

December 16, 1977

Docket No.: 50-289

Metropolitan Edison Company
ATTN: Mr. J. G. Herbein
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Gentlemen:

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By letter dated November 30, 1977, the Commission issued Amendment No. 32 to Facility Operating License No. DPR-50 for Three Mile Island Nuclear Station, Unit No. 1 (TMI-1). This amendment added interim Technical Specifications for fire protection based on the fire protection equipment presently installed at TMI-1.

After issuing this amendment, it was determined that those portions of the amendment issued as Section 4.17 of the Technical Specifications should have been issued as Section 4.18. It was also discovered that an error had been made on page 4-73a of the amended Technical Specifications. Revised pages which correct these errors are transmitted herewith.

Sincerely,

Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors

Enclosure:
Corrected Pages

cc w/enclosure: See next page

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SURNAME	RIngram	GZwetzig:rm	JWetmore	TWambach	RReid
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Metropolitan Edison Company

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4.18 FIRE PROTECTION SYSTEMS

4.18.1 FIRE PROTECTION INSTRUMENTS

Applicability: Instruments listed in Table 3.18-1

Objective: To insure operability of fire detection instruments.

Specification:

4.18.1.1 Each of the fire detection instruments listed in Table 3.18-1 shall be demonstrated operable:

a. Once each 6 months by a Channel Functional Test.

4.18.1.2 The non-supervised circuits between the local panels for the instruments in Table 3.18-1 and the control room shall be demonstrated OPERABLE at least once per month.

4.18.2 FIRE SUPPRESSION WATER SYSTEM

Applicability: Fire Suppression Water System as defined in Specification 1.8.

Objective: To insure system operability.

Specification:

4.18.2.1 The system shall be demonstrated operable:

- a. Once per 7 days by verifying 90,000 gallons of water in the altitude tank, equivalent level in the circulating water flume, and/or equivalent level in the river.
- b. Once per month on a staggered test basis by starting each pump and operating it for 15 minutes on recirculation flow.

- c. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path is in its correct position.
- d. At least once per 12 months by performance of a system flush.
- e. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel.
- f. At least once per 18 months by performing a system functional test which includes simulated automatic actuation of the system throughout its operating sequence, and:
 - 1. Verifying that each automatic valve in the flow path actuates to its correct position on a test signal,
 - 2. Verifying that each pump develops at least 2500 gpm at a system head of 260 feet for FS-P-1 and 294 feet for FS-P-2 and FS-P-3,
 - 3. Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel, and
 - 4. Verifying that each high pressure pump starts to maintain the fire suppression water system pressure ≥ 125 psig.
- g. At least once per 3 years by performing a flow test of the system in accordance with Chapter 5, Section 11 of the Fire Protection Handbook, 14th Edition, published by the National Fire Protection Association.

4.18.2.2 The fire pump diesel engines shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying;
 1. The fuel storage tanks contain at least 250 gallons of fuel, and
 2. The diesels start from ambient conditions and operate for at least 20 minutes.
- b. At least once per 92 days by verifying that a sample of diesel fuel from each fuel storage tank, obtained in accordance with ASTM-D270-65, is within the acceptable limits specified in Table 1 of ASTM-D975-74 with respect to viscosity, water content and sediment for the type of fuel specified for the diesels.
- c. At least once per 18 months, during shutdown, by:
 1. Subjecting each diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for the class of service, and
 2. Verifying each diesel starts from ambient conditions on the auto-start signal and operates for \geq 20 minutes while loaded with the fire pump.

4.18.2.3 Each fire pump diesel starting 24-volt battery bank and charger shall be demonstrated OPERABLE:

- a. At least once per 7 days by verifying that:
 1. The electrolyte level of each battery is above the plates, and
 2. The overall battery voltage is \geq 24 volts.

4.18.3 DELUGE/SPRINKLER SYSTEMS

Applicability: Deluge and Sprinkler Systems.

Objective: To insure system operability.

Specification:

4.18.3.1 The deluge and/or sprinkler systems listed in Specification 3.18.3.1 shall be demonstrated to be operable:

- a. Once per month by a flush through the drain/test valves at the inlet to each deluge valve.
- b. Once per month by flowing water through the inspectors test connection on each wet sprinkler header to verify absence of header blockage.
- c. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel.
- d. Once per 18 months by performing a system functional test which includes tripping detectors and: (a) verifying actuation of trip devices on associated deluge valves, and (b) cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel. This functional test will not normally involve flowing water through the sprinkler/deluge header. Deluge sprinkler valves will be inspected internally to verify operability in all instances where header flooding during the test is undesirable.
- e. Once per 18 months by visual inspection of deluge headers to verify their integrity.
- f. Once per 18 months by visual inspection (from floor level) of each nozzle to verify absence of spray pattern blockage.
- g. Once per 3 years by a gas or water flow test of any open type deluge head to verify absence of blockage.

4.18.4 CO₂ SYSTEM

Applicability: CO₂ System for the Cable Spreading Room.

Objective: To insure system operability.

Specification:

4.18.4.1 The CO₂ system shall be demonstrated operable:

- a. At least once per week by verifying the CO₂ storage tank level and pressure.
- b. At least once per 18 months by verifying the system valves and associated ventilation dampers actuate manually and automatically in response to a simulated actuation signal. A brief flow test shall be made to verify flow from each nozzle. ("Puff Test")

4.18.5 Halon Systems

Applicability: Halon Systems described in Specification 3.18.5.

Objective: To insure system operability.

Specification:

4.18.5.1 The Halon System shall be verified operable:

- a. At least once per 6 months by verifying each Halon storage tank weight and pressure.
- b. At least once per 18 months by:
 1. Verifying that the system, including associated ventilation dampers, actuates automatically to a simulated test signal.
 2. Functional test of the ultraviolet detectors, test of the pressure valve detectors, and replacement of the explosive actuators.

4.18.6 HOSE STATIONS

Applicability: Hose stations listed in Table 3.18-2.

Objective: To insure system operability.

Specification:

4.18.6.1 Each fire hose station shall be verified operable:

- a. At least once per month by visual inspection of the station to assure all equipment is at the station.
- b. At least once per 18 months by removing the hose for inspection and re-racking, and replacing all gaskets in the couplings that are degraded.
- c. At least once per 3 years, partially open hose station valves to verify valve operability and no blockage.
- d. At least once per 3 years by conducting a hose hydrostatic test at a pressure at least 50 psi greater than the maximum pressure available at that hose station.