

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

Report No. 50-454/81-11

Docket No. 50-454

License No. CPPR-130

Licensee: Commonwealth Edison Company
P. O. Box 767
Chicago, IL 60690

Facility Name: Byron Station, Unit 1

Inspection At: Byron Site, Byron, IL

Inspection Conducted: July 27 and August 26-28, 1981.

Inspectors: *M. Ring*
M. Ring

9/21/81

J. Hinds
J. Hinds (July 27)

9/22/81

Approved By: *I. N. Jackiw*
I. N. Jackiw, Acting Chief
Test Programs Section

9/23/81

Inspection Summary

Inspection on July 27 and August 26-28, 1981 (Report No. 50-454/81-11)

Areas Inspected: Routine announced inspection to review preoperational test procedures and results; previous open items relating to the pre-operational test program and the cold hydrostatic test procedure for the reactor coolant system. The inspection involved 31 inspector-hours onsite by two NRC inspectors including 0 inspector-hours onsite during off shifts.

Results: Of the four areas inspected, no apparent items of noncompliance or deviations were identified in one area. Within the three remaining areas two apparent items of noncompliance were identified, one of which contained examples in two areas (failure to follow procedures-Paragraphs 4, 5a, and 5b; failure to perform adequate review of changes - Paragraph 3).

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DETAILS

1. Persons Contacted

- R. Querio, Station Superintendent
- *R. Ward, Assistant Superintendent, Administration and Support
- *R. Pleniewicz, Assistant Superintendent, Operating
- *L. Sues, Assistant Superintendent, Maintenance
- *M. Stanish, Quality Assurance Superintendent
- *R. Tuetkin, Assistant Project Superintendent
- *P. Ervin, Tech Staff Supervisor
- *J. DeRosia, Field Engineer-Construction
- *R. Westberg, Lead Quality Assurance Engineer, Operations
- *R. Grams, Master Instrument Mechanic
 - A. Chernick, Preoperational Test Coordinator
 - P. Johnson, Electrical Group Leader
 - T. Didier, Quality Control Supervisor
 - R. Branson, Operating Engineer
 - S. Swan, Start-up Staff
 - G. Schwartz, Master Electrician
 - D. Johnson, Instrument Foreman

*Denotes those attending the exit interview.

2. Licensee Action on Previous Inspection Findings

- a. (Closed) Open Item (454/80-23-08): The inspector reviewed Revision 0 of BOC-HK-1, Station Housekeeping Surveillance, dated July 1981 and interface agreements between the Operations and Construction organizations. The inspector discussed comments with the licensee and determined the above items to be acceptable.
- b. (Closed) Open Item (454/80-23-09): The inspector reviewed Revision 0 of BAP 400-4, Control of Station Measuring and Test Equipment, dated June 1981 as the licensee's procedure which provides overall control and direction to several more detailed procedures covering usage of test and measuring equipment. The procedure appears to be adequate.
- c. (Closed) Open Item (454/81-06-01): The inspector reviewed Revision 1 of BQI 23.2, Monitoring of Pre-Op Tests, dated August 13, 1981. The procedure incorporated pre-operational test specific audit procedures pertaining to such things as preparation by audit personnel, extent of audit and surveillance coverage and assignment of responsibility. The procedure appears to be adequate.
- d. (Closed) Open Item (454/81-06-02): The inspector also reviewed BQI 23.2, Monitoring of Pre-Op Tests for specific job-related

activities and training requirements relative to the pre-operational test phase. The procedure appears to be adequate in this area.

- e. (Closed) Open Item (454/80-23-05): This item dealt with comments made by the inspector when the Start-up Guidelines document was eliminated via Revision 2 to the Startup Manual. Revision 4 to the Startup Manual was reviewed by the inspector as containing the resolution to those comments. Revision 4 adequately resolved the inspector's comments and therefore the item is considered closed.
- f. (Open) Open Item (454/80-23-07): The inspector discussed comments with the licensee resulting both from the pre-performance review and the completed test review of Pre-Operational Test 2.21.10, 125 V DC Distribution. Since neither the Station nor the Project Engineering Department have yet accepted this test, the item will remain open pending resolution of inspector comments, completion of licensee review and subsequent review by the inspector.

3. Startup Manual Review

During the Startup Manual review, the inspector noted that in Section 3.5.2 entitled Major Changes to Pre-Operational Tests or Startup Tests, sub paragraphs 2.1 and 2.1.1, 2.1.2, and 2.1.3 were contradictory. Paragraph 2.1 was consistent with the title stating that "any change that changes the intent of a procedure is a major change." However, sub paragraphs 2.1.1, 2.1.1 and 2.1.3 all describe minor change attributes such as in 2.1.2, "The revision does not change the intent of the procedure." The Startup Manual describes the method of making changes to the manual as requiring proofreading and review by the Startup Group, concurrence by Site Quality Assurance and authorization by the Project Manager. Failure to adequately review and proofread the change to the Startup Manual is considered to be a violation of 10 CFR 50, Appendix B, Criterion VI and the Startup Manual paragraph 1.4.4 and is an example of an item of noncompliance (454/81-11-01).

4. Preoperational Test Procedure Results Review

During the review of completed test procedure PT 2.21.10, 125V DC Distribution, the inspector questioned how the test engineer was able to "Verify all installed instrumentation in the SDP (System Documentation Package) is within current calibration intervals" as required by paragraph 6.3 of PT 2.21.10. Since the particular test engineer had subsequently left the licensee's employ, members of the Technical Staff agreed to determine how this requirement was satisfied. Upon investigation, Tech Staff representatives stated that "being calibrated" was satisfied by asking OAD (Operational Analysis Department) but they did not know how "within current intervals" was satisfied since OAD reported to the Tech Staff that

the calibration intervals for the instruments in question were not yet established. Failure to perform the test in accordance with the procedure is considered to be a violation of 10 CFR 50 Appendix B, Criteria V and XI and is an example of an item of noncompliance (454/81-02c).

5. Cold Hydrostatic Test

The inspector reviewed a copy of the completed construction test procedure 2.63.810, Reactor Coolant Cold Hydrostatic Test and interviewed one of the test conductors, one of the operating engineers, a member of the Technical Staff and one of the instrument foremen with respect to the Cold Hydro. The inspector noted the following problems:

- a. Paragraph 6.2 of the test procedure states, "Verify that all instrumentation in Appendix A is within current calibration intervals." In the completed procedure, Appendix A consisted of a computer printout of many instruments and components (many of which cannot be calibrated) listing the date on which the instrument was calibrated. Review of the list showed several components with a calibration date of "1/1/90N." When the inspector questioned the meaning of a 1990 date, the instrument foreman indicated this was a fictitious date deliberately applied to allow the computer to printout and indicating the component was not a "calibrateable" component. However, the inspector noted that a pressure switch, IPS/-RC0403, which the instrument foreman said should be able to be calibrated, showed a 1/1/90N date. Since the list contained several 1990 designations, the inspector questioned how the Hydro test requirement of paragraph 6.2 was actually satisfied. The test conductor indicated that if the instrument contained a calibration date, it was considered satisfactory. The inspector reviewed the list for calibration dates and noted four instruments, 1TS/-RC0433A, 1PT-CV0115, 1TE-CV0167, and 1LT-SI0930 which had no calibration dates at all listed. Additionally, the "current calibration intervals" described in paragraph 6.2 were reported by the instrument foreman to be not yet established for most of the instruments. The above problems constitute failure to verify the prerequisite paragraph in accordance with the procedure which is considered to be a violation of 10 CFR 50 Appendix B, Criteria V and XI and is an example of an item of noncompliance (454/81-11-02a).
- b. Paragraph 9.2.49 of test procedure 2.63.810 says to "increase system pressure to 3102-0+25 psig" while the following paragraph 9.2.50 states "Maintain the 3102-0+12.5 psig pressure for a minimum of ten minutes". Actual pressure recorded on the hydrostatic test certificate was 3135 psig. While this actual pressure meets the minimum pressure for a satisfactory strength and tightness test and does not exceed the calculated over pressure point, it does exceed the pressure bands of paragraphs

9.2.49 and 9.2.50. Failure to perform the test in accordance with the procedure is considered to be a violation of 10 CFR 50 Appendix B, Criteria V and XI and is an example of an item of noncompliance (454/81-11-02b).

In addition, the inspector observed portions of the test performance and reviewed the completed test procedure. The inspector observed the conduct of the test, verification of prerequisites, observation of precautions, calibration and placement of hydro test gauges, overpressure protection, documentation of results and deficiencies. With the exception of the previous items of noncompliance, these areas were all considered adequate.

6. Exit Interview

The inspector met with licensee representatives (denoted in paragraph 1) on August 28, 1981. The inspector summarized the scope and findings of the inspection. The licensee acknowledged the statements by the inspector with respect to the open items and the items of noncompliance (Paragraphs 3, 4 and 5).