



Metropolitan Edison Company  
Post Office Box 480  
Middletown, Pennsylvania 17057

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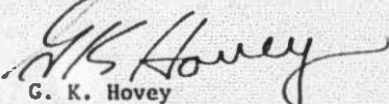
TMI Program Office  
Attn: Dr. B. J. Snyder, Program Director  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)  
Operating License No. DPR-73  
Docket No. 50-320  
Response to NRC Comments on the  
Interim Solid Waste Staging Facility TER

Enclosed are our responses to your comments on the Interim Solid Waste Staging Facility (ISWSF) TER and Design Criteria forwarded to us in your July 28, 1981 letter. If there are any remaining concerns, please contact us so that we may respond in a manner consistent with the scheduled October completion date for the ISWSF.

Sincerely,

  
G. K. Hovey  
Vice-President and  
Director, TMI-2

GKH:RBS:djb

Enclosure

cc: L. H. Barrett, Deputy Program Director

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## ISWSF

### TER COMMENTS

#### Comment 1

Paragraph 2.2.3 states that: "With the exception of small quantities of electrical cable...all materials used in the construction of the facility are noncombustible." Other combustible loads should also be considered. What are the radiological consequences of a fire: (a) in a vehicle with a full tank of gas that is parked in the ISWSF truck bay, and (b) in an area where a two week supply of spare wooden pallets are stored? What detection and fire fighting equipment has been committed to combatting such fires?

#### Response:

- a. A fire in the truck bay would not affect the waste stored in the facility due to the block walls between the truck bay and the storage areas. The only source of radioactive release due to a fire in the truck bay is the waste which may be on the truck for shipment. The radiological consequences of a fire in a vehicle parked in the truck bay are addressed in the NRC report, "Environmental Survey of Transportation of Radioactive Materials to and from Nuclear Power Plants," December 1972.
- b. Wooden pallets are not stored in the building. Current site procedures require that pallets be stored greater than 50 feet from the building proper. This practice will be applied to the ISWSF. As such, a fire in the pallet storage area would not affect the facility. The only pallets in the building proper will be those being used for storage and stacking of drums.

Fire detection and fire fighting equipment are provided through security surveillance and fire brigade procedures currently in effect.

#### Comment 2

Paragraph 2.2.3 states that: "The floor slab is sloped so that any water entering the facility will be directed toward one of the six sumps provided ...water collected in these sumps will be disposed of in accordance with established plant operation procedures." GPU should describe their physical/administrative controls for effluent monitoring in these sumps, and controls to assure proper disposal/treatment.

#### Response:

An administrative procedure for the physical controls necessary to assure the proper disposal/treatment of the sump effluent will be available prior to operation of the ISWSF. The frequency for surveying the sump will depend on the amount of precipitation occurring or expected to occur during a given time interval. Sampling frequencies will increase during periods of adverse weather conditions. On approaching 80 percent sump capacity the effluent will be sampled in accordance with radiological procedures and a gross beta evaluation and gamma scan will be performed.

The basis for disposal will be the limits specified in 10CFR20, Table I, Column 2, as follows:

- (a) Less than specified limits the water will be classified as "CLEAN" and the effluent will be pumped (portable pump) to the storm drain system.
- (b) Equal to or greater than specified limits the water will be classified as "DIRTY", the effluent will be drummed or tanked and transferred to appropriate storage points such as the Auxiliary Building Sump, thence to the Miscellaneous Waste Holdup Tanks for processing.

Comment 3

Paragraph 2.3 states that: "No radiation monitors are provided in the facility." GPU should describe their administrative controls for radiation monitoring at the ISWSF, including the monitoring frequency.

Response:

The facility will be surveyed at least once per week and/or each time a major evolution occurs, i.e., storage of new batch, movement within, removal from, etc.

The survey will determine the radiation fields due to the evolution and will be documented as per existing radiological survey procedures for further and future entries.

We consider the probability that field changes from any other than operations within the ISWSF are extremely remote.

Comment 4

Section 2.4.1 discusses preparation of the waste packages for shipment. This section states that swipes, counting and decontamination will be performed prior to transfer of the wastes to the ISWSF. As a routine practice, will waste containers also be swiped and counted following the storage period prior to shipment offsite? If not, what assurance will be provided that containers will not be recontaminated during the storage period?

Response:

All waste containers will be surveyed as per our current practice following a period of storage prior to shipment offsite, i.e., survey prior to transfer to the ISWSF, and survey prior to shipment from ISWSF.

At present a general procedure is being written (i.e., "Administration Procedure for Radioactive Waste Handling, Storage and Shipment") which will include this facility.



Comment 5

Paragraph 3.2.1.2.4 states that: "The ISWSF is not protected against the PMF (probable maximum flood); therefore, the ISWSF will be inundated in the very unlikely event a PMF occurs". GPU should describe their physical/administrative controls for preventing waste from being carried away from the facility and/or broken open by flood waters.

Response:

Due to the temporary nature of the facility, the PMF is not a design basis for the facility. Therefore, no design features have been specifically provided for preventing waste packages from being carried away by flood water resulting from a PMF.

The physical/administrative controls to prevent unrestricted movement and/or release of contents of the waste packages from this facility due to a PMF will be addressed in the Unit 2 Flood Emergency Procedure. The procedure will address relocation of containers or a method of restraint if relocation is not feasible.

Comment 6

In Section 3.3, you state that 80 percent of the projected occupational exposure from use of the ISWSF will be attributable to radioactive waste originating in Unit 1. However, based on the expected quantity and radiation level of the wastes from both Unit 1 and Unit 2, as shown in Table 2-1 (Design Storage Requirements), it is not apparent that 80 percent of the expected occupational exposure will be attributable to Unit 1 wastes. Provide the basis for the 80 percent figure.

Response:

The statement that "approximately 80 percent" of the occupational exposure is attributable to radioactive waste originating in Unit 1 is based on the total exposure associated with the handling of the wastes. This is explained below.

The time associated with the handling of each package (i.e., pallet, LSA box, liner) was estimated. Radiation fields were determined based on a six-month inventory of containers at the generation rates given in Table 2-1 of the Technical Evaluation Report. Combining the handling times with the radiation fields resulted in the following exposures associated with the handling of the various wastes:

Unit 1	12.5 man-rem/yr.
Unit 2	3 man-rem/yr.

The causes of the significant differences in the occupational exposures are as follows:

1. The shielded staging area for Unit 1 generated waste has a higher radiation field for the assumed conditions for facility sizing than the shielded staging area for Unit 2 generated waste (1600 mrem/hr vs 1170 mrem/hr).
2. There are more trips into the Unit 1 generated waste shielded staging area than into the Unit 2 generated waste shielded staging area.
3. For the assumed conditions for facility design, the operator must travel the entire length of the unshielded portion of the facility when handling Unit-1 generated waste. This is due to the area just outside of the shielded areas being the location for unshielded waste generated in Unit 1. When handling the Unit 2 generated waste to go into the unshielded area, the operator will start filling from the area adjacent to the Unit 1 unshielded area, working toward the truck bay, therefore, minimizing the time spent in the higher radiation areas.

The remainder of the occupational exposure is due to miscellaneous activities not directly attributable to the handling of either Unit 1 or Unit 2 generated waste.

#### DESIGN CRITERIA COMMENTS

##### Comment 1

Section 5.8 (Fire Protection Requirements) states that a fire hazards analysis will be performed. Provide the results of your analysis as well as a description of the fire protection system for the ISWSF.

##### Response:

The requested analysis is provided in Section 3.2.1.2.3 of the TER, with additional information provided in response to TER Comment 1, above.