ATTACHMENT A

Revise the Technical Specifications by replacing the following pages: 3.14-1, 3.14-2, 3.14-3, 3.14-4, 3.14-7, 3.14-8, 4.15-1, 4.15-1a, 4.15-2, 4.15-2a.

3.14 Fire Suppression System

Applicability

Applies to the operating status of the Fire Suppression System.

Objective

Define those conditions of the Fire Suppression System which provide adequate fire protection.

Specification

3.14.1 The fire detection instruments for each fire detection zone shown in Table 3.14-1 shall be operable.

3.14.1.1 With the number of operable instruments less than that required by Specification 3.14.1,

a. Except during emergency conditions which prohibit access, establish within an hour a fire watch patrol to inspect the zone with the inoperable instrument(s) at least once per hour, unless the instrument is located in containment, in which case inspect the containment once every 8 hours or monitor the containment air temperature at least once per hour at a minimum of 16 locations.

b. Comply with the requirements of Specification 3.14.1 within 14 days, or

c. Prepare and submit a Thirty Day Written Report in accordance with Specification 6.9.2 outlining the cause of the inoperability and the plans for restoring the instrument(s) to operable status.

3.14.2 The fire suppression water system shall be operable with:

a. Two fire pumps each with a capacity of 2000 gpm with their discharge aligned to the fire suppression header.

b. Automatic initiation logic for each fire pump.

3.14.2.1 With an inoperable redundant component,

a. In the operating mode, restore the component to operable status within 7 days. If the component is not restored to operable status within 7 days, run the remaining pump continuously and prepare and submit a Thirty Day Written Report in accordance with Specification 6.9.2 outlining the cause of the

inoperability and plans for restoring the component to operable status.

b. In cold or refueling shutdown, restore the component to operable status within 7 days or prepare and submit a Thirty Day Written Report in accordance with Specification 6.9.2 outlining the cause of inoperability and the plans for restoring the component to operable status.

3.14.2.2 With the fire suppression water system inoperable,

a. Establish within 24 hours a backup fire suppresion water system and

b. Provide Prompt Notification With Written Followup in accordance with Specification 6.9.2 outlining the actions taken, the cause of the inoperability, and the plans for restoring the components to operable status.

c. If a. and b. above cannot be fulfilled, place the reactor in Hot Shutdown within the next six (6) hours and in Cold Shutdown within the following thirty (30) hours.

3.14.3 The spray and/or sprinkler systems located in the following areas shall be operable when equipment in the area is required to be operable:

a. "A" Diesel Generator Room (S12)

b. "B" Diesel Generator Room (S13)

c. Turbine Driven Auxiliary Feedwater Pump and its Oil Reservoir (S14)

d. Cable Tunnel (S05)

e. Air Handling Room Cable Spray System (S06)

f. Relay Room Spray System West (S10)

g. Relay Room Spray System Northeast (S11)

h. Relay Room Spray System Southeast (S09)

i. Turbine Bldg./Control Room Wall Spray System (S29)

j. Intermediate Bldg. Cable Trays Spray System (S15)

k. Auxiliary Bldg. at Cable Tunnel Spray System (S03)

Amendment No. 15, 39
Proposed

l. Auxiliary Bldg. 253'-6" Cable Trays Spray System (S04)

m. Auxiliary Bldg. Basement Cable Trays Spray System (S01)

n. Screenhouse Basement Cable Trays Spray System (S17)

o. Screenhouse Sprinkler System (S18)

p. 1 G Charcoal Filter System (original system #14)

3.14.3.1 If a spray/sprinkler system is inoperable, except for testing, when equipment in the area is required to be operable than, within an hour, establish a fire watch patrol to inspect the zone with the inoperable system at least once per hour, except during emergency conditions which prohibit access, and place backup fire suppression equipment in the unprotected area(s).

a. Restore the system to operable status within 14 days or prepare and submit a Thirty Day Written Report in accordance with Specification 6.9.2 outlining the cause of the inoperability and the plans for restoring the system to operable status.

3.14.4 The Halon systems located in the following areas shall be operable when equipment in the area is required to be operable and the storage tanks shall have at least 95% of the full charge weight and 90% of full charge pressure at 70°F:

a. Computer Room (S07)

b. Relay Room (S08)

3.14.4.1 If a Halon system is inoperable when equipment in the area is required to be operable then, within one hour, establish a fire watch patrol to inspect the zone with the inoperable equipment at least once per hour, except during emergency conditions which prohibit access, and place portable equipment in the unprotected area(s).

a. Restore the system to operable status within 14 days or prepare and submit a Thirty Day Written Report in accordance with Specification 6.9.2 outlining the cause of the inoperability and the plans for restoring the system to operable status.

3.14.5 The fire hose stations in Table 3.14-2 shall be operable.

3.14.5.1 With a hose station listed in Table 3.14-2 inoperable, except for hose station(s) within containment, route a hose to the unprotected area from an operable hose station within an hour.

3.14.5.2 If the water service to containment is inoperable, comply with the requirements of Specification 3.14.5 within 14 days or prepare and submit a Thirty Day Written Report in accordance with Specification 6.9:2 outlining the cause of the inoperability and the plans for restoring the system to operable status.

3.14.6 All fire barrier penetration fire seals protecting safety related areas shall be intact.

3.14.6.1 With a fire barrier penetration fire seal which protects a safety related area not intact, a continuous fire watch shall be established on one side of the penetration within one hour or, verify that fire detectors on at least one side of the inoperable seal are in service and establish an hourly fire watch patrol.

3.14.7 The yard hydrant on the southeast corner of the yard loop shall be operable.

3.14.7.1 With the yard hydrant on the southeast corner of the yard loop inoperable, within one hour have sufficient lengths of 2-1/2 inch diameter hose located in an adjacent operable hydrant hose house to provide fire protection to the transformers and the standby auxiliary feedwater building.

TABLE 3.14-1

FIRE DETECTION INSTRUMENTS

INSTRUMENT LOCATION	MINIMUM INSTRUMENTS OPERABLE ***	
	HEAT	SMOKE
1. Containment		
"A" Post-Accident Charcoal Bank (Z09,Z10)	3*	N/A
"B" Post-Accident Charcoal Bank (Z11,Z12)	3*	N/A
"A" Aux. Filter Charcoal Bank (Z06)	1*	N/A
"B" Aux. Filter Charcoal Bank (Z07)	1*	N/A
Cable Trays Basement Elev. (Z08)	1**	N/A
Cable Trays Intermed. Elev. (Z15)	2**	N/A
Cable Trays Operating Floor (Z16)	1**	N/A
"A" RCP Intermediate Floor (Z13)	1**	N/A
"B" RCP Intermediate Floor (Z14)	1**	N/A
Area Detection Operating Floor (Z16)	N/A	7
2. Control Room		
Area and Cabinet (Z19)	1	17
Control Room/Turb. Bldg. Wall (S29)	4	N/A
3. Relay Room (Z18,S08)	3	16
4. Computer Room		
Under Floor (S07)	N/A	3
Ceiling (Z17)	N/A	3
5. Battery Rooms (A & B) (Pyrotronics Zone 8)	N/A	3
6. Control Building		
Air Handling Room (S06)	N/A	3
7. Diesel Generator		
"A" Generator Room (S12)	2	N/A
"A" Generator Vault (Z20)	N/A	1
"B" Generator Room (S13)	2	N/A
"B" Generator Vault (Z21)	N/A	1
8. Intermediate Building		
Motor Driven Aux. Fd. Pump Area (Z22)	N/A	9
Turb. Driven Aux. Fd. Pump & Res. (S14)	1	N/A
Cable Trays Basement North (S15)	N/A	14
"A" Purge Filter Elev. 315'-4" (Z23)	N/A	1
"B" Purge Filter Elev. 315'-4" (Z24)	N/A	1
9. Screen House		
Area Detection Serv. Water Pump and Bus Area (Z26)	N/A	11
Cable Trays Basement (S17)	N/A	4

Amendment No. ~~15~~, ~~24~~, ~~39~~, ~~49~~
Proposed

INSTRUMENT LOCATION	MINIMUM INSTRUMENTS OPERABLE ***	
	HEAT	SMOKE
10. Standby Auxiliary Feedwater Bldg. (Z25)	N/A	8
11. Cable Tunnel (Z05,S05)	10	8
12. Auxiliary Building		
General Area (Pyrotronics Zones 1,2,3)	N/A	8
Area Basement East (Z01)	N/A	5
Area Basement West and RHR Pit (Z02)	N/A	9
Cable Trays/SI Pumps Basement (S01)	N/A	5
Penetration Area Cable Trays Mezz. (Z03)	N/A	2
Cable Trays, Elec. Cab. Mezz. Center (S03)	N/A	4
Cable Trays Mezz. East (S04)	N/A	4
Area Operating Floor (Z04)	N/A	13
1G Charcoal Filter (#14)	11	N/A

* Resistance Temperature Detectors (RTD) Only
** Line Type Detectors
*** The fire detection instruments located within the containment are not required to be operable during the performance of Type A containment leakage rate tests.

Amendment No. ~~15~~, ~~24~~, ~~39~~, ~~49~~
Proposed

4.15 Fire Suppression System Test

Applicability

Applies to periodic testing and surveillance requirements of the Fire Suppression System.

Objective

To verify that the Fire Suppression System will respond properly, if required.

Specification

4.15.1 The fire detection instruments listed in Table 3.14-1 which are accessible during plant operation shall be demonstrated operable by performance of tests at least once every six months. Fire detectors which are not accessible during plant operation shall be demonstrated operable by the performance of tests during each cold shutdown exceeding 24 hours unless performed in the previous 6 months. The functional test for RTD detectors inside containment will be performed by verifying detector circuit continuity and detector temperature indication in the control room.

4.14.1.1 The supervised circuits supervision associated with the detector alarms of each of the detection instruments listed in Table 3.14.1 which are accessible during plant operation shall be demonstrated OPERABLE at least once per 6 months. The non-supervised circuits between the local alarm panels and the control room shall be demonstrated OPERABLE at least once per 31 days. Circuit supervision which is not accessible during plant operation shall be demonstrated operable by the performance of tests during each cold shutdown exceeding 24 hours unless performed in the last 6 months.

4.15.2 The fire suppression water system shall be demonstrated operable:

a. At least once per 31 days by starting each pump and operating it for at least 15 minutes on recirculation flow.

b. At least once per 31 days by verifying that each valve (manual, power operated, or automatic) in the flow paths is in its correct position.

c. At least once per 31 days by verifying the level of the diesel driven fire pump fuel tank.

d. At least once per 31 days by inspecting and testing the diesel fire pump starting batteries to determine the condition of the battery cells.

Amendment No. ~~15~~, ~~24~~, ~~39~~
Proposed

e. At least once per 92 days by verifying that a sample of diesel fuel from the diesel fire pump fuel oil day tank is within the ASTM D975 recommended limits for number 2 diesel fuel oil when checked for viscosity, water and sediment.

f. At least once per year by cycling each testable valve in the flow path (except for hydrant isolation valves) through at least one complete cycle of full travel. A further exception is the containment isolation valve which shall be done at a minimum of at least once per 18 months.

g. At least once per 18 months by performing a system functional test which includes simulated actuation of the system, throughout its operating sequence, and:

(i) verifying that each automatic valve in the flow path actuates to its correct position on a test signal;

(ii) verifying that each fire pump develops at least 2000 gpm at 210 Ft. Hd.;

(iii) cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel;

(iv) verifying that each high pressure pump starts (sequentially) to maintin the fire suppression water system pressure at or above 210 Ft. Hd.

h. At least once per 18 months by subjecting the diesel engine to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for the class of service.

i. At least once every 3 years a flow test of the fire suppression water system shall be performed. With one fire pump running the static pressure will be recorded at the test connection for the fire suppression water system. The four exterior wall hydrants will be flowed individually with the residual pressure at the test connection and the flow from each hydrant recorded.

4.15.3a The spray systems shall be demonstrated to be operable:

a. At least once per 12 months by verifying the loss of locking pressure manual operation.

b. At least once per 18 months:

(i) By performing a system functional test which includes simulating actuation of the system and verifying that the valves in the flow path are capable of going to their correct positions.

(ii) By visual external inspection of spray headers to verify their integrity,

(iii) By visual external inspection of each nozzle to verify no blockage.

c. At least once per 3 years by performing an air flow test through each spray header and verifying each spray nozzle is unobstructed.

4.15.3b The sprinkler systems shall be demonstrated to be operable at least once per 12 months by opening the inspectors test valve and verifying water flow and system alarm.

4.15.4 The Halon System shall be demonstrated to be operable:

a. At least once per 6 months by verifying each Halon storage tank pressure.

b. At least once per 6 months by verifying each Halon storage tank weight.

c. At least once per 18 months by verifying the system including associated ventilation dampers actuate in response to a simulated actuation signal. A flow test with gas through headers and nozzles shall be performed to assure no blockage. The operability of the manual initiating system will also be verified.

4.15.5 Each fire hose station listed in Table 3.14-2 shall be verified to be operable:

a. At least once per month by visual inspection of the station to assure all equipment is available and the fire water header system pressure is recorded. The fire hose stations in containment are an exception and shall be inspected once per month during the refueling shutdown.

b. At least once per 18 months by unrolling the hose for inspection and re-racking and replacing gaskets in the couplings, as required.

c. At least once per 18 months, partially open hose station valves to verify valve operability and no blockage.

d. At least every 3 years by pressure testing each hose to 50 psi greater than the Maximum Working Pressure.

4.15.6 Penetration seals in fire barriers which protect a safety related area shall be verified to be intact by visual inspection:

a. At least once per 18 months, and

b. Prior to declaring a penetration seal in a fire barrier intact following repairs or maintenance.

4.15.7 The yard fire hydrant on the southeast corner of the yard loop and its associated hydrant hose house shall be demonstrated OPERABLE:

a. At least once per 31 days by visual inspection of the hydrant hose house to assure all required equipment is at the hose house.

b. At least once per 6 months (once during March, April or May and once during September, October or November) by visually inspecting the yard fire hydrant and verifying that the hydrant barrel is dry and that the hydrant is not damaged.

c. At least once per 12 months by:

(i) Conducting a hose hydrostatic test at a pressure at least 50 psig greater than the maximum pressure available at the yard fire hydrant.

(ii) Replacement of all degraded gaskets in couplings.

ATTACHMENT B

The Technical Specification changes proposed in this amendment affect only the fire protection system operability and surveillance requirements.

Specification 3.14.1.1 has been revised for two purposes. First, fire watch patrols will no longer be required to enter areas of the plant where, because of other emergency conditions, access is prohibited. For example, fire watch patrols will not be required to enter areas which may be evacuated temporarily due to high radioactivity concentrations. Other emergency conditions usually result from personnel activities so that people will have been recently present in the area to detect fires. In any event, emergency conditions will result in a response by people trained to cope with the conditions. Fires will be detected by the health physicists, operators or others responding to the emergency. The fire watch patrol may not be trained to handle conditions other than fire so that greater safety is achieved by excluding them from the area until it is deemed safe to return.

The second change to paragraph 3.14.1 incorporates the monitoring of containment air temperature as an alternative to containment inspections each shift when the detection system in the containment is not operable. Containment air temperature will be sensitive to fires involving significant combustible material, for example, reactor coolant pump fires. The more frequent monitoring of air temperature (once per hour) will provide at least as good, if not better, detection of involved fires than does a once per shift inspection. The detection of insipient fires, such as those caused by cable shorts, will be readily, and perhaps more quickly, accomplished by secondary indications of equipment malfunctions. The low probability of fires of this type starting in an unoccupied building like the containment does not justify the radiation exposure resulting from once a shift inspections during power operation.

Specification 3.14.3 has been changed to incorporate spray and sprinkler alphanumeric zone designations to add clarity. No requirements have been changed.

Specifications 3.14.3.1 and 3.14.4.1 have been revised so that fire watch personnel need not enter areas where access is prohibited by other emergency conditions. These changes are similar to that of paragraph 3.14.1.1 explained above. In addition, these specifications will allow hourly fire watch patrols, along with backup suppression equipment in the zones, to cover areas with inoperable spray or sprinkler or halon systems. A roving fire watch patrol will probably remain more alert and will provide coverage as good as a continuous fire watch.

Specification 3.14.4 has been revised to add alphanumeric zone designations to the zones listed in the specification.

Specification 3.14.6.1 has been revised to allow a fire watch patrol and an operable detection system on at least one side of a fire seal, to serve as an alternative to an operable fire seal. Detection of fires by automatic detection systems or by fire watch patrols who will take prompt action to suppress a fire, provides an acceptable alternative to fire containment by barriers by preventing the spread of fires. This change is in conformance with Standard Technical Specifications.

Table 3.14-1 has been revised to include alphanumeric zone designations for each of the listed areas. In addition, the control room area and cabinet zone instrumentation operability requirement has been revised to reflect the proper types and numbers of instruments recently installed (1 heat, 18 smoke). This specification allows one smoke detector to be out of service without declaring the system inoperable. No credit is taken for the original fire detection equipment in the control room even though it remains in place. The battery rooms, item 5 of Table 3.14-1, are covered by a single smoke detection zone even though the rooms are physically separated. The revised table requires 3 of the 4 detectors to be operable in this zone, an increase from the current one detector per room. Another detection zone, the 1G charcoal filter, has been added to item 12 of the table. Eleven of the twelve heat detectors are required to be operable.

Specifications 4.15.1 and 4.15.1.1 have been revised so that fire detection instruments and supervised circuits which are inaccessible during plant operation need not be tested during each six month interval. The detection instruments and circuit supervision will, however, be tested at each cold shutdown exceeding 24 hours unless the tests have been performed in the last six months. These changes are in conformance with Standard Technical Specifications and provide adequate assurance that the systems will function properly. A plant shutdown to test inaccessible equipment is not justified. The extended times between tests will rarely exceed twice the normal inspection interval and thus no significant decrease in operability will result. No evidence to date suggests that more frequent testing is required.

Specification 4.15.6 has been revised to clarify that only penetration seals in fire barriers which protect a safety related area are required to be visually inspected to verify that they are intact.

Specification 4.15.7 has been revised to clarify that only the hydrant on the southeast corner of the yard loop requires periodic inspections. No other hydrants are required to be operable and thus none others require inspection.

ATTACHMENT B

The Technical Specification changes proposed in this amendment affect only the fire protection system operability and surveillance requirements.

Specification 3.14.1.1 has been revised for two purposes. First, fire watch patrols will no longer be required to enter areas of the plant where, because of other emergency conditions, access is prohibited. For example, fire watch patrols will not be required to enter areas which may be evacuated temporarily due to high radioactivity concentrations. Other emergency conditions usually result from personnel activities so that people will have been recently present in the area to detect fires. In any event, emergency conditions will result in a response by people trained to cope with the conditions. Fires will be detected by the health physicists, operators or others responding to the emergency. The fire watch patrol may not be trained to handle conditions other than fire so that greater safety is achieved by excluding them from the area until it is deemed safe to return.

The second change to paragraph 3.14.1 incorporates the monitoring of containment air temperature as an alternative to containment inspections each shift when the detection system in the containment is not operable. Containment air temperature will be sensitive to fires involving significant combustible material, for example, reactor coolant pump fires. The more frequent monitoring of air temperature (once per hour) will provide at least as good, if not better, detection of involved fires than does a once per shift inspection. The detection of insipient fires, such as those caused by cable shorts, will be readily, and perhaps more quickly, accomplished by secondary indications of equipment malfunctions. The low probability of fires of this type starting in an unoccupied building like the containment does not justify the radiation exposure resulting from once a shift inspections during power operation.

Specification 3.14.3 has been changed to incorporate spray and sprinkler alphanumeric zone designations to add clarity. No requirements have been changed.

Specifications 3.14.3.1 and 3.14.4.1 have been revised so that fire watch personnel need not enter areas where access is prohibited by other emergency conditions. These changes are similar to that of paragraph 3.14.1.1 explained above. In addition, these specifications will allow hourly fire watch patrols, along with backup suppression equipment in the zones, to cover areas with inoperable spray or sprinkler or halon systems. A roving fire watch patrol will probably remain more alert and will provide coverage as good as a continuous fire watch.

Specification 3.14.4 has been revised to add alphanumeric zone designations to the zones listed in the specification.

Specification 3.14.6.1 has been revised to allow a fire watch patrol and an operable detection system on at least one side of a fire seal, to serve as an alternative to an operable fire seal. Detection of fires by automatic detection systems or by fire watch patrols who will take prompt action to suppress a fire, provides an acceptable alternative to fire containment by barriers by preventing the spread of fires. This change is in conformance with Standard Technical Specifications.

Table 3.14-1 has been revised to include alphanumeric zone designations for each of the listed areas. In addition, the control room area and cabinet zone instrumentation operability requirement has been revised to reflect the proper types and numbers of instruments recently installed (1 heat, 18 smoke). This specification allows one smoke detector to be out of service without declaring the system inoperable. No credit is taken for the original fire detection equipment in the control room even though it remains in place. The battery rooms, item 5 of Table 3.14-1, are covered by a single smoke detection zone even though the rooms are physically separated. The revised table requires 3 of the 4 detectors to be operable in this zone, an increase from the current one detector per room. Another detection zone, the 1G charcoal filter, has been added to item 12 of the table. Eleven of the twelve heat detectors are required to be operable.

Specifications 4.15.1 and 4.15.1.1 have been revised so that fire detection instruments and supervised circuits which are inaccessible during plant operation need not be tested during each six month interval. The detection instruments and circuit supervision will, however, be tested at each cold shutdown exceeding 24 hours unless the tests have been performed in the last six months. These changes are in conformance with Standard Technical Specifications and provide adequate assurance that the systems will function properly. A plant shutdown to test inaccessible equipment is not justified. The extended times between tests will rarely exceed twice the normal inspection interval and thus no significant decrease in operability will result. No evidence to date suggests that more frequent testing is required.

Specification 4.15.6 has been revised to clarify that only penetration seals in fire barriers which protect a safety related area are required to be visually inspected to verify that they are intact.

Specification 4.15.7 has been revised to clarify that only the hydrant on the southeast corner of the yard loop requires periodic inspections. No other hydrants are required to be operable and thus none others require inspection.

ATTACHMENT B

The Technical Specification changes proposed in this amendment affect only the fire protection system operability and surveillance requirements.

Specification 3.14.1.1 has been revised for two purposes. First, fire watch patrols will no longer be required to enter areas of the plant where, because of other emergency conditions, access is prohibited. For example, fire watch patrols will not be required to enter areas which may be evacuated temporarily due to high radioactivity concentrations. Other emergency conditions usually result from personnel activities so that people will have been recently present in the area to detect fires. In any event, emergency conditions will result in a response by people trained to cope with the conditions. Fires will be detected by the health physicists, operators or others responding to the emergency. The fire watch patrol may not be trained to handle conditions other than fire so that greater safety is achieved by excluding them from the area until it is deemed safe to return.

The second change to paragraph 3.14.1 incorporates the monitoring of containment air temperature as an alternative to containment inspections each shift when the detection system in the containment is not operable. Containment air temperature will be sensitive to fires involving significant combustible material, for example, reactor coolant pump fires. The more frequent monitoring of air temperature (once per hour) will provide at least as good, if not better, detection of involved fires than does a once per shift inspection. The detection of insipient fires, such as those caused by cable shorts, will be readily, and perhaps more quickly, accomplished by secondary indications of equipment malfunctions. The low probability of fires of this type starting in an unoccupied building like the containment does not justify the radiation exposure resulting from once a shift inspections during power operation.

Specification 3.14.3 has been changed to incorporate spray and sprinkler alphanumeric zone designations to add clarity. No requirements have been changed.

Specifications 3.14.3.1 and 3.14.4.1 have been revised so that fire watch personnel need not enter areas where access is prohibited by other emergency conditions. These changes are similar to that of paragraph 3.14.1.1 explained above. In addition, these specifications will allow hourly fire watch patrols, along with backup suppression equipment in the zones, to cover areas with inoperable spray or sprinkler or halon systems. A roving fire watch patrol will probably remain more alert and will provide coverage as good as a continuous fire watch.

Specification 3.14.4 has been revised to add alphanumeric zone designations to the zones listed in the specification.

Specification 3.14.6.1 has been revised to allow a fire watch patrol and an operable detection system on at least one side of a fire seal, to serve as an alternative to an operable fire seal. Detection of fires by automatic detection systems or by fire watch patrols who will take prompt action to suppress a fire, provides an acceptable alternative to fire containment by barriers by preventing the spread of fires. This change is in conformance with Standard Technical Specifications.

Table 3.14-1 has been revised to include alphanumeric zone designations for each of the listed areas. In addition, the control room area and cabinet zone instrumentation operability requirement has been revised to reflect the proper types and numbers of instruments recently installed (1 heat, 18 smoke). This specification allows one smoke detector to be out of service without declaring the system inoperable. No credit is taken for the original fire detection equipment in the control room even though it remains in place. The battery rooms, item 5 of Table 3.14-1, are covered by a single smoke detection zone even though the rooms are physically separated. The revised table requires 3 of the 4 detectors to be operable in this zone, an increase from the current one detector per room. Another detection zone, the 1G charcoal filter, has been added to item 12 of the table. Eleven of the twelve heat detectors are required to be operable.

Specifications 4.15.1 and 4.15.1.1 have been revised so that fire detection instruments and supervised circuits which are inaccessible during plant operation need not be tested during each six month interval. The detection instruments and circuit supervision will, however, be tested at each cold shutdown exceeding 24 hours unless the tests have been performed in the last six months. These changes are in conformance with Standard Technical Specifications and provide adequate assurance that the systems will function properly. A plant shutdown to test inaccessible equipment is not justified. The extended times between tests will rarely exceed twice the normal inspection interval and thus no significant decrease in operability will result. No evidence to date suggests that more frequent testing is required.

Specification 4.15.6 has been revised to clarify that only penetration seals in fire barriers which protect a safety related area are required to be visually inspected to verify that they are intact.

Specification 4.15.7 has been revised to clarify that only the hydrant on the southeast corner of the yard loop requires periodic inspections. No other hydrants are required to be operable and thus none others require inspection.