GPU Nuclear

GPU Nuclear Corporation
Post Office Box 480
Route 441 South
Middletown, Pennsylvania 17057-0191
717 944-7621
TELEX 84-2386
Writer's Direct Dial Number:

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U.S. NUCLEAR REGULATORY COMMISSION

TMI Program Office
Attn: Mr. L. H. Barrett
Deputy Program Director
US Nuclear Regulatory Commission
c/o Three Mile Island Nuclear Station
Middletown, PA 17057-0191

Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)
Operating License No. DPR-73
Docket No. 50-320
Fuel Pool "A" Refurbishment Safety Evaluation Report

Attached for your information is a revision to Section 5.1.3.1.d of the Fuel Pool "A" Refurbishment Safety Evaluation Report. This revision reflects the reference to the Standby Pressure Control System System Description in place of the Submerged Demineralizer System Technical Evaluation Report.

Please call Mr. J. J. Byrne of my staff if you have any questions.

Sincerely,

B. R. Kanga
Director, TMI-2

BKK/RDW/jep

Attachment

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

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Damage to the FPA floor could also impact the conduits, routed below the FPA floor, which contain electrical power distribution cables from the Class 1E Diesel Generators. A broad separation of cabling to and from the Diesel Generator Building has been maintained with half of the conduits and cable trays passing underneath FPA and half passing underneath FPB. Due to the limited size of the largest load being transported from the building (20 Ton Slab, 20' x 7' x 2'), the area of potential damage cannot encompass both fuel pools from any one postulated drop. Therefore, the distribution system from one diesel generator is assured.

b) Fuel Transfer Tube Isolation Valves

Damage to either or both isolation valves would not cause a loss of primary containment integrity since bolted and gasketed closure plates are located on the flanges on the containment building side of the fuel transfer tube. If the flanges on the containment building side have been removed for work on the fuel transfer tubes, they could be replaced prior to any heavy load lifts which could impact the isolation valves should a drop occur. Containment integrity is assured.

c) SDS System

The largest single item carried over FPB is the 25,000 gallon tank which weighs slightly less than nine (9) tons. Due to the bouyancy of the tank, analysis has shown that its drop would not penetrate to a depth greater than 15 feet into FPB. However, a postulated drop above FPB could impact the SDS filter rack or the leakage containment rack which protrude above the pool surface. Such an impact may potentially cause rupturing of the filters or even the rupturing of the SDS liners located at the bottom of FPB. The consequences of all of the liners rupturing are evaluated in section 5.1.3.2. The tanks also travel above the various piping manifolds associated with SDS operation, the SDS operator area platform, and the SDS chemistry lab. A postulated drop impacting the areas stated above could affect SDS operation which could impact the recovery operations schedule until SDS operations are restored to allow the processing of reactor coolant or reactor building sump water. Any failure of the SDS or its components will not, in any way, affect plant safety.

d) SPC Nitrogen Supply Tanks

Damage to the nitrogen supply tanks would impact the operation of the SPC system and create a possible missile due to the sudden release of gas pressure. The nitrogen supply is maintained in two separate banks of six bottles each. As previously stated in the SPC System Description the nitrogen

gas bottles are to be maintained at less than 800 psi. The SPC system is available for boration control. Rupture of the nitrogen supply bottles would not degrade this system's availability since the pumps SPC-P-1A and SP-P-1B would be available. The Mini-Decay Heat Removal (MDHR) system is the primary back-up to the SPC system and will be also available. Therefore, a loss of the SPC system nitrogen supply bottles will not impact plant safety since boration control is assured.

e) Truck Bay Floor (TMI-1 FHB)

The actual lowering of heavy loads, approximately 56' in elevation, will occur over the receiving area portion of the truck bay. These heavy loads will be handled in the truck bay within the constraints of the TMI-1 procedures for the FHB Crane which require the crane control interlocks to be operative so as to limit operations in the area "ABCD" shown in Figure 4.5. These heavy loads will be handled in the remainder of the truck bay at a maximum elevation of one foot above the receiving area floor thus limiting the potential for structural damage.

A review of the TMI-1 FHB structures was made to establish the constraints imposed by the TMI-1 FHB Crane. In addition, a review was undertaken of the structure immediately beneath the receiving area where the loads will be lowered to assure that the consequence of load drop will be minimal. A room (50' x 17') occupies the space immediately below the receiving area and above the Control Building air intake tunnel. Located within the room above the Control Building air intake tunnel is a 1 1/2" radwaste line joining TMI-2 liquid radwaste to the TMI-1 radwaste evaporator. This line has been "valved-off" so that no communication exists between the two units. Only one train of safety-related cabling is located in the air intake tunnel so in the unlikely event of a dropped load (20 ton shielding slab) penetrating through two levels of reinforced concrete only one safety train will be impacted since the other safety train is located in an adjacent tunnel north of the impact area.

5.1.3.2 Radiological Consequences

A review of Table 4.2 giving the consequences of various postulated load drops shows that some consequences could result in releases of radioactivity. Radiological consequences are evaluated for releases confined within the FHB and releases transported offsite. Radiological consequences to onsite personnel from releases confined within the FHB are evaluated for both external and internal exposure. External exposure to persons off-site from releases confined within the FHB are insignificant due to a combination of distance from the FHB to the site boundary and the shielding afforded by the fuel pool walls within the FHB and the FHB itself. Internal exposure is evaluated for persons off-site