

September 10, 1987
NRC/TMI-87-070

Docket No. 50-320

Mr. F. R. Standerfer
Vice President/Director, TMI-2
GPU Nuclear Corporation
P. O. Box 480
Middletown, Pennsylvania 17057

Dear Mr. Standerfer:

Subject: Annual Update to the Interim Solid Waste Staging Facility (ISWSF)
Technical Evaluation Report

Reference: GPU Letter 4410-86-L-0110, F. Standerfer to W. Travers, Annual Update of ISWSF Technical Evaluation Report, dated June 26, 1986 (Revision 7)

The referenced letter forwarded for NRC review the most recent annual update to the Technical Evaluation Report (TER) for the Three Mile Island Interim Solid Waste Staging Facility (ISWSF). This latest revision incorporates a more conservative dose calculation for an airborne release from the ISWSF due to a postulated Operating Basis Earthquake (OBE).

The revised dose calculation has added conservative assumptions in that the presence of transuranics is assumed (primarily Pu-239) in the solid waste inventory of the ISWSF. The estimated activity of the waste staged in the ISWSF is also assumed to be slightly greater. One hundred Curies is assumed instead of 90 Curies as assumed in earlier TER revisions. The assumed percentage of transuranics was determined from the ratio of transuranics to Sr-90 activities for the TMI-2 core using the ORIGEN-2 computer code. Since the dose conversion factors are higher for transuranics than for the other isotopes found in the waste, the increased conservatism in the revised calculations yields higher offsite doses.

The maximum dose to the public from an airborne release following ISWSF failure due to an OBE is via the inhalation pathway. Based on the more conservative assumptions used in the latest revision of the IER, the accidental dose to the public would be less than 3.8 mrem. The previous calculated dose was less than 0.03 mrem, however, this higher calculated dose due to ISWSF failure following an OBE does not present a significant risk to the public since this is only about 0.1 percent of the post accident dose

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guidelines of 10 CFR 100. In addition, the probability of an Operating Basis Earthquake is low, and in the unlikely event that it occurs, gross failure of the ISaSF resulting in an airborne release of its entire waste inventory is extremely unlikely.

we therefore approve Revision 7 to the Technical Evaluation Report for the Interim Solid Waste Storage Facility.

Sincerely,

ORIGINAL SIGNED BY:
William D. Travers

William D. Travers
Director
TMI-2 Cleanup Project Directorate

cc: T. F. Demaistri
R. E. Ryan
W. E. Potts
S. Levin
J. J. Byrne
A. W. Miller
Service Distribution List
(see attached)

OFFICE	TMICPD	TMICPD	TMICPD			
SURNAME	RHall:wd	JAThomas	WDT Travers			
DATE	9/10/87	9/10/87	9/10/87			