

SECTION I

Enforcement Action

None

Licensee Actions on Previously Identified Enforcement Action

None

Unresolved Items

- A. The eight accumulator check valves are receiving a partial overlay to obtain acceptable wall thickness. (Paragraph 9)
- B. The DB-50 scram breakers are to be modified. (Paragraph 10)

Status of Previously Identified Unresolved Items

- A. Mechanical Seal leakage was encountered on the three high pressure safety injection pumps. In addition, pump No. 21 seized. The pump was disassembled and portions have been returned to the vendor shop. (Paragraph 12)
- B. Mechanical Seal Leakage was encountered on the residual heat removal pumps. No change.
- C. The Contingency Plans (Earthquake, Fire, and Radiation) Implementation - No change.
- D. Resolution of radioactive waste system deficiencies - No change.
- E. UT inspections of steam generator No. 21 revealed two indications which were not included in the original base line data. No change.

Unusual Occurrences

None

Persons Contacted

Mr. W. Cobean, Manager Nuclear Power Generation
Mr. J. Coulch, Indian Point Site Manager
Mr. J. Makepeace, Startup Manager, IP-2
Mr. A. Kohler, Resident Construction Manager

Mr. E. Dadson, Superintendent, Quality Assurance
Mr. P. Leo, Construction Superintendent, IP-2
Mr. A. Nespoli, Superintendent Operation, IP-2
Mr. W. Monti, Assistant Operation Superintendent - IP-2
Mr. G. Case, Quality Assurance Engineer
Mr. S. Zulla, Production Engineer
Mr. L. Volpe, Technical Assistant

Management Interviews

An exit interview was held with Mr. Makepeace on December 14, 1971. Subjects discussed included the following:

- A. Test Program (Fire Damage) - The inspector reviewed the test program. Mr. Makepeace indicated that the testing program is still under consideration and that additional testing might be incorporated. The inspector indicated the need for completion of various surveillance testing, prior to power operation. Mr. Makepeace indicated that this subject would be given serious consideration. (Paragraph 4)
- B. Quality Assurance Program - Mr. Makepeace indicated that he would endeavor to provide a copy of the IP site operational QA program to the inspector. (Paragraph 8)
- C. Subcritical Testing - The proposed subcritical testing program was discussed. Mr. Makepeace stated that Compliance would be advised of the test schedule prior to the actual performance. The inspector indicated that the program appears to be well organized. (Paragraph 6)
- D. Accumulator Check Valves - The overlay program for the accumulator check valves was briefly discussed. The inspector indicated that this subject would receive additional Compliance review. (Paragraph 9)
- E. Technical Specifications - Mr. Makepeace indicated a need for an interpretation relative to the Technical Specification words, "valves locked and closed." The inspector indicated that the Technical Specification includes a requirement for specific valves to be locked closed and does not specify acceptable substitutions. Mr. Makepeace indicated that the scheduled testing necessitates

the operation of some of these valves. The inspector indicated that Con Ed should seek the necessary revision with DRL.

An exit interview was held on January 10, 1972, with Messrs. Cobean, Couch, Makepeace, Kohler, Nespoli, and Volpe. Compliance was represented by Messrs. Brunner and Madsen. Subjects discussed included the following:

A. Fire Protection and Prevention

The results of the November 11 and 12, 1971 Compliance review of the Indian Point site Fire Protection and Prevention Programs were discussed.* The following items were presented for Con Ed's information and consideration:

1. This subject has been given serious consideration, as was evidenced by the inspection procedures, fire extinguisher systems, and general fire resistant structures.
2. IP-2 Control Room - Lacks fire detectors in the ceiling or panels, there was a presence of excess combustibles, and a permanent fire barrier between the IP-1 and IP-2 control rooms should be considered.

Con Ed responded to this item as follows:

- a. The need for installing fire detectors will be reviewed.
 - b. Most of the combustibles have been removed from the control room. The temporary wooden barrier between the IP-1 and IP-2 control room has been replaced with metal partitions.
 - c. The design intent was to have a common control room for IP-1 and IP-2 for operational purposes.
3. Water Supply - Consideration should be given to providing a separate water supply for IP-3. Mr. Couch presented a print which indicated that consideration had been given to the total site

*CO Report No. 50-247/71-15, Section VI

needs. The inspector indicated a concern with respect to the increased potential for simultaneous fires. Mr. Cobean indicated that this item would be given consideration.

4. General construction fire safety - The presence of excess combustibles, acetylene and oxygen bottles, etc. needs to be controlled.
5. Flammable liquids - Control should be enforced. Unapproved containers were observed in use on the 95 foot elevation in the containment building.
6. Transformer Unit No. 2. - The post indicator valve for the valve for the sprinkler system was not being properly maintained.

Mr. Makepeace indicated that the transformers were not in service; hence, the sprinkler system had not been placed in an operable status.

7. Exterior Hoses - Hose houses should be installed according to the Standard for Outside Protection, NFPA No. 24-1970.

Mr. Makepeace indicated that work is in progress for the installation of outside cabinets. Mr. Cobean stated that they would consider measures for meeting the above stated code.

B. Organization

Mr. Cobean indicated that he would provide information relating to future organizational developments. (Paragraph 2)

C. Test Program - Fire Damage

The inspector briefly reviewed the program as presented. Mr. Makepeace indicated that the program was basically a check of components backed up by surveillance testing. (Paragraph 4)

D. Subcritical Testing Program

The inspector indicated that the control program for the subcritical testing program, during the fire repair, is considered to be well organized. (Paragraph 6)

E. Power Ascension Program

The inspector indicated a need for completion of the power ascen-

sion procedures. Mr. Makepeace indicated that the generator trip and heat rate testing procedures need to be finalized. (Paragraph 7)

F. Surveillance Testing

The inspector reviewed his findings relative to the surveillance test program, including the observation of incorrect entries on the master control sheet. Mr. Makepeace indicated that he would followup on this item. (Paragraph 5)

G. Main Steam Safety Valves

The previous experience with main steam safety valve installations, at other facilities, was discussed. Mr. Cobean indicated that appropriate Con Ed evaluations of this subject would be made. (Paragraph 11)

H. SIS Pump No. 21

The cause of the seizure of SIS Pump No. 21 was reviewed. The inspector indicated that CO would follow the repair. (Paragraph 12)

I. Steam Generators

The inspector related that previous letters from CO:I to Con Ed, indicated certain understanding relating to reports to be submitted to DRL on the steam generator repairs and the absence of radiographs for the girth weld for steam generator No. 21.* The inspector pointed out that AEC still has not been convinced that the steam generators are acceptable for power operation. Mr. Cobean agreed that these items must be resolved. The inspector indicated that these subjects will probably be reflected in the next CO regional letter to Con Ed.

*Letters from J. P. O'Reilly to W. W. Lapsley, dated August 26 and November 4, 1971.

Section II

Additional Subjects Inspected, Not Identified in Section I, Where
No Deficiencies Were Found

1. General

Since November 4, 1971 fire in the Primary Auxiliary Building,* activities have been directed toward restoration of the damaged portion of the facility and continuation of subcritical testing as permitted by License No. DPR-26. Actions have been taken to return the facility to a condition of 100 percent compliance with the Technical Specification Requirements.

2. Organization

- a. Mr. W. R. Cobean, Jr. has replaced J. Prestele as Manager of Nuclear Power Generation
- b. Reviewed the proposed organization change and staffing for the Indian Point site.

3. Control Room Log Sheets

Reviewed control room log sheets for the period November 6 to December 8, 1971.

Details of Subjects Discussed in Section I

4. Test Program - Fire Damage

Con Ed's plan for additional testing as a result of the November 4, 1971 PAB fire, includes the checkout of some 500 individual components, checkout of a limited number of systems, and the performance of the majority of the surveillance testing program for normal plant operation. Individual checklists are being prepared for each component to be checked. Items included on the check list include:

- a. Construction repair work (including cable replacement, meggering, continuity checks, and inspections) complete.
- b. Fuses installed.
- c. Calibration of instrumentation current
- d. Con Ed Nuclear Power Generation (NPG) has approved performance of the checkout.
- e. Check for proper operation - Valves, motors, limit switches, alarms, etc.

Check sheets have been finalized for components supplied by MCC 27. Sheets for MCC 26A and 26B, lighting panels, and other miscellaneous components effected by the fire are nearing completion.

The inspector was informed that some testing is planned for the Boric Acid system, Gas Analyzer, and Charging Pump local controls.

Upon inquiry, the inspector was informed that the test program requires the approval of the Joint Test Group (JTG) and the Nuclear Facility Safety Committee. The JTG is composed of representatives from Wedco, Con Ed Construction and Con Ed Production.

The inspector asked if the various surveillance testing, as required by the Technical Specification, would be performed. Mr. Monti indicated that the present intent is to complete all set-point verifications and instrument calibrations, and most of the remaining specific surveillance tests required by the Technical Specifications, prior to going critical. The inspector asked if all refueling outage frequency surveillance items would be completed. Mr. Monti initially indicated that this was not the plan. The inspector related an example where a test was performed nine months ago, plus the four months repair period, and hence 13 months will have elapsed since the test was performed, prior to going critical. The inspector indicated that this did not seem to fulfill the intent of the Technical Specification. Mr. Monti indicated an understanding and stated that the subject will be given additional consideration. The inspector indicated that the same consideration would apply for all surveillance testing.

This subject was subsequently reviewed with Mr. Zulla and is reported in paragraph 5 of this report.

5. Surveillance Testing

Mr. Zulla indicated that the present plans include the performance of most Technical Specifications surveillance tests and the preventive maintenance checks, prior to going critical. He indicated that the program has been initiated and will include such things as instrument calibration, setpoint verifications, and a simulated Safety injection - loss of power test.. This testing is being performed for the purpose of establishing current surveillance data and to check out the individual surveillance test procedures. He indicated that testing of the hydrogen recombiner, main steam safety valves, refueling system, and containment leak rate may not be performed.

The inspector was shown a listing of checks to be performed during reactor operation. This list included Technical Specification and preventive maintenance requirements. This record indicated that many of these tests have been performed since the November 4, 1971 fire.

A review of the master control record, for Technical Specification surveillance requirements during the core loading-subcritical test period, indicated that the tests were being performed; however, entry errors, such as an incorrect date when a test was scheduled to be reperformed, were noted. (Semi-annual test performed December 1971 due December 1972.) Mr. Zulla stated steps will be taken to correct these errors and prevent the recurrence of similar conditions. A review of the individual data sheets for the emergency diesels and batteries revealed that requirements of Technical Specification, Section 4.6, were fulfilled during the period October 19, 1971 and January 10, 1971.

6. Subcritical Test Program

The inspector was informed that the subcritical testing to be performed will include the items which were previously included on the Master Control listing.* Additionally, three increments of the total program are being evaluated by and re-

*CO Report No. 50-247/71-13 Paragraph 16.c

quire the approval of the Joint Test Group (JTG) and the Nuclear Facility Safety Committee. The three increments of testing are: the cold-no-flow condition, heatup to 230° F., and final heatup to 550° F. The inspector reviewed a "Procedure for Preparation of the Nuclear Plant for Cold-no-flow Control Rod Testing" Rev 2. This procedure includes the following:

- a. Objective - Rod Step Test (Cold) and Rod Drop Testing (Cold-no-flow)
- b. References to Technical Specifications and Operating Procedures
- c. Initial Conditions - Tests requiring completion and status of the RCS, CVCS, RHR, etc.
- d. Precautions
- e. Test Procedure - Reference to preoperational procedures 4.10.2 and 4.10.5
- f. Data verification sheets for each initial condition and procedure step.

Mr. Monti indicated that similar procedural coverage is in draft form, for the heatup to 230° F and 550° F.

A review of the Master Control Listing for the subcritical test program, by the inspector on January 10, 1972, indicated that the following has been accomplished:

- a. Preoperational tests - 4.8.3 Reactor Protection Setpoints
- 4.8.4 Reactor Protection setpoint verification
- b. Power Ascension Tests - 4.10.2 Rod Drop (Cold-no-flow)
- 4.10.5 Rod stepping (Cold)

Upon questioning, Mr. Monti indicated that Rod H-8 has not satisfactorily passed the stepping or rod drop testing. The problem is associated with a design drawing error. Corrective actions on this matter is in progress. A review of rod drop times (cold-no-flow) indicated that the drop times ranged from 1.03 to 1.13 second.

7. Power Ascension Program

Upon inquiry, the inspector was informed that power ascension tests relating to generator trips and plant heatup rate have not been prepared.

Mr. Makepeace asked for a status relative to the requirement for the performance of a loss of flow while at reactor power.* The inspector indicated that this matter is under review by DRL.

8. Quality Assurance Program - Operating Reactors

The inspector inquired as to the status of preparation and implementation of a Quality Assurance Program for the Indian Point Site. Mr. Case indicated that the program had been approved but had not been fully implemented. The inspector indicated a need for reviewing the document and inquired as to the availability of a copy. Mr. Case indicated that he would look into the matter and that the inspector would be appraised promptly. Subsequently, Mr. Hayman, Con Ed Quality Assurance, called the inspector and stated that the QA program document for the IP site was in printing and a copy will be made available to Compliance.

9. Accumulator Check Valves

As previously noted, the subject valves were fabricated of CF8 material, whereas, the purchase specification called for CF8M.**

Previous thickness measurements indicated an insufficient wall thickness for meeting the MSS-66 code.*** The condition was evaluated and the subject was considered to be resolved.****

The inspector was advised that a surface defect had been noted on valve 987-D, and that subsequent thickness measurements revealed dimensions less than previously reported. Measurements were taken on the eight subject valves and Westinghouse made a decision that

* CO Report No. 50-249/71-13, Paragraph 17

**CO Report No. 50-247/69-10, Paragraph II.C.2

*** CO Report No. 50-247/70-03, Paragraph II E.

**** CO Report No. 50-247/71-09, Paragraph II M.

a partial overlay of these valves, to obtain an acceptable wall thickness, was necessary. The inspector was shown a letter, Con Ed to Wedco, requesting information relative to the acceptable wall thickness, upon completion of the overlay activity.

The inspector indicated that this subject would receive additional compliance review.

10. DB-50 Scram Breakers

Mr. Makepeace indicated that the scram breakers were given an undervoltage signal test, as a result of the Compliance Bulletin.* He reported that the breakers operated satisfactorily. The inspector was advised that Westinghouse has a proposed modification, which is to be incorporated into IP-2.

11. Main Steam Safety Valves

The Compliance Bulletin,** relating to a main steam safety valve problem at another facility was reviewed. Mr. Makepeace confirmed that the subject valves are mounted directly on the main-steam lines at IP-2. The inspector pointed out that an operating facility had performed a dynamic analysis of their safety valve arrangement during a full blow and found that the yield stress values would be exceeded. The inspector stated that as a result this licensee completed a modification to the discharge piping for the valves. Mr. Makepeace indicated that Con Ed will pursue this matter.

12. High Pressure Safety Injection Pump No. 21

As previously reported, high pressure safety injection pump No. 21 seized.*** A review of the events which caused the seizure revealed that the supply line to the pump had been in the closed position during the operation of the pump. The pump has been disassembled and portions have been returned to the vendor shop for repair. Repairs are scheduled to be completed by April 1, 1972.

*Compliance Bulletin, J. P. O'Reilly to William Caldwell, dated December 8, 1971.

**Compliance Bulletin, J. P. O'Reilly to William Caldwell, dated December 10, 1971.

***CO Report No. 50-247/71-14, Paragraph 7.a.