



April 7, 2022

TMI2-RA-COR-2022-0008

10 CFR 50.90

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

Subject: Supplemental Information to License Amendment Request- Three Mile Island, Unit 2, Decommissioning Technical Specifications

Three Mile Island, Unit 2
NRC Possession Only License No. DPR-73
NRC Docket No. 50-320

Reference:

(1) Letter TMI2-RA-COR-2022-0001 from G. P. van Noordennen (TMI-2 Solutions) "Supplemental Information to License Amendment Request- Three Mile Island, Unit 2, Decommissioning Technical Specifications," dated January 5, 2022 (ML22010A066).

Attached as previously discussed with the NRC Staff is a revision to the Safe Fuel Mass Limit (SFML) calculation submitted via Reference 1.

This revision was required based on the discovery of the following minor errors in Reference 1:

1. The impurity Eu-154 (ZAID 63154) was entered incorrectly in the MCNP input as 64154, which is the impurity Gd-154. Both have similar values, ranging 10E-8 to 10E-9, with an expected small resultant effect. As expected, the calculation shows the result to be within 0.05% of the original result (i.e. original K_{eff} of 0.93617 vs. new result K_{eff} of 0.93664); both results are substantially sub-critical. The revised result is well within the calculational biases and subcritical limits of the original calculation.
2. Section 5.4.4 incorrectly noted the iron percentage as 1.51 wt.% after accounting for 90% credit. 1.51.wt.% represents 100% credit for iron and the text should have read 1.355 Wt.%. However, the input files for the calculation were correct and the error had no effect on the result. The report has been corrected to reflect the proper wt.% credit for iron.

ADD
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3. The equation shown in 5.3.2 was corrected to remove the term $\frac{B_{Mix3}}{Imp\ wf}$. This equation was identified as an incorrect representation of the underlying calculation during reviews following the identification of the material composition error discussed above. Removing this term was an editorial change and did not affect the results of the calculation.

The discovery of these errors was entered into the TMI-2 Corrective Action Program.

In accordance with 10 CFR 50.91(b)(1), a copy of this submittal has been sent to the Commonwealth of Pennsylvania.

In the event that the NRC has any questions with respect to the content of this document or wishes to obtain any additional information, please contact me at 860-462-9707.

There are no Regulatory Commitments contained in this letter

I declare under penalty of perjury that the foregoing is true and correct. Executed on April 7, 2022.

Sincerely,

**Gerard van
Noordennen**

Digitally signed by Gerard van Noordennen
DN: cn=Gerard van Noordennen, o=EnergySolutions,
ou=Regulatory Affairs,
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Date: 2022.04.07 13:39:31 -04'00'

Gerard van Noordennen
Senior Vice President Regulatory Affairs
Attachments:

Attachment 1 - TMI2-EN-RPT-0001 "Determination of the Safe Fuel Mass Limit for Decommissioning TMI-2, Revision 1

cc w/Attachment:

Amy Snyder, NRC Project Manager
NRC Region I Administrator
NRC Lead Inspector

TMI-2 Service List

cc w/ Attachments:

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