

UNITED STATES NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report of Operations Inspection

IE Inspection Report No. 050-155/76-10

Licensee: Consumers Power Company
212 West Michigan Avenue
Jackson, Michigan 49210

Big Rock Point Nuclear Plant
Charlevoix, Michigan

License No. DPR-6
Category: C

Type of Licensee: BWR (GE) 240 MWt

Type of Inspection: Routine, Announced

Dates of Inspection: May 17 - 21, 1976

Principal Inspector: *D. R. Hunter*
D. R. Hunter 6/15/76
(Date)

Accompanying Inspector: *C. W. Brown*
C. W. Brown 6/15/76
(Date)

Other Accompanying Personnel: E. L. Jordan
(May 20-21, 1976)

Reviewed By: *for D. R. Hunter*
E. L. Jordan, Chief 6/15/76
Reactor Projects Section 2 (Date)

810121033C

SUMMARY OF FINDINGS

Inspection Summary

Inspection on May 17-21, 1976, (76-10): Reportable occurrences, items of noncompliance, procedures, design changes, maintenance activities, fire protection and penetration seal modifications, construction testing and preoperational testing were reviewed.

Enforcement Items

None.

Licensee Action on Previously Identified Enforcement Items

- A. A review of plant modification controls indicates that the licensee's corrective actions are not complete. (Paragraph 5.a, Section I, Report Details)
- B. A review of plant retraining activities indicates that the licensee's corrective actions concerning those identified areas where results of the 1974 annual operator examinations indicated an emphasis in scope and depth of coverage and the written examinations during the 1973-1975 retraining cycle (one day per five weeks portion) to determine the operators' knowledge of subjects covered and to provide a basis for evaluating their knowledge level of abnormal and emergency procedures, have been completed. (Paragraph 5.b, Section I, Report Details)

Other Significant Items

- A. Systems and Components
 - 1. The installation of the reactor depressurization system and the main steam tunnel blowout panel is physically complete.
 - 2. The installation of the fire barrier penetration seals, the additional sprinkler systems and the fire detector system is complete.
- B. Facility Items (Plans and Procedures)
 - 1. The construction on the new office building is continuing.
 - 2. The core was reloaded during the weekend of May 1, 1976.
 - 3. Plant operations are expected to be resumed in early June 1976 following completion of refueling and ECCS modifications outage which began on January 30, 1976.

4. The ECCS exemption request for the facility is under evaluation by the Commission.

C. Managerial Items

1. Mr. T. W. Elward has been assigned to the facility as the Technical Superintendent. He was previously the Reactor Engineer at Consumers' Palisades plant.
2. Mr. J. P. Flynn has been assigned to the facility as the Maintenance Superintendent. He was previously a member of the Engineering Department at Consumers' Palisades plant.
3. Mr. C. K. Axtell has assumed the position of Health Physicist at the facility. He was formerly the Chemistry and Radiological Protection Supervisor.
4. Mr. T. M. Brun has been promoted to the position of Chemistry and Radiological Protection Supervisor.
5. Mr. D. E. DeMoor has assumed the position of Technical Engineer and will provide the direct liaison between the plant and regulatory groups. He was formerly the Technical Superintendent.

D. Noncompliance Identified and Corrected by Licensee

None.

E. Deviations

None.

F. Status of Previously Unresolved Items

The fire barrier penetration seal material mixing acceptance criteria has been resolved and is considered closed.^{1/} (Paragraph 2, Section II, Report Details)

Management Interview

The management interview was conducted on May 21, 1976, by Messrs. Cook, Jordan, Brown and Hunter with the following persons present:

- R. B. DeWitt, Manager of Nuclear Plant Operations
- C. J. Hartman, Plant Superintendent
- R. B. Sewell, Nuclear Licensing Administrator
- C. R. Abel, Operations Superintendent

^{1/} IE Inspection Rpt. No. 050-155/75-16.

D. E. DeMoor, Technical Engineer
J. P. Flynn, Maintenance Superintendent
E. M. Evans, Plant Test Engineer
S. E. Martin, Project Engineer
T. W. Elward, Technical Superintendent
H. W. Keiser, Operations Engineer
R. E. Schrader, I&C Supervisor
A. C. Sevener, Operations Supervisor
R. E. Voll, Reactor Engineer
G. B. Szczotka, Quality Assurance Superintendent
W. Clark, Projects Construction Superintendent
D. A. Taggart, Projects Quality Assurance Department
K. F. Krueger, Startup Engineer
J. W. Chapman, Catalytic, Inc.

- A. The inspector stated that the review of completed construction work packages and preoperational tests revealed only minor discrepancies which were resolved during the inspection. The licensee acknowledged the statement by the inspector. (Paragraph 2, Section I, Report Details)
- B. The inspector stated that a review of the maintenance program revealed a practice which required resolution. The area of concern was the use of the Functional Equivalent Substitution (FES) memo with no implementing procedures provided by the Plant Superintendent. The inspector asked the licensee to review the area, including any outstanding FES memos, and provide the appropriate administrative controls. The licensee stated that an evaluation of the area would be performed. (Paragraph 3.a.(4), Section I, Report Details)
- C. The inspector stated that a review of the preventive maintenance program revealed that the electrical and mechanical program did not appear to be complete and no schedule for completing the program was seen. The inspector stated that the I&C preventive maintenance program appeared to have been scheduled and a target date of July 1, 1976, had been set for the completion of the safety related equipment list.

The inspector asked the licensee to review both mechanical and I&C programs and provide a realistic implementation date for the complete preventive maintenance program. The licensee stated that the program would be reviewed. (Paragraph 3.a.(8), Section I, Report Details)

- D. The inspector stated that the corrective actions for the previously identified item of noncompliance concerning retraining activities appeared satisfactory. (Paragraph 5.b, Section I, Report Details)

- E. The inspector stated that the previously identified item of noncompliance concerning design control, which included the electrical system circuit analysis and procedure revisions remains open, pending completion by the licensee. (Paragraph 5.a, Section I, Report Details)
- F. The inspector stated that the review of the corrective actions for reportable occurrences concerning the emergency diesel cooling water pump and the containment supply ventilation valves revealed no discrepancies. (Paragraph 6, Section I, Report Details)
- G. The inspector stated that the requirement for a procedure covering safe shutdown of the plant from outside the control room had been discussed with the licensee representative. The inspector stated that IE:III understood that the procedure should include steps to shut the unit down and initiate plant cooldown. The licensee acknowledged the statement. (Paragraph 8, Section I, Report Details)
- H. The inspector asked if the pressure gauges and lines which were noted to be installed on the newly installed containment penetrations had been in place during prototype seismic testing performed by the supplier.

The licensee indicated that the matter would be reviewed and appropriate action taken as necessary prior to plant startup. (Paragraph 7, Section I, Report Details)

- I. The inspector stated that a continuing review of station procedures and procedure changes revealed no discrepancies. (Paragraph 4, Section I, Report Details)
- J. Fire Barrier Seals

1. The inspector stated that Commission position is that if repair of the fire barrier seals are made with other than the original material, a safety evaluation must be performed on the new materials. The licensee acknowledged the statement. (Paragraph 2, Section II, Report Details)
2. The inspector stated that the maintenance of the fire barrier and the penetration seals are not specifically addressed in the Administrative Procedures. The licensee stated that this item would be reviewed. (Paragraph 2, Section II, Report Details)

REPORT DETAILS

Section I

Prepared By: D. R. Hunter

1. Persons Contacted

C. J. Hartman, Plant Superintendent
D. E. DeMoor, Technical Engineer
C. R. Abel, Operations Superintendent
J. P. Flynn, Maintenance Superintendent
G. B. Szczotka, Quality Assurance Superintendent
S. E. Martin, Project Engineer
E. M. Evans, Plant Test Engineer
A. C. Sevener, Operations Supervisor
R. W. Doan, Shift Supervisor, Training Coordinator
R. L. Schrader, I&C Supervisor
H. M. Phelps, Assistant I&C Supervisor
T. Popa, Maintenance Engineer
S. A. Carlisle, Shift Supervisor
E. McNamara, Shift Supervisor
D. D. Herboldsheimer, Maintenance Scheduler
W. Clark, Project Construction Superintendent
K. F. Krueger, Startup Engineer
D. A. Taggart, Projects Quality Assurance Department
A. J. DeGrasse, Catalytic Startup Coordinator
J. W. Chapman, Catalytic Quality Assurance

2. Construction Activities

The inspector reviewed the following construction and startup items to verify adequacy of administrative controls, procedures and completion of the activities:

- a. CWP-J04-1607-005, Rev. A, Finalized Electrical. Three field changes were issued; 1F, 2F and 3F (Memo RDS-27). No discrepancies were noted.
- b. CWP-2401-001, Rev. A, Pressure Test of C max to Containment Penetration.

Two field changes were issued; 1F and 2F (Memos RDS-522 and 529, respectively).

The inspector noted that the pressure test for penetration H-83 indicated an extended test over the weekend (65.17 hours) and that the acceptance criteria was based on a 24 hour test. A review of the actual test data provided by the licensee

indicated a total corrected pressure drop of 2.2 psi. Based on an allowable pressure drop of 0.91 psi in 24 hours, the total allowable pressure drop was 2.47 psi in 65.17 hours and the actual pressure drop was 2.16 psi, which is within the acceptance criteria of the test based on 24 hours.

- c. CWP-005-2400-001, Hydro of RDS Piping.

Four field changes were completed; 1F, 2F, 3F and 4F (Memo RDS 524).

The inspector noted that the test was completed on March 18, 1976, with the Authorized Inspector sign offs on the package prior to the test on February 27, 1976, and subsequent to the test on March 18, 1976, and also that the package was signed by the Michigan State inspector on March 18, 1976.

No discrepancies were noted.

- d. CWP-005-1307-007, Installation of 12" RDS Piping (final hydro).

No discrepancies were noted.

- e. CWP-008-1601-001, Repair of Vendor Deficiencies to UPS Panels.

Three field changes were completed; 1F, 2F and 3F (Memo RDS 31).

The Uninterruptable Power Supply Cabinets were returned to Catalytic, Inc., on April 7, 1976, procedures written and approved on April 5, 1976, and repair work performed and completed on April 7-8, 1976.

No discrepancies were noted.

- f. CWP-008-1607-001, RDS Control Panel Sensor and Actuation Cabinet Changes.

No field changes issued (Memo RDS-555).

No discrepancies were noted.

- g. Construction deficiencies BRP-006 through 011 and 016 were reviewed by the inspector.

No discrepancies were noted.

- h. BRP-STP-007, Fire Pump Circuitry Check.

No discrepancies were noted.

- i. BRP-STP-008, Instrument Air System Functional Test.

Procedure Step B.5, pressure switches PS-784 through PS-787, indicated a trip setpoint of 80 psig with no tolerance noted. The licensee representative indicated that the tolerance should have been indicated. The switch reset value acceptance criteria should then be within 1.5 psi of the trip point.

The data sheet for TV-117B indicated that the valve was "binding and stiff" during the test.

The licensee representative reviewed the matters with the inspector.

No other discrepancies were noted.

- j. BRP-STP-009, Reactor Depressurization Control Panel Energization.

No discrepancies were noted.

- k. BRP-STP-013, Selective Fault Test.

Step 8.b was performed correctly according to the systems function, but the procedure step was in error.

Startup deficiency No. 33 (revised to be No. 34) was issued during the test due to a system design problem. The fault circuit design was under review to determine the required change.

No other discrepancies were noted.

- l. The inspector reviewed selected outstanding startup deficiencies.

No discrepancies were noted.

(1) SUD 19 (011), UPS wiring change.

(2) SUD 20 (011), UPS wiring change.

(3) SUD 25 (011), UPS setpoint change.

(4) SUD 30 (002), Actuation system label change.

(5) SUD 31 (007), Fire protection circuitry label change.

- (6) SUD 32 (004), Valve wheel interference.
- (7) SUD 34 (013), Vitro actuation system fault circuit. A design review was in progress.
- (8) SUD 35 (008), Instrument air system tag changes.
- (9) SUD 40 (002), Vitro actuation system module failures. A design review was in progress.
- (10) SUD 41 (006), Air system hold test failure. New check valves were being installed.
- (11) SUD 42 (005), Air system valve to CU-4184 was a globe valve rather than a needle valve. The required opening time on CU-4184 should be 30 ± 5 seconds.

A needle valve was ordered to replace the installed globe valve.

- (12) SUD 43 (003), UPS circuit breaker (CB7) tripping, out of specification.
- (13) SUD 44 (002), Containment vessel evacuation alarm inhibit test unsatisfactory.

LS-3580 and 3581 not included in the inhibit circuit and a design change was being performed.

m. The inspector reviewed selected completed startup deficiencies.

No discrepancies were noted.

- (1) SUD 39 (005), Review of HS-7087.
- (2) SUD 37 (005), RDS air header supports added.
- (3) SUD 24 (011), UPS fuses replaced.

3. Maintenance

The inspector reviewed the maintenance program, including FHSR Section 11.11, Quality Assurance Procedures 5-51 and 5-52, Administrative Procedures 1.5, 1.16 and 1.18 to ascertain whether the program is in conformance with the regulatory requirements, commitments and standards.

a. Administrative Controls for Maintenance

- (1) Quality Assurance Procedure 5-52, Step 5.1.c.2, requires specifying testing requirements on the safety related maintenance orders. Administrative Procedure 1.5.A.3.2 addresses pre-maintenance testing of redundant equipment and post maintenance testing of the affected equipment when a maintenance procedure is required.

The inspector verified that the Shift Supervisor routinely assures the required testing requirements are performed when a maintenance procedure is not being used. No discrepancies were noted.

- (2) Quality Assurance Procedure 5-52, Steps 5.1.c.4 and 5.4.c, require the signature by the authorized Quality Assurance - Bulk Power Operations representative for safety related maintenance orders.

The inspector verified that the Quality Assurance Department is presently reviewing all safety related maintenance orders and documenting the review at the bottom of the form.

No discrepancies were noted.

- (3) Administrative Procedure 1.5.A.34, requires temporary procedure changes to be approved by two members of the PRC, at least one of whom holds a senior reactor license (Technical Specification 10/6.8). The inspector verified, through record review, that the Shift Supervisor and department head are utilized routinely to authorize changes to Maintenance Procedures pursuant to Technical Specification 6.8.3.

No discrepancies were noted.

- (4) Quality Assurance Procedure 5-52, Section 5.6, provides for the use of the "Functionally Equivalent Substitution" which are to be implemented by plant procedures prepared by the Plant Superintendent. No administrative procedures are provided to implement the Functionally Equivalent Substitution (FES) program.

The inspector reviewed five outstanding FES items and memos.

- (a) FES memo, dated May 3, 1976, concerning the replacement of the 3/4" heat exchanger on the No. 1 reactor recirculation pump with a manufacturer recommended substitution.
 - (b) FES memo, dated April 28, 1976, concerning the replacement of the spindles in the Crosby safety valves (HC-75 3m x 6) with a manufacturer recommended substitution.
 - (c) FES memo, dated February 6, 1976, concerning the use of 5/8" x 2-3/4" bolts and nuts as an equivalent substitution.
 - (d) FES memo, dated January 13, 1976, concerning the use of a blank flange made of A-105 instead of A-181 material.
 - (e) FES memo, dated February 9, 1976, concerning the replacement of the anti-extrusion spacer in a CRD accumulator with a new part.
- (5) Quality Assurance Procedure 5-52, Step 5.2, requires the use of written maintenance procedures, documented instructions and drawings appropriate to the circumstances. This requirement is covered in Administrative Procedure 1.5.A.3. Based on the judgement of the department head, maintenance procedures are not required if the repair may be performed by the application of ordinary skills possessed by qualified repairmen.
- No discrepancies were noted.
- (6) Quality Assurance Procedure 5-52, Steps 5.7 and Administrative Procedure 1.5.A.4, provide the requirements and implementation of emergency maintenance activities.
- No discrepancies were noted.
- (7) Administrative Procedures 1.5 and 1.16, do not include formal controls for removing equipment from service and returning equipment to service when no maintenance procedure is required. The maintenance order form does not require Shift Supervisor authorization for release of safety related equipment for maintenance.

The inspector verified that an informal check sheet was being used by maintenance and operations for control of minor safety related maintenance when a maintenance procedure is not required.

No discrepancies were noted.

- (8) The Final Hazards Summary Report, Section 11.11, requires a preventive maintenance program and Administrative Procedures 1.5.b and 1.18 provide instructions for performing preventive maintenance activities. The inspector verified that the licensee performs the scheduled preventive maintenance items by issuing maintenance orders as needed. During the review the inspector noted that the Maintenance Department utilizes a computer printout for scheduling preventive maintenance. The maintenance scheduler follows the PM items.

The inspector reviewed the Instrument and Control Department preventive maintenance program and noted that the safety related equipment list completion date was set for July 1, 1976, with the program completion target date of December 31, 1976.

While no discrepancies with regulatory requirements were identified the inspector discussed minor procedural weaknesses within the licensees' administrative and quality assurance procedures for maintenance activities with licensee representatives during the course of the review.

b. Maintenance Activities Reviewed

The following safety related Maintenance Orders (MOs) were reviewed to verify compliance with Administrative Procedures.

No discrepancies were noted.

- (1) 75-WES-1009, Air Ejector Offgas System, Procedure IWGS 2, Rev. 0, Functional Test TR-40, Electronic Calibration of Offgas.^{2/3/}
- (2) RPS-75-1001, 1002 and 1003, Replace RPS Relays.
- (3) 75-CIS-282, Rebuild Isolation Valves, Procedure 75-CIS-282.
- (4) 75-ECS-167-02, Adjust Packing.

^{2/} CP to IE:III, dtd 9/23/75.

^{3/} IE Inspection Rpt No. 050-155/75-15.

- (5) 75-CRD-154-01, 75-CRD-318-02, 75-CKD-037-02, CRD Accumulator Leakage, Procedure MCRD-3, Rev. 0.
- (6) 75-ECS-143-01, Adjust Limit Switches on MO-7053, Procedure MGP-2, Rev. 2.
- (7) Annual Inspection of Emergency Diesel Generator, Procedure MEPS-1, Rev. 2.^{4/5/}
- (8) 76-LPS-1005, Inspect and Calibrate Liquid Poison Tank Level.

c. The inspector interviewed selected plant personnel to assure adequate knowledge level concerning maintenance activities.

The inspector reviewed the use of the maintenance order form relative to equipment status and control with the Operations Supervisor and a Shift Supervisor. During the discussions, it was revealed that an informal safety related equipment check... list is utilized by maintenance and operations to control removal from service and return to service. The inspector reviewed and verified that this equipment status/release form is utilized by the Shift Supervisors.

4. Procedures

The inspector reviewed selected plant procedures and procedure changes to assure proper procedure review and approval and plant activities to be in accordance with the Technical Specifications.

No discrepancies were noted.

- a. Administrative Procedures 1.2, 1.4, 1.5, 1.16 and 1.18.
- b. Selected Maintenance Procedures.
- c. Selected procedure changes.

5. Previously Identified Items of Noncompliance

a. Facility Modifications

Corrective actions associated with the item of noncompliance^{6/7/} concerning the major modification controls has not yet been completed.

^{4/} AO 050-155/75-09.

^{5/} IE Inspection Rpt No. 050-155/75-15.

^{6/} Ibid.

^{7/} Ltr, CP to IE:III dtd 12/19/75.

The procedure revisions and the electrical circuit analysis remain outstanding.

This item remains open and will be followed at a subsequent inspection.

b. Retraining Activities

The inspector reviewed the corrective actions completed by the licensee concerning review of the annual examinations for 1974 and 1975 the coverage of the identified weak areas during the 1976 retraining cycle and the evaluation of the operators' knowledge level during the monthly retraining classroom training sessions.

The inspector reviewed the monthly retraining schedule for April through October of 1976 and the general lesson plan format for each scheduled session. The material for the April session and the prepared examinations covering the April material were reviewed. The inspector verified that the identified weak areas requiring retraining emphasis were included in the monthly retraining schedule. Other areas covered in the schedule include procedure changes, facility changes, Technical Specification changes, designated weak areas and general systems lectures.

The inspector discussed the method of providing evaluations of the operators and the program with the licensee representative. The classroom grades were being reviewed by management and the need to document these evaluation requirements and results of the evaluations was recognized by the training coordinator. No further questions are required of this item at this time and the item is considered closed.

6. Reportable Occurrences

- a. LER-04-76, Emergency diesel generator trip due to high temperature reported on April 15, 1976.

The licensee reported,^{8/} that during a routine test of the emergency diesel generator on March 24, 1976, the engine tripped due to high cooling water temperature. The inlet screen to the diesel cooling water pump was plugged causing a reduction in cooling water flow to the diesel engine.

8/ Ltr, CP to IE:III, dtd 4/15/76.

The review of the maintenance activity associated with the emergency diesel and observation by the inspectors of maintenance checkout activities being performed on the diesel cooling water pump during the week of May 17, 1976, indicated that the evaluation and corrective action concerning the cooling water pump suction strainer and shaft seal (packing) were continuing. Following polishing the pump shaft to remove some pitting in the packing area, cleaning the suction strainer and repacking the pump, the cooling water flow was found to be in excess of 80 gpm.

- b. LER-06-76, Containment ventilation supply valves excessive leak rate, reported on April 19, 1976. The licensee reported^{9/} that during the semiannual component leak rate test (T180-01), the containment ventilation supply valves leaked in excess of the Technical Specification, 3.7(a), allowable limits. The review of the maintenance activities concerning the valve leakage indicated that the seal leakage on CV-4097 was due to the apparent movement of the seat adjustment screws seal to disc clearance up to 0.006". The valve seat was readjusted and the position of the adjustment screws was marked to reveal any movement. The inspector verified through record review that the licensee considered containment integrity was breached during the occurrence and no reactivity changes or fuel movements were performed.

7. Facility Tour

The inspectors toured the facility to view the general plant status, plant cleanliness, startup activities and selected completed facility modifications.

The inspection of the cable penetration area revealed that 0-60 psig pressure gauges were installed on the newly added Conax electrical penetrations to provide routine monitoring of the penetration seal volume pressure. The review of the specifications by the licensee representative failed to determine if the pressure gauges were part of the seismic qualification tests performed on that type penetration by the supplier. This item will be followed at a subsequent inspection.

^{9/} Ltr, CP to IE:III, dtd 5/3/76.

8. Headquarters Requested Item

The inspector reviewed with the licensee representative the progress of the Emergency Shutdown Procedure (D2.25), which was being written to satisfy the requirement to provide safe shutdown of the plant from outside the control room. The procedure will apparently provide trip of the unit by an operator locally at the RPS panels 1 and 2. The inspector discussed with the licensee representative the general procedure and the unavailability of the control room which required the remote plant trip.

9. Outstanding Items

The inspector reviewed the performance of MLPS-1, Rev. 2, Inspection of Liquid Poison Tank (TR-26); TR-27, Poison System Level Alarm Check; and TR-14, Poison System Operability Check. The inspection and tests^{10/} were completed and no discrepancies were noted.

10/ IE Inspection Rpt No. 050-155/75-12.

REPORT DETAILS

Section II

Prepared By:

C. H. Brown

(Date)

C. H. Brown 6/15/76

Reviewed By:

W. S. Little

(Date)

W. S. Little 6/15/76

1. Persons Contacted

J. P. Flynn, Maintenance Superintendent
G. B. Szczoika, Quality Assurance Superintendent
R. L. Schrader, I&C Supervisor
T. Popa, Maintenance Engineer
D. D. Herboldsheimer, Maintenance Scheduler
A. C. Sevener, Operations Supervisor
S. A. Carlisle, Shift Supervisor

2. Fire Barriers

The licensee has completed the installation of the seals in the wiring penetrations of the fire barriers.^{11/} The inspector's review revealed these seals have been placed in control room floor penetrations to the electrical equipment room, and penetrations between the electrical equipment room and cable penetration room outside containment. The smoke detection system has been installed in the electrical equipment room and the cable penetration areas outside and inside containment. The fire sprinkler system has been extended to cover the cable penetration area outside containment. This fulfills commitments set forth in reply to IE Bulletin 75-04 and 04A.

The licensee's QA deviation report on seal thickness has been cleared. A laboratory report available at the facility indicated a thickness of 7" of the silicone rubber provides sufficient fire barrier. The licensee's review showed all seals to be greater than 7" with a minimum thickness of 7-1/4" in one seal.

As the fire barriers were not part of the original FHSR, the inspector stated the Commission's position is that any change to the materials used in the seals for replacement or repair would require safety evaluation of the materials. A discussion was held with the licensee as to the administrative controls to maintain the fire barriers if the seals were involved in facility changes or maintenance as the barriers are not specifically called out in the procedures.

^{11/} Reply to IEB 75-04 and 04A, Sewell to Keppler dtd, 9/25/75.

During the review, the inspector noted the licensee had evaluated the following areas of the penetration seal installation:

- a. If the proper cure of the foam was inhibited, the seal would still be formed due to the compression produced by the foaming action of the mixture.
- b. The gauges installed on the mixing rig were calibrated, and the mixing "gun" was calibrated before use. The adjustments for the mix ratio were only able to produce minor variations from the 1:1 ratio.
- c. Hand mixed ratios other than 1:1 showed color, foam cell size and improper cure variations when compared to the standard sample. The licensee determined that the visual inspection of samples taken during pouring were sufficient; therefore, no further flame tests were performed.
- d. RTV rubber was not used for caulking as all parts of the penetrations could be reached with the mixing "gun".

The inspector noted that procedural fire precautions were taken during the pouring of the seals and the facility's QA personnel audited once a day and found them in effect.

During the inspection, the inspector observed a fire drill which included the use of a smoke bomb. The inspector noted that the smoke detector system alarmed (from the electrical equipment room) and the control room remained clear of smoke until the ventilation system was used to clear the smoke.

3. Facility Changes

The facility changes performed during the last year were reviewed on the basis of a random selected sample. The facility changes were verified to have been made in accordance with 10 CFR 50.59, and reviewed and approved in accordance with the facility's Technical Specifications and/or established Administrative Procedures. For the changes selected, the acceptance test procedures were verified to have acceptance values. The performance tests were verified to have been reviewed and approved per the facility procedures. Applicable operating procedures were verified to have been revised. The "as-built" drawings were verified (on a spot-check basis) to have been changed as per time facility procedures.

The following Facility Changes^{12/} were reviewed and verified as above:

- a. PIS-75-FC-302 Back Up Core Spray
PS-IG11E through H
- b. PIS-75-FC-301 Reactor Water Level
LS-RE09A through D
- c. PIS-75-FC-300 Reactor Water Level
LS-RE09E through H
- d. PIS-75-FC-307 Back Up Enclosure Spray
PS-636 and 637
- e. PIS-75-FC-303 Core Spray - Reactor Pressure
PS-IG11A through D
- f. PIS-75-FC-299 Core Spray Line Pressure
PT-186/PI-412
- g. PIS-75-FC-295 Installation of Safety Related Power
Supply (3Y Panel)
- h. PIS-75-FC-296 Task Force Recommendations for AO 75-01
PIS-75-FC-298
- i. EPS-74-FC-277 Same as h, above, Rewinding for LT-3 Panel
- j. NMS-75-FC-308 Replacement of Static Inverter with New Unit

FC 299-307 were changes of switches to meet LOCA and seismic qualifications. Safety evaluations were performed on a through j, above, verifying that all functions were equal or greater than design plus the LOCA and seismic requirements. In areas of deviation, the performance was evaluated and determined sufficient to meet functional requirement.

^{12/} Semiannual Rpt 1/1/75 - 6/30/75.