U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report Nos. 50-277/89-21
50-278/89-21

Docket Nos. 50-277
50-278

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

Licensee: Philadelphia Electric Company
P. O. Box 7520
Philadelphia, Pennsylvania 19101

Facility Name: Peach Bottom, Units 2&3

Inspection At: Delta, Pennsylvania

Inspection Conducted: August 28 - September 1, 1989

Inspectors: T. Dragoun, Senior Radiation Specialist — date 9/27/89

W. Thomas, Radiation Specialist — date 9/27/89

Approved by: W. Pasciak, Chief, FRPS, FRS&SB, DRSS — date 9/27/89

Inspection Summary: Inspection on August 28 to September 1, 1989 (Report Nos. 50-277/89-21 and 50-278/89-21)

Areas Inspected: Posting and labeling; organization and staffing; radiation work permits; abandoned radwaste systems; and auditing.

Results: No violations were identified.

DETAILS

1.0 Persons Contacted

1.1 Philadelphia Electric Company

*J. Franz, Plant Manager
*D. LeQuia, Superintendent-Plant Services
*P. Sawyer, Senior Health Physicist
*G. Roach, Corporate Director-Rad Controls
P. Swafford, Applied Health Physicist
*M. Kaminski, Corporate Radiological Controls
*G. Hansen, Regulatory Engineer
*T. Cribbe, Regulatory Engineer
*J. Bernard, NQA
G. Adams, Safety Engineer
W. Downey, Acting Rad. Engineering Health Physicist

1.2 NRC Personnel

*T. Johnson, Senior Resident Inspector
*R. Urban, Resident Inspector
*T. Dragoun, Senior Radiation Specialist, Region I
*W. Thomas, Radiation Specialist, Region I

*denotes attendance at the Exit Interview on September 1, 1989.

During the course of this inspection, additional personnel were contacted or interviewed.

2.0 Purpose

The purpose of this routine inspection was to review the licensee's radiological controls program with respect to the following elements:

- Posting and Labeling
- Organization and Staffing
- Radiation Work Permits
- Abandoned Radwaste Systems
- Audits and Appraisals

3.0 Use of Radiation Caution Signs

The licensee's performance relative to requirements contained in 10 CFR 20.203 "Caution signs, labels, signals and controls" was determined from tours of the plant radiation controlled area and the outage work zones. The inspector also conducted independent dose rate measurements in the vicinity of radiation area postings.

Within the scope of this review, no violations were observed but a weakness was noted. During previous inspections a good practice was noted in that HP technicians would post the approximate values for dose rates, contamination level, and airborne activity on the standard warning signs. Hot spot tags would display hand written contact dose rate measurements. Such information is useful to the worker in minimizing exposure. During this inspection, it was noted that this information is no longer provided. The station manager stated that this practice would be reinstituted during the next few weeks. This matter will be reviewed in a future inspection. (89-21-01)

4.0 Organization and Staffing

The requirements for the organization and staffing of the HP department are provided in Technical Specification 6.2, Organization. The qualification requirements are contained in Technical Specification 6.3, Facility Staff Qualification, and ANSI Standard N18.1-1971. Performance relative to these requirements was determined from interviews with personnel and a review of selected records.

The structure of the site HP section has remained the same for the past few years. However, significant changes in personnel have recently occurred. The Senior Health Physicist (radiation protection manager) quit but was replaced by a highly experienced contractor from the Recirculation Pipe Replacement Project. The processing to hire this individual as a permanent employee is nearing completion. During the course of this inspection the Applied HP Supervisor gave notice and will leave in a few weeks. The Radiological Engineering Supervisor was transferred and a senior Technical Assistant is acting in the position. At the corporate level, the Director of Radiological Controls and Chemistry position, which had been vacant for one year, was filled. The inspector interviewed the new Director and determined that he is qualified. Based on comments made by several individuals, the inspector also concluded that morale among the HP technicians was low due to the pressures of the Unit 3 outage work.

The new Senior Health Physicist acknowledged these problems and stated that he is formulating team building efforts to resolve the problems. In addition, several proposed organizational changes were discussed. These changes, mandated by corporate directive, are intended to reduce the size of the HP Staff beginning in 1990. Implementation of the changes are contingent on completion of other station objectives such as reductions in the number of workers on site and introduction of advanced rad worker training and qualification.

The inspector stated that any staff reductions should be made cautiously, and will be reviewed in a future inspection.

5.0 Radiation Work Permits

Technical Specification 6.8, "Procedures," requires the licensee to establish, implement and maintain procedures that meet the requirements of Appendix A of Regulatory Guide 1.33. Section G of RG 1.33 Appendix A requires that the licensee promulgate a radiation work permit procedure.

The inspector reviewed the implementation of station procedure HP-310, "Preparation and Processing of Radiation Work Permits," through a review of RWPs, observation of work, and interviews with HP technicians. Within the scope of this review no violations were observed, but weaknesses were noted as follows.

The RWP procedure was revised on five occasions between March 1988 and July 1989. The revisions successively relaxed requirements allowing technicians additional freedom in generating RWPs. For example, technicians are no longer required to use a standard RWP form but may use an "equivalent" form. The inspector also noted that RWP #5196 covered 24 separate jobs by 9 different trade skills in the HPSI Room. Radiological conditions in the work area varied widely from low level contamination and low dose rates to high contamination and high dose rates. In another instance, RWP #6896 was used to authorize the disassembly (system breach) and removal of the "C" Reactor Water Cleanup Pump. The "C" RWCU room is a "red zone" with hot particles and elevated dose rates. The same RWP was used to cover the repair of the impeller in the machine shop - an area with minimal radiological controls. Several other examples of ill-defined, nonspecific RWPs were noted. The inspector concluded that in general, the RWPs did not adequately describe to the worker the specific job being authorized nor did they clearly provide specific radiological conditions and protective requirements. The inspector noted that both workers and HP technicians relied on verbal briefings to provide the needed details. In addition, field changes to RWPs were not made in accordance with the procedure.

The recently appointed Senior Health Physicist acknowledged the weaknesses in the RWP procedure. He stated that he was planning to implement a different approach within the next few months based on lessons learned during the recirculation pipe replacement project. This matter remains unresolved and will be reviewed in a future inspection (89-21-02)

6.0 Radwaste Rooms

Older BWR stations like Peach Bottom have changed the equipment and processes used to prepare radwaste for off-site shipment. Frequently the

equipment or rooms were abandoned in place to allow for radiological decay. As a result of misuse of an abandoned room at another facility, the inspector toured all radwaste areas to determine the current usage of the spaces at Peach Bottom Station.

During the tour the rooms and equipment were identified by references to the architect/engineer (Bechtel) drawings M-12 through M-19. Within the scope of this review the inspector determined that the licensee exhibited excellent control of these facilities. A project has been underway for some time to decontaminate, paint, and release areas for unrestricted use. One room was used for temporary storage of radwaste awaiting shipment. The radiological conditions and equipment in each room were as described on the survey forms and building drawings. The inspector had no further questions.

7.0 Audits and Appraisals

The requirements for the conduct of audits and assessments are contained in Technical Specification 6.5.2.8 "Audits" and 10 CFR 50 Appendix B "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants." The inspector reviewed the most recent audit completed since the last inspection. This audit was performed by the Nuclear Quality Assurance Section (NQA) at Peach Bottom from June 27 through July 12, 1989 to verify the adequacy and effectiveness of implementation of the procedural controls governing the Peach Bottom Dosimetry, Bioassay, and Respiratory Protection programs. In addition, the Radiological Occurrence Report (ROR) Log was reviewed with the Applied HP Supervisor. Within the scope of these reviews, no violations were observed. The NQA audits continue to satisfy the base line Technical Specification requirements, however, the inspector noted that NQA Auditors did not assure that audit findings were representative of current ongoing activities onsite. This matter was discussed with the NQA Supervisor and the Sr. Health Physicist.

Prompt corrective action is required for all RORs within 30 days or an extension may be requested. At the time of this inspection no outstanding RORs were found in the ROR log. The senior health physicist, in accordance with procedure A-110, designates a Health Physics Supervisor responsible for tracking and trending each ROR. Trends tentatively identified during the previous inspection (IR 50-277/89-09 and 50-278/89-09) appear to be continuing. These include poor worker practices, procedural violations, and RWP violations. Licensee management has not as yet determined a course of action on these trends. This matter will be reviewed during future inspections.

8.0 Exit Interview

The inspectors met with the personnel denoted in section 1 at the conclusion of this inspection on September 1, 1989. The scope and findings of the inspection were presented at that time.