

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-286/82-15

Docket No. 50-286

License No. DPR-64 Priority - Category C

Licensee: Power Authority of the State of New York
10 Columbus Circle
New York, New York 10019

Facility Name: Indian Point Nuclear Generating Station, Unit 3

Inspection At: Buchanan and White Plains, New York

Inspection Conducted: August 2-6, 1982

Inspector: G. Bisset for 8/27/82
G. Napuda, Reactor Inspector date

Approved by: D. L. Capton for 8/27/82
D. L. Capton, Chief, Management Programs Section, DETP date

Inspection Summary: Inspection on August 2-6, 1982 (Inspection Report No. 50-286/82-15)

Areas Inspected: Routine, unannounced inspection by one region based inspector of the QA Program in the areas of design changes/modifications; audits; and annual QA Program review. The inspection involved 29 inspector hours onsite and 8 inspector hours at licensee corporate offices by one region based inspector.

Results: No violations were identified in the two areas inspected.

DETAILS

1. Persons Contacted

- *J. Brons, Resident Manager
- *C. Caputo, Electrical Technical Services Engineer
- *J. Cirilli, QA Supervisor
- D. Halama, QA Superintendent
- *W. Hamlin, Assistant to Resident Manager
- *A. Klausmann, Vice President-Quality Assurance
- *J. McGrady, QA Manager
- R. Schimpf, Technical Services Engineer
- *K. Sunder Raj, Director-Project Engineering Power Support

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- *T. Kenny, Resident Inspector

The inspector also interviewed other licensee employees during the course of the inspection including administrative, engineering, operations, quality assurance and quality control, and technical support personnel.

*denotes those present at the August 6, 1982 exit interview.

2. QA Program Review

The procedures identified in subsequent paragraphs of this report by an asterisk were revised subsequent to the previous NRC inspection (50-286/80-20) that reviewed this area. The changes to these procedures were reviewed in depth to verify they were consistent with requirements of the NRC approved Operations Quality Assurance Plan.

No violations were identified.

3. Design Changes/Modifications

3.1 References

- ANSI N45.2.11-Draft No. 3, Quality Assurance Requirement for the Design of Nuclear Power Plants, Rev. 1
- Quality Assurance Program for Nuclear Plant Operation (IP-3)
- Regulatory Guide (RG) 1.64, Rev. 0
- NUREG 0578
- NUREG 0737

- *-- Nuclear Generation Procedure (NGP) No. 1, Organization, Rev. 2
- *-- NGP No. 4, Safety Classifications and Evaluations, Rev. 1
- *-- NGP No. 6, Procurement Document Review, Rev. 1
- *-- NGP No. 11, Quality Assurance Controls, Rev. 1
- *-- NGP No. 15, Conduct of Nuclear Support Division, Rev. 1
- *-- NGP No. 19, Preparation, Review and Processing of Modification Packages, Rev. 1

3.2 Program Review

The inspector reviewed the licensee's program for design changes and facility modifications to verify the following:

- Procedures have been established for control of design changes and modifications
- Appropriate responsibilities have been established and assigned
- Administrative controls have been established to preclude unauthorized activities; assure prompt recall of obsolete documents; and facilitate distribution of approved documents
- Administrative control procedures have been established to revise the plant procedures, the training program and the facility drawings as necessary to reflect any facility changes as described in this section
- Proper communication channels have been established among participating organizations such as design service contractors
- Provisions have been established to transfer the records to the records storage facility
- Provisions have been established to assure that activities are conducted using approved procedures, whenever applicable
- Program controls assure that post implementation testing and acceptance criteria are established
- Responsibility and the method for reporting activities to the Nuclear Regulatory Commission have been established

The above asterisked procedures were reviewed to assure the program complies with the referenced requirements.

3.2.1 Findings

The architect/engineer (A/E) has normally performed the majority of detail engineering associated with design changes/modifications. An engineering overview of selected design services is then performed by the licensee in accordance with the requirements of the NRC approved QA Plan description and established QA Program.

A recent reorganization created a Nuclear Support Division dedicated to engineering/technical support of operating nuclear power plants. This group is located at corporate offices that have been established closer to the facility than the existing corporate base offices. The inspector noted that the engineering group (Project Engineering Section) that is dedicated to review selected design documents and work generated by contracted services currently consists of seven engineers of various disciplines and a director (Director-Project Engineering Power Support (DPEPS)).

The inspector discussed the activities of this section and the manner in which they are accomplished with the DPEPS and two of the discipline engineers. Detailed implementing procedures for this section have been developed and are currently in final draft form. The inspector reviewed a number of these procedures and subsequently noted that ongoing activities are being accomplished as described in these procedures (see paragraph 3.3.1).

The inspector stated he had no further questions and this area would be reviewed on a routine basis during subsequent NRC inspections. The DPEPS acknowledged the inspector's statement.

No violations were identified.

3.3 Program Implementation

Modifications 80-03-052 ESS, Containment Building Water Level; 81-03-029 AFW, Auxiliary Boiler Feed Pump Turbine Missile Shield; 81-03-047 MS, Replacement of Atmospheric Dump Valves; 81-03-068 ESS, Automation and Modification of Valves for Containment Isolation Dependability and Access/Shielding; and, 82-03-058 WDS-L, Reactor Cavity Sump Pump Level Column were reviewed on a sampling basis to verify that the following requirements have been implemented as applicable.

-- 10 CFR 50.59 reviews were performed and documented.

- Design changes/modifications were accomplished and deemed satisfactory
- Procedures and drawings required to be changed or generated as a result of a design change/modification were identified, updated or generated
- Design documents were controlled
- Channels of communications exist between the contracted design organization and the licensee
- Design change/modification packages were being converted into plant records

The inspector discussed the licensee review and selectively examined documentation thereof with the appropriate discipline engineers and DPEPS for 81-03-029 and 81-03-068. The inspector also examined the completed installation of the former and an electrical portion of the latter.

3.3.1 Findings

The inspector verified that the licensee had performed reviews of the two modifications discussed with the engineering reviewers. Examples of objective evidence of these reviews were as follows:

- 81-03-029, handwritten comments on drawing reviews; memoranda on design review criteria review; meeting minutes describing discussions with contractors on results of licensee reviews; transmittals of design evaluations, design criteria and calculations; meeting minutes of planning and scoping of installation work; and, the review engineer's knowledge of various documents contained in the "review package" (submitted by contractors)
- 81-03-068, A/E final design report; A/E letter responding to licensee comments/questions on equipment meeting appropriate NUREG requirements; plant equipment accessibility report; various meeting minutes of licensee and A/E discussions on design, procurement, and site and work locations visits; and, the review engineers' knowledge of various documents contained in the "review package"

The DPEPS described the Environmental Qualification Program that the licensee has recently undertaken. The inspector reviewed several matrices that address

equipment qualification associated with 81-03-068 and the applicable NUREG requirements. All but one matrix have been completed for this modification and the DPEPS stated that the remaining one was scheduled for completion during the coming month. Matrices are prepared by the A/E and the inspector verified licensee involvement by discussions with review engineers, plant engineers, various handwritten "working" documents, and the objective evidence discussed above.

The cognizant licensee plant engineer accompanied the inspector during his examination of the as-installed modification 81-03-029 and selected electrical wiring portions of 81-03-068. Discussions with this and other plant engineers and handwritten documents confirmed the the existence of feedback to and interface with corporate review engineers. The inspector noted that plant engineers were instrumental in assuring that equipment qualification documentation existed for equipment associated with 80-03-052 and that they were aware and knowledgeable of the ongoing transmitter qualification testing.

No violations were identified.

4. Audits

4.1 Review

A selected sample of audits of contracted engineering service activities were reviewed to determine that audit checklists or procedures were prepared and used; auditors were independent of responsibilities for audited activities; identified deficiencies were properly followed up by review of the audited organizations' written responses and verification of corrective actions; appropriate distribution of audit reports and responses were made; and, the audits addressed all elements of the audited activity.

Packages of the following audits were reviewed:

- Audit Report No. 11, UE&C Engineering Activities
- Audit Report No. H-8

4.2 Findings

The inspector noted that the first audit was conducted by two QA Engineers and an engineer (design and analysis discipline) from another licensee department. Two QA Engineers and five engineers (various disciplines) from other departments participated in the latter audit.

Audit checklists, field notes and the reports indicated that technical reviews of detail engineering work as well as programmatic aspects of engineering activities were audited/reviewed.

The Vice President-Quality Assurance stated that emphasis on discipline engineering participation in such audits will continue as licensee management feels that this interdisciplinary approach enhances licensee control of, and assurance that, contracted engineering services are satisfactorily accomplished. The DPEPS reiterated the statement.

Interviews and discussions with QA and other discipline engineers indicated a positive attitude and enthusiasm among the participants for these types of audits.

No violations were identified.

5. Management Meetings

Licensee management was informed of the scope and purpose of the inspection at entrance interviews conducted at the Indian Point Nuclear Generating Station site on August 2, 1982 and the PASNY corporate offices in White Plains, New York on August 4, 1982. The findings of the inspection were discussed with licensee representatives periodically during the inspection and with licensee management at an onsite exit interview on August 6, 1982 (see paragraph 1 for attendees).