

UNITED STATES OF AMERICA '82 NOV 30 A10:21  
NUCLEAR REGULATORY COMMISSION

BEFORE THE COMMISSION

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

LICENSEE'S OPPOSITION TO COMMONWEALTH OF  
PENNSYLVANIA'S PETITION FOR REVIEW  
OF ALAB-698

On October 22, 1982, the Atomic Safety and Licensing Appeal Board ("Appeal Board") issued ALAB-698 in the above-captioned proceeding. The Appeal Board there considered and resolved adversely to the Commonwealth of Pennsylvania ("Commonwealth") claims that thermoluminescent dosimeters ("TLD") must be predistributed to offsite emergency workers prior to the restart of Three Mile Island Nuclear Station, Unit No. 1 ("TMI-1"). See ALAB-698 at 3-19. Pursuant to Section 2.786(b)(1) of the Commission's Rules of Practice, 10 C.F.R. § 2.786(b)(1), on November 12, 1982, the Commonwealth filed a petition for review objecting to that part of ALAB-698 dealing with dosimetry for offsite emergency workers.

Licensee opposes the Commonwealth's petition for review. It is apparent from the face of the review petition that the relevant facts underlying the review petition were considered both by the Appeal Board and the Atomic Safety and Licensing Board ("Licensing Board") and that both bodies resolved the facts in a consistent manner. Thus, the second of the four factors identified by the Commission as necessary to support a review petition is lacking here. See 10 C.F.R. § 2.786(b)(4)(ii) (review petition not granted unless Appeal Board resolved necessary factual issue contrary to Licensing Board's resolution of same issue). In addition, while the Commonwealth's review petition is couched in terms of important public policy issues relating to emergency planning, there is no dispute between Licensee and the Commonwealth over the policy issues; we agree that adequate dosimetry must be provided to emergency workers. What is in dispute are the methods to be used for satisfying the policy concerns at the TMI-1 site. This raises an evidentiary matter, based on highly specific, site-related facts, which have been resolved adversely to the Commonwealth's interests twice before. Thus, the first of the four factors identified by the Commission as necessary to support a review petition also is lacking here. See 10 C.F.R. § 2.786 (b)(4)(i)<sup>1/</sup> (review petition not ordinarily granted unless important public policy question raised).

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<sup>1/</sup> The third and fourth factors listed in 10 C.F.R. § 2.786 (b)(4) are not relevant to the Commonwealth's review petition.

In the circumstances Licensee does not believe that the Commonwealth's petition for review raises matters requiring a third level of Commission consideration. Accordingly, the petition for review should be denied.

I. Summary of Proceeding Below

As recognized by the Commonwealth- (see Review Pet. at 27), the adequacy of dosimetry for offsite emergency workers was first raised in the Commonwealth's proposed findings of fact and conclusions of law submitted to the Licensing Board. The Commonwealth presented no testimony indicating that dosimetry for the TMI-1 site was inadequate. Indeed, John E. Dickey, FEMA's Acting Assistant Associate Director of the Population Office, and the most senior FEMA official to testify at the TMI-1 proceeding, when specifically asked about the identified shortfall in dosimetry (TLD's), testified that the deficiency was not so significant as to preclude FEMA from finding that the offsite emergency response plans site specific to TMI were adequate and capable of being implemented. Tr. at 22687 (Dickey); see also Tr. at 22476-78 (Bath), 22765 (Adler; Staff Ex. 18, at 2.<sup>2/</sup> Significantly, no Commonwealth or county witness who testified at the TMI-1 proceeding contradicted this conclusion.

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<sup>2/</sup> FEMA's Interim Findings and Determination states: "In summary, our interim finding is that the Pennsylvania State and local government radiological emergency response plans site specific to TMI are adequate." In determining whether state and local emergency plans are adequate and capable of being implemented, the Commission's regulations direct the NRC to "base its findings on a review of the FEMA findings and determinations." 10 C.F.R. § 50.54(s)(3).

Nevertheless, before the Appeal Board the Commonwealth argued that the Commission's emergency planning regulations required TLD's for offsite emergency workers, and, if not required by regulation, TLD's are the only available means for ensuring adequate radiological exposure control for emergency workers. See ALAB-698, at 8.

With respect to the Commonwealth's first claim, the Appeal Board carefully reviewed the Commission's emergency planning regulations and supporting guidance found in documents like NUREG-0654, FEMA-REP-2, and the FEMA findings and determinations. See ALAB-689 at 9-15. On this basis the Appeal Board concluded that "the Commission's emergency planning regulations do not specify that any particular type of dosimetry be provided." Id. at 9. Rather, the Appeal Board was of the view that the need for TLD's "depends ultimately on whether these are necessary to provide reasonable assurance that emergency workers will be protected." Id. at 15. In its review petition, the Commonwealth has abandoned its legal claim and does not now argue that Commission regulations require the predistribution of TLD's to offsite emergency workers.

With respect to the need for TLD's to assure the protection of offsite emergency workers, the Appeal Board considered the Commonwealth's emergency plan, the role of dosimetry in that plan, and the dosimetry presently available to offsite emergency workers. See ALAB-698 at 6-7, 16-19. Finding that the two pieces of self-reading dosimetry

available to offsite emergency workers provide a redundant means for measuring a worker's radiological exposure, the Appeal Board found that (id. at 17):

Reliance on self-reading dosimeters is sufficient, in our view, to assure that emergency workers will be adequately protected and that a reasonable method, other than the use of TLDs, exists for measuring the workers' accumulated exposure to radiation.

The Commonwealth review petition is premised on a disagreement with this factual finding.

II. Commission Review is Neither Required  
Nor Appropriate in this Case

A. THE APPEAL BOARD FINDING ON THE ADEQUACY OF SELF-READING DOSIMETRY IS A FACTUAL DETERMINATION SUPPORTED BY THE RECORD AND IS CONSISTENT WITH THE FINDING OF THE LICENSING BOARD

Appendix 16 of the Commonwealth's Emergency Plan, entitled "Radiological Exposure Control", details the concept of operations developed by the state for radiological exposure control of offsite emergency workers. See Pa. Ex. 2a, at Appendix 16, pp. 16-1 through 16-15. The State plan specifies that each emergency worker is to be provided two self-reading dosimeters; that each emergency worker is to read the dosimeter at least once each thirty minutes; and that emergency workers should either seek to be replaced or complete their assigned task and report to a mass-care center when either self-reading dosimeter indicates a total dose in the 15 to 20 rem range. Id. at Appendix 16, § V.B,

pp. 16-6 to 16-7. If an emergency worker's self-reading dosimeters indicate a dose of 25 rem or more, the worker is to report to a medical facility capable of decontamination and radiation treatment. Id. The Commonwealth's Emergency Plan also provides that TLD's will be used to provide an historical record of the workers' exposure at some time after the exposure has been incurred and the worker has left the field. Id.

As part of the recordkeeping to be performed by emergency workers, a "Dosimetry Report Form" is to be completed. Each worker enters a before and after measurement from the self-reading dosimeters on the "Dosimetry Report Form". By subtracting the "before" mission reading from the "after" mission reading, the worker can calculate the dose from the mission. Adding up mission doses results in a total overall dose accumulated by the emergency worker. See, e.g., Board Ex. 5, Annex R, Appendix 3, at 10. In this manner, the Appeal Board found that emergency workers could use the self-reading dosimeters to provide an historical record of the worker's exposure. See ALAB-698 at 16-17.

In its review petition the Commonwealth raises a number of objections to this finding. The Commonwealth claims that "[t]o people not trained in health physics and nuclear engineering, estimated doses based on computer modeling and area monitors are inherently untrustworthy." Review Pet. at 4. But the Appeal Board opinion does not

identify such methods as an adequate substitute for TLD's;<sup>3/</sup> it relies on self-reading dosimeters. The Commonwealth also notes that the two self-reading dosimeters cannot measure doses less than 400 mR and greater than 200 R, Review Pet., at 4, but fails to report that FEMA-REP-2, which the Commonwealth cited to the Appeal Board in support of its exceptions, indicates that there is little need to measure doses at either extreme. See ALAB-698 at 12-13.

The Commonwealth also asserts that the design and operating principles of self-reading dosimeters render them less accurate and reliable than TLD's; that self-reading dosimeters suffer from accidental discharges; and that TLD's are not nearly as susceptible to such "faulty measurements". Review Pet. at 4. There is not one iota of evidence in the record to support a single one of these claims. While the Appeal Board found self-reading dosimeters to be somewhat less precise than TLD's, it nevertheless found self-reading dosimetry to be sufficient. See ALAB-698 at 17. Moreover, the Commonwealth's unsupported assertions about self-reading dosimeters are inconsistent with the reliance placed on self-reading dosimeters by the Commonwealth during actual field operations. Nor is there any support for the Commonwealth claim that emergency workers will be unable to

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We note, however, that there is no record evidence indicating that computer modeling for calculating estimated doses is "inherently untrustworthy." To the contrary, the evidence shows that Licensee's "MIDAS" system provides a reliable and accurate assessment of offsite doses. See, e.g., Riethle, ff. Tr. 14842.

properly read the self-reading dosimeter. Persons accustomed to reading a measuring cup, gasoline gauge, or similar device should have no problem using a self-reading dosimeter.

Finally, the Commonwealth claims that TLD's are necessary to the "efficacy of the emergency response itself." Review Pet. at 5. The basis for this claim is not the record evidence, but the Commonwealth's argument that, since the Commonwealth's Emergency Plan refers to TLD's, the Commonwealth does not know whether emergency workers will respond in the absence of TLD's. In the last analysis, the Commonwealth's post-hoc argument amounts to little more than the claim that since the emergency plans specify TLD's, there should be TLD's. The simple answer is that if there is no need for TLD's -- as both the Appeal and Licensing Boards found -- then the Commonwealth's plan should be amended to reflect that TLD's are optional and not required equipment. This change reflects no "erosion of trust between the general public and federal, state, local and utility officials" as the Commonwealth claims, Review Pet. at 5, but instead is the common sense approach to the matter. If upon careful consideration it has been determined that TLD's are unneeded, then the fact should be stated. Providing TLD's now simply because the Commonwealth initially believed that federal agencies required TLD's is not a rational approach.

In summary, the record fully supports the Appeal Board finding that self-reading dosimetry, together with the recordkeeping already included in the Commonwealth's Emergency Plan is adequate to provide an historical record of



each worker's total exposure. In rejecting the Commonwealth's proposed findings on dosimetry the Licensing Board reached a similar conclusion. Thus, there is no basis for the Commission to review this matter again.

B. NO IMPORTANT POLICY ISSUES ARE RAISED IN THE COMMONWEALTH'S REVIEW PETITION

At the very outset of its review petition the Commonwealth frames the following question as an important policy issue that should be addressed by the Commission: "Whether emergency workers responding to an accident at a nuclear power plant have a right to an accurate and reliable measurement of the actual radiological dose received by each individual during the fulfillment of their responsibilities." Review Pet. at 1 (emphasis in original). That, however, is not the issue which underlies the Commonwealth's review petition. There is no disagreement between Licensee and the Commonwealth that emergency workers be provided with dosimetry adequate to provide an accurate and reliable measurement of the dose received by the worker. There is simply no need for Commission involvement to settle that question; all parties agree such dosimetry is necessary. Where Licensee and the Commonwealth part company is whether the existing quantities of self-reading dosimetry are sufficient to provide emergency workers with an accurate and reliable measure of the dose received. Licensee believes they are, as did both the Licensing and Appeal Boards. Indeed, the Commonwealth can point to no record evidence indicating a contrary conclusion.

The Commission should reject the Commonwealth's attempt to bootstrap a typical factual dispute between litigating adversaries into an important policy issue requiring Commission review.

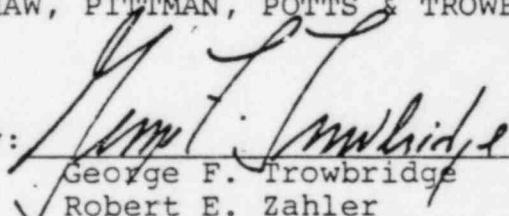
III. Conclusion

For the foregoing reasons the Commonwealth's petition for review of ALAB-698 should be denied. In the event the Commonwealth's petition is granted, Licensee requests that the Commission establish a schedule for the filing of briefs, pursuant to 10 C.F.R. § 2.786(b)(6), providing for the filing of a substantive brief by the Commonwealth, with an opportunity for reply by Licensee and other interested parties.

Respectfully submitted,

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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

OFFICE OF SECRETARY  
DOCKETING & SERVICE  
BRANCH

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LICENSEE'S RESPONSE TO NRC STAFF'S  
PETITION FOR REVIEW OF  
ALAB-698

On October 22, 1982, the Atomic Safety and Licensing Appeal Board ("Appeal Board") issued ALAB-698 in the above-captioned proceeding. Acting on Licensee's Exception No. 3 to the December 14, 1981 partial initial decision of the Atomic Safety and Licensing Board ("Licensing Board"), the Appeal Board ruled, subject to certain specified conditions, that the function of making protective active recommendations could reside with Licensee's Emergency Director located in the control room during the first four hours after declaration of a site area emergency. On November 12, 1982, the NRC Staff filed a petition seeking Commission-level review of this Appeal Board ruling.