

Nuclear

Telephone 717-948-8000

Three Mile Island Unit 1 Route 441 South, P.O. Box 480 Middletown, PA 17057

Date:

April 15, 2010

TMI-10-029

U. S. Nuclear Regulatory Commission

Attn: Document Control Desk Washington, D.C. 20555

THREE MILE ISLAND UNIT I (TMI UNIT 1)

**OPERATING LICENSE NO. DPR-50** 

**DOCKET NO. 50-289** 

SUBJECT:

BIENNIAL 10 CFR 50.59 AND COMMITMENT REVISION REPORTS FOR

2008 AND 2009

Enclosed are the 2008-2009 Biennial 10 CFR 50.59 and Commitment Revision Reports as required by 10 CFR 50.59 (d)(2) and SECY-00-0045 (NEI 99-04).

There are no regulatory commitments contained in this transmittal.

If you have any questions or require additional information, please contact David Atherholt, of Regulatory Assurance, at 717-948-8364.

Sincerely,

Richard W. Libra

**Acting Plant Manager** 

RWL/dsh

Enclosure

cc: Administrator, Region I

TMI-1 Senior Resident Inspector

TEM

cc: USNRC Regional Administrator, Region 1

UNSRC Project Manager, TMI

USNRC Senior Resident Inspector, TMI

Director, Bureau of Radiation Protection, PA Department of Environmental Resources

Chairman, Board of County Commissioners, Dauphin County, PA Chairman, Board of Supervisors, Londonderry Township, PA

R. R. Janati, Commonwealth of Pennsylvania

# THREE MILE ISLAND UNIT 1 DOCKET NO. 50-289 BIENNIAL 10CFR 50.59 AND COMMITMENT REVISION REPORTS

## **TABLE OF CONTENTS**

10CFR 50.59 Report	2
Modifications	3
Procedure Changes	8
Commitment Revision Report	9

## EXELON CORPORATION THREE MILE ISLAND UNIT 1 DOCKET NO. 50-289

BIENNIAL 10CFR 50.59 REPORT

JANUARY 1, 2008 THROUGH DECEMBER 31, 2009

10CFR50.59 EVALUATION SUMMARIES

#### **Modifications**

Title: Removal of Decay Heat River Strainer Temporary

Change - ENGINEERING CHANGE REQUEST 07-

00644

Year Implemented: 2008

Evaluation Number: Engineering Change Request No. 07-00644

**Brief Description:** 

Engineering Change Request (ECR) 07-00644 implements the removal of the Decay Heat River Water 1A Strainer internals, installation of a blind flange, and installation of temporary instrumentation. The strainer internals are being removed to facilitate strainer media improvements. The installation of a blind flange is needed to restore the system pressure boundary to allow system train operations, and the pressure drop instrumentation facilitates increased surveillance of Decay Heat Closed Cooling Water System Cooler 2A to ensure continued operability. Safety Evaluation (SE) SE-000533-012 evaluated installation of this temporary change. This change was implemented in 2008 and removed in 2009.

## Summary of Evaluation:

ECR 07-00644 implements a temporary change to the Decay Heat River Water System Strainer 1A to remove the strainer internals. The removal of the strainer based on prior system experience did not result in operating the system outside of its original design requirements. Implementation of temporary cooler pressure difference instrumentation and monitoring provides assurance the Decay Heat Closed Cooling Water System Cooler 2A design function of removing heat continues to be ensured. All system functions continued to be satisfied with the removal of the strainer internals per this temporary change ECR and related 50.59 Safety Evaluation.

The 50.59 Safety Evaluation SE-000533-012 evaluated an activity similar to 50.59 Evaluation SE-000533-011 which was the subject of an NRC Non-Cited Violation (NCV) of 10 CFR 50.59 as documented in NRC Component Design Bases Inspection Report 05000289/2009006. The NRC disagreed with the basis of the 50.59 Safety Evaluation SE-000533-011 and determined that NRC approval was required prior to implementing the associated activity (Reference TMI ECR 06-00371).

Although not directly the subject of the NRC violation, 50.59 Evaluation SE-000533-012 addressed the exact same activity on the opposite train of the Decay Heat River Water System (Reference TMI ECR 07-00644). Temporary Changes ECR 06-00371 and 07-00644 have been removed and restored the licensing basis of the plant.

\* \* \* \* \* \* \*

Title: Reactor Building Emergency Cooling Design Flow

Change

Year Implemented: 2009

Evaluation Number: Engineering Change Request No. TM-09-00703

**Brief Description:** 

Prior analysis of the Reactor Building Emergency Cooling System capability assumed that the limiting design basis configuration was one Reactor River (RR) pump providing flow through two emergency coolers. Through a reassessment of the application of single failure criteria, it was determined that the limiting design basis configuration is with RR flow through all three coolers. The affect is that the RR pump test acceptance criteria has been inaccurate and non-conservative. The RR pump performance margin is low. To establish margin for the Fall 2009 TMI Refueling Outage testing, the system RR backpressure control setpoint and system design flow rate requirement were reduced.

The pressure control band for the RR backpressure control valve (RR-V-6) was reduced to reallocate margin. Nevertheless, RR pressure remains above Reactor Building post-accident pressure to maintain containment integrity for any RR system leakage issue.

The effect of a lower RR flow rate has been analyzed by revising the RR hydraulic model, and associated design basis calculations. The UFSAR was revised to describe the new minimum RR system performance requirement of 1450 gpm (versus old 1600 gpm), and to describe a revised requirement to maintain RR backpressure above the maximum design basis accident containment pressure.

#### Summary of Evaluation:

The 50.59 Evaluation concluded that neither prior NRC approval nor License Amendment are required for the activity to change RR design flow rate, or the activity to change RR-V-6 setpoint. A reduction in RR design flow rate from 1600 to 1450 gpm does involve a change to a system, structure, or component that adversely affects an UFSAR described design function, since the flow rate is a design input into the analyses of containment response to a design basis Loss of Coolant Accident (LOCA), and the Main Steam Line Break (MSLB), and is a reduction in margin for cooling water flow rate to the coolers for the Reactor Building. As described in the 50.59 Evaluation, the change in the design RR flow rate is insignificant with respect to Post-accident Reactor Building conditions (peak containment pressure and temperature). Furthermore, the change to the control band for the RR backpressure control valve (RR-V-6) still maintains the system pressure greater than the Reactor Building post-accident pressure.

Title:

**Containment Opening** 

Year Implemented:

2009

**Evaluation Number:** 

Engineering Change Request No. TM-06-00816/SE-

000153-021

#### **Brief Description:**

To support the Three Mile Island – Unit 1 Steam Generator Replacement (SGR) Project, a Containment Opening will be made into the TMI-1 Reactor Building concrete wall and liner plate at the 290° azimuth, and directly above the existing Equipment Hatch. The Containment Opening will provide access to the Reactor Building in order to remove the old steam generators (OTSGs) from the Reactor Building and place the new Enhanced Once-Through Steam Generators (EOTSGs) into the Reactor Building. At the completion of steam generator rigging and handling, the Containment Opening area will be restored. ECR TM 06-00816 demonstrates equivalence of the restored liner plate and Reactor Building wall at the Containment Opening area. Implementation involves preoutage (Unit 1 online) de-tensioning of selected Reactor Building tendons which has been determined to be a test or experiment not described in the UFSAR. where the proposed pre-outage tendon de-tensioning is inconsistent with analyses or descriptions in the UFSAR. Further, missile protection capability of the Reactor Building is degraded by creation of the Containment Opening during shutdown conditions. These two issues do not screen out as a result of performing a 10 CFR 50.59 Screening, and therefore are evaluated by a 10 CFR 50.59 Evaluation.

#### Summary of Evaluation:

For reasons presented in the above brief description, the safety significance of the following two (2) issues must be identified and successfully addressed prior to implementation of ECR TM 06-00816. Note that due to complexity of these issues, the summary below presents the principle arguments and is not meant to be exhaustive in all 10 CFR 50.59 Evaluation aspects. The reader is advised to refer directly to the 10 CFR 50.59 Evaluation for a complete treatment of these subject two (2) issues.

## Pre-Outage De-tensioning of Selected Reactor Building Tendons

Reactor Building tendons provide tensile strength to the Reactor Building concrete wall necessary to withstand design pressure (Pd). This, in turn, bounds the maximum pressure expected to be result of a design basis accident (Loss-of-Coolant-Accident, LOCA). De-tensioning of the tendons with Unit 1 at operation when a LOCA is possible poses a challenge to the function of the Reactor Building. The analytical basis for pre-outage tendon de-tensioning must be properly demonstrated in order to assure that the Reactor Building remains structurally capable of withstanding Pd, and ensures that UFSAR-specified limits on concrete stress are not exceeded. Accordingly, the analytical basis provided in Calculation 38455-CALC-C-052, "Post-Tensioning System Operational Requirements," has determined that up to six (6) vertical tendons and two (2) horizontal tendons may be de-tensioned and meet the acceptance criteria for the Reactor Building design function. Based on this analysis, the accident mitigation capability and the structural integrity of the fission product barrier of the Reactor Building are maintained. No 10 CFR 50.59 Evaluation question (1 through 8) resulted in an affirmative response that would invoke NRC review of this activity.

## Tornado Missile Vulnerability with the Creation of the Containment Opening

With the concrete removed to create the Containment Opening, and with only the containment liner plate present, the UFSAR-described design functional capability of the Reactor Building to protect Systems, Structures, and Components (SSCs) housed within the Reactor Building must be considered to be degraded. Restated, in this temporary configuration, the containment liner plate alone is insufficient to completely arrest a hypothetical design basis tornado missile from entering the building. The period of vulnerability during which this configuration is expected to exist is, however, brief, and when weighed against the likelihood of occurrence of a tornado required to produce design basis tornado missiles, the conclusion of Calculation TM-MISC-01, "Evaluation of Tornado Missile Risk for 1R18," concludes that the risk is not significant. Per the guidance of the Exelon 50.59

Resource Manual in cases where risk has been demonstrated not to be significant, the likelihood of occurrence of SSC malfunctions and consequences pertaining to malfunctions of accident mitigation equipment may be concluded to not be increased. In reference to 50.59 Evaluation Question 7, the fission product boundary function of the containment liner plate (with the concrete removed) is maintained in the face of a potential loss of decay heat removal capability (with fuel

still present in the reactor). No 10 CFR 50.59 Evaluation question (1 through 8) results in an affirmative response that would invoke NRC review of this activity.

\* \* \* \* \* \* \*

Title: Removal of Reactor Building Sump Area Radiation

Monitor 21 (RM-G-21)

Year Implemented: 2009

Evaluation Number: Engineering Change Request No. TM 09-00524

Brief Description:

Because ECR TM 09-00524 removes RM-G-21 and the associated Liquid Radwaste Disposal System Valve 534 (WDL-V-534) and Liquid Radwaste Disposal System Valve 535 (WDL-V-535) interlocks from the plant, this activity involves a change to an SSC that adversely affects UFSAR described design function described by Sections 5.3 and 11.4. Screening Question 1 is answered "YES". Therefore, A 50.59 Evaluation is required. All other Screening questions are answered "NO".

#### Summary of Evaluation:

RM-G-21 and the associated WDL-V-534 and WDL-V-535 interlocks were installed in response to NUREG-0800, Standard Review Plan (SRP), Section 6.2.4, Paragraph II.6.m. In response to the SRP, Technical Data Report (TDR) 083 identified the requirement to install new radiation monitor RM-G-21 with automatic interlocks to close Reactor Building (RB) sump drain line containment isolation valves WDL-V-534 and WDL-V-535 on high radiation. RM-G-21 was subsequently installed as a TMI-1 Restart Commitment. However, NUREG 0737, Enclosure 3, Section II.E.4.2, "Clarification" Paragraph (1) states that the reference to SRP 6.2.4 is only to the diversity requirements set forth in that document. Per TDR-083, diversity requirements for containment isolation valves are satisfied by the Reactor Protection System, Reactor Trip Isolation (RTI) function. The existing RTI function for WDL-V-535 and WDL-V-535 is not affected by the removal of the RM-G-21 interlocks. Based on the above discussion and because RM-G-21 is not identified in the current TMI-1 Commitment Tracking Database, there is no specific regulatory requirement for RM-G-21 and the associated WDL-V-534 and WDL-V-535 interlocks.

With regard to the operational impact, removing RM-G-21 indication from the Control Room and Plant Process Computer (PPC) is acceptable because the RM-G-21 indication function is diverse but not critical. Redundant indication of Reactor Building radiation conditions will continue to be provided by Technical Specifications required Radiation Monitors RM-A-2 (RB Atmosphere Monitor) and RM-G-22 and RM-G-23 (redundant High Range Containment Area Monitors). In addition, RM-L-1 (RCS Letdown Monitor) would indicate an

increase in reactor coolant activity that may lead to high RB sump radiation levels.

# **Procedure Changes**

There were no 10CFR50.59 required procedure changes for this reporting period.

End of 10CFR50.59 Revision Report

## EXELON CORPORATION THREE MILE ISLAND UNIT 1 DOCKET NO 50-289

BIENNIAL COMMITMENT REVISION REPORT

JANUARY 1, 2008 THROUGH DECEMBER 31, 2009

5211-83-2330 "GL 83-28: PERSONNEL TRAINING

AND QUALIFICATION" REQUIREMENTS"

Exelon Tracking No.:

1983T0123

Nature of Commitment:

The commitment was incorporated into Paragraph 4.3 "Qualification Requirement" of TF Procedure EP-029 (Corporate Procedure 1000-ADM-7370.40). Corporate Procedure 1000-ADM-7370.04 (EP-029), Rev. 6 dated

07/18/88, continues to implement the above

commitment.

## Summary of Justification:

This item was closed (taken to Historical status) via Commitment Change Tracking #08-001. In 1983, the station committed to establishing training-specific procedures meet this commitment. Since 1983, through the evolution of accredited training at the site, this commitment is part of routine training processes. Currently, the site and Exelon complies with the INPO ACAD 02-001 and ACAD 02-002 requirements for accreditation of station training programs that were put into place when INPO began the accreditation process in 1985. Exelon standardized Training Qualification (TQ) procedures contain training program descriptions, and training administrative procedures.

Letter Source:

5928-07-20263 "SUPPLEMENT TO RESPONSE

PROVIDING INFORMATION REGARDING IMPLEMENTATION DETAILS FOR THE B.5.B PHASES 2 AND 3 MITIGATION STRATEGIES, INCLUDING RESPONSES TO REQUESTS FOR

ADDITIONAL INFORMATION"

Exelon Tracking No.:

5928-07-20263.001

Nature of Commitment:

This letter was a commitment change notification. Several of the TMI commitments made in the 5/16/07 fleet B.5.b response to the NRC required revision. This commitment covers those changes made in

Tables A.2-1, A.2-2, A.2-3, and A.2-4.

#### Summary of Justification:

Commitment Change Evaluation Form, 08-05, revised the commitments as described in Tables A.2-1, A.2-2, A.2-3, and A.2-4. These changes provide more robust strategy for the Spent Fuel Pool fill and spray. Removed river suction for as primary source due to concerns about access in winter months. Changes still meet requirements of NEI 06-12. These changes positively impact commitments in that multiple diverse options are now provided to meet NEI 06-12 requirements.

Letter Source:

"Appendix R Letter Commitment"

**Exelon Tracking No.:** 

1986T0063

Nature of Commitment:

GPUN committed to the NRC to develop Emergency Fire Procedures to respond to electrical bus trips

resulting from multiple high impedance faults.

#### Summary of Justification:

This item was evaluated per Commitment Change Evaluation Form 09-01 and approved to delete this commitment. The deletion of this commitment is justified by demonstrating in calculation C-1101-700-E420-015, that the bus is not susceptible to Multiple High Impedance Faults (MHIF). This improves operator response in a fire scenario. NRC has reviewed the calculation as part of the 2008 Triennial Fire Protection Inspection and found no issues with this position.

Letter Source:

5211-87-2105 "IEB 85-03: MOTOR OPERATED

VALVE FAILURES DUE TO IMPROPER SWITCH

SETTINGS"

Exelon Tracking No.:

1987T0044

Nature of Commitment:

GPUN committed to the NRC in response to the IE Bulletin 85-03 to establish a program on Emergency

Feedwater (EFW) and High Pressure Injection (HPI)

Motor Operated Valves.

## Summary of Justification:

Taken to "Historical," per LS-AA-110 Commitment Change Evaluation Form, Commitment Tracking #09-05. Justification for Change: Generic Letter (GL) 89-10, "Safety Related Motor Operated Valve Testing and Surveillance," expanded the scope of IEB to include "all safety-related fluid systems" including HPI and EFW. Therefore, design aspects of valves covered in IEB 85-03 were addressed in the closeout of GL 89-10. Likewise, testing of HPI and EFW valves is now addressed through licensee commitments made to GL 96-05, "Periodic Verification of Design-Basis Capability of Safety-Related Motor-Operated Valves." These continuing commitments are being tracked under Commitments 96075-05 and 96075-08.

Letter Source:

3300-89-0047 "IEB 85-03: MOTOR OPERATED

VALVES COMMON MODE FAILURES DURING

PLANT TRANSIENTS"

Exelon Tracking No.:

1989T0048

Nature of Commitment:

GPUN committed externally to develop criteria on when testing is required after work on MOV operators

that could affect the thrust/torque switch setting.

#### Summary of Justification:

Taken to "Historical," per LS-AA-110 Commitment Change Evaluation Form, Commitment Tracking #09-06. Justification for Change: Generic Letter (GL) 89-10, "Safety Related Motor Operated Valve testing and Surveillance," expanded the scope of IEB to include "all safety-related fluid systems" including HPI and EFW. Therefore, design aspects of valves covered in IEB 85-03 were addressed in the closeout of GL 89-10. Likewise, testing of HPI and EFW valves is now addressed through licensee commitments made to GL 96-05, "Periodic Verification of Design-Basis Capability of Safety-Related Motor-Operated Valves."

6710-97-3155 "GL 97-001: DEGRADATION OF

CONTROL ROD DRIVE MECHANISM NOZZLE &

OTHER VESSEL CLOSURE HEAD

PENETRATIONS"

**Exelon Tracking No.:** 

97056.02

Nature of Commitment:

GL 97-001: Provide 120 day report as requested by

the NRC.

#### Summary of Justification:

Letter 6710-97-2295 committed to an integrated Reactor Vessel Closure Head (RVCH) penetration inspection program. This commitment was subsequently superseded by NRC Enforcement Letter EA-03-009. EA-03-009 is now superseded by 10 CFR 50.55a (g) (6) (ii) (D). The status of this commitment is therefore changed from "Continuing" to "Historical."

Examinations of the closure head penetrations were completed in 14R, which resulted in repairs to several penetrations. The inspection results supported the eventual closure head replacement in 2003.

Letter Source:

5211-80-3078 "UNDERGROUND PIPE CRACKS IN

SEISMIC CATEGORY I PIPING"

**Exelon Tracking No.:** 

1980T0096

Nature of Commitment:

The NRC stated in the 2/15/80 SER that GPUN committed to a surveillance program to survey the three thrust blocks north of the Screen House every two weeks following startup. If those measurements indicated less than 1/16/ inch drop per month after at least two months, then the surveillance could be reduced to once per month. Finally, GPUN was to inform the NRC of any significant changes in the surveillance program or if the measured settlement

exceeded allowable limits.

#### Summary of Justification:

Commitment Change Evaluation Form 09-10 revised this commitment from "Continuing" to "Historical." This condition has been corrected and the condition has not returned. There is no known leakage from any of the Nuclear Services River Water (NR), Decay Heat River Water System (DR), or Reactor Building Emergency Cooling Water System (RR) System underground piping.

5211-87-2170 "IEB 87-01: THINNING OF PIPE WALL

IN NUCLEAR PLANTS"

Exelon Tracking No.:

1987T0047

Nature of Commitment:

Pipe Wall Thinning Surry.

Summary of Justification:

Commitment Change Evaluation Form 09-11, dated 7/21/09, changed the status of this commitment to Historical, and this commitment is considered closed or deleted. This commitment was an information transmittal requested by an NRC Bulletin. There is another commitment to have and maintain a Flow Accelerated Corrosion (FAC) Program that is a response to the Generic Letter. This was not an actual commitment, because the info requested was a description of the program. It was conservatively assessed as a commitment. We have a separate commitment to the GL that is consistent with other programs and sites.

Letter Source:

5928-05-20249 "NRC GL 2004-02, "POTENTIAL

IMPACT OF DEBRIS BLOCKAGE ON EMERGENCY

RECIRCULATION DURING DESIGN BASIS ACCIDENTS AT PRESSURIZED-WATER

REACTORS""

Exelon Tracking No.:

5928-05-20249.004

Nature of Commitment:

TMI will validate that adequate margin exists to bound the impact of chemical effects once the vendors' results to quantify chemical debris effect on head loss have been published. AmerGen will update the TMI NRC Project Manager with this scheduling information

when the vendors have formulated their testing

schedule.

## Summary of Justification:

Commitment Change Evaluation Form 09-12, dated 7/21/09, changed the status of this commitment to Historical. This was a one-time commitment which was completed upon submittal of "Exelon/AmerGen Response to NRC Generic Letter 2004-02," dated 9/1/05. The final TMI strainer head loss testing was performed in November 2007. The test results, including the effect of chemical debris, were reported in Document No. ALION-REP-EXEL-2737- 12, Rev. 0, dated 12/3/07. The results of the testing, including the available Net Positive Suction Head (NPSH) margin, were included in the "Three Mile Island Unit 1 Supplemental Response to NRC Generic Letter 2004-02," dated 12/28/07 (5928-07-20246). Therefore, the original, one time commitment, has been completed as described.

Letter Source:

5928-05-20249 "NRC GL 2004-02, "POTENTIAL

IMPACT OF DEBRIS BLOCKAGE ON EMERGENCY

RECIRCULATION DURING DESIGN BASIS ACCIDENTS AT PRESSURIZED-WATER

**REACTORS**""

**Exelon Tracking No.:** 

5928-05-20249.001

Nature of Commitment:

The recirculation functions for the Emergency Core Cooling Systems (ECCS) and the Building Spray (BS)

System for Three Mile Island, Unit 1, will be in

System for Three Mile Island, Only 1, will be in

compliance with the regulatory requirements listed in the Applicable Regulatory Requirements section of the subject generic letter under debris loading conditions

by December 31, 2007.

#### Summary of Justification:

Commitment Change Evaluation Form 09-13, dated 7/21/09, changed this commitment to Historical. This commitment was made in the "Exelon/AmerGen Response to NRC Generic Letter 2004-02," dated 9/1/05. The "Three Mile Island Unit 1 Supplemental Response to NRC Generic Letter 2004-02," dated 12/28/07 (5928-07-20246) states: "The recirculation functions for the ECCS and BS System for TMI Unit 1 are in compliance with the regulatory requirements listed in the applicable Regulatory Requirements section of the subject generic letter under debris loading conditions." Therefore, the original commitment has been completed as described.

\* \* \* \* \* \* \* \*

5928-05-20076 "RESPONSE TO NRC GL 2004-02, "POTENTIAL IMPACT OF DEBRIS BLOCKAGE ON EMERGENCY RECIRCULATION DURING DESIGN BASIS ACCIDENTS AT PRESSURIZED-WATER

**REACTORS**"

**Exelon Tracking No.:** 

5928-05-20076.001

Nature of Commitment:

If a strainer modification is required, TMI Station will complete a preliminary debris head loss analysis by September 1, 2005. The final debris head loss analysis will be completed as part of the strainer modification process in accordance with the NRC schedule for GSI-191 resolution, and this analysis will include any additional impact found in the containment walkdown to be performed in November 2005.

#### Summary of Justification:

Commitment Change Evaluation Form 09-15, dated 7/21/09, changed the status of this commitment to Historical.

This commitment was made in the "Exelon/AmerGen Response to NRC Generic Letter 2004-02," dated 3/07/05. (5928-05-20076). The preliminary debris head loss analyses were completed prior to September 1, 2005, as documented in the following calculations: 1) ALION-CAL-EXEL2737-001, Rev.0, "TMI-1 Reactor Building LOCA Debris Generation Calculation," 2) ALION-CAL-EXEL2737-002, Rev.0, "TMI-1 Reactor Building LOCA Debris Transport Calculation," 3) ALION-CAL-EXEL2737-003, Rev.0, "TMI-1 Reactor Building Sump Screen Head Loss Calculation." These calculations provided the basis for the "Exelon/AmerGen Response to NRC Generic Letter 2004-02," dated 9/1/05. (5928-05-20249).

A containment walkdown was completed in Fall 2005 TMI Refueling Outage (October/November 2005). The results of the walkdowns are documented in Report No. EXTM004-PR-01, "Report for Three Mile Island Unit 1 Reactor Building NEI 02-01 Debris Walkdowns," dated 3/20/06.

The results of the walkdown report were incorporated into Revision 1 of the documents listed above.

The final debris head loss analysis was completed as part of the containment walkdown findings, provided the basis for the "Three Mile Island Unit 1 Supplemental Response to NRC Generic Letter 2004-02." dated 12/28/07.

\* \* \* \* \*

1920-98-20145 "CONTROL ROOM HABITABILITY

**EVALUATION**"

Exelon Tracking No.:

97093.19

Nature of Commitment:

Provide program/procedures to periodically inspect the integrity of Control Building Ventilation System (CBVS) dampers and Control Building Envelop (CBE) door seals, and periodically test CBVS flow rates and area pressures to verify ability to maintain positive pressures and preclude negative pressures. Preliminary discussion identified that these activities would be performed on a refueling interval basis. Provide program/procedures to periodically inspect the integrity of CBVS dampers and CBE door seals, and periodically test CBVS flow rates and area pressures to verify ability to maintain positive pressures and preclude negative pressures. Preliminary discussion identified that these activities would be performed on a refueling interval basis. The enclosed TMI-1 control room habitability evaluation incorporates updated analytical methodologies and assumptions as described in TR-121. The results of this evaluation continue to satisfy the intent of GDC-19 and NUREG-0737, Item III.D.3.4 for control room habitability based on the conservatism contained in the TID-14844 source terms assumed, and the established ability of the control building ventilation (CBVS) system to maintain a positive pressure in the control room and preclude negative pressures in all other areas of the control building envelope (CBE). Periodic inspection of CBVS dampers and CBE door seals will be performed to maintain their integrity. Periodic testing of CBVS flow rates and area pressures will be performed to verify the ability to maintain positive pressures and preclude negative pressures. Additionally, it is noted that breathing apparatus and potassium iodide will continue to be available to the control room operator which would further reduce the calculated dose results.

#### Summary of Justification:

Commitment Change Evaluation Form 09-16, dated 7/22/09, changed the status of this commitment to Historical. This commitment has been superseded by Tech Spec Amendment 264, which added Tech Spec 6.20 discussing Control Room Envelope Habitability. All of the items discussed in this commitment are now bounded by the Control Room Envelope Habitability Program bounded by Tech Spec 6.20. The NRC approved TS Amendment 264 as the requirements for controlling the Control Room Envelope Habitability Program, adopting TSTF-448, Revision 3. Sections 3.15, 4.12, and 6.20 of the Tech Specs now implement the Control Room Envelope Habitability Program and ensure that habitability is maintained.

Letter Source:

"GL 89-18: RESOLUTION OF UNRESOLVED

SAFETY ISSUE A-17 SYSTEMS INTERACTIONS IN:

GL 89-18: NUCLEAR POWER PLANTS"

Exelon Tracking No.:

1989T0038

Nature of Commitment:

GPUN is committed through GL 89-18 resolution of Unresolved Safety Issue (USI) A-17, "Systems Interactions in Nuclear Power Plants", to consider adverse systems interactions in individual plant examinations (IPE's) and where specific evaluations

are needed to address other concerns.

#### Summary of Justification:

This item was taken to historical per Commitment Change Evaluation Form 09-17, dated 8/10/09. The justification for change is as follows: IPE submittals were a one-time effort. Probable Risk Assessment (PRA) is now an integral part of the design change process under Reg. Guide 1.174, and configuration control under 10 CFR 50.65(a)(4). The IPE has been superseded by current PRA and is used to support the plant for all design related impacts under Reg Guide 1.174. This commitment was established before the NRC ROP was created. Since the establishment of R.G. 1.174 and the use of PRA insights in the ROP process, unique considerations for risk including internal flooding insights are considered when changes to the plant are made, or equipment is taken out of service/or maintained under 10 CFR 50.65.

\* \* \* \* \* \* \* \*

5211-87-3061 "EQUIPMENT CLASSIFICATION"

Exelon Tracking No.:

1983T0132

Nature of Commitment:

Component Quality Classification List.

Summary of Justification:

Commitment Change Tracking #09-18, dated 9/28/09, changes this commitment to a Historical status. There is no change to the original commitment description. Commitment Change Tracking Form #09-18 was completed to document that the commitment has been implemented and the status of this commitment should be updated to "Historical" in the TMI Lotus Notes Commitment Tracking Database. The original computerized component classification was included in the GPU General Management System (GMS-2) data base. GMS-2 has since been replaced with the Exelon Plant Information Management System (PIMS). ES-011 has also been replaced. EP-011T currently provides the methodology for maintaining the Component Record List (CRL).

Letter Source:

5928-05-20269 "RESPONSE TO RAI - BULLETIN

2003-01, "POTENTIAL IMPACT OF DEBRIS

BLOCKAGE ON EMERGENCY SUMP

RECIRCULATION AT PRESSURIZED-WATER

**REACTORS**"

Exelon Tracking No.:

5928-05-20269.001

Nature of Commitment:

In response to Generic Letter 2003-01, TMI

Engineering will develop a Technical Support Center (TSC) written guideline that will cover re-injecting additional inventory following a loss of coolant

accident. This will include guidance for injecting more

than one Borated Waste Storage Tank (BWST) volume from a refilled BWST and injecting from alternate water sources. (This commitment superseded commitment 5928-05-10223.002)

# Summary of Justification:

This commitment is related to a compensatory measure that was put into place in response to NRC Bulletin 2003-01. TMI committed to implementing the TSC written guideline by 10/31/05 (5928-05-20269). Based on the TMI response to GL 2004-02 on 12/28/07 (5928-07-20246), the compensatory measure is no longer required and status of this commitment should be updated to "Historical" in the CTD. AmerGen/TMI confirmed compliance with the regulatory requirements

related to Emergency Core Cooling System (ECCS) and the Containment Spray System (CSS) recirculation functions in the "TMI Unit 1 Supplemental Response to NRC Generic Letter 2004-02" on December 28, 2007. (Letter 5928-07-20246). The compensatory measure is no longer required. The TSC guide ER-TM-TSC-0018 will be maintained as an active guide.

End of Commitment Revision Report