

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-454/84-72(DRS); 50-455/84-50(DRS)

Docket Nos. 50-454; 50-455

Licenses No. CPPR-130; CPPR-131

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

Facility Name: Byron Station, Units 1 and 2

Inspection At: Byron Site, Byron, IL

Inspection Conducted: October 3-4, 1984

Inspector: *R. Mendez*  
R. Mendez

10/19/84  
Date

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

10-19-84  
Date

Inspection Summary

Inspection on October 3-4, 1984 (Reports No. 50-454/84-72(DRS);  
50-454/84-50(DRS))

Areas Inspected: Licensee action on previously identified items. The  
inspection involved a total of 14 inspector-hours by one NRC inspector.

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

## DETAILS

### 1. Persons Contacted

#### Commonwealth Edison Company (CECo)

- \*G. Sorensen, Construction Superintendent
- \*K. J. Hansing, Quality Assurance Superintendent
- \*R. B. Klingler, Project QC Supervisor
- \*J. O. Binder, Project Electrical Supervisor
- \*J. W. Rappeport, QA Engineer
- \*J. W. Zid, QA Engineer
- \*D. L. Vandergrift, Staff
  - R. Tuetken, Start-up Coordinator
  - J. Bergner, QA Supervisor
  - F. Mazzini, QA Engineer

The inspector also contacted and interviewed other licensee and contractor personnel, including craft persons, technical and engineering staff members.

\*Denotes those persons present at the exit meeting on October 4, 1984.

### 2. Licensee Action on Previous Inspection Findings

(Closed) Open Item (454/83-54-01): It was previously identified that hold down bolts anchoring battery chargers IDC03E and IDC04E were installed without quantitative (such as torque values) or qualitative acceptance criteria. The licensee issued Engineering Change Notice (ECN) 22,128 to develop acceptance criteria when torque valves were either not specified in Sargent and Lundy Specification F/L-2790 or the Electrical Installation drawings or the equipment manufacturer's drawings. On September 24, 1984, Sargent and Lundy issued a letter to the licensees, documenting the results of an analysis which states that the "tightened with a wrench" method in bolted connections is adequate for postulated seismic events. Sargent and Lundy concluded that the electrical equipment will remain in contact with its foundation during and after seismic disturbances. This matter is considered closed.

(Closed) Open Item (454/83-60-01): It was previously identified that acceptance criteria and test results required by Sargent and Lundy specifications were missing from the receipt inspection reports. The inspector observed that dimensional data pertaining to insulation and jacket thickness, cable insulation thickness requirements, and high voltage DC tests were not documented. With respect to the missing dimensional data for minimum cable thickness, the licensee's standard EM-29105 states in part, "one sample shall be selected from each order of total quantities between 2000 and 50,000 feet of cable and one sample from each additional 50,000 for test purposes. The shipment on the receipt inspection report MRR No. 50191 indicates that on April 28, 1981, about 4,000 feet of 12/c No. 14 cable was received totaling 46,548 feet of cable against the original purchase order. It appears

that since the total amount of cable received on April 28, 1981, totaled less than 50,000 feet no additional tests were required. With respect to the missing high voltage DC test, the licensee issued Engineering Change Notice (ECN) 22,807 to revise the applicable Specification (F/L-2823) and to clarify the production tests required for cables. Previously, Specification F/L-2823 required that both high voltage AC tests and high voltage DC tests be performed on the cables. As a result of ECN 22,807, Specification F/L-2823 now requires that either a high voltage AC or a high voltage DC test be performed after vulcanizing of the cable. This matter is considered closed.

(Closed) Unresolved Item (454/83-63-43; 455/83-42-20): It was previously identified that associated cable routing was not in compliance with IEEE 384. During a previous inspection, associated cable identified as IRC507 having segregation code K1B was observed to have originated in panel 1PA03J which contained a cable with a C3R designation (reactor protection system channel 3). Cable 1C507 was terminated at the other end in panel 1PA08J which contained cables designated as C4R (reactor protection system channel 4). Although, the licensee had evaluated the effects of less separation distance as documented in Interface Report (IR) IRC507-1 between a safety and a non-safety cable, the question of common mode failure between two redundant and reactor protection system channels was not addressed. On October 12, 1984, the AE, Sargent and Lundy, provided a memo addressed to Mr. Regan of Sargent and Lundy, dated March 12, 1984, which states that panel 1PA08J contained one safety-related cable. Furthermore, the memo states that the cable is now an abandoned spare and is not terminated at either end. Non Class-1E cable IRC507 is now routed only with reactor protection system channel 4 cables in panel 1PA03J. The original analyses to disposition the effects of less separation distance as designated in IEEE 384 appears adequate. Licensee personnel observed that cable IRC507 was properly color coded and identified as an associated circuit. This matter is considered closed.

(Closed) Unresolved Item (454/84-29-01; 455/84-21-01): During a previous inspection it was identified that the licensee had not submitted an evaluation of the safety significance of rejected electrical conductor butt splices listed as part of a 50.55e Item. The licensee reported the results of the evaluation in a letter dated August 28, 1984. The results have been reviewed and no deficiencies were noted. This item is considered closed.

(Closed) Unresolved Item (454/84-37-02): It was previously identified that Hatfield Nonconformance Report (NRC) 122 was dispositioned use "as-is," although thirteen ½ inch Concrete Expansion Anchors (CEA's) were determined not to meet the minimum embedment depth. Sargent and Lundy states that CEA's which did not meet the minimum embedment depth were treated as having strength of the next smaller size CEA. Sargent and Lundy indicated that the load calculation would have been performed based on a 3/8 inch CEA. However, the embedment depth of some of the CEA's was below that of a 3/8 inch CEA. During this inspection the

inspector reviewed load calculations Report No. 6724. It appears that adequate design basis was used for accepting the CEA's below the minimum embedment depth.

(Closed) Unresolved Item (454/84-37-03): It was previously identified that the licensee had not established as-built drawings of instrument racks based on the as-built installation, although location of the racks were designated on Sargent and Lundy Drawing M-828. The licensee has committed to perform inspections to verify the as-built installations of the instrument racks. This matter is considered closed.

No items of noncompliance or deviations were identified in these areas.

3. Exit Meeting

The inspector met with licensee representatives (denoted under Persons Contacted) on October 4, 1984. The inspectors summarized the scope of the inspection. The licensee representatives acknowledged the findings reported in previous paragraphs.