U.S. NUCLEAR REGULATORY COMMISSION OFFICE OF INSPECTION AND ENFORCEMENT

		Regio	n I		
Report No. 50	-352/81-02 -353/81-02				
Docket No	50-352 50-353				
License No	CPPR-106 CPPR-107	Priority		Category	Α
icensee:Philadelphia Electric Company					
	2301 Market	Street			
	Philadelphia	, Pennsylvania	19101		
Facility Name	: Limerick G	enerating Stat	ion, Unit Nos	s. 1 and 2	
Inspection at	: Limerick	, Pennsylvania			
Inspection co	nducted: Fe	bruary 2-27, 1	981		
Inspectors:	E.C. On Ce	le le h	friend and		3 120/81
	J. P. Durr, Se	nior Resident	Inspector		date signed
					date signed
					late signed
Approved by:	8. C. A	h Cee,) -	1.11.18		3/20/81
	E. C. McCabe,	Chief, Reacto	r Projects		date signed

Inspection Summary.

(Unit No. 1) Inspection on February 2-27, 1981 (Report Number 50-352/81-02) Areas Inspected: A routine inspection by the resident inspector of the implementation of subcontractor quality assurance programs, pipe welding, piping systems, electrical raceway installation, RPV shroud movement, and licensee's actions on previous inspection findings. The inspection involved 96.5 inspection-hours on site. Results: No items of noncompliance were identified in six areas inspected.

(Unit No. 2) Inspection on February 2-27, 1981 (Report Number 50-353/81-02) Areas Inspected: A routine inspection by the resident inspector of the implementation of subcontractor quality assurance programs and the licensee's actions on previous inspection findings. The inspection involved 25.5 inspection-hours on site. Results: No items of noncompliance were identified in the two areas inspected.

Region I Form 12 (Rev. April 77)

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DETAILS

1. Persons Contacted

Philadelphia Electric Company

D. T. Clohecy, Quality Assurance Engineer (QAE)
D. A. DiPaolo, QAE
G. Lauderback, QAE
M. J. McGill, QAE
A. C. McLean, Construction Engineer
G. J. Moffitt, Construction Engineer
P. L. Naugle, Engineer

Bechtel Power Corporation

T. Altum, Lead Welding Engineer A. Arch, Assistant Project Field Engineer B. A. Dragon, QAE R. G. French, Field Contract Administrator H. D. Foster, Project Field Quality Control Engineer L. E. Griffith, Subcontracts Engineer J. J. Horner, Subcontracts Engineer M. S. Iyer, Resident Project Engineer G. C. Kelly, QAE E. R. Klossin, Assistant Project Field Engineer R. L. Leingang, Assistant Project Field Engineer J. L. Martin, Lead Site QAE K. L. Quinter, Assistant Project Field Quality Control Engineer E. J. Rink, Mechanical Staff Engineer D. C. Thompson, Assistant Project Field Quality Control Engineer A. G. Weedman, Project Field Engineering

Schneider, Incorporated

T. S. Lewis, Quality Control Inspector

The above listed persons attended exit interviews held either on February 12, 1981 or February 26, 1981. Other engineers, craftsmen, quality control technicians, or supervisors were contacted as the inspection interfaced with their work.

2. Plant Tours

The inspector made periodic tours of the Unit No. 1 and 2 facilities during the inspection. He toured the reactor building, the reactor containment, the suppression pool, the control tower, and the yards observing completed work, work in-progress, and equipment storage. He discussed the technical aspects of the work with the engineers, supervisors, craftsmen, and technicians.

No items of noncompliance were identified.

3. Licensee's Action on Previous Inspection Findings

(Open) Infraction (50-352/79-12-04): Incorrect Pipe Support Pin Material (Reference: Report 50-352/80-01)

Visual and metal hardness tests were performed on a total of 97 pipe support pins. All pins indicated hardness values consistent with A-193 material and no abnormal physical characteristics were noted. The sampling was performed on elevations 177', 201', 217' and 253'. This item remains open perding completion of the licensee's program and review by the NRC.

(Open) Unresolved Item (50-352/80-05-01): Water Quenching Stainless Steel Welds

The licensee revised Job Rule G-16, paragraph 10, to provide instructions for water quenching stainless steel and for the testing of the water supply for chlorides. However, the imposed chloride limits of 200 PF' exceed the recommended values of Regulatory Guide 1.37, ANSI Standard N45.2.1, and the requirements of Bechtel Specification P-303, paragraph 3.32, of 100 PF'. This item remains open pending revision of the limits to acceptable values.

(Open) Infraction (50-352/80-12-13): Unauthorized Weld to Containment Liner

A review of licensee corrective action disclosed that the visual examination was not properly documented. In addition, the original containment repair procedures for similar temporary attachments indicate the need for vacuum box testing of the repairs.

This item remains open pending documentation of the visual examination and verification of the necessity for vacuum box testing.

(Open) Noncompliance (50-352/80-12-14): Improperly Qualified Receipt Inspector

Schneider, Incorporated, the heating, ventilation and air conditioning (HVAC) subcontractor, employed a receipt inspector who was not properly qualified.

The licensee reinspected the work performed by this inspector and revised the Project Procedure, PPM 5.1 to provide three different categories of inspectors.

At the time of this inspection, the individual identified as unqualified no longer was employed by Schneider, Incorporated. Examination of Project Procedure, PPM 5.1 verified that three categories of inspectors were established (Receipt, Welding, and Installation). A sampling of inspector qualification records verified that the procedure's new requirements hava been implemented. The inspector also reviewed some of the receipt inspections performed by the unqualified inspector and verified that they were reinspected.

(Closed) Noncompliance (50-352/80-12-15): Control of Welding Rod Oven Temperature

The licensee issued Corrective Action Report No. 43 which directed replacement of the defective thermometers with new, calibrated thermometers. The inspector reviewed the Corrective Action Report No. 43, Project Procedure PPM 3.8, "Weld Material Control", and measured the temperature of rod ovens Nos. 1, 2 and 3. He verified that the oven temperatures were within the specified ranges prescribed in Project Procedure PPM 3.8.

(Closed) Noncompliance (50-352/80-12-16): Failure to Perform Audits

The licensee performed an audit of the cited area on August 13, 1980, and issued a formal audit schedule. The inspector examined the audits conducted on April 29, August 15, and December 3, 1980, and verified that all areas of the quality assurance program have been audited. He also examined a memorandum, dated December 22, 1980, promulgating the current audit schedule.

(Closed) Inspector Follow-Up Item (50-352/86-18):

- GE I & SE configuration checks have been terminated and there are no current plans to perform these checks in the future.
- The audit schedule has included audits of GE-NEBG. The inspector reviewed the licensee's audit of GE-NEBG, Audit Report No. 231, dated December 9-11, 1980, and verified that the audit has been conducted.

(Open) Unresolved Item (50-352/81-01-06): Control of GE-FDDRs

Further examination of FDDR control has disclosed that FDDR No. HH1-325 was dispositioned without issuing a design control document such as a Supplier Deviation Disposition Request, a Field Change Request, or a Field Modification Control. This matter is also considered unresolved pending determination that:

- a design change did take place;
- (2) the design change was the responsiblity of Bechtel Engineering; and,
- (3) the proper document for controlling the design change.

4. Heating, Ventilation and Air Conditioning (HVAC) Subcontractor Audit

The inspector performed an audit of selected portions of the HVAC subcontractor's quality assurance program to verify the implementation of the quality assurance manual provisions. The following areas were examined: the approved vendor's list and its use; design document control; site quality control inspections, internal audits; inspector qualification; weld material control; and organizational staffing.

The review of the site inspection program disclosed that, although properly documented, there is no po itive method employed to ascertain the status of in-process inspection for welding. The Quality Control Site Inspection Report only briefly describes the field welds that have been in-process inspected and accepted. The Project Procedure, PPM 5.3, requires that 100% inspection of in-process welds be performed. Without a mapping or tracking system, it will be extremely difficult to ascertain that 100% of the welds have been inspected. In addition, Attachment 3.9 to PPM 5.3 requires 10% random nondestructive testing for ASME Code welds. Again, there is no positive method for determining the total population. This item is considered unresolved pending review by the licensee and implementation of positive controls. (50-352/81-02-01)

The inspector examined the internal seal welds for the partially completed duct work No. M1097. These welds are described on Drawing No. C-1350, Section A1. It was noted that the welds did not match the configuration shown on the drawing in that they were much wider than specified. Further investigation disclosed that this condition had been identified by the licensee's quality control program on Nonconformance Report No. 422, dated November 4, 1980.

No items of noncompliance were identified.

5. Electrical Raceway Inspection

Reviewed the Specification Drawing E-1406, "Conduit and Cable Trays Notes, Symbols, and Details"; Job Rule E-2, "Electrical Field Raceway Reporting System"; Quality Control Instruction E-2.0, "Installation of Exposed Raceway"; and "Specification for Cable Tray", E-49. The inspector selected cable tray No. 1BTLA, and the partially comrleted conduit installations, Nos. 1ZZ231 and 1ZZ412, for a visual examination. The examination verified that selected portions of the installations conform to the details of Drawing E-1406. The inspection included various aspects of design, installation, and quality control inspection.

No items of noncompliance were identified.

6. Shroud Relocation

The Unit No. 1 reactor shroud was relocated from the repair/storage area to the refueling room. The inspector reviewed the "Shroud Transporting and Lifting Procedure for RPV Internals", and observed the lifting and transporting operations. He verified that adequate measures had been taken to prevent damage to the shroud during movement.

No items of noncompliance were identified.

7. Residual Heat Removal System Configuration Inspection

The inspector performed a piping and equipment verification inspection of the Unit No. 1, Residual Heat Removal System outside of containment. He verified that the flow paths, as depicted on P & ID M-51, Sheets 1 and 2, are as described. This was performed only for the major flow paths and components.

No deviations were noted.

8. Observation of Pipe Welding

Observed the weld build-up for dimensional correction on the 24" diameter, Schedule 1.812", pipe weld and preparation, DBB-104-1-2 FW 51. Verified that the appropriate welding procedure was being used, the welders qualification, and that the appropriate ASME Code requirements were being specified.

No items of noncompliance were identified.

9. Unresolved Items

Unresolved items are matters about which additional information is needed to ascertain if the item is a noncompliance, a deviation, or acceptable. An unresolved item is discussed in paragraph 4.

10. Exit Interviews

Exit interviews were held with members of the licensee's staff, denoted in paragraph 1, on February 12 and 26, 1981. The inspector discussed the scope and findings of the inspection.