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Document Control Desk  
US Nuclear Regulatory Commission  
Washington, DC 20555

Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)  
Operating License No. DPR-73  
Docket No. 50-320  
10 CFR 50.59 Report for 1992

In accordance with the requirements of 10 CFR 50.59, "Changes, Tests, and Experiments," forwarded is a description of changes to facility systems and procedures described in the TMI-2 Final Safety Analysis Report (FSAR) which were accomplished during 1992. Also included is a summary of tests and experiments performed that are not described in the FSAR.

Sincerely,

R. L. Long  
Director, Corporate Services/TMI-2

AWM/dlb

**220055**

Attachments

cc: T. T. Martin - Regional Administrator, Region I  
M. T. Masnik - Project Manager, PDNP Directorate  
L. H. Thonus - Project Manager, TMI Site  
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### TMI-2 CLEANUP ACTIVITIES

During 1992, a number of plant cleanup activities were performed. Many of these activities involved modifications, procedural changes, and tests or experiments. All of these activities were subject to numerous GPU Nuclear reviews and approvals. In addition, certain activities were subject to NRC review and approval prior to implementation. Changes to previously approved activities are submitted to the NRC for information under the yearly update program for Technical Evaluation Reports (TERs) and System Descriptions (SDs). Updates to NRC-approved Safety Evaluation Reports are submitted on an "as needed" basis. Since the documentation for the activities listed below was submitted to the NRC previously, the activities will not be discussed further in this report. The following programs are covered by the annual update program for System Descriptions and Technical Evaluation Reports.

- Processed Water Storage and Recycle System                      An update to the SD was submitted via GPU Nuclear letter C312-92-2014 dated March 10, 1992.
- Containment Air Control Envelope                      An update to the TER was submitted via GPU Nuclear letter C312-92-2018 dated May 6, 1992.
- Processed Water Disposal System                      An update to the TER was submitted via GPU Nuclear letter C312-92-2036 dated May 12, 1992.
- Interim Solid Waste Staging Facility                      GPU Nuclear letter C312-92-2040 dated June 2, 1992 noted that a revision to the TER was not required.
- EPICOR II    An update to the SD was submitted via GPU Nuclear letter C312-92-2049 dated July 8, 1992.
- Waste Handling and Packaging Facility                      An update to the TER was submitted via GPU Nuclear letter C312-92-2045 dated July 29, 1992.
- Solid Waste Staging Facility                      GPU Nuclear letter C312-92-2065 dated September 4, 1992 noted that a revision to the SD was not required.

## PROCEDURE CHANGES

A number of procedure changes were made and new procedures were issued. Some of these procedures performed activities in accordance with NRC-approved Safety Evaluation Reports; thus, they will not be discussed further in this report. Procedures whose scope of activity was completed were canceled; procedures previously determined to have review significance underwent PRG review to determine the potential impact on safety prior to cancellation.

The remainder of the procedure changes were reviewed and it was determined that there were no changes which specifically constituted an FSAR change as defined by 10 CFR 50.59(c). However, there were a number of changes made to FSAR-type procedures. These changes were made to reflect changing plant conditions or to implement the recommendations of various activity-related analyses.

Typical categories of procedures requiring changes or that were canceled were:

- Processed Water Storage System
- Service Air System
- Decon Processed Water System
- Evaporator/Vaporizer Operations
- Containment Isolation
- Reactor Building Purge System
- Liquid Waste Disposal System
- Fire Protection
- Fuel Canister Handling
- Radwaste Pump Seal Water System
- Submerged Demineralizer System
- RCS Moderator/End Fitting Storage Area Foreign Material Restrictions
- Natural Draft Cooling Tower Demolition
- Ventilation System Operation
- System Drains
- Temporary RV Filter System Filter Venting

Changes accommodated current plant conditions and were determined not to constitute an Unreviewed Safety Question.

### TESTS AND EXPERIMENTS

The tests and experiments conducted during the year were evaluated to determine if they constituted an Unreviewed Safety Question or a significant risk to the health and safety of the public or workers. In no case was there a determination of an Unreviewed Safety Question or significant risk. Below is a list of tests or experiments which is representative of those performed during 1992.

- Performed a test to confirm that air infiltration with the Reactor Building (RB) isolated would be less than 1% of the flow that would pass through the RB passive breather.
- Tested the Processed Water Disposal System (PWDS) vaporizer for operational status following a lengthy shutdown period.
- Dried non-contaminated "surrogate" boric acid solutions in the PWDS blender/dryer.
- Controlled water level changes in the deep-end of the Fuel Transfer Canal to ascertain radiological dose rates.

## FACILITY MODIFICATIONS

Activities included in this section were performed without prior approval of the NRC staff under the authority of 10 CFR 50.59. The items listed below cover specific activities performed under the jurisdiction of Mini-Mods (MMAs and MMBs). Mini-Mods provide a process to implement an expedited modification process for a restricted class of modifications to the TMI-2 plant. Mini-Mods selected for inclusion were those for which turnover was completed during the calendar year 1992. A summary of these Mini-Mods, including a Safety Evaluation Summary, follows:

### MMB-3542-91-0210, REVISION 0 - REMOVAL AS-BUILT

This mini-mod documents the as-built condition, i.e., the removal of one of the intermediate cooling system filters, IC-F-1A, and the blind flanging of the upstream and downstream piping.

#### Safety Evaluation Summary

The intermediate cooling system has been placed into its Post-Defueling Monitored Storage (PDMS) condition and is permanently out-of-service. This modification did not constitute an Unreviewed Safety Question.

### MMB-3212-90-0186, REVISION 0 - RE-COVER CORE FLOOD TANK (CF-T-1A)

This mini-mod reinstalls the cut-out portion of Core Flood Tank "A." The top of this tank was previously removed to allow storage of various pieces of the Reactor Vessel (RV) internals which were removed during RV defueling.

#### Safety Evaluation Summary

Re-installing the top of tank CF-T-1A will better control the contained contamination. The top is sealed and vented with a removable HEPA filter. This modification did not constitute an Unreviewed Safety Question.

### MMB-3224-90-191, REVISIONS 0 AND 1 - ONCE THROUGH STEAM GENERATOR (OTSG) A/B CONTAMINATION/WATER INTRUSION BARRIER

This mini-mod fabricates and installs lead and steel plates on the OTSG manways to act as contamination barriers and water intrusion barriers. Also, these plates provide radiological shielding.

### Safety Evaluation Summary

The original manways were designed to serve as Reactor Coolant System (RCS) pressure boundaries at the original plant design operating pressure and temperature. Since the RCS is in its PDMS condition, only a boundary that protects against contamination spread and water intrusion is required. Also, this boundary provides shielding. This modification did not constitute an Unreviewed Safety Question.

### MMB-3200-92-0214, REVISION 0 - PRESSURIZER CONTAMINATION/WATER INTRUSION BARRIER (PRESSURIZER UPPER MANWAY)

This mini-mod fabricates and installs a steel plate on the upper pressurizer manway to act as a contamination barrier and water intrusion barrier.

### Safety Evaluation Summary

The RCS no longer requires or maintains a pressure boundary. This cover is designed to prevent the spread of contamination and serve as a water intrusion barrier. This modification did not constitute an Unreviewed Safety Question.

### MMA-3154-89-0173, REVISIONS 0 AND 1 - FLOOD PROTECTION COVER PLATES FOR AUXILIARY BUILDING DOOR 10

This mini-mod fabricates and installs cover plates which provide flood protection up to the probable maximum flood.

### Safety Evaluation Summary

The original flood protection device for the Auxiliary Building Door 10, a moveable shield door, has become inoperable. The new design, i.e., cover plates and support frames, provides the same capability of withstanding the probable maximum flood and its coincident wave force. This modification did not constitute an Unreviewed Safety Question.

### MMA-3424-88-0135, REVISION 0 - EMERGENCY FEEDWATER BLIND FLANGE REPLACEMENT NEAR PENETRATION R-616

This mini-mod removes the modified 6" flange on the "B" Emergency Feedwater (EF) line flush connection and replaces it with the original 6" blind flange.

### Safety Evaluation Summary

The original blind flange was installed, with QC witness, in accordance with approved procedures for the original design pressure of 600 psi after the modified flange was removed. The current flange is installed only for containment isolation with a design pressure of 5 psig. This modification did not constitute an Unreviewed Safety Question.

MMA-3185-92-0213, REVISION 0 - PROCESSED WATER DISPOSAL SYSTEM (PWDS)  
HEPA FILTERED VENTILATION

This mini-mod connects a blower and its associated HEPA filter unit to the existing evaporator building ventilation exhaust.

Safety Evaluation Summary

This mini-mod allows filtering and monitoring of any radioactive releases from the evaporator building due to spills or leaks. Even though the PWDS Technical Evaluation Report evaluated releases due to design basis spills with no credit taken for filtered ventilation, the addition of a filter system reduces the consequences and probability of a release. This modification did not constitute an Unreviewed Safety Question.

MMA-3824-92-0217, REVISIONS 1, 2 AND 3 - BLOCKING OPEN AH-V-2A, 2B, 3A AND 3B

This mini-mod blocks open the ventilation isolation valves located inside the RB. These valves are not required to be closed; by keeping them open, any future maintenance associated with maintaining them operational is eliminated.

Safety Evaluation Summary

The required RB containment isolation for the RB ventilation system is provided by AH-V-1A, 1B, 4A and 4B, which are located outside the RB and are not affected by this mini-mod. This modification did not constitute an Unreviewed Safety Question.

MMA-3252-92-220, REVISION 0 - FUEL TRANSFER TUBE GATE VALVE BLIND FLANGES

This mini-mod fabricates, installs, and tests the blind flanges for the fuel transfer system tube gate valves, FH-V-1A and FH-V-1B. These blind flanges and gate valves are located on the south end of the "A" Spent Fuel Pool in the Fuel Handling Building.

Safety Evaluation Summary

This modification mitigates an unacceptable potential leak path through FH-V-1A or FH-V-1B during PDMS when the RB is not maintained at a negative pressure. This modification did not constitute an Unreviewed Safety Question.

MMA-3244-91-0197, REVISION 1 - UPGRADE PRESSURE RATING OF PENETRATION R-626 TO 60 PSIG

This mini-mod upgrades RB penetration R-626 to a design pressure of 60 psig. Penetration R-626 had been previously modified for a pressure rating of 2 psig. Since all other modified RB penetrations had at least a 5 psig rating, a commitment was made in the PDMS Safety Analysis Report to upgrade penetration R-626.

Safety Evaluation Summary

The pressure rating of penetration R-626 has been increased, thus the probability of leakage through this penetration has been reduced. This modification did not constitute an Unreviewed Safety Question.

MMA-3153-92-0226, REVISION 0 - RB AIR SAMPLING CONNECTION

This mini-mod provides a sampling path and connection point to allow sampling of the RB atmosphere for radioactivity and air quality prior to RB entry during PDMS.

Safety Evaluation Summary

This modification was leak-tested to 7.5 psig (150% of the PDMS design basis pressure). The leak test included all tubing, fittings, and valve seat leakage boundaries, to ensure containment isolation will be maintained. This modification did not constitute an Unreviewed Safety Question.

MMB-3150-92-0237, REVISION 0 - REMOVAL OF TEMPORARY POWER AND CONTROL CABLES IN THE AUXILIARY AND FUEL HANDLING BUILDINGS ASSOCIATED WITH THE STANDBY PRESSURE CONTROL SYSTEM

This mini-mod provides directions for the removal of electrical cables in the Auxiliary and Fuel Handling Building associated with the Standby Pressure Control (SPC) System.

Safety Evaluation Summary

The SPC system is out-of-service and is intended to remain so throughout PDMS. The SPC system is physically isolated from other plant systems, drained, and de-energized. This modification removed cables which further isolated the equipment. This modification did not constitute an Unreviewed Safety Question.