U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-454/82-14(DETP)

Docket No. 50-454 License No. CPPR-130

Licensee: Commonwealth Edison Company
Post Office Box 767
Chicago, IL 60690

Facility Name: Byron Nuclear Power Station, Unit 1

Inspection At: Byron Site, Byron, IL

Inspection Conducted: July 8, 9, 12-16, 27-30, 1982

Inspectors: M. Ring 9/9/82
(July 12-14, 27-30, 1982)

for D. Robinson 9/9/82
(July 8, 9, 15-16, 27-29, 1982)

Approved By: I. N. Jackiw, Chief 9/9/82
Test Program Section

Inspection Summary

Inspection on July 8, 9, 12-16, 27-30, 1982 (Report No. 50-454/82-14(DETP))
Areas Inspected: Routine unannounced inspection to review preoperational test procedures, witness the performance of preoperational testing, and review previous open items. The inspection involved 97 inspector-hours onsite by two NRC inspectors, including 0 inspector-hours onsite during off-shifts.
Results: Of the three areas inspected, two items of noncompliance were identified in one area (failure to follow out of service procedures - Paragraph 4.a. and failure to performe and complete installation or to document incomplete installation - Paragraph 4.a. and b.).

DETAILS

1. Persons Contacted

*M. Stanish, QA Superintendent
*G. Sorensen, Construction Superintendent
*R. Querio, Station Superintendent
*D. St. Clair, Tech Staff Supervisor
*R. Tuetkin, Assistant Construction Superintendent
*J. DeRosia, Construction Engineer
*R. Klingler, PCD QC Supervisor
*M. Lohmann, PCD Mechanical Supervisor
*A. Chomacke, Assistant Tech Staff Supervisor
*P. Nodzenski, QA Engineer
*T. Schuster, Tech Staff Licensing Group
*V. Schlosser, Project Manager
*R. Pleniewicz, Assistant Superintendent Operating
T. Lechton, Tech Staff
A. Chernick, Pre-Op Coordinator
M. Graham, Tech Staff
J. Stanton, Tech Staff
J. Pindel, Pre-Op Coordinator

*Denotes those attending the exit interview.

2. Licensee Action on Previous Inspection Findings

a. (Closed) Open item (454/82-06-06): The item dealt with inspector comments on Test Procedure 2.18.10 Chemical and Volume Control. The comments primarily dealt with where testing commitments described in Table 14.2-48 of the Byron FSAR were to be verified. The licensee has decided to move some of those committments to Table 14.2-72 of the Startup Test program and the inspector reviewed FSAR change request drafts prepared for that purpose. Based on the above discussion, the item is considered closed.

b. (Closed) Open item (454/82-06-04): This item dealt with verification of operating procedures during test procedure performance. Byron test procedures typically contain a listing of Byron operating procedures which may be verified during the test procedure performance. To date, test procedure performance has resulted in several operating procedures which were not available for verification at the time of test procedure performance. The test procedure, however, was completed. The inspector became concerned that the missing verification of the operating procedures was not adequately being tracked. The Byron Tech Staff Supervisor committed to writing deficiencies for those operating procedures which are designated in a test procedure for verification and which are not able to be verified. Operating procedures designated to

be verified in previously completed procedures which were not able to be verified will also result in deficiencies. The inspector considers the above method acceptable and the item is considered closed.

3. Preoperational Test Procedure Review

The inspector reviewed test Procedure 2.66.10 Containment Floor Drains against the FSAR, SER, Proposed Technical Specifications, Regulatory Guides 1.68, 1.45 and 1.29. The inspector made several comments on the test procedure which the licensee agreed to review. This is an open item (454/82-14-01) pending further discussion with the licensee.

In addition, the inspector noted the following problem area. The Reactor Coolant Leak Detection System is described in the Byron FSAR Paragraph 5.2.5.1.a as being designed to be capable of detecting unidentified leakage of 1 gpm within one hour. Byron proposed Technical Specifications indicate in Surveillance Requirements 4.4.6.2 that reactor coolant system leakage shall be demonstrated to be within the 1 gpm unidentified leakage limit by monitoring sump inventory and discharge at least once every 12 hours. Following a physical inspection of the reactor cavity sump area, it appears as if leakage could easily bypass the reactor cavity sump weir area at a rate equal or greater than 1 gpm, flow out onto the floor of the cavity area and fill up the floor area for a period considerably longer than one hour before it would be detected via the sump weir. The size of the area is large enough so that it is questionable whether the leakage would even be detected within the 12 hour Technical Specification Surveillance Requirements. This item is considered an unresolved item (454/82-14-02) pending licensee demonstration of system capability to meet leak detection design criteria of 1 gpm within one hour.

The inspector reviewed test Procedure 2.8.10, Boron Thermal Regeneration System against the FSAR, SER and Regulatory Guide 1.68. The inspector made several comments on the test procedure which the licensee agreed to review. This is an open item (454/82-14-03) pending further discussion with the licensee.

The inspector also completed reviews against the FSAR, SER and Regulatory Guide 1.68 for the following test procedures:

2.15.10 Site Assembly and Fire Alarm
2.5.10 Auxiliary Power
2.46.10 Instrument and Control Power

No items of noncompliance were identified.

4. Preoperational Test Performance

a. The inspector witnessed preparations and initial conditions verification for test Procedure 2.10.10, Component Cooling Water, and noted the following problems:

(1) During post flushing flow verifications on July 9, 1982, the System Test Engineer was unable to establish flow through the waste gas compressor heat exchanger. Upon investigation, the component cooling lines to the waste gas compressor heat exchanger were found to have blanks installed on them. This work was apparently done without the knowledge or concurrence of either the STE or the Pre-Op Coordinator. At the conclusion of the inspection period, investigation into the matter had been unable to determine when or by whom the work was performed. This item is a failure to follow re-entry control procedures and is considered to be a violation of 10 CFR 50, Appendix B, Criterion XIV and the Byron Station Startup Manual and is considered to be an example of an item of noncompliance (454/82-14-04a).

(2) On July 13, 1982, during a walkdown of the system, the System Test Engineer observed that relief valves OCC9425A and OCC9425B had been removed without proper authorization. Subsequent investigation was not able to determine when or by whom the work was done in this case, either.

This item is a failure to follow re-entry control procedures and is considered to be a violation of 10 CFR, Appendix B, Criterion XIV and the Byron Station Startup Manual and is considered to be an item of noncompliance (454/82-14-04b).

(3) During post flushing flow verifications on July 8, 1982, the System Test Engineer found that three orifice plates in the penetration cooling return lines, 1FE-CC054, 1FE-CC055, and 1FE-CC056, were not installed. Review of the turnover package, however, showed that installation of mechanical items had been signed off as complete with no deficiencies indicating the orifices to be missing. Failure to adequately document incomplete or improper installation is considered to be a violation of 10 CFR 50, Appendix B, Criterion X and the Byron Station Startup Manual and is considered to be an example of an item of noncompliance (454/82-14-05a).

b. The inspector witnessed preparations for test Procedure 2.66.10, Containment Floor Drains, and noted the following problem:

(1) On July 7, 1982, while performing the initial conditions verifications, the System Test Engineer found the reactor cavity sump weir plate was not installed. The turnover for the test package had been signed on June 30, 1982, and accepted July 6, 1982, indicating all mechanical installation complete with no deficiencies relating to the weir. Failure to adequately document incomplete or improper installation is considered to be a violation

of 10 CFR 50, Appendix B, Criterion X and the Byron Station Startup Manual and is considered to be an example of an item of noncompliance (454/82-14-05b).

5. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. An unresolved item disclosed during the inspection is discussed in Paragraph 3.

6. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) on July 30, 1982. The inspector summarized the scope and findings of the inspection. The licensee acknowledged the statements made by the inspector with respect to the open items, the unresolved item, and the items of noncompliance (Paragraphs 4.a. and 4.b.).