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

Region I

Report No. 50-219/80-06

Docket No. 50-219

License No. DPR-16 Priority -- Category C

Licensee: Jersey Central Power and Light Company

Madison Avenue at Punch Bowl Road

Morristown, New Jersey 07960

Facility Name: Oyster Creek

Inspection at: Forked River, New Jersey

Inspection conducted: February 4-8, 1980

Inspectors: E. P. Jernigan — June 3, 1980
E. P. Jernigan, Reactor Inspector — date signed

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Approved by: L. E. Tripp — 6/11/80
L. E. Tripp, Section Chief, Engineering Support Section No. 1, RC&ES Branch — date signed

Inspection Summary:
Inspection on February 4-8, 1980 (Report No. 50-219/80-06)
Area Inspected: Routine, unannounced inspection by a regional based inspector of activities associated with the inservice inspection program. The inspection involved 40 inspector-hours on-site by one NRC regional based inspector.
Results: No items of noncompliance were identified.

Region I Form 12
(Rev. April 77)

DETAILS

1. Persons Contacted

Jersey Central Power and Light Company (JCP&L)

J. Carroll, Station Manager
*J. Sullivan, Unit Superintendent
*R. Dube, Plant Quality Assurance Supervisor
M. Allgaier, NDE Examining Engineer
S. Fuller, Quality Control Engineer
L. Drummond, Quality Assurance Engineer
R. McNair, Inservice Inspection Coordinator

Universal Testing Laboratory (UTL)

T. Joffe, Quality Assurance Engineer
W. Johnson, Manager
M. Kozak, Level III NDE Engineer
R. Blackington, Quality Assurance Engineer

Stone and Webster

W. Abeley, Auditor

Hartford Steam Boiler Insurance and Inspection

K. Russell, Authorized Inspector (AI)

Other members of the licensee's contractor and technical staff were also contacted by the inspector.

* exit interview attendees

2. Inservice Inspection (ISI)

a. ISI Program

The inspector reviewed the schedule of nondestructive examinations (NDEs) to be performed during the current refueling outage as a part of the licensee's inservice inspection (ISI) program. Examinations performed during this outage will conclude the first 10-year ISI interval. The inspector's review was to determine whether examinations scheduled were consistent with Table 4.3.1 of the facility technical specifications (TS) and the applicable ASME Code requirements.

b. Implementing NDE Procedures

The inspector reviewed the following NDE procedures for technical adequacy.

(1) UTL-JCPL-UT-01, "General Ultrasonic Inspection Procedure"

(2) UTL-JCPL-UT-02, "Procedure for Ultrasonic Examination of Reactor Pressure Vessel Ferritic Welds in Excess of One Inch Thick"

(3) UTL-JCPL-PT-02, "Liquid Penetrant Dye, Solvent Removable Method"

(4) UTL-JCPL-MT-01, "Magnetic Particle Inspection"

(5) UTL-JCPL-RT-01, "Radiographic Inspection"

(6) Procedure JCP&L 2008, Revision 0, dated March 10, 1978, Inservice Inspection

This review included, but was not limited to, the below listed considerations for the liquid penetrant and the ultrasonic examination techniques.

-- Liquid Penetrant

(a) The examination method is consistent with the ASME Code requirements

(b) Examination materials are required to be certified

(c) Surface preparation of examination area specified

(d) Method of penetrant application and dwell time are specified

(e) Examination surface temperature specified

(f) Evaluation/acceptance criteria are specified

-- Ultrasonic Examination

(a) Type of apparatus, including frequency range specified

(b) The extent of coverage, beam angle and transducer size are specified

(c) Equipment calibration and calibration checks are specified

(d) Evaluation, recording and acceptance criteria for flaw indication(s) are specified

No items of noncompliance with regulatory requirements were identified.

c. Observation of Work in Progress

The inspector witnessed an ultrasonic examination of the reactor pressure vessel head. This examination included scanning sections of gore welds and adjacent base material. During this examination the inspector noted erratic signal patterns being displayed on the examination equipment. This signal behavior did not occur during the calibration process. The inspector also noted a substantial difference between the surface finish on the calibration standard and that of the vessel head. The physical characteristics of the component appeared to preclude adequate transducer contact to attain meaningful examination results. The licensee's representative determined that further surface conditioning of the component may be necessary to reduce the "part noise" to an acceptable level prior to continuing the examination. Furthermore, Section XI of the ASME Code requires that the calibration standard contain a surface similar to the part to be examined. The inspector had no further questions regarding this matter at this time.

d. ISI Documentation

The inspector's audit of the examination schedule disclosed that the control rod drive (CRD) hydraulic return line nozzle safe-end weld examination had been deferred. Furthermore, it was not clear as to what type of examinations applied to the weld/overlay on the applicable safe-ends. The schedule also stipulated that a main recirculation pump be examined internally during this outage. One pump was dismantled for maintenance but had not been examined. Procedures for the visual examination of integrally welded pipe hangers were being finalized. These items and the inspector's concern that positive assurance be provided that all examinations had been completed in accordance with the TS were discussed with the licensee's representatives.

No items of noncompliance with regulatory requirements were identified.

e. Personnel Qualification Records

The inspector audited qualification records of personnel performing NDEs during the current outage. The records examined identified the discipline in which the individual had been trained and certified. The physical examination records indicated whether or not visual aids were required when performing examinations. No departure from SNT-TC-1A (the governing document) were identified.

f. On June 6, 1980 the inspector contacted the licensee's site QA Manager to determine the status of the aforementioned concerns. The QA Manager apprised the inspector that surface conditioning of the vessel head had been completed and a satisfactory ultrasonic examination had been performed. He further stated that the CRD safe-end weld had been radiographed and surface examined using liquid penetrant. The inspector was also informed that accessible internal surfaces of the "D" recirculation pump had been visually examined from the grating above the pump using commercial binoculars. The inspector had no further questions regarding these items at this time.

3. Exit Interview

At the conclusion of the inspection on February 8, 1980, a meeting was held at the Oyster Creek plant office with representatives of the licensee. Attendees at this meeting included personnel whose names are asterisked in paragraph 1. The inspector summarized the scope and results of the inspection as described in this report. The licensee's representative acknowledged the inspector's summarization and concerns as herein described.