No	GERS
10A-K89A	GE 12HGA11A52F	C32	No	GERS
10A-K89B	GE 12HGA11A52F	C33	No	GERS
10A-K8A	GE 12HFA151A2F	C32	No	GERS
10A-K8B	GE 12HFA151A2F	C33	No	GERS
10A-K90A (NC, DE Contact)	GE 12HGA11A52F	C32	Yes	CA
10A-K90A (NO Contact)	GE 12HGA11A52F	C32	No	GERS

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
10A-K95A	Agastat ETR14D3N	C32	No	GERS
10A-K9A	GE 12HFA151A2F	C32	No	GERS
10A-M1A-1	Agastat ETR14D3B	C32	No	GERS
10A-M1A-2	Agastat ETR14D3B	C32	No	GERS
10A-M2A-1	Agastat ETR14D3B	C32	No	GERS
10A-M2A-2	Agastat ETR14D3B	C32	No	GERS
10A-M3A-1	Agastat ETR14D3B	C32	No	GERS
10A-M3A-2	Agastat ETR14D3B	C32	No	GERS
10A-M4A-1	Agastat ETR14D3B	C32	No	GERS
10A-M4A-2	Agastat ETR14D3B	C32	No	GERS
10A-S17A	GE SBM	C03	No	NV
10A-S18A	GE CR2940	C03	No	NV
10A-S19A	GE CR2940	C03	No	NV
10A-S1A	GE CR2940	C03	No	NV
10A-S23A	GE CR2940	C03	No	NV
10A-S24A	GE CR2940	C03	No	NV
10A-S25A	GE CR2940	C03	No	NV
10A-S25C	GE CR2940	C03	No	NV
10A-S26A	GE CR2940	C32	No	NV
10A-S27A	GE CR2940	C32	No	NV
10A-S28A	GE CR2940	C32	No	NV
10A-S29A	GE CR2940	C32	No	NV
10A-S2A	GE SBM	C03	No	NV
10A-S3A	GE SBM	C03	No	NV
14A-K27A	Agastat ETR14D3N	C32	No	GERS
14A-K3A	GE 12HFA151A2F	C32	No	GERS
152-308/a	GE-AMH-4.76-250	A308	No	SWGR
152-502/a	GE-AMH-4.76-250	A502	No	SWGR
152-503/a	GE-AMH-4.76-250	A503	No	SWGR
152-504/a	GE-AMH-4.76-250	A504	No	SWGR
152-511/a	GE-AMH-4.76-250	A511	No	SWGR
16A-K17	GE CR120A	C41	No	GERS
16A-K31	GE CR120A	C41	No	GERS
16A-K32	GE 12HFA151A2H	C42	No	GERS
DPIS-2-129A	BARTON 288	C121	No	CA
DPIS-2-129C	BARTON 288	C121	No	CA
DPIS-2-136A	BARTON 288	C73	No	CA
DPIS-2-136B	BARTON 288	C74	No	CA
DPIS-2-137A	BARTON 288	C73	No	CA
DPIS-2-137B	BARTON 288	C74	No	CA
K101A	Agastat EGPB	C303A	No	GERS
K113A	Agastat EGPB	C303A	No	GERS
LIS-2-3-73A	YARWAY 4418EC	C121	No	CA
LS POS	CV-1728			CA
LS-7	Limitorque	MO-2030	No	NV
LS-7	Limitorque	MO-2029	No	NV

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
OAS/1, IAS/1, IAS/2, IAS/3	Rotork	MO-1986	No	NV
OAS/1, IAS/1, IAS/2, IAS/3	Rotork	MO-1988	No	NV
POS-3139A		RHR-18-1	No	NV
POS-3139B		RHR-18-1	No	NV
POS-3139C		RHR-18-1	No	NV
POS-3139D		RHR-18-1	No	NV
PS-10-101A	SOR 12N-AA4	C55	No	CA
PS-10-101C	SOR 12N-AA4	C55	No	CA
PS-10-105A	ASCO SB11AMR	C129A	No	CA
PS-10-105C	ASCO SB11AMR	C129A	No	CA
PS-10-105E	SOR 5N-AA3-X	C129A	No	CA
PS-10-105G	SOR 5N-AA3-X	C129A	No	CA
PS-10-119A	SOR 12N-AA4	C55	No	CA
PS-10-119C	SOR 12N-AA4	C55	No	CA
PS-2-128A	ASCO SB11AKR	C122	No	CA
PS-2-3-49A	BKD B2T-A12SS	C121	No	CA
PS-2-3-50A	BKD B2T-A12SS	C121	No	CA
PS-2-3-52A	BARTON 2885740	C56	No	CA
PS-2-3-53A	BKD B2T-A12SS	C121	No	CA
10A-K3A	GE 12HFA151A2F	C32	No	GERS
10A-K95A	Agastat ETR14D3N	C32	No	GERS
127-5	GE 12NGV15A21	A505	No	TEST
127-5X	GE 12NGV15A21	A505	No	TEST
14A-K10A	GE 12HFA151A2F	C32	No	GERS
14A-K11A	GE 12HFA151A2F	C32	No	GERS
14A-K13A	GE 12HFA151A2F	C32	No	GERS
14A-K16A	Agastat ETR14D3B	C32	No	GERS
14A-K19A	GE 12HFA151A2F	C32	No	GERS
14A-K1A	GE 12HFA151A2F	C32	No	GERS
14A-K20A	GE 12HFA151A2F	C32	No	GERS
14A-K21A	GE 12HFA151A2F	C32	No	GERS
14A-K21B	GE 12HFA151A2F	C33	No	GERS
14A-K24A	GE 12HFA151A2F	C32	No	CA
14A-K27A	Agastat ETR14D3N	C32	No	GERS
14A-K3A	GE 12HFA151A2F	C32	No	GERS
14A-K4A	GE 12HFA151A2F	C32	No	GERS
14A-K5A	GE 12HFA151A2F	C32	No	GERS
14A-K5B	GE 12HFA151A2F	C33	No	GERS
14A-K6A	GE 12HFA151A2F	C32	No	GERS
14A-K6B	GE 12HFA151A2F	C33	No	GERS
14A-K7A	GE 12HFA151A2F	C32	No	GERS
14A-K7B	GE 12HFA151A2F	C33	No	GERS
14A-K8A	GE 12HFA151A2F	C32	No	GERS
14A-K8B	GE 12HFA151A2F	C33	No	GERS
14A-K9A	GE 12HFA151A2F	C32	No	GERS

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
14A-K9B	GE 12HFA151A2F	C33	No	GERS
14A-S11A	GE CR2940	C32	No	NV
14A-S12A	GE CR2940	C32	No	NV
14A-S13A	GE CR2940	C32	No	NV
14A-S14A	GE CR2940	C32	No	NV
14A-S15A	GE CR2940	C32	No	NV
14A-S1A	GE SBM	C03	No	NV
152-308/a	GE-AMH-4.76-250	A308	No	SWGR
152-503/a	GE-AMH-4.76-250	A503	No	SWGR
152-504/a	GE-AMH-4.76-250	A504	No	SWGR
162-3	Agastat 2412	A308	No	GERS
K101A	Agastat EGPB	C303A	No	GERS
K113A	Agastat EGPB	C303A	No	GERS
PS-10-101A	SOR 12N-AA4	C55	No	CA
PS-10-101C	SOR 12N-AA4	C55	No	CA
PS-14-44A	BKD B2T-A12SS	C129A	No	CA
PS-14-44C	BKD B2T-A12SS	C129A	No	CA
PS-2-3-52A	BARTON 2885740	C56	No	CA
PS-2-3-53A	BKD B2T-A12SS	C121	No	CA

SSEL Line Number: 2000 Plant System: RHR Component/Subsystem: Initiation Logic - B

10A-K10B	GE 12HFA151A2F	C33	No	GERS
10A-K11B	GE 12HFA151A2F	C33	No	CA
10A-K15B	GE 12HFA151A2F	C33	No	GERS
10A-K16B	GE 12HFA151A2F	C33	No	GERS
10A-K17B	GE 12HFA151A2F	C33	No	GERS
10A-K20B	GE 12HFA151A2F	C33	No	GERS
10A-K23A	GE 12HGA11A52F	C32	No	GERS
10A-K23B	GE 12HGA11A52F	C33	No	GERS
10A-K24A	GE 12HGA11A52F	C32	No	GERS
10A-K24B	GE 12HGA11A52F	C33	No	GERS
10A-K25A	GE 12HGA11A52F	C32	No	GERS
10A-K25B	GE 12HGA11A52F	C33	No	GERS
10A-K26A	GE 12HGA11A52F	C32	No	GERS
10A-K26B	GE 12HGA11A52F	C33	No	GERS
10A-K27B (NC, DE Contact)	GE 12HGA11A52F	C33	Yes	CA
10A-K27B (NO Contact)	GE 12HGA11A52F	C33	No	GERS
10A-K28B	Agastat E7014	C33	No	GERS
10A-K30B	GE 12HFA151A2F	C33	No	GERS
10A-K31A	GE 12HGA11A52F	C32	No	GERS
10A-K31B	GE 12HGA11A52F	C33	No	GERS
10A-K32A	GE 12HGA11A52F	C32	No	GERS
10A-K32B	GE 12HGA11A52F	C33	No	GERS
10A-K33B	GE 12HGA11A52F	C33	No	GERS
10A-K34B	Agastat E7014	C33	No	GERS
10A-K35A	GE 12HGA11A52F	C32	No	GERS

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
10A-K35B	GE 12HGA11A52F	C33	No	GERS
10A-K36A	GE 12HGA11A52F	C32	No	GERS
10A-K36B	GE 12HGA11A52F	C33	No	GERS
10A-K37A	GE 12HFA151A2F	C32	No	CA
10A-K37B	GE 12HFA151A2F	C33	No	GERS
10A-K39B	GE 12HFA151A2F	C33	No	GERS
10A-K3B	GE 12HFA151A2F	C33	No	GERS
10A-K40A	Agastat E7014	C32	No	GERS
10A-K40B	Agastat E7014	C33	No	GERS
10A-K43B	GE 12HFA151A2F	C33	No	GERS
10A-K44B	GE 12HFA151A2F	C33	No	GERS
10A-K45B	GE CR120K	C33	No	CA
10A-K48B	GE 12HFA151A2F	C33	No	CA
10A-K49B	GE 12HFA151A2F	C33	No	GERS
10A-K4B	GE 12HFA151A2F	C33	No	GERS
10A-K51B	GE 12HFA151A2F	C33	No	GERS
10A-K58B	GE 12HFA151A2F	C33	No	GERS
10A-K5A	GE 12HFA151A2F	C32	No	GERS
10A-K5B	GE 12HFA151A2F	C33	No	GERS
10A-K60A	GE 12HGA11A52F	C32	No	GERS
10A-K60B	GE 12HGA11A52F	C33	No	GERS
10A-K63B (NC, DE Contact)	GE 12HGA11A52F	C33	Yes	CA
10A-K64B	GE 12HGA11A52F	C33	Yes	CA
10A-K65A	GE 12HGA11A52F	C32	No	GERS
10A-K65B	GE 12HGA11A52F	C33	No	GERS
10A-K69B (NC, DE Contact)	GE 12HGA11A52F	C33	Yes	CA
10A-K69B (NO Contact)	GE 12HGA11A52F	C33	No	GERS
10A-K6A	GE 12HFA151A2F	C32	No	GERS
10A-K6B	GE 12HFA151A2F	C33	No	GERS
10A-K72A	GE 12HGA11A52F	C32	No	GERS
10A-K72B	GE 12HGA11A52F	C33	No	GERS
10A-K73B	GE 12HFA151A2F	C33	No	GERS
10A-K74B	GE 12HFA151A2F	C33	No	GERS
10A-K75B (DE, NC contact)	GE 12HGA11A52F	C33	Yes	CA
10A-K75B (NO contact)	GE 12HGA11A52F	C33	No	GERS
10A-K76B	Agastat E7014	C33	No	GERS
10A-K77B	Agastat E7014	C33	No	GERS
10A-K78B	Agastat E7014	C33	No	GERS
10A-K7A	GE 12HFA151A2F	C32	No	GERS
10A-K7B	GE 12HFA151A2F	C33	No	GERS
10A-K86A	GE 12HGA11A52F	C32	No	GERS
10A-K86B	GE 12HGA11A52F	C33	No	GERS
10A-K87B	GE 12HFA151A2F	C33	No	CA
10A-K88B	GE 12HGA11A52F	C33	No	GERS
10A-K89A	GE 12HGA11A52F	C32	No	GERS

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
10A-K89B	GE 12HGA11A52F	C33	No	GERS
10A-K8A	GE 12HFA151A2F	C32	No	GERS
10A-K8B	GE 12HFA151A2F	C33	No	GERS
10A-K90B (NC, DE Contact)	GE 12HGA11A52F	C33	Yes	CA
10A-K90B (NO Contact)	GE 12HGA11A52F	C33	No	GERS
10A-K95B	Agastat ETR14D3N	C33	No	GERS
10A-K9B	GE 12HFA151A2F	C33	No	GERS
10A-M1B-1	Agastat ETR14D3B	C33	No	GERS
10A-M1B-2	Agastat ETR14D3B	C33	No	GERS
10A-M2B-1	Agastat ETR14D3B	C33	No	GERS
10A-M2B-2	Agastat ETR14D3B	C33	No	GERS
10A-M3B-1	Agastat ETR14D3B	C33	No	GERS
10A-M3B-2	Agastat ETR14D3B	C33	No	GERS
10A-M4B-1	Agastat ETR14D3B	C33	No	GERS
10A-M4B-2	Agastat ETR14D3B	C33	No	GERS
10A-S17B	GE SBM	C03	No	NV
10A-S18B	GE CR2940	C03	No	NV
10A-S19B	GE CR2940	C03	No	NV
10A-S1B	GE CR2940	C03	No	NV
10A-S23B	GE CR2940	C03	No	NV
10A-S24B	GE CR2940	C03	No	NV
10A-S25B	GE CR2940	C03	No	NV
10A-S25D	GE CR2940	C03	No	NV
10A-S26B	GE CR2940	C33	No	NV
10A-S27B	GE CR2940	C32	No	NV
10A-S28B	GE CR2940	C33	No	NV
10A-S29B	GE CR2940	C32	No	NV
10A-S2B	GE SBM	C03	No	NV
10A-S3B	GE SBM	C03	No	NV
14A-K27B	Agastat ETR14D3N	C33	No	GERS
14A-K3B	GE 12HFA151A2F	C33	No	GERS
152-408/a	GE-AMH-4.76-250	A408	No	SWGR
152-602/a	GE-AMH-4.76-250	A602	No	SWGR
152-603/a	GE-AMH-4.76-250	A603	No	SWGR
152-604/a	GE-AMH-4.76-250	A604	No	SWGR
152-610/a	GE-AMH-4.76-250	A610	No	SWGR
16A-K18	GE CR120A	C42	No	GERS
16A-K31	GE CR120A	C41	No	GERS
16A-K32	GE 12HFA151A2H	C42	No	GERS
DPIS-2-129B	BARTON 288	C122	No	CA
DPIS-2-129D	BARTON 288	C122	No	CA
DPIS-2-138A	BARTON 288	C73	No	CA
DPIS-2-138B	BARTON 288	C74	No	CA
DPIS-2-139A	BARTON 288	C73	No	CA
DPIS-2-139B	BARTON 288	C74	No	CA
K101B	Agastat EGPB	C303B	No	GERS

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
K113B	Agastat EGPB	C303B	No	GERS
LIS-2-3-73B	YARWAY 4418EC	C122	No	CA
LS POS		CV-1729	No	CA
LS-15	Limitorque	MO-2029	No	NV
LS-15	Limitorque	MO-2030	No	NV
OAS/1, IAS/1, IAS/2, IAS/3	Rotork	MO-1989	No	NV
OAS/1, IAS/1, IAS/2, IAS/3	Rotork	MO-1987	No	NV
POS-3140A		RHR-18-2	No	NV
POS-3140B		RHR-18-2	No	NV
POS-3140C		RHR-18-2	No	NV
POS-3140D		RHR-18-2	No	NV
PS-10-101B	SOR 12N-AA4	C56	No	CA
PS-10-101D	SOR 12N-AA4	C55	No	CA
PS-10-105B	ASCO SB11AMR	C129B	No	CA
PS-10-105D	ASCO SB11AMR	C129B	No	CA
PS-10-105F	SOR 5N-AA3-X	C129B	No	CA
PS-10-105H	SOR 5N-AA3-X	C129B	No	CA
PS-10-119B	SOR 12N-AA4	C55	No	CA
PS-10-119D	SOR 12N-AA4	C56	No	CA
PS-2-128B	ASCO SB11AKR	C122	No	CA
PS-2-3-49B	BKD B2T-A12SS	C122	No	CA
PS-2-3-50B	BKD B2T-A12SS	C122	No	CA
PS-2-3-52B	BKD B2T-A12SS	C55	No	CA
PS-2-3-53B	BKD B2T-A12SS	C122	No	CA
10A-K3B	GE 12HFA151A2F	C33	No	GERS
10A-K95B	Agastat ETR14D3N	C33	No	GERS
127-6	GE 12NGV15A21	A605	No	TEST
127-6X	GE 12NGV15A21	A605	No	TEST
14A-K10B	GE 12HFA151A2F	C33	No	GERS
14A-K11B	GE 12HFA151A2F	C33	No	GERS
14A-K13B	GE 12HFA151A2F	C33	No	GERS
14A-K16B	Agastat ETR14D3B	C33	No	GERS
14A-K19B	GE 12HFA151A2F	C33	No	GERS
14A-K1B	GE 12HFA151A2F	C33	No	GERS
14A-K20B	GE 12HFA151A2F	C33	No	GERS
14A-K21A	GE 12HFA151A2F	C32	No	GERS
14A-K21B	GE 12HFA151A2F	C33	No	GERS
14A-K24B	GE 12HFA151A2F	C33	No	CA
14A-K27B	Agastat ETR14D3N	C33	No	GERS
14A-K3B	GE 12HFA151A2F	C33	No	GERS
14A-K4B	GE 12HFA151A2F	C33	No	GERS
14A-K5A	GE 12HFA151A2F	C32	No	GERS
14A-K5B	GE 12HFA151A2F	C33	No	GERS
14A-K6A	GE 12HFA151A2F	C32	No	GERS
14A-K6B	GE 12HFA151A2F	C33	No	GERS

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
14A-K7A	GE 12HFA151A2F	C32	No	GERS
14A-K7B	GE 12HFA151A2F	C33	No	GERS
14A-K8A	GE 12HFA151A2F	C32	No	GERS
14A-K8B	GE 12HFA151A2F	C33	No	GERS
14A-K9A	GE 12HFA151A2F	C32	No	GERS
14A-K9B	GE 12HFA151A2F	C33	No	GERS
14A-S11B	GE CR2940	C33	No	NV
14A-S12B	GE CR2940	C33	No	NV
14A-S13B	GE CR2940	C33	No	NV
14A-S14B	GE CR294	C33	No	NV
14A-S15B	GE CR2940	C33	No	NV
14A-S1B	GE SBM	C03	No	NV
152-408/a	GE-AMH-4.76-250	A408	No	SWGR
152-603/a	GE-AMH-4.76-250	A603	No	SWGR
152-604/a	GE-AMH-4.76-250	A604	No	SWGR
162-4	Agastat 2412	A408	No	GERS
K101B	Agastat EGPB	C303B	No	GERS
K113B	Agastat EGPB	C303B	No	GERS
PS-10-101B	SOR 12N-AA4	C56	No	CA
PS-10-101D	SOR 12N-AA4	C56	No	CA
PS-14-44B	BKD B2T-A12SS	C129B	No	CA
PS-14-44D	BKD B2T-A12SS	C129B	No	CA
PS-2-3-52B	BKD B2T-A12SS	C55	No	CA
PS-2-3-53B	BKD B2T-A12SS	C122	No	CA

SSEL Line Number: 1047 Plant System: RSW Component/Subsystem: K-10A

N3347	Westinghouse A200 Motor Starter	N3347	No	GERS
PS-7192	ASCO SA11AR		No	GERS

SSEL Line Number: 2138 Plant System: RSW Component/Subsystem: K-10B

N4454	Westinghouse A200 Motor Starter	N4454	No	GERS
PS-7193	ASCO SA11AR		No	GERS

SSEL Line Number: 7138 Plant System: DGN Component/Subsystem: K-8A

42, 49/OL	Cutler-Hammer	N3346A	No	GERS
LS		K-8A	No	NV
MAN/AUTO Switch		C93	No	NV
PS-3234	FURNAS 69HAU1	K-8A	No	NV
RESET		N3346A	No	NV

SSEL Line Number: 7139 Plant System: DGN Component/Subsystem: K-8B

42, 49/OL	Cutler-Hammer	N4301A	No	GERS
LS		K-8B	No	NV

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
MAN/AUTO Switch		C93	No	NV
PS-3235	FURNAS 69HAU1	K-8B	No	NV
RESET		N4301A	No	NV

SSEL Line Number: 7136 Plant System: DGN Component/Subsystem: K-9A

42, 49/OL	Cutler-Hammer	N4301B	No	GERS
LS		K-9A	No	NV
MAN/AUTO Switch		C94	No	NV
PS-3232	FURNAS 69HAU1	K-9A	No	NV
RESET		N4301B	No	NV

SSEL Line Number: 7137 Plant System: DGN Component/Subsystem: K-9B

42, 49/OL	Cutler-Hammer	N3346B	No	GERS
LS		K-9B	No	NV
MAN/AUTO Switch		C94	No	NV
PS-3233	FURNAS 69HAU1	K-9B	No	NV
RESET		N3346B	No	NV

SSEL Line Number: 8003 Plant System: 480 Component/Subsystem: LC-103 (52-301)

152-509/a, 152-509/b	GE-AMH-4.76-250	A509	No	SWGR
52-301/CS	GE SBM	C08	No	NV
52-301/LS	ABB K3000S	LC-103	No	SWGR
52-301/POS, 52-301/a, 52-301/b	ABB K3000S	LC-103	No	SWGR
52-301/SS		C08	No	NV
52-301Y	ABB K1600S	LC-103	No	SWGR
CLOSE	ABB K3000S	LC-103	No	NV

SSEL Line Number: 8003 Plant System: 480 Component/Subsystem: LC-103 (52-302)

183-5Y	GE 12HFA154E22H	A502	No	SWGR
183-5Y1	GE 12HFA154E22H	A511	No	SWGR
52-302/a, 52-302/b	ABB K1600S	LC-103	No	SWGR
52-302/LS	ABB K1600S	LC-103	No	SWGR
52-302Y	ABB K1600S	B302	No	SWGR
CLOSE	ABB K1600S	LC-103	No	NV

SSEL Line Number: 8003 Plant System: 480 Component/Subsystem: LC-103 (52-303)

183-5Y	GE 12HFA154E22H	A502	No	SWGR
183-5Y1	GE 12HFA154E22H	A511	No	SWGR
52-303/a, 52-303/b	ABB K1600S	LC-103	No	SWGR
52-303/LS	ABB K1600S	LC-103	No	SWGR
52-303Y	ABB K1600S	LC-103	No	SWGR
CLOSE	ABB K1600S	LC-103	No	NV

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 8003 Plant System: 480 Component/Subsystem: LC-103 (52-304)				
52-304/b	ABB K1600S	LC-103	No	SWGR
52-304/LS	ABB K1600S	LC-103	No	SWGR
52-304Y	ABB K1600S	LC-103	No	SWGR
CLOSE	ABB K1600S	LC-103	No	NV
SSEL Line Number: 8003 Plant System: 480 Component/Subsystem: LC-103 (52-305)				
14A-K18A	GE 12HFA151A2F	C32	No	SWGR
52-305/CS	GE SBM	C06	No	NV
52-305/LS	ABB K1600S	LC-103	No	SWGR
52-305/PB		C06	No	NV
52-305/POS, 52-305/a, 52-305/b, 52-305/BA	ABB K1600S	LC-103	No	SWGR
52-305Y	ABB K1600S	LC-103	No	SWGR
83-305	GE HFA54H	C06	No	CA
CLOSE	ABB K1600S	LC-103	No	NV
PS-1961	Ashcroft 4400		No	CA
SSEL Line Number: 8003 Plant System: 480 Component/Subsystem: LC-103 (52-307)				
52-307/b	ABB K1600S	LC-103	No	SWGR
52-307/LS	ABB K1600S	LC-103	No	SWGR
52-307Y	ABB K1600S	LC-103	No	SWGR
CLOSE	ABB K1600S	LC-103	No	NV
SSEL Line Number: 8003 Plant System: 480 Component/Subsystem: LC-103 (52-308)				
52-308/b	ABB K1600S	LC-103	No	SWGR
52-308/LS	ABB K1600S	LC-103	No	SWGR
52-308Y	ABB K1600S	LC-103	No	SWGR
CLOSE	ABB K1600S	LC-103	No	NV
SSEL Line Number: 8003 Plant System: 480 Component/Subsystem: LC-103 (52-309)				
183-5Y	GE 12HFA154E22H	A502	No	CA
183-5Y1	GE 12HFA154E22H	A511	No	CA
52-309/CS	GE SBM	C08	No	NV
52-309/LS	ABB K1600S	LC-103	No	SWGR
52-309/POS, 52-309/a, 52-309/b, 52-309/BA	ABB K1600S	LC-103	No	SWGR
52-309/SS		C08	No	NV
52-309Y	ABB K1600S	LC-103	No	SWGR
52-409/a	ABB K1600S	LC-104	No	SWGR
CLOSE	ABB K1600S	LC-103	No	NV
SSEL Line Number: 8006 Plant System: 480 Component/Subsystem: LC-104 (52-401)				
152-609/a, 152-609/b	GE-AMH-4.76-250	A609	No	SWGR

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
52-401/CS	GE SBM	C08	No	NV
52-401/LS	ABB K3000S	LC-104	No	SWGR
52-401/POS, 52-401/a, 52-401/b	ABB K3000S	LC-104	No	SWGR
52-401/SS		C08	No	NV
52-401Y	ABB K3000S	LC-104	No	SWGR
CLOSE	ABB K3000S	LC-104	No	NV
K50	Agastat EGPD	C293	No	GERS
K51	Agastat EGPD	C293	No	GERS
K52	Agastat EGPD	C293	No	GERS
S17	GE SBM	C292	No	NV

SSEL Line Number: 8006 Plant System: 480 Component/Subsystem: LC-104 (52-402)

183-6Y	GE 12HFA154E22H	A602	No	SWGR
183-6Y1	GE 12HFA154E22H	A610	No	SWGR
52-402/a, 52-402/b	ABB K1600S	LC-104	No	SWGR
52-402/LS	ABB K1600S	LC-104	No	SWGR
52-402Y	ABB K1600S	LC-104	No	SWGR
CLOSE	ABB K1600S	LC-104	No	NV
K82	Agastat EGPD	C293	No	GERS

SSEL Line Number: 8006 Plant System: 480 Component/Subsystem: LC-104 (52-403)

52-403/b	ABB K1600S	LC-104	No	SWGR
52-403/LS	ABB K1600S	LC-104	No	SWGR
52-403Y	ABB K1600S	LC-104	No	SWGR
CLOSE	ABB K1600S	LC-104	No	NV

SSEL Line Number: 8006 Plant System: 480 Component/Subsystem: LC-104 (52-404)

52-404/b	ABB K1600S	LC-104	No	SWGR
52-404/LS	ABB K1600S	LC-104	No	SWGR
52-404Y	ABB K1600S	LC-104	No	SWGR
CLOSE	ABB K1600S	LC-104	No	NV

SSEL Line Number: 8006 Plant System: 480 Component/Subsystem: LC-104 (52-405)

14A-K18B	GE 12HFA151A2F	C33	No	SWGR
52-405/CS	GE SBM	C06	No	NV
52-405/LS	ABB K1600S	LC-104	No	SWGR
52-405/PB		C06	No	NV
52-405/POS, 52-405/a, 52-405/b, 52-405/BA	ABB K1600S	LC-104	No	SWGR
52-405Y		LC-104	No	SWGR
83-405	GE HFA54H	C06	No	CA
CLOSE	ABB K1600S	LC-104	No	NV
PS-2111	Ashcroft 4400		No	CA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 8006 Plant System: 480 Component/Subsystem: LC-104 (52-406)				
52-405/b	ABB K1600S	LC-104	No	SWGR
52-406/LS	ABB K1600S	LC-104	No	SWGR
52-406Y	ABB K1600S	LC-104	No	SWGR
CLOSE	ABB K1600S	LC-104	No	NV
Electric Fire Pump Controller Panel		C-103		CA
SSEL Line Number: 8006 Plant System: 480 Component/Subsystem: LC-104 (52-407)				
52-3300/a	GE AK-2-15	B3300	No	SWGR
52-407/b, 52-407/a	ABB K1600S	LC-104	No	SWGR
52-407/LS	ABB K1600S	LC-104	No	SWGR
52-407Y	ABB K1600S	LC-104	No	SWGR
52-4300/a	MCC	B4300	No	SWGR
CLOSE	ABB K1600S	LC-104	No	NV
SSEL Line Number: 8006 Plant System: 480 Component/Subsystem: LC-104 (52-408)				
52-408/b	ABB K1600S	LC-104	No	SWGR
52-408/LS	ABB K1600S	LC-104	No	SWGR
52-408Y	ABB K1600S	LC-104	No	SWGR
CLOSE	ABB K1600S	LC-104	No	NV
SSEL Line Number: 8006 Plant System: 480 Component/Subsystem: LC-104 (52-409)				
183-6Y	GE 12HFA154E22H	A602	No	CA
183-6Y1	GE 12HFA154E22H	A610	No	CA
52-309/b	ABB K1600S	LC-103	No	SWGR
52-409/CS	GE SBM	C08	No	NV
52-409/LS	ABB K1600S	LC-104	No	SWGR
52-409/POS, 52-409/a, 52-409/b, 52-409/BA	ABB K1600S	LC-104	No	SWGR
52-409Y	ABB K1600S	LC-104	No	SWGR
CLOSE	ABB K1600S	LC-104	No	NV
K67	Agastat EGPD	C293	No	GERS
K82	Agastat EGPD	C293	No	GERS
SSEL Line Number: Plant System: All Component/Subsystem: Limitorque Operators				
LS, LSO, LSC	Limitorque		No	NV
TS, TSO, TSC	Limitorque		No	NV
SSEL Line Number: 12000 Plant System: APR Component/Subsystem: Low-Low Set SCRAM Permissive - Division I				
5A-K13A	GE CR305D102	C15	No	CA
5A-K13C	GE CR305D102	C15	No	CA
5A-K13F	GE CR305D102	C17	No	CA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
5A-K13H	GE CR305D102	C17	No	CA
5A-K14A	GE CR305D102	C15	No	CA
5A-K14D	GE CR305D102	C17	No	CA
5A-K24A	GE CR120A	C15	No	GERS
5A-K24C	Agastat EGPD	C15	No	GERS

SSEL Line Number: 12000 Plant System: APR Component/Subsystem: Low-Low Set SCRAM
Permissive - Division II

5A-K13A	GE CR305D102	C15	No	CA
5A-K13B	GE CR305D102	C17	No	CA
5A-K13C	GE CR305D102	C15	No	CA
5A-K13D	GE CR305D102	C17	No	CA
5A-K14A	GE CR305D102	C15	No	CA
5A-K14B	GE CR305D102	C17	No	CA
5A-K30A	Struthers Dunn 219BBX201		No	GERS
5A-K30B	Struthers Dunn 219BBX201		No	GERS

SSEL Line Number: 3071 Plant System: CSP Component/Subsystem: MO-1741

14A-S3A	GE SBM	C03	No	NV
42/O, 42/C, 42/OL	MCC	B3326	No	SWGR
OT/LS, CT/LS, CAS/2, OAS/2	Rotork		No	NV

SSEL Line Number: 3073 Plant System: CSP Component/Subsystem: MO-1742

14A-S3B	GE SBM	C03	No	NV
42/O, 42/C, 42/OL	MCC	B4326	No	SWGR
K12	P&B MDR 163-1	C292	No	GERS
K34	Agastat EGPI	C292	No	CA
K88	Agastat EGPI	C292	No	CA
OT/LS, CT/LS, CAS/2, OAS/2	Rotork		No	NV
S1	GE SBM	C292	No	NV

SSEL Line Number: 3028 Plant System: CSP Component/Subsystem: MO-1749

14A-K10A	GE 12HFA151A2F	C32	No	CA
14A-S4A	GE SBM	C03	No	NV
42/O, 42/C, 42/OL	MCC	B3327	No	SWGR
OT/LS, CT/LS, CAS/2, OAS/2	Rotork		No	NV

SSEL Line Number: 3030 Plant System: CSP Component/Subsystem: MO-1750

14A-K10B	GE 12HFA151A2F	C33	No	CA
14A-S4B	GE SBM	C03	No	NV
42/O, 42/C, 42/OL	MCC	B4327	No	SWGR
K13	P&B MDR 163-1	C292	No	GERS

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
K35	Agastat EGPI	C292	No	CA
K35A	Agastat EGPI	C292	No	CA
K36	Agastat EGPI	C292	No	CA
K38A	Agastat EGPI	C292	No	CA
OT/LS, CT/LS, CAS/2, OAS/2	Rotork		No	NV
S4	GE SBM	C292	No	NV

SSEL Line Number: 3009 Plant System: CSP Component/Subsystem: MO-1751

14A-K13A	GE 12HFA151A2F	C32	No	CA
14A-S16A	GE CR2940	C03	No	NV
14A-S2A	GE SBM	C03	No	NV
42/O, 42/C, 42/OL	MCC	B3325	No	SWGR
LS-6	Limitorque	MO-1753	No	NV
TS, LS	Limitorque		No	NV

SSEL Line Number: 3011 Plant System: CSP Component/Subsystem: MO-1752

14A-K13B	GE 12HFA151A2F	C33	No	CA
14A-S16B	GE CR2940	C03	No	NV
14A-S2B	GE SBM	C03	No	NV
42/O, 42/C, 42/OL	MCC	B4325	No	SWGR
K11	P&B MDR 163-1	C292	No	GERS
K32	Agastat EGPI	C292	No	CA
K32A	Agastat EGPI	C292	No	CA
K33	Agastat EGPI	C292	No	GERS
K33A	Agastat EGPI	C292	No	CA
K33B	Agastat EGPI	C292	No	GERS
LS-6	Limitorque	MO-1754	No	NV
S2	GE SBM	C292	No	NV
TS, LS	Limitorque		No	NV

SSEL Line Number: 3013 Plant System: CSP Component/Subsystem: MO-1753

14A-K13A	GE 12HFA151A2F	C32	No	GERS
14A-K20A	GE 12HFA151A2F	C32	No	CA
14A-K9A	GE 12HFA151A2F	C32	No	CA
14A-K9B	GE 12HFA151A2F	C33	No	CA
14A-S1A	GE SBM	C03	No	NV
42/O, 42/C, 42/OL	MCC	B3324	No	SWGR
LS-6	Limitorque	MO-1751	No	NV
TS, LS	Limitorque		No	NV

SSEL Line Number: 3015 Plant System: CSP Component/Subsystem: MO-1754

14A-K13B	GE 12HFA151A2F	C33	No	GERS
14A-K20B	GE 12HFA151A2F	C33	No	CA
14A-K9A	GE 12HFA151A2F	C32	No	CA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
14A-K9B	GE 12HFA151A2F	C33	No	CA
14A-S1B	GE SBM	C03	No	NV
42/O, 42/C, 42/OL	MCC	B4324	No	SWGR
K10	P&B MDR 163-1	C292	No	GERS
K30	Agastat EGPI	C292	No	GERS
K31	Agastat EGPI	C292	No	GERS
K31A	Agastat EGPI	C292	No	GERS
K31B	Agastat EGPI	C292	No	CA
LS-6	Limitorque	MO-1752	No	NV
S3	GE SBM	C292	No	NV
TS, LS	Limitorque		No	NV

SSEL Line Number: 1001 Plant System: RHR Component/Subsystem: MO-1986

10A-S4A	GE CR2940	C03	No	NV
42/O, 42/C, 49/OL	MCC	B3321	No	SWGR
CAS/1	Rotork	MO-1988	No	NV
OT/LS, CT/LS, OAS/2, CAS/2	Rotork	MO-1986	No	NV

SSEL Line Number: 2001 Plant System: RHR Component/Subsystem: MO-1987

10-S4B	GE CR2940	C03	No	NV
42/O, 42/C, 49/OL	MCC	B4323	No	SWGR
CAS/1	Rotork	MO-1989	No	NV
K1	P&B MDR 163-1	C292	No	GERS
K37	Agastat EGPI	C292	No	GERS
K38	Agastat EGPI	C292	No	GERS
OT/LS, CT/LS, OAS/2, CAS/2	Rotork	MO-1987	No	NV
S6	GE SBM	C292	No	NV

SSEL Line Number: 1003 Plant System: RHR Component/Subsystem: MO-1988

10A-S6A	GE SBM	C03	No	NV
42/O, 42/C, 49/OL	MCC	B3322	No	SWGR
CAS/1	Rotork	MO-1986	No	NV
LS-6	Limitorque	MO-2006	No	NV
OT/LS, CT/LS, OAS/2, CAS/2b	Rotork	MO-1988	No	NV

SSEL Line Number: 2005 Plant System: RHR Component/Subsystem: MO-1989

10A-S6B	GE SBM	C03	No	NV
42/C, 42/C, 49/OL	MCC	B4321	No	SWGR
CAS/1	Rotork	MO-1987	No	NV
LS-6	Limitorque	MO-2007	No	NV
OT/LS, CT/LS, OAS/2, CAS/2b	Rotork	MO-1989	No	NV

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 1048 Plant System: RHR Component/Subsystem: MO-2002				
10A-K79A (NC, DE Contact)	GE 12HGA11A52F	C32	Yes	CA
10A-K79A (NO Contact)	GE 12HGA11A52F	C32	No	GERS
10A-S16A	GE CR2940	C03	No	NV
42/O, 42/C, 49/OL	MCC	B3336	No	SWGR
OT/LS, CT/LS, IAS/1, OAS/1, OAS/2, CAS/2	Rotork	MO-2002	No	NV
SSEL Line Number: 2046 Plant System: RHR Component/Subsystem: MO-2003				
10A-K79B (NC, DE Contact)	GE 12HGA11A52F	C33	Yes	CA
10A-K79B (NO Contact)	GE 12HGA11A52F	C33	No	GERS
10A-S16B	GE CR2940	C03	No	NV
42/O, 42/C, 49/OL	MCC	B4210	No	SWGR
K41	Agastat EGPI	C292	No	GERS
K41A	Agastat EGPI	C292	No	GERS
K42	Agastat EGPI	C292	No	GERS
K42A	Agastat EGPI	C292	No	GERS
K6	P&B MDR 163-1	C292	No	GERS
OT/LS, CT/LS, IAS/1, OAS/1, OAS/2, CAS/2	Rotork	MO-2003	No	NV
S10	GE SBM	C292	No	NV
SSEL Line Number: 1091 Plant System: RHR Component/Subsystem: MO-2006				
10A-K58A	GE 12HFA151A2F	C32	No	CA
10A-K68A	GE 12HFA151A2F	C32	No	CA
10A-K74A	GE 12HFA151A2F	C32	No	GERS
10A-S14A	GE SBM	C03	No	NV
42/O, 42/C, 49/OL	MCC	B3341	No	SWGR
CAS/2a	Rotork	MO-1988	No	NV
TS, LS	Limitorque		No	NV
SSEL Line Number: 2067 Plant System: RHR Component/Subsystem: MO-2007				
10A-K58B	GE 12HFA151A2F	C33	No	CA
10A-K68B	GE 12HFA151A2F	C33	No	CA
10A-K74B	GE 12HFA151A2F	C33	No	GERS
10A-S14B	GE SBM	C03	No	NV
42/O, 42/C, 49/OL	MCC	B4208	No	SWGR
CAS/2a	Rotork	MO-1989	No	NV
K2	P&B MDR 163-1	C292	No	GERS
K39	Agastat EGPI	C292	No	GERS
K39A	Agastat EGPI	C292	No	GERS
K40	Agastat EGPI	C292	No	GERS
K40A	Agastat EGPI	C292	No	GERS
S7	GE SBM	C292	No	NV

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
TS, LS	Limitorque		No	NV
SSEL Line Number: 1096 Plant System: RHR Component/Subsystem: MO-2008				
10A-K58A	GE 12HFA151A2F	C32	No	CA
10A-K68A	GE 12HFA151A2F	C32	No	CA
10A-S12A	GE SBM	C03	No	NV
42/O, 42/C, 49/OL	MCC	B3337	No	SWGR
OT/LS, CT/LS, IAS/1, OAS/1, OAS/2, CAS/2	Rotork		No	NV
SSEL Line Number: 2070 Plant System: RHR Component/Subsystem: MO-2009				
10A-K58B	GE 12HFA151A2F	C33	No	CA
10A-K68B	GE 12HFA151A2F	C33	No	CA
10A-S12B	GE SBM	C03	No	NV
42/O, 42/C, 49/OL	MCC	B4337	No	SWGR
K43	Agastat EGPI	C292	No	GERS
K44	Agastat EGPI	C292	No	GERS
K5	P&B MDR 163-1	C292	No	GERS
OT/LS, CT/LS, IAS/1, OAS/1, OAS/2, CAS/2	Rotork		No	NV
S9	GE SBM	C292	No	NV
SSEL Line Number: 1094 Plant System: RHR Component/Subsystem: MO-2010				
10A-K59A	GE 12HFA151A2F	C32	No	CA
10A-K68A	GE 12HFA151A2F	C32	No	CA
10A-S13A	GE SBM	C03	No	NV
42/O, 42/C, 49/OL	MCC	B3338	No	SWGR
OT/LS, CT/LS, OAS/2, CAS/2	Rotork		No	NV
SSEL Line Number: 2073 Plant System: RHR Component/Subsystem: MO-2011				
10A-K59B	GE 12HFA151A2F	C33	No	CA
10A-K68B	GE 12HFA151A2F	C33	No	CA
10A-S13B	GE SBM	C03	No	NV
42/O, 42/C, 49/OL	MCC	B4338	No	SWGR
OT/LS, CT/LS, OAS/2, CAS/2	Rotork		No	NV
SSEL Line Number: 1119 Plant System: RHR Component/Subsystem: MO-2012				
10A-K43A	GE 12HFA151A2F	C32	No	GERS
10A-K43B	GE 12HFA151A2F	C33	No	GERS
10A-K46A	GE 12HFA151A2F	C32	No	GERS
10A-K46B	GE 12HFA151A2F	C33	No	GERS
10A-K91A	GE 12HGA11A52F	C32	No	GERS
10A-S10A	GE SBM	C03	No	NV

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
42/O, 42/C, 49/OL	MCC	B3335	No	SWGR
IPC	GE CR120A	B3335	No	SWGR
IPO	GE CR120A	B3335	No	SWGR
LS6	Limitorque	MO-2014	No	NV
TS, LS	Limitorque		No	NV

SSEL Line Number: 2064 Plant System: RHR Component/Subsystem: MO-2013

10A-K39A	GE 12HFA151A2F	C32	No	GERS
10A-K39B	GE 12HFA151A2F	C33	No	GERS
10A-K47A	GE 12HFA151A2F	C32	No	GERS
10A-K47B	GE 12HFA151A2F	C33	No	GERS
10A-K91B	GE 12HGA11A52F	C33	No	GERS
10A-S10B	GE SBM	C03	No	NV
42/O, 42/C, 49/OL	MCC	B4335	No	SWGR
IPC	GE CR120A	B4335	No	SWGR
IPO	GE CR120A	B4335	No	SWGR
LS-6	Limitorque	MO-2015	No	NV
TS, LS	Limitorque		No	NV

SSEL Line Number: 1121 Plant System: RHR Component/Subsystem: MO-2014

10A-K43A	GE 12HFA151A2F	C32	No	GERS
10A-K43B	GE 12HFA151A2F	C33	No	GERS
10A-K63A	GE 12HGA11A52F	C32	No	GERS
10A-K66A (NC, DE Contact)	GE 12HGA11A52F	C32	Yes	CA
10A-K66A (NO Contact)	GE 12HGA11A52F	C32	No	GERS
10A-K66B	GE 12HGA11A52F	C33	No	GERS
10A-K91A	GE 12HGA11A52F	C32	No	GERS
10A-S8A	GE SBM	C03	No	NV
42/O, 42/C, 49/OL	MCC	B3334	No	SWGR
LS6	Limitorque	MO-2012	No	NV
TS, LS	Limitorque	MO-2014	No	NV

SSEL Line Number: 2066 Plant System: RHR Component/Subsystem: MO-2015

10A-K39A	GE 12HFA151A2F	C32	No	GERS
10A-K39B	GE 12HFA151A2F	C33	No	GERS
10A-K63B	GE 12HGA11A52F	C33	No	GERS
10A-K67A	GE 12HGA11A52F	C32	No	GERS
10A-K67B (NC, DE Contact)	GE 12HGA11A52F	C33	Yes	CA
10A-K67B (NO Contact)	GE 12HGA11A52F	C33	No	GERS
10A-K91B	GE 12HGA11A52F	C33	No	GERS
10A-S8B	GE SBM	C03	No	NV
42/O, 42/C, 49/OL	MCC	B4334	No	SWGR
LS-6	Limitorque	MO-2013	No	NV
TS, LS	Limitorque	MO-2015	No	NV

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 1106 Plant System: RHR Component/Subsystem: MO-2020				
10A-K59A	GE 12HFA151A2F	C32	No	CA
10A-K74A	GE 12HFA151A2F	C32	No	CA
10A-S9A	GE SBM	C03	No	NV
42/O, 42/C, 49/OL	MCC	B3339	No	SWGR
OT/LS, CT/LS, OAS/2, CAS/2	Rotork	MO-2020	No	NV
SSEL Line Number: 2078 Plant System: RHR Component/Subsystem: MO-2021				
10A-K59B	GE 12HFA151A2F	C33	No	CA
10A-K74B	GE 12HFA151A2F	C33	No	CA
10A-S9B	GE SBM	C03	No	NV
42/O, 42/C, 49/OL	MCC	B4339	No	SWGR
OT/LS, CT/LS, OAS/2, CAS/2	Rotork		No	NV
SSEL Line Number: 1110 Plant System: RHR Component/Subsystem: MO-2026				
16A-K30	GE CR120A	C42	No	CA
16A-S12	GE SBM	C03	No	NV
42/M, 42/1F, 42/1R, 42/2F, 42/2R, 49/OL	MCC	D31308	No	SWGR
TS, LS	Limitorque	MO-2026	No	NV
SSEL Line Number: 1010 Plant System: RHR Component/Subsystem: MO-2030				
16A-K30	GE CR120A	C42	No	CA
16A-S10	GE SBM	C03	No	NV
42/M, 42/1F, 42/1R, 42/2F, 42/2R, 49/OL	MCC	D31307	No	SWGR
TS, LS	Limitorque	MO-2030	No	NV
SSEL Line Number: 1114 Plant System: RHR Component/Subsystem: MO-2032				
16A-K17	GE CR120A	C41	No	CA
16A-S13	GE SBM	C03	No	NV
42/O, 42/C, 49/OL	MCC	B4211	No	SWGR
OT/LS, CT/LS, IAS/1, OAS/1, OAS/2, CAS/2	Rotork	MO-2032	No	NV
SSEL Line Number: 1079 Plant System: RHR Component/Subsystem: MO-2033				
10A-S7	GE CR2940	C03	No	NV
42/O, 42/C, 49/OL	MCC	B4328	No	SWGR
OT/LS, CT/LS, IAS/1, OAS/1, OAS/2, CAS/2	Rotork	MO-2033	No	NV

SQUG Relay Review Functional Screening Results

Relay Designation	Relay Type	Panel	<u>Low</u> Ruggedness	Resolution (SAT)
SSEL Line Number: 10001 Plant System: HPC Component/Subsystem: MO-2034				

23A-K12	GE 12HFA151A2F	C39	No	CA
23A-K27	GE 12HFA151A2F	C39	No	CA
23A-K35	GE 12HFA151A2F	C41	No	CA
23A-K37	GE 12HGA11A52F	C39	Yes	CA
23A-S2	GE SBM	C03	No	NV
42/O, 42/C, 49/OL TS, LS	MCC Limitorque	B4342 MO-2034	No No	SWGR NV

SSEL Line Number: 10002 Plant System: HPC Component/Subsystem: MO-2035				
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23A-K1	GE 12HFA151A2F	C39	No	GERS
23A-K12	GE 12HFA151A2F	C39	No	CA
23A-K27	GE 12HFA151A2F	C39	No	CA
23A-K3	GE 12HFA151A2F	C39	No	GERS
23A-K35	GE 12HFA151A2F	C41	No	CA
23A-K37	GE 12HGA11A52F	C39	Yes	CA
23A-S3	GE SBM	C03	No	NV
72/1F, 72/2F, 72/1R, 72/2R, 49/OL TS, LS	MCC Limitorque	D31205 MO-2035	No No	SWGR NV

SSEL Line Number: 10002 Plant System: HPC Component/Subsystem: MO-2035 (Auto Open)				
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10A-K7A	GE 12HFA151A2F	C32	No	GERS
10A-K7B	GE 12HFA151A2F	C33	No	GERS
10A-K8A	GE 12HFA151A2F	C32	No	GERS
10A-K8B	GE 12HFA151A2F	C33	No	GERS
14A-K5A	GE 12HFA151A2F	C32	No	GERS
14A-K5B	GE 12HFA151A2F	C33	No	GERS
14A-K6A	GE 12HFA151A2F	C32	No	GERS
14A-K6B	GE 12HFA151A2F	C33	No	GERS

SSEL Line Number: 14001 Plant System: RCI Component/Subsystem: MO-2075				
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13A-K22	GE 12HFA151A2F	C30	No	CA
13A-K26	GE 12HGA11A52F	C30	Yes	CA
13A-K32	GE 12HFA151A2F	C32	No	CA
13A-S1	GE SBM	C04	No	NV
42/O, 42/C, 42/OL TS, LS	MCC Limitorque	B3340 MO-2075	No No	SWGR NV

SSEL Line Number: 14003 Plant System: RCI Component/Subsystem: MO-2076				
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13A-K1	GE 12HFA151A2F	C30	No	GERS
13A-K22	GE 12HFA151A2F	C30	No	CA
13A-K26	GE 12HGA11A52F	C30	Yes	CA
13A-K32	GE 12HFA151A2F	C32	No	CA
13A-S3	GE SBM	C04	No	NV

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
72/1F, 72/2F, 72/1R, 72/2R, 49/OL	MCC	D31104	No	SWGR
TS, LS	Limiterque	MO-2076	No	NV

SSEL Line Number: 14003 Plant System: RCI Component/Subsystem: MO-2076 (Auto Open)

14A-K7A	GE 12HFA151A2F	C32	No	GERS
14A-K7B	GE 12HFA151A2F	C33	No	GERS
14A-K8A	GE 12HFA151A2F	C32	No	GERS
14A-K8B	GE 12HFA151A2F	C33	No	GERS

SSEL Line Number: 11025 Plant System: MST Component/Subsystem: MO-2373

16A-K13	GE 12HFA151A2H	C41	No	CA
16A-S5	GE SBM	C03	No	NV
42/O, 42/C, 49/OL	MCC	B4333	No	SWGR
TS, LS	Limiterque	MO-2373	No	NV

SSEL Line Number: 17001 Plant System: RWC Component/Subsystem: MO-2397

16A-K26	GE CR120A	C41	No	GERS
16A-S15	GE SBM	C04	No	NV
42/O, 42/C, 42/OL	MCC	B3328	No	SWGR
TS, LS	Limiterque	MO-2397	No	NV

SSEL Line Number: 17002 Plant System: RWC Component/Subsystem: MO-2398

16A-K27	GE CR120A	C42	No	GERS
16A-S16	GE SBM	C04	No	NV
42/M, 42/1F, 42/1R, 42/2F, 42/2R, 49/OL	MCC	D31309	No	SWGR
TS, LS	Limiterque	MO-2398	No	NV

SSEL Line Number: 11000 Plant System: MST Component/Subsystem: MSIV Control Logic

16A-K1A	GE 12HFA151A9F	C15	No	CA
16A-K1B	GE 12HFA151A9F	C17	No	CA
16A-K1C	GE 12HFA151A9F	C15	No	CA
16A-K1D	GE 12HFA151A9F	C17	No	CA
16A-K2A	GE 12HFA151A9F	C15	No	CA
16A-K2B	GE 12HFA151A9F	C17	No	CA
16A-K2C	GE 12HFA151A9F	C15	No	CA
16A-K2D	GE 12HFA151A9F	C17	No	CA
16A-K3A	GE 12HFA151A9F	C15	No	CA
16A-K3B	GE 12HFA151A9F	C17	No	CA
16A-K3C	GE 12HFA151A9F	C15	No	CA
16A-K3D	GE 12HFA151A9F	C17	No	CA
16A-K4A	GE 12HFA151A9F	C15	No	CA
16A-K4B	GE 12HFA151A9F	C17	No	CA
16A-K4C	GE 12HFA151A9F	C15	No	CA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
16A-K4D	GE 12HFA151A9F	C17	No	CA
16A-S62A, B, C, D	GE CR2940	C15	No	CA
5A-S1	GE SB-9	C05	No	CA
DPIS-2-116A, B, C, D	BARTON 278	C126	No	CA
DPIS-2-117A, B, C, D	BARTON 278	C126	No	CA
DPIS-2-118A, B, C, D	BARTON 278	C126	No	CA
DPIS-2-119A, B, C, D	BARTON 278	C126	No	CA
GRP 1 ISO CH A1	GE CR2940	C15	No	CA
GRP 1 ISO CH A2	GE CR2940	C15	No	CA
GRP 1 ISO CH B1	GE CR2940	C17	No	CA
GRP 1 ISO CH B2	GE CR2940	C17	No	CA
K62A	Agastat EGPB	C304A	No	CA
K62B	Agastat EGPB	C304B	No	CA
K62C	Agastat EGPB	C304C	No	CA
K62D	Agastat EGPB	C304D	No	CA
PS-2-134A, B, C, D	BKD B2T-A12SS	C210	No	CA
TS-2-121A, B, C, D	FENWAL 17002-40		No	CA
TS-2-122A, B, C, D	FENWAL 17002-40		No	CA
TS-2-123A, B, C, D	FENWAL 17002-40		No	CA
TS-2-124A, B, C, D	FENWAL 17002-40		No	CA

SSEL Line Number: 11000 Plant System: MST Component/Subsystem: MSIV Control Logic - Inboard

16A-K13	GE 12HFA151A2H	C41	No	GERS
16A-K14	GE CR120A	C41	No	GERS
16A-K69	Agastat EGPB	C03	No	GERS
16A-K70	Agastat EGPI	C03	No	GERS
16A-K7A	GE 12HFA151A9F	C15	No	GERS
16A-K7B	GE 12HFA151A9F	C17	No	GERS
16A-K7C	GE 12HFA151A9F	C15	No	GERS
16A-K7D	GE 12HFA151A9F	C17	No	GERS
16A-K9	GE CR120A	C41	No	GERS
16A-S32A	GE CR2940	C03	No	NV

SSEL Line Number: 11000 Plant System: MST Component/Subsystem: MSIV Control Logic - Outboard

16A-K10	GE CR120A	C42	No	GERS
16A-K15	GE 12HFA151A2H	C42	No	GERS
16A-K16	GE CR120A	C42	No	GERS
16A-K67	Agastat EGPB	C03	No	GERS
16A-K68	Agastat EGPI	C03	No	GERS
16A-K7A, B, C, D	GE 12HFA151A9F		No	GERS
16A-S32B	GE CR2940	C03	No	NV
K92	Agastat EGPB	C292	No	GERS

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 7193 Plant System: DGN Component/Subsystem: MVST1 (11 DG)				
STR1	8299025	C91		CR
SSEL Line Number: 7191 Plant System: DGN Component/Subsystem: MVST1 (12 DG)				
STR1	8299025	C92		CR
SSEL Line Number: 7194 Plant System: DGN Component/Subsystem: MVST2 (11 DG)				
STR2	8299025	C91		CR
SSEL Line Number: 7192 Plant System: DGN Component/Subsystem: MVST2 (12 DG)				
STR2	8299025	C92		CR
SSEL Line Number: 9001 Plant System: RSW Component/Subsystem: P-109A				
10A-K62A	GE 12HFA151A2F	C32	No	SWGR
10A-S20A	GE SBM	C03	No	NV
14A-K18A	GE 12HFA151A2F	C32	No	SWGR
150/151-508	GE IAC66	A508	No	TEST
150G-508	GE PJC11	A508	No	SWGR
152-508/CL/MS	GE-AMH-4.76-250	A508	No	SWGR
152-508/IS	GE-AMH-4.76-250	A508	No	SWGR
152-508/POS, 152-508/a, 152-508/b	GE-AMH-4.76-250	A508	No	SWGR
152-508/SM/LS	GE-AMH-4.76-250	A508	No	SWGR
152-508Y	GE-AMH-4.76-250	A508	No	SWGR
183-5Y	GE 12HFA154E22H	A502	No	SWGR
183-5Y1	GE 12HFA154E22H	A511	No	SWGR
CS/TEST, CS/TRIP	GE-AMH-4.76-250	A508	No	NV
SSEL Line Number: 9002 Plant System: RSW Component/Subsystem: P-109B				
10A-K62B	GE 12HFA151A2F	C33	No	SWGR
10A-S20B	GE SBM	C03	No	NV
14A-K18B	GE 12HFA151A2F	C33	No	SWGR
150/151-608	GE IAC66	A608	No	TEST
150G-608	GE PJC11	A608	No	SWGR
152-608/CL/MS	GE-AMH-4.76-250	A608	No	SWGR
152-608/IS	GE-AMH-4.76-250	A608	No	SWGR
152-608/POS, 152-608/a, 152-608/b	GE-AMH-4.76-250	A608	No	SWGR
152-608/SM/LS	GE-AMH-4.76-250	A608	No	SWGR
152-608Y	GE-AMH-4.76-250	A608	No	SWGR
183-6Y	GE 12HFA154E22H	A602	No	SWGR
183-6Y1	GE 12HFA154E22H	A610	No	SWGR
CS/TEST, CS/TRIP	GE AMH-4.76-250	A608	No	NV
K53	Agactat EGPD	C293	No	GERS

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
K54	Agastat EGPD	C293	No	GERS
K55	Agastat EGPD	C293	No	GERS
K91	Agastat EGPD	C293	No	GERS
K97	Agastat EGPD	C293	No	GERS
S11	GE SBM	C292	No	NV

SSEL Line Number: 9003 Plant System: RSW Component/Subsystem: P-109C

10A-K62A	GE 12HFA151A2F	C32	No	SWGR
10A-S21A	GE SBM	C03	No	NV
14A-K19A	GE 12HFA151A2F	C32	No	SWGR
150/151-507	GE IAC66	A507	No	TEST
150G-507	GE PJC11	A507	No	SWGR
152-507/CL/MS	GE-AMH-4.76-250	A507	No	SWGR
152-507/IS	GE-AMH-4.76-250	A508	No	SWGR
152-507/POS, 152-507/a, 152-507/b	GE-AMH-4.76-250	A507	No	SWGR
152-507/SM/LS	GE-AMH-4.76-250	A507	No	SWGR
152-507Y	GE-AMH-4.76-250	A507	No	SWGR
183-5X	GE 12HFA154E22H	A502	No	SWGR
183-5X1	GE 12HFA154E22H	A511	No	SWGR
CS/TEST, CS/TRIP	GE-AMH-4.76-250	A507	No	NV

SSEL Line Number: 9004 Plant System: RSW Component/Subsystem: P-109D

10A-K62B	GE 12HFA151A2F	C33	No	SWGR
10A-S21B	GE SBM	C03	No	NV
14A-K19B	GE 12HFA151A2F	C33	No	SWGR
150/151-607	GE IAC66	A607	No	TEST
150G-607	GE PJC11	A607	No	SWGR
152-607/CL/MS	GE-AMH-4.76-250	A607	No	SWGR
152-607/IS	GE-AMH-4.76-250	A607	No	SWGR
152-607/POS, 152-607/a, 152-607/b	GE-AMH-4.76-250	A607	No	SWGR
152-607/SM/LS	GE-AMH-4.76-250	A607	No	SWGR
152-607Y	GE-AMH-4.76-250	A607	No	SWGR
183-6X	GE 12HFA154E22H	A602	No	SWGR
183-6X1	GE 12HFA154E22H	A610	No	SWGR
CS/TEST, CS/TRIP	GE-AMH-4.76-250	A607	No	NV
K83	Agastat EGPD	C293	No	GERS
K90	Agastat EGPD	C293	No	GERS

SSEL Line Number: 7025 Plant System: DOL Component/Subsystem: P-11

42-4202/CS	GE SBM	C06	No	NV
42-4202/PB		N4202	No	NV
42/a, 42/b, 49/OL	MCC	B4202	No	SWGR
K14	P&B MDR 163-1	C292	No	GERS
S29	GE CR2940	C292	No	NV

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 9005 Plant System: ESW Component/Subsystem: P-111A				
10A-K70A	GE CR2820	C32	No	CA
10A-S22A	GE SBM	C08	No	NV
42, 42/a, 42/b, 49/OL	MCC	B3435	No	SWGR
ESRX1	SQD Class 7001	C91		CR
ESRX2	SQD Class 7001	C91		CR
PS-2438	Ashcroft 4000		No	CA
SSEL Line Number: 9006 Plant System: ESW Component/Subsystem: P-111B				
10A-K70B	GE CR2820	C33	No	CA
10A-S22B	GE SBM	C08	No	NV
42, 42/a, 42/b, 49/OL	MCC	B4319	No	SWGR
ESRX1	SQD Class 7001	C92		CR
ESRX2	SQD Class 7001	C92		CR
K18	P&B MDR 163-1	C292	No	GERS
K9	P&B MDR 163-1	C292	No	GERS
K94	Agastat E7012	C292	No	CA
PS-2439	Ashcroft 61S		No	CA
PS-4112	ASCO SB10AM		No	CA
S13	GE SBM	C292	No	NV
SSEL Line Number: 9007 Plant System: ESW Component/Subsystem: P-111C				
152-308/b	GE-AMH-4.76-250	A308	No	SWGR
152-502/a	GE-AMH-4.76-250	A502	No	SWGR
152-509/a	GE-AMH-4.76-250	A509	No	SWGR
152-511/a	GE-AMH-4.76-250	A511	No	SWGR
152X-502	Struthers Dunn 219	C243A	No	GERS
2A/DG5	Struthers Dunn 219	C243A	No	GERS
42, 42/a, 42/b, 49/OL	MCC	B3472	No	SWGR
HS-4025A	GE SBM	C03	No	NV
SSEL Line Number: 9008 Plant System: ESW Component/Subsystem: P-111D				
152-408/b	GE-AMH-4.76-250	A408	No	SWGR
152-602/a	GE-AMH-4.76-250	A602	No	SWGR
152-609/a	GE-AMH-4.76-250	A609	No	SWGR
152-610/a	GE-AMH-4.76-250	A610	No	SWGR
152X-602	Struthers Dunn 219	C244B	No	GERS
2B/DG5	Struthers Dunn 219	C244B	No	GERS
42, 42/a, 42/b, 49/OL	MCC	B4472	No	SWGR
HS-4025B	GE SBM	C03	No	NV
K21	P&B MDR 163-1	C292	No	GERS
S40	GE SBM	C292	No	NV

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 1032 Plant System: RHR Component/Subsystem: P-202A				
10A-K18A	GE 12HFA151A2F	C32	No	GERS
10A-K19A	GE 12HFA151A2F	C32	No	GERS
10A-S2A	GE SBM	C03	No	NV
150/151-504	GE IAC66	A504	No	TEST
150G-504	GE PJC11	A504	No	GERS
152-504/CL/MS	GE-AMH-4.76-250	A504	No	SWGR
152-504/IS	GE-AMH-4.76-250	A504	No	SWGR
152-504/POS, 152-504/a, 152-504/b	GE-AMH-4.76-250	A504	No	SWGR
152-504/SM/LS	GE-AMH-4.76-250	A504	No	SWGR
152-504Y	GE-AMH-4.76-250	A504	No	SWGR
183-5X	GE 12HFA154E22H	A502	No	SWGR
183-5X1	GE 12HFA154E22H	A511	No	SWGR
186-504	GE HEA	A504	No	GERS
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A504	No	NV

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 2030 Plant System: RHR Component/Subsystem: P-202B				
10A-K18B	GE 12HFA151A2F	C33	No	GERS
10A-K19B	GE 12HFA151A2F	C33	No	GERS
10A-S2B	GE SBM	C03	No	NV
150/151-604	GE IAC66	A604	No	TEST
150G-604	GE PJC11	A604	No	GERS
152-604/CL/MS	GE-AMH-4.76-250	A604	No	SWGR
152-604/IS	GE-AMH-4.76-250	A604	No	SWGR
152-604/POS, 152-604/a, 152-604/b	GE-AMH-4.76-250	A604	No	SWGR
152-604/SM/LS	GE-AMH-4.76-250	A604	No	SWGR
152-604Y	GE-AMH-4.76-250	A604	No	SWGR
183-6X	GE 12HFA154E22H	A602	No	SWGR
183-6X1	GE 12HFA154E22H	A610	No	SWGR
186-604	GE HEA	A604	No	GERS
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A604	No	NV
K56	Agastat EGPD	C293	No	GERS
K57	Agastat EGPD	C293	No	GERS
K58	Agastat EGPD	C293	No	GERS
K91	Agastat EGPD	C293	No	GERS
S12	GE SBM	C292	No	NV

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 1018 Plant System: RHR Component/Subsystem: P-202C				
10A-K21A	GE 12HFA151A2F	C32	No	GERS
10A-K22A	GE 12HFA151A2F	C32	No	GERS
10A-S3A	GE SBM	C03	No	NV
150/151-503	GE IAC66	A503	No	TEST
150G-503	GE PJC11	A503	No	GERS
152-503/CL/MS	GE-AMH-4.76-250	A503	No	SWGR

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
152-503/IS	GE-AMH-4.76-250	A503	No	SWGR
152-503/POS, 152-503/a, 152-503/b	GE-AMH-4.76-250	A503	No	SWGR
152-503/SM/LS	GE-AMH-4.76-250	A503	No	SWGR
152-503Y	GE-AMH-4.76-250	A503	No	SWGR
183-5X	GE 12HFA154E22H	A502	No	SWGR
183-5X1	GE 12HFA154E22H	A511	No	SWGR
186-503	GE HEA	A503	No	GERS
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A503	No	NV

SSEL Line Number: 2033 Plant System: RHR Component/Subsystem: P-202D

10A-K21B	GE 12HFA151A2F	C33	No	GERS
10A-K22B	GE 12HFA151A2F	C33	No	GERS
10A-S3B	GE SBM	C03	No	NV
150/151-603	GE IAC66	A603	No	TEST
150G-603	GE PJC11	A603	No	GERS
152-603/CL/MS	GE-AMH-4.76-250	A603	No	SWGR
152-603/IS	GE-AMH-4.76-250	A603	No	SWGR
152-603/POS, 152-603/a, 152-603/b	GE-AMH-4.76-250	A603	No	SWGR
152-603/SM/LS	GE-AMH-4.76-250	A603	No	SWGR
152-603Y	GE-AMH-4.76-250	A603	No	SWGR
183-6X	GE 12HFA154E22H	A602	No	SWGR
183-6X1	GE 12HFA154E22H	A610	No	SWGR
186-603	GE HEA	A603	No	GERS
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A603	No	NV
K81	Agastat EGPD	C293	No	GERS
K89	Agastat EGPD	C293	No	GERS

SSEL Line Number: 3061 Plant System: CSP Component/Subsystem: P-208A

14A-K12A	GE 12HFA151A2F	C32	No	GERS
14A-S5A	GE SBM	C03	No	NV
150/151-505	GE IAC66	A505	No	GERS
150G-505	GE PJC11	A505	No	GERS
152-505/CL/MS	GE-AMH-4.76-250	A505	No	SWGR
152-505/IS	GE-AMH-4.76-250	A505	No	SWGR
152-505/POS, 152-505/a, 152-505/b	GE-AMH-4.76-250	A505	No	SWGR
152-505/SM/LS	GE-AMH-4.76-250	A505	No	SWGR
152-505Y	GE-AMH-4.76-250	A505	No	SWGR
183-5X	GE 12HFA154E22H	A502	No	SWGR
183-5X1	GE 12HFA154E22H	A511	No	SWGR
186-505	GE HEA	A505	No	SWGR
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A505	No	NV

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 3064 Plant System: CSP Component/Subsystem: P-208B				
14A-K12B	GE 12HFA151A2F	C33	No	GERS
14A-S5B	GE SBM	C03	No	NV
150/151-605	GE IAC66B4A	A605	No	GERS
150G-605	GE PJC11AV1A	A605	No	GERS
152-605/CL/MS	GE-AMH-4.76-250	A605	No	SWGR
152-605/IS	GE-AMH-4.76-250	A605	No	SWGR
152-605/POS, 152-605/a, 152-605/b	GE-AMH-4.76-250	A605	No	SWGR
152-605/SM/LS	GE-AMH-4.76-250	A605	No	SWGR
152-605Y		A605	No	SWGR
183-6X	GE 12HFA154E22H	A602	No	SWGR
183-6X1	GE 12HFA154E22H	A610	No	SWGR
186-605	GE HEA	A605	No	SWGR
CS/CLOSE, CS/TRIP	GE-AMH-4.76-250	A605	No	NV
K59	Agastat EGPD	C293	No	GERS
K60	Agastat EGPD	C293	No	GERS
K61	Agastat EGPD	C293	No	GERS
K91	Agastat EGPD	C293	No	GERS
S5	GE SBM	C292	No	NV

SSEL Line Number: 14000 Plant System: RCI Component/Subsystem: RCIC Isolation

13A-K10	GE 12HFA151A2F	C30	No	CA
13A-K22	GE 12HFA151A2F	C30	No	CA
13A-K23	GE 12HGA11A52F	C30	Yes	CA
13A-K29	GE 12HGA11A52F	C33	No	CA
13A-K3	GE 12HGA11A52F	C30	No	CA
13A-K30	GE 12HGA11A52F	C33	No	CA
13A-K31	Agastat E7014	C33	No	CA
13A-K32	GE 12HFA151A2F	C32	No	CA
13A-K5	GE 12HGA11A52F	C30	No	CA
13A-K7	Agastat E7014	C30	No	CA
13A-K8	GE 12HGA11A52F	C30	Yes	CA
13A-S16	GE SBM	C04	No	CA
DPIS-13-83	BARTON 288A	C122	No	CA
DPIS-13-84	BARTON 288A	C122	No	CA
PS-13-87A, B, C, D	ASCO SB11AMR/TG23A42R	C122	No	CA
TS-13-79A, B, C, D	FENWAL 01-170230-090		No	CA
TS-13-80A, B, C, D	FENWAL 01-170230-090		No	CA
TS-13-81A, B, C, D	FENWAL 01-170230-090		No	CA
TS-13-82A, B, C, D	FENWAL 01-170230-090		No	CA

SSEL Line Number: Plant System: All Component/Subsystem: Rotork Operators

OAS, CAS, IAS	Rotork		No	NV
OT/LS, CT/LS	Rotork		No	NV

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 17000 Plant System: RWC Component/Subsystem: RWC Isolation				
11A-S1	GE SBI	C05	No	NV
16A-K6A, C	GE HFA	C15	No	CA
16A-K6B, D	GE HFA	C17	No	CA
SSEL Line Number: 1052 Plant System: RSW Component/Subsystem: SV-1728				
10A-K83A	GE 12HGA11A52F	C32	No	CA
152-507/a	GE-AMH-4.76-250	A507	No	SWGR
152-508/a	GE-AMH-4.76-250	A508	No	SWGR
LS-POS-C		CV-1728	No	CA
SSEL Line Number: 2095 Plant System: RSW Component/Subsystem: SV-1729				
10A-K83B	GE 12HGA11A52F	C33	No	CA
152-607/a	GE-AMH-4.76-250	A607	No	SWGR
152-608/a	GE-AMH-4.76-250	A608	No	SWGR
K5	P&B MDR 163-1	C292	No	GERS
LS POS-C		CV-1729	No	CA
SSEL Line Number: 1030 Plant System: RHR Component/Subsystem: SV-1994				
10A-K80A	GE 12HGA11A52F	C32	No	GERS
FS-10-121A	BARTON 289A	IR-FS-10-1	No	CA
LS-POS-O, LS-POS-C		CV-1994	No	NV
SSEL Line Number: 2133 Plant System: RHR Component/Subsystem: SV-1995				
10A-K80B	GE 12HGA11A52F	C33	No	GERS
152-604	GE-AMH-4.76-250	A604	No	SWGR
FS-10-121B	BARTON 289A	IR-FS-10-1	No	CA
K3	P&B MDR 163-1	C292	No	GERS
K87	Agastat E7012	C292	No	GERS
LS POS-O, LS POS-C		CV-1995	No	NV
S8	GE SBM	C292	No	NV
SSEL Line Number: 1029 Plant System: RHR Component/Subsystem: SV-1996				
10A-K81A	GE 12HGA11A52F	C32	No	GERS
FS-10-121C	BARTON 289A	IR-FS-10-1	No	CA
LS-POS-O, LS-POS-C		CV-1996	No	NV
SSEL Line Number: 2132 Plant System: RHR Component/Subsystem: SV-1997				
10A-K81B	GE 12HGA11A52F	C33	No	GERS
FS-10-121D	BARTON 289A	IR-FS-10-1	No	CA
LS POS-O, LS POS-C		CV-1997	No	NV

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 12273 Plant System: APR Component/Subsystem: SV-2-32A				
2E-S5	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV
SSEL Line Number: 12052 Plant System: APR Component/Subsystem: SV-2-32B				
2E-S5	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV
SSEL Line Number: 12151 Plant System: APR Component/Subsystem: SV-2-32C				
2E-S5	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV
SSEL Line Number: 12286 Plant System: APR Component/Subsystem: SV-2-32D				
2E-S5	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV
SSEL Line Number: 12060 Plant System: APR Component/Subsystem: SV-2-32E				
2E-S5	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV
SSEL Line Number: 12126 Plant System: APR Component/Subsystem: SV-2-32F				
2E-S5	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV
SSEL Line Number: 12038 Plant System: APR Component/Subsystem: SV-2-32G				
2E-S5	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV
SSEL Line Number: 12143 Plant System: APR Component/Subsystem: SV-2-32H				
2E-S5	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV
SSEL Line Number: 12274 Plant System: APR Component/Subsystem: SV-2-33A				
2E-S5	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV
SSEL Line Number: 12053 Plant System: APR Component/Subsystem: SV-2-33B				
2E-S5	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 12298 Plant System: APR Component/Subsystem: SV-2-33C				
2E-S5	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV
SSEL Line Number: 12287 Plant System: APR Component/Subsystem: SV-2-33D				
2E-S5	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV
SSEL Line Number: 12061 Plant System: APR Component/Subsystem: SV-2-33E				
2E-S5	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV
SSEL Line Number: 12127 Plant System: APR Component/Subsystem: SV-2-33F				
2E-S5	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV
SSEL Line Number: 12039 Plant System: APR Component/Subsystem: SV-2-33G				
2E-S5	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV
SSEL Line Number: 12145 Plant System: APR Component/Subsystem: SV-2-33H				
2E-S5	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV
SSEL Line Number: 12275 Plant System: APR Component/Subsystem: SV-2-34A				
2E-S5	GE CR2940	C03	No	NV
2E-S6	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV
SSEL Line Number: 12054 Plant System: APR Component/Subsystem: SV-2-34B				
2E-S5	GE CR2940	C03	No	NV
2E-S6	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV
SSEL Line Number: 12299 Plant System: APR Component/Subsystem: SV-2-34C				
2E-S5	GE CR2940	C03	No	NV
2E-S6	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV
SSEL Line Number: 12288 Plant System: APR Component/Subsystem: SV-2-34D				
2E-S5	GE CR2940	C03	No	NV
2E-S6	GE CR2940	C03	No	NV

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
2E-S8	GE SBI	C03	No	NV

SSEL Line Number: 12062 Plant System: APR Component/Subsystem: SV-2-34E

2E-S5	GE CR2940	C03	No	NV
2E-S6	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV

SSEL Line Number: 12128 Plant System: APR Component/Subsystem: SV-2-34F

2E-S5	GE CR2940	C03	No	NV
2E-S6	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV

SSEL Line Number: 12040 Plant System: APR Component/Subsystem: SV-2-34G

2E-S5	GE CR2940	C03	No	NV
2E-S6	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV

SSEL Line Number: 12144 Plant System: APR Component/Subsystem: SV-2-34H

2E-S5	GE CR2940	C03	No	NV
2E-S6	GE CR2940	C03	No	NV
2E-S8	GE SBI	C03	No	NV

SSEL Line Number: 12247 Plant System: APR Component/Subsystem: SV-2-71A

2E-K11A	GE 12HFA151A2F	C32	No	GERS
2E-K6A	GE 12HFA151A2F	C32	No	GERS
2E-K6B	GE 12HFA151A2F	C32	No	GERS
2E-K7A	GE 12HFA151A2F	C32	No	GERS
2E-K7B	GE 12HFA151A2F	C32	No	GERS
2E-K8A	GE 12HGA11A52F	C32	No	CA
2E-S1A	GE SBM	C03	No	NV
PS-7352	SOR 6NAA-2		No	CA

SSEL Line Number: 12013 Plant System: APR Component/Subsystem: SV-2-71B

2E-K11D	GE 12HFA151A2F	C32	No	GERS
2E-K8D	GE 12HGA11A52F	C32	No	CA
2E-S43	GE SBM	C03	No	NV
PS-7353	SOR 6NAA-2		No	CA

SSEL Line Number: 12148 Plant System: APR Component/Subsystem: SV-2-71C

2E-K11C	GE 12HFA151A2F	C32	No	GERS
2E-K6A	GE 12HFA151A2F	C32	No	GERS
2E-K6B	GE 12HFA151A2F	C32	No	GERS
2E-K7A	GE 12HFA151A2F	C32	No	GERS
2E-K7B	GE 12HFA151A2F	C32	No	GERS

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
2E-K8C	GE 12HGA11A52F	C32	No	CA
2E-S1C	GE SBM	C03	No	NV
PS-7354	SOR 6NAA-2		No	CA

SSEL Line Number: 12285 Plant System: APR Component/Subsystem: SV-2-71D

2E-K11B	GE 12HFA151A2F	C32	No	GERS
2E-K6A	GE 12HFA151A2F	C32	No	GERS
2E-K6B	GE 12HFA151A2F	C32	No	GERS
2E-K7A	GE 12HFA151A2F	C32	No	GERS
2E-K7B	GE 12HFA151A2F	C32	No	GERS
2E-K8B	GE 12HGA11A52F	C32	No	CA
2E-S1D	GE SBM	C03	No	NV
PS-7355	SOR 6NAA-2		No	CA

SSEL Line Number: 12245 Plant System: APR Component/Subsystem: SV-2-71E

DPSH-4062A	Rosemount 510DU	C253A	No	NV
DPSH-4062C	Rosemount 510DU	C253A	No	NV
HS-S4E	GE SBM	C03	No	NV
K1	Agastat EGPB	C253A	No	CA
K2A	Agastat EGPB	C253A	No	GERS
K2C	Agastat EGPB	C253A	No	GERS
K3A	Agastat E7022	C253A	No	GERS
K3C	Agastat E7022	C253A	No	GERS
K4A	Agastat EGPB	C253A	No	GERS
K4C	Agastat EGPB	C253A	No	GERS
K5A	Agastat EGPB	C253A	No	GERS
K6A	Agastat EGPB	C253A	No	GERS
K7A	Agastat EGPB	C253A	No	GERS
K7C	Agastat EGPB	C253A	No	GERS
PS-7900	SOR 6NAA-2		No	CA
PSHL-4064A	Rosemount 710DU	C253A	No	NV
PSHL-4064C	Rosemount 710DU	C253A	No	NV

SSEL Line Number: 12119 Plant System: APR Component/Subsystem: SV-2-71F

HS-SF4	GE SBM	C03	No	NV
K25	Agastat EGPB	C253A	No	CA
PS-7901	SOR 6NAA-2		No	CA

SSEL Line Number: 12041 Plant System: APR Component/Subsystem: SV-2-71G

DPSH-4061A	Rosemount 510DU	C253A	No	NV
DPSH-4061C	Rosemount 510DU	C253A	No	NV
HS-S4G	GE SBM	C03	No	NV
K10A	Agastat E7022	C253A	No	GERS
K10C	Agastat E7022	C253A	No	GERS
K11A	Agastat EGPB	C253A	No	GERS

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
K11C	Agastat EGPB	C253A	No	GERS
K12A	Agastat EGPB	C253A	No	GERS
K12C	Agastat EGPB	C253A	No	GERS
K5A	Agastat EGPB	C253A	No	GERS
K6A	Agastat EGPB	C253A	No	GERS
K8	Agastat EGPB	C253A	No	CA
K9A	Agastat EGPB	C253A	No	GERS
K9C	Agastat EGPB	C253A	No	GERS
PS-7902	SOR 6NAA-2		No	CA
PSHL-4065A	Rosemount 510DU	C253A	No	NV
PSHL-4065C	Rosemount 510DU	C253A	No	NV

SSEL Line Number: 12134 Plant System: APR Component/Subsystem: SV-2-71H

DPSH-4063A	Rosemount 510DU	C253A	No	NV
DPSH-4063C	Rosemount 510DU	C253A	No	NV
HS-S4H	GE SRM	C03	No	NV
K13	Agastat EGPB	C253A	No	CA
K14A	Agastat E7022	C253A	No	GERS
K14C	Agastat E7022	C253A	No	GERS
K15A	Agastat EGPB	C253A	No	GERS
K15C	Agastat EGPB	C253A	No	GERS
K16A	Agastat EGPB	C253A	No	GERS
K16C	Agastat EGPB	C253A	No	GERS
K17A	Agastat EGPB	C253A	No	GERS
K17C	Agastat EGPB	C253A	No	GERS
K5A	Agastat EGPB	C253A	No	GERS
K6A	Agastat EGPB	C253A	No	GERS
PS-7903	SOR 6NAA-2		No	CA
PSHL-4066A	Rosemount 510DU	C253A	No	NV
PSHL-4066C	Rosemount 510DU	C253A	No	NV

SSEL Line Number: 12244 Plant System: APR Component/Subsystem: SV-2-71J

DPSH-4062B	Rosemount 510DU	C253B	No	NV
DPSH-4062D	Rosemount 510DU	C253B	No	NV
K18B	Agastat EGPB	C253B	No	GERS
K2B	Agastat EGPB	C253B	No	GERS
K2D	Agastat EGPB	C253B	No	GERS
K3B	Agastat E7022	C253B	No	GERS
K3D	Agastat E7022	C253B	No	GERS
K4B	Agastat EGPB	C253B	No	GERS
K4D	Agastat EGPB	C253B	No	GERS
K5B	Agastat EGPB	C253B	No	GERS
K6B	Agastat EGPB	C253B	No	GERS
K7B	Agastat EGPB	C253B	No	GERS
K7D	Agastat EGPB	C253B	No	GERS
K85	Agastat EGPI	C292	No	GERS

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
PSHL-4064B	Rosemount 710DU	C253B	No	NV
PSHL-4064D	Rosemount 710DU	C253B	No	NV
S19	GE SBM	C292	No	NV

SSEL Line Number: 12042 Plant System: APR Component/Subsystem: SV-2-71K

DPSH-4061B	Rosemount 510DU	C253B	No	NV
DPSI-4061D	Rosemount 510DU	C23B	No	NV
K10B	Agastat E7022	C253B	No	GERS
K10D	Agastat E7022	C253B	No	GERS
K11B	Agastat EGPB	C253B	No	GERS
K11D	Agastat EGPB	C253B	No	GERS
K12B	Agastat EGPD	C253B	No	GERS
K12D	Agastat EGPD	C253B	No	GERS
K18B	Agastat EGPD	C253B	No	GERS
K5B	Agastat EGPB	C253B	No	GERS
K6B	Agastat EGPB	C253B	No	GERS
K85	Agastat EGPI	C292	No	GERS
K9B	Agastat EGPB	C253B	No	GERS
K9D	Agastat EGPB	C253B	No	GERS
PSHL-4065B	Rosemount 510DU	C253B	No	NV
PSHL-4065D	Rosemount 510DU	C253B	No	NV
S20	GE SBM	C292	No	NV

SSEL Line Number: 12136 Plant System: APR Component/Subsystem: SV-2-71L

DPSH-4063B	Rosemount 510DU	C253B	No	NV
DPSH-4063D	Rosemount 510DU	C253B	No	NV
K14B	Agastat E7022	C253B	No	GERS
K14D	Agastat E7022	C253B	No	GERS
K15B	Agastat EGPD	C253B	No	GERS
K15D	Agastat EGPD	C253B	No	GERS
K16B	Agastat EGPB	C253B	No	GERS
K16D	Agastat EGPB	C253B	No	GERS
K17B	Agastat EGPB	C253B	No	GERS
K17D	Agastat EGPB	C253B	No	GERS
K18B	Agastat EGPD	C253B	No	GERS
K5B	Agastat EGPB	C253B	No	GERS
K6B	Agastat EGPB	C253B	No	GERS
K85	Agastat EGPI	C292	No	GERS
PSHL-4066B	Rosemount 510DU	C253B	No	NV
PSHL-4066D	Rosemount 510DU	C253B	No	NV
S21	GE SBM	C292	No	NV

SSEL Line Number: 12120 Plant System: APR Component/Subsystem: SV-2-71M

K85	Agastat EGPI	C292	No	GERS
S22	GE SBM	C292	No	NV

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 11037 Plant System: MST Component/Subsystem: SV-2370				
16A-S48	GE SBM	C04	No	NV
SSEL Line Number: 11029 Plant System: MST Component/Subsystem: SV-2371				
16A-S46	GE SBM	C04	No	NV
SSEL Line Number: 4035 Plant System: CRH Component/Subsystem: SV-3-29				
5A-S11	GE SBM	C05	No	NV
SSEL Line Number: 4017 Plant System: CRH Component/Subsystem: SV-3-31A				
5A-K13A, C	GE CR305D102	C15	No	CA
5A-K14A	GE CR305D102	C15	No	CA
Reactor SCRAM Logic				CA
SSEL Line Number: 4018 Plant System: CRH Component/Subsystem: SV-3-31B				
5A-K13B, D	GE CR305D102	C17	No	CA
5A-K14B	GE CR305D102	C17	No	CA
Reactor SCRAM Logic				CA
SSEL Line Number: 4019 Plant System: CRH Component/Subsystem: SV-3-31C				
5A-K13A, C	GE CR305D102	C15	No	CA
5A-K14A	GE CR305D102	C15	No	CA
Reactor SCRAM Logic				CA
SSEL Line Number: 4020 Plant System: CRH Component/Subsystem: SV-3-31D				
5A-K13B, D	GE CR305D102	C17	No	CA
5A-K14B	GE CR305D102	C17	No	CA
Reactor SCRAM Logic				CA
SSEL Line Number: 1054 Plant System: RHR Component/Subsystem: SV-4015A				
K5A	Agastat E7012	C-261	No	CA
SS1/9	GE SBI	C-261	No	NV
SSEL Line Number: 2097 Plant System: RHR Component/Subsystem: SV-4015B				
K5B	Agastat E7012	C-261	No	CA
SS1/8	GE SBI	C-261	No	NV
SSEL Line Number: 1084 Plant System: CGC Component/Subsystem: SV-4033A				
CS-5A		C286A	No	NV
CS3A	Electroswitch Series 20	C285A	No	NV
JS-3P-3	ITE	C286A	No	CA
K13A	GE 12HFA151A2H	C285A	No	CA

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
K17A	GE 12HFA151A2H	C285A	No	CA
YY-18-2	ITE	C286A	No	CA

SSEL Line Number: 2090 Plant System: CGC Component/Subsystem: SV-4033B

CS-5B		C286B	No	NV
CS3B	Electroswitch Series 20	C285B	No	NV
JS-3P-3	ITE	C286B	No	CA
K13B	GE 12HFA151A2H	C285B	No	CA
K17B	GE 12HFA151A2H	C285B	No	CA
YY-18-2	ITE	C286B	No	CA

SSEL Line Number: 1085 Plant System: CGC Component/Subsystem: SV-4034A

CS-5A		C286A	No	NV
CS3A	Electroswitch Series 20	C285A	No	NV
JS-3P-3	ITE	C286A	No	CA
K13A	GE 12HFA151A2H	C285A	No	CA
YY-18-2	ITE	C286A	No	CA

SSEL Line Number: 2091 Plant System: CGC Component/Subsystem: SV-4034B

CS-5B		C286B	No	NV
CS3B	Electroswitch Series 20	C285B	No	NV
JS-3P-3	ITE	C286B	No	CA
K13B	GE 12HFA151A2H	C285B	No	CA
YY-18-2	ITE	C286B	No	CA

SSEL Line Number: 12228 Plant System: APR Component/Subsystem: SV-4234

4234X	Agastat GP	C311	No	CA
HS-4234	GE CR2940	C311	No	NV
PS-4662	ASCO SB12BR		No	CA
SV-4234/a, SV-4234/b	Valcor V526-5891-54		No	CA

SSEL Line Number: 12105 Plant System: APR Component/Subsystem: SV-4235

4235X	Agastat GP	C311	No	CA
HS-4235	GE CR2940	C311	No	NV
PS-4237	ASCO SB12BR		No	CA
SV-4235/a, SV-4235/b	Valcor V526-5891-54		No	CA

SSEL Line Number: 9109 Plant System: HTV Component/Subsystem: V-AC-4

42, 42/b, 49/OL	MCC	B4305	No	SWGR
42-4305/CS		C20	No	NV
K15	P&B MDR 163-1	C292	No	GERS
S23	GE CR2940	C292	No	NV

SQUG Relay Review Functional Screening Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Low Ruggedness</u>	<u>Resolution (SAT)</u>
SSEL Line Number: 9183 Plant System: HTV Component/Subsystem: V-AC-5				
42, 42/b, 49/OL	MCC	B3305	No	SWGR
42-3305/CS		C20	No	NV
SSEL Line Number: 7152 Plant System: HTV Component/Subsystem: V-SF-10				
42-3474/CS	GE CR2940	N3474	No	NV
49/OL	KLOCKNER-MOELLER MCC	B3474	No	SWGR
ESRX1	SQD Class 7001	C91	No	CR
ESRX2	SQD Class 7001	C91	No	CR
PR/a	KLOCKNER-MOELLER MCC	B3474	No	SWGR
SSEL Line Number: 7151 Plant System: HTV Component/Subsystem: V-SF-9				
42-4317/CS			No	NV
49/OL	MCC	B4317	No	SWGR
ESRX1	SQD Class 7001	C92	No	CR
ESRX2	SQD Class 7001	C92	No	CR
SSEL Line Number: 6010 Plant System: 250 Component/Subsystem: Y71				
Inverter Controls	Elgar	Y71	No	GERS
SSEL Line Number: 6004 Plant System: 250 Component/Subsystem: Y81				
Inverter Controls	Elgar	Y81	No	GERS

APPENDIX D

Essential Relays Seismic Capacity Evaluations

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 8066 Plant System: 4kV Component/Subsystem: 152-308				
152-308/CL/MS	GE-AMH-4.76-250	A308	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-308/IS	GE-AMH-4.76-250	A308	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-308/POS, 152-308/a, 152-308/b	GE-AMH-4.76-250	A308	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-308/SM/LS	GE-AMH-4.76-250	A308	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-308Y	GE-AMH-4.76-250	A308	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
162-3	Agastat 2412	A308	TB-911	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 12.5/5.0g.
186-3	GE HEA	A301	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
186-5	GE HEA	A501	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
97-28	Agastat 2414	C08	CR-951	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
97-29	Agastat 2414	C08	CR-951	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
97-44	Agastat GP	A510	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
97-45	Agastat GP	A510	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
SSEL Line Number: 8067 Plant System: 4kV Component/Subsystem: 152-408				
152-408/CL/MS	GE-AMH-4.76-250	A408	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SQUG Relay Review: Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
152-408/IS	GE-AMH-4.76-250	A408	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-408/POS, 152-408/a, 152-408/b	GE-AMH-4.76-250	A408	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-408/SM/LS	GE-AMH-4.76-250	A408	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-408Y	GE-AMH-4.76-250	A408	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
162-4	Agastat 2412	A408	TB-931	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 12.5/5.0g.
186-4	GE HEA	A401	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
186-6	GE HEA	A601	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
97-30	Agastat 2414	C08	CR-951	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
97-31	Agastat 2414	C08	CR-951	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
97-46	Agastat GP	A601	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
97-47	Agastat GP	A601	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
K79	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K83	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SSEL Line Number: 12000 Plant System: APR Component/Subsystem: ADS Logic - A

2E-K5A	Agastat ETR14D3G	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
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SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 12000 Plant System: APR Component/Subsystem: ADS Logic - B				
2E-K5B	Agastat ETR14D3G	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
SSEL Line Number: 20001 Plant System: ANN Component/Subsystem: ANN-20-B-9				
86	GE HEA61A	D101	EFT-933	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-ALO.2 = 10.0/4.0g.
MA	GE-196-DSP	D101	EFT-933	OA - Relay provides input to lockout relay 86. Chatter in this relay could cause the lockout relay to operate which requires operator action at D101 to clear the control room alarm. The batteries have sufficient capacity that battery charger alarms are not an immediate concern.
SSEL Line Number: 20005 Plant System: ANN Component/Subsystem: ANN-3-A-14				
150/151-505	GE IAC66	A505	TB-911	TEST - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; Reference PO PC4417MQ - 7.5/3.0g.
SSEL Line Number: 20021 Plant System: ANN Component/Subsystem: ANN-3-A-50				
150/151-504	GE IAC66	A504	TB-911	TEST - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; Reference PO PC4417MQ - 7.5/3.0g.
SSEL Line Number: 20022 Plant System: ANN Component/Subsystem: ANN-3-A-51				
150/151-503	GE IAC66	A503	TB-911	TEST - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; Reference PO PC4417MQ - 7.5/3.0g.
SSEL Line Number: 20024 Plant System: ANN Component/Subsystem: ANN-3-B-07				
150/151-605	GE IAC66B4A	A605	TB-931	TEST - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; Reference PO PC4417MQ - 7.5/3.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 20025 Plant System: ANN Component/Subsystem: ANN-3-B-12				
150/151-604	GE IAC66	A604	TB-931	TEST - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; Reference PO PC4417MQ - 7.5/3.0g.
SSEL Line Number: 20030 Plant System: ANN Component/Subsystem: ANN-3-B-30				
42/OL	GE 7700 MCC	B4326	TB-931	SWGR - See generic alarm discussion.
SSEL Line Number: 20032 Plant System: ANN Component/Subsystem: ANN-3-B-36				
150/151-603	GE IAC66	A603	TB-931	TEST - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; Reference PO PC4417MQ - 7.5/3.0g.
SSEL Line Number: 20037 Plant System: ANN Component/Subsystem: ANN-3-B-52				
150/151-507	GE IAC66	A507	TB-911	TEST - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; Reference PO PC4417MQ - 7.5/3.0g.
150/151-508	GE IAC66	A508	TB-911	TEST - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; Reference PO PC4417MQ - 7.5/3.0g.
150/151-607	GE IAC66	A607	TB-931	TEST - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; Reference PO PC4417MQ - 7.5/3.0g.
150/151-608	GE IAC66	A608	TB-931	TEST - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; Reference PO PC4417MQ - 7.5/3.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSE\ Line Number: 20063 Plant System: ANN Component/Subsystem: ANN-8-A-24				
Y71 Common Alarm		Y71	EFT-944	OA - A local alarm panel monitors a number of points associated with the inverter. Chatter in any of these circuits could cause a common alarm in the Control Room with the local alarm panel requiring operator action to reset the alarm. Inverter design provides for automatic transfer to the alternate source on inverter failure. Annuncator point ANN-8-A-04 is available for determining if AC is available to panels Y10 and Y70.
SSEL Line Number: 20064 Plant System: ANN Component/Subsystem: ANN-8-A-29				
Y81 Common Alarm		Y81	EFT-960	OA - A local alarm panel monitors a number of points associated with the inverter. Chatter in any of these circuits could cause a common alarm in the Control Room with the local alarm panel requiring operator action to reset the alarm. Inverter design provides for automatic transfer to the alternate source on inverter failure. Annuncator point ANN-8-A-14 is available for determining if AC is available to panels Y30 and Y80.
SSEL Line Number: 20069 Plant System: ANN Component/Subsystem: ANN-8-B-28				
151/DG1	GE 12IAC77A12A	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
SSEL Line Number: 20077 Plant System: ANN Component/Subsystem: ANN-8-C-28				
151/DG2	GE 12IAC77A12A	A602	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
SSEL Line Number: 8114 Plant System: 480 Component/Subsystem: B3300				
152-502/a	GE-AMH-4.76-250	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-307/a	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-3300/a	GE AK-2-15	B3300	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 8107 Plant System: 480 Component/Subsystem: B4231				
K82	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
SSEL Line Number: 8113 Plant System: 480 Component/Subsystem: B4300				
52-3300/b	GE AK-2-15	B3300	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
52-3300/BA	GE AK-2-15	B3300	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
52-407/a	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-4300/b	GE AK-2-15	B4300	TB-931	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 7189 Plant System: DOL Component/Subsystem: BPM-1 (11 DG)				
STR1	8299025	C91	TB-931	CR - No GERS available.
SSEL Line Number: 7187 Plant System: DOL Component/Subsystem: BPM-1 (12 DG)				
STR1	8299025	C92	TB-931	CR - No GERS available.
SSEL Line Number: 7190 Plant System: DOL Component/Subsystem: BPM-2 (11 DG)				
STR2	8299025	C91	TB-931	CR - No GERS available.
SSEL Line Number: 7188 Plant System: DOL Component/Subsystem: BPM-2 (12 DG)				
STR2	8299025	C92	TB-931	CR - No GERS available.
SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-502)				
102-5	GE 12HGA14B07	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
151V-502	GE 12IJC51A13A	A502	TB-911	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum-2=8.0/4.8g.
152-308/b	GE-AMH-4.76-250	A308	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-501/b	GE-AMH-4.76-250	A501	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-502/CL/MS	GE-AMH-4.76-250	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-502/IS	GE-AMH-4.76-250	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-502/POS, 152-502/a, 152-502/b	GE-AMH-4.76-250	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-502/SM/LS	GE-AMH-4.76-250	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-502Y	GE-AMH-4.76-250	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-511/b	GE-AMH-4.76-250	A511	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
155-DG1	GE 12ICW51A4A	C91	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
167-502	GE 12ICW52A1A	A502	TB-911	TEST - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; Reference PO PC4417MQ - 7.5/3.0g.
183-5X	GE 12HFA154E22H	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
186-5	GE HEA	A501	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
186-502	GE HEA	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
187-502	GE 12IJD52A11A	A502	TB-911	GERS - Seismic Demand (TB-911) = 1.17/0.25, panel amplification of 7, SD=8.2/1.8g; GERS-RLY-PP1.5=8.8/3.5g.
SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-506)				
152-506/1S	GE-AMH-4.76-250	A506	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-506/CL/MS	GE-AMH-4.76-250	A506	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-506/POS, 152-506/a, 152-506/b	GE-AMH-4.76-250	A506	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-506/SM/LS	GE-AMH-4.76-250	A506	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-506Y	GE-AMH-4.76-250	A506	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-509)				
150/151-509	GE 12IAC77B36A	A509	TB-911	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-PP1.5=5.0/3.0g.
150G-509	GE 12PJC11AV1A	A509	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
151-509	GE 12IAC77A11A	A509	TB-911	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-PP1.5=5.0/3.0g.
152-502/a	GE-AMH-4.76-250	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-509/CL/MS	GE-AMH-4.76-250	A509	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-509/IS	GE-AMH-4.76-250	A509	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-509/POS, 152-509/a, 152-509/b	GE-AMH-4.76-250	A509	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
152-509/SM/LS	GE-AMH-4.76-250	A509	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-509Y	GE-AMH-4.76-250	A509	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
186-5	GE HEA	A501	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-301/b	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-510)

152-510/CL/MS	GE-AMH-4.76-250	A510	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-510/IS	GE-AMH-4.76-250	A510	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-510/POS, 152-510/a, 152-510/b	GE-AMH-4.76-250	A510	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-510/SM/LS	GE-AMH-4.76-250	A510	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-510Y	GE-AMH-4.76-250	A510	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 (152-511)

102-5X	GE 12HGA14B07	A511	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-308/b	GE-AMH-4.76-250	A308	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-501/b	GE-AMH-4.76-250	A501	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-502/b	GE-AMH-4.76-250	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
152-511/CL/MS	GE-AMH-4.76-250	A511	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-511/IS	GE-AMH-4.76-250	A511	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-511/POS, 152-511/a, 152-511/b	GE-AMH-4.76-250	A511	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-511/SM/LS	GE-AMH-4.76-250	A511	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-511Y	GE-AMH-4.76-250	A511	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
162-511	Agastat	A511	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
183-5X1	GE 12HFA154E22H	A511	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
186-5	GE HEA	A501	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
186/RT	GE HEA	A511	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
97-29	Agastat 2414	C08	CR-951	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
97-53	Agastat E7014PB	A510	TB-911	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 Essential Bus Transfer Logic

127-5	GE 12NGV15A21	A505	TB-911	TEST - Relay in high amplification cabinet < 40 above grade, Seismic test of > 8g. Reference PO PC4417MQ. 15.0/6.0g.
127-5A	ITE27N	A510	TB-911	GERS - Seismic Demand (TB-911) = 1.17/0.25, panel amplification of 7, SD=8.2/1.8g; GERS-RLY-PPM.4=15.0/6.0g.
127-5B	ITE27N	A510	TB-911	GERS - Seismic Demand (TB-911) = 1.17/0.25, panel amplification of 7, SD=8.2/1.8g; GERS-RLY-PPM.4=15.0/6.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
127-5C	ITE27N	A510	TB-911	GERS - Seismic Demand (TB-911) = 1.17/0.25, panel amplification of 7, SD=8.2/1.8g; GERS-RLY-PPM.4=15.0/6.0g.
127-5X	GE 12NGV15A21	A505	TB-911	TEST - Relay in high amplification cabinet < 40 above grade, Seismic test of > 8g. Reference PO PC4417MQ. 15.0/6.0g.
127-5Y	ITE27H	A510	TB-911	GERS - Seismic Demand (TB-911) = 1.17/0.25, panel amplification of 7, SD=8.2/1.8g; GERS-RLY-PPM.4=15.0/6.0g.
127-5Z	ITE27H	A510	TB-911	GERS - Seismic Demand (TB-911) = 1.17/0.25, panel amplification of 7, SD=8.2/1.8g; GERS-RLY-PPM.4=15.0/6.0g.
152-502/b	GE-AMH-4.76-250	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-511/b	GE-AMH-4.76-250	A511	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
97-44	Agastat GP	A510	TB-911	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum-2=9.0/3.6g.
97-45	Agastat GP	A510	TB-911	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum-2=9.0/3.6g.
97-51	Agastat EGPD	A510	TB-911	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum-2=9.0/3.6g.
97-52	Agastat EGPD	A510	TB-911	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum-2=9.0/3.6g.

SSEL Line Number: 8005 Plant System: 4kV Component/Subsystem: BUS 15 Lockout

151-308	GE 12IAC53A101A	A308	TB-911	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-PP1.5=7.0/4.2g.
151-511	GE 12IAC53A101A	A511	TB-911	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-PP1.5=7.0/4.2g.
151N-308	GE 12IAC53A10A	A308	TB-911	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-PP1.5=7.0/4.2g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
186-5	GE HEA	A501	TB-911	GERS - Seismic Demand (TB-911) = 1.17/0.25, panel amplification of 7, SD=8.19/1.75g; GERS-RLY-ALO.2=10.0/4.0g.
SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-602)				
102-6	GE 12HGA14B07	A602	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
151V-602	GE 12IJC51A13A	A602	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum-2=8.0/4.8g.
152-408/b	GE-AMH-4.76-250	A408	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-601/b	GE-AMH-4.76-250	A601	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-602/CL/MS	GE-AMH-4.76-250	A602	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-602/IS	GE-AMH-4.76-250	A602	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-602/POS, 152-602/a, 152-602/b	GE-AMH-4.76-250	A602	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-602/SM/LS	GE-AMH-4.76-250	A602	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-602Y	GE-AMH-4.76-250	A602	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-610/b	GE-AMH-4.76-250	A610	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
155-DG2	GE 12ICW51A4A	C92	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
167-602	GE 12ICW52A1A	A602	TB-931	TEST - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; Reference PO PC4417MQ - 7.5/3.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
183-6X	GE 12HFA154E22H	A602	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
186-6	GE HEA	A601	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
186-602	GE HEA	A602	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
187-602	GE 12JD52A11A	A602	TB-931	GERS - Seismic Demand (TB-931) = 1.17/0.25, panel amplification of 7, SD=8.2/1.8g; GERS-RLY-PP1.5=8.8/3.5g.
K62	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K63	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K64	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-606)

152-606/1S	GE-AMH-4.76-250	A606	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-606/CL/MS	GE-AMH-4.76-250	A606	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-606/POS, 152-606/a, 152-606/b	GE-AMH-4.76-250	A606	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-606/SM/LS	GE-AMH-4.76-250	A606	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-606Y	GE-AMH-4.76-250	A606	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
K83	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K86	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-609)				
150/151-609	GE 12IAC77B36A	A609	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-PP1.5=5.0/3.0g.
150G-609	GE 12PJC11AV1A	A609	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
151-609	GE 12IAC77A11A	A609	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-PP1.5=5.0/3.0g.
152-602/a	GE-AMH-4.76-250	A602	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-609/CL/MS	GE-AMH-4.76-250	A609	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-609/IS	GE-AMH-4.76-250	A609	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-609/POS, 152-609/a, 152-609/b	GE-AMH-4.76-250	A609	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-609/SM/LS	GE-AMH-4.76-250	A609	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-609Y	GE-AMH-4.76-250	A609	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
186-6	GE HEA	A601	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-401/b	ABB K1600S	A401	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
K74	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K75	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K76	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 (152-610)				
102-6X	GE 12HGA14B07	A610	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-408/b	GE-AMH-4.76-250	A408	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-601/b	GE-AMH-4.76-250	A601	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-602/b	GE-AMH-4.76-250	A602	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-610/CL/MS	GE-AMH-4.76-250	A610	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-610/IS	GE-AMH-4.76-250	A610	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-610/POS, 152-610/a, 152-610/b	GE-AMH-4.76-250	A610	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-610/SM/LS	GE-AMH-4.76-250	A610	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-610Y	GE-AMH-4.76-250	A610	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
162-610	Agastat	A610	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
183-6X1	GE 12HFA154E22H	A610	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
186-6	GE HEA	A601	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
186/RT	GE HEA	A511	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
97-31	Agastat 2414	C08	CR-951	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
97-56	Agastat E7014PB	A601	TB-931	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
K71	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K73	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K76	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K77	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K91	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 Essential Bus Transfer Logic

127-6	GE 12NGV15A21	A605	TB-931	TEST - Relay in high amplification cabinet < 40 above grade, Seismic test of > 8g. Reference PO PC4417MQ. 15.0/6.0g.
127-6A	ITE27N	A601	TB-931	GERS - Seismic Demand (TB-931) = 1.17/0.25, panel amplification of 7, SD=8.2/1.8g; GERS-RLY-PPM.4=15.0/6.0g.
127-6B	ITE27N	A601	TB-931	GERS - Seismic Demand (TB-931) = 1.17/0.25, panel amplification of 7, SD=8.2/1.8g; GERS-RLY-PPM.4=15.0/6.0g.
127-6C	ITE27N	A601	TB-931	GERS - Seismic Demand (TB-931) = 1.17/0.25, panel amplification of 7, SD=8.2/1.8g; GERS-RLY-PPM.4=15.0/6.0g.
127-6X	GE 12NGV15A21	A605	TB-931	TEST - Relay in high amplification cabinet < 40 above grade, Seismic test of > 8g. Reference PO PC4417MQ. 15.0/6.0g.
127-6Y	ITE27H	A601	TB-931	GERS - Seismic Demand (TB-931) = 1.17/0.25, panel amplification of 7, SD=8.2/1.8g; GERS-RLY-PPM.4=15.0/6.0g.
127-6Z	ITE27H	A601	TB-931	GERS - Seismic Demand (TB-931) = 1.17/0.25, panel amplification of 7, SD=8.2/1.8g; GERS-RLY-PPM.4=15.0/6.0g.
152-602/b	GE-AMH-4.76-250	A602	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS- MVS/LVS.7 = 1.8/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
152-610/b	GE-AMH-4.76-250	A610	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
97-46	Agastat GP	A601	TB-931	CERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum-2=9.0/3.6g.
97-47	Agastat GP	A601	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum-2=9.0/3.6g.
97-54	Agastat EGPD	A601	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum-2=9.0/3.6g.
97-55	Agastat EGPD	A601	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum-2=9.0/3.6g.

SSEL Line Number: 8008 Plant System: 4kV Component/Subsystem: BUS 16 Lockout

151-408	GE 12IAC53A101A	A408	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-PP1.5=7.0/4.2g.
151-610	GE 12IAC53A101A	A610	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-PP1.5=7.0/4.2g.
151N-408	GE 12IAC53A10A	A408	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-PP1.5=7.0/4.2g.
186-6	GE HEA	A601	TB-931	GERS - Seismic Demand (TB-931) = 1.17/0.25, panel amplification of 7, SD=8.19/1.75g; GERS-RLY-ALO.2=10.0/4.0g.

SSEL Line Number: 5002 Plant System: 125 Component/Subsystem: D10

Battery Charger Controls	Exide US 130-3-50	D10	ADMIN-928	OA - Control room annunciation would alert operators of battery charger trouble. The 125 VDC battery system is designed to provide a 4 hour supply with a loss of AC power to the chargers, therefore adequate time is available for operator action to reset the chargers.
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SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 5003 Plant System: 125 Component/Subsystem: D20				
Battery Charger Controls	Exide US 130-3-50	D20	ADMIN-928	OA - Control room annunciation would alert operators of battery charger trouble. The 125 VDC battery system is designed to provide a 4 hour supply with a loss of AC power to the chargers, therefore adequate time is available for operator action to reset the chargers.
SSEL Line Number: 5005 Plant System: 125 Component/Subsystem: D40				
Battery Charger Controls	Exide US 130-3-50	D40	ADMIN-928	OA - Control room annunciation would alert operators of battery charger trouble. The 125 VDC battery system is designed to provide a 4 hour supply with a loss of AC power to the chargers, therefore adequate time is available for operator action to reset the chargers.
SSEL Line Number: 6022 Plant System: 250 Component/Subsystem: D52				
Battery Charger Controls	C&D Batteries	D52	ADMIN-928	OA - Control room annunciation would alert operators of battery charger trouble. The 250 VDC battery system is designed to provide a 4 hour supply with a loss of AC power to the chargers, therefore adequate time is available for operator action to reset the chargers.
SSEL Line Number: 6023 Plant System: 250 Component/Subsystem: D53				
Battery Charger Controls	C&D Batteries	D53	ADMIN-928	OA - Control room annunciation would alert operators of battery charger trouble. The 250 VDC battery system is designed to provide a 4 hour supply with a loss of AC power to the chargers, therefore adequate time is available for operator action to reset the chargers.
SSEL Line Number: 6024 Plant System: 250 Component/Subsystem: D54				
Battery Charger Controls	C&D Batteries	D54	ADMIN-928	OA - Control room annunciation would alert operators of battery charger trouble. The 250 VDC battery system is designed to provide a 4 hour supply with a loss of AC power to the chargers, therefore adequate time is available for operator action to reset the chargers.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 6017 Plant System: 250 Component/Subsystem: D70				
Battery Charger Controls	C&D Batteries	D70	EFT-933	OA - Control room annunciation would alert operators of battery charger trouble. The 250 VDC battery system is designed to provide a 4 hour supply with a loss of AC power to the chargers, therefore adequate time is available for operator action to reset the chargers.
SSEL Line Number: 6018 Plant System: 250 Component/Subsystem: D80				
Battery Charger Controls	C&D Batteries	D80	EFT-933	OA - Control room annunciation would alert operators of battery charger trouble. The 250 VDC battery system is designed to provide a 4 hour supply with a loss of AC power to the chargers, therefore adequate time is available for operator action to reset the chargers.
SSEL Line Number: 6019 Plant System: 250 Component/Subsystem: D90				
Battery Charger Controls	C&D Batteries	D90	EFT-933	OA - Control room annunciation would alert operators of battery charger trouble. The 250 VDC battery system is designed to provide a 4 hour supply with a loss of AC power to the chargers, therefore adequate time is available for operator action to reset the chargers.
SSEL Line Number: 2154 Plant System: RHR Component/Subsystem: DPIC-10-130B				
K2	P&B MDR 163-1	C292	EFT-960	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-ARR.3 = 9.0/5.4g.
K3	P&B MDH 163-1	C292	EFT-960	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-ARR.3 = 9.0/5.4g.
SSEL Line Number: 7157C Plant System: DOL Component/Subsystem: FPM (11 DG)				
FPR		C91	TB-931	CR - No GERS available.
SSEL Line Number: 7157D Plant System: DOL Component/Subsystem: FPM (12 DG)				
FPR		C92	TB-931	CR - No GERS available.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 7045 Plant System: DGN Component/Subsystem: G-3A				
14A-K11A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K22A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
152-502/a, 152-502/b	GE-AMH-4.76-250	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-502/b	GE-AMH-4.76-250	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
186-502	GE HEA	A502	TB-911	GERS - Seismic Demand (TB-911) = 1.17/0.25, panel amplification of 7, SD=8.19/1.75g; GERS-RLY-ALO.2=10.0/4.0g.
95-7	GE 12HFA151A2H	C08	CR-951	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g. Chatter in NC contact is acceptable.
95-8	GE 12HFA151A2H	C08	CR-951	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
97-28	Agastat 2414	C08	CR-951	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
97-29	Agastat 2414	C08	CR-951	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
97-44	Agastat GPD	A510	TB-911	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum-2=9.0/3.6g.
97-45	Agastat GPD	A510	TB-911	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum-2=9.0/3.6g.
ECR	Agastat E7012	C91	TB-931	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 12.5/5.0g.
ECRA	SQD Class 8501	C91	TB-931	CR - No GERS available.
ESR1	SQD Class 7001	C91	TB-931	CR - No GERS available.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
ESR2	SQD Class 7001	C91	TB-931	CR - No GERS available.
ESTD	Agastat E7022	C91	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-PNT.7 = 6.0/2.4g.
ESTR	SQD Class 7001	C91	TB-931	CR - No GERS available.
FFC	SQD Class 8504	C91	TB-931	CR - No GERS available.
FFCO	Wilmar WUV-1-120-HB	C91	TB-931	CR - No GERS available.
FSR1	SQD Class 7001	C91	TB-931	CR - No GERS available.
FSR2	SQD Class 7001	C91	TB-931	CR - No GERS available.
GV	Wilmar WUV-1-120-H	C91	TB-931	CR - No GERS available.
MSR1	SQD Class 7001	C91	TB-931	CR - No GERS available.
MSR2	SQD Class 7001	C91	TB-931	CR - No GERS available.
NFLD	8411979	C93	TB-931	CR - No GERS available.
NFLDA	8411979	C93	TB-931	CR - No GERS available.
OT	8411979	C93	TB-931	CR - No GERS available.
OTR	SQD Class 7001	C91	TB-931	CR - No GERS available.
PFD1	SQD EQ1935-G2	C91	TB-931	CR - No GERS available. This relay is being replaced by modification 93Q415.
PFD2	SQD EQ1935-G2	C91	TB-931	CR - No GERS available. This relay is being replaced by modification 93Q415.
PFDA1	SQD EQ2423-G1	C91	TB-931	CR - No GERS available. This relay is being replaced by modification 93Q415.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
PFDA2	SQD EQ2423-G2	C91	TB-931	CR - No GERS available. This relay is being replaced by modification 93Q415.
SFA	8411979	C93	TB-931	CR - No GERS available.
SFB1	SQD EQ1935-G2	C91	TB-931	CR - No GERS available. This relay is being replaced by modification 93Q415.
SFB2	SQD EQ1935-G2	C91	TB-931	CR - No GERS available. This relay is being replaced by modification 93Q415.
SFD1	SQD EQ1935-G2	C91	TB-931	CR - No GERS available. This relay is being replaced by modification 93Q415.
SFD2	SQD EQ1935-G2	C91	TB-931	CR - No GERS available. This relay is being replaced by modification 93Q415.
SSP1	8409614	C91	TB-931	CR - No GERS available. This relay is being replaced by modification 93Q415.
SSP2	8409614	C91	TB-931	CR - No GERS available. This relay is being replaced by modification 93Q415.
STLO1	SQD EQ1933-G2	C91	TB-931	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-Addendum2 = 10.0/6.0g.
STLO2	SQD EQ1933-G2	C91	TB-931	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-Addendum2 = 10.0/6.0g.
STR1	8299025	C91	TB-931	CR - No GERS available.
STR2	8299025	C91	TB-931	CR - No GERS available.
VSR1	SQD Class 7001	C91	TB-931	CR - No GERS available.
VSR2	SQD Class 7001	C91	TB-931	CR - No GERS available.
ZSR1	SQD Class 7001	C91	TB-931	CR - No GERS available.
ZSR2	SQD Class 7001	C91	TB-931	CR - No GERS available.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 7004	Plant System: DGN	Component/Subsystem: G-3B		
14A-K11B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K22B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
152-602/a, 152-602/b	GE-AMH-4.76-250	A602	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-602/b	GE-AMH-4.76-250	A602	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
186-602	GE HEA	A602	TB-931	GERS - Seismic Demand (TB-931) = 1.17/0.25, panel amplification of 7, SD=8.19/1.75g; GERS-RLY-ALO.2=10.0/4.0g.
95-7	GE 12HFA151A2H	C08	CR-951	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
95-8	GE 12HFA151A2H	C08	CR-951	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g. Chatter in NC contact is acceptable.
97-30	Agastat 2414	C08	CR-951	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
97-31	Agastat 2414	C08	CR-951	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
97-46	Agastat GPD	A601	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum-2=9.0/3.6g.
97-47	Agastat GPD	A601	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum-2=9.0/3.6g.
ECR	Agastat E7012	C92	TB-931	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 12.5/5.0g.
ECPA	SQD Class 8501	C92	TB-931	CR - No GERS available.
ESR1	SQD Class 7001	C92	TB-931	CR - No GERS available.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
ESR2	SQD Class 7001	C92	TB-931	CR - No GERS available.
ESTD	Agastat E7022	C92	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-PNT.7 = 6.0/2.4g.
ESTR	SQD Class 7001	C92	TB-931	CR - No GERS available.
FFC	SQD Class 8504	C92	TB-931	CR - No GERS available.
FFCO	Wilmar WUV-1-120-HB	C92	TB-931	CR - No GERS available.
FSR1	SQD Class 7001	C92	TB-931	CR - No GERS available.
FSR2	SQD Class 7001	C92	TB-931	CR - No GERS available.
GV	Wilmar WUV-1-120-H	C92	TB-931	CR - No GERS available.
K65	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K66	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K68	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K69	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K70	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
MSR1	SQD Class 7001	C92	TB-931	CR - No GERS available.
MSR2	SQD Class 7001	C92	TB-931	CR - No GERS available.
NFLD	8411979	C94	TB-931	CR - No GERS available.
NFLDA	8411979	C94	TB-931	CR - No GERS available.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
OT	8411979	C94	TB-931	CR - No GERS available.
OTR	SQD Class 7001	C92	TB-931	CR - No GERS available.
PFD1	SQD EQ1935-G2	C92	TB-931	CR - No GERS available. This relay is being replaced by modification 93Q415.
PFD2	SQD EQ1935-G2	C92	TB-931	CR - No GERS available. This relay is being replaced by modification 93Q415.
PFDA1	SQD EQ2423-G1	C92	TB-931	CR - No GERS available. This relay is being replaced by modification 93Q415.
PFDA2	SQD EQ2423-G2	C92	TB-931	CR - No GERS available. This relay is being replaced by modification 93Q415.
SFA	8411979	C94	TB-931	CR - No GERS available.
SFB1	SQD EQ1935-G2	C92	TB-931	CR - No GERS available. This relay is being replaced by modification 93Q415.
SFB2	SQD EQ1935-G2	C92	TB-931	CR - No GERS available. This relay is being replaced by modification 93Q415.
SFD1	SQD EQ1935-G2	C92	TB-931	CR - No GERS available. This relay is being replaced by modification 93Q415.
SFD2	SQD EQ1935-G2	C92	TB-931	CR - No GERS available. This relay is being replaced by modification 93Q415.
SSP1	8409614	C92	TB-931	CR - No GERS available. This relay is being replaced by modification 93Q415.
SSP2	8409614	C92	TB-931	CR - No GERS available. This relay is being replaced by modification 93Q415.
STLO1	SQD EQ1933-G2	C92	TB-931	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-Addendum2 = 10.0/6.0g.
STLO2	SQD EQ1933-G2	C92	TB-931	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-Addendum2 = 10.0/6.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
STR1	8299025	C92	TB-931	CR - No GERS available.
STR2	8299025	C92	TB-931	CR - No GERS available.
VSR1	SQD Class 7001	C92	TB-931	CR - No GERS available.
VSR2	SQD Class 7001	C92	TB-931	CR - No GERS available.
ZSR1	SQD Class 7001	C92	TB-931	CR - No GERS available.
ZSR2	SQD Class 7001	C92	TB-931	CR - No GERS available.

SSEL Line Number: 12325A Plant System: ASD Component/Subsystem: HS-33 Master ASDS Panel Transfer

K18	P&B MDR 163-1	C292	EFT-960	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-ARR.3 = 9.0/5.4g.
K6	P&B MDR 163-1	C292	EFT-960	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-ARR.3 = 9.0/5.4g.
K93	Agastat EGPD	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-Addendum-2=9.0/3.6g

SSEL Line Number: 1000 Plant System: RHR Component/Subsystem: Initiation Logic - A

10A-K10A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARRH.5 = 7.5/3.0g.
10A-K15A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARRH.5 = 7.5/3.0g.
10A-K16A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARRH.5 = 7.5/3.0g.
10A-K17A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARRH.5 = 7.5/3.0g.
10A-K20A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARRH.5 = 7.5/3.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
10A-K23A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K23B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K24A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K24B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K25A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K25B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K26A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K26B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K27A (NO Contact)	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K28A	Agastat E7014	C32	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
10A-K30A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K31A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K31B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K32A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.

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<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
10A-K32B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K33A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K34A	Agastat E7014	C32	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
10A-K35A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K35B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K36A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K36B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K37A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K39A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K3A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K40A	Agastat E7014	C32	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
10A-K40B	Agastat E7014	C33	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
10A-K43A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K44A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.

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<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
10A-K49A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K4A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K51A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K58A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K5A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K5B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K60A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K60B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K65A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K65B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K69A (NO Contact)	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K6A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K6B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K72A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.

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<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
10A-K72B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K73A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K74A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K75A (NO contact)	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K76A	Agastat E7014	C32	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
10A-K77A	Agastat E7014	C32	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
10A-K78A	Agastat E7014	C32	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
10A-K7A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K7B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K86A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K86B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K88A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K89A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K89B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.

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<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
10A-K8A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K8B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K90A (NO Contact)	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K95A	Agastat ETR14D3N	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
10A-K9A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-M1A-1	Agastat ETR14D3B	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
10A-M1A-2	Agastat ETR14D3B	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
10A-M2A-1	Agastat ETR14D3B	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
10A-M2A-2	Agastat ETR14D3B	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
10A-M3A-1	Agastat ETR14D3B	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
10A-M3A-2	Agastat ETR14D3B	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
10A-M4A-1	Agastat ETR14D3B	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
10A-M4A-2	Agastat ETR14D3B	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
14A-K27A	Agastat ETR14D3N	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.

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<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
14A-K3A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
152-308/a	GE-AMH-4.76-250	A308	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-502/a	GE-AMH-4.76-250	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-503/a	GE-AMH-4.76-250	A503	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-504/a	GE-AMH-4.76-250	A504	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-511/a	GE-AMH-4.76-250	A511	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
16A-K17	GE CR120A	C41	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-Ai2.4 = 9.0/5.4g.
16A-K31	GE CR120A	C41	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-Ai2.4 = 9.0/5.4g.
16A-K32	GE 12HFA151A2H	C42	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
K101A	Agastat EGPB	C303A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K113A	Agastat EGPB	C303A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
10A-K3A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K95A	Agastat ETR14D3N	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
127-5	GE 12NGV15A21	A505	TB-911	TEST - Relay in high amplification cabinet < 40 above grade, Seismic test of > 8g. Reference PO PC4417MQ. 15.0/6.0g.

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<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
127-5X	GE 12NGV15A21	A505	TB-911	TEST - Relay in high amplification cabinet < 40 above grade, Seismic test of > 8g. Reference PO PC4417MQ. 15.0/6.0g.
14A-K10A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K11A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K13A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K16A	Agastat ETR14D3B	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
14A-K19A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K1A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 15.0/6.0g.
14A-K20A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K21A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K21B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K27A	Agastat ETR14D3N	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
14A-K3A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K4A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K5A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
14A-K5B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K6A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K6B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K7A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K7B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K8A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K8B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K9A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K9B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
152-308/a	GE-AMH-4.76-250	A308	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-503/a	GE-AMH-4.76-250	A503	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-504/a	GE-AMH-4.76-250	A504	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
162-3	Agastat 2412	A308	TB-911	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 12.5/5.0g.
K101A	Agastat EGPB	C303A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

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<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
K113A	Agastat EGPB	C303A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

<u>SSEL Line Number: 2000</u>	<u>Plant System: RHR</u>	<u>Component/Subsystem:</u>	<u>Initiation Logic - B</u>
10A-K10B	GE 12HFA151A2F	C33 CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K15B	GE 12HFA151A2F	C33 CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K16B	GE 12HFA151A2F	C33 CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K17B	GE 12HFA151A2F	C33 CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K20B	GE 12HFA151A2F	C33 CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K23A	GE 12HGA11A52F	C32 CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K23B	GE 12HGA11A52F	C33 CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K24A	GE 12HGA11A52F	C32 CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K24B	GE 12HGA11A52F	C33 CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K25A	GE 12HGA11A52F	C32 CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K25B	GE 12HGA11A52F	C33 CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K26A	GE 12HGA11A52F	C32 CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K26B	GE 12HGA11A52F	C33 CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.

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<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
10A-K27B (NO Contact)	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K28B	Agastat E7014	C33	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
10A-K30B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K31A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K31B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K32A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K32B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K33B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K34B	Agastat E7014	C33	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
10A-K35A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K35B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K36A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K36B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K37B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
10A-K39B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K3B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K40A	Agastat E7014	C32	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
10A-K40B	Agastat E7014	C33	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
10A-K43B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K44B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K49B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K4B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K51B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K58B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K5A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K5B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K60A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K60B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
10A-K65A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K65B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K69B (NO Contact)	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K6A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K6B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K72A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K72B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K73B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K74B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K75B (NO contact)	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K76B	Agastat E7014	C33	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
10A-K77B	Agastat E7014	C33	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
10A-K78B	Agastat E7014	C33	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 10.0/4.0g.
10A-K7A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
10A-K7B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K86A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K86B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K88B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K89A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K89B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K8A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K8B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K90B (NO Contact)	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K95B	Agastat ETR14D3N	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
10A-K9B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-M1B-1	Agastat ETR14D3B	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
10A-M1B-2	Agastat ETR14D3B	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
10A-M2B-1	Agastat ETR14D3B	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
10A-M2B-2	Agastat ETR14D3B	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
10A-M3B-1	Agastat ETR14D3B	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
10A-M3B-2	Agastat ETR14D3B	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
10A-M4B-1	Agastat ETR14D3B	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
10A-M4B-2	Agastat ETR14D3B	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
14A-K27B	Agastat ETR14D3N	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
14A-K3B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
152-408/a	GE-AMH-4.76-250	A408	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-602/a	GE-AMH-4.76-250	A602	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-603/a	GE-AMH-4.76-250	A603	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-604/a	GE-AMH-4.76-250	A604	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-610/a	GE-AMH-4.76-250	A610	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
16A-K18	GE CR120A	C42	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-AI2.4 = 9.0/5.4g.
16A-K31	GE CR120A	C41	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-AI2.4 = 9.0/5.4g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
16A-K32	GE 12HFA151A2H	C42	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
K101B	Agastat EGPB	C303B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K113B	Agastat EGPB	C303B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
10A-K3B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K95B	Agastat ETR14D3N	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
127-6	GE 12NGV15A21	A605	TB-931	TEST - Relay in high amplification cabinet < 40 above grade, Seismic test of > 8g. Reference PO PC4417MQ. 15.0/6.0g.
127-6X	GE 12NGV15A21	A605	TB-931	TEST - Relay in high amplification cabinet < 40 above grade, Seismic test of > 8g. Reference PO PC4417MQ. 15.0/6.0g.
14A-K10B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K11B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K13B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K16B	Agastat ETR14D3B	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
14A-K19B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K1B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 15.0/6.0g.
14A-K20B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
14A-K21A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K21B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K27B	Agastat ETR14D3N	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum2 = 9.0/5.4g.
14A-K3B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K4B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K5A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K5B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K6A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K6B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K7A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K7B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K8A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K8B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K9A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
14A-K9B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
152-408/a	GE-AMH-4.76-250	A408	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-603/a	GE-AMH-4.76-250	A603	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-604/a	GE-AMH-4.76-250	A604	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
162-4	Agastat 2412	A408	TB-931	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 12.5/5.0g.
K101B	Agastat EGPB	C303B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K113B	Agastat EGPB	C303B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SSEL Line Number: 1047 Plant System: RSW Component/Subsystem: K-10A

N3347	Westinghouse A200 Motor Starter	N3347	RB-935	GERS - Seismic Demand (RB-935) = 1.17/0.25; GERS-CON.3=4.5/2.5g.
PS-7192	ASCO SA11AR		RB-935	GERS - Seismic Demand (RB-935) = 1.17/0.25; GERS-PS.5=3.0/1.25g.

SSEL Line Number: 2138 Plant System: RSW Component/Subsystem: K-10B

N4454	Westinghouse A200 Motor Starter	N4454	RB-935	GERS - Seismic Demand (RB-935) = 1.17/0.25; GERS-CON.3=4.5/2.5g.
FS-7193	ASCO SA11AR		RB-935	GERS - Seismic Demand (RB-935) = 1.17/0.25; GERS-PS.5=3.0/1.25g.

SSEL Line Number: 7138 Plant System: DGN Component/Subsystem: K-8A

42, 49/OL	Cutler-Hammer	N3346A	TB-931	GERS - Seismic Demand (TB-931) = 1.17/0.25; GERS-CON.3 = 4.5/2.9g.
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SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 7139 Plant System: DGN Component/Subsystem: K-8B				
42, 49/OL	Cutler-Hammer	N4301A	TB-931	GERS - Seismic Demand (TB-931) = 1.17/0.25; GERS-CON.3 = 4.5/2.9g.
SSEL Line Number: 7136 Plant System: DGN Component/Subsystem: K-9A				
42, 49/OL	Cutler-Hammer	N4301B	TB-931	GERS - Seismic Demand (TB-931) = 1.17/0.25; GERS-CON.3 = 4.5/2.9g.
SSEL Line Number: 7137 Plant System: DGN Component/Subsystem: K-9B				
42, 49/OL	Cutler-Hammer	N3346B	TB-931	GERS - Seismic Demand (TB-931) = 1.17/0.25; GERS-CON.3 = 4.5/2.9g.
SSEL Line Number: 8003 Plant System: 480 Component/Subsystem: LC-103 (52-301)				
152-509/a, 152-509/b	GE-AMH-4.76-250	A509	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-301/LS	ABB K3000S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-301/POS, 52-301/a, 52-301/b	ABB K3000S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-301Y	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
SSEL Line Number: 8003 Plant System: 480 Component/Subsystem: LC-103 (52-302)				
183-5Y	GE 12HFA154E22H	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
183-5Y1	GE 12HFA154E22H	A511	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-302/a, 52-302/b	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-302/LS	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
52-302Y	ABB K1600S	B302	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
SSEL Line Number: 8003 Plant System: 480 Component/Subsystem: LC-103 (52-303)				
183-5Y	GE 12HFA154E22H	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
183-5Y1	GE 12HFA154E22H	A511	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-303/a, 52-303/b	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-303/LS	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-303Y	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
SSEL Line Number: 8003 Plant System: 480 Component/Subsystem: LC-103 (52-304)				
52-304/b	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-304/LS	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-304Y	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
SSEL Line Number: 8003 Plant System: 480 Component/Subsystem: LC-103 (52-305)				
14A-K18A	GE 12HFA151A2F	C32	CSR-939	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-305/LS	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-305/POS, 52-305/a, 52-305/b, 52-305/BA	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
52-305Y	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SSEL Line Number: 8003 Plant System: 480 Component/Subsystem: LC-103 (52-307)

52-307/b	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-307/LS	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-307Y	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SSEL Line Number: 8003 Plant System: 480 Component/Subsystem: LC-103 (52-308)

52-308/b	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-308/LS	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-308Y	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SSEL Line Number: 8003 Plant System: 480 Component/Subsystem: LC-103 (52-309)

52-309/LS	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-309/POS, 52-309/a, 52-309/b, 52-309/BA	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-309Y	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-409/a	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 8006 Plant System: 480 Component/Subsystem: LC-104 (52-401)				
152-609/a, 152-609/b	GE-AMH-4.76-250	A609	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-401/LS	ABB K3000S	LC-104	TB-911	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-401/POS, 52-401/a, 52-401/b	ABB K3000S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-401Y	ABB K3000S	LC-104	TB-911	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
K50	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K51	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K52	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
SSEL Line Number: 8006 Plant System: 480 Component/Subsystem: LC-104 (52-402)				
183-6Y	GE 12HFA154E22H	A602	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
183-6Y1	GE 12HFA154E22H	A610	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-402/a, 52-402/b	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-402/LS	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-402Y	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
K82	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 8006 Plant System: 480 Component/Subsystem: LC-104 (52-403)				
52-403/b	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-403/LS	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-403Y	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
SSEL Line Number: 8006 Plant System: 480 Component/Subsystem: LC-104 (52-404)				
52-404/b	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-404/LS	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-404Y	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
SSEL Line Number: 8006 Plant System: 480 Component/Subsystem: LC-104 (52-405)				
14A-K18B	GE 12HFA151A2F	C33	CSR-939	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-405/LS	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-405/POS, 52-405/a, 52-405/b, 52-405/BA	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-405Y		LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
SSEL Line Number: 8006 Plant System: 480 Component/Subsystem: LC-104 (52-406)				
52-405/b	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
52-406/LS	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-406Y	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
SSEL Line Number: 8006 Plant System: 480 Component/Subsystem: LC-104 (52-407)				
52-3300/a	GE AK-2-15	B3300	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
52-407/b, 52-407/a	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-407/LS	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-407Y	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-4300/a	MCC	B4300	TB-931	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 8006 Plant System: 480 Component/Subsystem: LC-104 (52-408)				
52-408/b	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-408/LS	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-408Y	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
SSEL Line Number: 8006 Plant System: 480 Component/Subsystem: LC-104 (52-409)				
52-309/b	ABB K1600S	LC-103	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-409/LS	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
52-409/POS, 52-409/a, 52-409/b, 52-409/BA	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
52-409Y	ABB K1600S	LC-104	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
K67	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K82	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SSEL Line Number: 12000 Plant System: APR Component/Subsystem: Low-Low Set SCRAM Permissive - Division I

5A-K24A	GE CR120A	C15	CR-951	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-AI2.4 = 9.0/5.4g.
5A-K24C	Agastat EGPD	C15	CR-951	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum-2=9.0/5.4g.

SSEL Line Number: 12000 Plant System: APR Component/Subsystem: Low-Low Set SCRAM Permissive - Division II

5A-K30A	Struthers Dunn 219BBX201		RB-935	GERS - Seismic Demand (RB-935) = 1.17/0.25, panel amplification of 3, SD=3.5/0.75g; GERS-RLY-ARS.4 = 5.0/2.0g. Drawing lists relay as Consolidated Controls KGU431B which is a Struthers Dunn 219BBX201 relay inside an isolation inclosure.
5A-K30B	Struthers Dunn 219BBX201		RB-935	GERS - Seismic Demand (RB-935) = 1.17/0.25, panel amplification of 3, SD=3.5/0.75g; GERS-RLY-ARS.4 = 5.0/2.0g. Drawing lists relay as Consolidated Controls KGU431B which is a Struthers Dunn 219BBX201 relay inside an isolation inclosure.

SSEL Line Number: 3071 Plant System: CSP Component/Subsystem: MO-1741

42/O, 42/C, 42/OL	MCC	B3326	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
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SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 3073 Plant System: CSP Component/Subsystem: MO-1742				
42/O, 42/C, 42/OL	MCC	B4326	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
K12	P&B MDR 163-1	C292	EFT-960	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-ARR.3 = 9.0/5.4g.
SSEL Line Number: 3028 Plant System: CSP Component/Subsystem: MO-1749				
42/O, 42/C, 42/OL	MCC	B3327	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 3030 Plant System: CSP Component/Subsystem: MO-1750				
42/O, 42/C, 42/OL	MCC	B4327	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
K13	P&B MDR 163-1	C292	EFT-960	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-ARR.3 = 9.0/5.4g.
SSEL Line Number: 3009 Plant System: CSP Component/Subsystem: MO-1751				
42/O, 42/C, 42/OL	MCC	B3325	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 3011 Plant System: CSP Component/Subsystem: MO-1752				
42/O, 42/C, 42/OL	MCC	B4325	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
K11	P&B MDR 163-1	C292	EFT-960	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-ARR.3 = 9.0/5.4g.
K33	Agastat EGPI	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K33B	Agastat EGPI	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 3013 Plant System: CSP Component/Subsystem: MO-1753				
14A-K13A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
42/O, 42/C, 42/OL	MCC	B3324	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 3015 Plant System: CSP Component/Subsystem: MO-1754				
14A-K13B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
42/O, 42/C, 42/OL	MCC	B4324	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
K10	P&B MDR 163-1	C292	EFT-960	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-ARR.3 = 9.0/5.4g.
K30	Agastat EGPI	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K31	Agastat EGPI	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K31A	Agastat EGPI	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
SSEL Line Number: 1001 Plant System: RHR Component/Subsystem: MO-1986				
42/O, 42/C, 49/OL	MCC	B3321	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 2001 Plant System: RHR Component/Subsystem: MO-1987				
42/O, 42/C, 49/OL	MCC	B4323	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
K1	P&B MDR 163-1	C292	EFT-960	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-ARR.3 = 9.0/5.4g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
K37	Agastat EGPI	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K38	Agastat EGPI	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
SSEL Line Number: 1003 Plant System: RHR Component/Subsystem: MO-1988				
42/O, 42/C, 49/OL	MCC	B3322	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 2005 Plant System: RHR Component/Subsystem: MO-1989				
42/O, 42/C, 49/OL	MCC	B4321	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 1048 Plant System: RHR Component/Subsystem: MO-2002				
10A-K79A (NO Contact)	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
42/O, 42/C, 49/OL	MCC	B3336	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 2046 Plant System: RHR Component/Subsystem: MO-2003				
10A-K79B (NO Contact)	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
42/O, 42/C, 49/OL	MCC	B4210	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
K41	Agastat EGPI	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K41A	Agastat EGPI	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K42	Agastat EGPI	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
K42A	Agastat EGPI	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K6	P&B MDR 163-1	C292	EFT-960	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-ARR.3 = 9.0/5.4g.

SSEL Line Number: 1091 Plant System: RHR Component/Subsystem: MO-2006

10A-K74A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
42/O, 42/C, 49/OL	MCC	B3341	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.

SSEL Line Number: 2067 Plant System: RHR Component/Subsystem: MO-2007

10A-K74B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
42/O, 42/C, 49/OL	MCC	B4208	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
K2	P&B MDR 163-1	C292	EFT-960	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-ARR.3 = 9.0/5.4g.
K39	Agastat EGPI	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K39A	Agastat EGPI	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K40	Agastat EGPI	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K40A	Agastat EGPI	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SSEL Line Number: 1096 Plant System: RHR Component/Subsystem: MO-2008

42/O, 42/C, 49/OL	MCC	B3337	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
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SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 2070 Plant System: RHR Component/Subsystem: MO-2009				
42/O, 42/C, 49/OL	MCC	B4337	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
K43	Agastat EGPI	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K44	Agastat EGPI	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K5	P&B MDR 163-1	C292	EFT-960	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-ARR.3 = 9.0/5.4g.
SSEL Line Number: 1094 Plant System: RHR Component/Subsystem: MO-2010				
42/O, 42/C, 49/OL	MCC	B3338	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 2073 Plant System: RHR Component/Subsystem: MO-2011				
42/O, 42/C, 49/OL	MCC	B4338	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 1119 Plant System: RHR Component/Subsystem: MO-2012				
10A-K43A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K43B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K46A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K46B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K91A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
42/O, 42/C, 49/OL	MCC	B3335	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
IPC	GE CR120A	B3335	TB-911	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
IPO	GE CR120A	B3335	TB-911	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.

SSEL Line Number: 2064 Plant System: RHR Component/Subsystem: MO-2013

10A-K39A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K39B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K47A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K47B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K91B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
42/O, 42/C, 49/OL	MCC	B4335	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
IPC	GE CR120A	B4335	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
IPO	GE CR120A	B4335	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.

SSEL Line Number: 1121 Plant System: RHR Component/Subsystem: MO-2014

10A-K43A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K43B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
10A-K66A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K66A (NO Contact)	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K66B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K91A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
42/O, 42/C, 49/OL	MCC	B3334	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.

SSEL Line Number: 2066 Plant System: RHR Component/Subsystem: MO-2015

10A-K39A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K39B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K63B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K67A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K67B (NO Contact)	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
10A-K91B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 8.8/3.5g.
42/O, 42/C, 49/OL	MCC	B4334	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.

SSEL Line Number: 1106 Plant System: RHR Component/Subsystem: MO-2020

42/O, 42/C, 49/OL	MCC	B3339	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
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SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 2078 Plant System: RHR Component/Subsystem: MO-2021				
42/O, 42/C, 49/OL	MCC	B4339	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 1110 Plant System: RHR Component/Subsystem: MO-2026				
42/M, 42/1F, 42/1R, 42/2F, 42/2R, 49/OL	MCC	D31308	RB-962	SWGR - Seismic Demand (RB-962) = 1.36/0.24; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 1010 Plant System: RHR Component/Subsystem: MO-2030				
42/M, 42/1F, 42/1R, 42/2F, 42/2R, 49/OL	MCC	D31307	RB-962	SWGR - Seismic Demand (RB-962) = 1.36/0.24; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 1114 Plant System: RHR Component/Subsystem: MO-2032				
42/O, 42/C, 49/OL	MCC	B4211	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 1079 Plant System: RHR Component/Subsystem: MO-2033				
42/O, 42/C, 49/OL	MCC	B4328	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 10001 Plant System: HPC Component/Subsystem: MO-2034				
42/O, 42/C, 49/OL	MCC	B4342	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 10002 Plant System: HPC Component/Subsystem: MO-2035				
23A-K1	GE 12HFA151A2F	C39	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
23A-K3	GE 12HFA151A2F	C39	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
72/1F, 72/2F, 72/1R, 72/2R, 49/OL	MCC	D31205	RB-896	SWGR - Seismic Demand (RB-896) = 0.32/0.12; GERS-MCC.9 = 1.5/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 10002 Plant System: HPC Component/Subsystem: MO-2035 (Auto Open)				
10A-K7A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K7B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K8A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K8B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K5A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K5B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K6A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K6B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
SSEL Line Number: 14001 Plant System: RCI Component/Subsystem: MO-2075				
42/O, 42/C, 42/OL	MCC	B3340	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 14003 Plant System: RCI Component/Subsystem: MO-2076				
13A-K1	GE 12HFA151A2F	C30	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
72/1F, 72/2F, 72/1R, 72/2R, 49/OL	MCC	D31104	RB-896	SWGR - Seismic Demand (RB-896) = 0.32/0.12; GERS-MCC.9 = 1.5/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 14003 Plant System: RCI Component/Subsystem: MO-2076 (Auto Open)				
14A-K7A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K7B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K8A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
14A-K8B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
SSEL Line Number: 11025 Plant System: MST Component/Subsystem: MO-2373				
42/O, 42/C, 49/CL	MCC	B4333	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 17001 Plant System: RWC Component/Subsystem: MO-2397				
16A-K26	GE CR120A	C41	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-AI2.4 = 9.0/5.4g.
42/O, 42/C, 42/OL	MCC	B3328	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 17002 Plant System: RWC Component/Subsystem: MO-2398				
16A-K27	GE CR120A	C42	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-AI2.4 = 9.0/5.4g.
42/M, 42/1F, 42/1R, 42/2F, 42/2R, 49/OL	MCC	D31309	RB-962	SWGR - Seismic Demand (RB-962) = 1.36/0.24; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 11000 Plant System: MST Component/Subsystem: MSIV Control Logic - Inboard				
16A-K13	GE 12HFA151A2H	C41	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
16A-K14	GE CR120A	C41	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-AI2.4 = 9.0/5.4g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
16A-K69	Agastat EGPD	C03	CR-951	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum-2=9.0/3.6g.
16A-K70	Agastat EGPI	C03	CR-951	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum-2=9.0/3.6g.
16A-K7A	GE 12HFA151A9F	C15	CR-951	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
16A-K7B	GE 12HFA151A9F	C17	CR-951	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
16A-K7C	GE 12HFA151A9F	C15	CR-951	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
16A-K7D	GE 12HFA151A9F	C17	CR-951	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
16A-K9	GE CR120A	C41	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-AI2.4 = 9.0/5.4g.

SSEL Line Number: 11000 Plant System: MST Component/Subsystem: MSIV Control Logic - Outboard

16A-K10	GE CR120A	C42	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-AI2.4 = 9.0/5.4g.
16A-K15	GE 12HFA151A2H	C42	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
16A-K16	GE CR120A	C42	CSR-939	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-AI2.4 = 9.0/5.4g.
16A-K67	Agastat EGPD	C03	CR-951	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum-2=9.0/3.6g.
16A-K68	Agastat EGPI	C03	CR-951	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-Addendum-2=9.0/3.6g.
16A-K7A, B, C, D	GE 12HFA151A9F		CR-951	GERS - See MSIV Control Logic - Inboard evaluation.
K92	Agastat EGPD	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 7193 Plant System: DGN Component/Subsystem: MVST1 (11 DG)				
STR1	8299025	C91	TB-931	CR - No GERS available.
SSEL Line Number: 7191 Plant System: DGN Component/Subsystem: MVST1 (12 DG)				
STR1	8299025	C92	TB-931	CR - No GERS available.
SSEL Line Number: 7194 Plant System: DGN Component/Subsystem: MVST2 (11 DG)				
STR2	8299025	C91	TB-931	CR - No GERS available.
SSEL Line Number: 7192 Plant System: DGN Component/Subsystem: MVST2 (12 DG)				
STR2	8299025	C92	TB-931	CR - No GERS available.
SSEL Line Number: 9001 Plant System: RSW Component/Subsystem: P-109A				
10A-K62A	GE 12HFA151A2F	C32	CSR-939	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
14A-K18A	GE 12HFA151A2F	C32	CSR-939	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
150/151-508	GE IAC66	A508	TB-911	TEST - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; Reference PO PC4417MQ - 7.5/3.0g.
150G-508	GE PJC11	A508	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-508/CL/MS	GE-AMH-4.76-250	A508	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-508/IS	GE-AMH-4.76-250	A508	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-508/POS, 152-508/a, 152-508/b	GE-AMH-4.76-250	A508	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
152-508/SM/LS	GE-AMH-4.76-250	A508	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-508Y	GE-AMH-4.76-250	A508	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
183-5Y	GE 12HFA154E22H	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
183-5Y1	GE 12HFA154E22H	A511	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
SSEL Line Number: 9002 Plant System: RSW Component/Subsystem: P-109B				
10A-K62B	GE 12HFA151A2F	C33	CSR-939	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
14A-K18B	GE 12HFA151A2F	C33	CSR-939	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
150/151-608	GE IAC66	A608	TB-931	TEST - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; Reference PO PC4417MQ - 7.5/3.0g.
150G-608	GE PJC11	A608	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-608/CL/MS	GE-AMH-4.76-250	A608	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-608/IS	GE-AMH-4.76-250	A608	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-608/POS, 152-608/a, 152-608/b	GE-AMH-4.76-250	A608	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-608/SM/LS	GE-AMH-4.76-250	A608	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-608Y	GE-AMH-4.76-250	A608	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
183-6Y	GE 12HFA154E22H	A602	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
183-6Y1	GE 12HFA154E22H	A610	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
K53	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K54	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K55	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K91	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K97	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SSEL Line Number: 9003 Plant System: RSW Component/Subsystem: P-109C

10A-K62A	GE 12HFA151A2F	C32	CSR-939	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
14A-K19A	GE 12HFA151A2F	C32	CSR-939	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
150/151-507	GE IAC66	A507	TB-911	TEST - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; Reference PO PC4417MQ - 7.5/3.0g.
150G-507	GE PJC11	A507	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-507/CL/MS	GE-AMH-4.76-250	A507	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-507/IS	GE-AMH-4.76-250	A508	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
152-507/POS, 152-507/a, 152-507/b	GE-AMH-4.76-250	A507	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-507/SM/LS	GE-AMH-4.76-250	A507	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-507Y	GE-AMH-4.76-250	A507	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
183-5X	GE 12HFA154E22H	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
183-5X1	GE 12HFA154E22H	A511	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SSEL Line Number: 9004 Plant System: RSW Component/Subsystem: P-109D

10A-K62B	GE 12HFA151A2F	C33	CSR-939	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
14A-K19B	GE 12HFA151A2F	C33	CSR-939	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
150/151-607	GE IAC66	A607	TB-931	TEST - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; Reference PO PC4417MQ - 7.5/3.0g.
150G-607	GE PJC11	A607	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-607/CL/MS	GE-AMH-4.76-250	A607	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-607/IS	GE-AMH-4.76-250	A607	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-607/POS, 152-607/a, 152-607/b	GE-AMH-4.76-250	A607	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-607/SM/LS	GE-AMH-4.76-250	A607	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
152-607Y	GE-AMH-4.76-250	A607	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
183-6X	GE 12HFA154E22H	A602	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
183-6X1	GE 12HFA154E22H	A610	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
K83	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K90	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SSEL Line Number: 7025 Plant System: DOL Component/Subsystem: P-11

42/a, 42/b, 49/OI.	MCC	B4202	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
K14	P&B MDR 163-1	C292	EFT-960	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-ARR.3 = 9.0/5.4g.

SSEL Line Number: 9005 Plant System: ESW Component/Subsystem: P-111A

42, 42/a, 42/b, 49/OL	MCC	B3435	EFT-944	SWGR - Seismic Demand (EFT-944) = 1.05/0.23; GERS-MCC.9 = 1.5/1.0g.
ESRX1	SQD Class 7001	C91	TB-931	CR - No GERS available.
ESRX2	SQD Class 7001	C91	TB-931	CR - No GERS available.

SSEL Line Number: 9006 Plant System: ESW Component/Subsystem: P-111B

42, 42/a, 42/b, 49/OL	MCC	B4319	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
ESRX1	SQD Class 7001	C92	TB-931	CR - No GERS available.
ESRX2	SQD Class 7001	C92	TB-931	CR - No GERS available.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
K18	P&B MDR 163-1	C292	EFT-960	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-ARR.3 = 9.0/5.4g.
K9	P&B MDR 163-1	C292	EFT-960	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-ARR.3 = 9.0/5.4g.
SSEL Line Number: 9007 Plant System: ESW Component/Subsystem: P-111C				
152-308/b	GE-AMH-4.76-250	A308	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-502/a	GE-AMH-4.76-250	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-509/a	GE-AMH-4.76-250	A509	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-511/a	GE-AMH-4.76-250	A511	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152X-502	Struthers Dunn 219	C243A	EFT-933	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 5.0/2.0g.
2A/DG5	Struthers Dunn 219	C243A	EFT-933	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 5.0/2.0g.
42, 42/a, 42/b, 49/OL	MCC	B3472	EFT-944	SWGR - Seismic Demand (EFT-944) = 1.05/0.23; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 9008 Plant System: ESW Component/Subsystem: P-111D				
152-408/b	GE-AMH-4.76-250	A408	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-602/a	GE-AMH-4.76-250	A602	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-609/a	GE-AMH-4.76-250	A609	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-610/a	GE-AMH-4.76-250	A610	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
152X-602	Struthers Dunn 219	C244B	EFT-933	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 5.0/2.0g.
2B/DG5	Struthers Dunn 219	C244B	EFT-933	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 5.0/2.0g.
42, 42/a, 42/b, 49/OL	MCC	B4472	EFT-933	SWGR - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5, SD=0.72/0.27g; GERS-MCC.9 = 1.5/1.0g.
K21	P&B MDR 163-1	C292	EFT-960	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-ARR.3 = 9.0/5.4g.

SSEL Line Number: 1032 Plant System: RHR Component/Subsystem: F-202A

10A-K18A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARR.5 = 7.5/3.0g.
10A-K19A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARR.5 = 7.5/3.0g.
150/151-504	GE IAC66	A504	TB-911	TEST - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; Reference PO PC4417MQ - 7.5/3.0g.
150G-504	GE PJC11	A504	TB-911	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-PPM.4 = 5.0/3.0g.
152-504/CL/MS	GE-AMH-4.76-250	A504	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-504/IS	GE-AMH-4.76-250	A504	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-504/POS, 152-504/a, 152-504/b	GE-AMH-4.76-250	A504	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-504/SM/LS	GE-AMH-4.76-250	A504	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-504Y	GE-AMH-4.76-250	A504	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
183-5X	GE 12HFA154E22H	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
183-5X1	GE 12HFA154E22H	A511	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
186-504	GE HEA	A504	TB-911	GERS - Seismic Demand (TB-911) = 1.17/0.25, panel amplification of 7, SD=8.19/1.75g; GERS-RLY-ALO.2=10.0/4.0g.
SSEL Line Number: 2030 Plant System: RHR Component/Subsystem: P-202B				
10A-K18B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K19B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
150/151-604	GE IAC66	A604	TB-931	TEST - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; Reference PO PC4417MQ - 7.5/3.0g.
150G-604	GE PJC11	A604	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-PPM.4 = 5.0/3.0g.
152-604/CL/MS	GE-AMH-4.76-250	A604	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-604/IS	GE-AMH-4.76-250	A604	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-604/POS, 152-604/a, 152-604/b	GE-AMH-4.76-250	A604	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-604/SM/LS	GE-AMH-4.76-250	A604	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-604Y	GE-AMH-4.76-250	A604	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
183-6X	GE 12HFA154E22H	A602	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevator</u>	<u>Resolution</u>
183-6X1	GE 12HFA154E22H	A610	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
186-604	GE HEA	A604	TB-931	GERS - Seismic Demand (TB-931) = 1.17/0.25, panel amplification of 7, SD=8.19/1.75g; GERS-RLY-ALO.2=10.0/4.0g.
K56	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K57	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K58	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K91	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SSEL Line Number: 1018 Plant System: RHR Component/Subsystem: P-202C

10A-K21A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K22A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
150/151-503	GE IAC66	A503	TB-911	TEST - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; Reference PO PC4417MQ - 7.5/3.0g.
150G-503	GE PJC11	A503	TB-911	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-PPM.4 = 5.0/3.0g.
152-503/CL/MS	GE-AMH-4.76-250	A503	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-503/IS	GE-AMH-4.76-250	A503	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-503/POS, 152-503/a, 152-503/b	GE-AMH-4.76-250	A503	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
152-503/SM/LS	GE-AMH-4.76-250	A503	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-503Y	GE-AMH-4.76-250	A503	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
183-5X	GE 12HFA154E22H	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
183-5X1	GE 12HFA154E22H	A511	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
186-503	GE HEA	A503	TB-911	GERS - Seismic Demand (TB-911) = 1.17/0.25, panel amplification of 7, SD=8.19/1.75g; GERS-RLY-ALO.2=10.0/4.0g.

SSEL Line Number: 2033 Plant System: RHR Component/Subsystem: P-202D

10A-K21B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 7.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
10A-K22B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
150/151-603	GE IAC66	A603	TB-931	TEST - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; Reference PO PC4417MQ - 7.5/3.0g.
150G-603	GE PJC11	A603	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-PPM.4 = 5.0/3.0g.
152-603/CL/MS	GE-AMH-4.76-250	A603	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-603/IS	GE-AMH-4.76-250	A603	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-603/POS, 152-603/a, 152-603/b	GE-AMH-4.76-250	A603	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-603/SM/LS	GE-AMH-4.76-250	A603	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
152-603Y	GE-AMH-4.76-250	A603	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
183-6X	GE 12HFA154E22H	A602	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
183-6X1	GE 12HFA154E22H	A610	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
186-603	GE HEA	A603	TB-931	GERS - Seismic Demand (TB-931) = 1.17/0.25, panel amplification of 7, SD=8.19/1.75g; GERS-RLY-ALO.2=10.0/4.0g.
K81	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K89	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SSEL Line Number: 3061 Plant System: CSP Component/Subsystem: P-208A

14A-K12A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
150/151-505	GE IAC66	A505	TB-911	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; Reference PO PC4417MQ - 7.5/3.0g.
150G-505	GE PJC11	A505	TB-911	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-PPM.4 = 5.0/3.0g.
152-505/CL/MS	GE-AMH-4.76-250	A505	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-505/IS	GE-AMH-4.76-250	A505	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-505/POS, 152-505/a, 152-505/b	GE-AMH-4.76-250	A505	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-505/SM/LS	GE-AMH-4.76-250	A505	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
152-505Y	GE-AMH-4.76-250	A505	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
183-5X	GE 12HFA154E22H	A502	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
183-5X1	GE 12HFA154E22H	A511	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
186-505	GE HEA	A505	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
SSEL Line Number: 3064 Plant System: CSP Component/Subsystem: P-208B				
14A-K12B	GE 12HFA151A2F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
150/151-605	GE IAC66B4A	A605	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; Reference PO PC4417MQ - 7.5/3.0g.
150G-605	GE PJC11AV1A	A605	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-PPM.4 = 5.0/3.0g.
152-605/CL/MS	GE-AMH-4.76-250	A605	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-605/IS	GE-AMH-4.76-250	A605	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-605/POS, 152-605/a, 152-605/b	GE-AMH-4.76-250	A605	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-605/SM/LS	GE-AMH-4.76-250	A605	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-605Y		A605	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
183-6X	GE 12HFA154E22H	A602	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
183-6X1	GE 12HFA154E22H	A610	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
186-605	GE HEA	A605	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
K59	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K60	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K61	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K91	Agastat EGPD	C293	TB-931	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SSEL Line Number: 1052 Plant System: RSW Component/Subsystem: SV-1728

152-507/a	GE-AMH-4.76-250	A507	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-508/a	GE-AMH-4.76-250	A508	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.

SSEL Line Number: 2095 Plant System: RSW Component/Subsystem: SV-1729

152-607/a	GE-AMH-4.76-250	A607	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
152-608/a	GE-AMH-4.76-250	A608	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
K5	P&B MDR 163-1	C292	EFT-960	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-ARR.3 = 9.0/5.4g.

SSEL Line Number: 1030 Plant System: RHR Component/Subsystem: SV-1994

10A-K80A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARR.5 = 8.8/3.5g.
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SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 2133 Plant System: RHR Component/Subsystem: SV-1995				
10A-K80B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARRH.5 = 8.8/3.5g.
152-604	GE-AMH-4.76-250	A604	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MVS/LVS.7 = 1.8/1.0g.
K3	P&B MDR 163-1	C292	EFT-960	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-ARR.3 = 9.0/5.4g.
K87	Agastat E7012	C292	EFT-960	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-PNT.7 = 12.5/5.0g.
SSEL Line Number: 1029 Plant System: RHR Component/Subsystem: SV-1996				
10A-K81A	GE 12HGA11A52F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARRH.5 = 8.8/3.5g.
SSEL Line Number: 2132 Plant System: RHR Component/Subsystem: SV-1997				
10A-K81B	GE 12HGA11A52F	C33	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARRH.5 = 8.8/3.5g.
SSEL Line Number: 12247 Plant System: APR Component/Subsystem: SV-2-71A				
2E-K11A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARRH.5 = 7.5/3.0g. Chatter in closed contact could cause momentary loss of power to SV. This chatter is acceptable since the ADS logic includes a 107 second timer which would prevent any operation of the SV until after the seismic event.
2E-K6A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARRH.5 = 7.5/3.0g. NC contact provides indication only and chatter is acceptable.
2E-K6B	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARRH.5 = 7.5/3.0g. NC contact provides indication only and chatter is acceptable.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
2E-K7A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
2E-K7B	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.

SSEL Line Number: 12013 Plant System: APR Component/Subsystem: SV-2-71B

2E-K11D	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g. Chatter in closed contact could cause momentary loss of power to SV. This chatter is acceptable since the ADS logic includes a 107 second timer which would prevent any operation of the SV until after the seismic event.
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SSEL Line Number: 12148 Plant System: APR Component/Subsystem: SV-2-71C

2E-K11C	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g. Chatter in closed contact could cause momentary loss of power to SV. This chatter is acceptable since the ADS logic includes a 107 second timer which would prevent any operation of the SV until after the seismic event
2E-K6A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g. NC contact provides indication only and chatter is acceptable.
2E-K6B	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g. NC contact provides indication only and chatter is acceptable.
2E-K7A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
2E-K7B	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 12285 Plant System: APR Component/Subsystem: SV-2-71D				
2E-K11B	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g. Chatter in closed contact could cause momentary loss of power to SV. This chatter is acceptable since the ADS logic includes a 107 second timer which would prevent any operation of the SV until after the seismic event
2E-K6A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
2E-K6B	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g.
2E-K7A	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g. NC contact provides indication only and chatter is acceptable.
2E-K7B	GE 12HFA151A2F	C32	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 7, SD=5.0/1.9g; GERS-RLY-ARH.5 = 7.5/3.0g. NC contact provides indication only and chatter is acceptable.
SSEL Line Number: 12245 Plant System: APR Component/Subsystem: SV-2-71E				
K2A	Agastat EGPB	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K2C	Agastat EGPB	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K3A	Agastat E7022	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-PNT.7 = 6.0/2.4g.
K3C	Agastat E7022	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-PNT.7 = 6.0/2.4g.
K4A	Agastat EGPB	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K4C	Agastat EGPB	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
K5A	Agastat EGPB	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K6A	Agastat EGPB	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K7A	Agastat EGPB	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K7C	Agastat EGPB	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SSEL Line Number: 12041 Plant System: APR Component/Subsystem: SV-2-71G

K10A	Agastat E7022	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-PNT.7 = 6.0/2.4g.
K10C	Agastat E7022	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-PNT.7 = 6.0/2.4g.
K11A	Agastat EGPB	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K11C	Agastat EGPB	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K12A	Agastat EGPB	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K12C	Agastat EGPB	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K5A	Agastat EGPB	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K6A	Agastat EGPB	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K9A	Agastat EGPB	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K9C	Agastat EGPB	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
SSEL Line Number: 12134 Plant System: APR Component/Subsystem: SV-2-71H				
K14A	Agastat E7022	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-PNT.7 = 6.0/2.4g.
K14C	Agastat E7022	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-PNT.7 = 6.0/2.4g.
K15A	Agastat EGPD	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K15C	Agastat EGPD	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K16A	Agastat EGPB	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K16C	Agastat EGPB	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K17A	Agastat EGPB	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K17C	Agastat EGPB	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K5A	Agastat EGPB	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K6A	Agastat EGPB	C253A	CSR-939	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
SSEL Line Number: 12244 Plant System: APR Component/Subsystem: SV-2-71J				
K18B	Agastat EGPD	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K2B	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K2D	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
K3B	Agastat E7022	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-PNT.7 = 6.0/2.4g.
K3D	Agastat E7022	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-PNT.7 = 6.0/2.4g.
K4B	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K4D	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K5B	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K6B	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K7B	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K7D	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K85	Agastat EGPI	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SSEL Line Number: 12042 Plant System: APR Component/Subsystem: SV-2-71K

K10B	Agastat E7022	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-PNT.7 = 6.0/2.4g.
K10D	Agastat E7022	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-PNT.7 = 6.0/2.4g.
K11B	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K11D	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K12B	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
K12D	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K18B	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K5B	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K6B	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K85	Agastat EGPI	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K9B	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K9D	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SSEL Line Number: 12136 Plant System: APR Component/Subsystem: SV-2-71L

K14B	Agastat E7022	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-PNT.7 = 6.0/2.4g.
K14D	Agastat E7022	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-PNT.7 = 6.0/2.4g.
K15B	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K15D	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K16B	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K16D	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K17B	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
K17D	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K18B	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K5B	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K6B	Agastat EGPB	C253B	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
K85	Agastat EGPI	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.

SSEL Line Number: 12120 Plant System: APR Component/Subsystem: SV-2-71M

K85	Agastat EGPI	C292	EFT-960	GERS - Seismic Demand = 0.32/0.12(GRS) X 1.5 X 1.5 X panel amplification of 4.5, SD=3.2/1.2g; GERS-RLY-ARS.4 = 3.3/1.3g.
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SSEL Line Number: 9109 Plant System: HTV Component/Subsystem: V-AC-4

42, 42/b, 49/OL	MCC	B4305	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
K15	P&B MDR 163-1	C292	EFT-960	GERS - Relay in high amplification cabinet < 40 above grade, GERS of > 8g. GERS-RLY-ARR.3 = 9.0/5.4g.

SSEL Line Number: 9183 Plant System: HTV Component/Subsystem: V-AC-5

42, 42/b, 49/OL	MCC	B3305	TB-911	SWGR - Seismic Demand (TB-911) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
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SSEL Line Number: 7152 Plant System: HTV Component/Subsystem: V-SF-10

49/OL	KLOCKNER-MOELLER MCC	B3474	EFT-944	SWGR - Seismic Demand (EFT-944) = 1.05/0.23; GERS-MCC.9 = 1.5/1.0g.
ESRX1	SQD Class 7001	C91	TB-931	CR - No GERS available.
ESRX2	SQD Class 7001	C91	TB-931	CR - No GERS available.

SQUG Relay Review Essential Relay Seismic Capacity Evaluation Results

<u>Relay Designation</u>	<u>Relay Type</u>	<u>Panel</u>	<u>Floor Elevation</u>	<u>Resolution</u>
PR/a	KLOCKNER-MOELLER MCC	B3474	EFT-944	SWGR - Seismic Demand (EFT-944) = 1.05/0.23; GERS-MCC.9 = 1.5/1.0g.
SSEL Line Number: 7151 Plant System: HTV Component/Subsystem: V-SF-9				
49/OL	MCC	B4317	TB-931	SWGR - Seismic Demand (TB-931) = 1.17/0.25; GERS-MCC.9 = 1.5/1.0g.
ESRX1	SQD Class 7001	C92	TB-931	CR - No GERS available.
ESRX2	SQD Class 7001	C92	TB-931	CR - No GERS available.
SSEL Line Number: 6010 Plant System: 250 Component/Subsystem: Y71				
Inverter Controls	Elgar	Y71	EFT-944	GERS - Seismic Demand (EFT-944) = 1.05/0.23; GERS-INV.4 = 2.8/2.0g.
SSEL Line Number: 6004 Plant System: 250 Component/Subsystem: Y81				
Inverter Controls	Elgar	Y81	EFT-960	GERS - Seismic Demand (EFT-944) = 1.05/0.23; GERS-INV.4 = 2.8/2.0g.