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10 CFR 50.71(e)
10 CFR 54.37(b)

TMI-24-003

March 25, 2024

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Three Mile Island Nuclear Station, Unit 1
Renewed Facility License No. DPR-50
Docket No. 50-289

Subject: Defueled Safety Analysis Report (DSAR), Revision 2
Fire Hazards Analysis Report (FHAR), Revision 34
DSAR Reference Drawings

In accordance with 10 CFR 50.71(e)(4) and 10 CFR 50.4(b)(6), this letter submits Revision 2 of the Defueled Safety Analysis Report (DSAR) and Revision 34 of the Fire Hazards Analysis Report (FHAR) for Three Mile Island Nuclear Station, Unit 1 (TMI-1). The revisions to the DSAR and FHAR are being provided to the U.S. Nuclear Regulatory Commission (NRC) in electronic format via the Electronic Information Exchange (EIE) portal. The electronic versions of the DSAR and FHAR revisions are being submitted in their entirety and are total replacement copies. During the current revision cycle, Revisions 32 and 33 of the FHAR were issued internally and then Revision 34 was subsequently issued. Therefore, Revision 34 represents the most current revision of the FHAR.

10 CFR 50.71(e)(2) requires that changes made under the provisions of 10 CFR 50.59 but not previously submitted to the NRC be included in DSAR updates. With regard to the FHAR, since TMI-1 is permanently shut down and is in decommissioning, a fire protection program is required by 10 CFR 50.48(f) to address the potential for fires that could result in a radiological hazard.

10 CFR 50.48(f)(3) stipulates that a licensee may make changes to the fire protection program without NRC approval if these changes do not reduce the effectiveness of fire protection for facilities, systems, and equipment that could result in a radiological hazard, considering the decommissioning plant conditions and activities. Attachment 1 to this letter identifies DSAR changes made under the provisions of 10 CFR 50.59 not previously submitted and included in Revision 2 of the DSAR. Attachment 2 identifies changes included in Revisions 32, 33 and 34 of the FHAR that were evaluated and determined not to reduce the effectiveness of fire protection requirements for TMI-1.

10 CFR 50.71(e)(4) stipulates that a revision to the DSAR must reflect changes made up to a maximum of six months prior to the submittal. As a result, Revision 2 of the DSAR reflects applicable changes made at TMI-1, since the last biennial update (i.e., DSAR, Revision 1) was submitted in March 2022. There is a "Rev. 2" reference in the lower portion of the DSAR pages; however, only those pages with a revision bar in the right-hand margin of the page were revised in Revision 2. All other pages were not revised and remain unchanged since Revision 1.

The submittal also contains copies of reference drawings currently referenced but not included in the TMI-1 DSAR. These are the most current revisions of the applicable drawings as of February 15, 2024.

Attachment 3 includes file directory structure information identifying directory path, filename, and file size of the individual files comprising the updates to the DSAR, FHAR, and reference drawings.

In addition, pursuant to the requirements of 10 CFR 54.37(b) and the guidance specified in Regulatory Issue Summary 2007-16, Revision 1, *"Implementation of the Requirements of 10 CFR 54.37(b) for Holders of Renewed Licenses,"* the DSAR and FHAR updates required by 10 CFR 50.71(e) must include any Structures, Systems, and Components (SSCs) newly identified that would have been subject to an aging management review or evaluation of time-limited aging analyses in accordance with 10 CFR 54.21. The DSAR and FHAR updates must describe how the licensee will manage the effects of aging in order to effectively maintain the intended function(s) of newly-identified SSCs. An evaluation was completed to determine whether any newly-identified SSCs existed in support of the DSAR, Revision 2, and FHAR, Revisions 32, 33 and 34, updates for TMI-1. This evaluation involved reviewing pertinent documentation for the period subsequent to the last TMI-1 biennial DSAR / FHAR revisions. As a result of this review, there were no newly-identified SSCs for which aging management reviews or time-limited aging analyses would apply.

As required by 10CFR50.71(e)(2)(i), I certify that to the best of my knowledge, the information contained in this submittal accurately reflects information and analyses submitted to the NRC, or prepared pursuant to NRC requirements as described above.

If you have any questions or require further information, please contact Richard Gropp at 1-267-533-5642.

Respectfully,



David P. Helker
Sr. Manager, Licensing
Constellation Energy Generation, LLC

Attachments: 1) TMI-1 DSAR Summary of Changes, Revision 2
2) TMI-1 FHAR Summary of Changes, Revisions 32, 33 and 34
3) Electronic File Directory Structure

Enclosures: 1) TMI-1 DSAR, Revision 2 (EIE)
2) TMI-1 FHAR, Revision 34 (EIE)
3) TMI-1 DSAR Reference Drawings (EIE)

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cc: w/ Enclosures and Attachments
NRC Regional Administrator - NRC Region I
NRC Project Manager, NMSS - Three Mile Island
B. Werner, PA Department of Environmental Protection Bureau of Radiation Protection

ATTACHMENT 1

TMI-1 DSAR Summary of Changes, Revision 2

TMI-1 DSAR Summary of Changes - Revision 2

10 CFR 50.71(e)(2)(ii) requires that revisions to the Defueled Safety Analysis Report (DSAR) include changes made under the provisions of 10 CFR 50.59, but not previously submitted to the NRC. Accordingly, the list below identifies plant changes included in Revision 2 of the DSAR that were not previously submitted to the NRC.

Engineering Change (EC)	Description
ISFSI-Only Tech Specs (IOTS)	This change involved updates to DSAR Sections 1.3.3, 1.3.6; Sections 4.2.5 and 4.4.2.2; and Sections 5.1.2.1 and 5.7 regarding implementation of ISFSI-Only Tech Specs.
ISFSI Condition - No Fuel in SFP (Reference LAR for IOTS Tech Specs)	This change involved updates to DSAR Sections 1.2.3, 1.3.2, 1.3.7, 1.3.8, 1.3.9, 1.3.10, 1.3.11, 1.3.12, and 1.3.13; Appendix 1A Section 1.0; Sections 3.1, 3.1.5.4, 3.1.6.2, Table 3.1-1; Section 3.2, Table 3.2-1; Sections 3.3, 3.4, 3.5, 3.6.2, 3.6.3, 3.6.4, 3.6.5, 3.7, 3.8, 3.8.1, 3.8.2, and 3.9; Sections 4.2.2, 4.3.1, Table 4.3-1; Sections 4.4.2.1, and 4.4.2.3 regarding no longer having fuel in the Spent Fuel Pool as per the License Amendment Request (LAR) for IOTS.
EC 627289	This change involved updates to DSAR Section 3.1.6.1 regarding the abandonment of the Boilers and Auxiliary Steam System.
EC 631866, Rev. 1	This change involved updates to DSAR Table 3.1-1 and Section 4.4.2.2 regarding abandonment of the Chemical Cleaning Building (CCB). Superseded by EC 638851.
EC 625418	This change involved updates to DSAR Sections 3.6.2.2.A, 3.6.2.4.4, and Section 3.9.2 regarding abandonment of the Waste Gas System.
EC 625419, Rev. 2	This change involved updates to DSAR Sections 4.2.4.3 and 4.2.4.4 regarding abandonment of the Evaporators and miscellaneous Liquid Rad Waste System (WDL) equipment.
EC 629891	This change involved updates to DSAR Section 4.2.5.1 and Section 4.4.2.2 regarding abandonment of the Gaseous Waste Disposal System.
EC 629609	This change involved updates to DSAR Section 4.5.5 regarding abandonment of the Nuclear Plant Sampling System.
DC-AA-300-1004	This change involved updates to DSAR Sections 5.1.2, 5.1.2.1, 5.1.2.2, 5.1.2.3, 5.1.2.4, 5.1.2.5 and 5.1.2.6 regarding the implementation of ISFSI Staffing per DC-AA-300-1004.
EC 637463	This change involved updates to DSAR Section 2.6.4 regarding the removal of the design basis flow and safe shutdown statement.
EC 638348	This change involved updates to DSAR Sections 1.3.7, 1.3.13, 1.4, 1.5, and 1.6; Section 3.1.2.2, Table 3.1-1; Sections 3.4.1, 3.4.2, 3.4.4, 3.4.5; Section 3.9.2; Sections 4.2.1, 4.2.1.1, 4.2.1.2, 4.2.1.3, 4.2.1.4, 4.2.2, 4.2.4.2, 4.2.4.3, 4.2.4.4, 4.2.5, 4.2.5.2, 4.2.5.3, 4.2.5.4, Table 4.2-1; Sections 4.4.2, 4.4.2.3, Table 4.4-1, and Section 4.7 regarding the abandonment of the WDL.
EC 638433	This change involved updates to DSAR Section 4.2.1.4 regarding the abandonment of the Chemical Cleaning Building (CCB). (Note: Changes to DSAR Section 4.2.1.4 were also addressed in EC 638348).

TMI-1 DSAR Summary of Changes - Revision 1

Engineering Change (EC)	Description
EC 638851	This change involved updates to DSAR Sections 4.2.4.2, 4.4.2.2, and Table 3.1-1 regarding Building Easement changes between Unit 1 and Unit 2.
EC 640339	This change updates the DSAR related to the Independent Spent Fuel Storage Installation (ISFSI) 10 CFR 72.212 report for Certificate of Compliance (CoC) 1031, Amendment 9, Revision 1, which has been approved by the NRC.

ATTACHMENT 2

TMI FHAR Summary of Changes, Revisions 32, 33 and 34

TMI-1 FHAR Summary of Changes – Revisions 32, 33 and 34

This attachment lists the changes incorporated into Revisions 32, 33 and 34 of the TMI-1 Fire Hazards Analysis Report (FHAR). 10 CFR 50.48(f)(3) stipulates that a licensee may make changes to the fire protection program without NRC approval if these changes do not reduce the effectiveness of fire protection for facilities, systems, and equipment that could result in a radiological hazard, considering the decommissioning plant conditions and activities. During the current revision cycle, Revisions 32 and 33 of the FHAR were issued internally and then Revision 34 was subsequently issued. Accordingly, Revision 34 is the latest revision of the TMI-1 FHAR and this list identifies changes included in Revisions 32, 33 and 34 of the FHAR that were evaluated and determined not to reduce the effectiveness of fire protection requirements for TMI-1.

Engineering Change (EC)	Description
<u>Revision 32 Changes</u>	
EC 637011	This change involves including updates from the initiation of the Unit 2 Fire Protection program administered under Energy Solutions. The following structures, systems, and components (SSCs) have been removed from the TMI-1 FHAR and can be described in the Unit 2 Fire Protection Program Evaluation (FPPE) following this revision: • Chemical Cleaning Building (CCB) (TMI-BLG-123) • Outage Support Building (OSB) (TMI-BLG-77) • South Office Building (SOB / SAB) (TMI-BLG-47) • Processed Water Pump House (PWPH) (TMI-BLG-124) • Warehouse 2 (TMI-BLG-50) • Warehouse 3 (TMI-BLG-51) • Respirator and Laundry Facility (RLM / RLMF) (TMI-BLG-54) • Waste Handling Process Facility (WHPF) (TMI-BLG-53)
<u>Revision 33 Changes</u>	
EC 638851	Updated FHAR to reflect abandonment of Reactor Building (RB) support systems for a document change update to re-add facilities to TMI-1 control.
EC 625028	TMI-1 Station Blackout (SBO) Diesel Generator (EG-Y-4) Abandonment Field Change Request (FCR) 4394226-01
EC 634370	Intermediate Building (IB) Abandonment
EC 625315	ISFSI Fire Program Documentation Updates
EC 631886	Decommissioning Equipment Group (DEG) 232C - CCB Abandonment
EC 633240	DEG 151B – Operations Office Building (OOB) Abandonment
<u>Revision 34 Changes</u>	
EC 629603	Abandon Make-Up and Purification System
EC 631886	DEG 232C - Chemical Cleaning Building (CCB) Abandonment
EC 631889	Abandon of Diesel Storage Tank (DF-T-1) and Diesel Generator Building
EC 631890	Abandon FLEX and B.5.b (including FLEX Storage Facility (FSF))

<u>Revision 34 Changes (continued)</u>	
EC 638348	Abandonment of Liquid Waste Disposal (WDL) system and Hittman Buildings
EC 638433	CCB Abandonment
EC 639526	Solid Waste Staging Facility FHAR/DSAR Update

ATTACHMENT 3

Electronic File Directory Structure
(TMI-1 DSAR, FHAR and Reference Drawing)

Electronic File Directory Structure

Directory Path	File Name	File Size (Bytes)
TMI-1 DSAR File		
c:\TMI DSAR REV 2	TMI-1 DSAR Rev 2.pdf	9,001,106
TMI-1 FHAR File		
c:\TMI FHAR REV 34	990-1745, Rev 034, TMI UNIT 1 PERMANENTLY DEFUELED FIRE HAZARDS ANALYSIS REPORT (FHAR).pdf	490,458
TMI-1 Reference Drawings File		
c:\TMI REF DWGS	TMI Reference Drawings.pdf	124,315,250