

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

RO Inspection Report No.: 50-286/73-11

Docket No.: 50-286

Licensee: Consolidated Edison Company

License No.: CPPR-62

4 Irving Place

Priority: _____

New York, New York

Category: B

Location: Indian Point 3, Buchanan, New York

Type of Licensee: PWR, 1050 MWe (W)

Type of Inspection: Routine Health Physics and Chemistry

Dates of Inspection: October 29-31, 1973

Dates of Previous Inspection: September 19-21 and 28, 1973

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

11/12/73
DATE

DATE

Accompanying Inspectors: None

DATE

DATE

Other Accompanying Personnel: None

DATE

Reviewed By: *P. J. Knapp*
P. J. Knapp, Chief, Facilities Radiological
Protection Section

11/12/73
DATE

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- A. General - The inspector stated that the inspection had been limited to determining the status of organization, training and procedure development and to discuss requirements that would be reviewed during subsequent inspections. The inspector stated that no violations had been noted in the areas inspected.
- B. Organization - The inspector described his understanding of organization, responsibilities, and staffing, relative to Unit 3. The licensee confirmed the understanding. (Details, Paragraph 2.a-c)
- C. Training - Relative to training programs, the inspector stated that in general it was defined, with the exception of that provided to the technicians. The licensee stated that this would be reviewed and the existing program defined. (Details, Paragraph 3.a-d)
- D. Procedures - The inspector stated that he had discussed procedure status with various supervisors and had determined that procedures were being developed and revised as necessary, in accordance with Radiation Safety and Chemistry, Administrative Directives. The licensee stated that this was the case and that in-house deadlines for procedure completion had been established. (Details, Paragraph 4.a-b)
- E. Pre-Op Test Procedures - The inspector described his discussions on test procedures relative to the liquid waste system, filter testing, radiation monitor calibration, and startup radiation surveys. Licensee representatives stated that the Test Engineer was charged with the responsibility for these types of tests. (Details, Paragraph 5.a)
- F. Miscellaneous - The inspector briefly discussed the items noted below and stated that these areas would be reviewed in greater depth during subsequent inspections.

Respiratory Protection Program
Bioassay Program
Unmonitored Effluent Paths
Plant Vent Sampling System

Outside Liquid Storage Tanks
Steam Generator Blowdown
Liquid Waste System Efficiency

The licensee was responsive to the areas addressed. (Details, Paragraph 6.a(1)-(7))

DETAILS

1. Persons Contacted

R. Van Wyck, Manager Nuclear Services
A. Cheifetz, Director, Radiation Safety
J. Kelly, Chemistry Sub-Section
J. Higgins, General Chemistry Supervisor
D. Whittier, Test Engineer, Unit 3

2. Organization

- a. The inspector's review of organization showed that the responsibility for radiation safety and chemistry is oriented under the Nuclear Services Section. In a recent (10/1/73) reorganization a Chemistry Sub-Section was established with the responsibility for chemistry, radiochemistry, and chemical releases. The Radiation Safety Sub-Section has responsibility for in-plant health physics, nuclear environmental monitoring, and nuclear area controls. The Sub-Section supervisors report directly to the Manager, Nuclear Services.
- b. The existing staff is being increased to provide for Unit 3 operation, and a general expansion in staff to fill recently established positions. The inspector's review of backgrounds and experience for key supervisory personnel showed them to be consistent with requirements of ANSI N18.1-1971.
- c. According to the licensee a health physics supervisor will be assigned to Unit 3 early in 1974. This will then provide for a supervisor for each of the three plants. Currently, around the clock coverage, in health physics and chemistry is maintained. This will be expanded to include Unit 3. As evidenced by the organization chart health physics coverage will be complimented by a security and records clerk on an around the clock basis. This clerk provides the coverage at the controlled area access point and provides for routine records maintenance. This job category is budgeted for 1974, prior to Unit 3 operation.

3. Training

- a. The inspector reviewed the training program for plant personnel with respect to radiation safety. As evidenced by procedural requirements all new employees receive a handbook entitled "Employees Guide to Radiation Protection" and a pocket

SUMMARY OF FINDINGS

Enforcement Action

None

Safety Items

None

Licensee Action on Previously Identified Enforcement Action

None (Health Physics and Chemistry)

Unusual Occurrences

None

Other Significant Findings

A. Current Findings

The inspection was an initial review of program status relative to the areas of health physics and chemistry. The currently existing organization and program for Units 1 and 2 will be expanded to include Unit 3. Staffing is continuing toward that end. Additional positions and personnel will be included in the 1974 budget and prior to Unit 3 startup. On October 1, 1973 a realignment in responsibilities for the environmental monitoring and chemistry programs occurred. Program development, procedure review and update, and training is continuing.

B. Status of Previously Reported Unresolved Items

None (Health Physics and Chemistry)

Management Interview

The following individuals attended the management interview held at the completion of the inspection on October 31, 1973.

R. Van Wyck, Manager Nuclear Services
A. Cheifetz, Director Radiation Safety
J. Kelly, Chemistry Sub-Section

The following subjects were discussed:

"Instruction Card" with emergency instructions and emergency alarm identification. This is the limit of orientation for those personnel not requiring access to controlled areas.

- b. Training for new employees requesting or requiring unescorted access to controlled areas is defined in General Administrative Directive, RS-GAD-3, dated October 10, 1973 and approved by the Manager, Nuclear Power Generation Department. RS-GAD-3 provides for training responsibility, subject material, employee performance evaluation, and maintenance of individual training records. The program consists of 12 hours of training which includes classroom lectures, demonstrations, training exercises, and controlled area tours. The final training session includes a written examination.
- c. According to licensee representatives, retraining requirements will be defined in General Administrative Directive, RS-GAD-4, which is currently being developed. RS-GAD-4 was not available for review. Licensee representatives stated that it would establish retraining frequencies, responsibilities, and record maintenance. This will be reviewed during a subsequent inspection.
- d. With respect to a training program for the health physics technicians the inspector determined that training is being provided; however, it is not formally defined. Licensee representatives stated that the existing program would be defined by Administrative Directive. As evidenced by licensee statements and a review of training records and subject material, training appears to be commensurate with the requirements of ANSI N18.1-1971. Upon completion of training, individual qualifications are documented and maintained in the employee's personal file. It was noted that a formalized six week training program is scheduled, beginning January 7, 1973, for those technicians not having received this training to date. This is in addition to continuing on the job training.

4. Procedures

- a. The inspector's review in the area of procedures showed that a mechanism for initiation, review, and approval has been established. Procedure requirements for the radiation safety function are established by Radiation Safety Administrative Directive, RSAD-3, and provide for a Health Physics Procedures Manual. These are classified as implementing procedures. All procedures are developed in accord with the "Station Radiological Health and Safety Procedures," which describe administrative

guidelines for the overall program. Existing procedures will be expanded to include Unit 3 and are currently under review. The inspector's review of procedures will be accomplished during a subsequent inspection. The licensee stated that procedures for Unit 3 will be completed prior to load date.

- b. With respect to procedures for the chemistry sub-section, requirements are defined in Chemistry Administrative Directive CAD-2. The CAD provides for procedures classified as Chemical Procedures, Sampling Instructions, Instrument Procedures, and Temporary Instructions. The inspector's review showed that existing procedures will be expanded to include Unit 3. Currently the procedures are undergoing major overhaul in format and realignment consistent with the recently established Chemistry Sub-Section. The inspector's review of procedures will be accomplished during a subsequent inspection. The licensee stated that in-house deadlines for completion of procedures have been established and will be completed prior to Unit 3 load date.

5. Pre-Op Test Procedures

- a. The inspector's review of procedure status showed that test procedures for the waste processing systems, filter systems, and radiation and process monitors were under development and not yet available. The inspector discussed some specific tests that are required for the above systems such as tank volume determinations and pump flow verification for the liquid waste processing system, iodine removal efficiency determination for the charcoal filters, and calibration requirements for radiation monitors. The inspector referenced Safety Guide 21, Regulatory Guide 1.52, ANSI N101.1-1972, and ANSI N13.1-1969 as guidance for formulating test procedures. The licensee representative was receptive to the discussions and stated that the referenced guidance would be reviewed. The inspector stated that test procedures would be reviewed during a subsequent inspection.

6. Miscellaneous

- a. The inspector discussed, in general terms, the items identified below to determine the status of program development. He reviewed contemplated evaluation programs for the mentioned systems for checking against statements in the Final Safety Analysis Report (FSAR). These areas will be examined in greater detail during subsequent inspections.

- (1) Respiratory Protection Program - In response to the inspector's questions about the program the licensee stated that the existing program was being reviewed and updated and would be in accordance with the requirements of ANSI Z88.2.
- (2) Bioassay Program - As evidenced by licensee statements the existing program is currently under review and would be formally defined upon completion of their review.
- (3) Unmonitored Effluent Paths - Licensee representatives stated that some evaluations have been or are being made; however, they appear to be based on fixed parameters. The inspector stated that these paths should be identified and some frequency established for surveillance and evaluation. The licensee stated that this would be considered.
- (4) Plant Vent Sampling - Licensee representatives stated that the original design had not provided for iodine sampling. In response to the inspector's questions the licensee stated that an Engineering Service Request (ESR) would be issued to provide this capability by fuel load date. Additionally the ESR would require that the system would provide an isokinetic sample, that sample lines would be installed to assure minimum line losses, and that line loss determinations would be made.
- (5) Outside Liquid Storage Tanks - The inspector stated that he had observed outside storage tanks without containment dikes which were identified as Primary Coolant and Refueling Water storage tanks and asked if evaluations relative to tank rupture consequences had been made. Licensee representatives stated that they thought this had been done, and was spoken to in the FSAR literature. The inspector, after the fact, was unable to locate these evaluations, and will follow up on a subsequent inspection.
- (6) Steam Generator Blowdown - In response to the inspector's questions about the capability to divert Unit 3 blowdown to the Unit 1 Steam Blowdown Purification System, licensee representatives stated that they thought a date had been established for providing this capability, which was not necessarily prior to Unit 3 operation. The inspector stated that he would review FSAR literature and followup on a subsequent inspection.

- (7) Liquid Waste System Efficiency - With respect to determining decontamination factors and overall efficiencies of the system, licensee representatives stated that procedures or a program had not been established for these determinations.