U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-247/84-28

Docket No. 50-247

License No. DPR-26 Priority - Category C

Licensee: Consolidated Edison Company of New York, Inc.
4 Irving Place
New York, New York 10003

Facility Name: Indian Point Nuclear Generating Station, Unit 2

Inspection At: Buchanan, New York

Inspection Conducted: September 27-28, 1984 and October 16-19, 1984

Inspectors: for P. Clemons, Radiation Specialist — 11/23/84 date

for A. Meadock, Radiation Specialist — 11/23/84 date

Approved by: M. Shanbaky — 11/28/84 date
M. Shanbaky, Chief, Facilities
Radiation Protection Section,
Radiation Protection Branch

Inspection Summary:
Inspection on September 27-28, 1984 and October 16-19, 1984 (Report No. 50-247/84-28)

Areas Inspected: Routine unannounced safety inspection of the licensee's Radiation Protection Program to review basic elements of the program including procedure review, dosimetry, source inventory and leak test and instrument calibration. The inspection involved 76 hours onsite by two regional-based inspectors.

Results: No violations were identified.

DETAILS

1. Persons Contacted

1.1 Licensee Personnel

C. Jackson, Vice President, Nuclear Power
M. Blatt, Director, Regulatory Affairs, Nuclear Power
M. Miele, General Manager, Environmental Health and Safety
S. Quinn, General Manager, Technical Support
J. Cullen, Radiological Assessor
R. Panciera, Acting Radiation Protection Manager
P. Gaudio, Dosimetry Supervisor
J. Murphy, I&C Supervisor

1.2 NRC Personnel

A. Weadock, Radiation Specialist

Other licensee and contractor personnel were contacted and interviewed during the inspection.

2. Purpose

The purpose of this routine inspection was to review the licensee's basic radiation protection program with respect to the following elements:

-- Review of procedures;

-- Review of dosimetry;

-- Review of source inventory and leak tests; and

-- Review of instrument calibration.

3. Status of Previously Identified Items

(Closed) Violation (247/84-07-02): Failure to notify Health Physics Technicians of procedural changes per Technical Specifications 6.8. The inspector determined by observation and review that the licensee has implemented procedure EHS 2.006, "Dissemination of Information Relative to Environmental Health and Safetv Procedures," which requires that changes or revisions to relevant procedures be maintained in a logbook at each HP technician staging area. A reading acknowledgement form requires personnel to sign verifying they have reviewed the changes; completeness of these forms are reviewed on a regular basis by supervisory personnel.

4. Procedure Review

The adequacy and effectiveness of the licensee's procedures were reviewed against the criteria contained in Technical Specification 6.8, "Procedures." The licensee performance relative to these criteria was determined by interviewing the General Manager, Environmental Health and Safety and the Radiation Protection Manager, and by reviewing procedures and other appropriate documents.

Within the scope of this review, the following was identified:

Technical Specification 6.8 requires that written procedures and administrative policies be established, implemented, and maintained covering the activities referenced in Appendix "A" of Regulatory Guide 1.33 (issued November 1972).

Procedure No. SAO-102, "Procedure/Procedure Change Approval Policy," developed pursuant to the above, states in Section 2.5.11 that procedures must be reviewed biennially, and that documentation of such reviews be maintained.

It was determined on October 17, 1984, during discussions with a Health Physics Supervisor concerning source inventory and leak test requirements that the licensee was apparently using procedures that had not been reviewed in a timely manner as required. The inspector reviewed Procedure No. H.P.-6.3, "Inventory and Leak Testing of Sealed Sources," and noted that the effective date of the procedure was December 20, 1978. The inspector asked if the procedure given him was the current procedure. The Supervisor stated that to the best of his knowledge the procedure given the inspector was current.

On October 17, 1984, during discussions with the I&C Supervisor concerning instrument calibration, it was determined that the licensee was apparently using procedures that had not been reviewed biennially as required. The I&C Supervisor stated that the procedures being used were the current procedures. Procedure No. H.P.I.-5.26, "Calibration of Eberline RO-2 and RO-2A," was apparently last reviewed March 1982. Procedure No. H.P.I.-5.212, "Calibration of Eberline Teletector" was apparently last reviewed March 1982. Procedure No. H.P.I.-5.220, "Calibration of Eberline RM-14," was apparently last reviewed November 1977. Procedure No. H.P.I.-5.221, "Use of The Eberline PAC-4S Alpha Survey Meter," was apparently last reviewed November 1977.

In addition to the above, apparently numerous other procedures have not been reviewed biennially as required in the areas of Dosimetry, Instrumentation, and Health Physics.

The failure to review procedures biennially is not considered a violation at this time because the licensee is in the process of revising numerous procedures, but the item will be reviewed during a subsequent inspection (84-28-01).

5. Exposure Control - Dosimetry

The external exposure control program was reviewed against criteria contained in 10 CFR 20.202, "Personnel Monitoring" and applicable station procedures.

The licensee's performance relative to these criteria was determined by discussions with the Dosimetry Supervisor and by review of procedures and reports.

Within the scope of this review, the following items were identified:

a) Procedure No. H.P.I.-4.12, "TLD - Film Badge Quality Control," requires monthly "spiked" film and TLD badges be submitted to the vendor who performs this service to determine the quality of his evaluations. The procedure states that the vendors evaluation of the "spiked" film and TLD must be within ±30% of the actual exposure.

It was determined that the licensee "spiked" samples during January, February, March and April 1984. It was also determined that the licensee evaluated the vendors analyses for January and February, but the licensee did not evaluate the vendors analyses for March and April. Since April the licensee has not spiked any film badges or TLD's to send to the vendor for vendor evaluation as required.

It was also determined that the licensee is participating in a program with the University of Michigan whereby the licensee sends 60 film badges and TLD's monthly to the University. The University then subjects these items to testing in accord with Categories II, IV, V and VII of ANSI N13.11 (1983), "Personnel Dosimetry Performance - Criteria for Testing." These badges are returned to the licensee who in turn sends them to their vendor to be evaluated.

This program will be evaluated during a subsequent inspection to determine if it meets regulatory requirements (84-28-02).

b) The licensee currently maintains a book containing all Exposure Extension Authorizations. During a review of this book on October 18, 1984, it was noted that the extension authorization form completed for an HP technician on August 30, 1984, contained a calculated estimate of dose, rather than a directly recorded value. Attached to the extension form was a completed "Report on Lost or Damaged Dosimetry" form. After an initial, cursory review of the forms, the licensee indicated that in this instance an HP technician wearing multiple whole body dosimetry while performing steam generator surveys on August 21 and 22, 1984, lost the TLD on his head and, consequently, an estimated dose was used on the extension authorization form. However, further discussion with several licensee personnel and continued review of the above forms, along with the applicable Radiation Work Permit, the TLD readout sheet, and the involved

technician's Steam Generator Entry Record and exposure record indicated the following:

i) No TLD was lost

ii) Dose estimates were made because of the turn-around time in film badge processing (badges were sent out of state to the vendor)

iii) Although multiple whole body badges were checked out, they were apparently not worn by the technician while performing the survey.

No violations were identified in the above incident; all exposures were well below regulatory limits and the licensee's dose estimate was arrived at by a conservative calculation. However, the above represents poor practice in exposure recordkeeping, in that an inappropriate and misleading form was used and incomplete information was included on the forms, making reconstruction of the events difficult and time-consuming.

This will be reviewed during a subsequent inspection (84-28-03).

6. Instruments

Portable instruments were reviewed against the criteria contained in 10 CFR 20.202, "Personnel Monitoring," and applicable station procedures.

The licensee's performance relative to these criteria was determined by discussions with the I&C Supervisor, I&C Technicians, and by reviewing selected procedures and calibration records.

Within the scope of this review, the following was identified:

During the review of the licensee's instrument calibration log book, it was noted that numerous instruments had not been calibrated, that is, the log book did not contain documentation indicating that various instruments had been calibrated at the stated frequency. This was discussed with the I&C Supervisor and Technicians and they stated that this was not the case. They stated that all instruments had been calibrated as required. They also stated that the instruments that did not have documentation indicating that they were calibrated, were probably lost.

It was determined that the licensee does not have a management control system for accounting for all instruments at any given time. This includes portable instruments, self-reading dosimeters, and portable alarming devices.

Within the scope of this review, no violations were identified.

7. Source Inventory and Leak Test

Source Inventory and Leak Test were reviewed against the criteria contained in Technical Specification 4.15, "Radioactive Materials Surveillance," and Procedure No. H.P. 6.3, "Inventory and Leak Testing of Sealed Sources."

The licensee performance relative to these criteria was determined by discussions with the Environmental Health and Safety General Manager, the Acting Radiation Protection Manager, a Health Physics Supervisor and by reviewing records.

Within the scope of this review, the following was identified:

It was determined that source inventory and leak test are required to be performed at intervals not to exceed six months. The record review on October 17, 1984, indicated that the inventory and leak test were last performed during November 1983, and that four sources (Co-60 and Cs-137) with activities ranging from one millicurie up to five curies were located in the Source Vault.

On October 17, 1984, it was determined that the four sources were not located in the Source Vault, they were located in the I&C Calibration Room.

On October 18, 1984, the General Manager, Environmental Health and Safety, informed the inspector that he had had a conversation with a former Health Physics Supervisor who had been responsible for the sources during the approximate period of November 1983 - August 1984. He stated that the former supervisor told him that an assignment had been given a contractor technician around April-May 1984 to perform the source inventory and leak test. The contractor technician had left the site sometime before this inspection, but he was contacted by a licensee representative at a site in Region II.

On October 22, 1984, the inspector was contacted by the contractor technician, who stated that he had performed the source inventory and leak test during April 1984. He also stated that he had documented his efforts and had given the documents to the former Health Physics Supervisor.

The contractor technician agreed to provide to the inspector a notarized statement to the effect that he had performed the source inventory and leak test in April 1984. The letter was received by the inspector on November 19, 1984.

8. Exit Interview

The inspector met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on October 19, 1984. The inspector summarized the scope of the inspection and the findings.

At no time during this inspection was written material provided to the licensee by the inspector.