

U. S. ATOMIC ENERGY COMMISSION  
DIRECTORATE OF REGULATORY OPERATIONS  
REGION I

RO Inspection Report No.: 50-247/73-10

Docket No.: 50-247

Licensee: Consolidated Edison Company of New York, Inc.

License No.: DPR-26

4 Irving Place

Priority: \_\_\_\_\_

New York, New York 10003

Category: B2

Location: Buchanan, New York

Type of Licensee: PWR 873 MWe (Westinghouse)

Type of Inspection: Routine, Unannounced

Dates of Inspection: May 3 & 4, 1973

Dates of Previous Inspection: April 23 & 24, 1973

Reporting Inspector: *R. J. Meyer*  
R. J. Meyer, Radiation Specialist

6/7/73  
Date

Accompanying Inspectors: None

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

Other Accompanying Personnel: None

Reviewed by: *Paul B. Nelson*  
P. R. Nelson, Chief Radiological and  
Environmental Protection Branch

6/1/73  
Date

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SUMMARY OF FINDINGS

Enforcement Action

A. Violations

None

B. Safety Items

None

Unusual Occurrences

None

Other Significant Findings

A. Current Findings

Inspection was limited to the areas of radiation protection and radwaste systems. Personnel staffing of the radiation safety section was complete. Installation of monitoring equipment and radwaste processing systems, with some exceptions were complete and tested. The reactor was subcritical. Leak repair work was in progress. Tentative dates for thermal heat up and initial criticality were scheduled for May 6 and 10 respectively.

B. Status of Previously Reported Unresolved Items

None (Radiological Protection)

Management Interview

The following individuals attended the management interview held at the completion of the inspection on May 4, 1973.

- J. Coulch, Station Manager for Operations & Maintenance
- R. Van Wyck, Manager Nuclear Services
- A. Cheifetz, Director Radiation Safety
- J. Kelly, Nuclear Environmental Engineer
- T. Law, Director Technical Engineering
- J. Makepeace, Chief Engineer No. 2 Unit
- M. Shatkouski, Reactor Engineer No. 2 Unit

The following subjects were discussed:

- A. The inspector discussed his findings in general and stated that no violations or safety items had been noted. (Details, Paragraphs 2-10)
- B. The inspector stated that filter test data had not been made available. The licensee stated that tests had been made and the data would be provided; post inspection. (Details, Paragraph 11)
- C. Relative to questions on tank volumes and pump flow verification the licensee stated that these would be accomplished. (Details, Paragraph 13)
- D. The inspector discussed the deficiencies in the particulate sampling system and the lack of capability to sample or monitor for iodine in the plant vent. During telephone conversations, subsequent to the inspection, the licensee agreed that the deficiencies would be corrected. (Details, Paragraphs 15a, b, & c)

## DETAILS

### 1. Persons Contacted

J. Coulch, Station Manager for Operations & Maintenance  
R. Van Wyck, Manager Nuclear Services  
A. Cheifetz, Director Radiation Safety  
J. Kelly, Nuclear Environmental Engineer  
T. Law, Director Technical Engineering  
J. Makepeace, Chief Engineer No. 2 Unit  
M. Shatkouski, Reactor Engineer No. 2 Unit  
W. Nelson, Radiological Engineer  
G. Liebler, In Plant Health Physics Director  
P. Gaudio, Health Physics General Supervisor  
R. Noah, Nuclear Environmental Supervisor  
J. Perrotta, Health Physics Supervisor  
L. Kawala, Engineer Test  
R. Koppe, Nuclear Engineer

### 2. Organization

Inspection findings showed that organization and staffing for the Indian Point site is essentially complete. Responsibilities for chemistry, radiochemistry, radiation safety, and the environment are vested with the Manager Nuclear Services. Plant chemistry is under the direction of the Director Technical Engineering. Radiochemistry, in plant health physics, and the environmental aspects are under the direction of the Director Radiation Safety. Health physics coverage is provided on an around the clock basis. Currently one radiation technician is assigned to each shift. Background and training of key personnel were noted to be consistent with that recommended by ANSI 18.1971.

### 3. Procedures

The inspectors review showed that mechanisms for development, issue, and approval of procedures are well defined. Procedures are oriented under three categories; (1) Station Administrative Order (SAO); (2) Administrative Directive (AD); and (3) Detailed Procedure (DP). The SAO is the parent document that defines responsibility, requirements, limits, policy, etc., and requires approval of the Manager Nuclear Power Generation Department. The AD's and DP's are issued and approved by the sub-section head, and are procedures that implement the SAO. Procedures were readily available. Indices and selected procedures were reviewed for compatibility with regulatory requirements.

4. Training

Inspection findings showed that training and requirements are continuing. Training policy and requirements are defined in SAO-108. The site training program is organized and directed by the Director Nuclear Training. Radiological training is provided by staff members of the Radiation Safety Sub-Section. It was noted that a training session was conducted on May 4, 1973 as required by schedule.

5. Emergency Drill

As evidenced by records, a practice evacuation drill\* was conducted on April 26, 1973. The drill was initiated with a simulated fuel handling accident that resulted in a need to declare a site emergency. Included in the drill was a simulated casualty which required first aid treatment and decontamination. Some deficiencies were identified by licensee's memo dated April 27, 1973. Licensee representatives stated that corrective actions have been initiated.

6. Quality Control

- a. Radiochemistry - As evidenced by licensee statements and procedures, a program has been initiated to compare in plant analytical results with independent analytical results. The program includes participation in the AEC-New York State - License, Split Sampling Program, comparison with the State EPA environmental sample results, and a scheduled 1974 participation in the New York State EPA Analytical Quality Control Services Program.
- b. Whole Body Counting - Relative to whole body counting of plant personnel as a backup to the air sampling program, the inspector noted that a program is being effected. The program includes a whole body count for new employees to provide base count data and a whole body count of selected individuals on routine frequencies. Procedure also requires a whole body count in the event of a suspected exposure to excessive concentrations of airborne radioactivity.

7. Area Monitoring System

The inspector observed that the subject system was installed as described in Section 11.2 of the Final Facility Description and Safety Analysis Report (FSAR) and System Description No. 12. The system was observed to be operable. Calibration Procedure PC-R15 B and results were reviewed. The system was calibrated to 7 R/hr which is beyond the normal alarm trip points.

8. Process Monitors

The inspectors observations showed that process monitors were installed and in accordance with that described in the FSAR and System Description No.12. Calibration Procedure PC-R 15A and calibration data were reviewed. Additionally, calibration will be verified after startup based on sample analysis comparison to instrument response. An air particulate sampling and monitoring system has been added to the plant vent. The original intent was for the containment monitoring system to provide a dual function.

9. Startup Radiation Surveys

The inspector reviewed the survey program established for startup and power escalation. It was noted that 60 survey points have been selected. Pre-startup measurements were recorded.

10. Controlled Area Access

The inspector reviewed procedures for access control to Unit 2. It was observed that a common access control point is used for Unit 1 and 2. The inspector noted, during two observation periods, that personnel were entering and exiting in accordance with established procedures.

11. Filter Tests

- a. Subsequent to the inspection, the inspector reviewed the test procedure, Addendum to IPP-SU-4.14 and the data for in line leak testing of the HEPA and charcoal filters. Leak testing on the HEPA filters was performed using the standard cold DOP test. Freon 112 aerosol was employed for charcoal filter testing. The recorded test data showed that HEPA filter efficiencies ranged from 99.5 to 99.9%. Efficiencies for the charcoal filters ranged from 99.7 to 99.9%.
- b. Iodine removal efficiency for the charcoal filter media, identified as MSA 85851, was provided by the manufacturer in a letter dated November 17, 1972. Removal efficiency for elemental iodine was reported to be 99.9%. Removal efficiency for methyl iodide was reported to be 85% at a temperature of 260°F and a relative humidity of 93%.

12. Solid Waste System

Observations by the inspector showed that the system was complete, tested, and was as described in Section 11 of the FSAR. The system is enclosed in a shielded area and includes semi-remote handling equipment.

13. Liquid Waste System

- a. Inspection findings showed that the system was complete and installation was in agreement with that described in the FSAR and System Description 5.1. An inline monitor was in place, calibrated and operable. The monitor is fail safe and provides an isolation function. It was noted that tanks from which discharges can be made have capabilities to recirculate and sampling locations provide for a representative sample. It was noted that test procedures did not provide for determination of tank volumes and pump flows, or verification of flow meter calibrations. The licensee stated that these determinations would be made prior to use of the system. The inspector stated that this would be reviewed during a subsequent inspection.
- b. It was noted that an upgrading of the system, which includes installation of a cooler, ion exchange column, and a cartridge filter (cuno) downstream of the waste evaporator, had been completed. A licensee representative stated that installation of charcoal filters would be contingent on operating experience. It was determined that all liquid streams, with the exception of the sanitary sewer, enter the discharge canal. Activity in the canal is continuously monitored and sampled.

14. Gaseous Waste System

- a. Inspection findings showed that the system was in agreement with that described in Section 11 of the FSAR and System Description No. 5.2. Procedures have been established for releases on a batch basis. Capabilities for sampling gas delay tanks prior to release are provided. Containment air is continuously sampled for particulates and monitored for gases. Monitoring equipment provides an isolation function.
- b. Containment air is continuously circulated through HEPA filters, with charcoal filters on standby. A cleanup system is also available which contains HEPA and charcoal filters. Air from the Primary Auxilliary Building and the Fuel Storage Building is exhausted through HEPA filters to the plant vent.

15. Plant Vent Sampling

- a. The inspector observed that a system for sampling and monitoring particulates in the plant vent was installed and operable. It was noted that the sampling point in the stack was at about the 130 foot elevation, with approximately 100 feet of sampling line to the collection and monitoring point. The sampling line was noted to have numerous small radii bends which would provide impact points. Line loss determinations had not been made. Additionally, a licensee representative stated that only one sampling probe was provided and isokinetic sampling was not

assured, in that a stack traverse had not been made for probe location. It was further noted that the sample line was not heat traced. The inspector stated that the installation did not appear to be in accordance with recommendations provided in ANSI 13.1-1969. Licensee representatives were in agreement with the inspectors observations. The inspector stated that he felt the system was deficient. Licensee representatives stated that the sampling system was a Class A System which required an engineering study and design change to make alterations and could not make a commitment as to if, and when, the deficiencies could be resolved. The inspector stated that the deficiencies would be discussed at the regional office and the results would be communicated to the licensee.

- b. The inspector noted that a system for sampling or monitoring for iodine, on a continuous basis, was not provided for the plant vent. Licensee representatives stated that they had plans for installing an iodine sampling system, but again, they could make no commitments. The inspector stated that this matter would be discussed with the regional office and the results communicated to the licensee.
- c. During subsequent discussions, by telephone, with licensee representatives it was agreed that the subject deficiencies would be resolved as follows:
  1. Iodine sampler to be installed and operable by August 1, 1973.
  2. Sampling line to be straightened to minimize line losses. Completion date is September 1, 1973.
  3. Isokinetic sampling will be verified and documented. Line loss determinations will be made.

The licensee was informed that the above items would be reviewed during a subsequent inspection.