

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-454/84-53; 50-455/84-36(DRS)

Docket No. 50-454; 50-455

License No. CPPR-131; CPPR-131

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

Facility Name: Byron Station, Units 1 and 2

Inspection At: Byron Station, Byron, Illinois

Inspection Conducted: July 24, 25 and 26, 1984

E. Christnot
Inspectors: R. Mendez *For*

8/9/84
Date

E. Christnot
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8/9/84
Date

D. Butler
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8/9/84
Date

Approved By: *C. C. Williams*
C. C. Williams, Chief
Plant Systems Section

8/9/84
Date

Inspection Summary

Inspection on July 24, 25 and 26, 1984 (Report No. 50-454/84-53(DRS);
No. 50-455/84-36(DRS))

Areas Inspected: Licensee action on previously identified items, bulletins and 50.55(e) items. This inspection involved a total of 72 inspector-hours by three NRC inspectors on-site.

Results: In the areas inspected, no items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

Commonwealth Edison Company (CECo)

- *G. Sorenson, PCD Construction Superintendent
- *J. Bergner, QA Supervisor
- *E. Sager, PCD Field Engineer
- *J. Zid, QA Engineer
- *J. W. Rappeport, QA Engineer
- *L. E. Bihlman, QA Engineer
- *J. E. Steinmetz, PCD Engineer
- K. J. Hansing, QA Superintendent
- M. V. DellaBetta, QA Engineer

Hatfield Electric Company (HECo)

S. Bindenagel, Assistant QC Supervisor

The inspectors also contacted and interviewed other licensee and contractor personnel during this reporting period.

*Denotes those attending the exit interview on July 26, 1984.

2. Licensee Action on Previously Identified Items

(Closed) Open Item (454/83-00-22): "Installation of permanent voltmeters for testing P-4 interlocks." This Safety Evaluation Report (SER) item pertaining to the reactor trip breakers required that the P-4 interlocks be fully testable. It was previously determined that the P-4 interlocks which perform various permissive and blocking functions did not meet the testing requirements of IEEE Standards 279-1971 and 338-1981. The inspector reviewed schematic diagrams 6E-1-4030 EF22 and 6E-1-4030 EF36 which show the voltmeters in the reactor trip circuit. The inspector also verified the installation of the voltmeter at the reactor trip breakers. The present installation conforms with the requirements of the IEEE Standards mentioned above.

(Open) Open Item (454/83-54-01): It was previously identified that bolts anchoring battery chargers 1DC03E and 1DC04E were not plum with the surface of the floor. In addition, installation of the bolts had not been checked by QC including verifying a torque value. The installation drawings for the battery chargers, originally showed three half-inch anchor bolts securing the battery chargers to the concrete floor in the vertical position. As a result of this concern about the apparently bant bolts, the electrical contractor issued NCR 913 and Field Change Request (FCR) No. F-43450 for S&L to evaluate the as-installed configuration. S&L's resolution was to accept the bolt configuration as-is, with the deflection angle being nine degrees from vertical. This resolution

appears acceptable. With regard to the second issue which deals with establishment of torque value; the licensee is in the process of changing the applicable drawings to reflect industry practice for torquing bolts.

(Open) Open Item (454/83-60-01): It was previously identified that acceptance criteria and test results required by S&L specifications were missing from the receipt inspection reports. The licensee indicated that these attributes were normally reviewed by S&L and not by licensee personnel. S&L was not available to discuss the apparent discrepancy at the time of the inspection. This item remains open pending further resolution with the licensee and S&L to determine whether the required test reports are available.

(Open) Open Item (454/84-17-01; 455/84-12-01): It was previously identified that instrument cables were not supported on the same structure as the instrument as required by specification. Westinghouse requires that flexible conduit be supported by the same mounting surface at the transmitter base in order to minimize relative motion of the transmitter and connections. The drawing details pertaining to flexible conduit connections have been developed. However, the installation by the contractor of the flexible conduit connections, has not started since drawing details have not been referenced on the contractor's electrical installation drawings. The licensee has indicated that work will be completed by August 10, 1984.

(Closed) Noncompliance (454/84-17-02; 455/84-12-02): Inadequate installation of panels 1DC05E and 1DC06E. Installation of the panels were corrected by welding the panel to the manufacturers base channel at all locations which were missing the half-inch hex head mounting bolts. Engineering Change Notice (ECN) 22,108 was issued to implement corrective action. The inspector verified that the installation appeared to be in accordance with ECN 22,108.

(Open) Open Item (454/84-17-03; 455/84-12-03): Torque values for "s" bolts were not clearly stated for the installation of equipment. This item will remain open pending clarification of Note 93 on Drawing 6E-0-3390B/Rev. H, "Electrical Installation General Notes and Symbols," which states in part, that bolts shall be tightened using a wrench. This description for tightening anchor bolts appears vague and is not defined in the licensee's procedures or specifications. The licensee has indicated that they will change the note to reflect standard industry practice.

(Open) Unresolved Item (454/84-17-04; 455/84-12-04): It was previously identified that annunciator panels 1PA31J and 1PA32J were installed with allen bolts. The concern was whether the allen bolts were qualified for use in these cabinets. It was determined that the licensee has requested documentation qualifying the allen bolts from the manufacturer (Beta Products Company). Pending review of the information from the manufacturer, this item remains open.

(Closed) Noncompliance (454/84-23-01): Improper documentation of HP121, Inspection Checklists by HECO personnel. The inspector verified that the reports were re-reviewed by the electrical contractor and the licensee and that the corresponding print revisions was placed on the checklist. Training was held for QC inspectors on the revised HECO procedure #12, "Installation of Class 1E Equipment." The training consisted of informing the QC inspectors to document the print number and revision when verifying equipment installation.

(Open) Unresolved Item (454/84-23-02): It was previously identified that 1/4 inch concrete expansion anchors (CEA's) were used to anchor safety related instrument racks in lieu of having the racks welded. A prototype test which seismically qualified the instrument racks was performed with the rack welded. It appears that S&L used the load carrying capability of the 1/4 inch CEA's in the design of the instrument rack installation without consideration for the seismic qualifications. This item remains unresolved pending verification to determine whether the present as-built installation is consistent with the seismic analysis.

(Closed) Open Item (454/84-37-01): It was previously identified that cable tray nodes 11350K and 11521M apparently did not contain the same number of cables as designated by the S&L cable tab report. The licensee reviewed the above apparent discrepancy and issued a surveillance report. In tray section 11350K the licensee determined that an abandoned space was tagged wrong and consequently, did not appear in the cable tab report. This would account for the extra cable found in tray node 11350K. In tray section 11521M, the inspector observed this node point as having twenty-two cables, the cable tabs designated this point as having seventeen cables. The licensee stated that the additional five cables appear in tray section 11521L instead of 11521M (11521L is the section above 11521M). The licensee explained that the five cables cannot be shown as belonging to both tray sections 11521L and 11521M. This resolution appears acceptable.

3. Licensee Action on 10 CFR 50.55(e) Items:

(Open) 50.55(e) (454/82-11-EE): "Barton Instrument Accuracy" Barton Instruments informed the licensee that all Model 763 (pressure) and 764 (differential pressure) electronic transmitters may exhibit thermal non-repeatability and drift outside of Barton's specifications. Westinghouse first proposed a solution which consisted of the addition of an insulating washer between the potentiometer housing and the transmitter base to the transmitters which were affected by temperature compensation. On March 20, 1984, Westinghouse issued a letter to the licensee regarding the Model 763 pressure transmitter. Westinghouse stated in the letter that they had established that the excessive negative drift is not a safety concern. Westinghouse's justification was that drift in the negative direction is conservative. On June 29, 1984, Westinghouse issued an additional letter to the licensee stating that Barton transmitters (pressure/differential pressure) do not require any replacement or modification to ensure that they would perform their intended safety function. The licensee has not concurred on the Westinghouse proposed solution. This item remains open pending resolution by the licensee.

(Open) 50.55(e) (454/83-09-EE): "Contact bounce in mercury relays on NTC cards in the solid state Protection System." Westinghouse issued Field Change Notice (FCN) CAEM-10756 to implement a temporary solution to the problem of contact bounce in Temperature Channel Test (NTC) logic cards. The proposed temporary solution was to bypass the input test relay in all Westinghouse 7300 series NTC cards. This FCN was closed out on January 18, 1974 but did not specify a permanent solution. This item remains open pending final resolution by Westinghouse and the licensee.

(Open) 50.55(e) (454/84-09-ee; 455/84-09-EE) Butt Splice Inspection. The inspectors reviewed CECO Byron Audit 6-84-308, and related HECO data sheets. No discrepancies were identified in the audit; however, the inspectors noted that several of the HECO data sheets had not been reviewed by the Level II QC Inspector. This item is to remain open pending the final data sheet review and S&L's review of the safety significance of the rejected butt splices.

4. Licensee Action on Bulletins

(Closed) IE Bulletin (454/77-03-BB): "On-Line Testing of the Westinghouse Solid State Protection System." This Bulletin was issued as a result of Westinghouse reporting that the safeguards activation circuitry was not being verified during logic testing of the Solid State Protection System. The licensee issued Action Item Request (AIR) 6-83-075 which required that surveillance procedures be written to test the Solid State Protection System in accordance with Westinghouse Bulletin NSD-TB-77-11. Byron Operating Surveillances (BOS) 3.1.1-20 (for train A) and BOS 3.1.1-21 (for train B) were reviewed to determine conformance with Westinghouse Bulletin NSD-TB-77-11. These BOS procedures contain provisions to verify proper operation of the protection system.

(Open) IE Bulletin (454/80-06-BB): "ESF Reset Controls" It was identified that certain equipment would return to its normal mode following the reset of an ESF signal. The licensee developed lists of equipment and conducted tests to demonstrate that all equipment remain in its emergency mode upon removal of the actuating signal or resetting of the various actuation signals. The results of the tests are documented on Byron letter dated May 21, 1984, file number 2.1.202 (80-06) and documents the status of Byron Station Unit 1 compliance with required testing of ESF Controls. This letter documents the retests which tested the ESF components and found them to be in compliance with Bulletin 80-06. However, the test results do not include testing of the Auxiliary Building Ventilation System. In addition, to the foregoing this Bulletin will remain open, pending verification of the pre-operational tests.

5. Exit Meeting

The inspectors met with licensee representatives (denoted under Persons Contacted) on July 26, 1984. The inspectors summarized the scope of the inspection. The licensee representatives acknowledge the findings reported in previous paragraphs.