

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report Nos. 50-277/86-06
50-278/86-06

Docket Nos. 50-277
50-278

License Nos. DPR-44
DPR-56 Priority -- Category C

Licensee: Philadelphia Electric Company
2301 Market Street
Philadelphia, Pennsylvania 19101

Facility Name: Peach Bottom Atomic Power Station

Inspection At: Delta, Pennsylvania

Inspection Conducted: March 10-13, 1986 and March 18, 1986

Inspectors: James J. Hawhurst April 1, 1986
J. J. Hawhurst, Emergency Preparedness
Specialist, Team Leader date

D. Vito 4/2/86
D. Vito, Senior Emergency Preparedness
Specialist date

Approved by: T. L. Harpster for 4/2/86
T. L. Harpster, Chief date
Emergency Preparedness Section

Inspection Summary:

Combined Inspection on March 10-13, 1986 (Report Nos. 50-277/85-36 and 50-278 85-34)

Areas Inspected: Routine unannounced emergency preparedness inspection at the Peach Bottom Atomic Power Station and a subsequent meeting held at PECO headquarters on March 18, 1986. The inspection covered three areas: Confirmatory Action Letter No. 85-17 commitments; previous open items; and the minimum staffing plan for the PBAPS site and its relation to the emergency organization. The inspection was performed by two NRC Region I inspectors.

Results: The licensee has adequately met the commitments stated in the November 1985, Confirmatory Action Letter. Six open items have also been closed as a result of this inspection. No violations were identified.

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DETAILS

1. Persons Contacted

The following licensee personnel were contacted during the inspection:

D. Ahmuty, Administrative Support Coordinator
G. Anderson, EP Trainer (Consultant)
R. Fleischmann, Plant Manager
T. Geyer, Shift Technical Advisor
A. Hilsmeir, Manager, Radiation Protection
R. Kankus, Director, Emergency Planning
B. Logue, Superintendent, Nuclear Services
D. Olsman, Senior Chemist
S. Roberts, Operations Engineer
D. Rombold, Senior Health Physicist (Corporate)
J. Tucker, Site Emergency Planning Coordinator
T. Ullrich, Superintendent, Nuclear Generation
W. Widener, Shift Superintendent
S. Wookey, Training Coordinator

2. Licensee Action on Confirmatory Action Letter No. 85-17

2.1 Background

The licensee's annual emergency preparedness exercise was held on October 17, 1985. During the exercise, there was indication of poor performance in certain areas. A subsequent meeting was held to discuss these problem areas and a Confirmatory Action Letter (CAL) was issued on November 11, 1985. The CAL (No. 85-17) addressed four areas where expedient corrective action was necessary along with the agreed upon completion dates. These four areas are identified and discussed below.

2.2 Review

The inspector reviewed the reference documents listed and held discussions with licensee representatives to determine whether appropriate corrective actions had been taken for each of the four items below.

2.3 Action Items, Findings and References

- 2.3.1.1 (85-17-10) Review and revise PBAPS Emergency Plan and Implementing Procedures to clearly define the emergency response organization and the responsibilities of key personnel and the lines of information flow among key managers.

2.3.1.2 Findings

The inspector determined that the Emergency Plan and applicable implementing procedures have been changed to reflect the general and specific responsibilities of each emergency response organization (ERO) position. The references to "interim" ERO positions have been removed. The licensee has agreed that any person who has been designated for a particular ERO position or as an alternate to a particular ERO position should be trained to handle all of the responsibilities of that position. Maintaining the continuity of position responsibilities and authorities should provide for efficient personnel turnover and clearer lines of information flow between ERO managers.

This item has been adequately addressed by the licensee.

2.3.1.3 References

- PBAPS Emergency Plan Section 5, Organization, Rev. January 1986
- Emergency Plan Procedures (EPPS)
 - EP-120, Dose Assessment Team, Revision 2, 12/31/85
 - EP-210A, Field Survey Groups, Revision 1, 1/15/86
 - EP-209, Telephone Lists for Emergency Use, Revision 11, 12/31/85
 - EP-207, Personnel Safety Team Activation, Revision 7, 9/12/85
 - EP-205A, Chemistry Sampling and Analysis Team, Revision 6, 10/16/85
 - EP-201, TSC Activation, Revision 9, 1/7/86
 - EP-202, OSC Activation, Revision 8, 10/16/85
 - EP-203, EOF Activation, Revision 9, 1/8/86

2.3.2.1 (85-17-02) Review and revise the emergency plan and implementing procedures to incorporate the basis and methodology for implementing protective action decisionmaking.

2.3.2.2 Findings

The inspector determined that the revised EP-317, "Determination of Protective Action Recommendations," provides direction and guidance for the development of PARs. The inspector also noted that training was provided to key managers in the use of this procedure.

This item has been adequately addressed by the licensee.

2.3.2.3 References

- PBAPS Emergency Plan, Section 6.7, Protective Actions, July 1985
- Emergency Plan Procedure, EP-317, Determination of Protective Action Recommendations, Rev. 4, January 1986

2.3.3.1 (85-17-03) Review and revise the event classification procedure to provide for both descriptive conditions and specific action levels that ensure that declarations are based upon the integration of plant parameters and radiological and environmental conditions.

2.3.3.2 Findings

The inspector found that the Emergency Plan and event classification procedure have been changed by the licensee to indicate that the Emergency Director not only use specific plant parameter action levels to effect the event classification but may use his discretion to classify or escalate the classification of the event. The licensee has added a section to Appendix EP-101-1 denoted as General Conditions to allow for this judgmental capability in Emergency Action Levels chart.

This item has been adequately addressed by the licensee.

2.3.3.3 References

PBAPS Emergency Plan, Section 4, Emergency Conditions, Rev. January 1986

- Emergency Plan Procedure EP-101, Classification of Emergencies, Rev. 15, 1/10/86.

2.3.4.1 (85-17-04) Conduct training, both classroom and practical, to assure that:

- adequate trained personnel are available,
- personnel are knowledgeable of EALs, and
- personnel are knowledgeable of PARs.

2.3.4.2 Findings

The inspectors reviewed training records, held discussions with licensee personnel in key management positions and determined in most cases, training was effectively

implemented. The inspector found that the training program will provide well qualified/trained persons for key positions to respond to an emergency. The retraining program was near completion. At the site, all except two shift superintendents had attended training for the Emergency Director position and the last two were scheduled for March 14, 1986. At the PECO corporate office both the Superintendent of Nuclear Generation and the Superintendent of Nuclear Services have been trained on the latest revisions of the PBAPS Plan and Procedures.

This item has been adequately addressed by the licensee.

2.3.4.3 References

- PBAPS Emergency Plan, Section 5, Organization, January 1986

3. Licensee Action on Previous Inspection Findings

- 3.1 (Closed) 50-277/83-06-03. Complete mechanical maintenance program for sirens.

The inspector held discussions with licensee representatives and reviewed a PECO memo dated October 11, 1985, which included the "Maintenance Check Sheet" and "Siren Service Manual". The inspector noted that maintenance and surveillance on the system is ongoing. The PBAPS Siren System was last serviced Fall 1985 by Susquehanna Branch Personnel and the Overhead Transmission Group. Also, the licensee has a procedure EPS-I-201, issued 12/17/85, which establishes the responsibilities and methods for responding to, reporting of, and correction of siren problems.

- 3.2 (Closed) 50-277/83-33-06. Consider actual meteorological measurements in the "RAPID" dose calculation.

The inspector held discussions with licensee personnel and determined that the proposed new computerized dose assessment program will adequately consider actual meteorological measurements in the "Fast A Mode."

- 3.3 (Closed) 50-277/85-03-01; 50-278/85-03-01. Modify EP-315 to conform with generally accepted NRC guidance on atmospheric dispersion.

The inspector held discussions with licensee personnel and noted that the proposed new computerized dose assessment program will calculate atmospheric dispersion using: delta temperature and the Pasquill-Gifford curves, and 15 minute average wind speeds and direction parameters.

- 3.4 (Closed) 50-277/85-03-04; 50-278/85-03-04. Members in the PBAPS, emergency response organization for the calendar year 1984, had not received the required emergency response training.

The inspector reviewed training records for 30 members of the emergency response organization for the calendar year 1985. The members were selected from Emergency Plan Procedure EP-209 (callout list) and several of its appendices. The inspector found that the training for the selected individuals had been completed with some minor exceptions. The most notable exception was the shift supervisors who were listed in the records under training for the position of Emergency Director. All of the shift supervisors had only been trained in a portion of the lesson plans required for the Emergency Director position in 1985. This discrepancy was explained by the licensee in that the previous approach of designating interim emergency response organization positions affected the training of the shift supervisors. In 1985, the shift supervisors were designated as Interim On-Shift Emergency Directors and did not receive the full complement of Emergency Director training. The licensee has committed to training the shift supervisors in all of the Emergency Director lesson plans in 1986.

- 3.5 (Closed) 50-277/83-22-01; 50-278/83-22-01. Personnel making entries into radiologically controlled areas during emergencies should be qualified to wear SCBAs.

The inspector held discussions with licensee personnel and noted that a system was in place to track those persons currently qualified to wear SCBA. The program, PRPP4, is updated nightly Monday through Friday and provided to Station Health Physics and Bechtel Corporation personnel who are responsible for distribution of all respiratory equipment. This information will be available in the Auxiliary OSC during an emergency.

- 3.6 (Closed) 50-277/83-22-02; 50-278/83-22-02. Management review to ensure an adequate system is implemented to maintain current list and to notify supervision when SCBA requalification is required.

The inspector noted that respiratory protection training is offered annually coincident with general employee training and supervision can track employee qualification on the PRPP4 computer listing.

4.0 Minimum Staffing Requirements for Emergency Response

Background

In the past several years, the licensee has submitted to NRC/NRR licensing proposed exceptions to the staffing goals for emergencies noted in NUREG-0737, Supplement 1, and reiterated in NUREG-0654/FEMA-REP-1, Revision 1, Table B-1. The inspector reviewed the latest submittal by the licensee (dated February 11, 1986) to determine its accuracy as related to present PBAPS staffing and to future staffing commitments.

Review and Findings

The following findings were noted:

- a) The licensee has stated that offsite dose assessment calculations within the first 30 minutes after a fast breaking accident has begun will be performed by a person "on-shift" who is trained at the same level as senior health physics management personnel. The submittal does not state what plant department this person will come from or what minimum qualifications will be required of this person. Although it is acknowledged that this person will be specified after the new computer dose assessment system is installed and appropriate training is completed, the inspector inquired as to what person would currently be tasked to perform this function. The prevailing response was that the Shift Superintendent (as Emergency Director) is responsible for assuring that the initial dose assessment is done and that he would appoint someone to do it. The unanimous response to the follow-up question of....What person would be appointed?....was the Shift Technical Advisor (STA). The inspector noted that this action would appear to burden the STA with too many "immediate" response tasks. This will be detailed further in a later discussion of STA responsibilities in this report.

The inspector then inquired as to what person would probably be tasked to perform this function in the future if this responsibility is taken away from the STA. The tentative response was the Senior Health Physics Technician on-shift. The inspector questioned as to whether this person has the basic qualifications and experience to fill an emergency response organization position which involves protective action decisionmaking. This will have to be considered in the final resolution of this area.

During a follow-up meeting held at the PECO corporate office on March 18, 1986, management representatives stated that the STA will not be tasked with the dose assessment function after the refined dose assessment model is installed and appropriate personnel are trained. It was not stated, however, who specifically will be tasked with performing this function. The licensee stated that the needed qualifications of this person will be determined after the new dose assessment model and its output are evaluated and acceptance tested which is scheduled for the third quarter of this year.

- b) The licensee has taken exception to the Table B-1 requirement of supplying an additional person within 30 minutes after the start of an accident to provide Core Physics/Thermal Hydraulics calculations and consultation. The licensee has stated that the STA on-shift will perform both of these functions. The acceptability of the STA performing both of these Table B-1 functions is a matter of discussion between the licensee and NRC/NRR.

- c) The licensee submittal of February 11, 1986 appears to indicate that there are two people on shift to initiate repair and corrective actions following an incident, one representing mechanical maintenance and the other representing electrical maintenance. Interviews with site personnel indicated that these functions are performed by one person who has the capability to identify the craft work that would be needed. Although this approach would appear to be a feasible alternative, the licensee should clarify what is stated in the submittal.
- d) It is not clear from the submittal whether all of the required on-shift health physics emergency response functions will be met by the staffing proposed in the February 11, 1986 submittal.
- e) In general, the positions noted in the licensee's submittal should be more specifically related to onsite positions so that agreement with Table B-1 requirements can be more clearly evaluated.
- f) The licensee agreed, on March 18, 1986, to follow up on these areas of ambiguity and clarify their minimum staff position at the PBAPS. In addition, a drill to evaluate the initial emergency organization using the minimum staffing plan is tentatively scheduled for September 1986.

Exit

The licensee acknowledged near completion of the CAL action items and has scheduled drills for the next two quarters in 1986. The licensee also agreed to follow-up on the clarification and implementation of their minimum staffing plan relative to the initial emergency organization.

At no time during the inspection were written materials given to the licensee.