

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-352/84-61

Docket No. 50-352

License No. CPPR-106 Priority - Category C

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

Facility Name: Limerick Generating Station

Inspection At: Limerick, Pennsylvania

Inspection Conducted: October 3-5, 1984

Inspectors: Craig Z. Gordon
Craig Z. Gordon, Emergency
Preparedness Specialist, EPS

1-21-85
date

E. J. Wojnas, EPS
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Approved by: T. L. Harpster
T. L. Harpster, Chief
Emergency Preparedness Section

1/31/85
date

Inspection Summary: Inspection on October 3-5, 1984 (Report No. 50-352/84-61)

Areas Inspected: Announced follow-up inspection of emergency preparedness items from a prior appraisal performed on June 11-22, 1984 (Report No. 50-352/84-18). The inspection involved 20 inspector hours by three regionally-based inspectors.

Results: Corrective actions were verified as being completed on 17 of 18 items required for fuel load. Although not specifically required for fuel load, 3 of the 6 Appendix B items were also corrected. No violations were identified.

DETAILS

1. Persons Contacted

- *J. J. Connelly, QA Engineer, PECO
- *J. M. Corcoran, QA Branch Head, PECO
- *J. E. Dery, QA Engineer, PECO
- *C. R. Endriss, Reg. Engineer, PECO
- E. R. Firth, Superintendent, Nuclear Training, PECO
- *C. B. Harmon, QA Engineer, PECO
- *R. A. Kankus, Director, Emergency Preparedness, PECO
- *D. A. Marascio, QA Engineer, PECO
- G. W. Murphy, Tech. Support H.P., PECO
- R. L. Patterson, Energy Consultants
- J. M. Uhland, Instructor, Emergency Planning, PECO
- *W. T. Ulrich, Superintendent, Nuclear Generation
- *V. A. Warren, Test Engineer
- R. S. Wenger, Energy Consultants

Other onsite licensee personnel were also contacted during the inspection.

*Denotes those present at exit meeting.

2. General

During the period June 11-22, 1984, the NRC conducted an appraisal of the state of emergency preparedness at the Limerick Generating Station. As a result of this appraisal, the NRC identified 43 significant items requiring resolution in order for the licensee to achieve an adequate state of emergency preparedness and 6 improvement items. These findings were transmitted to the licensee by letter dated August 14, 1984, with Appraisal Report No. 50-352/84-61 enclosed. In letters to the NRC dated September 7, September 21, September 26 and September 27, 1984, the licensee committed to correct all of the significant findings and to consider the improvement items. The purpose of this inspection was to review the status of the licensee's actions on those items in need of corrective action prior to fuel load.

3. Licensee Action on Appraisal Findings

(Closed) 50-352/84-18-08: Organize and consolidate training records so that it is possible to track the progress of qualification for each individual assigned to specific emergency response duties.

A computerized Emergency Plan Training Tracking System has been implemented and individual qualification cards are now maintained. Information stored on the computer includes individual Emergency Plan and Emergency Plan implementing procedure training as it relates to the training matrix. This includes completion of specific lesson plans and dates when training was received. PECO supervisory personnel submit monthly updates of

personnel in need of training to the training department for input to the computer. The inspectors reviewed training section computer printouts and determined that the training status of key emergency response personnel can be identified for specific course work/classroom activity and hands-on training.

(Closed) 50-352/84-18-09: Develop a means to evaluate and record individual proficiency for out of classroom training activities, walk-throughs, mini-drills, and others.

The Emergency Plan training qualification card includes Section II for practicality training, mini-drills, and exercise participation for each individual. The specific function within the emergency organization performed by the individual during drills and exercises is also described. The Training Coordinator is required to evaluate qualification cards for classroom instruction and practicality training and determine qualification approval for both normal duties and emergency preparedness duties.

(Closed) 50-352/84-18-10: Specify General Employee Training (GET) and retraining requirements in the Emergency Plan.

The inspectors reviewed proposed Revision 11 to the Emergency Plan, dated 10/84, and determined that General (initial) Employee Training and retraining requirements are provided for each major category or position of the emergency response organization.

(Closed) 50-352/84-18-11: Complete training and qualify all emergency organizational elements, so that instructors can verify with a reasonable degree of assurance that they will effectively perform their emergency duties during actual emergencies.

The inspectors reviewed a representative sample of personnel training records and determined that initial training is provided to new personnel within thirty days of arrival and job-related (matrix) training is completed within one year. Training has been completed for key personnel so that augmentation of primary and alternate emergency organizations can be achieved. The Training Coordinator and Site EPC (or designated representative) are the individuals responsible for verifying when training is complete and personnel are qualified to perform emergency response functions.

(Closed) 50-352/84-18-12: Implement a centralized Emergency Plan training records system consistent with the findings of Section 3.1 (50-352/84-18-08), and the revised emergency organization which will allow determination of the progress of emergency response personnel toward full qualification.

Specific onsite training records have been consolidated by the Training Department within the Technical Support Center. Training records for offsite groups have been consolidated through use of contractor personnel and are maintained in a building adjacent to the site. The inspectors

reviewed lesson plans for onsite and offsite training classes, held discussions with training instructors and determined that the record keeping system is centralized for onsite and offsite training to allow a determination of progress of emergency personnel.

(Closed) 50-352/84-18-13: Complete control room Unit 1 and common area installations and ensure that all emergency equipment, supplies, and supporting documentation are in place.

The inspectors reviewed procedure ST-O-EPP-351-0, Revision 2, "Quarterly Emergency Equipment Inventory," and inspected the inventory of selected emergency equipment, supplies and supporting documentation. Unit 1 control room and common area installations have been completed. The inspectors verified that the emergency equipment inventories stated in the procedure were available and in place.

(Open) 50-352/84-18-14: Complete installation, testing, and turnover of the Technical Support Center (TSC) communications, ventilation, radiation monitoring, Emergency Response Facility Data System (ERFDS), personnel dosimetry, and thyroid blocking systems and equipment.

Based upon the licensee's response and discussions with emergency response staff, this item will remain open until the areas of TSC radiation monitoring and thyroid blocking systems are addressed.

(Closed) 50-352/84-18-15: Ensure that TSC direct radiation protection factors comply with habitability guidance of paragraph 2.6 of NUREG-0696.

The inspectors reviewed the licensee's response to this item in a letter dated September 27, 1984, as well as supporting data supplied on October 9, 1984. Calculations by the licensee and its contractor during the design of the Technical Support Center (TSC) have been verified by the inspectors and indicate that post-accident doses will comply with the habitability guidance of paragraph 2.6 of NUREG-0696. This item is considered closed; however, the NRC will continue to examine the licensee's progress on implementation of NUREG-0737 items.

(Closed) 50-352/84-18-16: Remove the wooden bridge which is installed to couple the Unit 1 protected area with the TSC. It violates the integrity of the protected area isolation zone.

The inspectors determined that the wooden bridge has been removed.

(Closed) 50-352/84-18-17: Establish an equipment and supply inventory for the Operating Support Center (OSC). Outfit the space, stow emergency materials and install locks or seals as appropriate.

The inspectors reviewed procedure ST-O-EPP-351-0, Revision 2, "Quarterly Emergency Equipment Inventory," Sections 6.2.2, 6.2.3 and 6.2.5 of the Emergency Plan, and determined that an equipment and supply inventory for the Operations Support Center (OSC) had been established and implemented.

The designated area provided adequate storage space for equipment and was found to be locked and sealed.

(Closed) 50-352/84-18-18: Review the concept of operations of the OSC with respect to the number of personnel assigned under all conditions.

The inspectors reviewed procedures EP-110, Revision 3, "Personnel Assembly and Accountability," and EP-202, Revision 2, "Operations Support Center (OSC) Activation," and held discussions with licensee personnel. The inspectors determined that the concept of operations for the OSC had been reviewed with respect to the number of personnel assigned under all conditions. Initial accountability and assembly areas appear to be adequate to perform the required functions. Personnel that are considered excess are reassembled in the maintenance shop for reassignment.

(Closed) 50-352/84-18-19: Designate a specific location for an alternate OSC; define the staffing therein; revise supporting documentation as required to ensure continuity of operations in the alternate OSC.

The inspectors reviewed procedures EP-110, Revision 3, "Personnel Assembly and Accountability," and EP-202, Revision 2, "Operations Support Center (OSC) Activation," and found that the location of the alternate OSC and staffing is identified. Appendix EP-110-1, Revision 2, of Procedure EP-110 is appropriate to ensure continuity of operations in the alternate OSC.

(Closed) 50-352/84-18-20 and 50-352/84-18-21: Establish means for access control for the EOF. Include checklists used in the EOF in EP-203, "EOF Activation."

The inspectors reviewed procedure EP-203, Revision 2, "Emergency Operations Facility Activation," and determined that a means had been established for access control and checklists were included in the procedure.

(Closed) 50-352/84-18-27: Specify alternate assembly areas in the event that primary areas should become uninhabitable; mark primary and alternate assembly areas; revise the Emergency Plan and EPIP-110 to identify all assembly and reassembly areas; identify monitoring and decontamination capability for each and where no capability exists at the assembly area, identify the sources from which support equipment and supplies would be obtained.

The inspectors reviewed procedures EP-110, Revision 3, "Personnel Assembly and Accountability," and EP-254, Revision 0, "Vehicle and Evacuee Control Group," and determined that alternate assembly areas were specified. EP-110 had been revised to identify all assembly/reassembly areas and associated monitoring and decontamination capability. Equipment inventories at each facility were identified in procedure ST-0-EPP-351-0, Revision 2, "Quarterly Emergency Equipment Inventory."

(Closed) 50-352/84-18-28: Establish an onsite medical facility as required by 10 CFR 50, Appendix E, and NUREG-0654, which is capable of supporting the various scenarios that may occur during accidents including the simultaneous or sequential handling of several injured and contaminated persons.

The inspectors reviewed procedure EP-352, Revision 2, "Search and Rescue/ First Aid," Section 6.5 of the Emergency Plan and inspected the onsite medical facility located within the owner controlled area. The inspectors determined that the onsite medical facility met the requirements of 10 CFR 50, Appendix E, and criteria of NUREG-0654 and was capable of supporting accidents including the simultaneous or sequential handling of several injured and contaminated personnel. Discussions with LGS Emergency Response personnel indicate that a revision to the Emergency Plan is being prepared.

(Closed) 50-352/84-18-32: Upgrade the Emergency Plan to include provisions for the Emergency Director to have the option to activate the Emergency News Center prior to a site area or general emergency.

The inspectors reviewed the licensee's proposed change to Section 7.1.7 of the Emergency Plan dated September 26, 1984, and determined that the change has been made to allow the Emergency Director to have the option to activate the Emergency News Center prior to a site area or general emergency.

(Closed) 50-352/84-18-33: Ensure that the contents of all emergency kits are as described in the Emergency Plan and Implementing Procedures, that inventories are consistent with the description of contents in ST-O-EPP-351-0, Revision 2, and verify that portable radiological survey instrumentation in emergency kits are calibrated.

The inspectors reviewed procedure ST-O-EPP-351-0, Revision 2, "Quarterly Emergency Equipment Inventory," and performed a physical inventory of emergency equipment, supplies, and supporting documentation as described in the Emergency Plan and implementing procedures. The inspectors determined that the inventories are consistent with the description stated in the procedure, however, all portable radiological survey instrumentation in the emergency kits had not been calibrated. Calibration of such instrumentation is necessary prior to initial criticality.

(Closed) 50-352/84-18-34: Verify the operability and adequacy of all Process Radiation Monitors; establish procedures for calibration and calibrate all ARMs and PRMs.

This item was closed during a separate NRC inspection and documented in NRC Inspection Report No. 50-352/84-45.

(Closed) 50-352/84-18-35: Complete the installation and verify the operability of Reg. Guide 1.97 type A-D nonradiation process monitors.

The Resident Inspector determined that preoperational test IP 78.1 verified the operability of the source range neutron monitors. Also, IP 4.1, IP 24.1, IP 100.1 and IP 100.4 verified the operability of the 4 KV safeguards power. The containment hydrogen recombiner and the containment H₂/O₂ analyzer are covered in IP 73.1 which was in the process of being formalized. The steam leak detection system was checked in IP 83.3. The final two tests are deferred based upon a letter from the licensee to NRR dated July 17, 1984; the tests will be completed and the results approved prior to initial criticality and prior to installation of the reactor pressure vessel. The emergency response facility display system is proposed to be operational by April 1, 1985, but portions of this system needed to support startup testing and low power operations were functional.

(Closed) 50-352/84-18-38: Improve the exposure of sensors on the primary tower.

The inspectors reviewed the LGS staff response, held discussions with licensee personnel, visited the three tower locations and noted that recent grading around the primary tower conforms to the 10:1 stand-off criteria. However, the inspectors found that the area surrounding the primary tower was filled with numerous low level wind flow obstructions (i.e., trailers, parts) which should be removed prior to initial criticality.

(Closed) 50-352/84-18-39: Establish by means of sufficient data that the current meteorological measurements system provides reliable indication of meteorological variables.

The inspectors held discussions with licensee personnel, reviewed meteorological data summaries and noted that the primary meteorological monitoring equipment has been found reliable for the period 10/15/83 - 4/15/84. Joint data recovery for this period exceeded the required 90%.

(Closed) 50-352/84-18-40: Provide updated radiological assessment/projection procedures which are consistent with acceptable atmospheric stability estimators.

The inspectors reviewed LGS procedures EP-315 and 316, held discussions with licensee personnel, and noted that acceptable methods were used to indicate atmospheric stability and priorities have been established consistent with NRC criteria.

(Closed) 50-352/84-18-41: Implement procedures for inspecting the instrumentation at the meteorological towers and establish means to document results.

The inspectors reviewed "Check procedure for the Limerick Meteorological System," RT-11-00449, held discussions with licensee personnel, and observed part of an instrument calibration. The inspectors found that procedures for calibration and weekly surveillance of the meteorological instruments have been developed, implemented, and results documented.

(Closed) 50-352/84-18-43: Provide protective clothing supplies for all locations for emergency response functions consistent with the types and levels of radioactive contamination expected during emergencies.

The inspectors reviewed protective clothing supplies in the Control Room, Technical Support Center, Operations Support Center, and the Limerick Airport and determined that adequate protective clothing supplies were provided for emergency response functions consistent with the types and levels of radioactive contamination expected during emergencies.

(Closed) 50-352/84-18-48: Identify in EPIP's, transportation arrangements to be provided for site personnel in the event of a site evacuation.

The inspectors reviewed procedures EP-305, Revision 2, "Site Evacuation," and EP-254, Revision 1, "Vehicle and Evacuee Control Group," and determined that transportation arrangements have been provided, i.e., use of personal vehicles for site evacuation to reassembly areas has been designated.

4. Exit Meeting

On October 5, 1984, inspectors met with individuals listed in Paragraph 1 and summarized the scope and findings of the inspection.

At no time during this inspection did the inspectors provide any written information to the licensee.