

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-155/82-17(DPRP)

Docket No. 50-155

License No. DPR-6

Licensee: Consumers Power Company
212 West Michigan Avenue
Jackson, MI 49201

Facility Name: Big Rock Point Nuclear Plant

Inspection At: Charlevoix, MI

Inspection Conducted: September 11 through October 22, 1982

Inspectors: G. C. Wright *D. C. Boyd/for* 11-19-82

M. E. Parker *D. C. Boyd/for* 11-19-82

Approved By: D. C. Boyd, Chief *D. C. Boyd* 11-19-82
Projects Section 2A

Inspection Summary

Inspection on September 11 through October 22, 1982 (Report No. 50-155/82-17(DPRP))

Areas Inspected: Routine Safety, resident inspection involving Followup on Outstanding Inspection Items; Operational Safety Verification; Monthly Maintenance Observation; Monthly Surveillance Observation; and Independent Inspection Effort. The inspection involved a total of 256 inspector-hours onsite by two NRC inspectors including 20 inspector-hours onsite during offshifts.

Results: Of the five areas inspected, two items of noncompliance were identified, (In the areas of design control and drawing control, see Paragraph 6).

DETAILS

1. Persons Contacted

- *D. P. Hoffman, Plant Superintendent
- *D. E. DeMoor, Technical Engineer
- *G. H. R. Petitjean, Technical Superintendent
- *A. C. Sevener, Operations Supervisor
- *J. R. Epperson, Associate Health Physicist
- *C. R. Abel, Operations and Maintenance Superintendent
- *G. C. Withrow, Maintenance Superintendent
- *T. R. Fisher, Sr., QA Administrator
- *D. L. Szabo, Administrative Supervisor

The inspectors also contacted other licensee personnel including: Shift Supervisors, Control Operators and Maintenance personnel.

*Denotes those present at the exit interview.

2. Followup on Outstanding Inspection Items

Through direct observations, discussions with licensee personnel and review of records, the following items were reviewed to determine that appropriate corrective actions have been accomplished.

- a. (Open) Open Item (50-155/80-06-01): The licensee has installed a modification to the steamdrum safety valve position indication instrumentation to allow the low noise level alarm to function as designed. Item "C" is considered closed.

The licensee in their January 1982 update to NUREG-0737 indicated that environmental qualification of the instrumentation is expected to be completed by January 1983. Item "B" remains open pending completion and acceptance of the qualification tests.

- b. (Closed) Open Item (50-155/81-05-02): Health Physics Dosimetry Issue Worksheet has been updated to ensure female employees are verifying they have received indoctrination training on "Occupational Exposure to Female Employees." Review of individual records indicate that this form is being utilized.
- c. (Closed) Open Item (50-155/81-05-03): Quality Assurance is taking action to provide QA Indoctrination to previously employed employees who do not have documented evidence of training. All future employees will be provided the necessary Indoctrination training by the Nuclear Operations Training Center.
- d. (Open) Open Item (50-155/81-09-01): The licensee indicates that due to changes in the training program and Department, updating of the Systems Description Training Manual will not be completed prior to 1983.

- e. (Open) Open Item (50-155/81-10-03):
- (1) NUREG-0737 Item II.F.1.4 closed in IE Report 82-03.
 - (2) NUREG-0737 Item II.F.1.5 - The licensee has installed a primary and secondary containment level indicators. Proposed Technical Specification change has been submitted by the licensee. Refer to Paragraph 6 of this report for further details on the level transmitters.
 - (3) NUREG-0737 Item II.F.1.6 - No change in status.
- f. (Open) Open Item (50-155/81-10-05): NUREG-0737 Item II.K.3.(16B) Licensee indicates no modification is necessary. Reply from NRR required to close item.
- g. (Closed) Open Item (50-155/81-10-06): NUREG-0737 Item II.K.3.(18C) Item has been determined to be not applicable to Big Rock Point. Refer to letter of October 20, 1982 from D. M. Crutchfield (NRR) to D. VandeWalle (CPCo).
- h. (Open) Open Item (50-155/81-10-07): NUREG-0737 Item II.K.3.(21B) NRR acceptance of BWR's owners group position required to close item.
- i. (Open) Open Item (50-155/81-10-08): NUREG-0737 Item II.B.1.(3): No change in status.
- j. (Open) Open Item (50-155/81-10-13): NUREG-0737 Item II.K.3.(25B) Licensee indicates no modification is necessary. Reply from NRR required to close item.

3. Operational Safety Verification

The inspector observed control room operations, reviewed applicable logs and conducted discussions with control room operators during the months of September and October. The inspector verified the operability of selected emergency systems, reviewed tagout records and verified proper return to service of affected components. Tours of the reactor building and turbine building were conducted to observe plant equipment conditions, including potential fire hazards, fluid leaks, and excessive vibrations and to verify that maintenance requests had been initiated for equipment in need of maintenance. The inspector by observation and direct interview verified that the physical security plan was being implemented in accordance with the station security plan.

During a review of the control room logbook, the inspector noted that at 12:40 a.m. on October 3, 1982, a high flux alarm (105% on 0-120% scale, 100%-208 MWT) was received while performing daily control Rod Drive (CRD) coupling integrity testing. A scan of control rod position revealed CRD-05 was at position 14 rather than required position 11. CRD Coupling Integrity testing involved inserting one rod at a time one notch and then withdrawing the rod to its original position. For CRD's fully withdrawn, the test also includes a verification that the

rod would not move to an overtraveled position. The licensee determined that the selector valves for CRD-05 were stuck open. This allowed D-5 to receive the insert/withdrawal signals given to CRD's A-2, A-3, and A-4, which were tested just prior to receiving the high flux alarm. This resulted in two drives, D-5 and one other, moving at the same time. The licensee has determined that no thermal hydraulic limits were exceeded and has subsequently repaired the selector valves for CRD-5.

The licensee has initiated an Event Report and plans to submit a 30 day LER.

The inspector observed plant housekeeping/cleanliness conditions and verified implementation of radiation protection controls. During the month of October, the inspector walked down the accessible portions of the core spray and containment spray systems to verify operability. The inspector also witnessed portions of the radioactive waste system controls associated with radwaste shipments and barreling.

These reviews and observations were conducted to verify that facility operations were in conformance with the requirements established under technical specifications, 10 CFR, and administrative procedures.

No items of noncompliance were identified.

4. Monthly Maintenance Observation

Station maintenance activities of safety related systems and components listed below were observed/reviewed to ascertain that they were conducted in accordance with approved procedures, regulatory guides and industry codes or standards and in conformance with technical specifications.

The following items were considered during this review: the limiting conditions for operation were met while components or systems were removed from service; approvals were obtained prior to initiating the work; activities were accomplished using approved procedures and were inspected as applicable; functional testing and/or calibrations were performed prior to returning components or systems to service; quality control records were maintained; activities were accomplished by qualified personnel; parts and materials used were properly certified; radiological controls were implemented; and, fire prevention controls were implemented.

Work requests were reviewed to determine status of outstanding jobs and to assure that priority is assigned to safety related equipment maintenance which may affect system performance.

The following maintenance activities were observed/reviewed:

Dual Indications on MO-7071, Core Spray Valve
Repair of CV-4101, Fire Protection System Deluge Isolation Valve
Plant Stack Exhaust Fan
Repair Stack CRD D-5, Selector Valve

Following completion of maintenance on the MO-7071, CV-4101, D-5 selector valve and stack exhaust fan, the inspector verified that these systems had been returned to service properly.

No items of noncompliance were identified.

5. Monthly Surveillance Observation

The inspector observed technical specifications required surveillance testing on the core spray valve remote manual operation and verified that testing was performed in accordance with adequate procedures, that test instrumentation was calibrated, that limiting conditions for operation were met, that removal and restoration of the affected components were accomplished, that test results conformed with technical specifications and procedure requirements and were reviewed by personnel other than the individual directing the test, and that any deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel.

The inspector also witnessed portions of the following test activities:

Bypass Valve Test

Reactor Protection System Logic Test

Calibration/surveillance of Meteorological Data Instrumentation

6. Independent Inspection Effort

- a. During a review of the daily reports, the inspector noted a potentially generic item applicable to the Big Rock Station, concerning failure of ITT Barton Level Transmitters. The licensee was informed, by the inspector of the potential for malfunction of the monitor during accident conditions, due to flashing of the water in the reference leg. The licensee was also asked to determine the environmental qualifications of Dow Corning 550 Silicon Oil used in the transmitter bellows. The licensee has subsequently issued a deviation report and has evaluated the potential for flashing. On a temporary basis the licensee has insulated the reference leg and plans to replace the water in the reference leg with silicon oil. The licensee's actions in this area will be reviewed in a future inspection. Open Item (50-155/82-17-01).
- b. During a review of Facility Change, FC-510, Elimination of Potential Single Failures to Containment Vent Valves, the inspector found that the applicable drawings, Big Rock Point Manual, Volume 22, Piping and Instrument Drawings and full size plant drawings, had not been updated, nor had a temporary change been issued to reflect this design modification. This was a result of interface problems between plant and corporate personnel. This facility change was installed during the last refueling outage, approximately six months ago.

Further review, revealed that the lack of appropriate drawing changes could have been identified if any one of the following procedures were strictly followed:

- (1) Big Rock Point Manual, Volume 1B, Administrative Procedures, Section 1.9, Plant Modifications.
- (2) Big Rock Point Manual, Volume 16, Engineering Section 16.5 Engineering Design Control-Minor modifications.

10 CFR, Part 50, Appendix B, Criteria III, states in part (1) Measures shall be established to assure that structures, systems and components are correctly translated into specifications, drawings, procedures, and instructions. These measures shall include provisions to assure that appropriate quality standards are specified and included in design documents and that deviations from such standards are controlled; and (2) Measures shall be established for the identification and control of design interfaces and for coordination among participating design organizations. These measures shall include the establishment of procedures among participating design organizations for the review, approval, release, distribution and revision of documents involving design interfaces.

Contrary to the above, the licensee's procedures governing interface between onsite and offsite organizations were not adequate to ensure that design modifications were included into drawings in a timely manner and is considered an item of noncompliance (82-17-02). Discussions with the licensee indicated that corrective action is being implemented. The details, of the corrective action, will be addressed in the licensee's reply to the item of noncompliance.

- c. The inspector conducted a review of the licensee's handling of "controlled" prints, paying particular attention to how changes were handled. The inspector selected eleven prints, which had Document Change Notices (DCN's) indicated. The selected prints were cross checked between three of sixty-five controlled copy, Volume 22 prints, and the full size controlled prints located outside the control room. The review detected two discrepancies between the three volume 22 prints and seven discrepancies between the full size prints and the three volume 22 prints. The discrepancies involved the lack of identification, by DCN number, of changes made to systems not yet incorporated by revision on the prints.

It was further observed that in all but three cases the changes to the prints were not detailed on any of the prints nor were copies of the changes readily available to the control operators or shift supervisor.

10 CFR 50, Appendix B, Criteria VI "Document Control" states in part; "Measures shall be established to control the issuance of documents ...These measures shall assure that documents, includi-

changes, are...distributed to and used at the location where the prescribed activity is performed."

Due to the discrepancies and lack of detail described above, the licensee is considered to be in noncompliance with Criteria VI stated above. Noncompliance (50-155/82-17-03).

It is noted that the review sample size amounted to approximately 4.5% of the controlled copies of Volume 22 available on site. With the number of discrepancies identified in this small sample the licensee has been asked to address how they intend to assure that the other 62 controlled Volume 22 manuals are complete and accurate. Upon being informed of this item of noncompliance, the licensee took the following action to correct the situation; one individual was designated to update all control and shift supervisor P&ID's as well as the full size prints located outside the control room. The initial updating included a review of all prints to insure correctness. The review and updating was completed within one week.

To prevent recurrence of the problem the licensee has committed to the following actions which are to be completed by December 15, 1982.

- (1) Generate a list of effective pages indicating the latest revision and any outstanding DCN's.
- (2) Revise print transmitted/distribution forms to clearly indicate which DCN's have been incorporated into the revision being issued and which DCN's are still outstanding on the print.
- (3) Indicate an annual list of effective pages. In addition to the above, the licensee is studying the possibility of reducing the number of controlled copies of Volume 22.

The inspectors have evaluated the licensee's corrective action and find it appropriate and timely and as such have no further concerns in this area.

Followup on the long-term corrective actic will be tracked by noncompliance number 50-155/82-17-03 as previously designated.

7. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) throughout the month and at the conclusion of the inspection and summarized the scope and findings of the inspection activities. The licensee acknowledged the inspectors' comments.