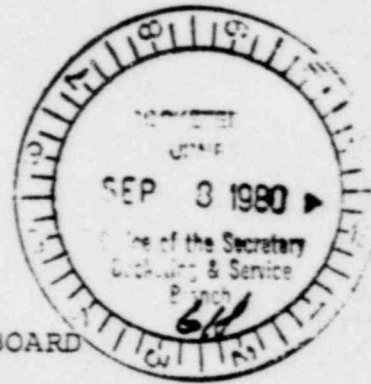


RELATED CORRESPONDENCE

3 Sept 80

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION



BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

IN THE MATTER OF

METROPOLITAN-EDISON COMPANY  
(Three-Mile Island Nuclear  
Generating Station,  
Unit No. 1)

:  
:  
: DOCKET No. 50-289 (Restart)  
:  
:  
:

ANSWERS TO LICENSEE'S INTERROGATORIES  
TO INTERVENOR, ANTI-NUCLEAR GROUP REPRESENTING YORK,  
ON REVISION TWO OF  
LICENSEE'S EMERGENCY PLAN

1.

(a) yes

(b) Contention 2(a) is directed to the adequacy of the Nuclear Regulatory Commission's Order on restart dated August 9, 1979 (44 F.R. 47821-25) which Order does not provide reasonable assurance that such resumption can occur without endangering the public health and safety, for the reason that the NRC fails to require the development and effectuation of adequate and effective radiological emergency response plans. Specifically, this contention goes to the fact that the radiological emergency response plan of the Commonwealth of Pennsylvania is not required to be brought into compliance with applicable standards of adequacy and effectiveness for such plans. See Contention II(A). Consequently, it does not matter whether or not the licensee has amended its plan to include as an appendix the revised Commonwealth of Pennsylvania Disaster Operations Plan, Annex E, Fixed Nuclear Facility Incidents. The contention goes to the adequacy of the August 19, 1979 Order itself.

2.

(a) yes

(b) The basis of this conclusion is identical with the answer contained in No. 1(b) above; that is to say, this contention attacks the adequacy of the NRC Order dated August 19, 1979, as set forth above to require counties to come into compliance with reasonable standards of adequacy and effectiveness for county plans as set forth in Contention II(A) and (D).

8009120226

G

DS03  
S  
1/0

3.

(a) yes

(b) Section 4.6.3.5 still does not require permanent off-site monitoring devices which register all forms of ionizing radiation and which can be remotely read on site.

(c) Refused. This information goes beyond the scope of the contention 2 F 1 since the contention in itself makes no allegations concerning the precise numbers of monitors needed. The second part of 3(c) is answered rather obviously that real time monitors would give instantaneous information necessary to adequate and efficient accident assessment. Response teams merely check out radiation levels off site and, therefore, there is lag time between their deployment and a developing accident scenario, so that the information is stale with respect to accident assessment evaluation.

(d) yes

(e) There is no information which has been supplied by the licensee which leads ANGRY to believe that the MIDAS radiological assessment system equals or exceeds that provided by the ARAC system. Our concerns on both the ARAC system and the MIDAS system are that whatever computer program is used by the licensee that it provides information analysis capability sufficient to permit the licensee to rapidly assess any accident so that the relevant information can be conveyed to PEMA and/or VRP. It is suggested that it is the licensee's responsibility to provide testimony that the MIDAS radiological assessment system will provide adequate information analysis capability necessary to obtain and analyze the volume of information essential for the protection of the public health and safety. Moreover, this contention goes to the adequacy of the August 19, 1979 NRC Order itself, since that Order fails to require an adequate computer program capable of analyzing the information referred to earlier, prior to restart.

(f) ANGRY is uncertain of the capabilities of the MIDAS assessment system at this time. Those capabilities which must be part of the MIDAS system are described in A Concept for an Atmospheric Release Advisory Capacity (ARAC), UCRL-51656, University of California, Lawrence Livermore Laboratory, October 2, 1974; and Atmospheric Release Advisory Capacity, Development and Plan for Implementation, UCRL-51839, June 5, 1975, and the update thereto dated 1979. See also NUREG 0694, I. Accident Assessment, NUREG 0654, appendix two, and any computer system should also have the capabilities establishing a nuclear data link as required in NUREG 0696, section V.

4.

(a) yes  
(b) With respect to the plans of the licensee, 10 CFR, Part 50 requires the licensee to have in its EP provisions for protective actions regarding livestock. The licensee's revision II to its EP fails to provide these provisions. The critique of the Commonwealth's plan is contained at ANGRY's revised contention III(BJ). ANGRY's critique of the York EP in this regard is contained at III(C13). The types of property contained under this would be any and all livestock of farmers in the applicable EP2.

5.

(a) yes  
(b) These letters fail to meet the requirement set out in NUREG 0654. See for example Section J., form and content of plans, II A, Evaluation Criteria, III, which provides:

"Each plan shall include written agreements referring to appropriate legal instruments such as legislation, among federal, state and local agencies and other support organizations having emergency response role within the emergency planning zones. The agreement shall identify the emergency measures to be provided in a mutually acceptable criteria for their implementation, and specify the arrangements for exchange of information."

(c)(1) Letter dated January 21, 1980 fails to set forth precisely what the various utilities will do, how many personnel would be committed, when they would be committed, and exactly what the plan of their respective roles would be in the event of an emergency.

(2) Letter dated January 3, 1980, from PEMA fails to outline a precise action which PEMA will take.

(3) Letter dated April 25, 1980, fails to state what arrangements Lebanon County would make available, what statutes it is operating under.

(4) Letter dated April 24, 1980, Kevin J. Malloy, same objections as above.

(5) Letter dated December 23, 1979, same objections as above.

(6) Letter dated December 24, 1979, Lancaster County Emergency Management Department, same as above.

OAK RIDGE NATIONAL LABORATORY

OPERATED BY  
UNION CARBIDE CORPORATION  
NUCLEAR DIVISION



POST OFFICE BOX X  
OAK RIDGE, TENNESSEE 37830

March 11, 1980

Mr. John Bowers  
Deep Run Farm Community  
R. D. 7 - Box 338  
York, Pennsylvania 17402

Dear Mr. Bowers:

Mr. Eisenhower has passed your letter of February 28, 1980 to me as I was concerned more with the area of interest to you. There was a six-person task group which studied the overall health physics functions at the Three Mile Island Nuclear Power Station.

The bulk of the standards for specific parts of a large health physics program are stated explicitly in the various parts of the Code of Federal Regulations, in NRC Regulatory Guides, and in ANSI Standards. However, in a large composite program, the general performance of the professional can be compared to that of persons certified by the American Board of Health Physics. In these respects, the staff at TMI were qualified by training and experience to do a proper job. Our criticism was not that they were inadequately trained but rather that there were too few of them. It was apparent that a great deal of health physics support was accomplished by contractors. Though this may have worked adequately under routine conditions, it resulted in fewer qualified persons in-plant to handle an accident. We also found that the number of instruments of various kinds ready for service, in an accident situation, was inadequate.

In conclusion, the answer to both your questions can be summarized as: "too few instruments and health physicists." Our opinion was that this was at least partially due to the large fraction of the work done by outside contractors.

Sincerely,

A handwritten signature in dark ink, appearing to read "J. A. Auxier".

John A. Auxier, Director  
Industrial Safety & Applied Health Physics

JAA:wn



(7) Letter dated May 28, 1980, from Middletown Fire Department fails to describe legislation under which Middletown Fire Department is operating and fails to set forth mutually acceptable criteria for implementation of its plan. The remaining 19 letters of agreement all fail in similar fashion to meet the requirements of NUREG 0654 as specified above. Additionally, the proposed letter of agreement from Hershey Medical Center is not available for review.

Moreover, none of the letters reviewed provide any basis for mutually acceptable criteria of implementation of emergency measures nor are specific arrangements made for implementation or exchange of information. An acceptable letter would obtain all information required by NUREG 0654 as cited above.

6.

(a) yes

(b) See report of the Health Physics Task Force to the President's Commission on Three-Mile Island and also see letter dated March 11, 1980, from John A. Auxier, Director, Industrial Safety and Applied Health Physics of the Oakridge National Laboratory, a copy of which is attached hereto.

(c) ANGRY is going to be in contact with John Auxier at the Oakridge National Laboratory and provide him with a copy of table B-1 to see whether or not in his opinion it meets the minimum staffing requirements necessary to protection of the public health and safety. At this time, however, ANGRY gives a conditional answer of no, in that it has no information to believe that table B-1 of NUREG 0654 contains insufficient minimum staffing requirements for health physics personnel.

7.

(a) yes

(b) ANGRY has deleted from contention III(AG) the language and mix of radionuclides discharged, but with that exception, the licensee's EP still fails to provide the information specified in contention III(AG).

8.

(a) yes

(b) Neither the licensee's plan as set forth in contention III(AH) at Page 8-8 of its EP nor the plan of the Commonwealth contained at its appendix 14 provides for participation of Federal agencies in the conduct of a radiation emergency exercise.

9.

- (a) yes
- (b) NUREG 0654 J.7. provides as follows:

"As specified in NUREG-0610, prompt notification shall be made directly to the off-site authorities responsible for implementing protective measures within the plume exposure emergency planning zone."

A notification to York and Lancaster counties under Annex B of the revised emergency plan does not change the fact that the plan does not provide for direct notification to York County and Lancaster County. The fact is is that Dauphin County is notified first and then after notifications to PEMA and from PEMA to BRP and then PEMA back to Dauphin, York and Lancaster are finally notified. This does not meet the requirements of the quoted section of NUREG 0654. See too, Appendix 3 to Commonwealth of Pennsylvania Disaster Operations Plan, Annex E.

10.

- (a) yes. See NUREG 0654, Table 2, Page 14.
- (b) See answer of the Commonwealth of Pennsylvania to ANGRY, first set of Interrogatories, Answer 7-C. See also the Commonwealth of Pennsylvania's response to ANGRY's first set of Interrogatories, Answer 7-B.

11.

- (a) yes
- (b) The basis for the concern contained in contention III-BE1 remains valid because the BRP plan still does not require the licensee to provide protective actions, guide and/or other criteria for implementing specific protective actions. However, this is a more technical aspect of the contention. Of key concern to ANGRY is that no where is the licensee required to provide, nor does the plan contain an analysis of how variation of the factor of time to onset of release will affect the choice of appropriate protective action. What we are concerned with here is a quantitative analysis of what protective action will be required based upon specific warning times. For example, what will be done if there is a one-hour warning time as opposed to a six-hour warning time. The concern expressed in contention IIIBE (2) still remains valid for the reasons stated above. The BRP

plan fails to require the licensee responsibility for providing variations of protective actions on such variables as time required to effect relocation, impaired mobility of parts of the population and potential impediments to use of egress routes such as rush hour traffic and inclement weather. See also NUREG 0654 J.10., Evaluation Criteria L and M.

12.

ANGRY adopts Mr. Steven Sholly's answer to licensee's interrogatory no. 5, served by Mr. Sholly on August 4, 1980, upon the licensee and the board and incorporates his answers herein as though set forth fully at this point.

13.

ANGRY adopts Mr. Steven Sholly's answer to licensee's interrogatory no. 6, served by Mr. Sholly on August 4, 1980, upon the licensee and the board and incorporates same herein.

14.

ANGRY adopts Mr. Steven Sholly's answer to licensee's interrogatory no. 7 served by Mr. Sholly on August 4, 1980, upon the licensee and the board and incorporates same herein.

15.

(a) yes. See ANGRY's revised contention 3-c. See also Sholly's answer to licensee's interrogatory no. 3, served by Mr. Sholly on August 4, 1980, upon the licensee and the board and incorporates same herein.

(b) yes. See ANGRY contention 3-c as revised and see also Mr. Sholly's answer to licensee's interrogatory no. 4 served by Mr. Sholly on August 4, 1980, upon the licensee and the board and incorporates same herein.

16.

(a) no. See Sholly's answer to licensee's interrogatory no. 8, which ANGRY adopts, as though set forth fully herein as answered by Mr. Sholly on August 4, 1980 and served upon the licensee and the board on said date. Add thereto, additionally, ANGRY is seeking information on this issue and intends to address same in its direct testimony.

(b) no. ANGRY adopts Mr. Sholly's answer to licensee's interrogatory no. 8 served by Mr. Sholly on August 4, 1980, upon the licensee and the board and incorporates same herein. And add

thereto additionally, there are no adequate current studies which can predict human behavior or fleeing responses in large numbers such as the total population at risk within the 20-mile EPZ as set forth in York County's proposed emergency plan. Consequently, there is no possibility of asserting with any accuracy whether or not there will be a "conflict" in use of access and egress routes.

17.

(a) ANGRY is investigating the factual basis of this contention at this time and will supplement its answers thereto and/or address same in its direct testimony.

(b) Same as a.

(c) There are no special notification provisions in the Lancaster County plan to notify old order Amish.

18.

(a) yes. The standard review plan is generally applicable to all proceedings and is a generally accepted standard for nuclear regulation. ANGRY knows of no reason why this guidance should not apply to this proceeding.

(b) yes. See Page 67 as follows:

"The plant has the capability to dispatch two radiation monitoring teams and receive initial monitoring data within one-half hour of the emergency declaration."

This statement impliedly warrants that the licensee must have at least one-half hour to undertake accident assessment.

(c) no.

(d) This reference is a proper reference, the standard review plan, section 13.3(II) (III) NUREG-75/087 does exist.

19.

(a) yes. If there are no local plans, there is no assurance that the duties of the local government units with regard to emergency preparedness and planning will be carried out.

(b) no.  
no.

20.

The inability of the Commonwealth to comprehend distinction between core melt and melt-through accidents is disclosed in the Commonwealth's answer to follow up interrogatory



of ANGRY, No. 40. Also see Commonwealth's response to ANGRY's second set of Interrogatories, Answer thereto No. 23-b. In a melt-through accident, the core melts down and into the ground. There is a continuous release of radioactivity over a long period of time. In a core melt accident, the core melts down, and somehow there is a release into the atmosphere, most likely through a breach of containment. The significance of the failure to grasp this distinction is that people would die due to inappropriate selection of protective actions.

21.

See Commonwealth's response to ANGRY's follow on Interrogatory No. 40. The information contained in EPA 520/1-78-001B is all significant. ANGRY has the right as do all people in the area of Three-Mile Island to depend upon state of the art technology which is represented by said document.

22.

The training program did not exist until March 1980. A training program less than six months old could not have been completed yet. Also see Commonwealth's responses to ANGRY's second set of interrogatories, Answers no. 32 and no. 33.

23.

- (a) yes
- (b) Farmers cannot merely stay inside, they have to care for their livestock.
- (c) Farmers should be indoctrinated into the use of protective clothing, the use of gas masks and proper procedures for cleansing exposed parts of their bodies and such other provisions which are appropriate.

24.

- (a) See the deposition of Thomas Jerusky, dated Monday, March 24, 1980, in the above-captioned matter at Pages 15 through 18.
- (b) This information is not known to ANGRY. See 24(a) above.

25.

- (a) yes
- (b) Annex N, does not satisfy the requirements of NUREG 0654 section L.

26.

The contention adequately states the concern. The significance of the Commonwealth being assigned the responsibility for arranging emergency wrecker and fuel services to risk counties, and York County's delegation of that responsibility to the National Guard is that this critical function may not be done; i.e., there is no assurance that it will be carried out.

27.

In NUREG 0654, section F-1 (a), the term "local" means county and municipalities and townships.

28.

A written agreement described in NUREG 0654, criterion a-3, are required to give assurance to the public that the knowledge and ability to perform the responsibilities as delegated to various organizations under the plan will be carried out in the event of a nuclear accident at Three-Mile Island.

29.

None.

30.

- (a) See answer to Interrogatory No. 28 above.
- (b) See answer to Interrogatory No. 28 above.
- (c) See answer to Interrogatory No. 28 above.

31.

For example, Appendix 3 to Annex A regarding protective actions governing the York County plan with reference to health-medical operations, provides that in a take-cover situation, medical personnel should "be prepared to assist State Department of Health in distributing thyroid blocking and other radiological health materials." Nowhere is it specified how the distribution of potassium iodide from the Department of health officials is to be accomplished. Appendix I to the state plan indicates that no SSKI is to be administered to general public during precautionary evacuation stage. See Page 12 of Appendix I. Yet, Annex A regarding

health-medical operations seems to imply that medical personnel should be prepared to assist in the distribution of thyroid blocking agent even in event of a take cover. Moreover, it is unclear whether a take cover is equivalent to trigger the same protective actions as provided for a precautionary evacuation under the state plan. This is because the state and York County plans are not coordinated. The York County plan does not provide any specific direction to medical personnel as to how they are to link up with Department of Health personnel to provide for effective and timely distribution of potassium iodide. No specific reference can be made to the provisions of the York County plan on this matter since there are no specific directions given to medical personnel.

32.

If pre-planning with respect to distribution of information concerning the agricultural information center program is not carried out, no one will know what to do in the event of an emergency at Three-Mile Island.

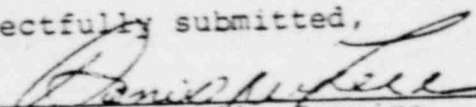
- (a) The essential persons are farmers and their employees.
- (b) See contention 3-c-13.
- (c) See first answer to Interrogatory No. 32.
- (d) So that farmers will know the various protective action alternatives available to them, and so that in the event of an emergency they will know what to do.
- (e) See first answer to this interrogatory and (d) above.

33.

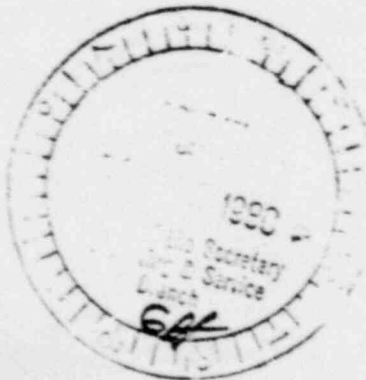
The York County plan assumes a 20-mile EPZ. The information center is within the 20-mile EPZ. See also section 3-i of the York County plan.

Respectfully submitted,

by:

  
Daniel M. Pell, Esquire  
Attorney for ANGRY  
32 South Beaver Street  
York, PA 17401  
(717) 845-6291

September 3, 1980



CERTIFICATE OF SERVICE

I, Daniel M. Pell, Esquire, hereby certify that I served a true and accurate copy of the foregoing Answers to Licensee's Interrogatories on the following individuals by placing a copy of same in the U. S. Mails, postage prepaid, and addressed as follows on September 3, 1980.

Ivan W. Smith, Chairman  
Atomic Safety and Licensing  
Board Panel  
U. S. Nuclear  
Regulatory Commission  
Washington, DC 20555

Dr. Walter H. Jordon  
881 West Outer Drive  
Oakridge, TN 37830

Dr. Linda W. Little  
5000 Hermitage Drive  
Raleigh, NC 27612

George F. Trowbridge, Esquire  
Shaw, Pittman, Potts & Trowbridge  
1800 M Street, N.W.  
Washington, DC 20006

Docketing and Service Section  
U. S. Nuclear  
Regulatory Commission  
Washington, DC 20555

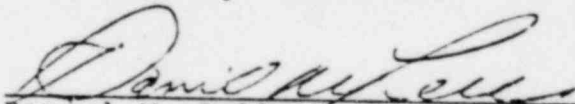
Executive Legal Director  
U. S. Nuclear  
Regulatory Commission  
Washington, DC 20555

Jordan D. Cunningham, Esquire  
Fox, Farr & Cunningham  
2320 North Second Street  
Harrisburg, PA 17110

Mr. Steven C. Sholly  
304 South Market Street  
Mechanicsburg, PA 17055

Ellen R. Weiss, Esquire  
Harman and Weiss  
1725 I Street, N.W.  
Suite 506  
Washington, DC 20006

Theodore A. Adler, Esquire  
Widoff, Reager, Selkowitz  
and Adler, P.C.  
P. O. Box 1547  
Harrisburg, PA 17105

  
Daniel M. Pell, Esquire