

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-353/86-01

Docket No. 50-353

License No. CPPR-107

Category A

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

Facility Name: Limerick Nuclear Generating Station, Unit 2

Inspection At: Limerick, Pennsylvania

Inspection Conducted: January 27-31 and February 3-5, 1986

Inspectors: Karel A. Manoly for 3/26/86
A. A. Varela, Lead Reactor Engineer date

K. A. Manoly 3/26/86
K. A. Manoly, Lead Reactor Engineer date

Approved by: J. T. Wiggins 3/26/86
J. T. Wiggins, Chief, Materials and Process Section, EB, DRS date

Inspection Summary:

Inspection Report No. 50-353/86-01 on January 27-31 and February 3-5, 1986

Areas Inspected: Routine, unannounced inspection by two regional-based inspectors of licensee, A-E and contractor activities relating to in-storage maintenance and preventive maintenance during the Limerick Unit 2 construction shutdown of 1984 and 1985. This report also addresses design activities, the maintenance of components and equipment warehoused at the Eddystone ADWIN Building, in laydown areas at the plant site, and licensee's quality assurance audits and verification of the contractor's controls for maintenance and preventive maintenance during the extended construction delay. The programmatic and administrative aspects relating to scheduling of work and craft labor requirements during the period of work ascension were reviewed.

Results: No violations were identified.

8604040323 860328
PDR ADOCK 05000353
G PDR

DETAILS

1. Persons Contacted

Philadelphia Electric Company (PECO)

- *D. A. Bowie, Licensing
- *J. J. Clarey, Superintendent Unit 2 Project
- J. M. Corcoran, Field QA Branch Head
- R. E. Crofton, Quality Assurance Engineer
- J. J. Fedish, Supervising Engineer-Construction
- *G. Lauderbach, Jr., Quality Assurance Engineer (Acting Head)
- K. Meck, Quality Assurance Engineer
- *R. T. Smith, Quality Assurance Engineer/Long Term Storage

Bechtel

- M. Crisafulli, Manager of Procurement
- W. Flintcroft, Long Term Maintenance Engineer
- L. Jenkins, ADWIN, Project Material Supervisor
- S. Jackson, Site, Project Material Supervisor
- J. Johnson, Assistant Project Construction Engineer
- *G. C. Kelly, Quality Assurance Engineer
- *H. Hollingshaus, Manager of Engineering
- E. Marquadt, Lead Receiving Inspector
- A. Miller, ADWIN, QC Inspector
- J. McVeigh, Lead Pipe/Mechanical QC Engineer
- *W. E. Maurer, Manager Construction
- G. Memula, Resident Project Engineer
- A. Ouaou, Resident Project Engineer
- K. Powers, Project Field Engineer
- *K. Stout, Project Field QC Engineer
- *K. L. Quinter, Assistant PCQC Engineer

General Electric (GE)

- A. Lilleck, Resident Site Manager

USNRC

- R. M. Gallo, Reactor Projects Section Chief
- E. M. Kelly, Senior Resident Inspector

*Attendees at exit meeting on February 5, 1986.

2. Inspection Purpose and Scope

The purpose of this inspection was to review, with cognizant and responsible licensee, architect engineer representatives and construction and quality assurance/control engineers at the plant, and at PECO's long term maintenance storage warehouse at Eddystone, Pennsylvania, the in-storage maintenance and preventive maintenance program capabilities, requirements and practices. Also reviewed were project engineering preparedness and readiness for Unit 2 resumption of construction. Unit 2 was at 30 percent status of construction in January 1984 at the initiation of the shutdown. Programs were reviewed on shutdown storage and preparations to assure quality in construction during the ascension of labor force.

No violations were identified.

3. Programmatic Control Requirements for Shutdown Storage and Startup Preparations

The following specifications, implementing procedures, quality control instructions and reports were reviewed and observed as they applied to the respective areas reviewed by the inspectors:

- BC Procedure No. CP-G-3, Rev. 0, for Long Term Storage/Maintenance/Lubrication of Permanent Plant Equipment and Materials Prior to Turnover for Limerick Unit 2
- BC Procedure No. CP-F-2, Rev. 0, for Storage and Withdrawal of Materials/Equipment for Limerick Unit 2
- GE Equipment Storage Requirements/Specification No. 22A2724, Rev. 3
- BC Field Inspection Procedure G-5, Material Receiving and Storage Control and Project Special Provisions Notice SF/SP G-5.1, Rev. 5
- BC Quality Control Instruction P-130, Valve and In-Line Component Installation, Rev. 1
- BC Job Rule JR-M-14, Rev. 8, Cleanliness Control of Piping and Mechanical Equipment
- BC Specification P-301, Field Fabrication and Installation of Piping
- BC Specification P-303, Rev. 11, Cleanliness Control of Piping and Equipment
- BC Specification P-311-2, Rev. B, Field Fabrication and Installation of Conventional Steam and Service Piping - Material Preparation and Storage.

The above programmatic quality assurance requirements and implementing control instructions were utilized by the inspector in his appraisal and assessment of the Unit 2 shutdown storage and startup preparations. The inspector further noted that per the Limerick's Final SAR, Regulatory Guide 1.88, "Collection, Storage and Maintenance of Nuclear Power Plant QA Records" which endorses/modifies ANSI 45.2.9-1974, is not applicable to Limerick for construction.

No violations were identified.

4. Long Term Storage/Maintenance - ADWIN Warehouse
Inspection of Facility - Equipment Storage and Maintenance

The licensee's long term maintenance (LTM) warehouse, ADWIN building, located in Eddystone, Pennsylvania, was visited on February 3, 1986. A walkdown inspection was performed of all bays and environmentally controlled enclosures, containing Limerick Unit 2 equipment, components and accessories. Maintenance records were sampled for review and discussions were conducted with cognizant and responsible personnel: BC's Limerick #2 warehouse material supervisor, QC inspector, PECO's QA mechanical (LTM) engineer and BC LTM engineer.

Equipment storage/maintenance was being conducted by thirteen permanent craftsmen (rigger, electrical, millwright, operating engineer, carpenter, teamster and labor) with two rigger foremen and one craft superintendent. This subcontract work to BC was being performed by F. W. Hake, Inc., whose craft personnel were trained and qualified to conduct those maintenance action items required by BC's discipline engineers which were found to be specifically identified in BC job rules and construction work procedures, and, posted on maintenance action cards (MAC).

The ADWIN warehouse's eight bays housed twelve distinct storage/maintenance areas and compartments, covers an area of 340,000 square feet. The inspection tour, performed in the company of BC's warehouse supervisor and PECO QA engineer, included all storage areas. Discussions were initiated by the inspector relating to his observations. The following is extracted from field notes taken during the tour.

- Valve room storage area: temperature was being maintained above 32° F, components are plastic covered and desiccant checks at monthly frequency was required; each valve is clearly identified by aisle, row and elevation and individually tagged.
- MSRV, mainstem collars: were plastic covered, maintained above 32° F, not resting on wood.
- GE core spray valves: were stored above 32° F, were closed-box crated lined with plastic, desiccant checks were required.
- RPV insulation: was stored above 32° F.

- Motor control centers: were plastic covered, stored with low heat off concrete floor to avoid condensation.
- Cable trays and high density fuel racks: were plastic covered, raised above concrete and steel floor.
- Turbine high pressure turbine rotors: stored in crates, twice yearly checked by GE and monthly visually checked by BC for storage temperature in cold weather and for humidity in summer.
- Low pressure turbine rotors: stored in crates, electric heated, twice yearly checked by GE and monthly checked by BC.
- Standby liquid control pumps: boxed in heated units with visual check windows.
- CRD housings and tubes: boxed with an annual visual check required.
- Safety Relief Valves: carbon steel (10" x 6") body with non-carbon steel internals were boxed with plastic liner. A visual check window permits check of two bags of desiccant in each opening.

All above units were observed stored to provide clear visibility and easy access. Each piece of equipment was identified and posted with 12" x 12" cards or tags marked clearly with the PD, MRR and MPL identification.

The Unit 2 shutdown, the inspector was informed, necessitated return to the ADWIN warehouse of about 50 percent of #2 equipment. During January and February 1986 some equipment was returned to the site. All items shipped out of ADWIN are OC checked as to condition and existence of previous NCRs that had been known and posted by BC quality control. Dispositions of NCRs at ADWIN, if required, are determined by the BC site discipline engineer. All items shipped to the site must be released by site for shipment out of the warehouse.

The ADWIN warehouse was observed to be a weatherproof structure, was well lighted, presented on orderly appearance and evidenced "good housekeeping." The building was well preserved and maintained weatherproof. Yard entrance was guarded and building security and fire protection were judged to be above average.

No violations were identified.

5. Walkdown Inspection - Containment Building Unit 2
Maintenance of Installed Equipment and Work Observation

A walkdown inspection was conducted to observe preparations for work, work underway and maintenance of previous in-place stored mechanical equipment. The major construction activity observed related to a design change identified in paragraph 9, Downcomer Support Modification. The RPV pedestal exterior and interior circumferential concrete was in preparation

for support of the downcomers by a lattice brace with bolting at twelve locations through the pedestal wall for tie-back support baseplates. Modification to the downcomer supporting mechanism for Units 1 and 2 was necessitated as a result of a change in the Mark II hydrodynamic loads. Other work activities observed related to setting up for HVAC duct work, setting up for pipe welding to RHR heat exchangers, preparing templates for the CRD steel baseplates, and maintenance on installed mechanical equipment. Equipment numbers were noted during the walkdown and QC records retrieved to examine the extent of maintenance performed.

As an example of this review, the inspector noted that RHR heat exchanger (BC Tag #2BE-205) was installed at Elevation 283 February 1981. Maintenance activity and frequency records were verified by the NRC during this inspection. These records show witnessing by QC for visual inspection every 3 months, reading of ambient temperature and pressure of shell and tube weekly and calibration of pressure gage annually. Maintenance action cards were appropriately signed-off by QC throughout installation up to present.

No violations were identified.

6. Limerick Yard Protected and Open Storage Laydown Areas

A tour was made of the Limerick site laydown storage areas to observe conformance to criteria identified in BC construction procedure, CP-G-3, Long Term Storage/Maintenance/Lubrication of Permanent Plant Equipment and Materials Prior to Turnover. The laydown yard storage plan FSK-C-86 and the CP procedure provide designated open storage and laydown area buildings for specific items. BC project special provisions notice, SF/PSP G-5.1, Rev. 5, identifies specific requirements for Q-list or ASME Code Section I or III items as to requisitions, receiving inspection, material identification, NSSS material receiving, storage facility inspection and surveillance of maintenance activities. The latter provides for QC hold and witness points, maintenance logs and maintenance action cards with designated maintenance activity for permanent plant material and equipment. The inspector observed in his tour of approximately 55 designated yard and open storage laydown areas that the limits of each was clearly defined and identified by signs. They presented an orderly appearance and provided accessibility for material handling. Ground surfaces were well drained. All material was either on pallets or was separated such that it presented well organized appearance. Carbon steel pipe spool storage areas were adjacent to fabrication and grit blast shops for field fabrication and for clean up of surface rust in accordance with procedure CP-F-2. Release of all above material and equipment is the responsibility of PECO's Construction Manager and its acceptability on receipt is the responsibility of BC's QC Engineer.

No violations were identified.

7. Licensee Audit Program During Unit 2 Shutdown

PECO established an audit program to be executed during Limerick Unit 2 shutdown. This planned effort in assuring quality of inplace stored/maintained materials, equipment and components was a continuation of the licensee's initial construction QA program. The shutdown QA program was defined and approved April 1, 1984. Nineteen audits were performed by PECO's QA audit engineers during the shutdown up to December 26, 1985. Surveillance reports of BC's QC activities are also included in the licensee's audits. These were reviewed by the NRC inspector and discussed with cognizant licensee and BC personnel. Their description, scope and frequency are identified herewith.

PECO Audits During Unit 2 Shutdown

<u>Description</u>	<u>Scope</u>	<u>Frequency</u>	<u>Audit Report & Follow-up No.</u>
BPC Audit Program	Site Audit System and Audits	Once	G-191 (85)
Cleanliness	Unit 2 Plant	1 Each Year	G-176 (84) G-183 (85)
Cleanliness	Site Laydown	1 Each Year	G-245 (85) G-246 (85)
Cleanliness	Warehouse	1 Each Year	G-183 (85)
Control of Measuring and Test Equipment	At BC Site Warehouse	Once	G-171 (84) AR-339 (85)
Document Control	Vendor Manuals Storage Instructions	Once	G-105 (84) G-198 (85)
Document Control	PGCC Documents	Once	E-169 (85)
Document Control	Electrical and Mechanical Environ- mental Reports	Once	G-114 (85)
Equipment Transfer	Unit 2 Controls	3 Per Year	M-514 (85) E-221 (85) G-187 (85)

In addition to the above licensee QA audits, the program encompassed approximately 55 separate and distinct action items pertaining to maintenance and preventive maintenance during the shutdown. These included surveillances of site contractor, subcontractor and long term maintenance (ADWIN Warehouse) administrative controls and maintenance actions. The NRC's selected sample of licensee audits demonstrated that PECO retained full responsibility for assuring quality of all safety-related materials and equipment. The inspector observed that inspections and audits used checklists and clearly defined requirements and findings; corrective actions were documented and verified; and technical issues involving procedural changes were satisfactorily resolved.

No violations were identified.

8. New Building Construction - Diesel Generator Building

The Unit 2 diesel generator building is the only structure remaining to be built. Construction had not started prior to the shutdown. Foundation excavation was expected to begin early in March 1986. The inspector reviewed Bechtel drawings and referenced specifications relating to the building foundation. Drawing C-680, revision 9, identified that excavation was required to expose competent rock capable of supporting a foundation load of 30 KSF. The inspector noted that rock at proposed elevations would be examined by an experienced geologist. If competent rock is not exposed at this elevation, excavation to depth(s) directed by the geologist would be made. Any excavated material shall be replaced by class A concrete. This control was observed to be clearly defined in BC's work package transmitted to QC for implementation by the BC civil engineer.

No violations were identified.

9. Review of Site Engineering Activities

A review of site engineering activities was conducted during this inspection. The purpose of this effort was: (1) to develop an understanding of the site engineering organization, (2) to determine the status and scope of engineering activities, including any engineering related to changes planned between Units 1 and 2, and, (3) finally, to access the tracking system of engineering modifications and changes which took place on Unit 1 and which were not addressed on Unit 2 as a result of the suspension of construction.

9.1 Site Engineering Organization and Status of Activities

The inspectors held several meetings with representatives from the licensee's Project and Quality Assurance organizations and from the contractor's (Bechtel) site Project Engineering organization.

With regard to site staffing, the following information was gathered by the inspectors:

- there are approximately 570 crafts on site, of which 190 are pipe fitters and 40 are sheet metal workers (subcontractors from Schneider),
- the craft force is expected to reach 1,000 by June 1986 and 1,600 by December 1986,
- Bechtel's project engineering staff on site has grown to 185 members between October 1984 (termination of construction on Unit 2) to the present time. The project staff is expected to reach 205 members by April 1986 and peak at 230 to 250 members. Bechtel's engineering organization onsite is divided between Project Engineering (PE) and Construction Engineering (CE).

The Project Engineering group onsite represents approximately 90% of the total project engineering staff. The balance of the PE staff remains in Bechtel's home office in San Francisco (SFHO) with an overall plant system responsibility.

The responsibility of site PE has been broadened to include the majority of design-related activities which were performed by PE-SFHO and field engineering during the construction of Unit 1. Construction Engineering, however, is responsible for material procurement, walkdown of installations, performing installation/interface check, and field inspection and as-built verification. Design changes are initiated by Construction Engineering by using applicable change documents (FCR/FCN/redlines).

The inspectors were informed that when construction work was terminated on Unit 2, engineering activities were approximately 50% complete. At the present time, approximately 80% of the engineering work is complete. All design activities onsite are performed by the Project Engineering group, according to project specifications and Engineering Department Procedures (EDP). Construction Engineering has had no responsibility for performing design engineering activities on Unit 2 since December 1984. The scope of design activities onsite include civil, structural, mechanical, electrical, instrumentation and control and plant design disciplines. In the civil and plant design areas the lead responsibility is maintained onsite, with a few personnel in SFHO in a coordination role. However, in the mechanical, electrical, and instrumentation and control areas, the lead responsibility is maintained in SFHO, while the site is responsible for configuration and physical control.

The inspectors were informed that the analysis and design of safety related piping and support systems inside containment are based on the same criteria as that employed for Unit 1. Unit 2, however, has its unique fabrication and isometric piping drawings. The analysis of large bore (L/B) piping outside containment is performed according to the same design criteria utilized for Unit 1. The inspectors discussed with the licensee the implications of ASME code case N-411, which addresses the utilization of higher values of critical damping percentage in piping stress analysis and Code Case N-397 which describes alternative rules (i.e. peak shifting of seismic amplified response spectra) to the spectral broadening procedures for Class 1, 2 and 3 piping. The results of invoking these two code cases in piping stress analysis would be a more realistic prediction of piping response to seismic excitation and fewer seismic restraints (including snubbers), which contribute significantly to overall piping systems stiffness. The inspectors also discussed with the licensee whether a program for pipe support optimization was being considered in conjunction with the utilization of the above Code Cases. The licensee indicated that an evaluation of the above techniques will be performed for their applicability to Limerick Unit 2 safety related piping systems.

The inspectors were also informed that Bechtel intends to utilize the computer code ME101 in the analysis of small bore (S/B) safety related piping systems outside containment similar to all other safety related piping inside and outside the containment. Thus, piping span tables would not be utilized in the analysis of Category I S/B piping systems outside containment as was the case in Unit 1. The inspectors also learned that there are no changes in the Hydrodynamic Mark II containment loads or in their combinations with seismic loads from those employed in the design of Unit 1.

In the course of this inspection, the inspectors informed a partial review of the "Specification for Safety Impact Review Program" M-400, which addresses the requirements of the NRC Regulatory Guide 1.29 for Seismic Design Classification. The specification is applicable to both units and was revised near the end of Unit 1 construction to modify the design requirements for Seismic Category IIA commodity supports. The allowable stresses for the Cat. II A supports were revised to higher values than those permitted for Category I commodity supports. The revised allowable stresses permit design of Cat II A supports with a minimum safety factor of 1.5 to maintain the structural integrity. The structural integrity is limited by the ultimate strength of the load carrying structural material.

PECO's involvement in Unit 2 activities is generally similar to that which took place during the construction of Unit 1. This includes PECO's overseeing of engineering activities by performing reviews of Bechtel's design procedures and specifications and conducting technical and QA audits.

No violations were identified.

9.2 Review of Tracking System of Engineering Changes

The inspectors reviewed the tracking system employed by the contractors (Bechtel & GE) for engineering modifications and changes on Unit 1 which were not addressed on Unit 2, as a result of the suspension of construction in 1984. The inspectors were informed by the licensee that, prior to the suspension of Unit 2 design or construction initiated changes (FCRs, FGNs, FDIs and FDDRs) against common Unit 1 and 2 drawings or specific Unit 2 drawings were addressed to extent of completion Unit 2 construction. All design and construction-related changes initiated on Unit 1 by Bechtel (Field Change Requests "FCRs" and Field Change Notices "FCNs") after the suspension of construction on Unit 2, have been tabulated and are being evaluated for applicability to Unit 2. Those applicable change documents are designated unique Unit 2 change document numbers. The inspectors examined the documents being used by Bechtel in tracking of Unit 1 change documents for implementation to Unit 2.

The tracking of change documents applicable to GE-generated changes were also reviewed by the inspectors. Field Deviation Disposition Reports (FDDRs), Field Disposition Instructions (FDIs) and Engineering Change Notices (ECNs) which were issued for Unit 1 by site and GE-home office, during the suspension of construction on Unit 2, were to be tabulated for evaluation of their applicability to Unit 2. The inspectors examined the tracking of FDDRs generated for Unit 1 electrical and mechanical installations. Cognizant GE representatives on site identified that a total of 3500 FDDRs were reviewed and 338 were determined to be applicable to Unit 2 installation.

The inspectors performed a sample review of Bechtel and GE-generated change documents to verify their tracking by site organization as indicated above. The documents reviewed are tabulated in Attachment 1 to this report.

No violations were identified.

10. Review of Downcomer Support Modification

A modification to the downcomer supporting mechanism for Units 1 and 2 was necessitated as a result of the change in the Mark II hydrodynamic loads. The physical modifications to downcomers supports require the grouping of downcomers by a lattice brace and tiebacks to the Reactor Pressure Vessel (RPV) pedestal at twelve locations around the circumference. The tieback support baseplates require bolting through the pedestal wall. In order to install the through bolts at designated locations without interfering with the vertical and hoop rebar on both the inside and outside faces of the pedestal, removal of the concrete cover was required on both faces to expose the rebar. The modification for Unit 2 downcomer is similar to that provided for Unit 1. The inspectors observed the removal of the concrete covers by the Hydrolaser method which was being performed by the construction crew during this inspection. The inspector also reviewed the modification drawing (C.271: MSRV Discharge Pipe and Downcomer Support) and the construction procedure civil work packages (W.P. No. C-0271-MS-HLA0 and W.P. No. C-0271-MS-HLAI).

11. Review of Design Change in Neutron Monitoring System

GE Unit 1 major modification to the neutron monitoring system, identified as FDDR-HH-4482, was discussed with GE engineering site representatives. The approved modification project change request MPCR 275, revision #2, was issued for construction March 22, 1985, and was approved by BC project engineering. The status and scheduling of this change for Unit 2 was observed to be adequate. The Unit 1 change occurred after Unit 2 shutdown, and is presently in a suspense file. The Unit 1 FDDR change to the control room panels will be statused for Unit 2 by September 1986. This was verified by the inspector in his review of GE computer listing of Unit 2 FDDRs.

No discrepancies were identified.

12. Conclusions Drawn from Unit 2 Shutdown Storage and Startup Preparations

Based on the inspector's observations identified in the foregoing paragraphs, storage maintenance and preventive maintenance actions during the Unit 2 construction shutdown, by the licensee and his contractors, have ensured that the quality of materials and equipment has been maintained. PECO, GE and BC's preplanned administrative controls were observed to have been implemented. Procedures provided specific maintenance actions and environmental conditions to preclude detrimental effects on stored items and on those installed in the facility. The licensee's QA/QC interface actions were observed adequate to assure quality for resumption of Unit 2 construction. Craft work forces and construction work packages were observed prepared and programmed for an efficient ascension in the volume of work scheduled for the first six months of 1986. Additional qualified and experienced BC construction and project engineers from other nuclear plants

nearing completion have been transferred to support the Unit 2 construction effort. These observations indicated to the inspectors that the licensee and its contractors were satisfactorily prepared to complete construction of Unit 2.

No violations were identified.

13. Exit Interview

An exit interview was conducted February 5, 1986 at the Limerick plant site with members of the licensee's staff and contractor personnel identified in paragraph 1. The inspector summarized the scope and findings of this inspection. The licensee acknowledged the inspector's comments. No written information was given to the licensee during the course of the inspection.

Attachment 1

Change Documents Reviewed

<u>Document No.</u>	<u>Title or Description of Change</u>
PCR 0722	Additional ILRT connector isolation valves for airlock and containment rad monitor
PCR 0653	Additional radiation shielding to wall N-2828.7
PCR 0966	PCN 6966-N Diesel oil storage tank valve pit back-flood protection
PCR 0642	Additional radiation shielding at column lines 41 and 5 above elevation 255'-3"
PCR 1446	Diesel Generator exhaust pipe modification
FDDR HH2-8095	Return of the E41-C002 steam turbine to the Terry Steam Co. for refurbishment
FDDR HH2-0786	Replacement of RCIC pump (E51-C001) constant level bearing oiler which was transferred to Unit 1
FDDR HH2-8005	Replacement of RCIC pump (E51-C001) studs which were transferred to Unit 1 to replace overtorqued studs in pump outboard cover
FDDR HH2-0736	Replacement of the lower half of the damaged governor end bearing in RCIC turbine (E51-C002) and securing of fasteners to maintain the gland seal assembly in proper position during extended storage
FDDR HH2-0816	Replacement of the glass cover for instrument gauge PI50-113 of the RCIC turbine (E51-C002) which was transferred to Unit 1 by LS 8116 per NCR 9377

<u>Document No.</u>	<u>Title or Description of Change</u>
FDDR 71/7303-1	Obtaining actual as-built dimensional data of the RCIC pump (E51-C001) seal circulation piping
FDI A8-73030-1	Replacement of nameplates for HPCI and RCIC turbines defining higher horsepower and speed at high pressure operating condition to assure proper calibration of the turbine governor
FDI 130-73030	RCIC Turbine (E51-C002) upgrade
FDDR HH2-3443	Return to vendor for modification of the Riley temperature monitors which have been located in PGCC panels and PGCC site stores that have not been returned to the vendor per FDI TNIS, Rev. 3, GE PN 163C1390 Rev. 8
GDDR HH2-4482	Failure of the SRM and IRM power supplies of the Neutron Monitoring System necessitates replacement with redesigned power supply.