

Docket No. 50-320

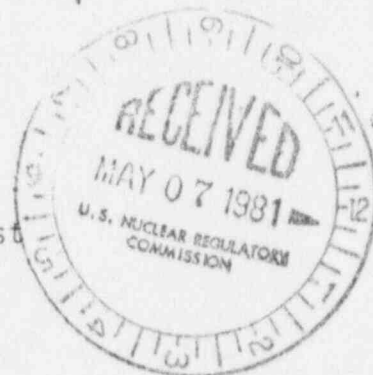
MAY 6 1981

Mr. R. C. Arnold  
Senior Vice President  
Metropolitan Edison Company  
100 Interpace Parkway  
Parsippany, NJ 07054

Dear Mr. Arnold:

Distribution:  
Docket 50-320  
NRC PDR & LPDR

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TMIS R/F  
TMIPO R/F  
LBarrett  
BJSnyder  
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LChandler, ELD  
MDuncan  
ACRS (16)  
DBrinkman  
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HRDenton  
IE (3)  
Service List  
RBrowning  
WTravers  
JFouchard



By letter (LL2-81-007) dated March 11, 1981, Metropolitan Edison Company forwarded the revised Technical Evaluation Report on the Submerged Demineralizer System for NRC review and approval to operate the system as an effective means of decontaminating the containment sump water and reactor coolant. That report left unanswered many issues basic to our review of your proposal. In order to expedite the NRC review of your proposal, the Three Mile Island Program Office staff promptly reviewed your submittal and provided a list of topics for discussion with Met-Ed regarding the SDS and its use. NRC subsequently arranged a meeting for a face-to-face discussion of the health and safety related SDS issues, in lieu of the time consuming process of sending you a formal list of questions which would require a formal response.

As you know, the SDS review meeting was held over a two day period on March 31 and April 1, 1981. The outcome of that meeting was a mutually agreed upon list of commitments for information required from the licensee to enable the staff to complete its safety review and take appropriate action on your proposal (Enclosure 1). NRC staff indicated at this meeting that this information was both necessary and sufficient for us to complete our review. By memorandum (LM2-81-0072) dated April 3 Met-Ed provided a firm schedule (Enclosure 2) for meeting each commitment. However by memorandum (LM2-81-0084) dated April 21, shortly after many of the items were due, Met-Ed forwarded a revised schedule (Enclosure 3) for submittal of the committed information, slipping the dates for 8 of the 23 items. Further, by memorandum (LM2-81-0091) dated April 30, 1981, Met-Ed provided a status (Enclosure 4) of the list of 23 commitments and again indicated additional slippage for your submittal from the dates provided in the April 21 memorandum.

As of May 6, 1981, only 10 of the 23 committed items (Items 3, 7, 11, 12, 13, 15, 16, 17, 21 and 23) have been submitted in final form for review and there

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POOR QUALITY PAGES

Mr. R. C. Arnold

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is little likelihood that even the latest schedule (see Enclosure 4) will be met for all items. I am particularly disappointed that the basic processing strategy originally due on April 24, has not, at this late date, been formally transmitted to us in spite of the fundamental nature of this information.

I am very concerned that, despite our best efforts to expedite the safety review of the SDS, Met-Ed is not supporting this review with high priority, as evidenced by continual slippages in transmitting information as agreed. Obviously, NRC approval will not be forthcoming until we have all required information from you, and we can be assured of the safety of this system. You should note in this regard that, in the NRC Statement of Policy of April 28, 1981 on the Final Programmatic Environmental Impact Statement (PEIS) on the cleanup at Three Mile Island, issued March 9, 1981, the Commission stated that Met-Ed "...should accelerate the pace of the cleanup to complete expeditiously all decontamination activities consistent with ensuring protection of public health and safety and the environment." Consistent with that policy the NRC's Three Mile Island Program Office has been staffed to act expeditiously on your proposals. Compliance with this Commission request will not be possible unless Met-Ed places the highest priority on supporting the staff safety review of the SDS.

The NRC staff has committed to finalizing its safety evaluation report on the SDS and taking action on your proposal promptly following receipt from you of all the required information, in complete and final form. Met-Ed should support this effort at its highest priority. I am convinced that expeditious cleanup is in the best interests of the public. Your company, in my view, is now on the critical path for cleanup of the containment building water.

I look forward to hearing from you.

Sincerely,

Harold R. Denton, Director  
Office of Nuclear Reactor Regulation

Enclosures:

1. Commitments from Licensee for  
SDS Safety Review
2. Memorandum dtd 4/3/81 (LM2-81-0072)  
G. Hovey to L. Barrett
3. Memorandum dtd 4/21/81 (LM2-81-0080)  
G. Hovey to L. Barrett
4. Memorandum dtd 4/30/81 (LM2-81-0091)  
G. Hovey to L. Barrett

cc: See Attached

OFFICE	TMIP0:NRR	D:NRR
NAME	BJSnnyder:cap	HDeaton
DATE	5/6/81	5/6/81

Mr. R. C. Arnold

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cc: Chairman Hendrie  
Commissioner Gilinsky  
Commissioner Bradford  
Commissioner Ahearne  
William J. Dircks  
Herman Dieckamp  
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## COMMITMENTS FROM LICENSEE

## FOR SDS SAFETY REVIEW

1. State bounding operational prerequisites, parameters, and limits considered to be important to safety. Provide master operational safety listing - the plan should provide information relating to changes that can not be made without prior NRC approval. This plan will be developed by licensee and define operational conditions or system changes that would require prior NRC approval.

2. Provide the following documentation:

- ~~No~~ fully updated system description
- ~~No~~ complete set of updated system drawing and P&ID's and arrangement drawings.

The system description should include information on the surface suction system and related information (i.e., pump design, capacity system testing and related interface information). Tank level indications should also be provided.

3. It was agreed that GPU/Met-Ed would keep flexibility in system operation i.e., how low to go with water level.

4. \*Provide the projected processing strategy plan for loading, changing out and waste management of each Ion exchange bed in SDS and EPICOR-II as presently planned for clean-up of sump and RCS water. This should include the generic criteria that is the basis for the projected operating plan and, in addition, the projected flow volumes, curie contents, and number of units for each liner stage in SDS and EPICOR-II for clean-up of sump and RCS water.

5. GPU/Met-Ed is to provide a process control program. This plan will contain information on sampling frequency and requirements, and sample analysis to be performed. It was agreed that the process control plan would be subject to change as experience was gained with system operation.

6. \*The licensee will provide estimates of the number of filters that will be generated during processing of the sump water. It was agreed that an estimate of total curies deposited on the filters and planned disposal methods would be provided. The estimate should include TRU loadings with the basis for the estimate justified. Also, describe filter dewatering technique. - combine with #2 above.

7. \*The licensee will provide written documentation for criticality concerns. The calculations will be based on actual geometry.



8. \*The licensee will provide additional discussion on alarms and emergency procedures. The SDD will include a list of all alarms, and control functions. (Part of #2 above)

9. \*Information will be provided by the licensee relating to water movements to different plant tanks (i.e., where flow will be directed to bleed tanks, monitoring tanks, and EPICOR-II). The NRC staff understands the need by the licensee to maintain flexibility during processing and realize that the criteria specifying where water would be sent may be dependent on experience gained thru system operation. (Part of #2 above).

10. \*The licensee will update airborne source term description to include dewatering operations and the use of processed water in the SFP. Provide analysis of the radiological consequences of placing processed water in the spent fuel pool to NRC. This submittal should include (and, perhaps, be based on data from previous storage of processed water in the pool.)

11. Informal test results of fines carry-over during dewatering test to NRC.

12. The licensee will provide drawings of the offgas separator.

13. \*The licensee will provide documentation for the center line temperature expected for a dewatered zeolite bed.

14. \*The licensee will provide documentation that will provide assurances that an explosive mixture will not be created; the form of the licensee response will either show that such a mixture will develop and summarize the consequences or provide an evaluation showing that such a mixture cannot develop.

15. \*Provide analysis of the potential consequences of water leakage to a dried, spent SDS vessel to NRC. Provide basis for assumptions.

16. Describe connection method for instrument tubing lines for tank farm instruments. Provide this description to NRC for information.

17. \*Document that the radionuclide loading of the cleanup demineralizer will be less than 1uCi/cc to permit burial in a shallow land burial facility in a dewatered state.

18. \*Provide the SDS radiation protection program to NRC. This program should address the following points (among others):

- a. Evaluation of worker health and safety.
- b. Instrument calibration program.
- c. Instrument locations.
- d. Training of HP personnel.

19. \*The licensee will provide information relating to man-rem exposure, internal and external, for each of the following SDS operations:

- ☐ sampling
- ☐ maintenance
- ☐ operations
- ☐ decommissioning of the SDS

20. Submit column testing results to NRC for information.

21. Document requirement of whether to change Technical Specifications to let-down from RCS to RCBT prior to RCS processing.

22. Provide to NRC a curie inventory tracking program as determined from the sampling program. (Combine in SDD).

\* Will be deleted