

U.S. NUCLEAR REGULATORY COMMISSION  
REGION I

Report No. 50-277/84-30  
50-278/84-24

Docket No. 50-277  
50-278

License No. DPR-44  
DPR-56 Priority -- Category C

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

Facility Name: Peach Bottom Atomic Power Station, Units 2 and 3

Inspection At: Delta, Pennsylvania

Inspection Conducted: September 4-7, 1984

Inspectors: *L. Narrow*  
for L. Narrow  
Lead Reactor Engineer

10/3/84  
date

Approved by: *J. P. Durr*  
J. P. Durr, Chief  
Materials and Processes Section,  
EPB, DETP

10/10/84  
date

Inspection Summary: Inspection on September 4-7, 1984 (Combined Report Nos. 50-277/84-30 and 50-278/84-24)

Areas Inspected: Routine announced inspection by one region-based inspector of licensee actions in response to torus modification requirements and IE Bulletin 78-11; and review of the licensees organization and procedures for performance and control of major modifications. The inspection involved 26 hours of direct inspection time on site; 19 hours on Unit 2 and 7 hours on Unit 1.

Results: No violations were identified.

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Q PDR

## Details

### 1. Persons Contacted

#### Philadelphia Electric Company (PECO)

J. Cook, QC Inspector  
B. Edwards, QC Inspector  
\*R. Fleischmann, Station Superintendent  
R. Jones, Lead QC Engineer  
\*W. MacFarland, Construction Engineer  
V. Picciaro, Mechanical Construction Engineer  
J. Reid, Site Lead Man

#### Catalytic Construction Company (CCC)

J. Booth, Site Manager

### 2. Major Modifications

The Engineering and Research Department (ERD) is responsible for design, construction and quality assurance of major modifications. Normally construction of major modifications is performed by the Construction Division (CD) on the basis of an Engineering Work Letter (EWL) prepared by Engineering.

The inspector reviewed the ERD and CD procedures listed below and discussed construction and control of major modifications with CD personnel.

--ERDP 2.2, "Procedure for Preparing Engineering Work Letters and Construction Division, Field Engineering and Research & Testing Div. & Memoranda"

--ERDP 3.8, "Procedure for Processing Engineering Review Requests"

--CD 5.2, "Procedure for Installation of Piping Systems"

--CD 5.6, "Procedure for Installation and Inspections of Pipe Supports and Structural Steel"

--CD 5.11, "Procedure for performing Core Boring/Drilling"

--CD 5.12, "Procedure for Installation of Concrete Expansion Bolts"

Upon receipt of an EWL the construction engineer designated as responsible for the modification prepares a Construction Job Memorandum (CJM) for approval by the responsible Construction Lead Engineer. The CJM provides a detailed description of the work to be performed and a definition of the organization responsible for each activity; a list of CD procedures and other applicable documents; special instructions as

required; a drawing list; and a list of material and equipment. The CD Procedures, which are prepared by QC, include inspection Hold Points. Additional Hold Points are added, if considered necessary, by QC which reviews the CJM and approves it for QC aspects.

On-site, the CD includes electrical and mechanical engineering groups, electrical and mechanical field construction groups and a QC group. Modifications may be performed by field construction personnel or by a contractor. In the latter case a foreman or subforeman, designated as a Site Lead Man provides liaison and coordination between the engineering group and the contractor.

### 3. Unit 2 Torus Attached Piping Modifications

Modifications of Unit 2 torus attached piping is in progress by CCC personnel and supervision is in accordance with PECO procedures. QC inspection of the work is performed by the CD QC group which also reviews each documentation package after completion of the work and prior to its filing. The work is in accordance with CJM MOD 842. Because of the relative complexity of the work, a supplement to the CJM has been provided. It lists each item of work and identifies its location, the scope of work and the applicable drawings. A separate Work/QC package is provided for each item. Field changes are initiated, controlled and approved on Engineering Review Request Forms (ERRF's) in accordance with ERDP 3.8 which requires that the change be approved by the Responsible Engineer. Verbal approval of a field change may be granted by the responsible Engineer but only after an independent review of the proposed change. The ERRF is required to be processed for written approval.

The inspector reviewed CJM MOD C42 and selected Work/QC packages for work in progress and completed work. They listed applicable drawings, ERRF's, and CD procedures; provided special instructions; and included data sheets/checklists for welding, NDE, bolt torquing, concrete drilling, anchor bolt and hanger installation as applicable to the work performed. The inspector reviewed the ERRF Log and the ERRF's identified in the completed Work/QC packages. These ERRF's had been verbally approved but written approvals had not been completed. However, Telephone Memos were available to show that the ERRF's had been independently reviewed and verbally approved.

Training of CCC personnel was discussed with PECO and CCC representatives. All CCC personnel are indoctrinated and trained in QA/QC requirements of ERD and CD procedures. The inspector examined a lesson outline and records of such training.

The inspector observed the condition of completed work and work in progress on piping and supports during a tour of the torus room and RHR rooms.

No violations were identified.



4. Licensee Action on NRC Bulletin

(Closed) Bulletin 78-11, "Examination of Mark I Containment Torus Welds."

This item had remained open pending review of NDE re-examination of welds. The following records were reviewed:

--MT examination of Unit 2 Torus weld by Southwest Research Institute on October 6, 1978

--MT examination of Unit 3 Torus weld by Universal Technical Testing Labs., Inc. on December 8, 1978

No reportable indications were noted.

5. Exit Meeting

The inspector met with licensee representative (see paragraph 1) at the end of the inspection on September 7, 1984. In addition, Mr. A. R. Blough, the Senior Resident Inspector was present. The inspector summarized the purpose and scope of the inspection and identified the inspection findings. At no time during this inspection was written material provided to the licensee by the inspector.