GPU Nuclear

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September 3, 1982
4400-82-L-0129

TMI Program Office
Attn: Mr. L. H. Barrett, Deputy Program Director
U. S. Nuclear Regulatory Commission
c/o Three Mile Island Nuclear Station
Middletown, Pennsylvania 17057

Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)
Operating License No. DPR-73
Docket No. 50-320
Recovery Operations Plan Change Request No. 16
Containment Airlocks

The attached request to change the surveillance performed on the containment airlocks is submitted for your review and approval. This change adds a requirement for a mechanical operability surveillance of the airlocks to the Recovery Operations Plan in order to better demonstrate operability.

Sincerely,

J. J. Barton for

B. K. Kanga
Director, TMI-2

BKK:JJB:djb

Attachments

cc: Dr. B. J. Snyder, Program Director - TMI Program Office

D009

Three Mile Island Nuclear Station, Unit 2 (TMI-2)
Operating License No. DPR-73
Docket No. 50-320

I. Recovery Operations Plan Change Request No. 16

The Licensee requests that the attached change page 4.6-1 be substituted for the existing Recovery Operations Plan page.

II. Reason for Change

As detailed in GPU letter, 4400-82-L-0090, dated June 7, 1982 several problems associated with the operation of the containment personnel airlocks have occurred since the start of the Reactor Building Entry Program at TMI-2. In order to reduce the possibility of recurrence of airlock malfunctions an airlock restoration program was initiated as discussed in GPU letter, 4400-82-L-0090. As a result of this program and a subsequent malfunction, a decision was made to initiate a design change to replace the existing (0 - 50 psig) differential pressure switch with a more sensitive (0 - 30 psig) differential pressure switch which is more easily calibrated at the low differential pressures (0 - 1 psig) at which this switch must operate. The anticipated completion date for this design modification is December 31, 1982. In order to support this design modification, however, a change will be required in the test pressure for overall airlock leakage rate test. A Technical Specification Change Request to support the test pressure change is being developed and will be submitted in time to support the December 31, 1982 completion date. In addition to this design change, the attached surveillance is proposed in order to provide for a more detailed check of the mechanical operability of the personnel airlocks on a quarterly basis.

III. Safety Evaluation Justifying Change

This change to the Recovery Operations Plan imposes an additional surveillance with respect to ensuring the personnel airlocks are operable. The intent of this surveillance is to lubricate and visually inspect the components associated with the mechanical operability of the personnel airlocks. This change, in conjunction with the design change above, will provide better assurance of airlock operability thus:

1. reducing the potential inability to ingress/egress the Reactor Building during an emergency, and hence

2. reducing the potential for future unnecessary exposures/ overexposures inside the Reactor Building.

SURVEILLANCE REQUIREMENTS

4.6 CONTAINMENT SYSTEMS

4.6.1 PRIMARY CONTAINMENT

CONTAINMENT INTEGRITY

4.6.1.1 Primary CONTAINMENT INTEGRITY shall be demonstrated:

a. At least once per 31 days by verifying that:

1. All accessible (per occupational exposure considerations) penetrations not required to be open per approved procedures during RECOVERY MODE are closed by valves, blind flanges, or deactivated automatic valves secured in their positions.

2. The equipment hatch is closed and sealed.

b. By verifying that each containment air lock is OPERABLE per Specification 3.6.1.3.

CONTAINMENT AIR LOCKS

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

a. After each opening, except when the air lock is being used for multiple entries, then at least once per 72 hours, by verifying less than or equal to 0.01 L_a seal leakage when the volume between the door seals is stabilized to a pressure to 10 psig.

b. At least once per 3 months by performing a mechanical operability check of each air lock.

c. At least once per 6 months by conducting an overall air lock leakage test at P_a, 56.2 psig, and by verifying that the overall air lock leakage rate is within its limit. (Per occupational exposure considerations)

INTERNAL PRESSURE

4.6.1.4 The primary containment internal pressure shall be determined to within the limits at least once per 12 hours.