

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-219/88-12

Docket No. 50-219

License No. DPR-16

Licensee: GPU Nuclear Corporation
P.O. Box 388
Forked River, New Jersey

Facility Name: Oyster Creek Nuclear Generating Station

Inspection At: Forked River, New Jersey

Inspection Conducted: April 25-29, 1988

Inspector:

M. Dev, PE, Reactor Engineer

7/8/88
date

Approved by:

N. Blumberg, Chief, Operational Programs
Section, OB, DRS

7/8/88
date

Inspection Summary: Routine, Unannounced Inspection conducted on
April 25-19, 1988 (Inspection Report Number 50-219/88-12)

Areas Inspected: Review of licensee's (OCNGS) program implementation of
10 CFR 21 Regulation, and review of station procurement program.

Results: Licensee's 10 CFR 21 program is well organized. However, the
documentation supporting the results of evaluation for reportability is not
adequately managed (paragraph 2.3.3). The station procurement program
administrative control procedures were not treated as quality assurance
documents, and as such, were found outdated and not been reviewed for their
adequacy, for last six years (paragraph 3.3.3). Currently, these procedures
are in the process of being upgraded and updated to meet the station safety-
related procurement requirements. The licensee needs to improve management
of the station 10 CFR 21 documentation, establish a procedure for evaluation of
commercial grade items, and establish quality assured procurement procedures to
conduct station procurement activities.

No violations were identified in the areas inspected.

DETAILS

1.0 Persons Contacted

Oyster Creek Nuclear Generating Station (OCNGS) - General Public Utilities - Nuclear (GPU-N)

- *J. De Blasio, Manager, Plant Engineering
- E. Johnson, Superintendent, I&C
- *T. Hanlon, Contracts Specialist
- M. Kelemen, Jr., Purchasing Manager
- *R. Larzo, Supervisor, Plant Engineering
- *J. Olansen, Manager, Procurement
- *J. Rogers, Licensing Engineer
- W. Sienon, Manager, Contracts
- *J. Solakiewicz, Manager, QA Engineering and Systems
- *R. Thoms, QA Engineer

United States Nuclear Regulatory Commission (US NRC)

- *E. Collins, Resident Inspector

* Denotes those attended the exit meeting on April 29, 1988.

The inspector also contacted other administrative and technical personnel during this inspection.

2.0 OCNGS 10 CFR 21 Program (Module No. 36100)

2.1 Inspection Criteria/References

The scope of this inspection was to ascertain if the licensee has established and is implementing procedures and controls to ensure the reporting of defects and noncompliances, subject to 10 CFR Part 21 Regulations. Station procedures (Attachment-1) establish guidelines for the for implementation of 10 CFR 21 Regulation.

2.2 Program Review

The licensee's program was reviewed to verify that controls or procedures have been established for:

- Posting of information as required by 10 CFR 21.
- Evaluating deviations and nonconformances and notifying them to responsible persons.

- Informing the Commission as required, when receiving information of a defect or reportable failure in compliance with 10 CFR 21 requirements.
- Specifying provision of 10 CFR 21 in each quality assurance procurement documents.
- Assuring maintenance of records subject to 10 CFR 21 Regulation.
- Assuring preparation and appropriate disposition of records.

2.3 Review of Program Implementation and Findings

2.3.1 10 CFR Part 21 Reports

As delineated in GPUN Policy 1000-POL-1290.01, NRC Regulation - 10 CFR 21, the licensee has provided through posting of Section 206 of Energy Reorganization Act, the names of individuals to whom report may be made, and places where 10 CFR Part 21 and related procedures may be examined, at a conspicuous location in OCNGS procurement office. The procedures provide for identification of potentially reportable defects and material nonconformances through material nonconformance reports (MNCKs). Accordingly, a preliminary safety concern (PSC) is conducted to document the result of the evaluation. The inspector reviewed four such potentially reportable concerns:

(1) The licensee notified the NRC on June 7, 1985, of a deviation from the technical requirements included in the procurement document. GPUN procured replacement parts from Dresser Industries for the Electromatic Relief Valves (EMRVs), model 1525VX-2-SMY-1. The replacement parts supplied by Dresser Industries were of an upgraded valve design model 1525VX-3-XFB-11. OCNGS determined that a certain configuration in which a pilot disc of upgraded design is installed with pilot disc stem of the original design, could leave excessive clearance such that the solenoid would not lift the pilot disc stem sufficiently to actuate the EMRVs. The licensee conducted a part evaluation and concluded that no configuration problem existed in the installed replacement part at OCNGS and the matter was determined to be not reportable. Subsequently, the Dresser Industries notified the NRC and the utilities of the potential problem associated with the wrong valve parts and inadequate fit. Based on the review of the documentation, the inspector determined that the licensee's action in this regard was adequate.

(2) The licensee deviation report (DR) 87-483 identified a potential concern related to design errors in Joseph Oat Corporation computer Code THERPOOL for spent fuel rack SN/2464, A through H,J,K. The licensee identified this concern through MNCR 87-192, and determined that sufficient margin of safety in the OCNGS spent fuel racks existed to rule out any effect of the error in the THERPOOL computer Code. Subsequent to the notification by Joseph Oat Corporation the NRC issued Information Notice 87-43. The Region I staff conducted an inspection (Inspection Report 87-32) and verified that the result of the computer Code THERPOOL, as applicable to OCNGS, was acceptable. The inspector reviewed DR-87-483 and the supporting documents. The documentation appeared to be not well organized and maintained. Problems were encountered in retrieving them in a timely manner.

(3) Deviation report 87-103 verified a potential concern related to high leakage in RCA transistors installed in overcurrent relay ITE model 50D, Brown Boverly P/N 238S3575. This problem was identified and accordingly a 10 CFR 21 notification was initiated by the vendor (Brown Boverly). The vendor evaluation concluded that this problem was isolated to a specific lot of RCA transistors. Subsequently, the vendor replaced the affected relays. Based on the review of the licensee's documentation and discussion with the cognizant plant personnel, the inspector determined that the licensee's action in this regard was adequate.

(4) MNCR 87-009 identified a reportable deficiency related to General Electric HFA relay armature binding. The vendor issued a relay and service advice letter, SA 188.1 to rectify the problem. This information was available to the NRC, and subsequently, the utilities were informed through the NRC Bulletin 84-02. Based on this, the licensee determined the concern as not reportable. However, the licensee inspected all the installed relays and found them acceptable. An inventory check was performed which resulted in replacement of all affected relays in the stock by the vendor. The inspector reviewed MNCR-87-009 and the supporting documents. The documentation appeared not effectively organized and maintained. Problems were encountered in retrieving them in a timely manner.

2.3.2

Procurement Interface

The inspector reviewed the licensee procurement documentation (Attachment 1) and verified that the purchase orders had specifically included the requirements of 10 CFR 21 Regulations. The vendor compliance to this regulation was verified by the inspector through the licensee's documentation of material receipt inspection and found satisfactory.

2.3.3 Engineering Interface

The OCNCS Licensing Engineering Department is responsible for review, update and maintenance of the station 10 CFR 21 related documentation and correspondences. All such reportable incidents are identified through the station deviation reports or material nonconformance reports. Although the licensee had not identified any reportable concerns, a weakness in the licensee's control of 10 CFR 21 documentation was noted. The documentation was not adequately organized to delineate the station 10 CFR 21 concerns and their related dispositions. Lack of reference makes it difficult for the licensee to retrieve documentation of the completed action items in a timely manner. As such, the licensee has to review every MNCR to verify the station 10 CFR 21 reportability related disposition.

2.4 Conclusions

The management controls of review and processing of 10 CFR 21 concerns are satisfactory. Adequate procedures and guidance have been established. However, the results of the evaluation supporting non-reportability were not adequately managed. For example, the design deficiencies identified in the Joseph Oat Corporation Computer Code THERPOOL, and its ramification to the OCNCS spent fuel racks were not organized in a way that the information could be easily retrieved and used by the plant technical personnel. In other instances, though the design and manufacturing deficiencies in GE HFA relays were provided to the NRC by GE, the licensee's documentation to support the corrective action was not adequately organized and easily retrievable.

3.0 Procurement Program (Module No. 38701)

3.1 Inspection Criteria/Reference

The scope of this inspection was to ascertain if the licensee has established and is implementing procedures and controls to ensure the procurement of safety-related components, parts and equipment. Guidance for the implementation of the licensee's procurement program is established in the licensee's procurement procedures listed in Attachment 1.

3.2 Program Review

The licensee's procurement program was reviewed to verify that the licensee's administrative controls for the procurement of safety-related items provided for:

- Specific identification of equipment or services, identification of test, inspection and acceptance requirements, technical requirements, suppliers' audits and access to the suppliers' verification of suppliers' QA program, and incorporation of 10 CFR 21 Regulation in the procurement documentation documentation
- Measures and assignment of responsibilities in writing for initiation of procurement documents and their review and approval, including quality classification of procurement items, and changes made to the procurement documents
- Method for qualifying vendors, maintenance of approved vendor list through suppliers audit, and maintenance of suppliers qualification records

3.3 Review of Program Implementation and Findings

- 3.3.1 The licensee has established administrative control measures for procurement, including new and spare parts, replacement parts, commercial grade items and consumables. Engineering Standard ES-011 delineates quality classification for structures and major systems, and describes a component level quality classification list (QCL) for nuclear safety related, regulatory required, and other components requiring quality assurance controls.

The inspector reviewed selected procurement documentation, including purchase orders (Attachment 1). These documents were prepared in accordance with the station administrative controls. The equipment and materials were procured from qualified suppliers. The performance of qualified suppliers is periodically reviewed and updated by the licensee QA department and checked for their authenticity prior to placing a purchase order.

- 3.3.2 The inspector verified that these selected purchase orders had specifically required certain accompanying documentation, including test reports, certificate of conformance, and equipment qualification records. Requirements of 10 CFR 21 were also identified, for material traceability and reporting of defects and nonconformances. The materials were receipt inspected by the licensee QA/QC personnel, and in several instances, material nonconformances were initiated, based on vendors failing to meet the procurement requirements. These nonconformances were resolved through engineering evaluation and justification.

- 3.3.3 The inspector identified that several of the procurement procedures were outdated and had not been reviewed since 1982. These procedures were treated as non-safety related documents, but were utilized to conduct quality control procurement activities. The licensee QA audit S-OC-87-02, Material Management, had identified a similar concern. Consequently, the Material Management department is in the process of developing a new set of Material Management procedures in order to meet the licensee QA requirements for procurement of safety-related equipment and services. The inspector reviewed draft copies of these new procedures prepared to support the implementation of the required corrective action. The licensee's action appeared adequate.
- 3.3.4 The safety classification of each new spare part including commercial grade items used at the plant is determined and upgraded based on the current safety classification requirements in accordance with the procedure 125.2, Conduct of Spare Part Engineering. However, the inspector noted that the licensee has not formalized a method to conduct evaluation and upgrade the commercial grade items for use at OCNGS. The licensee is using EPRI Report NP-5652, Guidance for the Utilization of Commercial Grade Items in Nuclear Safety Related Applications. The inspector also, noted that Engineering Standard ES-011 referenced Impell Report No. 02-0370-1331, Quality Classification List for Oyster Creek Reactor Trip System Components, but the document is neither administratively controlled nor have the contents been made part of the licensee's Quality Classification List. Since changes in the quality classified items may not be reflected in the list, its usefulness appears limited.
- 3.3.5 The inspector toured the warehouse and verified the licensee's receipt inspection, storage and handling of selected purchase orders (Attachment 1). These activities were found satisfactory.

3.4 Conclusions

Even though certain procurement procedures were used in performing quality control procurement activities, they were treated as non-safety related documents. These procedures were not reviewed for their adequacy and effectiveness for the last six years. Currently, the licensee is updating and upgrading them to meet the station quality assurance procurement requirements. The licensee resolution is considered adequate.

4.0 QA/QC Interfaces

The licensee QA has conducted two audits to verify OCNGS compliance to licensing requirements in the areas of procurement and corrective action (Attachment 1). As a result of these audits, several nonconformances were identified in the licensee's program. The inspector verified that the licensee's response and the implementation of corrective action were adequate and timely. The licensee QA is also instrumental in reviewing material nonconformance reports, deviation reports and conducting procurement receipt inspection to verify suppliers conformance to the licensee's procurement requirements. Within the scope of the receipt inspection for the purchase orders reviewed, QA had initiated several material nonconformance reports (MNCRs) which were reviewed and dispositioned by the licensee management in accordance with the station procedures and quality control requirements. QA also evaluates vendor qualification, and updates and maintains the qualified vendor list.

The inspector discussed with the licensee QA/QC personnel the conduct of audits and receiving inspection and determined that QA/QC interfaces were adequate. The station is adequately staffed with qualified and trained QA/QC personnel.

5.0 Management Meetings

The licensee management was informed of the scope and purpose of this inspection at an entrance meeting conducted on April 25, 1988. The findings of the inspection were discussed with the licensee representatives during the course of this inspection. An exit meeting was conducted on April 29, 1988 (see paragraph 1.0 for attendees) at which time the findings of the inspection were presented.

At no time during this inspection was written material concerning inspection findings provided to the licensee. The licensee did not indicate that any proprietary information was involved within the scope of this inspection.

ATTACHMENT 1

Documents Reviewed

(a) Purchase Orders (Paragraph 3.3)

OP-05493, Limitorque Motor Torque Switches
OP-042904, Crane Valves for Feed Water System
OP-054968, Atheson Instrument
OP-062024, Limitorque Motor Gasket
OP-062184, Penn Valves and Fitting
OP-035031, GE 12 HFA Relays
PP-033854, Control Pipe and Steel Products
OP-058664, Nova Machines
OP-049500, GE Detectors

(b) QA Audits (Paragraphs 3.3.3 and 4.0)

S-OC-86-06, Corrective Action, May 20 through July 15, 1986
S-OC-87-02, Material Management, March 4 through April 14,
1987

(c) Procedures (Paragraphs 2.0 and 3.0)

1000-ADM-1290.01, NRC Regulation 10 CFR 21, Reporting of
Defects and nonconformances, Revision 1, December 19, 1986

1000-ADM-7215.01, GPU Material Nonconformance Reports and
Receipt Deficiency Notices, Revision 1, July 21, 1986.

1000-ADM-7215.02, GPUN Quality Deficiency Reports, Revision 0,
June 22, 1984.

1000-ADM-7330.01, Management of Preliminary Safety Concerns and
Potential Licensee Event Reports, Revision 2, February 13, 1987

7200-ADM-6231.4, Request for Change to Existing Purchase Order
or Purchase Requisition, Revision 0, July 14, 1982

7200-ADM-6231.5, Purchase Requisition for Repair of Equipment,
Revision 0, July 14, 1982

7200-ADM-6231.07, Automated Material Management System,
(AMMS) Revision 1, November 4, 1985

7200-ADM-6231.09, Control of AMMS Pre-Formatted Purchase
Requisition Special Instructions, Preliminary Draft

1000-PLN-7200.01, Operational Quality Assurance Program,
Paragraph 5.0, Procurement and Material control, Revision
1, November 1, 1985

OCEGS Procedure 152.2, Conduct of Spare Parts Engineering,
Revision 3, August 22, 1987

Technical Function Division Procedure ES-011, Quality
Classification, Revision 12, March 7, 1988