

August 1, 1983

Note to: Harley Silver
Project Manager, TMI-1 (Steam Generator Repair)

From: Mary Wagner, OELD

SUBJECT: TMI SAFETY EVALUATION -- STEAM GENERATOR TUBE REPAIR
AND RETURN TO OPERATION

Mack Cutchin and I have reviewed the above package. Comments are as follows:

1. DL OP 228 states that public and state comments on the proposed NSHC determination will be discussed and disposed of in the SER. Since comments are not discussed here, but will be done in a separate SER, we should explain that in this SER.

2. On p. 30 of draft (page 21 of present version) - NRR failed to address several comments that are important to provide a basis for its noted assertions, i.e.:

- a. What is smallest crack size that is detectable by ECT?
- b. What is smallest crack size that will propagate under the mechanical cyclic stresses (why not other stresses too) that are calculated to occur?
- c. What conditions might cause tube failures?
- d. What crack size would result in 1 gpm leakage?
- e. What is maximum crack size that will remain stable during a MSLB (or what is threshold crack size that would fail)?

The SER provides no facts to support its bald assertions. How can a reader evaluate whether to challenge these assertions? Without such information the document is legally insufficient to provide notice.

3. The discussion of plugging and stabilization criteria (p. 24 et seq.) is unintelligible to any reader without either a good knowledge of the OTSG or a figure to follow. Without a figure the document is legally insufficient. In addition, the nomenclature is garbled - e.g., US + 4 and LS4 rather than LS + 4. All of this should be better explained so that a lay reader can follow if not understand it.

4. Statements re SO4 concentrations in coolant following cleanup appear inconsistent. (p.26).

5. The discussion of sulfur clean (pp. 26-9) speaks in future tense. Until done how can Staff conclude contaminants will be removed to an acceptable extent (p. 29- conclusions). Staff has not provided here a very firm basis for no additional corrosion of the type experienced. Why does not this uncertainty create the possibility of a new or

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different SG tube accident (one involving multiple tube failures due to corrosion) from any previously evaluated and thus involve a SHC? This concern appears to be supported by Staff's conditioning the license to require tests and rapid notice.

6. Section 4.2.1, LOCA Evaluation, (pp. 35-6), says "guidelines of 10 CFR 50, Appendix were followed." Were all analyses done using a Staff approved Appendix K model? If not, an exemption from the regulations is necessary. This point must be made clear in SER or document is legally insufficient.

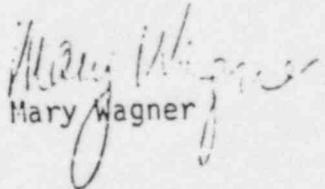
7. Has the information on LOFW (p.37) now been documented by licensee. It had not been at the time of the last draft. (p. 54 of draft). If not, you may not rely on it for your safety conclusion. If it has been documented, provide the reference to the documentation.

8. Your conclusions on LOCA and LOFW (pp. 36 and 37) only address two of the three prongs of the NSHC test. What can be concluded about the third? (Also see Comment #5, above.)

9. On p. 39 and elsewhere you use words such as "the licensee states" or "the licensee has stated." As noted in Comment #7 above, undocumented statements of the licensee cannot be relied on to support your conclusions. Obtain documentation for all such "statements" and reference them in the SER.

10. Why are you providing information on beyond DBA events? It merely provides fodder for wasting hearing time and should be deleted. (See p.39).

Also note remarks on clipped pages of the package.


Mary Wagner

cc: J. Scinto
J. Gray
J. Cutcnin