

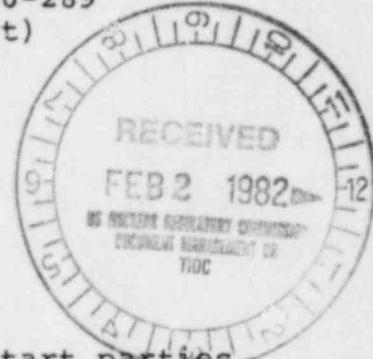
UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION '82 FEB -1 P4:38

In the Matter of)
)
METROPOLITAN EDISON COMPANY)
)
(Three Mile Island Nuclear)
Station, Unit No. 1))

Docket No. 50-289
(Restart)

LICENSEE'S ADDITIONAL COMMENTS
ON DOCUMENTS RELATING TO THE
WATER LEVEL INDICATOR ISSUE



By memorandum to counsel for the TMI-1 restart parties, dated January 15, 1982, the Secretary of the Commission transmitted various documents provided to the Commission at and subsequent to a meeting of January 8, 1982, on reactor water level instrumentation. The Secretary's memorandum advises that the Commission may take this material into consideration in reaching its decision whether or not to permit the restart of TMI-1. The memorandum states that all parties are invited to comment on these documents if they so desire, and that comments should be submitted to reach the Commission by February 1, 1982. The following constitutes Licensee's comments on the water level indicator documents transmitted by the Commission on January 15, 1982.

I. Immediate Effectiveness Decision

On January 13, 1982, Licensee commented on an earlier set of documents distributed by the Commission and which relate

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1/1

to the water level indicator issue. In those comments, Licensee took the position that as to the entire subject of detecting inadequate core cooling, the Licensing Board has made the findings which clear the way for the Commission to decide to lift its suspension order.^{1/} The Licensing Board authorized resumption of operation upon completion of certain short-term actions in this area by Licensee, and found that Licensee is making reasonable progress toward completion of the long-term actions on instrumentation to detect inadequate core cooling. I.D., ¶¶ 642, 672. Pursuant to the Commission's earlier orders in this proceeding, these findings by the Licensing Board are all that is required, as to inadequate core cooling detection, to enable the Commission to decide whether the shutdown order shall remain immediately effective. See CLI-79-8, 10 N.R.C. 141, 149 (1979); CLI-81-3, 13 N.R.C. 291, 295 (1981).

The material distributed by the Commission on January 15, 1982, lends further support to the Licensing Board's finding that Licensee is making reasonable progress. Obviously, a factor to be considered in assessing Licensee's progress is the extent to which the Staff has been able to define even its own version of the long-term requirement. Dr. Mattson of the Staff reported, at the Commission meeting of January 8, 1982, that no formal approvals have yet been given by the Staff for any proposed systems of additional

^{1/} Licensee's Comments on Documents Relating to the Water Level Indicator Issue, January 13, 1982, at 6.

instrumentation to detect inadequate core cooling.

In addition, as we noted in Licensee's comments of January 13, 1982, Licensee has made significant progress since the evidentiary record below closed on this issue. Licensee intends to continue working with the Staff, while preserving our rights before the Atomic Safety and Licensing Appeal Board until resolution is accomplished, to achieve the original objectives for additional instrumentation to detect inadequate core cooling.

II. SECY-81-582A

In our earlier comments, Licensee stated that the merits of the Licensing Board's decision on the long-term requirements for additional instrumentation to detect inadequate core cooling should be left either to the appellate process established by the Commission or for generic resolution by the Commission with respect to all B&W reactors. The Staff has agreed with this comment.^{2/}

As we understand it, the current Staff position on resolution for the B&W reactors is embodied in SECY-81-582A, December 29, 1981, which is included in the materials distributed by the Commission. There the Staff recommends

^{2/} NRC Staff's Comments on Immediate Effectiveness with Respect to Licensing Board Decision on Hardware/Design Issues, Unit Separation and Emergency Planning, January 28, 1982, at 16.

that the Commission promptly issue orders to the B&W licensees directing that certain actions be taken by May 1, 1982, toward the development of an "acceptable reactor coolant system level monitoring concept." The Staff notes that the order will define "acceptable concepts." SECY-81-582A, at 5.

Licensee believes that the discussion at the January 8 meeting, and the documents distributed, show that the Commission is not in a position to define an acceptable concept and should not adopt the Staff's recommendation at this time.^{3/} Our opposition to this Staff proposal should not be read, however, as disagreement with the objective of developing "an unambiguous, easy-to-interpret indication of inadequate core cooling," advanced by the TMI-2 Lessons Learned Task Force.

Licensee's position before the Licensing Board was that additional instrumentation to detect inadequate core cooling (in the form of water level indication) is not necessary at TMI-1.^{4/} We also made it clear, as the Licensing

^{3/} For example, the Commission was told at the January 8 meeting that the CE system will not work quickly in dynamic, unstable conditions, and that due to density compensation applied to the DP signal, there will be occasional perturbations in the level signal produced by the Westinghouse system. The Commission also was told that with reactor coolant pumps running, the Westinghouse concept will provide an indication of relative void content and not level per se.

^{4/} In this regard, we do not agree with Dr. Mattson's observation that this instrumentation is needed most at B&W plants. This was not a position taken by the Staff before the Licensing Board. Second, we do not agree with his statement that the operator "flies blind" between indications of saturation and superheated conditions. While it is true that the operator does not know the coolant inventory, it is also true that his
(Footnote continued)

Board recognized, that Licensee would continue to pursue possible methods of measuring level in the reactor vessel if they prove reasonable. See I.D., ¶ 668. In short, Licensee has never closed the door on the possibility that such a system might be found which would provide a desirable enhancement to safety.^{5/} In a nutshell, Licensee opposed the Staff's effort to require now a commitment to install an undefined system to provide undefined information to the operators for an undefined purpose. The Licensing Board found that our concerns were advanced in good faith, and that they were not unreasonable. See I.D., ¶ 670.

As the Commission recognizes, a decision to add instrumentation to detect inadequate core cooling is an important one which calls for carefully considered judgments and investigations. It warrants pursuit of a deliberate process which follows the normal engineering method: development of functional criteria, identification of alternatives, and selection of the preferred system prior to detailed engineering, procurement and installation. Without justification, the Staff has turned the normal engineering method on its ear -- requiring installation (and obviously detailed engineering and procurement) to

4/ (Footnote cont'd.)

procedures tell him exactly what to do under these circumstances to restore subcooling. In fact, Dr. Ross testified for the Staff, in the restart proceeding, that all of the methods available to terminate inadequate core cooling are included in the TMI-1 procedures. Tr. 16,001-03.

5/ Licensee's post-hearing efforts are evidence of this interest.

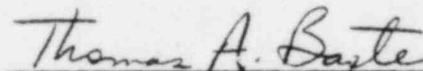
precede Staff approval of even a generic system concept or evaluation of the use for the system.^{6/}

Licensee agrees with the ACRS comments which suggest a more coherent and deliberate approach to the goal of identifying additional inadequate core cooling instrumentation. Specifically, we endorse the ACRS observations, at the January 8 meeting, that the following steps should be taken before instrumentation is installed:

- 1) the instrumentation should be fully developed and tested;
- 2) the capabilities of the instrumentation should be demonstrated;
- 3) the possibilities of anomalous indications should be uncovered;
- 4) the uses to be made of the instrumentation should be fully thought out.

Respectfully submitted,

SHAW, PITTMAN, POTTS & TROWBRIDGE



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^{6/} We note that the Staff will be meeting with industry representatives on February 16 and 17, to explore a number of the important, and we would add basic, questions which have been raised.

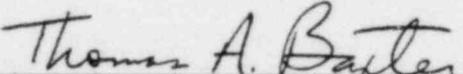
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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing "Licensee's Additional Comments on Documents Relating to the Water Level Indicator Issue" were served this 1st day of February, 1982 by hand delivery to the parties identified with one asterisk, and by deposit in the U.S. mail, first class, postage prepaid, to the other parties on the attached Service List.



Thomas A. Baxter

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