3.17 FIRE PROTECTION AND DETECTION SYSTEMS

Applicability

This specification applies to the operability of fire protection and detection systems which protect systems and equipment required for safe shutdown.

Objective

To assure the operability of fire protection and detection systems when the reactor is in conditions above cold shutdown.

Specification

- 3.17.1 The Fire Protection System shall be operable and two high pressure service water pumps shall be operable and aligned to the high pressure fire header.
- 3....2 When it is determined that only one high pressure service water pump is operable, that pump shall be demonstrated functionally operable within one hour and daily thereafter until Specification 3.17.1 is met.
- 3.17.3 When it is determined that neither fire pump is operable, an alternate source of fire water shall be provided within 24 hours or the reactor shall be in a cold shutdown condition within an additional 48 hours.
- 3.17.4 When Specification 3.17.1 is determined not to be met, exclusive of the provisions of Specifications 3.17.2 and 3.17.3, appropriate action will be taken to protect the affected area. Such action shall consist of one or more of the following actions:
 - (a) Increased inspection frequency
 - (b) Verification of availability of backup equipment
 - (c) Verification of operability of fire detection systems
 - (d) Providing an alternate source of fire protection
 - (e) Restricting potentially hazardous operations
- 3.17.5 The fire detection system shall be operable with the following minimum numbers of heat and smoke detectors in each area or zone.
 - (a) At least 50% of the detectors in areas or zones containing 3 or more detectors.
 - (b) At least 1 detector in areas or zones containing 2 detectors or less.

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3.17.6 If Specification 3.17.5 cannot be met, the frequency of inspections of the affected areas shall be increased commensurate with the fire potential in these areas.

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4.19 FIRE PROTECTION AND DETECTION SYSTEM

Applicability

Applies to the fire protection and detection systems which protect systems and equipment required for safe shutdown.

Objective

To verify the operability of fire protection and detection systems.

Specifications

4.19.1 The High Pressure Fire Protection System components shall be tested as follows:

	Item	Frequency	
(a)	High pressure service water pump functional	Monthly	
(b)	test High pressure service water pump capacity	Every Three Years	
(c)	test Automatic logic system	Quarterly	
(d)	Alignment of fire protection valves	Weekly	

4.19.2 The fire detection system shall be tested for operability as follows:

	Item	Frequency		
(a)	Operability	of	detectors	Annually
(b)	Operability	of	annunciators	Quarterly

6.0 ADMINISTRATIVE CONTOLS

6.1 ORGANIZATION, REVIEW, AND AUDIT

6.1.1 Organization

- 6.1.1.1 The station Manager shall be responsible for overall facility operation and shall delegate in writing the succession to this responsibility during his absence.
- 6.1.1.2 In all matters pertaining to actual operation and maintenance and to these Technical Specifications, the station Manager shall report to and be directly responsible to the Vice President, Steam Production, through the Manager, Nuclear Production. The organization is shown in Figure 6.1-2.
- 6.1.1.3 The station organization for Operations, Technical Services and Maintenance shall be functionally as shown in Figure 6.1-1. Minimum operating shift requirements are specified in Table 6.1-1.
- 6.1.1.4 Incorporated in the staff of the station shall be personnel meeting the minimum requirements encompassing the training and experience described in Section 4 of the ANSI N18.1-1971, "Selection and Training of Nuclear Power Plant Personnel."
- 6.1.1.5 Retraining and replacement of station personnel shall be in accordance with Section 5.5 of the ANSI N18.1-1971, "Selection and Training of Nuclear Power Plant Personnel."
- 6.1.1.6 A training program for the fire brigade shall meet or exceed the requirements of Section 27 of the NFPA Code-1976.

6.1.2 Technical Review and Control

6.1.2.1 Activities

- a. Procedures required by Technical Specification 6.4 and other procedures which affect station nuclear safety, and changes (other than editorial or typographical changes) thereto, shall be prepared by a qualified individual/ organization. Each such procedure, or procedure change, shall be reviewed by an individual/group other than the individual/group which prepared the procedure, or procedure change, but who may be from the same organization as the individual/group which prepared the procedure, or procedure change. Such procedures and procedure changes may be approved for temporary use by two members of the station staff, at least one of whom holds a Senior Reactor Operator's License on the unit(s) affected. Procedures and procedure changes shall be approved prior to use or within seven days of receiving temporary approval for use by the station Manager; or by the Operating Superintendent, the Technical Survices Superintendent or the Maintenance Superintendent, as previously designated by the station Manager.
- b. Proposed changes to the Technical Specifications shall be prepared by a qualified individual/organization. The proparation of each proposed Technical Specifications change shall be reviewed by an individual/group other than the individual/group which prepared the proposed change, but who may

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be from the same organization as the individual/group which prepared the proposed change. Proposed changes to the Technical Specifications shall be approved by the station Manager.

- c. Proposed modifications to station nuclear safety-related structures, systems and components shall be designed by a qualified individual/ organization. Each such modification shall be reviewed by an individual/ group other than the individual/group which designed the modification, but who may be from the same organization as the individual/group which designed the modification. Proposed modifications to station nuclear safety-related structures, systems and components shall be approved prior to implementation by the station Manager; or by the Operating Superintendent, the Technical Services Superintendent, or the Maintenance Superintendent, as previously designated by the station Manager.
- d. Individuals responsible for reviews performed in accordance with 6.1.2.1.a, 6.1.2.1.b, and 6.1.2.1.c shall be members of the station supervisory staff, previously designated by the station Manager to perform such reviews. Each such review shall include a determination of whether or not additional, cross-disciplinary, review is necessary. If deemed necessary, such review shall be performed by the appropriate designated station review personnel.
- e. Proposed tests and experiments which affect station nuclear safety and are not addressed in the FSAR or Technical Specifications shall be reviewed by the station Manager; or by the Operating Superintendent, the Technical Services Superintendent or the Maintenance Superintendent, as previously designated by the station Manager.
- f. Incidents reportable pursuant to Technical Specification 6.6.2.1 and violations of Technical Specifications shall be investigated and a report prepared which evaluates the occurrence and which provides recommendations to prevent recurrence. Such reports shall be approved by the station Manager and transmitted to the Vice President, Steam Production, or his designee; and to the Director of the Nuclear Safety Review Board.
- g. The station Manager shall assure the performance of special reviews and investigations, and the preparation and submittal of reports thereon, as requested by the Vice President, Steam Production.
- h. The station security program, and implementing procedures, shall be reviewed at least annually. Changes determined to be necessary as a result of such review shall be approved by the station Manager and transmitted to the Vice President, Steam Production, or his designee: and to the Director of the Nuclear Safety Review Board.
- The station emergency plan, and implementing procedures, shall be reviewed at least annually. Changes determined to be necessary as a result of such review shall be approved by the station Manager and transmitted to the Vice President, Steam Production, or his designee; and to the Director of the Nuclear Safety Review Board.
- j. The station manager shall assure that an independent fire protection and loss prevention inspection and audit shall be performed annually utilizing qualified off-site personnel and that an inspection and audit by a qualified fire consultant shall be performed at intervals no greater than three years.

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- 8. Any other area of station operation considered appropriate by the WSRB or the Vice President, Steam Production.
- h. The station fire protection program and implementing procedures at least once per two years.
- 6.1.3.5 Responsibilities and Authorities
- a. The NSRB shall report to and advise the Vice President, Steam Production, on those areas of responsibility specified in Specifications 6.1.3.3 and 6.1.3.4.
- b. Minutes shall be prepared and forwarded to the Vice President, Steam Production, and to the Senior Vice President, Production and Transmission, within 14 days following each formal meeting of the NSRB.
- c. Records of activities performed in accordance with Specifications 6.1.3.3 and 6.1.3.4 shall be maintained.
- d. Audit reports encompassed by Section 6.1.3.4 shall be forwarded to the Vice President, Steam Production, and to the Senior Vice President, Production and Transmission, and to the management positions responsible for the areas audited within 30 days of completion of each audit.

Table 6.1-1 Minimum Operating Shift Requirements With Foel in the Three Reactor Vessels

Minimum Alt Livense Reguliement	Unit 1 of 2 Above Cold Shutdown; Unit 3 Cold Shutdown	Units 1 and 2 Above Cold Shurdown; Unit 3 Cold Shurdown	Units 1 or 2 Above Cold Shutdown; Unit 3 Above Cold Shutdown	Units 1 and 2 Cold Shutdown; Unit 3 Above Cold Shutdown	Units 1, 2, and 3 Above Cold Shutdown	Units 1, and 3 Co Shutdown
senior Reactor Operator	2	2	2	2	3	2
Reactor Operator		4 ° 5 ° 1	4	4	4	3
Indicensed Operator	2	2	2	2	4	

Additional Requirements:

- One In ensed operator per unit shall be in the control Room at all times when there is fuel in the reaster vessel.
- ico ficensed operators shall be in the control Room during startup and scheduled shutdown of a reactor.
- M. Least one Treensed operator shall be in the reactor building when fuel handling operations in the reactor building are in progress.
- c. An operator holding a Senior Reactor Operator license and assigned no other operational duties shall be in direct charge of refueling operations.
- 3. M. Isast sue person per shift shift have sufficient training to perform routine health physics requirements.
- 6. If the computer for a reactor is imperiable for some than eight hours, an operator in addition to these required above shall supplement the shift crew.
- 7. A fire brigade of 3 members shall be maintained on site at all times. This excludes 3 members of the minimum operating shift requirements that are required to be present in the control rooms.