

DUQUESNE LIGHT COMPANY

Nuclear Group

APPROVAL SHEET - ADMINISTRATIVE

SITE ADMINISTRATIVE PROCEDURES

Chapter 9D, Title FIRE PROTECTION

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NUCLEAR GROUP APPROVAL

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DUQUESNE LIGHT COMPANY  
Nuclear Group  
Site Administrative Procedures

LIST OF EFFECTIVE PAGES

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DUQUESNE LIGHT COMPANY  
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Site Administrative Procedures

Chapter 9D

FIRE PROTECTION

I. PURPOSE

To define the administrative authorities, responsibilities and requirements of the Site Fire Protection Program.

II. APPLICABILITY

Applies to all Nuclear Group personnel. The basic fire protection administrative organization chart is shown on Figure 1.

III. DEFINITIONS

NOTE: Certain words (such as OPERABLE, CHANNEL FUNCTIONAL TEST, COLD SHUTDOWN, etc.) within this procedure are applicable to the definitions identified in the Technical Specifications, Section 1.0.

- A. A Fire Area is the portion of a building or plant that is separated from other areas by boundary fire barriers (walls, floors, and ceilings including seals, fire dampers and doors).
- B. Fire Barriers are those components of construction (walls, floors, ceilings) that are rated in hours of fire resistance to prevent the spread of fire.
- C. Sub-areas or Zones are subdivisions of fire areas in which fire suppression systems are designed to combat particular types of fires.
- D. A Fire Watch or Fire Barrier Attendant is an individual assigned to attend open fire barriers (fire door, penetration, etc.), to monitor areas during periods when existing fire protection systems are inoperable, or to monitor work processes and equipment or room conditions for possible fire hazards. The individual shall be trained in fire reporting procedures and portable fire extinguishing equipment.
- E. Ignition Source is any form of welding, soldering, brazing, grinding or open flame work.
- F. Combustible Material is any material that will burn or sustain the combustion process whether or not it exhibits flame under exposed fire conditions.

- G. Fire Retardant Wood is treated wood which exhibits fire retardant properties or wood coated with a U.L. listed fire retardant compound having a flame spread rating of 25 or less.
- H. Flammable Liquid is any liquid having a flash point below 100°F, except any mixture having components with flash points of 100°F or higher, the total of which make up 99% or more of the total volume of the mixture (i.e., solvents, etc.).
- I. Combustible Liquid is any liquid having a flash point of 100°F or higher (i.e., lube oil, etc.).
- J. Flash Point is the minimum temperature at which a liquid gives off vapor within a test vessel in sufficient concentration to form an ignitable mixture with air near the surface of the liquid.
- K. Incipient-type Fire is a fire in its initial or beginning stage that can be controlled or extinguished by portable extinguishing equipment.

#### IV. ORGANIZATION AND RESPONSIBILITIES

An Administrative Organization Chart, Figure 1 depicts the organization relative to the implementation of the fire protection program.

- A. Supervisory personnel shall have the authority and responsibility for activities which are conducted by individuals under their general supervision with respect to the fire protection program.
- B. Department Managers have responsibility for the activities conducted under their control. They, in turn, are to hold accountable each supervisor, staff member and worker for the proper performance of activities associated with the fire protection program.
- C. The Manager, Quality Assurance Unit is responsible for developing and implementing an inspection and audit program that verifies DLC compliance with the Fire Protection Program.
- D. The Manager, Nuclear Engineering Department is responsible for ensuring that plant modifications comply with design criteria for fire protection, and has responsibility for evaluating update requests and maintenance of the BVPS Unit 1 Updated Fire Protection Appendix R Review Report (UFPARRR) and the BVPS Unit 2 Fire Protection Safe Shutdown Report (FPSSR). He is responsible for assuring the periodic update of the Unit 1 and Unit 2 Reports and coordinating, tracking

and processing of proposed changes as per the instructions provided in Attachment A of this procedure.

- E. Section reviewers identified in Tables 1A and 2A of Attachment A are responsible for review of proposed changes to the BVPS Unit 1 UFPARR and the BVPS Unit 2 FPSSR.
- F. The Manager, Nuclear Safety has responsibility for the overall administration of the fire protection program.
- G. The Manager, Nuclear Training is responsible for development, implementation and revision of the fire training program, as well as coordinating, scheduling and providing classroom training.
- H. The Director of Licensing is responsible for directing the efforts associated with the implementation of the fire protection program.
- I. The Senior Licensing Supervisor has responsibility for supervising the Fire Protection Engineers, the overall implementation and assessment of effectiveness of the fire protection program, and for ensuring the development of proper fire protection training program for Nuclear Group personnel. He is also responsible for updating this procedure and performing the two-year review per SAP 11.
- J. Fire Protection Engineers:
  - 1. Responsible for monitoring the day-to-day implementation of the fire protection and prevention program.
  - 2. Periodically assess the effectiveness of BVPS site fire protection program including Fire Brigade and fire protection training, fire drills and fire prevention program reviews, as required.
  - 3. Assist in the design and selection of fire protection equipment.
  - 4. Ensure the required fire protection and prevention procedures are in place and conduct a periodic review of such procedures.
  - 5. Responsible for assisting other departments in development and implementation of procedures in matters affecting fire protection and prevention.
  - 6. Responsible for evaluating and analyzing fire hazards and activities concerning fire protection and prevention.

7. Provide the Nuclear Group staff with technical information and expertise, as required, in the area of fire protection and prevention.
8. Responsible for processing of open burning permit for purposes of fire school training on an annual basis from the State of Pennsylvania Bureau of Air Quality Control.

J. Site Fire Brigade (Emergency Squad)

The structure of the Site Fire Brigade is shown in Figure 2 - Site Fire Brigade (Emergency Squad) Organization Chart.

The function of the Fire Brigade (also referred to as the Emergency Squad) is to execute the necessary actions during an emergency to alleviate or minimize the consequences of the emergency.

A Fire Brigade of at least 5 members shall be maintained on site at all times. The Fire Brigade shall not include 3 members of the minimum shift crew necessary for safe shutdown of the unit or any personnel required for other essential functions during a fire emergency.<sup>1</sup>

Members of the Site Fire Brigade are assigned responsibility as follows:

1. Brigade Chief - Nuclear Station Operating Foreman (or, in his absence, as assigned by on-duty Shift Supervisor).
  - a. Coordinates activities between Brigade & Control Room in the execution of emergency procedures.
  - b. Determines what actions are necessary to control and extinguish the fire as well as evaluating radiological hazards.
  - c. Ensures that the necessary fire suppression systems are activated and that the Fire Brigade members safely utilize the proper equipment.
  - d. Augments the brigade with any available personnel or offsite organizations if the fire or first-aid emergency needs are such that the basic squad cannot adequately control the incident.
  - e. Determines if an area should be evacuated of non-essential personnel and the escape route(s) that should be utilized.

2. Brigade Captain - Nuclear Control Operator (or, in his absence, as assigned by on-duty Shift Supervisor)
  - a. Assumes duties of the Chief in his absence.
  - b. Directs the fire-fighting operations of the brigade.
  - c. Clears all energized equipment (without affecting safe shutdown capability) which may endanger safe execution of fire fighting activities of the Brigade personnel.
  - d. Assures availability of necessary emergency equipment.
3. Additional Brigade members:
  - a. The additional Brigade members carry out the orders of the Brigade Captain in controlling and extinguishing the fire and/or caring for the injured.
  - b. Each member of the Fire Brigade shall be capable of acting:
    - 1) To alert the site Fire Brigade.
    - 2) To recognize the fire alarm and respond properly and in accordance with approved pre-fire plan procedures/strategies.
    - 3) To use available rescue and fire-fighting equipment.
    - 4) To safely evacuate non-essential personnel from the affected area, if necessary.
    - 5) To utilize the portable and fixed fire extinguishing suppression systems.
    - 6) To cooperate with offsite fire department personnel in a coordinated fire-fighting effort.
4. Fire Marshall(s) - A fire marshall may be any one of the following:
  - Any qualified brigade member
  - Any DLC supervisor, qualified as such through the fire training program

- a. Shall be qualified to handle incipient-type fires in accordance with fire training program.
  - b. Shall aid in safely evacuating non-essential personnel from the area.
  - c. Shall assist the brigade so as to alleviate and minimize the consequences of the fire emergency.
5. Brigade Assistant(s); The Brigade Chief is authorized to commandeer any qualified DLC employee to assist the Brigade force when such assistance is required. It is the responsibility of those commandeered DLC employees to perform the assigned tasks to the best of their ability without disruption to the Brigade force.

V. REFERENCES

1. BVPS Unit 1 (2) FSAR, Section 9.10 (9.5.1 and Appendix 9.5A) - Fire Protection System (FPS).
2. BVPS Unit 1 (2) Technical Specifications.
3. BVPS Unit 1 (2) Operating Manual, Chapter 33 (2.33), FPS.
4. BVPS Unit 1 (2) Operating Manual, Chapter 55A.4 (2.55A.4) Operations Surveillance Tests, 1.33 (2.33) Series.
5. BVPS Unit 1 (2) Operating Manual, Chapter 56B (2.56B), Fire Prevention and Control.
6. BVPS Unit 1 (2) Operating Manual, Chapter 56C (2.56C) Alternate Safe Shutdown from Outside Control Room.
7. BVPS Units 1/2 Maintenance Manual. Section 13, General Work Practice Procedures.
8. Fire Protection Safety Evaluation Report dated May 3, 1979 issued by the NRC for BVPS 1 (Tech. Spec., Amendment 18).
9. Appendix A to Branch Technical Position APCS 9.5-1, Guidelines for Fire Protection for Nuclear Power Plants Docketed Prior to July 1, 1976.
10. Nuclear Plant Fire Protection Functional Responsibilities, Administrative Controls, and Quality Assurance, NRC letter dated August 29, 1977.
11. 10 CFR 50.48 - Fire Prot. for Operating Nuclear Power Plant.
12. Appendix R to 10 CFR 50.
13. NRC Generic Letter 86-10.
14. Updated Fire Protection App. R Review Report for BVPS 1.
15. Fire Protection Safe Shutdown Report for BVPS Unit 2.
16. NRC Inspection Reports 87-11 and 87-17 for BVPS Unit 2.
17. Appendix C of DLC - Operations QA Program
18. Safety Evaluation Report (SER) related to BVPS No. 2 (NUREG 1057), Section 9.5.1 Fire Protection Program.
19. Facility Operating License No. NPF-64, BVPS Unit 2.
20. QA Audit Response (BV-C-87-12), ND3VPN:5307 dated Jan. 29, 1988.

VI. INSTRUCTIONSA. Requirements

1. All activities and requirements associated with the fire protection program shall be conducted in accordance with this procedure and the applicable fire protection sections of the FSAR for Units 1 and 2.
2. 10 CFR Part 50, General Design Criterion 3 (GDC 3) of Appendix A specifies that structures, systems, and components important to safety shall be designed and located to minimize the probability and effect of fires and explosions.
3. 10 CFR 50.48 - "Fire Protection," requires each operating nuclear power plant have a fire protection plan that satisfies GDC 3 of Appendix A. The plan shall describe the overall fire protection program per the guidelines of Appendix A to BTP APCSB 9.5-1, "Guidelines for Fire Protection for Nuclear Power Plants Docketed Prior to July 1, 1976."
  - a. A Fire Protection Safety Evaluation Report (dated May 3, 1979) was issued by the NRC for BVPS Unit 1 and documented as Amendment No. 18 to the Technical Specifications.
4. Clarification and guidance with respect to permissible alternatives to satisfy Appendix A to BTP APCSB 9.5-1 is provided in NRC document "Nuclear Plant Fire Protection Functional Responsibilities, Administrative Control and Quality Assurance." Compliance to this document is required to meet the fire protection QA program criteria of Appendix A to BTP 9.5-1 for BVPS Unit 1.
5. Appendix R to 10 CFR Part 50 establishes fire protection features required to satisfy GDC 3 for BVPS Unit 1 as follows:
  - Section III.G; Safe Shutdown Capability
  - Section III.J; Emergency Lighting
  - Section III.O; RCP Oil Collection System

An Appendix R report ("Updated Fire Protection Appendix R Review") was prepared for BVPS Unit 1 which contains the fire hazards analysis and summarizes the investigative electrical analysis performed for BVPS Unit 1 to determine if fires within a single area could jeopardize the ability to safely shutdown the plant.

NRC Safety Evaluation Report for Appendix R to 10 CFR 50 was issued on January 5, 1983, for BVPS Unit 1.



Exemptions for specific fire areas of the plant were granted per NRC letters dated March 14, 1983; August 30, 1984; December 4, 1986; and July 27, 1987.

6. Branch Technical Position (BTP) CMEB 9.5-1, which is part of the acceptance criteria of Standard Review Plan 9.5.1 (NUREG 0800), dated July 1981, also provides guidelines acceptable to the NRC for implementing GDC 3 in the development of a fire protection program. The BVPS Unit 2 Fire Protection System (FPS) was designed using the guidance of Branch Technical Position (BTP) CMEB 9.5-1. BVPS Unit 2 utilizes alternatives to the guidance provided in Branch Technical Position CMEB 9.5-1 with the associated justifications provided in Appendix 9.5A of the FSAR.
  - a. A Fire Protection Safety Evaluation Report was issued for BVPS Unit 2 as part of NUREG 1057, "SER Related to the Operation of BVPS Unit 2."
7. The BVPS Unit 1 and BVPS Unit 2 operating license establishes the requirement for implementing and maintaining in effect all provisions of the fire protection program. Table 1 and 2 of this SAP provides the operability and surveillance requirements, respectively, for the fire protection systems for both Units 1 and 2.
8. The fire insurance requirements (Tables 3 and 4) for the fire protection systems were added to this SAP to provide a single source document where all fire protection requirements could be located. The fire insurance requirements are not to be construed as conditions for our operating license under NRC rules and regulations.

#### B. Operation

1. Fire detection and suppression systems shall be operated in accordance with established operating procedures and instructions.
2. Permanent and portable fire protection equipment shall be operated in accordance with Operating Manual Chapter 1.33 (2.33) - Fire Protection System, and Operating Manual Chapter 1.55A (2.55A) - Operations Surveillance Testing of Fire Protection Equipment.
3. Permanent and portable fire protection equipment should not be used for purposes other than fire protection.

C. Maintenance

1. Maintenance or repair of fire protection systems, equipment or elements shall be requested and performed in accordance with SAP 3D, "The Maintenance Work Request." The Fire Protection Engineer shall review maintenance work requests tracking reports for MWRs categorized as Category "F" or classified as Operating Manual System Chapter 33, "Fire Protection System".<sup>19</sup>
2. First-line supervisors shall ensure the requirements for transient combustibles, ignition sources, and fire barrier penetrations or barriers are met as described in Maintenance Manual, Section 13.

D. Inspection and Testing

1. Table 2, "Fire Protection System Surveillance Requirements" identifies the minimum requirements for periodic testing and inspection that is delineated in the FSAR for BVPS Units 1 and 2.
2. Open flame testing for leak testing purposes is prohibited.
3. Fire rated assemblies and penetration seals are inspected in accordance with approved station testing procedures.
4. Operations testing for fire protection related equipment (33 series) is performed in accordance with Operations Surveillance Tests (OSTs).
5. Maintenance testing for fire protection related equipment (33 series) is performed in accordance with Maintenance Surveillance Procedures (MSPs), Preventive Maintenance Procedures (PMPs), Corrective Maintenance Procedures (CMPs) and Instrument Calibration Procedures (ICPs).
6. Post-maintenance testing shall be performed in accordance with SAP 8A, "Maintenance," and SAP 3D, "The Maintenance Work Request."
7. Operations Quality Control (OQC) activities that govern surveillance and inspection of maintenance for fire protection related equipment (Category F) are identified in OQC Procedures.

E. Control of Ignition Sources

1. Any activity involving an ignition source (such as welding, cutting, grinding and open flame work)

potentially affecting safety related equipment shall be governed by a Hot Work Permit in accordance with the BVPS 1/2 Maintenance Manual, Section 13. The Area Work Permit (SAP 41) is an acceptable alternative to the use of a Hot Work Permit during maintenance outage periods and for work activities in non-safety related areas (yard areas, fab shops, etc.).

2. Smoking is prohibited except in designated areas of the plant. Smoking areas have been specifically designated and identified with signs posted in areas.

F. Control of Combustibles and Flammable Liquids

1. Control of transient combustibles and flammable liquids shall be in accordance with Operating Manual 1.56B.4 (2.56B.4), "Fire Prevention and Control," and Maintenance Manual, Section 13. Procedures have been developed to establish the following controls:
  - a. All waste, debris, scrap, rags, oil spills, or other unnecessary combustibles resulting from work activity in safety-related areas are to be removed and/or cleaned up as soon as possible.
    - 1) For noncontinuous work activities, highly combustible materials will be cleaned up at the end of the shift or activity, whichever is sooner.
    - 2) Low hazard combustible material will be removed at the end of the work activity.
  - b. Approved trash containers are provided in safety-related areas.
  - c. Periodic inspections for accumulation of combustibles and transient fire loading during maintenance are conducted in safety-related areas in accordance with housekeeping procedures.
  - d. Combustibles required for operation and maintenance in safety-related areas are stored in proper receptacles or approved storage cabinets. Stairwells are not used for storage of combustibles. Flammable liquids required for maintenance are issued only in fixed amounts and in approved containers.
  - e. Charcoal and particulate filters not stored in approved fire-retardant containers will be removed from safety-related areas as soon as possible or

stored in areas serviced by a deluge spray or sprinkler system.

- f. Transient combustible materials in safety-related areas will not be left unattended unless special provisions have been provided or the material is properly stored. The Fire Protection Engineer will be contacted, if necessary, to specify additional fire protection for potential transient fire hazards that cannot be avoided.
- g. The primary fire protection concept for the Reactor Containment area is to minimize the use of combustible materials. During maintenance and outage periods, administrative controls will be adhered for controlling transient fire loads.
- h. The combustible contents of the Condensate Polishing Building will be confined to the specific areas protected by automatic sprinkler systems. The ventilation system charcoal filter provided with a heat detector with control room alarm indication and manual deluge system capability is an exception.<sup>1</sup>
- i. All lumber and wood required for use will be treated. Fire-retardant wood will be limited to temporary use. Large wooden timbers, or any special size or application-type lumber not available as treated wood, may be coated or wrapped with an Underwriters' Laboratory (UL) listed fire-retardant compound or material.

Exceptions are wood in the form of crates or shipping boxes (including any packing material) which will be removed as soon as possible after removal of equipment from boxes. In addition, wooden step ladders and relay test rigs required for certain job functions are acceptable provided they are stored properly after use.

#### G. Engineering Design and Procurement Document Control

1. Except for certain Fire Protection System (FPS) valves that interface with Category I Systems, fire protection equipment shall be designated as "Category F". The special category designation is to insure that the guidelines for design, procurement, installation, testing and inspection and administrative controls for the fire protection system are adequately reviewed and controlled. Operations Quality Control (OQC) activities associated with these requirements are described in applicable OQC procedures.

2. Fire Protection equipment shall conform to the type identified in the list of approved equipment issued by Underwriter's Laboratories, and/or conforms to the applicable NFPA Standards.
3. Preparation, review and approval of procurement and design documents shall be accomplished in accordance with written procedures. The Fire Protection Engineer shall be included in the review cycle and shall review and approve all purchase requisitions and design documents associated with fire protection equipment regardless of category.
4. Modifications to the Fire Protection System shall be designed utilizing the guidelines of NFPA Codes and with consideration of recommendations from the Fire Insurance carrier. The following documents shall be considered in the design of physical modifications to permanent fire protection equipment.
  - BVPS Unit 1 - Updated Final Safety Analysis Report (UFSAR) and the Updated Fire Protection Appendix R Review Report (UFPARRR).
  - BVPS Unit 2 - Final Safety Analysis Report (FSAR) and the Fire Protection Safe Shutdown Report (FPSSR).
5. Any changes involving fire protection equipment and/or systems shall be reviewed for compliance with applicable NFPA codes.
6. Prior to installation of new equipment or major modification to existing equipment, design drawings of FPS and equipment installations shall be submitted to the Fire Protection Engineer and the fire insurance carrier for review and approval.
7. The Fire Protection Engineer shall perform in-process inspections of FPS new installations or modifications to the FPS.
8. The BVPS Unit 1 UFPARRR and the BVPS Unit 2 FPSSR shall be periodically updated. Changes to the Reports shall be made per Instructions provided in Attachment A to this SAP.

H. Training

## 1. Instruction

- a. Training will be accomplished in accordance with Training Manual, Section 9.3 "Fire Protection Training," which meets the requirements of OSHA Standard 29 CFR 1910.156(c), 10 CFR 50.48, NFPA 27-1976, and the guidelines established in BTP CMEB 9.5-1.

## 2. Training Program

- a. The training program includes instructions to all station personnel regarding immediate actions to be taken upon discovery of a fire.
- b. Fire Brigade members are given regular training and practice in fire fighting and rescue routines, including radiological control practices, evacuation procedures and escape routes, etc., to ensure that each member is thoroughly familiar with the steps to be taken in the event of a fire.

Classroom instructions, with training aids such as literature and other audio and/or visual aids, and practical, hands-on training are provided to familiarize the members of the Fire Brigade in fire fighting techniques and equipment.

- c. Fire Watches and Fire Barrier Attendants are provided with initial hands-on training of fire extinguishers, trained in proper fire reporting procedures, and provided with an annual familiarization through the General Employee Refresher Training (GERT) program.
- d. Fire Marshalls are given periodic training in fire-fighting and evacuation procedures and escape routes, as appropriate.
- e. Training records shall be maintained for at least 3 years.

## 3. Fire Drills

- a. Plant fire drills and critiques shall be periodically scheduled and conducted in accordance with the Fire Training Program.
- b. Each Shift Fire Brigade Squad will conduct at least four (4) drills per year which will include the use of fire protection and/or first aid equipment.

Each Brigade Squad member will participate in at least (2) drills per year.<sup>8</sup>

- c. Drills will periodically be held on back-shift, will normally be unannounced and will include a critique as well as assessment of equipment and Brigade effectiveness.
- d. All fire brigade personnel will participate in a retraining program over a two (2) year period.
- e. A site fire drill will be conducted with local fire department participation at least annually.
- f. A cable spreading room drill will be conducted by each shift fire brigade squad at least once a year (applicable to Unit 2).<sup>17</sup>

#### I. Prefire Plans

1. Strategies for fighting fires in all safety-related areas and in areas presenting a hazard to safety-related equipment are defined in Operating Manual 1.56B.3 (2.56B.3), "Prefire Plan Strategies." These strategies are not procedures or instructions per se, but serve as resource information to be used for training purposes and by the fire brigade as an aid to fire fighting.

#### J. Quality Assurance

1. Fire Protection shall be conducted in accordance with Appendix C of the DLC - Operations Quality Assurance Program.
2. The Quality Assurance program ensures that the guidelines for design, procurement, installation, testing, inspection and administrative controls for the Fire Protection Program are adequately reviewed and controlled.

#### K. Physical Requirements

1. Qualifications of fire brigade members include physical examinations in accordance with guidelines of ANSI N-546 conducted every three years, and an annual review by the Duquesne Light Company Medical Department to screen personnel for medical problems.



L. Program Review

1. Audits shall be conducted utilizing the guidelines of Generic Letter 82-21 and performed under the cognizance of the Offsite Review Committee.<sup>16</sup>
  - a. The fire protection program and implementing procedures shall be reviewed at least once per 24 months by the QA Unit.
  - b. An independent fire protection and loss prevention program inspection and audit shall be performed at least once per 12 months utilizing either qualified offsite licensee personnel, an outside fire protection firm, QA or American Nuclear Insurers (ANI).
  - c. An inspection and audit of the fire protection and loss prevention program shall be performed by a qualified outside fire consultant or ANI at least once per 36 months.
2. The fire insurance carrier periodically performs independent inspections and audits of the fire protection and prevention program. Resolution of items or recommendations from audits and inspections shall be handled in accordance with NGD 8, "Audits and Inspections".

M. Records

1. Records which document compliance with the fire protection program shall be retained in accordance with Site Administrative Procedure Chapter 7, "Office, Records Management and Security."

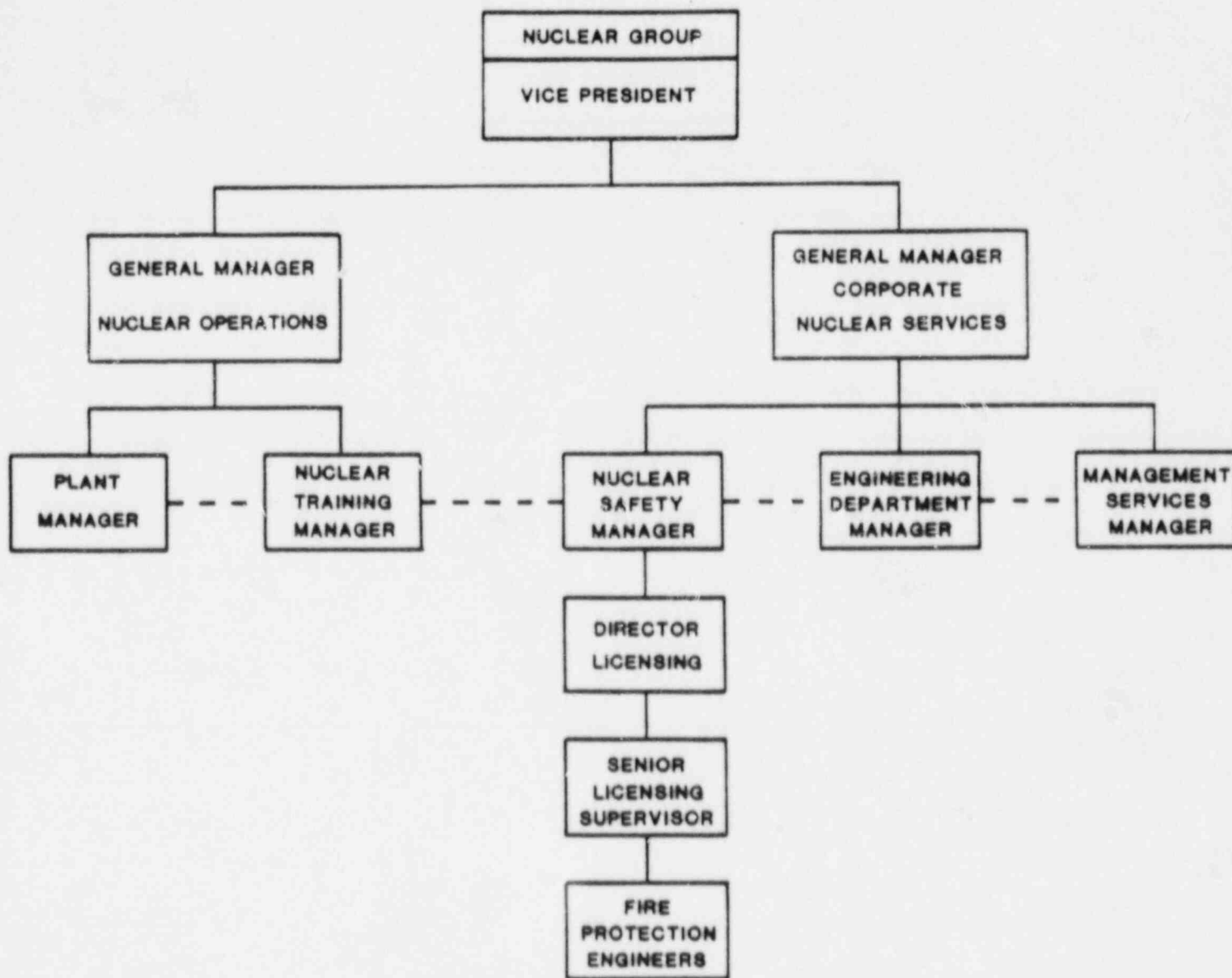
N. Out-of-Service Requirements/Reportability

1. Tag-out of the fire detection and fire suppression systems shall be in accordance with SAP 41, "Clearance Procedures." The on-duty Shift Supervisor for the respective unit shall ensure compliance with operability requirements for fire protection.
  - a. The Fire Protection Impairment/System OOS Form (Figure 3) should be initiated by the work party and verified by Operations.
  - b. Refer to Tables 1 and 3 of this SAP for required actions to be taken for fire protection equipment inoperability. If a fire watch is required, the Fire Watch Log (OM 54, Log L8-2) shall be utilized.



2. An inoperable or partially inoperable (i.e., degraded) fire protection system or component as defined in Table 1 and Table 3 of this SAP shall be evaluated and considered for reporting as an impairment per SAP 3B, "Reporting Requirements", and appropriate actions taken. Reportability criteria of 10 CFR 50.72 and 10 CFR 50.73 should be evaluated for applicability.
  - a. Notifications of impairments shall be made per SAP 3B, as appropriate.
  - b. For applicability to 10 CFR 50.73, consideration for a fire event should be postulated when evaluating the degraded or inoperable condition for its potential effect on safe shutdown capability (Reference: SAP 13, "Preparation of Draft Incident Reports, Unit Off Normal Reports and Conduct of Critiques").

FIRE PROTECTION  
ADMINISTRATIVE ORGANIZATIONAL CHART  
NUCLEAR GROUP



LEGEND

- \_\_\_\_\_ COMMAND
- - - - - COMMUNICATION

FIGURE 1

SITE FIRE BRIGADE (EMERGENCY SQUAD) ORGANIZATIONAL CHART

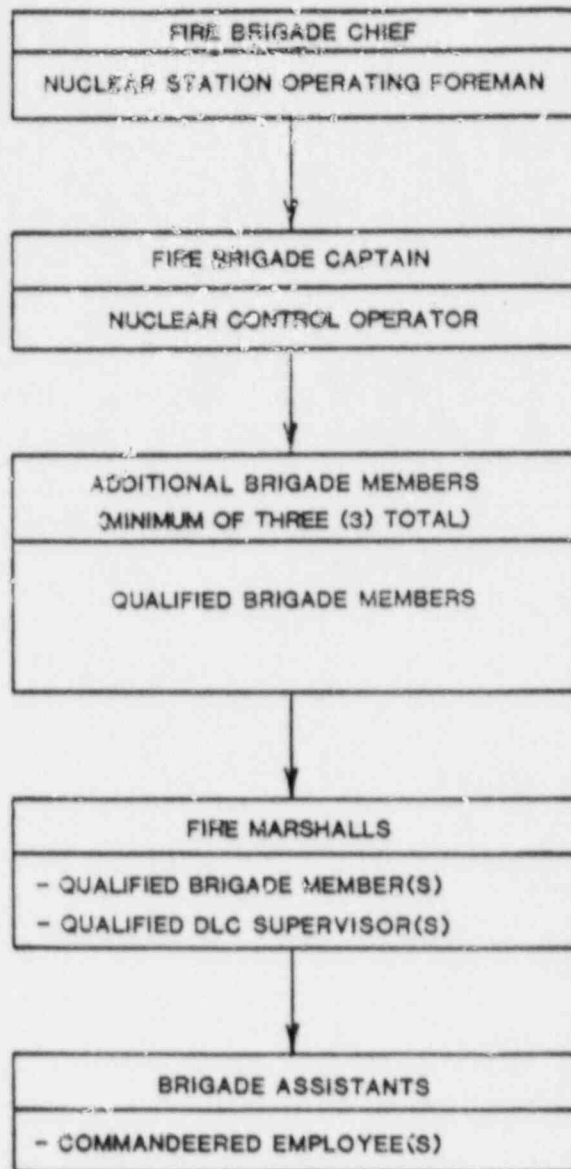


FIGURE 2

## FIRE PROTECTION IMPAIRMENT/SYSTEM O.O.S. FORM

Date: \_\_\_\_\_ Time: \_\_\_\_\_ Check one: Unit 1 [ ]/Unit 2 [ ]

Clearance Permit No.: \_\_\_\_\_ (Attach to Clearance Permit, if applicable)

1. Affected System: CO<sub>2</sub> [ ], Halon [ ], Water [ ] (Check one)
2. Building/Area affected: \_\_\_\_\_
3. Date/Time - O.O.S. \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ @ \_\_\_\_\_
4. Expected Return to Service Date: \_\_\_\_\_
5. Reason for System O.O.S. (Failure, MWR, PMP, OST, BVT, etc.): \_\_\_\_\_  
\_\_\_\_\_
6. SAP 9D Table 1 or 3 Requirements: \_\_\_\_\_  
\_\_\_\_\_
7. Valve(s) Closed: \_\_\_\_\_ (I.D.)
8. Panel De-energized: \_\_\_\_\_ (I.D.)
9. Name of Work Group Supervisor: \_\_\_\_\_
10. Fire Watch Provided: YES [ ], NO [ ] (Check one)
11. If #10 was checked YES, type of fire watch?  
Continuous [ ], Hourly [ ] (Check one)

NOTE: UTILIZE FIRE WATCH LOG, OM 54, LOG L8-2.

12. Was F.P. Engineer notified? YES [ ], NO [ ] (Check one)
13. Was ANI notified? (Ref. SAP 3B) YES [ ], NO [ ] (Check one)  
By Whom: \_\_\_\_\_
14. Compensatory Measures taken? YES [ ], NO [ ] (Check one)
15. If #14 was checked YES, then identify the compensatory measures:  
\_\_\_\_\_  
\_\_\_\_\_
16. Signature of NSS authorizing the work: \_\_\_\_\_/\_\_\_\_\_  
NSS Date

FORWARD COMPLETED COPY TO F. P. ENGINEER. ATTACH ORIGINAL TO CLEARANCE PERMIT OR MWR.

FIGURE 3

OPERABILITY REQUIREMENTS FOR F.P.S. - TABLE 1 (page 1 of 5)

TABLE 1 (Page 1 of 5)  
OPERABILITY REQUIREMENTS FOR FIRE PROTECTION SYSTEM

NOTE: Prior to removal of any major portion of the FPS or upon discovery that a major piece of FPS equipment or section is out-of-service, the fire insurance carrier (AIG) shall be notified (Refer to SAP 3B).

CAUTION: EXCEEDING OPERABILITY REQUIREMENTS CONSTITUTES A REPORTABLE OCCURRENCE (Refer to SAP 13 guidelines and SAP 3B, as applicable).

SYSTEM	REQUIREMENT	APPLICABLE MODES	CONDITION	REQUIRED ACTION	TIME REQUIREMENT
1. Fire Detection Instrumentation	Instrumentation for each fire zone protecting safety-related equipment shall be OPERABLE.  Unit 1: Refer to Table 1.1 of this SAP  Unit 2: Refer to Table 1.2 of this SAP	Whenever the equip. that is being protected is required to be OPERABLE.	a. With the number of OPERABLE fire detection instruments less than required by Table 1.1 (BVPS #1) or Table 1.2 (BVPS #2)	a.1. Outside cmnt. a) establish an hourly fire watch patrol in the affected area.  a.2. Inside cmnt. a) inspect affected cmnt. zone every 8 hrs. OR b) monitor cmnt. air temp. every hr.	a) Within 1 hr.  a) Within 8 hrs.  b) Within 1 hr.
2. Fire Suppression Water System	a. Two OPERABLE fire suppression pumps aligned to the fire suppression header.  b. Operable flow path (Applicable to Units 1 & 2).	At all times.  At all times.	a.1. One pump inoperable.  a.2. Two pumps inoperable.  b. Flow path inoperable.	b. Restore to OPERABLE status  a.1. Restore to OPERABLE status OR provide an alternate pump.  a.2. Provide a backup fire suppression water system.  b. Provide a backup fire suppression water system.	b. Within 14 days.  a.1. Within 7 days.  a.2. Within 24 hrs.  b. Within 24 hrs.

TABLE 1 (Page 2 of 5)

NOTE: Prior to removal of any major portion of the FPS or upon discovery that a major piece of FPS equipment or section is out-of-service, the fire insurance carrier (ANI) shall be notified (Refer to SAP 3B).

CAUTION: EXCEEDING OPERABILITY REQUIREMENTS CONSTITUTES A REPORTABLE OCCURANCE (Refer to SAP 13 guidelines and SAP 3B, as applicable).

SYSTEM	REQUIREMENT	APPLICABLE MODES	CONDITION	REQUIRED ACTION	TIME REQUIREMENT
2. (continued)	c. The BVPS #2 Booster Pump (capacity 625 gpm) capable fo taking suction from the Service Water Sys (SWS) & aligned to the Unit 2 hose rack stations for the safety related equipment areas.	At all times.	c. Booster Pump inoperable.	c. Restore to OPERABLE status OR provide an alternate water supply to the fire suppression water sys capable of supplying backup water to the applicable safety related equipment areas.	c. Within 7 days.
3. Spray and/or Sprinkler System	The following sprinkler systems serving areas shall be OPERABLE:  Applicable to Units 1 and 2: - Cmnt. (RHR Area)* - Cmnt. (Cable Pen. Area)* - Aux. FW Pump Area** - CCR Pump Area - Main Filter Bank - Cmnt. Iodine Charcoal Filters (BV-2) - PAB 735, 752 and 768 levels (BV-1)	Whenever the equip. being protected is required to be OPERABLE.	a. One or more of the selected portions inoperable in areas containing redundant systems or components.	a. Establish an hourly fire watch patrol in the affected area with backup fire suppression capability. (See NOTES Below)  b. Restore to OPERABLE status.	a. Within 1 hour.  b. Within 14 days.

\*NOTE: With Cmnt. area Sprinkler System inoperable, check this area during scheduled cmt. entries in Modes 1-4 and once per shift in Modes 5 and 6.

\*\*NOTE: Until such time as the backup Aux. FW Pump is operable (BV-1), establish a continuous fire watch whenever Unit 1's Aux. FW Pump Sprinkler System is inoperable.

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Revision 5

Nuclear Group - Site Administrative Procedures  
OPERABILITY REQUIREMENTS FOR F.P.S. - TABLE 1 (page 2 of 5)  
Chapter 30

TABLE 1 (Page 3 of 5)

NOTE: Prior to removal of any major portion of the FPS or upon discovery that a major piece of FPS equipment or section is out-of-service, the fire insurance carrier (ANI) shall be notified (Refer to SAP 3B).

CAUTION: EXCEEDING OPERABILITY REQUIREMENTS CONSTITUTES A REPORTABLE OCCURANCE (Refer to SAP 13 guidelines and SAP 3B, as applicable).

SYSTEM	REQUIREMENT	APPLICABLE MODES	CONDITION	REQUIRED ACTION	TIME REQUIREMENT
H. CO2 System	<p>The following CO2 Systems shall be OPERABLE:</p> <p><u>Unit 1 Areas:</u></p> <ul style="list-style-type: none"> <li>- Cable Tray Mezzanine</li> <li>- Cable Vaults</li> <li>- Diesel Generator Rooms</li> </ul> <p><u>Unit 2 Areas:</u></p> <ul style="list-style-type: none"> <li>- Cable Spreading Area Cntrl. Bldg.</li> <li>- Instrumentation Room Cntrl. Bldg.</li> <li>- Communication Room Cntrl. Bldg.</li> <li>- Cable Tunnel Between Cntrl. &amp; Aux. Bldgs.</li> <li>- Cable Tunnel Aux. Bldg.</li> <li>- Cable Vault &amp; Rod Cntrl. Areas.</li> <li>- Cable Spreading Area Service Bldg.</li> <li>- Emergency Diesel Generator Bldg. Room</li> </ul>	Whenever the equip. being protected is required to be OPERABLE.	<p>CO2 System inoperable for any of the areas.</p> <p>NOTE: <u>Unit 1:</u> System OPERABLE with min. level of 30% &amp; min. pressure of 275 psig in associated storage tank.</p> <p><u>Unit 2:</u> System OPERABLE with min. level of 81% &amp; min. pressure of 295 psig in the two 10 ton storage tanks (TK-22&amp;23). The backup storage tank (TK-24) shall have min. level of 70% and min. pressure of 295 psig.</p>	<p>a. Establish a continuous fire watch in the affected area(s) with backup fire suppression capability.</p> <p>b. Restore to OPERABLE status.</p>	<p>a. Within 1 hour.</p> <p>b. Within 14 days</p>

TABLE 1 (Page 4 of 5)

NOTE: Prior to removal of any major portion of the FPS or upon discovery that a major piece of FPS equipment or section is out-of-service, the fire insurance carrier (ANI) shall be notified (Refer to SAP 3B).

CAUTION: EXCEEDING OPERABILITY REQUIREMENTS CONSTITUTES A REPORTABLE OCCURANCE (Refer to SAP 13 guidelines and SAP 3B, as applicable).

SYSTEM	REQUIREMENT	APPLICABLE MODES	CONDITION	REQUIRED ACTION	TIME REQUIREMENT
5. Fire Hose Stations	<p>Hose stations serving the following areas shall be OPERABLE:</p> <p><u>Unit 1 Areas:</u></p> <ul style="list-style-type: none"> <li>- Primary Aux. Bldg.*</li> <li>- Fuel Bldg.*</li> <li>- Intake Structure*</li> <li>- Service Bldg. (Safety-Related Areas)*</li> <li>- Safeguards Bldg. (Pipe Tunnel Areas)*</li> <li>- Containment**</li> </ul> <p><u>Unit 2 Areas:</u></p> <ul style="list-style-type: none"> <li>- Fuel &amp; Decon Bldg.*</li> <li>- Diesel Generator Bldgs.</li> <li>- Cable Vault Areas &amp; Relay Room</li> <li>- Service Bldg.*</li> <li>- Aux. Bldg.*</li> <li>- Containment**</li> <li>- Cntrl. Bldg. &amp; Cable Tunnel</li> <li>- Safeguards*</li> </ul>	Whenever the equip. in the areas protected by the selected stations is required to be OPERABLE.	One or more selected stations inoperable.	<p>a. Provide equivalent capacity backup hose protection to the unprotected area. *(See NOTES Below)</p> <p>b. Restore to OPERABLE Status.</p>	<p>a. Within 1 hr. (4 hours for cmnt. area hose stations) if the inoperable station is the primary means of fire protection in the affected area; otherwise, within 24 hrs. (See NOTES below)</p> <p>b. Within 14 days.</p>
6. Halon Systems	<p>Halon Systems protecting the following areas shall be OPERABLE.</p> <p><u>Unit 1 Areas:</u></p> <ul style="list-style-type: none"> <li>- Process Equipment Area (Zone 1)</li> <li>- Process Equipment Area (Zone 2)</li> <li>- Cable Tunnel (CV-3)</li> </ul>	Whenever the equip. being protected is required to be OPERABLE.	a. One or more of the selected systems inoperable in areas containing redundant systems or components.	<p>a. Establish a continuous fire watch in the affected area with backup fire suppression capability.</p> <p>b. Restore to OPERABLE status.</p>	<p>a. Within 1 hour.</p> <p>b. Within 14 days.</p>

\*NOTE: Denotes areas or bldgs. where primary means of fire protection is fire hose racks. Exceptions would be areas or portions covered by auto suppression systems (i.e., Cable Vault areas, DG Bldgs., certain areas of the PAB, etc.).

\*\*NOTE: With Cmmt. area Hose Stations inoperable, check this area during scheduled Cmmt. entries in Modes 1-4 and once per shift in Modes 5 and 6.



TABLE 1 (Page 5 of 5)

NOTE: Prior to removal of any major portion of the FPS or upon discovery that a major piece of FPS equipment or section is out-of-service, the fire insurance carrier (ANI) shall be notified (Refer to SAP 3B).

CAUTION: EXCEEDING OPERABILITY REQUIREMENTS CONSTITUTES A REPORTABLE OCCURANCE (Refer to SAP 13 guidelines and SAP 3B, as applicable).

SYSTEM	REQUIREMENT	APPLICABLE MODES	CONDITION	REQUIRED ACTION	TIME REQUIREMENT
6. (continued)	<p>Unit 2 Areas:</p> <ul style="list-style-type: none"> <li>- Cntrl. Bldg. Computer Room</li> <li>- Cntrl. Bldg. West Com. Room</li> </ul>				
7. Fire Barrier Penetrations	<p>All fire rated assemblies (walls, floor/ceilings, cable tray enclosures and other fire barriers) separating safety related fire areas or separating portions of redundant systems important to safe shutdown within a fire area and all sealing devices in fire rated assembly penetrations (fire doors, fire windows, fire dampers, cable and piping penetration seals &amp; ventilation seals) shall be OPERABLE (Units 1 and 2).</p> <p>*NOTE: Fire wrap for cable and duct work, and fire proof material coating of structural steel would be included in the above defined "fire rated assemblies".</p>	At all times	One or more inoperable.	<p>a. Establish a continuous fire watch on one side of the affected barrier</p> <p style="text-align: center;">OR</p> <p>b. Verify the OPERABILITY of fire detectors on at least one side of the inoperable barrier</p> <p style="text-align: center;">AND</p> <p>establish an hourly fire watch patrol.</p> <p>c. Restore to OPERABLE status.</p> <p>*NOTE: Degredation of fire wrap or fire proof material will require:</p> <ol style="list-style-type: none"> <li>1) Engineering evaluation</li> <li style="text-align: center;">OR</li> <li>2) Establish fire watch per above required actions.</li> </ol>	<p>a. Within 1 hour.</p> <p>b. Within 1 hour.</p> <p>c. Within 7 days.</p>

TABLE 1.1

FIRE DETECTION INSTRUMENTS - UNIT 1

As a minimum, the fire detection instrumentation for each fire detection zone shown in the Table below shall be OPERABLE:

<u>Instrument Location</u>	<u>Minimum Instruments Operable</u>	
	<u>Smoke</u>	<u>Heat</u>
1. Control Room		
- Control Room Area	4	N/A
- Computer Room	1	
- Vertical Board	2	
2. Cable Spreading Mezzanine		4*
- East Zone	10	
- West Zone	10	
3. West Cable Vault	3	3*
4. East Cable Vault	3	3*
5. Normal Switchgear Room		N/A
- East Zone	4	
- West Zone	4	
6. A/E Emergency Switchgear Room	3	N/A
7. D/F Emergency Switchgear Room	3	N/A
8. Remote Shutdown Panel		
- Process Instrument Room	8	N/A
- Underfloor Area (NW Area)	(See NOTE 1 below)†††††	
- Underfloor Area (SW Area)	(See NOTE 1 below)†††††	
9. Station Battery Rooms (each)	N/A	1/Room
10. Relay Room	1	N/A
11. No. 1 Diesel Generator	2	1*
12. No. 2 Diesel Generator	2	1*
13. Upper Charcoal Filters	N/A	6†††

NOTE 1: Zones are associated with a Halon-protected space. Each space has two separate detection circuits (zones). One zone, in its entirety, needs to remain operable.

TABLE 1.1 (continued)

<u>Instrument Location</u>	<u>Minimum Instruments Operable</u>	
	<u>Smoke</u>	<u>Heat</u>
14. Lower Charcoal Filters	N/A	6 <sup>st*</sup>
15. Control Room Air Conditioning Room	2	N/A
16. Reactor Trip Breaker Room	3	N/A
17. Primary Auxiliary Bldg. (PAB):		
PAB Elev. 735'	5	7 <sup>st*</sup>
PAB Elev. 752'	8	N/A
PAB Elev. 768'	7	N/A
18. Charging Pump Cubicle	1/cubicle	N/A
19. Cable Vault 3 (Elev. 720' on side of Unit 2 Control Room)	4 3 <sup>st**</sup>	N/A
20. Intake Structure (A, B and C Cubicle) D Cubicle	6, cubicle N/A	N/A 1
21. CCR Pump Area	4	4 <sup>st*</sup>
22. Auxiliary Feedwater Pump Area	4	4 <sup>st*</sup>
23. Cable Penetration Area (Cnmt)#	2/Pen. Area	4 <sup>st*</sup>
24. RHR Pump Area(Cnmt)#	2/Pump Area	4 <sup>st*</sup>
25. Chemical Addition Building	3	N/A

Table Notations

- \* Detectors associated with the CO<sub>2</sub> system actuation circuitry.
- \*\* Detectors associated with the water suppression system actuation circuitry.
- \*\*\* Detectors associated with the Halon system actuation circuitry.
- (#) The fire detection instruments located within the containment are not required to be OPERABLE during the performance of Type A containment leakage rate tests.

TABLE 1.2

FIRE DETECTION INSTRUMENTS - UNIT 2

As a minimum, the fire detection instrumentation for each fire detection zone shown in the Table below shall be OPERABLE:

<u>Instrument Location</u>	<u>Minimum Instruments Operable</u>		
	<u>Smoke</u>	<u>Flame</u>	<u>Heat</u>
1. Fire Area CB-1; Control Bldg. 707'			
- Zone 11 (Comm., Inst. and Relay Room Under Floor Areas)	11 (See NOTE 2 Below)		
- Zone 2-1 Inst./Relay Room	13*		
- Zone 10 (Inst. and Relay Room)	7 (See NOTE 2 Below)		
- Zone 12 (MCC Room)	1 (See NOTE 2 Below)		
2. Fire Area CB-2; Cable Spreading 725'			
- Zone 23 (Cable Spreading Area)	12 (See NOTE 2 Below)		
- Zone 2-1 Cable Spreading Area	9**		
3. Fire Area CB-3; Control Room			
- Zone 17 (Control Room)	8		
- Zone 67 (Vertical Board)	2		
4. Fire Area CB-4; Computer Room			
- Zone 18 (Computer Room)	1 (See NOTE 2 Below)		
- Zone 210 (Computer Room)	1***		
5. Fire Area CB-5; HVAC Equip. Fan Room 735'6"			
- Zone 19 (HVAC Equip. Fan Room)	2		
- Zone 20 Fan Room (Duct Mounted)	1 (See NOTE 1 Below)		
- Filter 2HVC*FLTA252A (2HVC-FD252A1)			1
- Filter 2HVC*FLTA252B (2HVC-FD252B1)			1

NOTE 1: If duct mounted detector is out of service, verify Fan Room (Zone 19) detectors are operable.

NOTE 2: If the early-warning smoke detectors are OOS for a fire area provided with a backup smoke detection circuit (associated with the CO2 or HALON protected areas), verify the backup alarm system for the affected area is OPERABLE.

TABLE 1.2 (continued)

<u>Instrument Location</u>	<u>Minimum Instruments Operable</u>		
	<u>Smoke</u>	<u>Flame</u>	<u>Heat</u>
6. Fire Area CB-6; West Comm. Room 707'			
- Zone 14 (West Comm. Room - Ceiling Area)	1 (See NOTE 2 Below)		
- Zone 310 (West Comm. Room - Ceiling and Under Floor Areas)	5**		
7. Fire Area CT-1; Cable Tunnel 712'6"			
- Zone 16 (Cable Tunnel North)	4 (See NOTE 2 Below)		
- Zone 15 (Cont. Bldg./Cable Tunnel South)	2 (See NOTE 2 Below)		
- Zone 22 (Cable Tunnel South)	4 (See NOTE 2 Below)		
- Zone 36 (East End of Cable Tunnel)	1 (See NOTE 2 Below)		
- Zone 2-1 Cable Tunnel 712'6"	14*		
8. Fire Area CV-1; Cable Vault (West) 735'			
- Zone 50 (Cable Tunnel/Aux. Bldg.)	3 (See NOTE 2 Below)		
- Zone 2-2 (Cable Tunnel/Aux. Bldg.)	7*		
- Zone 30 (Cable Vault West)	7 (See NOTE 2 Below)		
- Zone 2-2 (Cable Vault West)	9*		
9. Fire Area CV-2; Cable Vault (East) 735'			
- Zone 31 (Cable Vault East)	5 (See NOTE 2 Below)		
- Zone 2-2A (Cable Vault East)	4*		
10. Fire Area CV-3; Cable Vault 755'			
- Zone 32 (Cable Vault)	11 (See NOTE 2 Below)		
- Zone 2-3 (Cable Vault)	13*		
- Zone 52 (Cable Tunnel/Aux. Bldg., including ASP)	4 (See NOTE 2 Below)		
- Zone 2-3 Cable Tunnel/Aux. Bldg.	6*		

NOTE 2: If the early-warning smoke detectors are OOS for a fire area provided with a backup smoke detection circuit (associated with the CO2 or HALON protected areas), verify the backup alarm system for the affected area is OPERABLE.

TABLE 1.2 (continued)

<u>Instrument Location</u>	<u>Minimum Instruments Operable</u>		
	<u>Smoke</u>	<u>Flame</u>	<u>Heat</u>
11. Fire Area CV-4; Cable Vault - Fan Room 773'			
- Zone +3 (Emer. Switchgear HVAC)	2		
12. Fire Area CV-5; Personnel Hatch 773'			
- Zone 41 (Hatch Area)	1		
- Zone 42 (Purge Duct Work Area)	2		
13. Fire Area CV-6; Relay Room 755'			
- Zone 53 (Relay Room)	2 (See NOTE 2 Below)		
- Zone 2-7 (Relay Room)	2*		
14. Fire Area DG-1; Diesel Bldg. No. 1			
- Zone 63 (Orange Diesel)		2	
- Zone 2-5 (Orange Diesel)			4*
15. Fire Area DG-2; Diesel Bldg. No. 2			
- Zone 62 (Purple Diesel)		2	
- Zone 2-6 (Purple Diesel)			4*
16. Fire Area FB-1; Fuel/Decon. Bldg.			
- Zone 66 (Fuel Pool Cooling Pumps 739)	1		
- Filter 2HVQ-FLTA227 (2HVQ-FD227)			1** (L)
17. Fire Area MS-1; Main Steam Valve Area			
- Zone 44 Cable Vault Elev. 773'6"	3		
- Zone 45 Fan Room 773'6"	1		
- Zone 46 Compressor Room 773'6"	1		

NOTE 2: If the early-warning smoke detectors are OOS for a fire area provided with a backup smoke detection circuit (associated with the CO<sub>2</sub> or HALON protected areas), verify the backup alarm system for the affected area is OPERABLE.

TABLE 1.2 (continued)

<u>Instrument Location</u>	<u>Minimum Instruments Operable</u>		
	<u>Smoke</u>	<u>Flame</u>	<u>Heat</u>
18. Fire Area PA-3; Aux. Bldg.			
- Zone 49A (CCP Heat Exchanger Area 710')	9		
- CCP Area (2FPW-FD270A thru F)			3*
- Zone 49B (Aux. Bldg. 718'6")	7		
- Zone 51A (Aux. Bldg. 735'6")	11		
- Zone 51B (Aux. Bldg. Charging Pump Area)	7		
19. Fire Area PA-4; Aux. Bldg. 755'6"			
- Zone 54A (Aux. Bldg. 755'6" North)	9		
- Zone 54B (Aux. Bldg. 755'6" South)	11		
- Zone 56 (Aux. Bldg. 755'6" Duct Mounted)	2 (See NOTE 1A Below)		
20. Fire Area PA-5; Aux. Bldg. 773'6"			
- Zone 57A Aux. Bldg. 773'6" North (includes Fan Room)	6		
- Zone 57B Aux. Bldg. 773'6" South	11		
- Zone 58 (Duct Mounted)	1 (See NOTE 1B Below)		
- Filter 2HVS*FLTA2C5A (2HVS-FD205A)			1***(L)
- Filter 2HVS*FLTA205B (2HVS-FD205B)			1***(L)
- Filter 2HVS*FLTA208A (2HVS-FD208A)			1***(L)
- Filter 2HVS*FLTA208B (2HVS-FD208B)			1***(L)
21. Fire Areas PA-6 and 7; Aux. Bldg. 755'6"			
- Zone 55 (MCC Rooms E03 and E04)	1/Room		
22. Fire Area PT-1; Pipe Tunnel 718'6"			
- Zone 40 (Pipe Tunnel Cable Vault)	10		
23. Fire Area SB-1; Service Bldg. - Emergency Switchgear 730'6"			
- Zone 01 (Orange Switchgear)	12		
<u>NOTE 1A:</u>	If duct mounted detectors are out of service, verify the Aux. Bldg. 755'6" detector zones (54A and 54B) are operable.		
<u>NOTE 1B:</u>	If duct mounted detectors are out of service, verify the Aux. Bldg. 773'6" detector zones (57A and 57B) are operable.		

TABLE 1.2 (continued)

<u>Instrument Location</u>	<u>Minimum Instruments Operable</u>		
	<u>Smoke</u>	<u>Flame</u>	<u>Heat</u>
24. Fire Area SB-2; Service Bldg. - Emergency Switchgear 730'6"			
- Zone 02 (Purple Switchgear)	11		
25. Fire Area SB-3; Service Bldg. - Cable Tray 745'6"			
- Zone 4A (Northern 2 Rows)	12 (See NOTE 2 Below)		
- Zone 4B (Southern 2 Rows)	12 (See NOTE 2 Below)		
- Zone 2-4 Cable Tray Area 745'6"	13 <sup>00</sup>		
26. Fire Area SB-4; Service Bldg. - Normal Switchgear 760'6"			
- Zone 5A (Normal Switchgear, North)	10		
- Zone 5B (Normal Switchgear, South)	7		
27. Fire Area SB-5; Service Bldg. 780'6"			
- Zone 7A (West End)	8		
- Zone 7B (East End)	7		
- Filter 2GSS-FLTA255A (2GSS-FD255A)			1 <sup>00</sup> (L)
- Filter 2GSS-FLTA255B (2GSS-FD255B)			1 <sup>00</sup> (L)
28. Fire Area SB-6,7,8,9; Battery Rooms 730'6"			
- Zone 03 (Safety Related Battery Rooms 2-1, 2-2, 2-3, 2-4)	1/Room		
29. Fire Area SB-10; Battery Room 760'6"			
- Zone 6 Battery Room 2-5	1		

NOTE 2: If the early-warning smoke detectors are OOS for a fire area provided with a backup smoke detection circuit (associated with the CO2 or HALON protected areas), verify the backup alarm system for the affected area is OPERABLE.



TABLE 1.2 (continued)

<u>Instrument Location</u>	<u>Minimum Instruments Operable</u>		
	<u>Smoke</u>	<u>Flame</u>	<u>Heat</u>
30. Fire Area RC-1; Reactor Containment(#)			
- Zone 64 (Cable Penetration Area)	10		
- Cable Pen. - Purple (2FPW-FD232A/C)			2 <sup>nd</sup>
- Cable Pen. - Orange (2FPW-FD233B/D)			2 <sup>nd</sup>
- Zone 65 (RHR Pump Area)	1		
- 2RHS*P21A (2FPW-FD231A/B)			1 <sup>st</sup>
- 2RHS*P21B (2FPW-FD230A/B)			1 <sup>st</sup>
- Filter 2HVR*FLTA211A (2HVR-FD211A)			1 <sup>st</sup> (L)
- Filter 2HVR*FLTA211B (2HVR-FD211B)			1 <sup>st</sup> (L)
31. Fire Area SG-1N; North Safeguards Area			
- Zone 26 (Elevation 718'6")	4		
- Zone 28 (Elevation 737'6" and Duct Mounted)	3 (See NOTE 1 Below)		
- Aux. FW Pump (23B) Area (2FPW-FD234A/E)			1 <sup>st</sup>
32. Fire Area SG-1S; South Safeguards Area			
- Zone 27 (Elevation 718'6")	4		
- Zone 29 (Elevation 737'6" and Duct Mounted)	3 (See NOTE 1 Below)		
- Aux. FW Pump (23A) Area (2FPW-FD235A/B)			1 <sup>st</sup>
- Steam Driven Aux. FW Pump (22) Area (2FPW-FD236A/B)			1 <sup>st</sup>

NOTE 1: If duct mounted detectors are out of service, verify the applicable Safeguards Area detectors are operable.

TABLE 1.2 (continued)

<u>Instrument Location</u>	<u>Minimum Instruments Operable</u>		
	<u>Smoke</u>	<u>Flame</u>	<u>Heat</u>
33. Miscellaneous Areas:			
- Zone 59 (Aux. Bldg. - Elev. Mach. Rm.)	1		
- Zone 8 (Service Bldg. Stairwell)	3		
- Zone 24 (Cont. Bldg. North Stairwell)	1		
- Zone 25 (Cont. Bldg. South Stairwell)	1		
- Zone 33 (Aux. Bldg. Personnel Passage)	3		
- Zone 34 (Cable Vault Personnel Passage)	3		
- Zone 35 (Turb. Bldg. Personnel Passage)	3		
- Zone 37 (Aux. Bldg. NW Stairs) (EL. 712'6")	1		
- Zone 38 (Cont. Bldg. Personnel Passage 722'6")	2		
- Zone 39 (Control Room Entrance Way)	3		
- Zone 60 (Aux. Bldg. Personnel Passage)	1		
- Zone 47 (Cable Vault East Stairs)	1		
- Zone 48 (Cable Vault West Stairs)	1		

-----  
Table Notations

\* Detectors associated with the CO<sub>2</sub> system actuation circuitry.

\*\* Detectors associated with the water suppression system actuation circuitry.

\*\*\* Detectors associated with the Halon system actuation circuitry.

(L) Line-type (thermistor cable) heat detector.

(#) The fire detection instruments located within the containment are not required to be OPERABLE during the performance of Type A containment leakage rate tests.

TABLE 2 (Page 1 of 11)

## FIRE PROTECTION SYSTEM SURVEILLANCE REQUIREMENTS

NOTE: Each surveillance requirement shall be performed within the specified time interval as defined in the Technical Specifications (Section 4.0.2).

CAUTION: Failure to perform a surveillance requirement constitutes failure to meet OPERABILITY requirements.

SYSTEM	REQUIREMENT	SURVEILLANCE REQUIREMENT	REQUIRED FREQUENCY	REFERENCE UNIT 1 (UNIT 2)
1. Fire Detection Instrumentation	<p>Instrumentation for each fire zone protecting safety-related equipment shall be OPERABLE.</p> <p>Unit 1: Refer to Table 1.1 of this SAP.</p> <p>Unit 2: Refer to Table 1.2 of this SAP.</p>	<p>a.1. Each of the fire detection instrmnts. which are accessible during plant operation shall be demonstrated operable by performing a CHANNEL FUNCTIONAL TEST.</p> <p>a.2. Fire detectors which are not accessible during plant operation shall be demonstrated OPERABLE by performing a CHANNEL FUNCTIONAL TEST.</p> <p>b. The NFPA Standard 72D Class A supervised circuits supervision associated with the detector alarms of each of the fire detection instruments shall be demonstrated OPERABLE.</p> <p>c. The non-supervised circuits between the local panels and the Control Room shall be demonstrated OPERABLE.</p>	<p>a.1. 6 months</p> <p>a.2. During each COLD SHUTDOWN exceeding 24 hrs. unless performed in previous 6 months.</p> <p>b. 6 months</p> <p>c. Monthly</p>	<p>a. OST 1.33.13A OST 1.33.13B OST 1.33.16 {OST 2.33.13A} {OST 2.33.13B} {OST 2.33.16}</p> <p>b. OST 1.33.13A OST 1.33.13B OST 1.33.16 {OST 2.33.13A} {OST 2.33.13B} {OST 2.33.16}</p> <p>c. OST 1.33.1A {OST 2.33.3}</p>

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SYSTEM	REQUIREMENT	SURVEILLANCE REQUIREMENT	REQUIRED FREQUENCY	REFERENCE UNIT 1 (UNIT 2)
2. Fire Suppression Water System	a. The fire suppression system shall be demonstrated OPERABLE.	a.1. Starting each pump and operate on recirc flow for at least 15 minutes (STAGGERED TEST BASIS).	a.1. Weekly*	a.1. OST 1.33.7 OST 1.33.8
		a.2. Verification that each valve (manual, power operated or auto) in the flow path is in its correct position.	a.2. Monthly	a.2. OST 1.33.1A (OST 2.33.1)
		a.3. Performance of a sys yard loop and hydrant flush.	a.3. Annual	a.3. OST 1.33.4 OST 1.33.6 (OST 2.33.4)
		a.4. Cycling of each testable valve in the flow path.	a.4. Annual	a.4. OST 1.33.12 (OST 2.33.12)
		a.5. Performance of a system functional test which includes simulated automatic actuation of the system throughout its operating sequence, and:  a) Verifying that each automatic valve in the flow path actuates to its correct position,  b) Verifying that each pump develops at least 2500 gpm at a system head of 250 feet.	a.5. 18 months	a.5. OST 1/2.33.12 OST 1.33.12 (OST 2.33.12)

\*NOTE: Tested weekly per UFSAR (Section 9.10.4)

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SYSTEM	REQUIREMENT	SURVEILLANCE REQUIREMENT	REQUIRED FREQUENCY	REFERENCE UNIT 1 (UNIT 2)
2. (continued)		<p>c) Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel, and</p> <p>d) Verifying that each high pressure pump starts (sequentially) to maintain the fire suppression water system pressure greater than or equal to 90 psig.</p>		
	b. The diesel fire pump shall be demonstrated OPERABLE.	a.6. Performance of a flow test of the system (in accordance with NFPA Handbook, 15th Edition, Section 16, Chap. 8) which includes the entire fire loop (Units 1 and 2).	a.6. Annual*	a.6. OST 1/2.33.12
		b.1. Verification of the fuel oil day tank level (greater than or equal to 350 gallons), & starting of the fire pump diesel engine and operating for at least 20 minutes.	b.1. Monthly	b.1. OST 1.33.8
		b.2. Verification that a sample of diesel fuel from the fuel oil day tank is within acceptable limits (Table I of ASTM D975-74) when checked for viscosity, water, and sediment.	b.2. Quarterly	b.2. CHM CP 2 (Fuel Oil Specs.) CHM CP 3 FP CHM CP 3 1P-5

\*NOTE: Flow tested annually per UFAR (Section 9.10.4).

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SYSTEM	REQUIREMENT	SURVEILLANCE REQUIREMENT	REQUIRED FREQUENCY	REFERENCE UNIT 1 (UNIT 2)
2. (continued)	c. The diesel fire pump starting 24 volt battery bank and charger shall be demonstrated OPERABLE.	b.3. Inspection of the fire pump diesel engine in accordance with manufacturer's recommendations.	b.3. 18 months	b.3. MSP 33.01 MSP 33.02
		b.4. Verification that the Diesel starts on auto and operates for at least 20 minutes.	b.4. 18 months	b.4. OST 1/2.33.12
		c.1. Verification of the electrolyte level of each battery & the overall battery voltage for each fire pump diesel starting 24 volt battery bank.	c.1. Weekly	c.1. OST 1.33.8
		c.2. Verification that the specific gravity is appropriate for continued service of the battery.	c.2. Quarterly	c.2. MSP 33.04
		c.3. Inspection of the batteries, to verify that:  a) The batteries, cell plates & battery racks show no visual indication of physical damage or abnormal deterioration, &  b) The battery-to-battery & terminal connections are clean, tight, free of corrosion & coated with anti-corrosion material.	c.3. 18 months	c.3. MSP 33.03

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SYSTEM	REQUIREMENT	SURVEILLANCE REQUIREMENT	REQUIRED FREQUENCY	REFERENCE UNIT 1 (UNIT 2)
2. (continued)	d. The BVPS #2 Booster Pump (capacity 625 gpm) capable of taking suction from the Service Water Sys. (SWS) & aligned to the Unit 2 Hose rack stations for the safety related equipment areas.	d.1. Starting the Booster Pump and operate for at least 15 min.	d.1. Monthly	d.1. (OST 2.33.7)
		d.2. Verification that each valve (manual, power operated or auto) in the flow path is in its correct position.	d.2. Monthly	d.2. (OST 2.33.1)
		d.3. Performance of a system flush (in conjunction with the Unit 1 system flush).	d.3. Annual	d.3. (OST 2.33.4)
		d.4. Cycling of each testable valve in the flow path.	d.4. Annual	d.4. (OST 2.33.12)
		d.5. Performance of a system functional test which includes:  a) Verifying that the booster pump develops at least 625 gpm at a sys. head of 250 feet,  b) Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel, and  c) Verifying that the booster pump maintains the fire suppression water system pressure greater than or equal to 90 psig.* (See NOTE Below)	d.5. 18 months	d.5. (OST 2.33.12A)

\*NOTE: 90 psig at discharge of Booster Pump and, per NFPA requirements, 65 psig at highest standpipe hose rack.

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SYSTEM	REQUIREMENT	SURVEILLANCE REQUIREMENT	REQUIRED FREQUENCY	REFERENCE UNIT 1 (UNIT 2)
2. (continued)	*e. Fire Hydrants shall be OPERABLE.	*e.1. Hydro test each hydrant to verify barrel integrity following winter freeze.	*e.1. Annual	*e.1. OST 1.33.4 (OST 2.33.4)
		*e.2. Inspection of each hydrant to ensure hydrant barrels are dry and threads are lubricated.	*e.2. 6 months (spring and fall)	*e.2. OST 1.33.4 (OST 2.33.4)
	*f. Hose Cabinets and Cart Houses	*f.1. Inspection of each hose cabinet & cart house located within the perimeter of the plant protected area to verify adequate inventory.	*f.1. 6 months	*f.1. OST 1.33.5 (OST 2.33.5)
3. Spray and/or Sprinkler System	The following areas applicable to Units 1 & 2 shall be OPERABLE: - Cmt. (RHR Area) - Cmt. (Cable Pen. Area) - Aux. FW Pump Areas - CCR Pump Areas - Main Filter Banks - Cmt. Iodine - Charcoal Filters (BV-2) - PAB 735, 752 and 765 levels (BV-1)	a. Verification that each valve (manual, power operated or auto) in the flow path is in its correct position.  b. Cycling of each testable valve in the flow path.  c.1. Performance of a system functional test which includes simulated automatic actuation of the system, and:  a) Verifying that the automatic valves in the flow path actuate to their correct positions on a manual test signal, and	a. Monthly  b. Annual  c.1. 18 months	a. OST 1.33.1A (OST 2.33.1)  b. OST 1.33.6 OST 1.33.12 OST 1.33.13B (OST 2.33.61 (OST 2.33.12) (OST 2.33.13B)  c.1. OST 1.33.12 OST 1.33.13D OST 1.33.21 (OST 2.33.12) (OST 2.33.13D) (OST 2.33.21)

\*Ref: 1.5. Amendment No. 18 (Fire Protection SER; dated June 6, 1979) <sup>1</sup>



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SYSTEM	REQUIREMENT	SURVEILLANCE REQUIREMENT	REQUIRED FREQUENCY	REFERENCE UNIT 1 (UNIT 2)
3. (continued)		<p>b) Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel.</p> <p>c.2. Inspection of the dry pipe spray and sprinkler headers to verify integrity.</p> <p>c.3. Inspection of each nozzle's spray area to verify the spray pattern is not obstructed.</p> <p>d. Performance of an air flow test through each open head spray/sprinkler header to verify each open nozzle is unobstructed.</p>	<p>c.2. 18 months</p> <p>c.3. 18 months</p> <p>d. 3 years</p>	<p>c.2. OST 1.33.13D OST 1.33.21 (OST 2.33.13D) (OST 2.33.21)</p> <p>c.3. OST 1.33.13D OST 1.33.21 (OST 2.33.13D) (OST 2.33.21)</p> <p>d. BVT 1.1 - 1.33.1 Main Filter Banks BVT 1.1 - 1.33.2 Cnmt. Cable Pen (BVT 2.1 - 1.33.1) (BVT 2.1 - 1.33.2)</p>

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SYSTEM	REQUIREMENT	SURVEILLANCE REQUIREMENT	REQUIRED FREQUENCY	REFERENCE UNIT 1 (UNIT 2)
4. CO2 System	<p>CO2 Systems serving the following areas shall be OPERABLE:</p> <p><u>Unit 1 Areas:</u>                      - Cable Tray Mezzanine                      - Cable Vaults                      - Diesel Generator Rooms</p> <p><u>Unit 2 Areas:</u>                      - Cable Spreading Area Control Bldg.                      - Instrumentation Room Control Bldg.                      - Communication Room Control Bldg.                      - Cable Tunnel Between Control &amp; Aux. Bldgs.                      - Cable Tunnel Aux. Bldg.                      - Cable Vault &amp; Rod Control Areas                      - Cable Spreading Area Service Bldg.                      - Emergency Diesel Generator Bldg. Room</p>	<p>a. Verification of the associated CO2 storage tank levels &amp; pressures.</p> <p>b. Verification that the system (valves and associated dampers) actuates manually &amp; automatically upon receipt of simulated signal.</p> <p>c. Verification of flow from each nozzle during a "puff test".</p>	<p>a. Weekly</p> <p>b. 18 months</p> <p>c. 18 months</p>	<p>a. OST 1.33.9 {OST 2.33.9}</p> <p>b. OST 1.33.13C {OST 2.33.13C}</p> <p>c. OST 1.33.13C {OST 2.33.13C}</p>
5. Fire Hose Stations	<p>Hose stations serving the following areas shall be OPERABLE:</p> <p><u>Unit 1 Areas:</u>                      - Primary Aux. Bldg.                      - Fuel Bldg.                      - Intake Structure                      - Service Bldg. (Safety-Related Areas)                      - Safeguards Bldg. (Pipe Tunnel Areas)                      - Containment</p> <p><u>Unit 2 Areas:</u>                      - Fuel &amp; Decon Bldg.                      - Diesel Generator Bldgs.                      - Cable Vault Areas &amp; Relay Room                      - Service Bldg.                      - Aux. Bldg.                      - Containment                      - Control Bldg. &amp; Cable Tunnel                      - Safeguards</p>	<p>a. Inspection of the fire hose stations accessible during plant operations to assure all required equipment is at the station.</p> <p>b.1. Inspection of the fire hose stations not accessible during plant operations to assure all required equip. is at the station.</p> <p>b.2. Removal of the hose for inspection and re-racking.</p> <p>b.3. Inspection of all gaskets &amp; replacing any degraded gaskets in the couplings.</p>	<p>a. Monthly</p> <p>b.1. 18 months</p> <p>b.2. 18 months</p> <p>b.3. 18 months</p>	<p>a. OST 1.33.2 {OST 2.33.2}</p> <p>b.1. OST 1.33.2 {OST 2.33.2}</p> <p>b.2. OST 1.33.2 {OST 2.33.2}</p> <p>b.3. OST 1.33.2 {OST 2.33.2}</p>

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SYSTEM	REQUIREMENT	SURVEILLANCE REQUIREMENT	REQUIRED FREQUENCY	REFERENCE UNIT 1 (UNIT 2)
5. (continued)		<p>c.1. Partial opening of each hose station valve to verify valve operability &amp; no flow blockage.</p> <p>c.2. Performance of a hose hydrostatic test at least 50 psig above max. fire main operating pressure.</p>	<p>c.1. 3 years</p> <p>c.2. 3 years*</p> <p>*NOTE: All hoses stored in heated areas shall be hydro-tested at least every 3 years. All hoses stored outdoors or in unheated building areas shall be hydro-tested at least every 18 months.</p>	<p>c.1. OSI 1.33.2 (OSI 2.33.2) OSI 1.33.13D (Service Bldg. Hose Reel Stations) OSI 1.33.30 (Cmt. Hose Reel Stations)</p> <p>c.2. OSI 1.33.12 (OSI 2.33.2)</p>
6. Halon Systems	<p>Halon Systems protecting the following areas shall be OPERABLE:</p> <p><u>Unit 1 Areas:</u> - Process Equipment Area (Zone 1) - Process Equipment Area (Zone 2) - Cable Tunnel (CV-3)</p> <p><u>Unit 2 Areas:</u> - Control Bldg. Computer Room - Control Bldg. West Com. Room</p>	<p>a. Verification that each valve (manual, power operated or auto) in the flow path is in its correct position.</p> <p>b. Verification of Halon storage (tank weight greater than or equal to 95% of full charge) weight (or level) &amp; pressure greater than or equal to 90% of full charge pressure.</p> <p>c. Verification that the system actuates manually and automatically upon receipt of simulated actuation signal.</p> <p>d. Performance of a flow test to assure no blockage.</p>	<p>a. Monthly</p> <p>b. Semi-annual</p> <p>c. 18 months</p> <p>d. 3 years</p>	<p>a. OSI 1.33.20 (OSI 2.33.18)</p> <p>b. OSI 1.33.22 (OSI 2.33.18)</p> <p>c. OSI 1.33.23 (OSI 2.33.20)</p> <p>d. BVI 1.1 - 1.33.3 (BVI 1.2 - 2.33.1)</p>

\*Ref: I.S. Amendment No. 18 (Fire Protection SR; dated June 6, 1979).

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SYSTEM	REQUIREMENT	SURVEILLANCE REQUIREMENT	REQUIRED FREQUENCY	REFERENCE UNIT 1 (UNIT 2)
7. Fire Barrier Penetrations	All fire rated assemblies (walls, floor/ceilings, cable tray enclosures and other fire barriers) separating safety related fire areas or separating portions of redundant systems important to safe shutdown within a fire area & all sealing devices in fire rated assembly penetrations (fire doors, fire windows, fire dampers, cable & piping penetration seals & ventilation seals) shall be OPERABLE (Units 1 & 2).	a.1. Inspection of the exposed surfaces of each fire rated assembly.	a.1. 18 months	a.1. BVT 1.1 - 1.33.5 (BVT 2.1 - 1.33.5)
		a.2. Inspection of each fire window/fire damper & associated hardware.	a.2. 18 months	a.2. BVT 1.1 - 1.33.5 (BVT 2.1 - 1.33.5)
		a.3. Inspection of at least 10% of each type (electrical & mechanical) of sealed penetration. If apparent changes in appearance or abnormal degradations are found, a visual inspection of an additional 10% of each type of sealed penetration shall be made. This inspection process shall continue until a 10% sample with no apparent changes in appearance or abnormal degradation is found.	a.3. 18 months	a.3. BVT 1.1 - 1.33.5 (BVT 2.1 - 1.33.5)
		b.1. Inspection of the automatic hold-open, release & closing mechanism & latches of the required fire doors.	b.1. Semi-annual	b.1. OST 1.33.5 (OST 2.33.5)
		b.2. Verification that each unlocked fire door without electrical supervision is closed.	b.3. Daily (24 hours)	b.3. OM 1.54.3, L3-1-2, OL3-1-2, L4-1-1 & OL4-1-1 "Fire Door Check" Logs (OM 2.54.3, L14-1 thru 5 "Fire Door Check" Logs)

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SYSTEM	REQUIREMENT	SURVEILLANCE REQUIREMENT	REQUIRED FREQUENCY	REFERENCE UNIT 1 (UNIT 2)
7. (continued)		b.3. Verification that doors with automatic hold-open & rlease mechanisms are free of obstructions.	b.2. Daily (24 hours)	b.2. OM 1.54.3, L3-1-2, OL3-1-2, L4-1-1 & OL4-1-1 "Fire Door Check" Logs (OM 2.54.3, L14-1 thru 5 "Fire Door Check" Logs)

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## FIRE INSURANCE (ANI) OPERABILITY REQUIREMENTS FOR FIRE PROTECTION SYSTEM

NOTE: Prior to removal of any major portion of the FPS or upon discovery that a major piece of FPS equipment or section is out-of-service, the fire insurance carrier (AKI) shall be notified (Refer to SAP 5B).

SYSTEM	REQUIREMENT	APPLICABLE MODES	CONDITION	REQUIRED ACTION	TIME REQUIREMENT
1. Fire Detection Instrumentation	<p>Instrumentation for each fire zone protecting non-safety related equipment shall be operable.</p> <p>Unit 1:            - Guardhouse            - Alternate Access Facility</p> <p>Unit 2:            - SOSB            - PAF</p> <p>Out Bldgs.            - ERF Sub. Bldg.            - Black D.G. Bldg.            - ERF            - Training Bldg.            - Simulator Bldg.            - Waste Bldg. Bldg.            - Admin. Bldg.            - Meteorological Shelter</p>	Whenever the equip. that is being protected is operational or required to be operable.	With the number of operable fire detection instruments less than 50% of total	Establish a fire watch patrol at least once an hour in the affected area whenever affected area is unmanned.	Within 4 hours

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SYSTEM	REQUIREMENT	APPLICABLE MODES	CONDITION	REQUIRED ACTION	TIME REQUIREMENT
2.a. Fire Suppression Water System (Applicable to Units 1 & 2 and Out-Bldgs.)	Operable flow path to non-safety related areas.	At all times.	Flow path inoperable	Restore to operable status OR Provide backup fire suppression to affected area OR Establish an hourly fire watch patrol to affected area(s).	Within 4 hours.
2.b. Yard Area Fire Hydrants and associated Hose Cabinets and Cart Houses (Applicable to Units 1 & 2 and Out-Bldgs.)	The fire hydrant shall be operable and associated hose cabinets & cart houses properly stocked.	At all times.	a. One hydrant inoperable.  b. Any two (2) adjacent hydrants inoperable.	a. Operations/Brigade personnel cognizant of status in event of fire in affected area  b. Provide backup hose protection to affected area (weather permitting) OR Establish an hourly fire watch patrol for affected area(s).	a. N/A  b. Within 4 hours.

FIRE INSURANCE (ANI) OPERABILITY REQUIREMENTS FOR F.P.S. - TABLE 2 (page 3 of 10)

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SYSTEM	REQUIREMENT	APPLICABLE MODES	CONDITION	REQUIRED ACTION	TIME REQUIREMENT
3. Spray and/or Sprinkler System	<p>The following water sprinkler systems serving non-safety related areas shall be operable:</p> <ul style="list-style-type: none"> <li>- Unit 1 Areas:                             <ul style="list-style-type: none"> <li>- Turbine Bldg. (Mezzanine and basement floors)</li> <li>- H2 Seal Oil Unit</li> <li>- Lube Oil Reservoir</li> <li>- Lube Oil Storage Room</li> <li>- Aux. Boiler Room</li> <li>- Main Steam Pipe Chase (opening from Turbine Bldg.)</li> <li>- Warehouse Area</li> <li>- PCA Machine Shop</li> <li>- Clean Shop</li> <li>- Chemistry Lab</li> <li>- Guardhouse</li> <li>- Yard Area</li> <li>- Transformers</li> </ul> </li> <li>- Unit 2 Areas:                             <ul style="list-style-type: none"> <li>- Turbine Bldg. (Mezzanine and basement floor)</li> <li>- H2 Seal Oil Unit</li> <li>- Gland Steam Exhaust Filters</li> <li>- Lube Oil Reservoir</li> <li>- Main Steam Pipe Chase</li> <li>- Pipe Opening to Waste Handling Bldg.</li> <li>- Condensate Polishing Bldg.</li> <li>- Waste Hdlg. Bldg.</li> <li>- Health Physics Bldg.</li> <li>- SOSB</li> <li>- PAF</li> <li>- Dosimetry Bldg.</li> <li>- Schneider/Constr. Bldg.</li> <li>- Yard Area</li> <li>- Transformers</li> </ul> </li> </ul>	<p>Whenever the equip. being protected is operational or required to be operable.</p>	<p>One or more of the selected portions in operable.</p>	<p>Establish an hourly fire watch patrol in the affected area to check for proper cooling, no oil leakage, or any abnormal conditions.</p>	<p>Within 4 hours.</p>



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SYSTEM	REQUIREMENT	APPLICABLE MODES	CONDITION	REQUIRED ACTION	TIME REQUIREMENT
3. (continued)	<p>Common Facilities</p> <ul style="list-style-type: none"> <li>- ERF</li> <li>- Offsite Warehouse</li> <li>- Simulator Bldg.</li> <li>- Waste Hdlg. Bldg. (Switchyard)</li> <li>- Site Engr. Bldg.</li> <li>- Paint Shop</li> <li>- Warehouse C &amp; D</li> </ul>				

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SYSTEM	REQUIREMENT	APPLICABLE MODES	CONDITION	REQUIRED ACTION	TIME REQUIREMENT
4. CO2 System	<p>The following CO2 Systems serving non-safety related areas shall be operable:</p> <p><u>Unit 1 Areas:</u></p> <ul style="list-style-type: none"> <li>- Turbine/Generator Area (5 Ton CO2 System)</li> <li>- Guardhouse (D.G. Room)</li> </ul> <p><u>Unit 2 Areas:</u></p> <ul style="list-style-type: none"> <li>- Turbine/Generator Area (7.5 Ton CO2 System)</li> </ul> <p><u>Common Facilities:</u></p> <ul style="list-style-type: none"> <li>- ERF Substation Bldg.</li> <li>- EPF Black D.G. Bldg.</li> </ul>	<p>Whenever the equip. being protected is operational or required to be operable.</p>	<p>CO2 System inoperable for any of the areas.</p>	<p>Establish an hourly fire watch patrol in the affected area(s) to check for proper cooling, no oil leakage, or any abnormal conditions.</p>	<p>Within 4 hours.</p>

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SYSTEM	REQUIREMENT	APPLICABLE MODES	CONDITION	REQUIRED ACTION	TIME REQUIREMENT
5. Fire Hose Stations	<p>Hose stations serving the following non-safety related areas shall be operable:</p> <p><u>Unit 1 Areas:</u></p> <ul style="list-style-type: none"> <li>- Turbine Bldg.</li> <li>- Warehouse Area</li> <li>- Water Treatment*</li> <li>- Aux. Boiler Rm.</li> <li>- Guardhouse</li> </ul> <p><u>Unit 2 Areas:</u></p> <ul style="list-style-type: none"> <li>- Turbine Bldg.</li> <li>- Condensate Polishing Bldg.</li> <li>- Waste Handling Bldg.</li> <li>- Health Physics Area</li> <li>- SOSB</li> </ul> <p><u>Common Facilities</u></p> <ul style="list-style-type: none"> <li>- Admin. Bldg.*</li> <li>- PAF</li> <li>- Offsite Warehouse</li> <li>- Waste Handling Bldg. (Switchyard)</li> <li>- Simulator Bldg.</li> </ul>	<p>Whenever the equip. in the areas protected by the selected stations is operational or required to be operable.</p>	<p>One or more selected stations inoperable.</p>	<p>a. Provide equivalent capacity backup hose protection to the unprotected area if the inoperable station is the primary means of fire protection in the affected area.</p> <p style="text-align: center;">OR</p> <p>b. Establish an hourly fire watch patrol for the affected area(s).</p>	<p>a. Within 4 hours.</p> <p>b. Within 4 hours.</p>

\*NOTE: Denotes areas where primary means of fire protection is fire hose racks.

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SYSTEM	REQUIREMENT	APPLICABLE MODES	CONDITION	REQUIRED ACTION	TIME REQUIREMENT
<p>5. Halon Systems</p>	<p>Halon Systems protecting the following non-safety related areas shall be operable.</p> <p><u>Unit 1 Areas:</u>                      - Guardhouse (CAS)                      - Warehouse (Equip. I&amp;C Room)</p> <p><u>Unit 2 Areas:</u>                      - PAF (SAS)                      - PAF (Tele. Equip. Rm.)                      - SOSB (Records Rm.)                      - SOSB (Comm. Rm.)</p> <p><u>Out Bldgs.</u>                      - ERF (Comp., Comm. Equip., E.D.'s Office, EOF, Records Rooms and TSC Subfloor).                      - Simulator Bldg. (Simulator, Comp. and Records Rm.)                      - Admin. Bldg. (Records Room)</p>	<p>Whenever the equip. being protected is operational or required to be operable.</p>	<p>a. One or more of the selected systems inoperable.</p>	<p>a. Establish an hourly fire watch patrol for the room whenever affected room is unmanned.</p>	<p>a. Within 4 hours.</p>

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SYSTEM	REQUIREMENT	APPLICABLE MODES	CONDITION	REQUIRED ACTION	TIME REQUIREMENT
7. Fire Barrier Penetrations	<p>All fire rated assemblies and all applicable penetration seals (including fire doors, fire dampers, etc.) associated with areas protected by total flooding CO2 or Halon Systems shall be operable:</p> <p><u>Unit 1:</u></p> <ul style="list-style-type: none"> <li>- Guardhouse (D.G. Room CO2 System)</li> <li>- Guardhouse (CAS Room Halon System)</li> <li>- Warehouse I&amp;C Equip. Room (Halon System)</li> </ul> <p><u>Unit 2</u></p> <ul style="list-style-type: none"> <li>- PAF (SAS Room Halon System)</li> <li>- PAF (Tele. Equip. Room Halon System)</li> <li>- SOSB (Records Room Halon System)</li> <li>- SOSB (Comm. Rm. Halon System)</li> </ul> <p><u>Common Facilities</u></p> <ul style="list-style-type: none"> <li>- ERF Substation &amp; Black DG Bldgs. (CO2 System)</li> <li>- ERF (Halon System)</li> <li>- Simulator Bldg. (Halon System)</li> <li>- Admin. Bldg. (Records Room)</li> </ul>	<p>At all times (unless testing or preventive maintenance is being performed on the equipment/area protected by CO2 or Halon which requires the fire system to be O.O.S.)</p>	<p>One or more inoperable.</p>	<p>Establish an hourly fire watch for the affected areas whenever the affected areas are unmanned.</p>	<p>Within 4 hours.</p>

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SYSTEM	REQUIREMENT	APPLICABLE MODES	CONDITION	REQUIRED ACTION	TIME REQUIREMENT
B. Foam System for the Aux. Boiler Fuel Oil Storage Tank (Unit 1)	The foam system shall be operable.	Whenever fuel oil stored in tank.	The foam system inoperable.	Ensure portable foam eductor with adequate foam supply (at least 50 gal.) available in foam house.	Within 4 hours.

TABLE 3 (Page 10 of 10)

SYSTEM	REQUIREMENT	APPLICABLE MODES	CONDITION	REQUIRED ACTION	TIME REQUIREMENT
9 Fire Extinguishers (Applicable to Units 1 & 2, and Out-Bldgs.)	Fire extinguishers shall be operable and in their designated locations.	At all times.	Fire extinguishers inoperable or missing from designated location.	Replace fire extinguisher with equivalent size and type.	Within 24 hours.

TABLE 4 (Page 1 of 10)

## FIRE INSURANCE (ANI) SURVEILLANCE REQUIREMENTS FOR FIRE PROTECTION SYSTEM

SYSTEM	REQUIREMENT	SURVEILLANCE REQUIREMENT	REQUIRED FREQUENCY	REFERENCE UNIT 1 (UNIT 2)
Fire Detection Instrumentation	<p>Instrumentation for each fire zone protecting non-safety related equipment shall be operable.</p> <p><u>Unit 1:</u>  - Guardhouse  - Alternate Access Facility</p> <p><u>Unit 2:</u>  - SOSB  - PAF</p> <p><u>Out-Bldgs.:</u>  - ERF Sub. Bldg.  - Black D.G. Bldg.  - ERF  - Training Bldg.  - Simulator Bldg.  - Waste Hdg. Bldg.  - Admin. Bldg.  - Meteorological Shelter</p>	a. Each of the fire detection instruments and the supervised circuits associated with the detector alarms shall be demonstrated operable.	<p>a.1. 6 months</p> <p>a.2. Annual</p>	<p>a.1. <u>Unit 1(2):</u>  OST 1.33.16  (OST 2.33.16)</p> <p>a.2. <u>Out-Bldgs.:</u>  OST 1.33.18 (Admin. Bldg.)  OST 1.33.24 (ERF)  OST 1.33.28 (Sim. and Trng. Bldgs.)  OST 1.33.29 (ERFS)</p>



TABLE 4 (Page 2 of 10)

SYSTEM	REQUIREMENT	SURVEILLANCE REQUIREMENT	REQUIRED FREQUENCY	REFERENCE UNIT 1 (UNIT 2)
2.a. Fire Suppression Water System (Applicable to Units 1 & 2 and Out-Bldgs.)	Operable flow path to non-safety related areas.	a. Verification that each valve in the flow path is in its correct position and perform drain test.  b. Cycling of each valve in the flow path.	a. Quarterly  b. Annual	a. Unit 1(2): OST 1.33.1B (OST 2.33.3)  Out-Bldgs.: OST 1.33.24 OST 1.33.26  b. OST 1.33.12 (OST 2.33.12) OST 1.33.24 OST 1.33.26
2.b. Yard Area Fire Hydrants and associated Hose Cabinets and Cart Houses (Applicable to Units 1 & 2, and Out-Bldgs.)	The fire hydrants shall be operable and associated hose cabinets and cart houses properly stocked.	a. Verify operability of hydrants and ensure barrels are dry and threads lubricated.  b. Performance of a hydrant flush test and verify barrel integrity.  c. Inspection and inventory of hose cabinets and cart houses.	a. 6 months  b. Annual  c. 6 months	a. OST 1.33.4 (OST 2.33.4)  b. OST 1.33.4 (OST 2.33.4)  c. OST 1.33.5 (OST 2.33.5)

TABLE 4 (Page 3 of 10)

SYSTEM	REQUIREMENT	SURVEILLANCE REQUIREMENT	REQUIRED FREQUENCY	REFERENCE UNIT 1 (UNIT 2)
<p>3. Spray and/or Sprinkler System</p>	<p>The following water sprinkler systems serving non-safety related areas shall be operable:</p> <p><u>Unit 1 Areas:</u></p> <ul style="list-style-type: none"> <li>- Turbine Bldg. (Mezzanine and basement floors)</li> <li>- H2 Seal Oil Unit</li> <li>- Lube Oil Reservoir</li> <li>- Lube Oil Storage Room</li> <li>- Aux. Boiler Room</li> <li>- Main Steam Pipe Chase (opening from Turbine Bldg.)</li> <li>- Warehouse Area</li> <li>- PCA Machine Shop</li> <li>- Clean Shop</li> <li>- Chemistry Lab</li> <li>- Guardhouse</li> <li>- Yard Area Transformers</li> </ul> <p><u>Unit 2 Areas:</u></p> <ul style="list-style-type: none"> <li>- Turbine Bldg. (Mezzanine and basement floor)</li> <li>- H2 Seal Oil Unit</li> <li>- Gland Steam Exhaust Filters</li> <li>- Lube Oil Reservoir</li> <li>- Main Steam Pipe Chase</li> <li>- Pipe Opening to Waste Handling Bldg.</li> <li>- Condensate Polishing Bldg.</li> <li>- Waste Handling Bldg.</li> <li>- Health Physics Bldg.</li> <li>- SOSB</li> <li>- PAF</li> <li>- Dosimetry Bldg.</li> <li>- Schneider/Construction Bldg.</li> <li>- Yard Area Transformers</li> </ul>	<p>a. Verification that each valve in the flow path is in its correct position.</p> <p>b. Cycling of each testable valve in the flow path.</p> <p>c. Performance of a sys. functional test and verifying that automatic valves in the flow path actuate correctly.</p>	<p>a.1. Monthly</p> <p>a.2. Quarterly</p> <p>b. Annual</p> <p>c. 18 Months</p>	<p>a.1. <u>Unit 1(2):</u> OST 1.33.1 (OST 2.33.1)</p> <p>a.2. <u>Out-Bldgs.:</u> OST 1.33.24 OST 1.33.26</p> <p>b.1. <u>Unit 1(2):</u> OST 1.33.6 OST 1.33.12 (OST 2.33.6) (OST 2.33.12)</p> <p>b.2. <u>Out-Bldgs.:</u> OST 1.33.24 OST 1.33.26</p> <p>c.1. <u>Unit 1(2):</u> OST 1.33.6 (OST 2.33.10A)</p> <p>c.2. <u>Out-Bldgs.:</u> OST 1.33.24 OST 1.33.26</p>

TABLE 4 (Page 4 of 10)

SYSTEM	REQUIREMENT	SURVEILLANCE REQUIREMENT	REQUIRED FREQUENCY	REFERENCE UNIT 1 (UNIT 2)
3. (continued)	<p>Common Facilities:</p> <ul style="list-style-type: none"> <li>- ERF</li> <li>- Off-site Warehouse</li> <li>- Simulator Bldg.</li> <li>- Waste Handling Bldg. (Switchyard)</li> <li>- Site Engr. Bldg.</li> <li>- Paint Shop</li> <li>- Warehouse C&amp;D</li> </ul>			

TABLE 4 (Page 5 of 10)

SYSTEM	REQUIREMENT	SURVEILLANCE REQUIREMENT	REQUIRED FREQUENCY	REFERENCE #NIT 1 (UNIT 2)
4. CO2 System	<p>The following CO2 Systems serving Non-Safety Related Areas shall be operable:</p> <p><u>Unit 1 Areas:</u>                      - Turbine/Generator Area (5 Ton CO2 System)                      - Guardhouse (D.G. Room)</p> <p><u>Unit 2 Area:</u>                      - Turbine/Generator Area (7.5 Ton CO2 System)</p> <p><u>Common Facilities:</u>                      - ERF Substation Bldg.                      - ERF Black D.G. Bldg.</p>	<p>a. Verification of the CO2 storage tank level &amp; pressure.</p> <p>b. Verification that the system actuates manually and automatically open receipt of simulated signal.</p> <p>c. Performance of a "Puff Test".</p>	<p>a. Weekly</p> <p>b. 18 months</p> <p>c. 18 months</p>	<p>a. OST 1.33.9 (OST 2.33.9)</p> <p>b.1. <u>Unit 1(2):</u> OST 1.33.10 (OST 2.33.10)</p> <p>b.2. <u>Out Bldgs.:</u> OST 1.33.29</p> <p>c.1. <u>Unit 1(2):</u> OST 1.33.10 (OST 2.33.13B)</p> <p>c.2. <u>Out-Bldgs.:</u> OST 1.33.29</p>

TABLE 4 (Page 6 of 10)

SYSTEM	REQUIREMENT	SURVEILLANCE REQUIREMENT	REQUIRED FREQUENCY	REFERENCE UNIT 1 (UNIT 2)
<p>5. Fire Hose Stations</p>	<p>Hose stations serving the following non-safety related areas shall be operable:</p> <p><u>Unit 1 Areas:</u>                      - Turbine Bldg.                      - Warehouse Area                      - Water Treatment                      - Aux. Boiler Room                      - Guardhouse</p> <p><u>Unit 2 Areas:</u>                      - Turbine Bldg.                      - Condensate Polishing Bldg.                      - Waste Handling Bldg.                      - Health Physics Area                      - SOSB</p> <p><u>Common Facilities:</u>                      - Admin. Bldg.                      - PAF                      - Offsite Warehouse                      - Waste Handling Bldg. (Switchyard)                      - Simulator Bldg.                      - SAPS Visitors Center                      - SAPS T&amp;T Bldg.</p>	<p>a. Inspection of the hose stations and associated hose, inspection of all gaskets and replacing any degraded hose or gaskets.</p> <p>b. Partially opening each hose station to verify valve operability and no flow blockage.</p> <p>c. Performance of a hose hydro test.</p>	<p>a. Annual</p> <p>b. 3 years</p> <p>c. 3 years</p>	<p>a. OST 1.33.2 (CST 2.33.2) <u>Out-Bldgs.:</u> OST 1.33.25</p> <p>b. OST 1.33.2 (OST 2.33.2) <u>Out-Bldgs.:</u> OST 1.33.25</p> <p>c. OST 1.33.2 (OST 2.33.2) <u>Out-Bldgs.:</u> OST 1.33.25</p>

TABLE 4 (Page 7 of 10)

SYSTEM	REQUIREMENT	SURVEILLANCE REQUIREMENT	REQUIRED FREQUENCY	REFERENCE UNIT 1 (UNIT 2)
5. Halon Systems	<p>Halon Systems protecting the following non-safety related areas shall be operable.</p> <p><u>Unit 1 Areas:</u>                      - Guardhouse (CAS)                      - Warehouse (Equipment I&amp;C Room)</p> <p><u>Unit 2 Areas:</u>                      - PAF (SAS)                      - PAF (Tele. Equip. Rm.)                      - SOSB (Records Room)                      - SOSB (Comm. Room)</p> <p><u>Out-Bldgs.:</u>                      - ERF Rooms                      - Simulator Bldg. Rooms                      - Admin. Bldg. (Records Room)</p>	<p>a. Verification that each valve in the flow path is in its correct position.</p> <p>b. Verification of Halon storage &amp; weight (or level) &amp; pressure.</p> <p>c. Verification that the system actuates manually and automatically upon receipt of simulated actuation of signal.</p>	<p>a. Monthly</p> <p>b. Annual</p> <p>c. Annual</p>	<p>a. OST 1.33.20 (OST 2.33.18)</p> <p>b. <u>Out-Bldgs.:</u>                      OST 1.33.27 (Sim. Bldg.)                      OST 1.33.18 (Admin. Bldg.)                      OST 1.33.31 (ERF)</p> <p>c. OST 1.33.23 (OST 2.33.24)</p> <p><u>Out-Bldgs.:</u>                      OST 1.33.27 (Sim. Bldg.)                      OST 1.33.18 (Admin.)                      OST 1.33.31 (ERF)</p>

TABLE 4 (Page 8 of 10)

SYSTEM	REQUIREMENT	SURVEILLANCE REQUIREMENT	REQUIRED FREQUENCY	REFERENCE UNIT 1 (UNIT 2)
<p>7. Fire Barrier Penetrations</p>	<p>All fire rated assemblies and all applicable penetration seals (including fire doors, fire dampers etc.) associated with areas protected by total flooding CO2 or Halon Systems shall be operable (Units 1 &amp; 2).</p> <p><u>Unit 1:</u></p> <ul style="list-style-type: none"> <li>- Guardhouse (D.G. Room CO2 System)</li> <li>- Guardhouse (CAS Room Halon System)</li> <li>- Warehouse I&amp;C Equip. Room (Halon System)</li> </ul> <p><u>Unit 2</u></p> <ul style="list-style-type: none"> <li>- PAF (SAS Room Halon System)</li> <li>- PAF (Tele. Equip. Room Halon System)</li> <li>- SOSB (Records Room Halon System)</li> <li>- SOSB (Comm. Rm. Halon System)</li> </ul> <p><u>Common Facilities</u></p> <ul style="list-style-type: none"> <li>- ERF Substation &amp; Black DC Bldgs. (CO2 System)</li> <li>- ERF (Halon System)</li> <li>- Simulator Bldg. (Halon System)</li> <li>- Admin. Bldg. (Records Room)</li> </ul>	<p>a. Verification that the fire doors are operable and free of obstructions.</p>	<p>a.1. 6 months</p> <p>a.2. Annual</p>	<p>a.1. <u>Unit 1(2):</u> OST 1.33.5 (OST 2.33.5)</p> <p>a.2. <u>Out-Bldgs.:</u> OST 1.33.25</p>

FIRE INSURANCE (ANI) SURVEILLANCE REQUIREMENTS - TABLE 4 (page 9 of 10)

TABLE 4 (Page 9 of 10)

SYSTEM	REQUIREMENT	SURVEILLANCE REQUIREMENT	REQUIRED FREQUENCY	REFERENCE UNIT 1 (UNIT 2)
B. Foam System for the Aux. Boiler Fuel Oil Storage Tank (Unit 1)	The foam system shall be operable.	Performance of a functional test of the foam system and determine satisfactory quality of foam.	Annual	OST 1.33.11



FIRE INSURANCE (ANI) SURVEILLANCE REQUIREMENTS - TABLE 4 (page 10 of 10)

TABLE 4 (Page 10 of 10)

SYSTEM	REQUIREMENT	SURVEILLANCE REQUIREMENT	REQUIRED FREQUENCY	REFERENCE UNIT 1 (UNIT 2)
<p>9. Fire Extinguishers (Applicable to Units 1 &amp; 2, and Out-Bldgs.)</p>	<p>Fire extinguishers shall be operable and in their designated locations.</p>	<p>a. Verify each fire extinguisher is operable and in its correct position.  b. Perform maintenance checks of each extinguisher and check weight of the gas suppression-type (Halon + CO2) fire extinguishers.</p>	<p>a. Monthly  b. Annual</p>	<p>a. OST 1-33-15A, B &amp; C (OST 2-33-15A, B &amp; C)  b. PMP 1-33-FP-EXT-1M PMP 1-33-FP-EXT-2M (PMP 2-33-FP-EXT-1M) (PMP 2-33-FP-EXT-2M)</p>

## INSTRUCTIONS

UPDATED FIRE PROTECTION APPENDIX R REVIEW REPORT - BVPS UNIT 1FIRE PROTECTION SAFE SHUTDOWN REPORT - BVPS UNIT 2

These instructions define the methods and responsibilities for the initiation, review, approval and distribution of changes to the BVPS Unit 1 Updated Fire Protection Appendix R Review Report and the BVPS Unit 2 Fire Protection Safe Shutdown Report.

INSTRUCTIONS

1. All proposed changes to the Fire Protection Reports shall be prepared utilizing the Fire Protection Report Proposed Change Form (Figure 1A).
2. Personnel who present items for OSC review involving design changes, procedures and NRC correspondence shall determine if the design changes or procedures affect the Unit 1 or Unit 2 Fire Protection Reports and, if so, notify NED by forwarding a completed Proposed Change Form to the Nuclear Engineering Manager for processing with a copy of the OSC approved safety evaluation.
3. NED shall assign a sequential reference number and shall coordinate review of each proposed change. Review responsibilities are identified in Table 1A (Unit 1) and Table 2A (Unit 2).
4. The assigned section reviewers shall perform the technical review of the proposed change(s) within the date noted on the review sheet. Any comments shall be jointly resolved and dispositioned by NED and the Licensing Section/Fire Protection Group.
5. NED shall coordinate the review by OSC and ORC.
6. NED shall coordinate word processing, reproduction and distribution.

## ATTACHMENT A (continued)

TABLE 1A

Unit 1  
Fire Protection  
Appendix R Review Report  
Sections Review Responsibilities

<u>Section</u>	<u>Title</u>	<u>*PRI</u>	<u>*SEC</u>	<u>SEC</u>
1	INTRODUCTION	MNE	MNS	SLS
2	HISTORICAL BACKGROUND	MNS	MNE	SLS
3	UNIT DESCRIPTION	MNE	SLS	FPE
4	SHUTDOWN CAPABILITY SUMMARY	PM	MNS	SLS
5	ELECTRICAL ANALYSIS	MNE	SLS	FPE
6	RESOLUTION OF PROBLEM AREAS	MNE	SLS	FPE
7	PROCEDURES (OM 56C)	PM	SLS	FPE
8	IDENTIFICATION OF HIGH/LOW PRESSURE SYSTEM INTERFACES	MNE	SLS	FPE
9	UPDATED RESPONSE TO NRC STAFF'S GENERIC LETTER 81-12	MNE	MNS	SLS
10	APPENDIX R REQUIREMENTS J AND O (RCP OIL COLLECTION AND EMERGENCY LIGHTING)	MNE	SLS	FPE
11	EXEMPTIONS	MNS	SLS	FPE
12	SCHEDULE FOR COMPLIANCE	MNS	SLS	FPE

\* PRI - Primary Responsibility

\* SEC - Secondary Responsibility

APPENDIX R REPORT REVIEWER INDEX

MNS - Manager, Nuclear Safety

SLS - Senior Licensing Supervisor

FPE - Fire Protection Engineer

MNE - Manager, Nuclear Engineering

PM - Plant Manager (or Asst.)

## ATTACHMENT A (continued)

TABLE 2A

Unit 2  
Fire Protection  
Safe Shutdown Report  
Sections Review Responsibilities

<u>Section</u>	<u>Title</u>	<u>*PRI</u>	<u>*SEC</u>	<u>SEC</u>
1	INTRODUCTION	MNE	MNS	SLS
2	SYSTEMS	PM	MNS	SLS
3	FIRE AREA REVIEW	MNE	SLS	FPE
APPENDIX A1	FIRE AREA DRAWINGS	MNE	SLS	FPE
APPENDIX A2	EQUIPMENT AND COMPONENTS CONTROLLED FROM ALTERNATE SHUTDOWN PANEL	PM	MNS	SLS
APPENDIX A3	CABLE MATRIX	MNE	SLS	FPE
APPENDIX A4	FIRE PROTECTION SAFE SHUTDOWN ANALYSIS PROCEDURE	PM	MNS	SLS
APPENDIX A5	BREAKER COORDINATION STUDY	MNE	SLS	FPE
APPENDIX A6	REFERENCES	MNE	SLS	FPE
TABLE 1	FIRE HAZARDS ANALYSIS	MNE	SLS	FPE

\* PRI - Primary Responsibility  
\* SEC - Secondary Responsibility

APPENDIX R REPORT REVIEWER INDEX

MNS - Manager, Nuclear Safety

SLS - Senior Licensing Supervisor

FPE - Fire Protection Engineer

MNE - Manager, Nuclear Engineering

PM - Plant Manager (or Asst.)

FIGURE 1A

PROPOSED CHANGE FORM

APPLICABLE FIRE PROTECTION REPORT (check one):

- Updated Fire Protection Appendix R Review Report - BVPS Unit 1
- Fire Protection Safe Shutdown Report - BVPS Unit 2

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TO BE COMPLETED BY THE INITIATING GROUP:

List Page(s), Table (T), or Figure (F) numbers to be changed.  
(Attach marked up pages showing proposed changes). \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Reason for change: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Prepared By _____	Date _____	Reviewed By _____	Date _____
		(DLC Supervision)	

-----  
TO BE COMPLETED BY NED (Designated FPARRR Coordinator)

Date Received \_\_\_\_\_ Reference No. \_\_\_\_\_

\_\_\_\_\_  
NED (FPARRR Coordinator or designee) Date Sent Out for Review \_\_\_\_\_

-----  
TO BE COMPLETED BY FIRE PROTECTION REPORT SECTION REVIEWERS:

			No Comments	Comments Attached
Primary	_____	Date _____	<input type="checkbox"/>	<input type="checkbox"/>
Secondary	_____	Date _____	<input type="checkbox"/>	<input type="checkbox"/>
Secondary	_____	Date _____	<input type="checkbox"/>	<input type="checkbox"/>

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OSC Review Date \_\_\_\_\_ Meeting No. \_\_\_\_\_  
ORC Review Date \_\_\_\_\_ Meeting No. \_\_\_\_\_

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Effective Date of Change: \_\_\_\_\_ Rev. No. \_\_\_\_\_