

Met-Ed GPU



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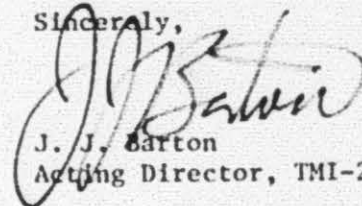
TMI Program Office
Attn: Mr. L. H. Barrett, Deputy Program Director
U. S. Nuclear Regulatory Commission
c/o Three Mile Island Nuclear Station
Middletown, Pennsylvania 17057

Dear Sir:

Three Mile Island Nuclear Station, Unit 2 (TMI-2)
Operating License No. DPR-73
Docket No. 50-320
Hot Chemistry Laboratory Design Criteria

Attached for your review are the responses to your comments on the Hot Chemistry Laboratory (HCL) Design Criteria forwarded to us on July 16, 1981 via NRC/TMI-81-040. The attachment lists your comment followed by our response to that comment. With the incorporation of this information, we request your approval of the HCL Design Criteria document.

Sincerely,



J. J. Barton
Acting Director, TMI-2

JJB:JJB:ch

Attachment

cc: Dr. B. J. Snyder, Program Director, TMI Program Office

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Sili L.H. Barrett*

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U.S. NUCLEAR
REGULATORY COMMISSION

1. Section 3.0 Scope - Comment

All applicable and pertinent sections in the referenced General Project Design Criteria document should be incorporated in specific HCL design criteria in order to prevent overlooking any specific design features or equipment requirements in implementation of the overall criteria.

Response

The HCL Design Criteria will be revised to include specific exceptions to the Project Design Criteria. All criteria not specifically excepted are in fact part of HCL design.

2. Section 4.4 Fire Protection - Comment

The HCL fire detection system should directly interface with the existing fire detection system in the main control room.

Response

As stated in section 4.3, an alarm activated by local fire detectors will be located in the control room. Section 4.4 will be revised to be consistent.

3. Section 4.5 Radioactive Drainage and Section 6.12 Liquid Waste Disposal Requirements - Comment

These sections should state that drain lines from the HCL shall be provided with adequate radiation shielding to minimize personnel exposure in those areas through which those drain lines pass enroute to the Unit 2 miscellaneous waste holdup tank. In addition, the criteria should state that other applicable ALARA design features for those drain lines per Regulatory Guide 8.8 shall be incorporated (i.e., avoid sharp bends, low point dead-legs, provide flushing connections, etc.).

Response

As referenced in 6.3.2.3, applicable parts of Regulatory Guide 8.8 will be incorporated in design of the facility. The means by which these requirements are incorporated are to be described in the facility Technical Evaluation Report.

4. Section 6.3 Codes, Standards and Regulatory Requirements - Comment

This section should state the criteria to implement the effluent release requirements per Appendix R of the PEIS and Section 2.1. "Radioactive Discharges" of the Appendix B Technical Specifications of Operating License DPR-73. Additionally, consideration should be given to the criteria in Regulatory Guide 8.10 and Standard Review Plans (SRP chapters 3, 11, 12, 16, and 17).

Response

The following parenthetical expression will be added to section 6.3.1.2: (...as specified in Appendix R of the NRC final PEIS, NUREG-0683, and section 2.1 "Radioactive Discharges" of the Appendix B Technical Specifications of Operating License DPR-73).

Regulatory Guide 8.10 and the referenced standard review plans will not impact the facility design and are not appropriate in this criteria. The guidelines which are contained in these documents which pertain to operations and radiological safety programs, will be addressed in the facility Technical Evaluation Report.

5. Section 6.9 HVAC Requirements - Comment

- (a) Criteria should be established for assurance of adequate exhaust air flow from collection hoods and glove boxes. Items to take into consideration should include minimum hood face velocities, negative pressure in glove boxes and alarms if the pressure differentials are not maintained.
- (b) Positive commitments should be made to provide and test HEPA and charcoal exhaust filters. These commitments will become technical specification requirements during HCL operation.
- (c) Airborne effluents radiation monitoring criteria should be specified. The radiation monitoring requirements for effluents together with alarm and isolation functions should be established to assure that Appendix R requirements of the PEIS can be satisfied.

Response

Comment 5A Section 6.9

Appropriate design criteria for hood design and instrumentation are not available in the detail requested in the comment. Hood design specific details will be summarized in the facility Technical Evaluation Report.

Comment 5B Section 6.9

Commitments on exhaust filters cannot be made at this time. These issues are to be addressed in the Technical Evaluation Report.

Comment 5C Section 6.9

As stated in the HCL criteria document, airborne effluent radiation monitors will be included in the design as appropriate, however, detailed design is not available at this time. This information will be provided in the facility Technical Evaluation Report.

6. Section 6.1.6.3 Radiation Monitoring Devices - Comment

- (a) The lower limit of detection requirements should be specified for the area radiation monitors and the continuous airborne contamination monitors.

Response

The detailed information requested by this comment is not available at this time. Detection limits will be provided in the facility Technical Evaluation Report.

7. Comment

Based on previous discussions with your staff, additional design analysis/criteria are needed to bound the effects of the HCL on the connecting seismic structures. We believe these analysis are important, especially the load impact on the existing Emergency Steam Generator Feedwater Pump area structure. These analyses (with any change to the proposed design criteria) should be completed in order that the staff can complete their reviews.

Response

As stated in Section 7.5 of the TMI-2 Recovery Facilities Civil/Structural Design Criteria (13587-2-C01-100), structures located adjacent to safety related systems, structures, and equipment (Feedwater Pump Area Structure) will be checked to ensure that they do not collapse or experience excessive deformation to the extent that they will cause loss of safety function of the adjacent safety-related systems, structures or equipment when subjected to a safe shutdown earthquake (SSE).

In accordance with the above criteria, a conservative seismic analysis has been performed and calculated seismic loadings have been determined to be acceptable. These results will be documented in the facility Technical Evaluation Report.

8. Comment

Considering the Hot Chemistry Laboratory will eventually house the Unit 2 Nuclear Sample Station, and provide the backup laboratory facilities for Unit 1 during emergency conditions, provide your basis for not routing the HCL airborne effluents through the auxiliary building and/or the stack release point.

Response

The facility is not presently intended to house the Unit II Nuclear Sample Station and is not associated with Unit I. If these items become design bases for the facility, the HCL Design Criteria will be revised accordingly.