

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
METROPOLITAN EDISON COMPANY,)
ET AL.)
(Three Mile Island, Unit 1))

Docket No. 50-289
Restart



NRC STAFF PROPOSED FINDINGS OF FACT
AND CONCLUSIONS OF LAW REGARDING EMERGENCY
PREPAREDNESS AND THE SRO REQUIREMENTS

1. On July 9, 1981, the Licensing Board in this proceeding orally ruled that proposed findings of fact and conclusions of law concerning the narrow subject of the emergency planning aspects of shift manning with respect to the licensee's July 7, 1981 commitments on senior reactor operators (SRO's) must be filed on or before July 23, 1981. Tr. 23112; Confirmatory Order on Schedule for Shift Manning Findings, dated July 13, 1981. The Board also ruled that reply findings of fact on this issue will not be permitted. Id.

2. The issue of shift manning and its effects on emergency planning centers around the Staff's recently revised requirements concerning the number of senior reactor operators to be stationed in the control room at TMI-1. While the Staff initially required the licensee to have two SRO's assigned on each shift prior to restart (Staff Ex. 14, at 22), in response to a Commission Order dated March 23, 1981 (CLI-81-3) the Staff later changed its position to require the licensee to assign a second SRO on each shift by July 1, 1982. Staff Ex. 14, at 23. The March 23 Order

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directed the Staff to treat TMI-1 as an operating reactor rather than as a unit with a pending operating license application, unless the record indicated another conclusion. CLI-81-3, Slip Op. at 7. Licensees of operating reactors are required to assign two SRO's on shift by July 1, 1982. Staff Ex. 14, at 22. [For a discussion of the Staff's bases for its revised position, see NRC Staff Reply Proposed Findings of Fact and Conclusions of Law Regarding Management Capability, dated June 29, 1981, at Paragraphs 7-12.]

3. In their proposed findings, both Mrs. Aamodt and the Commonwealth of Pennsylvania argued that the Staff had failed to evaluate the effect of the revised SRO requirement on the licensee's site-specific emergency response plan. Commonwealth Findings at 127-130^{1/}; Aamodt Findings at 51. Further, the Board raised a question as to the effect on the Staff's determination of the adequacy of onsite emergency response staffing of the fact that the licensee may have only one SRO on shift rather than two SRO's as previously planned. Tr. 20763-64.

4. Responding to these concerns, the Staff presented additional testimony by Mr. Chesnut. Staff Ex. 17. In addition, the licensee submitted specific commitments regarding shift manning in an attempt to resolve the questions raised by the Board, the Commonwealth and Mrs. Aamodt. These commitments, which were made in a letter dated July 7, 1981 from Mr. Blake, counsel for licensee, to Mr. Adler, counsel for the Commonwealth, were received in evidence as Licensee Exhibit 59.

^{1/} This citation will refer to the paragraph number of the proposed findings.

5. When he prepared his original testimony for this proceeding, Mr. Chesnut did assume that there would be two licensed SRO's on shift because that was what was being planned for at the time. He did not rely on the second SRO as being a mandatory element of the licensee's emergency organization and did not view the second SRO on shift as necessary for emergency response purposes. Mr. Chesnut's conclusions regarding the licensee's staffing of its emergency organization were not dependent on a second SRO being assigned on each shift. Staff Ex. 17, at 3.

6. The licensee's emergency plan provides for four people on each shift who have an operational background. These four people are the Shift Supervisor, Shift Foreman, and two licensed Reactor Operators (RO's). Tr. 22290 (Chesnut). The Shift Supervisor will be a licensed SRO. Staff Ex. 4, at 39; Staff Ex. 17, at 4. In addition, the licensee has committed to, at the time of restart, having the Shift Foreman be either licensed as an SRO or licensed as an RO and trained as an SRO. Licensee Ex. 59, at 2.^{2/}

^{2/} The Board notes that the licensee's commitment 1.a (Licensee Ex. 59, at 2) could permit a person to serve as Shift Supervisor who is merely licensed as an RO and trained as an SRO. As discussed above, the Staff has assumed, at least for purposes of judging the adequacy of the licensee's emergency plan, that the Shift Supervisor will be a licensed SRO. Staff Ex. 17, at 4. The licensee's commitment 1.a is discussed more fully at Paragraphs 13-16, infra.

7. After the Staff decided that the licensee need not assign a second SRO on shift until July 1, 1982, Mr. Chesnut again reviewed the emergency responsibilities assigned to the Shift Foreman to ascertain whether the Shift Foreman's emergency duties indicated a need for SRO qualification. Although SRO qualifications for the Shift Foreman would enhance the qualification level available in the control room, the emergency functions assigned to the Shift Foreman in assisting the Shift Supervisor do not require an SRO license. Staff Ex. 17, at 3.

8. If the Shift Supervisor became incapacitated or otherwise unavailable, the Shift Foreman would perform the duties of the Shift Supervisor which, during an emergency when no other SRO is onsite, would include those of the Emergency Director. The TMI-1 emergency plan and emergency plan implementing procedures, however, call for the Shift Foreman to be trained to perform the duties of an Emergency Director. Id. at 4.

9. In addition, the Shift Foreman may be required to act as Operations Coordinator for a limited period of time if the Shift Supervisor is not available. An Operations Coordinator who is not a licensed SRO will not be permitted to direct plant operations under the licensee's emergency plan. However, numerous support engineers (at least one of whom would maintain SRO qualification), as well as an Emergency Director and Operations Coordinator, would be augmenting the emergency organization within 30 minutes to one hour of an emergency. These augmenting personnel would relieve the Shift Foreman of his emergency duties upon arrival onsite. Thus, a non-SRO licensed Shift Foreman might only be

called upon to perform the duties of the Emergency Director or Operations Coordinator for the brief period prior to the arrival of the onsite emergency organization. Id. at 4-5.

10. It is unlikely, however, that the Shift Foreman would ever have to become the Emergency Director. Tr. 22254 (Chesnut). At all times when TMI-1 is operating at power levels above 20% rated power and there is only one licensed SRO on shift, the SRO-licensed individual on shift will remain within the control room (including the Shift Supervisor's office) or within the plant at a location from which the control room is accessible in less than five minutes. Furthermore, at all times when TMI-1 is operating at power levels above 20% rated power and the SRO-licensed individual on shift is not in the control room (including the Shift Supervisor's office), the licensee will ensure that the control room (including the Shift Supervisor's office) is manned by a minimum of two RO's, a third individual with an RO license and SRO-trained, and the Shift Technical Advisor. Licensee Ex. 59, at 3.

11. During cross-examination on the one SRO requirement, Mr. Chesnut reiterated his belief that two SRO's would provide an additional margin of safety in the response to an emergency but that such a requirement is not a mandatory or necessary element for adequate emergency response. Tr. 22288-89 (Chesnut). He also stated that there is nothing in the licensee's emergency plan which requires that there be two SRO's on each shift. Tr. 22265-66 (Chesnut). Mr. Chesnut further testified that TMI-1 is in a better position to respond to an emergency than are other operating reactors because there are more health physics personnel and

auxiliary operators on each shift than at other reactors. Tr. 22316 (Chesnut). No evidence was presented which indicated that two SRO's would be needed to adequately respond to an emergency at TMI-1.

12. The Board finds, based on the facts presented above, that assigning one SRO per shift until July 1, 1982 will not affect the ability of the licensee to adequately respond in an emergency. Specifically, the Board finds that proper implementation of the licensee's emergency plan does not necessitate the presence of two SRO's on each shift. Thus, the Board concludes that, in this instance, the record does not indicate that a sufficient cause exists to overcome the Commission's expressed preference for grouping TMI-1 with facilities which presently possess operating licenses. Providing two SRO's on shift by July 1, 1982 will be sufficient to protect the public health and safety.

13. The commitments contained in the licensee's July 7, 1981 letter to the Commonwealth (Licensee Ex. 59) supplement the licensee's commitments regarding shift staffing and operating personnel contained in its June 22, 1981 letter to the Commonwealth (Licensee Ex. 57). The Board received these commitments into evidence and, with one qualification, relies upon them in reaching its conclusions regarding the management capability of the licensee. The sole qualification pertains to item number 1.a. of Licensee Exhibit 59. Item 1.a. deals with the manning of the shift operating staff for TMI-1 at the time of restart, and the qualifications of these operators.

14. Item 1.a. of Licensee Exhibit 59 provides that, at the time of restart of TMI-1, each shift will have at least one NRC-licensed SRO.

However, the commitment does not specify, in the event that there is only one SRO, whether that person is the Shift Supervisor or the Shift Foreman. In essence, the commitment would permit two possible scenarios in the event that there is only one SRO available for a shift. The first scenario would provide for the SRO to be the Shift Supervisor, whereas the Shift Foreman may be licensed as an RO but with SRO training. Such a situation would be consistent with the testimony of Mr. Hukill, who stated that the Shift Supervisors would be SRO-licensed, and that all six Supervisors were already SRO's. Tr. 11,667-69 (Hukill). He testified that, although it was the licensee's goal to have all of the Shift Foremen also possess SRO licenses, these persons were not required to be SRO-licensed until July 1, 1982. Tr. 11,668 (Hukill). Until that date, the Shift Foremen may or may not be SRO-licensed, depending on whether they pass the NRC licensing examination. Tr. 11,668-69 (Hukill).

15. However, commitment item 1.a. would also be permissive of a situation where the Shift Foreman could be an SRO, whereas the Shift Supervisor may only be an RO. This is the first indication that the licensee may intend to use a Shift Supervisor who holds only an RO license. The use of a non SRO-licensed Shift Supervisor would be inconsistent with the referenced licensee testimony. Moreover, Mr. Hukill also testified that both the Shift Supervisor and the Shift Foreman for each shift oversee the activities of the control room operators, but that the Shift Foreman reports to the Shift Supervisor. Hukill, et al., ff. 11,617, at 14, 18. Thus, the alternate interpretation of this commitment item would permit a situation where

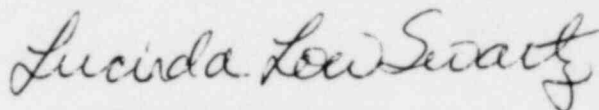
a non SRU-licensed Shift Supervisor has responsibility for directing the licensed activities of licensed operators, including an SRO-licensed Shift Foreman. Such a situation would be in conflict with 10 CFR § 50.54(1), which provides that such a person (the Shift Supervisor), designated to be responsible for directing the licensed activities of licensed operators, be licensed as a senior operator pursuant to 10 CFR Part 55.

16. Accordingly, the Board modifies the proposed license condition 1.a. to be consistent with the regulations and the licensee's own testimony as follows:

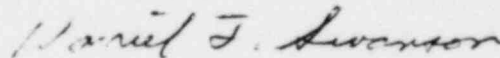
a. Licensee will at the time of restart of TMI-1, man all shifts at TMI-1 with a minimum of one NRC-licensed SRO, who will act as Shift Supervisor, a second individual, either NRC-licensed as an SRU or NRC-licensed as an RO and trained as an SRO, who will act as Shift Foreman, and a minimum of two NRC-licensed ROs who will act as Control Room Operators.

The Board finds that the above statement should be imposed as a license condition for startup of Unit 1.

Respectfully submitted,



Lucinda Low Swartz
Counsel for NRC Staff



Daniel T. Swanson
Counsel for NRC Staff

Dated at Bethesda, Maryland
this 22nd day of July, 1981.

Thomas J. Germin
Deputy Attorney General
Division of Law - Room 316
1100 Raymond Boulevard
Newark, New Jersey 07102

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Allen R. Carter, Chairman
Joint Legislative Committee on Energy
Post Office Box 142
Suite 513
Senate Gressette Building
Columbia, South Carolina 29202

Robert Q. Pollard
609 Montpelier Street
Baltimore, Maryland 21218

Chauncey Kepford
Judith H. Johnsrud
Environmental Coalition on Nuclear Power
433 Orlando Avenue
State College, Pennsylvania 16801

Ms. Frieda Berryhill, Chairman
Coalition for Nuclear Power Plant
Postponement
2610 Grendon Drive
Wilmington, Delaware 19808

Gail P. Bradford
ANGRY
245 W. Philadelphia St.
York, Pennsylvania 17401

*Atomic Safety and Licensing Appeal Board
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

*Atomic Safety and Licensing Board Panel
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

*Secretary
U.S. Nuclear Regulatory Commission
ATTN: Chief, Docketing & Service Br.
Washington, D.C. 20555

William S. Jordan, III, Esq.
Harmon & Weiss
1725 I Street, N.W.
Suite 506
Washington, D.C. 20006

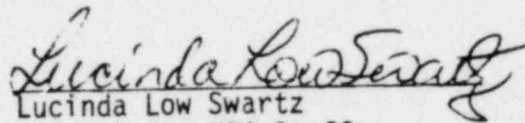
John Levin, Esq.
Pennsylvania Public Utilities Comm.
Box 3265
Harrisburg, Pennsylvania 17120

Jordan D. Cunningham, Esq.
Fox, Farr and Cunningham
2320 North 2nd Street
Harrisburg, Pennsylvania 17110

Louise Bradford
1011 Green Street
Harrisburg, Pennsylvania 17102

Ms. Ellyn R. Weiss
Harmon & Weiss
1725 I Street, N.W.
Suite 506
Washington, D.C. 20006

Mr. Steven C. Sholly
Union of Concerned Scientists
1725 I Street, N.W.
Suite 601
Washington, D.C. 20006


Lucinda Low Swartz
Counsel for NRC Staff