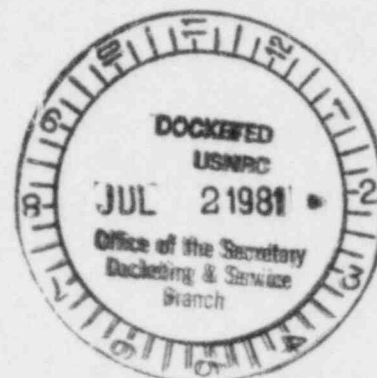


81/06/29

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

Docket No. 50-289
(Restart)

COMMONWEALTH OF PENNSYLVANIA'S REPLY
FINDINGS OF FACT AND
CONCLUSIONS OF LAW ON MANAGEMENT ISSUES



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I. NEGOTIATIONS BETWEEN LICENSEE AND THE COMMONWEALTH OF PENNSYLVANIA

1. The Commonwealth of Pennsylvania submitted proposed findings of fact and conclusions of law on management issues on May 15, 1981. Rather than filing proposed findings and conclusions on all management issues in the proceeding, the Commonwealth elected to "advise the Commission" pursuant to its rights under 42 U.S.C. §2021 and 10 C.F.R. §2.715(c) "on specific management issues on which the Commonwealth perceives deficiencies that need to be remedied." Commonwealth's Proposed Management Findings at 2. The Commonwealth submitted proposed findings and conclusions in the following area: I. Burden of Proof on Management Issues, II. Additional Training Requirements (including Licensed Operator Reexamination, NRC Evaluation of Operator Performance, Simulator Training, Training for Senior Management Personnel, Training in Anticipated Transients Operator Guidelines, and Training in Class 9 Accidents), III. Operational Resources (including Shift Staffing Requirements, Operational Personnel, and Radwaste Staff Requirements), and IV. Staff Review of Financial Qualifications. Although the Commonwealth in general indicated that it believed that Licensee had met its burden of proof on all other management issues in the proceeding, it did not adopt the findings and conclusions proposed by any other party and reserved its right to participate as a full party on appeal.

2. After the filing of the Commonwealth's proposed findings and conclusions on management issues, Licensee proposed that an extension be granted for proposed reply findings to issues raised by the Commonwealth, so that Licensee and the Commonwealth could engage in discussions and negotiations on these issues. In light of the general policy of the Commission favoring the settlement of disputes between parties, this

extensions was granted. Tr. 21, 844-54. The Board is pleased that the discussions between Licensee and the Commonwealth were highly productive. As a result of these discussions, and based upon commitments made by Licensee to resolve many of the concerns raised by the Commonwealth, the Commonwealth agreed to withdraw its proposed findings and conclusions with respect to the following issues: II. Additional Training Requirements (all subissues) (§§35-117) and III. Operational Resources (Radwaste Staff Requirements only) (§§150-154). See Letter from Ernest L. Blake, Jr., Counsel for Licensee to Robert W. Adler, Attorney for the Commonwealth (June 22, 1981) [hereinafter Blake letter]. The issues not withdrawn by the Commonwealth are addressed in the Board's proposed decision on management issues, infra.

3. The Board finds that the agreement reached by Licensee and the Commonwealth is a fair and reasonable solution to the issues raised in the Commonwealth's proposed findings. The Board recognizes, however, that the Commonwealth possesses no enforcement mechanism to ensure that Licensee's "commitments" are honored, short of a motion to show cause, which is subject to the Staff's discretion. 10 C.F.R. §2.206. Accordingly, the withdrawal of the Commonwealth's findings was contingent upon the agreement by Licensee not to object to the imposition of Licensee's commitments as license conditions for the restart of TMI-1. Blake Letter, at 5. Moreover, Licensee agreed to make these commitments a matter of record in this proceeding. Tr. __, __. The Board agrees that this approach is appropriate. Therefore, the Board directs that the following commitments of Licensee be enforced by the Staff as license conditions for the restart of TMI-1:

- (1) Prior to restart, Licensee shall demonstrate to the NRC

Staff that Licensee has examined on the subject matter identified in Commission Order Item 1.e. (i.e., Category T examination), the four remaining individuals of the thirty-six whom Licensee has certified for NRC licensed operator examination prior to restart, and the Staff shall include in its certification to the Commission that Licensee has complied with this condition. The Staff is directed to review all Category T examinations utilized by Licensee for these thirty-six individuals prior to restart. No operating license shall be issued to an operator who has not passed an NRC-approved Category T examination;

(2) Prior to restart, Licensee shall demonstrate to the NRC Staff that all of its licensed operators have received at least three additional days of training covering the TMI-2 accident subject matter, and the Staff shall include in its certification to the Commission that Licensee has complied with this condition;

(3) Prior to restart, Licensee shall demonstrate to the NRC Staff that all of its operators who have not previously held NRC licenses have successfully completed at the B&W simulator an NRC-administered examination, in addition to the written examinations and the operating examinations at TMI-1, and the Staff shall include in its certification to the Commission that Licensee has complied with this condition;

(4) Prior to restart, Licensee shall demonstrate to the NRC Staff that Licensee has available for use at TMI-1 a cathode ray tube (CRT) part-task simulator which displays temperature and pressure, and the Staff shall include in its certification to the Commission that Licensee has complied with this condition;

(5) Prior to April 1, 1982, Licensee shall prepare for bids and distribute specifications for a TMI-1 exact replica simulator anticipated to be installed in 1985;

(6) Prior to restart, Licensee shall demonstrate to the NRC Staff that Licensee has contracted for a basic principles trainer for TMI-1 anticipated to be installed in 1982, and the Staff shall include in its certification to the Commission that Licensee has complied with this condition. Following availability of this trainer, Licensee shall provide for each operator as a part of annual requalification training at least one week training per year on this trainer in addition to the week each year at B&W's simulator, at least until Licensee's exact replica simulator is available.

(7) Prior to restart, Licensee shall demonstrate to the NRC Staff that members of Licensee's senior management who have joined Licensee since July 1, 1979, and who are designated to act as Emergency Directors or as Emergency Support Directors, have received a formal training course addressing site-specific plant design features, and the Staff shall include in its certification to the Commission that Licensee has complied with this condition.

(8) Licensee shall conduct training of all of its operators in ATOG prior to ATOG implementation.

II. OPERATIONAL RESOURCES

A. Shift Staffing Requirements

4. Licensee asks the Board to accept the Staff's retraction of its original shift manning requirement, which would have required two SROs and two ROs per shift at the time of restart. This retraction was apparently based on the Staff's determination that there is nothing unique about TMI-1 that would warrant compliance with the two and two criterion on a schedule earlier than other operating plants. Licensee's

Proposed Management Finding 41. The Staff asks us to reach the same conclusion. Staff's Proposed Management Finding 50 n.5.

5. The Staff's position on this issue is completely contradicted by earlier testimony by representatives of the NRC Staff's senior management. On cross-examination by Licensee's counsel regarding the reasons for treating TMI-1 differently from other operating reactors, the Director of the Division of Systems Integration of the Office of Nuclear Reactor Regulation testified "It had to do with the fact that the plant has been down for two years with essentially no operating experience." Tr. 15, 656 (Ross); Personal Qualifications Statement of Derwood F. Ross, Jr., accompanying Ross, ff. Tr. 15, 555. Dr. Ross supported this position by stating that:

With the stable mode it has been in for the last two-and-a-half years there has been no-- let's say the intrinsic challenge comes from operating a plant. The experiences, in my opinion, are not the same. The alarms do not arrive. The transients do not come. You do not start it up. You do not go to hot standby. It is not the same operating experience.

Tr. 15, 663 (Ross). Dr. Ross also attributed importance to the fact that Licensee's operators were trained in teams of four rather than teams of three:

... at startup you have what I would characterize as a symbiotic relationship amongst the operating crew. And we have witnessed this operate as a team in response to various abnormal events or emergency procedures.

If there happens to be three in there, then the three of them will respond as a team. On the other hand, if there are four, they will respond differently. Different people will do different things. I do not think that the plant response to a three-man team that has been trained and for which procedures have been written will be the same as four ...

Tr. 15, 661-62 (Ross). Finally, Dr. Ross felt that it would not be desirable to switch from a three-person to a four-person shift in the middle of a refueling cycle as apparently would be required by the current NUREG-0737 July 1, 1982 deadline for the two and two requirement. Tr. 15, 656-57; 15, 662 (Ross).

6. The Board fails to understand the reasons for the change in the Staff's position on this issue. No evidence was presented by either the Staff or the Licensee to controvert Dr. Ross' detailed and valid reasons for treating TMI-1 as an NTOL rather than as an operating reactor for the purposes of shift manning requirements, as pointed out by the Commonwealth. Commonwealth's Proposed Management Findings 120-137. Consequently, the Board concludes that Licensee should be treated as an NTOL for this requirement, and that Licensee is required to maintain two licensed SROs and two licensed ROs on shift at all times.

B. Operational Personnel

7. Licensee asks the Board to determine that its shift manning is adequate by asserting that "Licensee's licensed shift operating staff is composed of six shift supervisors, seven shift foremen ... and about twenty control room operators ..." Licensee's Proposed Management Finding 41 (emphasis added). Moreover, Licensee consistently asks the Board to base its decision in this case on the assumption that Licensee will have six operational shifts. See, e.g., Licensee's Proposed Management Findings 118, 138. Yet by Licensee's own admission, all of these operators must pass NRC license examinations and other criteria prior to obtaining NRC licenses to operate the plant. Licensee's Proposed Management Finding 185. The Board cannot base its decision as

to the adequacy of Licensee's shift manning on the assumption that all of these 33 operators will receive licenses to operate TMI-1. In fact, as noted by the Commonwealth, only 29 of Licensee's operational personnel took the NRC licensing examination (16 ROs and 13 SROs). Commonwealth's Proposed Management Findings 56, 143. Using Licensee's approach, the Board essentially would adopt no standard regarding the numbers of qualified and licensed operational personnel necessary to operate TMI-1 safely.

8. The Commonwealth's approach, on the other hand, is to have the Board set minimum standards for the numbers of licensed reactor operators and senior reactor operators necessary to operate the plant safely. See Commonwealth's Proposed Management Finding 148. While there may be room for disagreement regarding the actual numbers of licensed personnel (including both the number of shifts and the number of operators per shift) necessary to operate the plant safely, the Board agrees with the Commonwealth that, in judging the adequacy of Licensee's operational resources, it is necessary to establish a reasonable standard.

9. Licensee presented no evidence regarding the minimum staffing levels it believes necessary to operate the plant safely. Rather, as noted above, Licensee asks the Board to assume the availability of six operating shifts. Licensee further explained that three shifts are necessary to cover each twenty-four hour period; that on any given day there are three shifts that are not manning the control room; and that these three shifts are divided into one off-duty shift, one relief duty shift, and one training shift. Licensee's Proposed Management Finding 138. Licensee then merely notes that "Six shifts is not an NRC requirement; the NRC requires that the plant be adequately staffed. Tr. 20, 773 (Crocker)." Id. n. 18.

10. By contrast, the Staff did present evidence on the adequacy of Licensee's Operational Staff. This evidence was analyzed by the Commonwealth. Commonwealth's Proposed Management Findings 144-146. To summarize the Staff's position, although the Staff expressed concern regarding the numbers of qualified ROs and SROs on Licensee's staff, it determined that Licensee could operate with a five-shift operation. Staff Ex. 13, at 4-5. The Staff made this assessment, however, without evaluating the effect of reverting to five shifts on Licensee's training program, or on the amount of hours that each operator would be required to work. In any case, there is no evidence on the record that less than five shifts would be acceptable. Based on the Board's determination that each shift must be comprised of two licensed SROs and two licensed ROs, see _____ supra, this would dictate an absolute minimum of ten licensed SROs and ten licensed ROs on Licensee's operational staff, without accounting for attrition. Moreover, considering that Licensee asks the Board to judge its operator training program on the basis of a six-shift rotation, and the fact that Licensee's operators were deliberately trained by shift to produce positive performance results, a minimum of twelve licensed SROs and twelve licensed ROs is warranted, absent demonstration that a five-shift rotation would not adversely impact Licensee's training and operations.

Respectfully submitted,



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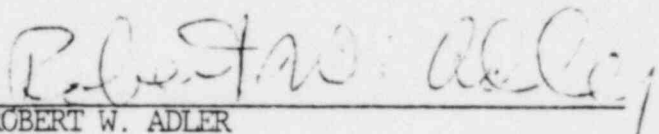
UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	
METROPOLITAN EDISON COMPANY,)	
)	Docket No. 50-289
(Three Mile Island Nuclear)	(Restart)
Station, Unit No. 1))	

CERTIFICATE OF SERVICE

I hereby certify that copies of the attached "Commonwealth of Pennsylvania's Reply Findings of Fact and Conclusions of Law on Management Issues" were served on the parties on the attached service list this 29th day of June, 1981. Service was by hand or by deposit in the U.S. mail, first class postage prepaid.



ROBERT W. ADLER

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NUCLEAR REGULATORY COMMISSION

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