

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report Nos. 50-454/85029(DRS); 50-455/85023(DRS)

Docket No. 50-454; 50-455

License Nos. NPF-33; CPPR-131

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

Facility Name: Byron Station, Units 1 and 2

Inspection At: Byron Site, Byron, Illinois

Inspection Conducted: June 19 and 20, 1985

Inspector: A. S. Gautam

C. C. Williams for.

7/1/85
Date

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

C. C. Williams

7/1/85
Date

Inspection Summary

Inspection on June 19 and 20, 1985 (Report No. 50-454/85029(DRS);
50-455/85023(DRS))

Areas Inspected: Routine, announced safety inspection by a regional inspector of licensee actions on 50.55(e) reports, IE Bulletins, and Unit 2 work activities associated with installation of instruments and associated fittings. The inspection involved a total of 13 inspector-hours onsite and 3 inspector-hours offsite by one NRC inspector.

Results: No violations or deviations were identified.

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DETAILS

1. Persons Contacted

a. Commonwealth Edison Company (CECo)

*M. E. Lohmann, Assistant Construction Superintendent
*J. Bender, Project Electrical Supervisor
R. B. Klingler, Project QC Supervisor
*J. L. Woldridge, QA Supervisor
*R. J. Moravec, Project Mechanical Supervisor
*P. Wicyk, Construction Field Engineer
*E. Briette, QA Engineer
C. E. Sprandel, QA Engineer

b. Powers-Azco-Pope (PAP)

M. C. Donohue, Engineering Manager
D. M. Nelson, QC Supervisor
K. Kohnke, Instrument Engineer

c. Sargent & Lundy (S&L)

T. R. Eisenhart, Electrical Project Engineer
D. P. Galanis, Electrical Project Engineer

*Denotes those present at the exit meeting on June 20, 1985.

2. Action on 50.55(e) Reports

- a. (Closed) 50.55(e) Report (454/85001-EE; 455/85001-EE): This item identified a licensee notification to the NRC regarding deficiencies in 10 amp 480V Westinghouse (W) breakers installed onsite in W 480V Motor Control Centers (MCCs), in accordance with Specification F/L 2755. The 10 amp breakers had an interrupting capacity of 4,000 to 5,000 amps, which was determined by the licensee to be inadequate to protect the electrical or pressure boundary of electrical penetrations in these circuits, even though an additional 10 amp 'back up' breaker existed in these circuits. The licensee also determined that tripping of the back up breakers could result in deenergizing the entire MCC and consequent loss of power to its essential loads.

The licensee issued NCR F-969 dated January 10, 1985, requiring replacement of 10 amp breakers with 15 amp breakers having an interrupting fault current capability of 14,000 amps. The licensee reported that the status of replacement of the 10 amp breakers was 99% complete.

The inspector verified Hatfield QC inspections for the replaced breakers, and reviewed QC inspection records on form HP-7A-1, record #3922 dated October 12, 1984, for 10 amp breakers in MCC

#233X3, compartment F3B. The breaker was also physically verified in the field by the inspector and found to be type HFB 3015, style 4976D04G34 having an interrupting rating of 25,000 amps.

During this review the inspector was concerned that replacement of 10 amp breakers with 15 amp breakers could compromise the overcurrent protection of loads in these circuits. The inspector reviewed this concern with the licensee and S&L, who reported that the 15 amp breakers were in accordance with project calculations and that the applicable circuits were originally rated for 15 amp breakers. The inspector determined that since these circuits are fed through penetrations, thermal magnetic breakers have been provided and since the estimated fault current of these MCCs is around 22,000 amps, a 15 amp thermal magnetic breaker is the correct protective device.

- b. (Closed) 50.55(e) (455/83-10-EE): This item identified a notification by CECO, dated August 29, 1983, regarding 125V shunt trip coils on battery chargers at Byron, Unit 1, and Braidwood Station being 125V AC instead of 125V DC. The Byron, Unit 1, coils have been replaced. The appropriate Unit 1 item was previously closed. The licensee reported that this deficiency applied only to Byron Unit 1 and was not applicable to Unit 2.

3. Action on IE Bulletins

- a. (Closed) IE Bulletin (454/79-01-BB; 455/79-01-BB; 454/79-01-1B; 455/79-01-1B): These items identified IE Bulletin 79-01 issued February 5, 1979, "Environmental Qualification of Class 1E Equipment," and its Supplement 79-01A issued June 6, 1979. This bulletin required licensees of all power reactor facilities with an operating license to take specific actions identified in the bulletins to qualify electrical equipment required to operate in harsh environments and during accident conditions. At the time of issue of these bulletins, neither Byron 1 or 2 were licensed, and since the issuance of Bulletins 79-01 and 79-01A the requirements have been included in NUREG 0588, Bulletin 79-01B and 10 CFR 50.49.
- b. (Closed) IE Bulletin (454/79-01-4B; 455/79-01-4B; 454/79-01-5B; 455/79-01-5B): These items identified supplements 2 and 3 issued September and October 24, 1980, to IE Bulletin 79-01B, "Environmental Qualification of Class 1E Equipment," issued January 14, 1980. Bulletin 79-01B required licensees of all power reactor facilities with an operating license to provide a 'master list' of all Class 1E electrical equipment required to function under accident conditions, and to provide documentation qualifying this equipment to accident environments. Supplements 2 and 3 to 79-01B had enclosed questions and answers which had resulted from NRC/licensee meetings regarding qualification of this equipment. Byron, Units 1 and 2, were not licensed at the time of issue of these bulletins and since the issue of these bulletins, requirements for equipment qualification have been addressed and are being responded to by the licensee under the 10 CFR 50.49 rule. Any outstanding items in regard to the equipment

qualification of both Byron units have been addressed in the July 20, 1983, "Safety Evaluation Report on Environment Qualification of Equipment" for Byron, Units 1 and 2.

4. Observation of Work Activities on Instrumentation and Control and Components - Unit 2

This inspection was performed to verify installed instruments and components in the containment for correct instrument model, identification, mounting, maintenance of environmental qualification, tubing connections, electrical connections, associated components and housekeeping.

The inspector examined instruments mounted on the rack/hanger 2FT-0445-H223 as shown on drawings M816-2FT-0445-H223, sheet 1, Revision 2, sheet 2, Revision 2, and sheet 3, Revision 2, located in the Unit 2 Containment Building G, Elevation 377' 0".

The hanger was seismic category 1 and met requirements of above drawings. Instruments included in this inspection were Barton Model 752, 763 and 764 transmitters and they were verified for correct mounting, identification and location per above drawings. Installed tubing, connections and associated valves were in accordance with referenced drawings. Electrical flexible conduit connections to instruments were tight and adequate. No deficiencies were observed.

The instruments have not yet been calibrated due to ongoing construction on Unit 2. The inspector reviewed instrument mounting in regard to environmental considerations, and found instruments mounted above the flood level of 383' 2" as specified in Engineering Change Notice 3684 dated February 15, 1983. However, the inspector observed that the flexible conduit/cable connection to the Barton Model 764, differential pressure transmitter, #2LT-0460, dropped below the flood line level. The inspector asked the licensee to confirm that cables installed below the flood line were qualified for submergence as required by 10 CFR 50.49(e)(6). The licensee reported that all cables subject to submergence would be qualified as such, and that after current construction activities are completed, an EQ walkdown would be performed to further verify compliance to such EQ requirements.

During an inspection of housekeeping, the inspector observed various construction materials, including angle iron bars, stored next to the instrument rack 2FT-0045-H223. The licensee reported that surveillance was in process to assure protection of appropriate equipment and that a surveillance in this area identified by an inspector was not complete. The inspector walked down three other Class 1E instrument racks on Elevation 377' and found no other such housekeeping deficiencies, this occurrence appeared to be an isolated case.

No violations or deviations were identified.

5. Exit Interview

The Region III inspector met with the licensee's representatives (denoted under Paragraph 1) on June 20, 1985, and summarized the purpose and findings of the inspection. The licensee acknowledged the information. The inspector also discussed the likely informational content of the inspection report with regard to documents or processes reviewed by the inspector during the inspection. The licensee did not identify any such documents/processes as proprietary.