



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION I  
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*H. Capton*

September 8, 1983

MEMORANDUM FOR: Darrell G. Eisenhut, Director, Division of Licensing,  
Office of Nuclear Reactor Regulation

FROM: Thomas E. Murley, Regional Administrator, Region I

SUBJECT: REGION I COMMENTS ON SUPPLEMENT NO. 4 TO NUREG-0680,  
"TMI-1 RESTART" (YOUR MEMORANDUM DATED AUGUST 31, 1983)

Enclosed per your request are the comments of the Region I staff who assisted NRR in the evaluation of the impact of the RHR and BETA reports on matters related to TMI-1 restart, i.e., Supplement No. 4 to NUREG-0680. It has been my understanding since undertaking this effort, that the Division of Human Factors Safety, NRR, was the office responsible for the preparation of the NUREG Supplement. Accordingly, regional management has not conducted an overview of this effort or its documentation.

However, based upon representations of Region I team members that the draft transmitted to me by your August 31, 1983 memorandum accurately reflects the team's effort, I concur that the Supplement should be released for publication. In this regard, I am informed that OI is presently conducting an investigation relative to the RHR and BETA reports and recommend you coordinate the release of this NUREG with that office.

*Thomas E. Murley*

Thomas E. Murley  
Regional Administrator

Enclosure:  
As Stated

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The results of the team evaluation of the RHR and BETA reports are presented in Sections 3, 4, and 5 of this Supplement. The team's evaluation of the impact of the RHR and BETA reports on the Partial Initial Decisions of the Licensing Board is presented in Section 6. An evaluation of the effect of the INPO draft findings is included in Section 7.

The evaluation team took a very broad view of the RHR and BETA reports to determine whether they contained information of safety or regulatory interest. The possible safety or regulatory issues identified by the team are those which the team perceived could be raised by a disinterested person after a review of the reports. In spite of this broad view, which considered issues not within the purview of NRC, the team could identify no information which raised significant safety or regulatory concern. In those instances where some concern appeared warranted, the team's independent evaluation of the issue resulted in a finding that there were no significant problems which would be a bar to TMI-1 restart. Similarly, the team found no instance where the contents of the RHR and BETA reports, when evaluated in light of their goals, would adversely affect the findings of the Licensing Board in its Partial Initial Decisions regarding TMI-1 restart. Finally, the team's review of the draft INPO findings resulted in confirmation of the noted deficiencies as measured against the "standard of excellence" used by INPO. However, in no case did the team conclude that the INPO findings raised issues of regulatory or safety concern that would be a bar to TMI-1 restart.

The team concludes that the RHR and BETA reports do not contain information of significant safety or regulatory interest, nor do they contain information which adversely affects <sup>the staff's position upon which</sup> the Partial Initial Decisions of the Licensing Board, <sup>relied upon.</sup> Further, the team concludes that the draft INPO report does not contain adverse information that indicates non-conformance with NRC safety or regulatory requirements. Thus, the team concludes that nothing in these reports raises issues which would be a bar to TMI-1 restart.

Note: The staff conclusions in section 6 should be reconstructed using similar wording.

increased operator turnover and the resulting lack of qualified operators. No regulatory issues were identified in any of the areas reviewed. <sup>S</sup>  
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#### 3.2.1.4 GPUN Response

GPUN has issued an action plan (May 25, 1983) to follow-up on the recommended RHR actions, which we reviewed. The GPUN action plan addressed all the RHR recommendations applicable to operator morale and attitude agreeing to a majority of the recommended actions, further evaluating the remainder, and rejecting none. The planned actions include providing additional career path opportunities, upgrading the pay differential for licensed status, and disseminating information on free personal problem services. Although there is no regulatory basis for evaluating the GPUN response, we reviewed the GPUN planned actions and concluded that they are reasonable and appropriate.

#### 3.2.1.5 Staff Evaluation and Conclusion

We examined the operator turnover rate in order to gain an insight into any staffing problem; examined the existing operator staff level against regulatory requirements; observed shift operations and interviewed operators in order to develop a perception of operator morale and attitudes; and observed actual work conditions to gain a perception of whether or not operators took pride in the performance of their work. No regulatory issues were identified in any of the areas reviewed.

To determine whether or not operator job attitudes, although seemingly reflecting good morale, could have affected operator turnover, we reviewed the turnover rate and number of licensed operators at TMI-1. The TMI-1 shift assignment sheet dated June 3, 1983 showed 12 Senior Reactor Operators (SROs) and 20 Reactor Operators (ROs) to be on a six-shift rotation. The TMI-1 Technical Specifications require, at most (depending on plant conditions), two SROs and two ROs per shift. Accordingly, TMI-1 has sufficient numbers of licensed operators for all conditions. Review of the licensed operators who have left the company showed that between January 1982 and May 1983, only one RO left GPUN. In addition, during this period one SRO transferred to TMI-2 and one RO

#### 7.1.1.2 Issue

We consider the issue to be whether vendor information is being adequately reviewed for applicability to safety-related equipment and used where applicable to preclude any adverse impact upon the safety-related equipment.

#### 7.1.1.3 Evaluation

The reviewers interviewed members of management and the Technical Functions Division regarding the finding. GPUN's proposed response to this issue is that the TMI-1 Manager, Operations and Maintenance, has directed and provided the Technical Functions Division with a prioritized list of approximately sixty (60) technical manuals to be reviewed in detail. Also to be developed is a TMI-1 Technical Manual List which will indicate to the user those technical manuals which have received an adequate technical review and are designated as "controlled copy." This list is to be reviewed and updated quarterly.

#### ~~7.1.1.4 Staff Conclusions~~

*GPUN actions to insure that the technical manuals are adequately reviewed and controlled are underway.*

~~GPUN action insuring that technical manuals are controlled and had received an adequate technical review is underway.~~ The review of the sixty (60) technical manuals was started in July 1982 and is scheduled for completion by December of 1983. ~~Action taken by GPUN in addressing this issue is adequate. The ongoing NRC inspection program will assure that.~~

~~1. The licensee's program is completed as scheduled; and~~

~~2. The program implementation is adequate to accomplish its stated intent.~~

— Add a new paragraph —

#### 7.11.4 Staff Conclusion

Based on the above evaluation the staff concludes:

- (1) GPUN has taken the required actions to insure that the vendor manuals are carefully reviewed and properly controlled.
- (2) GPUN's schedule for the completion of the required action is appropriate and timely.
- (3) When completed, the GPUN actions should provide a means for prompt review and processing of vendor information as it applies to safety related equipment.

- Future NRC inspections will assure that:
  1. The licensee's program is completed, and
  2. The program implementation is adequate to accomplish its stated intent.

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sent to Region I

The remaining two INPO findings relate to laboratory housekeeping and work habits (Findings CY.4-1 and CY.5-1). NRC followup inspection found that although work areas were small and congested, housekeeping practices were acceptable. Dust appeared to be a problem, however, and more frequent filter replacement will be required. Relative to laboratory work habits, which involved eating, drinking and smoking in proximity to hazardous chemicals, NRC inspection determined that this was probably due to the small work space allotted to the chemistry group. The Licensee has plans to enlarge the work area which should alleviate the latter two concerns.

A comprehensive inspection in this area is planned to be conducted prior to TMI-1 restart authorization.

#### 7.7.4 Staff Conclusion

The chemistry program at TMI-1 is under continual review by on-site NRC Radiation Specialists and Resident Inspectors to determine compliance with NRC regulations. While violations of these regulations are identified at times, the Licensee's corrective actions are usually prompt and effective, thereby maintaining a program which meets NRC requirements.