



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555-0001

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February 4, 1994

MEMORANDUM FOR: The Chairman
Commissioner Rogers
Commissioner Remick
Commissioner de Planque

FROM: James M. Taylor
Executive Director for Operations

SUBJECT: QUARTERLY UPDATES OF THE THERMO-LAG ACTION PLAN AND
FIRE PROTECTION TASK ACTION PLAN

The fifth quarterly update of the Thermo-Lag Action Plan is provided as Enclosure 1. The second quarterly update of the Fire Protection Task Action Plan (FP-TAP) is provided as Enclosure 2.

Thermo-Lag Action Plan

During the past quarter, the U.S. Nuclear Regulatory Commission (NRC) staff continued its review of the industry Thermo-Lag test program proposed by the Nuclear Management and Resources Council (NUMARC). The staff witnessed Phase 1 fire endurance tests, met with NUMARC to discuss the results of Phase 1 tests and plans for Phase 2 tests, audited construction of Phase 2 test specimens, initiated periodic senior management meetings with NUMARC, and met with the Advisory Committee on Reactor Safeguards (ACRS) to review the technical differences between the NRC staff and NUMARC on fire test methodology. ACRS played an important role in the NUMARC decision to install thermocouples in accordance with NRC staff recommendations. Questions about the plant-specific applicability of NUMARC test results are still under review.

During the previous quarter, the NRC staff also briefed the Commission on the status of the actions to resolve the Thermo-Lag fire barrier issues. At the briefing, the Commission expressed concern that industry efforts to resolve technical issues through a test program may not lead to timely resolution of the issues. In response to this concern, the staff reassessed its plan for resolving the technical issues. The reassessment led to a number of actions outlined in the memorandum of November 19, 1993, from T. Murley, Director, Office of Nuclear Reactor Regulation (NRR), to J. Taylor, Executive Director for Operations. These actions are: hold monthly senior management meetings with NUMARC, send a request for additional information (RAI) pursuant to 10 CFR 50.54(f) to those licensees that use Thermo-Lag fire barriers and are awaiting the results of the NUMARC test program, and continue to monitor closely the NUMARC program. The staff has included these actions in the Thermo-Lag Action Plan.

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The staff held the first monthly senior management meeting with NUMARC for resolving the fire protection issues on December 21, 1993. Also in December, the staff issued the request for additional information (RAI) to each licensee awaiting the results of the NUMARC program. The RAI requires information on the configurations and the amounts of Thermo-Lag installed in the plant, how the NUMARC test results will be applied, how configurations particular to the plant will be addressed, what alternatives are available for configurations that may not demonstrate satisfactory performance by test or cannot be upgraded, and plans and schedules for resolving the technical issues identified in Generic Letter (GL) 92-08. Licensees are required to respond within 45 days of the date of the letter. The staff expects to complete its review and evaluation of the data and information submitted in response to the RAI within 60 days of receipt of the licensee responses. The staff will then reassess the Thermo-Lag Action Plan and will consider all practical alternatives that originate from the licensee responses and this reassessment. This action was discussed in detail in SECY-93-362, December 30, 1993.

The staff also (1) resolved the public comments received in response to its proposed position on fire endurance test acceptance criteria, (2) finalized the staff position, which will be issued with GL 86-10, Supplement 1 during the next quarter following current CRGR review, (3) surveyed the fire protection requirements at foreign reactors, (4) briefed Congressional staff on the status of the Thermo-Lag issues, and (5) conducted full-scale fire endurance and ampacity derating tests at Underwriters Laboratories, Inc. The staff plans to issue the results of these tests during the first quarter of 1994 in an information notice.

During the briefing on October 29, 1993, the staff informed the Commission that several factors had delayed the overall completion schedule of May 1995. The NRR staff has revised the schedule as documented in the memorandum of November 19, 1993, from T. Murley, to J. Taylor: NRR target schedule to resolve concerns with Thermo-Lag fire barriers or to propose alternative fire protection measures to be implemented to bring the plants into compliance with existing NRC fire protection requirements is March 31, 1994; licensees should start plant modifications during refueling outages after March 1994, with the expectation that barriers will be upgraded by March 1996. Assuming that the NRC initiates fire barrier inspection at the plants after the licensees declare the barriers operable and that the inspections are conducted as each plant completes its barrier upgrades, the inspections could start as early as Fall 1994 and be completed by 1996. Therefore, the revised overall completion schedule is December 1996. The staff reflected this revised schedule in Part III of the Thermo-Lag Action Plan.

The staff will conduct a series of inspections at a sampling of plants to assess licensee efforts to resolve the fire barrier issues. The results of these inspections would be used to determine whether or not each reactor unit should be inspected. This revised inspection approach could shorten the completion schedule without impairing plant safety.

Fire Protection task Action Plan

During the last quarter the staff continued to review the adequacy of fire barriers other than Thermo-Lag and completed the small-scale fire tests of these fire barrier materials at the National Institute of Standards and Technology (NIST). The staff also (1) reviewed the results of a survey conducted by Brookhaven National Laboratory to identify the reactor that use total or partial electrical shutdown to deal with fires; (2) participated in meetings with NUMARC to discuss performance-based fire protection requirements; (3) disseminated the results of a survey of current information management systems in the Office of Nuclear Reactor Regulation to the staff; and (4) drafted Office Letter 116, which provides staff guidance for implementing new requirements.

The staff revised the FP-TAP to add new tasks and to reflect schedule changes. These revisions have not delayed the overall completion schedule or increased the resource estimates.

The Gantt chart, attached to each action plan, shows the status of each task.

The staff will continue to provide quarterly updates to the Commission. The next quarterly update will include an updated Thermo-Lag Action Plan and FP-TAP. In the interim, the staff will inform the Commission of any significant findings or obstacles to the timely completion of the described actions.

Original signed by
James M. Taylor

James M. Taylor
Executive Director
for Operations

Enclosures:

1. Thermo-Lag Action Plan, January 14, 1994
2. Fire Protection Task Action Plan, January 14, 1994

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