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

Region I

Report No. 50-352/ 80-05
50-353/ 80-05

Docket No. 50-352
50-353

License No. CPPR-106
CPPR-107 Priority -- Category A

Licensee: Philadelphia Electric Company

2301 Market Street

Philadelphia, Pa. 19101

Facility Name: Limerick Generating Station, Units 1 & 2

Inspection at: Limerick, Pa.

Inspection conducted: 3/26/80 - 4/30/80

Inspectors: J.C. Mattia 6/4/80
J.C. Mattia, Reactor Inspector date signed

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date signed

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date signed

Approved by: R.W. McGaughy 6/13/80
R.W. McGaughy, Chief Projects date signed
Section, Reactor Construction and
Engineering Support Branch

Inspection Summary:
Unit 1 Inspection on March 26 - April 30, 1980 (Report No. 50-352/80-05)
Areas Inspected: Routine inspection by the resident inspector of work activities relative to: installation and welding of reactor coolant pressure boundary and other piping. Storage and installation activities for safety-related items. The review of licensees action taken for NRC bulletins and circulars. Inspection of various safety-related electrical activities. The inspector also performed plant tours and reviewed licensee action on previously identified items. The inspection involved 93 inspector hours, including 2 hours offshift, by the Resident Inspector.
Results: of the six areas inspected, no items of noncompliance were identified in five areas; one apparent item of noncompliance was identified in one area. (Infraction - failure to repair weld cavity properly for pipe restraint. para. 10.a.).

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Unit 2 Inspection March 26 - April 30, 1980 (Report No. 50-353/80-05).

Areas Inspected: The inspector performed plant tours and inspected storage of safety-related equipment. The inspection involved 4 inspector hours by the Resident Inspector.

Results: No items of noncompliance were identified.

DETAILS

1. PERSONS CONTACTED

Philadelphia Electric Company	NOTE
D. Clohecy, QA Engineer	2,4
J. Corcoran, Field QA Branch Head	2,4
D. DiPaolo, QA Engineer	1,4
F. Gloeckler, QA Engineer	
G. Hutt, Office QA Branch Head	3
J. Fedick, Construction Engineer	4
J. Franz, Assistant Plant Superintendent	
G. Lauderback, QA Engineer	1
R. Lees, Project Group Leader - QA Office Branch	3
D. Marascio, QA Engineer	
M. McGill, QA Engineer	3
R. Mulford, Project Manager	
R. Scott, Lead Construction Engineer	
H. Walters, QA Manager	2

Bechtel Power Corporation	
T. Altum, Supervisor of Field Welding	2,4
A. Arch, Assistant Project Field Engineer	1
M. Baron, Welding Field Engineer	1,2,4
J. Curci, QA Engineer	1,2
B. Dragon, QA Engineer	1,2
P. Dunn, QA Engineer	2,4
T. Fallon, Assistant Project Field QC Engineer	1,2
R. Faust, Subcontract Engineer	2
H. Foster, Project Field QC Engineer	1,4
H. Gilbert, QC Engineer	2
M. Greenidge, Area Superintendent	2
L. Griffiths, Longterm Storage Maintenance Engineer	2
J. Gwin, Project Superintendent	4
M. Iyer, Lead Resident Engineer	1
M. Jan, Area 1 Engineer	4
G. Kelly, QA Engineer	1,2,4
E. Klossin, Project QA Engineer	1,2
J. Martin, QA Engineer	1,2,4
W. Tate, Civil Staff Lead Engineer	4
M. Tokalics, QA Engineer	1,2,4
A. Weedman, Project Field Engineer	1,2,4

Reactor Controls Incorporated	NOTE
K. Arnold, QC Supervisor	2
L. Eddinger, QC Inspector	4
S. Kepler, Site Manager	2
J. Seago, Project Engineer	4
General Electric Co.	
W. Neal, Resident Site Manager	4

Notes

1 - Denotes those present at exit interview conducted on 4/10/80
2 - Denotes those present at exit interview conducted on 4/18/80
*3 - Denotes those present at exit interview conducted on 4/25/80
4 - Denotes those present at exit interview conducted on 4/30/80

* This exit interview took place at licensee's corporate office.

2. Plant Tour - Units 1 & 2

The inspector observed work activities in progress, completed work and the plant status in several areas of the plant during general inspection of the plant. The inspector examined work for any obvious defects or noncompliance with regulatory requirements or license conditions. Particular note was taken of presence of quality control, evidence such as inspection records, material identification, housekeeping and equipment preservation. The inspector interviewed, when appropriate, craft personnel, craft supervision and QC personnel in the work areas. During the tour the inspector noticed that a pipefitter was cooling the completed first stainless steel socket weld pass with water from a pail. The inspector asked the weldor if it was demineralized water. He stated it was tap water. Further investigation revealed that the Bechtel Job Rule for welding G-16 Revision 15 allowed water quenching between passes for stainless steel plate or pipe. The inspector informed the licensee that the Job Rule doesn't control the quality (chlorides not controlled) of the water to be used for quenching. Various data was supplied to the inspector by the licensee for Nuclear Regulatory Commission evaluation. The data consisted of a test of tap water performed in December 1979 where the chloride content was 5 PPM, the technical justification by Bechtel's engineering organization for site's method of water quenching.The licensee was informed that the Nuclear Regulatory Commission will evaluate the data and that this item is considered unresolved (352/80-05-01).

3. Core Drilling Floor in Control Room (Units 1 & 2)

The inspector observed the core drilling of the concrete floor in the control room to verify compliance with field change request (C-6647F) to Drawing C-435. The need for this core drilling was to provide more room for the conduits passing through the block out (number 20K181) to obtain the required minimum separation of one inch. The inspector observed that dust control was adhered to so that equipment stored in place would not be contaminated. Also verified that the approved "excavation check sheet" was issued for cutting existing rebar.

No items of noncompliance were identified.

4. Welding of Power Generation Control Complex (PGCC) Floor Sections

Observed welding of PGCC floor sections per Drawing 8031-M-1-H12-3010M-2.1 (Sheet 2) requirements. The following specific items were inspected related to this welding.

-- Verified qualifications of the three welders and also inspected the welds they deposited and their control of electrodes.

-- Inspector noted that the above drawing called for the use of a 3/8" bolt and nut for the tie down plates, in addition to the fillet welds. Bechtel omitted the use of the bolts because it was their opinion that they were for holding tie down plate in place prior to welding and it was not necessary since the plate can be either tacked or clamped. The inspector requested from licensee that they obtain clarification from G.E. (their design drawing) that the bolt did not serve as an additional structural support. G.E. issued a memo (H12-5130) stating that it had no structural function other than to hold tie down plate in place during shipping and welding.

-- The inspector also noticed that some vertical fillet welds on tie down plates were being omitted where the accessibility was limited. The design drawing did not allow for this. However, the licensee showed the inspector an approved G.E. field deviation disposition request (HH1-1004) which allowed them to omit this weld.

-- During this welding the PGCC room doors were open and a large fan was placed close to the door to draw out the welding fumes. The inspector was concerned that the humidity in the room (note: room is dehumidified and monitored with 24 hour humidity and temperature recorders) may exceed the G.E. requirements of storage specification 22A2724. During this inspection the recorder indicated that the humidity was 50%, at a temperature of 78°F. There was no visible condensation of moisture on the equipment. The inspector informed the licensee that during this welding period (doors open and fan in use) the humidity should be checked more often.

No items of noncompliance were identified.

5. Safety Related Piping - Work Activities (Unit 1)

The inspector observed the fitting up of 10" valve (HBC-GT-M053-1041) to pipe spool and the welding of tacks after fit-up was determined to be acceptable. The weld joint was identified as HBC-108-1/3 (located in Area 12 at elevation 314 feet). The inspector verified that the welding was in accordance with PI-AT-Lh/5 and that the weldor was properly qualified.

No items of noncompliance were identified.

6. Electrical Conduit Supports (Unit 1)

The inspector observed the installation of supports for two 3 inch conduits which required cutting holes in web of floor support I-beams and the addition of welded stiffener plates. The inspector verified that the work activities were in conformance with the design specification E1406/28, Design Drawing C209, Revision 15 and weld procedure PI-A-Lh (structural). The weldor's qualification was also reviewed.

No items of noncompliance were identified.

7. Licensee Action on Previously Identified Items

(closed) Unresolved items (352/79-03-04): The one remaining data package (see follow-up inspection in Report No. 352/79-12) was reviewed by the inspector for conformance with codes and regulatory requirements. The specific documents reviewed are as follows:

-- Receiving Inspection Report QCIR P-126A-SF-3530

-- Material Receiving Report SF 3530

-- Purchase Order 8031-P-126-AC Revision 12

-- Vendors document package for containment penetrations identified as X45A, B,C and D. The data package consisted of NDE reports, dimensional inspection reports, statement of conformance, qualifications of inspectors, manufacturing process outline and material certifications.

This item is considered resolved.

8. Heatsink Welding of Stainless Steel Piping (Unit 1)

In accordance with the requirements of the Bechtel Design Specification P-305, Revision 10, there are to be twelve stainless steel Class I valves that are to have type A316L pipe ends welded to them, using a heatsink welding technique (Bechtel welding procedure P8-AT-AG-1). This heatsink welding has a requirement that the maximum interpass temperature shall be 100°F. The inspector observed the following activities to verify compliance with weld procedure P8-AT-AG-1 (HSW) and design specification P-305:

-- Observed the repair of the completed weld joint (DCA-320-1/8-1). The repair was necessitated when radiography uncovered an unacceptable indication.

-- Observed the performance qualification test being taken by a weldor in accordance with the ASME code (Section IX). With the qualification of this weldor, it will make a total of two weldors that can weld in accordance with P8-AT-AG-1 (HSW).

-- Observed the liquid penetrant (LP) examination of a completed weld which was accomplished using the heatsink welding process. The LP was for weld joint identified as DCA-318-2/7-5. The inspector verified that the LP was accomplished in accordance with Section III code requirements and that the examiner was qualified in accordance with ASNT-TC-1A requirements.

-- Observed the welding of the root pass and some weld passes beyond the root for a weld joint identified as DCA-318-4/8-4. Also verified that weldor was qualified in accordance with Section IX code requirements.

No items of noncompliance were identified.

9. Installation of Reactor Internals (Unit 1)

a. The inspector inspected the various activities associated with the installation of the jet pump adapters to verify compliance with the requirements of the G.E. specification 22A4111, reactor controls procedure PRS-1 and weld procedure W-43/43-CTS-1L. The following jet pump adapters were inspected which were being welded to the core shroud support:

jet pump adapter located at 300° azimuth
jet pump adapter located at 240° azimuth

The inspector observed that a marked-up reactor controls (RCI) procedure PRS-1/1 Rev. 0 was used. The procedure was modified (marked in red ink) in accordance with a RCI letter dated March 4, 1980. This letter revised the sequence of welding the root of the jet pump adapter. The inspector questioned the subcontractor why they modified the procedure without G.E. and Bechtel approvals (note: G.E. and Bechtel approved PRS-1/1 revision 0). RCI informed the inspector that their QA manual allows them to issue a nonconformance report (NCR) which they did, (NCR: LM-RPV-3) and the disposition was to issue a risk release (LM-RPV-2) to proceed while a Revision 1 to procedure PRS-1 was being processed. A review of the various applicable documents by the inspector indicated that action by the licensee will be required to resolve the inspector's concerns. The following are the inspector's concerns:

-- The NCR issued LM-RPV-3 did not fully address all 3 sections (2.2, 2.3 and 2.6) of procedure PRS-1 that were revised by RCI letter. Note: this was resolved during this inspection period. RCI issued NCR LM-RPV-7 to address Section 2.3 and 2.6.

-- The risk release procedure outlined in the RCI QA Manual (Section 11) needs to be revised to incorporate some of the provisions in Bechtel's conditional release procedure PSP G-3.1, Section 3.3. For instance, the authorized code inspector's approval is required if a code item is involved, also engineering review and approval should be involved. This item is considered unresolved. (352/80-05-02)

The inspector also reviewed the qualifications of the two welders welding the two jet pump adapters and their welds deposited. No items of noncompliance were identified for the welding activities.

b. The inspector reviewed various Bechtel surveillance reports and quality assurance reports (QAR) associated with the installation of reactor internals. The specific documents reviewed are as follows:

-- QAR SF-80-7 and SF-80-8

-- QA Surveillance Reports for time periods March 16 - 31, 1980.

-- QC Surveillance Reports SM-108-IPS-7-4 and SM-108-IPS-7-5.

In Bechtel's Surveillance Report SM-108-IPS-7-4 which covered the time period March 3 - 7, 1980, it stated that jet pump adapters were being installed in accordance with approved procedures. The inspection reference criteria was the RCI QA Manual. The inspector informed Bechtel that their surveillance report should be more specific. At this particular inspection time period, RCI was installing jet pump adapters under their risk release and the surveillance report did not state this. The NRC inspector verified by questioning the cognizant Bechtel QC engineer that he was indeed aware of this. Bechtel modified the surveillance report by adding a note that deviation from the approved procedure PRS-1 was being accomplished by a risk release. Bechtel also informed the inspector that specific inspection reference criteria used by their QC engineers will be incorporated in all the surveillance reports.

No items of noncompliance were identified.

10. Reactor Coolant Pressure Boundary Piping Activities (Unit 1)

The following work activities were observed to verify compliance with regulatory commitments, codes and standards requirements:

a. Pipe Restraints - A weldor had completed one weld pass for a repair on pipe restraint #215 when the inspector noted that the prepared cavity (after removal of slag and porosity per the in-process rework notice #W450) was very narrow (notch-like), irregular and not an ideal cavity for depositing weld. The licensee was informed of this condition and immediate corrective action was taken. The work was stopped and another in-process rework notice was issued (W456) to require the repair cavity to be ground in accordance with Bechtel's Procedure GWS (structural) Section 4.4.2.2. The inspector informed the licensee that the preparation of the original repair cavity was contrary to Bechtel's GWS - structural procedure which states in part that the cavity shall be reasonably smooth, free from excessive notches or harmful irregularities which could trap slag or cause lack of fusion. This item is an infraction (352/80-05-03).

b. Inspected partial repairs performed on reactor recirculation pipe restraint located at 90^{0} azimuth and elevation 278'. The repair was being performed in accordance with the disposition outlined in nonconformance Report #3795. The inspector also reviewed the liquid penetrant and quality control inspection records associated with this repair. No items of noncompliance were identified.

11. Storage of Safety Related Items (Units 1 & 2)

The inspector inspected various outdoor laydown areas to verify compliance with the various supplier's and A/E storage requirements. The following conditions were noted during this inspection:

-- Electrical Reel #6A 1452 (600V - 3 conductor cable) had one end of the cable which was taped, touching the concrete slab (floor). Immediate corrective action was taken by an electrician. The cable was tied to reel and off the floor.

-- Inspector noted some pipe conduit threaded ends badly rusted. The licensee informed the inspector that these particular conduits were surplussed from Peach Bottom units and are scheduled to be inspected and if not acceptable, will be scrapped.

-- Inspector noted that the area in the yard designated as the controlled surplus pipe area (note: surplused safety-related pipe is stored here for possible future use) had a sign and roping which had fallen on the ground. Immediate corrective action was taken by Bechtel and the roping and sign were re-erected.

-- The inspector noted that the safety-related fabricated stainless steel piping (Class 1, 2 and 3) was now being stored uncovered and without end caps. The licensee informed the inspector that they had performed a study of stainless steel pipe stored outdoors uncovered for several years and had conducted various metallurgical tests and concluded that it was not detrimental to the piping. The licensee provided copies of their storage investigation reports for NRC review. This item is considered unresolved, pending review by NRC of licensee's stainless steel piping storage documents (352/80-05-04).

12. Protective Coatings Inside Containment

The inspector reviewed the Bechtel coating specification 8031-A-44, Rev. 2, entitled, "Coating Suppression Pool Liner Plate with Inorganic Zinc" and noted that it did not have the ANSI N101.4-1972 'QA program for protective coatings) as a requirement. Discussions with licensee also indicated that Limerick did not commit to the NRC Regulatory Guide 1.54 which endorses the ANSI standard N101.4-1972. The inspector noted that the protective coatings inside the containment are not safety-related in accordance with the Limerick SAR and are not covered by the Limerick quality assurance program. The functional performance of these coatings under postulated accident conditions is mandatory to assure, among other things, that failed coatings will not lodge in the pump suctions and degrade the performance of important systems. The inspector questioned how PECO achieves assurance that such failures will not occur under postulated accident conditions. This matter is unresolved pending response by the licensee and the evaluation by NRC. (352/80-05-05).

13. Reactor Building Bridge Crane

The inspector observed the repairs of the reactor bridge crane load block in accordance with the disposition on nonconformance report #4105. The following activities were inspected:

-- Final magnetic particle examination of excavated areas that had the linear indications which were found after the crane load testing.

-- Final inspection performed by Bechtel QC (release to weld).

-- Preheating of repair area prior to welding.

-- Welding of repaired areas.

-- Review of Quality Control Inspection Report #M-16-6-21 and weldors performance qualifications.

No items of noncompliance were identified.

14. BULLETINS AND CIRCULARS

(Closed) Circular 77-04: Inadequate lock assemblies for security. The inspector examined letters (Bechtel and PECO) addressing the five improvements that are to be made in security lock assemblies for the Limerick plants.

(Open) Circular 77-05: Fluid entrapment in valve bonnets. The inspector reviewed three Bechtel letters (dated Nov. 17, 1977, Feb. 22, 1978 and May 31, 1979) which identified several valves in a horizontal position in the steam lines. Bechtel recommended to PECO to cycle valves after hydrostatic testing to remove the fluid in bonnets rather than install relief valves or vents. The PECO project manager supplied Limerick Generating Station superintendent with a list of valves requiring exercising after hydrostatic testing. The inspector inspected the PECO operations group to determine that they had this information and if a system was established for logging and identifying that it was an open item to be incorporated in future (not written as yet) test procedure. The inspector noted that a system to accomplish this had not been implemented. The licensee stated that a system will be established. This item is considered open pending review of licensee's (operation group) open action items tracking system relating to Bulletins, Circulars and Information Notices.

(Closed) Circular 77-08: Failure of feed water sample probe. This circular is not applicable to the Limerick Generating Station (no feed water sample probe is used.)

(Closed) Circular 77-11: Leakage of containment isolation valves with resilient seats. The supplier of Limerick valves stated in a letter to Bechtel that their seats were made of viton material and have no known excessive leakage problem. They also recommended that viton seats be replaced every 5 years. This requirement will be incorporated in maintenance procedures.

(Closed) Circular 77-12: Dropped fuel assemblies at boiling water reactors. Reviewed G.E. letter to licensee stating the improvements in the Limerick design of the refueling platform to prevent the dropping of fuel assemblies. The G.E. letter responded to each item in the circular.

(Closed) Circular 77-13: Reactor safety signals negated during testing. The inspector reviewed a G.E. letter dated Nov. 28, 1977 which stated that the testing circuit design for Limerick precludes the events mentioned in the 77-13 Circular. A PECO letter dated December 15, 1977 from Limerick plant superintendent stated that when plant procedures are written special requirements will be incorporated to preclude negating safety signals. The inspector did not find an open action item system existing in operations group to ensure that this item will definitely be addressed when operating procedures are written. The licensee was informed that this item is considered open pending review of their open action item tracking system for items related to NRC Bulletins, Circulars and Information Notices.

(Closed) Circular 77-14: Separation of contaminated water systems. The inspector reviewed the A/E and licensee's letters stating that their reviews of the Limerick design of potable water systems revealed no interconnections with other types of plant water systems.

(Closed) Circular 78-02: Proper lubricating oil for Terry turbines. The inspector reviewed PECO letter instructing their lubrication and maintenance vendor that only Mobil RL-851 (one of recommended lubricants) is to be supplied and used for all Terry turbines.

(Closed) Circular 78-03: Packaging of radioactive material. PECO issued a letter to cognizant individuals that they be aware of requirements for packaging of radioactive materials.

(Closed) Circular 78-04: Improper functioning of fire doors (manufactured by Mesker) when they are installed incorrectly. The inspector reviewed an A/E letter stating that there are no horizontal sliding fire door closers of this type (Mesker type D & H) used in Limerick plants.

(Closed) Circular 78-06: Potential common mode flooding of ECCS equipment rooms. The inspector reviewed the results of an evaluation performed by Bechtel. It was concluded that all equipment and sump pumps in these ECCS rooms were powered from cables in the same raceways. A potential fire would knock out all pumps. A PECO letter instructed Bechtel to provide separation (run conduit for two pumps and cable tray for other pumps, also provide a separate motor control center) for the pumps.

(Open) Circular 78-07: Damaged components on a Bergen-Paterson series 25000 hydraulic test stand. The licensee informed the inspector that the NSSS supplier has not informed them if mechanical shock arrestors (PECO's preferred choice) or hydraulic (Bergen-Paterson) snubbers will be provided for Limerick. This circular is considered open, pending decision of type of snubbers to be used.

(Closed) Circular 78-09: Arcing of G.E. Nema size 2 contactors. The inspector reviewed documentation from the A/E and NSSS which stated that this type of contactor is not used for the Limerick plant.

(Closed) Circular 78-11: Improper setting of recirculation M-G overspeed stops (mechanical and electrical). The inspector reviewed the NSSS letter dated September 14, 1978 which stated the three steps they have taken to preclude this condition from occurring. The PECO plant superintendent issued a memorandum on July 6, 1978 to inform plant personnel of this condition.

(Closed) Circular 78-12: HPCI turbine control valve lift rod bending due to improper linkage adjustment. The inspector reviewed two G.E. field disposition instructions (nos. 46 and 26) that were issued to modify the Limerick (Units 1 and 2) HPCI turbine control valve lift rods to prevent the bending.

(Closed) Circular 78-13: Inoperability of multiple service water pumps. The licensee reviewed the circular and determined that it is not applicable to Limerick. (Note: service water is a closed loop system.)

(Closed) Circular 78-14: Failure of the HPCI turbine reversing chamber hold down bolting. The inspector reviewed two G.E. field disposition instructions (nos. 32 and 54) which were issued for the Limerick (Units 1 and 2) to correct the situation.

(Closed) Circular 78-15: Tilting disk check valves fail to close with gravity when installed in the vertical position. The inspector reviewed the A/E letter stating that there are only two tilting check valves in the Limerick plants and both are installed in the horizontal position.

(Open) Circular 78-16: Failure of limitorque type SMB-0, 1, 2 and 3 valve actuators due to improper manual actuation. The inspector reviewed a G.D. letter dated September 22, 1978 recommending various operating techniques to prevent failure. The licensee on January 5, 1979 issued a letter to the Limerick plant superintendent listing the six steps recommended for the manual operation of these types of actuators. A review of the plant superintendent's system for tracking this circular open action items was not satisfactory. The licensee was informed that this circular is still considered open and will be followed up at a subsequent inspection.

(Closed) Circular 78-18: This circular transmitted the preliminary results of a fire test conducted by underwriters laboratory on a vertical cable tray array. The inspector reviewed licensee documentation addressing the conclusions mentioned in the circular. The licensee is providing concrete curbs where flammable liquids exist. They have also provided for fast response sprinklers at the cable penetrations between the primary and secondary containments.

(Closed) Circular 78-19: Manual override (bypassing) of safety system actuation signals. The inspector reviewed documentation from Bechtel and G.E. stating that the Limerick design is per IEEE-279 and Regulatory Guide 1.47 requirements, therefore, are in compliance with the NRC concerns as stated in the circular.

(Closed) Circular 79-02: Failure of 120 volt vital AC power supply. The inspector reviewed Bechtel and PECO documentation related to this circular. The various documents state that this circular is not applicable to Limerick, because the Limerick inverters only have one power supply source, which are batteries.

(Closed) Circular 79-04: Loose locking nut on limitorque valve actuators. The inspector reviewed a Bechtel report which stated that 152 limitorque valve actuators were inspected and 22 of these actuators had to have the locking nuts staked.

(Open) Circular 79-05: Steam/moisture leakage through stranded conductors can occur during a loss of coolant accident/mainsteam line break. The inspector reviewed a Bechtel document dated April 11, 1979 which gave various reasons why steam/moisture incursion would not be of concern for Limerick. The inspector informed the licensee that this circular is considered open pending review by NRC of the G.E. response to PECO, concerning this circular and also the PECO engineering evaluation of responses (G.E. and Bechtel).

(Closed) Circular 79-07: Unexpected speed increase of reactor recirculation MG set resulted in reactor power increase. This was caused by removal of one of the two fuses from the MG control panel. The inspector reviewed various documentation stating that this problem could also occur at Limerick, therefore, Limerick plant procedures should have appropriate guidelines and warnings. The inspector verified that the Limerick operating group had these memoranda and will incorporate these recommendations.

(Closed) Circular 79-10: Tubeturn pipefittings manufactured from unacceptable material. This item was a 10 CFR 50 Part 21 reportable item and a report was received by NRC from the manufacturer. Follow-up of this item by NRC will be in a subsequent inspection report.

(Closed) Circular 79-12: Potential electromotive diesel generator turbocharger failure. The inspector reviewed various documents which state this failure would not be applicable to Limerick. The Limerick (Units 1 and 2) diesel generators are a different manufacturer and the lubrication system design is different.

(Closed) Circular 79-13: Cummins industrial diesel fire pump engine defective starting electrical contactors. The inspector reviewed a Bechtel letter dated September 20, 1979 instructing the Patterson Pump Co. to replace the original Cummins magentic switch #118848 with the new switch #217588.

(Closed) Circular 79-17: Contact problems in type SB-12 switches on G.E. metalclad circuit breakers. The inspector reviewed documentation which stated that there were no G.E. metalclad circuit breakers used. In the Limerick plant, therefore, this circular is not applicable.

(Closed) Circular 79-19: Loose locking devices on Ingersoll-Rand pumps. The inspector reviewed various letters (Bechtel, Ingersoll-Rand and G.E.) stating that the Ingersoll-Rand pumps used at the Limerick plant are of a different design, therefore, this particular locking problem should not exist.

(Closed) Circular 79-21: Prevention of unplanned releases of radioactivity. The inspector reviewed documentation that stated all concerns addressed in the circular will be incorporated in the operating and administration procedures when they are written.

(Closed) Circular 79-22: Stroke times for power operated relief valves. This circular is not applicable to Limerick (boiling water reactor) only to pressurized water reactors.

(Closed) Circular 79-23: Motor starters and contactors failed to operate. The inspector reviewed various letters (PECO, G.E. and Bechtel) which stated that the Gould Nema 3 starters and contactors listed in this circular are not used for the Limerick units.

(Closed) Circular 79-24: Core spray pipe break detection equipment on boiling water reactors. The inspector reviewed the G.E. and Bechtel letters which stated that the Limerick design was different from one in the NRC circular, and therefore it was not applicable.

(Closed) Circular 79-25: The Bergen Paterson part #2540 strut assembly is being used as a rear bracket for different sizes of Pacific Scientific Company's mechanical shock arrestors. Some of these shock arrestor sizes may not function as intended due to insufficient clearances. The inspector reviewed a Bechtel letter dated December 28, 1979, which stated that there are 35 hangers that can have this problem. The Bechtel site organization has inspected most of the hangers and the inspection is continuing.

(Closed) Bulletin 77-08: Prompt and unimpeded ingress and egress from all parts of the facility must be assured in the event of an emergency. The security hardware and systems are to be designed so as not to degrade

life safety. The inspector reviewed various documents which outlined various actions to satisfy this. An example was that for electrical locking devices the Limerick plant will use a special electrical power source.

(Closed) Bulletin 78-06: Defective type M relays with DC coils. The inspector reviewed various letters (Cutler-Hammer, G.E. and Bechtel) which addressed the use of type M relays at Limerick. There was only one motor control center (identified as #10B211) which had this relay. The vendor (Cutler-Hammer) sent a substitute relay (D26MRD02A1) to the site for replacement. The inspector reviewed Bechtel's nonconformance report #3469 which stated that the type M relay was scrapped and a new relay (D26MRD02A1) was installed in the motor control center.

(Open) Bulletin 78-10: Broken accumulator spring coils in Bergen-Paterson (B-P) shock suppressor. The licensee doesn't know if the NSSS (G.E.) supplier will supply B-P hydraulic suppressors or the mechanical type, therefore, this bulletin cannot be closed out until it is known what type of suppressor will be supplied.

(Closed) Bulletins 78-12, 12A and 12B: A typical weld material in reactor pressure vessel welds. The Limerick vessel supplier, C.B. & I. has completed their search of the records and submitted a report of the results to NRC on April 24, 1979. The C.B. & I. report certified that there were no deviations found for the Unit 1 and 2 reactor vessels.

(Closed) Bulletin 79-17: Pipe cracks in stagnant borated water systems at power plants. This bulletin was sent to the licensee for their information. The licensee and the A/E reviewed the bulletin and concluded that it was not applicable to Limerick because the standby liquid control system which uses borated water operates at a low temperature and pressure.

(Closed) Bulletin 79-12: Short period reactor scrams for BWR facilities. This bulletin was sent to Limerick licensee for information only and no written response was required. The inspector reviewed a letter from the Limerick plant superintendent (dated June 12, 1979) which stated that the bulletin will be reviewed for possible inputs to their operating procedures when they are written.

15. Meeting Between Local Officials and U.S. Nuclear Regulatory Commission

A meeting was held on April 30, 1980 between NRC personnel and local officials representing the Boroughs of Collegeville and Trappe to introduce the NRC Senior Resident Inspector for construction at the Limerick facilty, describe the NRC organization and its inspection program. Also a question and answer session was held during this meeting.

16. Unresolved Items

Unresolved items are matters about which more information is required to ascertain whether they are acceptable items, items of noncompliance, or deviations. Unresolved items disclosed during the inspection are discussed in paragraphs 2, 9, 11 and 12.

17. Exit Interviews

At periodic intervals during the course of this inspection, meetings were held with the facility management (dates and attendees are denoted in detail 1) to discuss inspection scope and findings.