Docket 70-1257
License SNM-1227

JUN 4 1993

Mr. L. J. Maas, Manager
Regulatory Compliance
Siemens Power Corporation
2101 Horn Rapids Road
Richland, Washington 99352-0130

Dear Mr. Maas:

SUBJECT: MODIFICATIONS TO GADOLINIA SCRAP RECOVERY PROCESS IN ELO BUILDING (TAC NO: L30506)

This is in response to your letter dated January 18, 1993, requesting a license amendment to include modifications to the Gadolinia Scrap Recovery (GSUR) process in the basement of the ELO Building. Our review of the amendment application has identified additional information that is needed before final action can be taken on your request. Several of the review comments were discussed in a telephone conference on April 27, 1993, with Jim Edgar of your staff; and some of the information was provided informally at a meeting with Mr. Edgar on May 19, 1993. The enclosure includes the comments that were discussed at that meeting and some additional comments. The response to this request should include formal responses to the issues discussed at the meeting, as well as to the additional comments.

The additional information, specified in the enclosure, should be provided in the form of a revised amendment application, within 45 days of the date of this letter. Please reference the above TAC No. in future correspondence related to this request.

If you have any questions, please call me at 301-504-2590 or Mary Adams of my staff at (301) 504-2505.

Sincerely,
Original Signed By
Michael Tokar, Section Leader
Licensing Section 2
Licensing Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS

Enclosure: As stated

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Request for Additional Information
Application Dated January 18, 1993
Siemens Power Corporation
Docket 70-1257

Please provide the following information:

1. The amendment request does not include changes to Part I, License Conditions, of the license. However, Table I-1.1 should be amended to explicitly authorize scrap recycling and reprocessing in the ELO Building.

2. Your request states that the modifications do not allow airflow from the first floor to the basement. However, Figure II-10.26 shows airflow from the raffinate tank room (tops of the raffinate tanks) on the first floor to the POG scrubber room in the basement. The first floor raffinate tank room should be supplied with air from the basement.

3. Figure 1, Planned GSUR Layout, indicates two raffinate tanks at 200 gallons each. However, your request states that the new raffinate storage includes eight tanks. Figure 1 should be corrected to indicate the correct number and capacity of the raffinate tanks.

4. The Safety Demonstration should identify and describe the new steel tanks and pumps that are replacing the existing pumps and polypropylene tanks.

5. According to Figure II-10.26 (Simplified Schematic HVAC System - ELO Building Expansion), part of the airflow exhaust from the new powder screening station in Room 52 goes through an existing HEPA filter to the K-46 system and part through the new DOG scrubber and dryer to the K-56 POG system. Clarify whether the pellet dissolver hood, containing the new powder screening station, is served by the existing HEPA filter system and K-46 or the new DOG scrubber and dryer system and K-56.

6. The Safety Demonstration should describe how the vacuum cleaner system in the powder screening station is vented.

7. Figure II-10.26 should clearly indicate which new scrubber is the "mystair" and which is the "dissolver offgas" scrubber. It appears that the DOG scrubber serves the solvent extraction, pellet dissolver, and mop powder processing units; and the POG "mystair" scrubber is in line just before the K-56 POG system and serves the DOG scrubber and the raffinate tanks.

8. A vertical line in the right margin of Section 10.3.8.5 indicates that this text is a new section describing the deluge system. However, Figure II-10.26 does not show a deluge system in the K-56 POG system. This section should clarify that only the K-46 system has a deluge unit.

9. Section 10.3.8.6 should specify that it refers to the K-46 or the K-56 system, or both. Figure II-10.26 indicates that the K-46 system also has a HEPA filter bank, but Section 10.3.8.6 does not describe the HEPA bank in K-46. A section describing the K-46 HEPA filters should be added.

10. Figure 2, GSUR offgas diagram, indicates that 950 cfm from the "uranium recovery process" is not routed through the DOG scrubber, but goes directly to the POG scrubber. However, Figure II-10.26 indicates that some of the airflow from the solvent extraction process, which the reviewer assumes to be the same as the uranium recovery process, is directed through the DOG scrubber. The figures should be corrected to clarify whether or not these offgases pass through the DOG scrubber.

11. The letter, text, and diagrams appear to use the terms "dryer" and "heater" interchangeably for the units that remove moisture from the air stream between the scrubber and HEPA filters. They should use consistent terminology to avoid confusion between the system descriptions and the diagrams.

12. The request indicates that stack discharges will more readily meet internal and State regulations and that liquid effluent will be minimized. The Safety Demonstration should provide estimates of the reductions in NO_x emissions and liquid effluents produced by the system modifications and should estimate the volume of scrubber liquid that will be generated in the new K-56 system and reduced in the existing K-46 system.

13. The raffinate storage will increase from 40 to 400 gallons, a 10-fold increase in capacity. The amendment request should include a chemical safety analysis to describe any additional safety precautions that are needed to routinely handle this increased amount of raffinate. The chemical safety analysis should indicate whether the probability or severity of a chemical accident is increased, and, if so, what additional measures will be necessary to mitigate such accidents.

14. The amendment request should describe the practices that will be used to ensure criticality safety and include a criticality safety analysis of the modifications, particularly of the new raffinate storage tanks, new mixer/settler, new drum staging area, and Tank-1 hood expansion.