

Proposed Fire Protection Amendment
to Technical Specifications

Narrative:

On May 3, 1984, Boston Edison participated in the successful completion of a test of the Halon 1301 fire suppression system in the Cable Spreading Room (CSR) at Pilgrim Nuclear Power Station. The test was conducted by a contract installer in conformance with standard test criteria prescribed by N.F.P.A.

Reason for Change

This system replaces a Cardox CO₂ system which was utilized as the main source of fire suppression in the Cable Spreading Room until it failed a dump test on October 24, 1981. Since that time, the CSR has been monitored by fire watch patrol.

Safety Considerations

These changes do not present an unreviewed safety question as defined in 10CFR50.59. They have been reviewed and approved by the Operations Review Committee and reviewed by the Nuclear Safety Review and Audit Committee.

Significant Hazards Considerations

It has been determined that this amendment request involves no significant hazards consideration. Under NRC regulations in 10CFR50.92, this means that operation of the Pilgrim Nuclear Power Station in accordance with the proposed amendment would not, (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

The NRC has provided guidance concerning the application of standards for determining whether license amendments involve significant hazards considerations by providing certain examples (48FR14870). This submittal, however, did not meet any of the categories provided. This is an amendment which is considered not likely to involve a significant hazards consideration because it is considered to be an equal extinguishing agent to the system it is replacing. It is not restricted by an initiation time delay to allow personnel evacuation from the area; does not possess characteristics which could damage equipment located in the discharge area; can be operated in either the automatic or manual mode, and meets all test and operational criteria ordained by the National Fire Protection Association.

Schedule of Change

This amendment will be effective upon receipt of approval by the NRC.

Fee Determination

Pursuant to 10CFR170.12, Boston Edison classifies this change as the last submittal of the Fire Protection Technical Specification proposed changes. This change was previously identified and should be included as a part of the complete submittal covered by check #837526 which accompanied our letter of January 11, 1984, to Ms. Reba M. Diggs, Facilities Program Coordinator, U. S. Nuclear Regulatory Commission.

E. HALON SYSTEM

The Halon System for the Cable Spreading Room shall be OPERABLE with each of the five(5) storage tanks charged to within plus/minus 10% of the required quantity of halon and plus/minus 10% of the pressure stamped on the Data Plate on the tank corresponding to an ambient temperature of 70°F. All detectors associated with the automatic initiation of the Halon System shall also be operable and the system shall be in the automatic mode of operation. An individual detector may be inoperable if the other detector in the same bay is operable and both detectors in ALL adjacent bays are operable.

APPLICABILITY

At all times when the safety related equipment in the Cable Spreading Room is required to be OPERABLE.

ACTION

- a. Within one (1) hour from and after the time that the system is found to be inoperable, establish a continuous fire watch with alternate backup fire suppression equipment.
- b. Restore the system to OPERABLE status within 14 days or prepare and submit a report to the Commission within the next 30 days.

- 1) at a pressure 50 psig greater than the maximum available pressure at that hose station, or
- 2) annually at the applicable service test pressure as listed in Table 821 of the "Standard for Care, Maintenance and Use of Hose" NFPA No. 198-1972, or
- c. by replacing each hose with a new or used hose which has been hydrostatically tested in accordance with the pressures specified in 4.12.D.3.b.

E. HALON SYSTEM

The Halon System shall be demonstrated OPERABLE:

1. At least once per month by verifying the Halon storage tank pressure and that the control panel is in the automatic mode.
2. At least once per 6 months by verifying the quantity of Halon in the storage tank(s).
3. a. At least once per refueling outage verifying that the system and associated devices actuate upon receipt of a simulated actuation signal, and
- b. Performance of an inspection to assure the nozzles are unobstructed.

BASES:

3/4.12A 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 the 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, increasing the frequency of fire watch patrols in the affected areas is required to provide detection capability until the inoperable instrumentation is returned to operability.

3/4 12B, C, D, E 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, the Halon System 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 surveillance requirements provide assurances that the minimum OPERABILITY requirements of the fire suppression systems are met. The allowance is based on the minimum quantity of Halon necessary to develop the design concentration of 7.5% by volume. The installed Halon system exceeded the minimum design concentration substantially (i.e., 9%). A 10% reduction of Halon from the installed system will still ensure that the minimum 7.5% design concentration is obtained. The minimum design concentration is in accordance with the National Fire Codes. Operability is assured by verifying the quantity of Halon and pressure in the tank(s).

In the event that portions of the fire suppression system 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 that portions of the fire suppression water system become 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 that 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.