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OFFICE OF SECRETARY
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Thomas M. Roberts, Commissioner
James K. Asselstine, Commissioner
Frederick M. Bernthal, Commissioner
Lando W. Zech, Commissioner
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Gentlemen:

Three Mile Island Nuclear Station Unit 1 (TMI-1)
Operating License No. DPR-50
Docket No. 50-2890-A
Steam Generator Tube Rupture Analysis

This letter is in response to your request during the public meeting of April 18, 1985, to provide an estimate of the time required to perform an augmented TMI-1 steam generator tube rupture analysis.

As requested, we contacted the Union of Concerned Scientists (UCS) to obtain their view of analysis assumptions as the basis for performing such calculations. These assumptions are shown on the attachment. UCS indicated to us that the intent of their description was to define the analysis currently required by the Staff for an operating license applicant. The UCS analysis assumptions are not, however, consistent with those published by the Staff and used for recently issued operating licenses. To our knowledge, no U.S. nuclear plant has ever been analyzed to the UCS proposed assumptions. We are, therefore, unable to provide any meaningful estimate of the time to conduct the analysis proposed by UCS because of the lack of precedent and uncertainty which such pioneering analysis would entail. Furthermore, such assumptions are so unrealistic, requiring for example simultaneous loss of off-site power and unavailability or loss of both diesels, that we believe any results would be of little, if any, use regarding TMI-1 or other plants.

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PDR ADOCK 05000289
P PDR

A B&W report (Document #74-1149184-03, dated March 1985) sponsored by B&W operating plant owners has been recently submitted to the Staff. This report reflects steam generator tube rupture generic analyses covering all B&W operating plants and includes the loss of off-site power. The TMI-1 tube rupture procedures are consistent with this report and were developed to satisfy 10CFR Part 100 limits. This report provides a basis for assessing TMI-1, and it is suggested any additional analysis be approached only after Staff review.

However, if a TMI-1 specific analysis were to be performed, (in accordance with NRC Standard Review Plan, paragraph 15.6.3 - NUREG 0800, Rev 2), approximately four to six months would be required.

I recognize that at the April 18 meeting, you had not had the opportunity to review my letter to the Commission (dated April 18, 1985, reference 5211-85-1077) responding to the April 5 UCS letter, nor the accompanying letter from the Licensee's Counsel to the Commission. We believe that these documents show there is a sound basis underlying current TMI 1 steam generator tube rupture procedures. I also believe they show that to the extent the UCS allegations are considered it should be separate and apart from the restart proceeding.

In reviewing the transcript of the April 18 meeting, I believe it would be helpful to reinforce a significant point. Underlying many of the intervenor allegations on this matter is the presumption that the unplugged tubes in the TMI-1 steam generators are somehow less structurally capable than tubes in other steam generators. In fact, the tube material in TMI-1 has been confirmed by tests to be equivalent to new as-installed material (Reference TR 008). These tests were performed on tubes removed from the TMI-1 steam generators after the sulfur attack was discovered. The tubes can withstand design basis loads with the same margins as other similar steam generators.

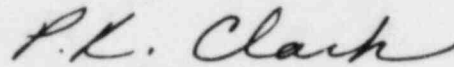
I would also like to confirm reasons why we adopted revised tube rupture procedural guidance for the plant. I am aware of the UCS letter of April 18 which quotes from an internal GPUN report dated December, 1983. Our assessment is perhaps best captured in the transcript of the meeting on Page 109 in which Commissioner Bernthal asked "Suppose that the steam generators were in crisp, new condition, would you go to this procedure anyway?" I replied, "Yes sir, absolutely". I wish to reiterate that position again. We believe the current procedural guidance at TMI is the best we can put in place and would use the

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same procedural guidance for a new plant. This procedural guidance is the culmination of work started in the 1979, 1980 time frame, initiated by NUREG 0578 (July 1979) which provided the following direction: "...Analyses, procedures, and training addressing the following are required: (1) Small break loss-of-coolant accidents; (2) Inadequate core cooling; and (3) Transients and accidents."... and was further discussed in NUREG 0565 (January 1980).

In summary, we believe the TMI-1 steam generators are suitable for operation in every respect.

Very truly yours,



P. R. Clark
President

PRC/RFW/al
ATT

cc: R. Conte
T. Murley
J. Stolz
TMI-1 Service List

ATTACHMENT

The following list is the Union of Concerned Scientists' assumptions to be used when performing a Steam Generator Tube Failure Analysis:*

1. Assume plant operation in accordance with Technical Specification, i.e., some safety equipment inoperable (assume the worst Technical Specification condition exists with respect to systems availability)
2. Tube rupture accident occurs
3. Assume loss of off-site electrical power
4. Assume single failure
5. Evaluate whether core damage and off-site radiation doses within regulatory limits relying only on remaining safety grade equipment

*Reference: a. Union of Concerned Scientists' response to NRC Staff comments on degraded steam generators at TMI Unit 1, April 18, 1985

b. Phone conversations between T. Baxter (Licensee Counsel) and UCS General Counsel E. Weiss, April 23, 1985

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