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September 30, 1988
4410-88-L-0162/0356P

US Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Dear Sirs:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)
Operating License No. DPR-73
Docket No. 50-320
SNM Accountability

By NRC letter dated October 17, 1985, GPU Nuclear was granted exemption from certain requirements for periodic inventory and reporting of special nuclear material (SNM) balance for Three Mile Island Unit 2 (TMI-2). As a condition of the exemption, GPU Nuclear is required to conduct an assessment of the SNM remaining at TMI-2 following the completion of the defueling effort. This assessment is referred to in the exemption as the "post-defueling survey." GPU Nuclear has begun the post-defueling survey by conducting assessments in those areas and components for which no further defueling is planned.

Based on an informal understanding between GPU Nuclear and the NRC TMI Cleanup Project Directorate, GPU Nuclear will provide the NRC a copy of the results of each post-defueling survey for information. In addition, for those surveys which report residual SNM quantities greater than 1 kilogram, GPU Nuclear will solicit NRC review and comment as a means of providing independent verification of the technical adequacy of each assessment.

The Post-Defueling Survey Report (PDSR) documents the GPU Nuclear assessment of the amount of residual SNM and describes the methodology utilized to determine the quantity of SNM in each case. Due to the complex structure of the components to be surveyed, the assessment of the residual SNM may utilize a combination of direct measurements, sample analyses, volumetric measurements, and engineering analyses. The PDSRs are supported by detailed engineering calculations, vendor reports, and research data.

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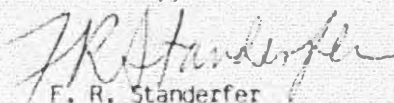
The attached PDSRs transmit the post-defueling survey results for the plenum and letdown coolers. They are the initial PDSRs published and the first survey results reporting SNM quantities greater than 1 kg. To facilitate NRC review of these initial packages, GPU Nuclear proposes a meeting with the NRC Staff (hopefully, including representation from the technical review staff) to discuss the contents and methodology. Supporting technical data, including detailed engineering calculations, vendor reports, and research data will be available for review at that meeting. The time and location of the meeting would be as mutually agreed subsequent to your receipt and initial review of these survey reports.

Additional PDSRs will be submitted as they are completed. A compilation of the individual PDSRs will form the basis for the final assessment of the quantity of residual SNM for accountability purposes.

To facilitate review and compilation of individual post-defueling survey results, the reports are formatted for incorporation in a loose-leaf binder which also provides a listing of all PDSRs currently anticipated as well as programmatic information concerning the SNM Accountability Program.

It is noteworthy that the survey results are not intended to demonstrate the overall adequacy of TMI-2 defueling progress, nor should they be construed as a determining factor for transition from Mode 1 to Mode 2 as defined in Section 1.3 of the TMI-2 Technical Specifications. Transition to Mode 2 will be based on the TMI-2 Defueling Completion Report which will demonstrate the overall adequacy of the defueling progress in the context that inadvertent criticality is no longer possible and the process has progressed to a point which, based on current technology and considerations, is logically defined as the endpoint for current defueling activities.

Sincerely,



F. R. Standerfer
Director, TMI-2

RDW/emf

Attachments

cc: R. J. Conte - Senior Resident Inspector, TMI
W. T. Russell - Regional Administrator, Region 1
J. F. Stolz - Director, Plant Directorate IV
L. H. Thonus - Project Manager, TMI Site