

- b) Conducting a hose hydrostatic test at a pressure at least 50 psig greater than the maximum pressure available at that hose station.

3.19 FIRE AREA BARRIERS AND PENETRATION

FIRE SEALS

APPLICABILITY

Applies to the integrity of Fire Area Barriers and Penetration Fire Seals protecting Fire Areas containing safe shutdown systems, equipment, or components, and fire barriers separating portions of redundant safe shutdown systems within a fire area.

OBJECTIVE

To assure the integrity of Fire Area Barriers and Penetration Fire Seals protecting Fire Areas containing safe shutdown systems, equipment, or components, and to assure the integrity of fire barriers separating portions of redundant safe shutdown systems within a fire area.

SPECIFICATIONS

A. Fire Area Barrier and Fire Area Barrier Penetration Fire Seal integrity shall be maintained.

B. If the requirement of 3.19.A cannot be met, a continuous fire watch shall be established on at least 1 side of the penetration within 1 hour, or verify the operability of fire detectors on at least one side of the non-functional fire barrier and establish an hourly fire watch patrol.

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4.19 FIRE AREA BARRIERS AND PENETRATION

FIRE SEALS

APPLICABILITY

Applies to the integrity of Fire Area Barriers and Penetration Fire Seals protecting Fire Areas containing safe shutdown systems, equipment, or components, and fire barriers separating portions of redundant safe shutdown systems within a fire area.

SPECIFICATIONS

A. Fire Area Barriers and Fire Area Barrier Penetration Fire Seals shall be verified to be functional by at least every 18 months performing a visual inspection of:

1. The exposed surfaces of each fire area barrier (where possible).
2. Each fire damper and associated hardware.
3. At least 10 percent of each type of sealed penetration. If changes in appearance or abnormal degradations are found, a visual inspection of an additional 10 percent of each type of sealed penetration shall be made. This inspection process shall continue until a 10 percent sample is found with no abnormal degradation. Samples shall be selected such that each penetration seal will be inspected at least once per 15 years.

B. Fire doors through Fire Area Barriers shall be verified to be functional by inspecting the automatic hold-open, release and closing mechanism and latches at least once per 31 days, and by verifying:

1. At least once per 31 days, the operability of the fire door electrical supervision for each alarmed fire door by performing a channel functional test.

3.14-3.19/4.14-4.19 BASES

3.14/4.14 FIRE DETECTION INSTRUMENTATION

OPERABILITY of the fire detection instrumentation ensures that adequate warning capability is available for the prompt detection of fires. This capability is required in order to detect and locate fires in their early stages. Prompt detection of fires will reduce the potential for damage to safety related equipment and is an integral element in the overall facility fire protection program.

In the event that a portion of the fire detection instrumentation is inoperable, the establishment of frequent fire patrols in the affected areas is required to provide detection capability until the inoperable instrumentation is returned to service.

3.15-3.18/4.15-4.18 FIRE SUPPRESSION SYSTEMS

THE OPERABILITY of the fire suppression systems ensures that adequate fire suppression capability is available to confine and extinguish fires occurring in any portion of the facility where safety related equipment is located. The fire suppression system consists of the water system, spray and/or sprinklers, CO₂, Halon 1301, and fire hose stations. The collective capability of the fire suppression systems is adequate to minimize potential damage to safety related equipment and is a major element in the facility fire protection program. The Halon Fire Suppression System consists of two storage tanks, each exceeding the design capacity required for extinguishment of a fire in the service water pump room in accordance with the National Fire Protection Association Standards.

In the event that portions of the fire suppression systems are inoperable, alternate backup fire fighting equipment is required to be made available in the affected areas until the affected equipment can be restored to service.

In the event the fire suppression water system becomes inoperable, immediate corrective measures must be taken since this system provides the major fire suppression capability of the plant. The requirement for twenty-four hour report to the Commission provides for prompt evaluation of the acceptability of the corrective measures to provide adequate fire suppression capability for the continued protection of the nuclear plant.

3.19/4.19 FIRE AREA BARRIERS AND PENETRATION SEALS

The functional integrity of the fire area barrier penetration seals ensures that fires will be confined or adequately retarded from spreading to adjacent portions of the facility. This design feature minimizes the possibility of a single fire rapidly involving several areas of the facility prior to detection and extinguishment. The fire area barrier penetration seals are a passive element in the facility fire protection program and are subject to periodic inspections.

During periods of time when the seals are not functional, a continuous fire watch is required to be maintained in the vicinity of the affected seal, or an hourly fire watch patrol can be established once the operability of a fire detector on at least one side of the affected fire barrier has been verified. A watch or patrol will be maintained until the seal is restored to functional status.

3.19/4.19 FIRE AREA BARRIERS AND PENETRATION SEALS

Fire area barriers are those components of construction which establish the boundaries of the fire areas described in the CNS Fire Hazards Analysis (current revision). They consist of walls, floors, and supports (Beams, joists, columns), penetration seals or closures, fire doors, and fire dampers that are rated by approving laboratories or by other means in hours of resistance to fire and are used to prevent the spread of fire. Also subject to the operability and surveillance requirements are those fire barriers that separate portions of redundant safe shutdown systems within a fire area. The specific fire barriers which were installed to separate portions of redundant safe shutdown systems within a fire area are identified as exemptions to 10CFR50 Appendix R in the "CNS Response to 10CFR50 Appendix R 'Fire Protection of Safe Shutdown Capability'."

Fire area barrier penetration seals include cable penetration barriers, fire doors, and fire dampers.