UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SEP 1 3 1979

(TO ALL OPERATING NUCLEAR POWER PLANTS)

Gentlemen:

SUBJECT: FOLLOWUP ACTIONS RESULTING FROM THE NRC STAFF REVIEWS REGARDING THE THREE MILE ISLAND UNIT 2 ACCIDENT

Over the past several months following the Three Mile Island accident, the NRC staff has been conducting an intensive review of the design and operational aspects of nuclear power plants and the emergency procedures for coping with potential accidents. The purpose of these efforts was to identify measures that should be taken in the short-term to reduce the likelihood of such accidents and to improve the emergency preparedness in responding to such events. To carry out this review, efforts within NRR were established in four areas: (a) licensee emergency preparedness, (b) operator licensing, (c) bulletins and orders followup (primarily in the areas of auxiliary feedwater systems reliability; loss of feedwater and small break loss-of-coolant accident analysis; emergency operating guidelines and procedures) and (d) Short-Term Lessons Learned.

It is the purpose of this letter to set forth NRR's requirements established to date as a result of these efforts. Additional requirements may be developed as NRR's Lessons Learned Task Force completes its Long-Term Requirements. In addition, Commission review of the results of other investigations, including the Presidential Commission and the NRC's Special Inquiry Group, can be expected to lead to additional requirements.

Lessons Learned Task Force Report

The principal element of the staff activities listed above is contained in the report titled, "TMI-2 Lessons Learned Task Force Status Report and Short-Term Recommendations" (NUREG-0578), a copy of which was previously sent to you. The Task Force report contains a set of recommendations to be implemented in two stages over the next 16 months on operating plants. The Task Force recommended 20 licensing requirements and three rulemaking matters in 12 broad areas.

The Advisory Committee on Reactor Safeguards has completed its review of the Task Force report. The several public meetings of the ACRS subcommittee on TMI-2 and the public meeting of the full committee

on August 9 provided an opportunity for the presentation and discussion of public comments on the report. The ACRS letter of August 13, 1979 to Chairman Hendrie states that the Committee agrees with the intent and substance of all the Task Force recommendations, except four upon which the Committee offered constructive comments to achieve the same objectives art ulated by the Task Force. The Committee also noted that effective .mplementation will require a more flexible, perhaps extended, schedule than proposed by the Task Force. A copy of the ACRS letter is provided as Enclosure 1.

After considering all comments received, we have concluded that the following actions are appropriate for operating nuclear power plants.

(a) The staff will be proposing a new rule on a Limiting Condition of Operation to require plant shutdown for certain human or procedural errors, particularly those which are repetitive in nature. As such, no action is required on your part at this time.

(b) At the present time we are delaying efforts regarding proposed rulemaking on both the inerting requirements for Mark I and II BWR containments, and the requirement regarding hydrogen recombiner capability; accordingly, no action is required on your part at this time.

(c) The ACRS comments on the shift technical advisor have resulted in our reassessment of the possible means of achieving the two functions which the Task Force intended to provide by this requirement. The two functions are accident assessment and operating experience assessment by people onsite with engineering competence and certain other characteristics. We have concluded that the shift technical advisor concept is the preferable short-term method of supplying these functions. We have also concluded that some flexibility in implementation may yield the desired results if there is management innovation by individual licensees. We have prepared a statement of functional characteristics for the shift technical advisor that will be used by the staff in the review of any alternatives proposed by licensees. A copy is provided as Enclosure 2.

(d) Three additional instrumentation requirements for short-term action were developed during the ACRS review of NUREG-0578. These items relate to containment pressure, containment water

level and containment hydrogen monitors designed to follow the course of an accident. Descriptions of these items are provided in Enclosure 3.

(e) An additional requirement following issuance of NUREG-0578, which concerned a remotely operable high point vent for gas from the reactor coolant system, was developed. A description of this requirement is provided in Enclosure 4.

(f) The Lessons Learned Task Force has compiled a set of errata and clarifying comments for NUREG-0578. It is provided as Enclosure 5.

Following our review of each of the proposed Task Force requirements, ACRS review, and comments received we have concluded that all operating reactor licensees should begin to implement the actions contained in NUREG-0578, as modified and/or supplemented by items (a) through (f) above, as soon as possible. Accordingly, please submit within 30 days of receipt of this letter, your commitment to meet these requirements on the implementation schedule contained in Enclosure 6. The implementation dates for the Commission rulemaking actions and those deferred actions, identified above, will be established later.

Regarding implementation of these topics for Systematic Evaluation Program (SEP) plants that are part of the SEP, we have determined that implementation of these topics should not, in general, wait for final resolution of the SEP. For good cause shown, such as interaction with an SEP topic resolution, implementation delay may be justifiable on a selected issue.

Other Review Areas

Enclosure 7 outlines the requirements developed to date resulting from the staff's Emergency Preparedness Studies. Enclosure 8 provides the implementation schedules for the emergency preparedness requirements which, you will note, includes three of the Lessons Learned Topics. We also require that you provide commitments to comply with each of the requirements of Enclosure 7 in accordance with the implementation schedules shown in Enclosure 8. Such commitments should be included in your letter due in 30 days of receipt of this letter. Further, the Commission has initiated a rulemaking procedure, now scheduled for completion in January 1980 in the area of Emergency Planning and Preparedness. Additional requirements are to be expected when rulemaking is completed and some modifications to the emergency preparedness requirements contained in this letter may be necessary.

Enclosure 9 outlines the staff recommendations concerning improvements in the area of operator training and are provided for your information. These recommendations are undergoing Commission review, and are expected to be adopted as requirements in the near future. Further Commission review in the areas of operator training and qualification can be expected to result in substantial additional requirements.

A number of other related actions on your facility have been underway for some time under the direction of the NRR Bulletins and Orders Task Group. Each licensee will receive additional guidance from this group, particularly related to auxiliary feedwater systems and small break LOCAs, in the near future. Your activities should continue in these areas, as all the mentioned activities are meant to complement one another.

The measures discussed above represent a set of requirements that should be implemented at this time. As stated earlier, other requirements may follow in the future. To assist in explaining in more detail each of these requirements, the NRC will hold regional meetings during the week of September 24, 1979, similar to those held for Emergency Preparedness. Attached as Enclosure 10 is a copy of the Federal Register Notice announcing such meetings.

If you have any questions regarding these actions, please contact the NRC Project Manager for your facility.

Sincerely,

Darrell G. Eisenhut, Acting Director
Division of Operating Reactors

Enclosures:
1. ACRS Ltr: Carbon to Hendrie dtd 8/31/79
2. Alternatives to Shift Technical Advisor
3. Instrumentation to Monitor Containment Conditions
4. Installation of Remotely Operated High Point Vents in the Reactor Coolant System
5. NUREG-0578 Errata
6. Implementation Schedule
7. Requirements for Improving Emergency Preparedness
8. Emergency Preparedness Improvements - Implementation Schedule
9. Improvements in Operator Training
10. Federal Register Notice