

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

REGION III

Report No. 50-254/79-05; 50-265/79-05

Docket No. 50-254; 50-265

License No. DPR-29; DPR-30

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

Facility Name: Quad-Cities Nuclear Power Station, Units 1 and 2

Inspection At: Quad-Cities Site, Cordova, Illinois

Inspection Conducted: February 7, 8, 15, 16, 21, 22, 28 and  
March 1 and 2, 1979

Inspectors: *Al Boyd for*  
N. J. Chrissotimos

3-7-79

*M. D. Riden*  
M. D. Riden

3/7/79

Approved By: *Al Boyd for*  
R. L. Spessard, Chief  
Reactor Projects Section 1

3-7-79

Inspection Summary

Inspection on February 7, 8, 15, 16, 21, 22, 28 and March 1 and 2, 1979  
(Report No. 50-254/79-05; 50-265/79-05).

Areas Inspected: Routine, unannounced off-shift inspection of QA Program, review of plant operations, IE Bulletin and Circular followup; licensee event report followup, cleanliness and housekeeping, licensee action on previously identified items. The inspection involved 64 inspector-hours onsite by two NRC inspectors.

Results: Of the six areas inspected, no apparent items of noncompliance or deviations were identified in five areas; one apparent item of non-compliance in one area (deficiency - inadequate positive control over a high radiation area, Paragraph 4).

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## DETAILS

### 1. Persons Contacted

- \*N. Kalivianakis, Superintendent
- J. Gudac, Assistant Superintendent
- T. Tamlyn, Lead Operating Engineer
- K. Graesser, Administrative Assistant
- \*L. Gerner, Technical Staff Supervisor
- D. Bax, Operating Engineer, Unit 2
- G. Conschack, Operating Engineer, Unit 1
- \*R. Spear, Maintenance Engineer
- \*J. Heilman, Quality Assurance, Operations
- \*R. F. Janecek, Nuclear Licensing Administrator
- \*H. K. Stolt, Station Nuclear Engineering Department
- \*C. Young, Production

The inspector also interviewed several other licensee employees, including shift engineers and foremen, reactor operators, technical staff personnel and quality control personnel.

\*Denotes those present at the exit interview.

### 2. Licensee Action on Previous Inspection Findings

(Closed) Unresolved item (254/78-24-02; 265/78-25-02): The licensee was unable to provide documentary evidence that General Electric power and control cable (Vulkene type XLPE) is qualified for environmental conditions inside the drywell. The inspector reviewed General Electric's "Qualification Test Summary for 100 Series Electric Penetration dated March 23, 1975, and the Franklin Institute Research Laboratories test report F-64879-1 dated April 1978 titled "Gamma Radiation Exposure and LOCA Simulation Test of Electrical Penetration Connector Assemblies Phase II." The aforementioned test report indicates that General Electric Vulkene type XLPE cable was used during the test, and the test vaults were satisfactory.

(Closed) OII 50-254/78-01: Replacement of GE contact arm retainers. The inspector verified the retainers have been replaced for Unit one.

3. Review of Plant Operations

The inspector reviewed the plant operations including examinations of control room log books, routine patrol sheets, shift engineer log books, equipment outage logs, special operating orders, jumper and tagout logs, for the period of February 6, 1978, through February 22, 1979. The inspector noted that log book reviews were being conducted by management and that manning of the control room was in conformance with the requirements of the Technical Specifications. The inspector also made visual observations of shift turnover.

4. Plant Tour

Tours of the plant were made to determine that monitoring instrumentation is recording as required, the existence of fluid leaks and pipe vibrations are minimal, equipment caution or lockout tag information corresponds to that identified in the control room, and selected valve positions are correct. Discussions were conducted with the control room operators relating to the reasons for selected lighted annunciators.

During a tour of the Unit 2 turbine floor on March 1, 1979, the inspector noticed that a high radiation gate, northeast corner of Unit 2 turbine platform, was tack welded about four feet above the floor and adequate positive control over entry into the area was not established. Prior to the conclusion of the inspection the inspector verified that a work request had been initiated to lower the aforementioned gate to floor level, thereby establishing positive control over entry into the area. It is the inspectors concern that this item had potential to result in undue exposure of an individual or group of individuals to radiation. This finding represents noncompliance with the requirements of 10 CFR 20, Paragraph 20.203(c)2.

5. Review of Quality Assurance Program

The inspector conducted a review of the licensee's Quality Assurance Program. A review of offsite audits and surveillance indicate a satisfactory level of implementation. Methods for overall review of program effectiveness and approval of procedures prior to implementation appear adequate.

6. Cleanliness and Housekeeping

The inspector conducted tours of the facility each inspection day and again shortly before the conclusion of the inspection. Throughout this inspection, Unit 1 was in a refuel outage and as can be expected, cleanliness and housekeeping were impaired. However, the licensee's program being implemented for housekeeping following the outage appears to be adequate. Cleanliness and housekeeping procedures that were reviewed appear to be adequate.

No items of noncompliance or deviations were identified.

7. Followup on Items of Noncompliance/Operations

The inspector reviewed the licensee's responses for items of noncompliance identified in IE correspondence to ascertain that they are in compliance with regulatory requirements and that the corrective measures were completed.

During this review the following were considered: proper distribution of replies; responsibility for corrective action was assigned; response was in a timely manner; items of noncompliance and corrective measures taken were reviewed as required; and corrective measures taken to avoid further items of noncompliance were effected within the time period described in the reply.

(Closed) deviation 50-254/265-78-02: Input power for one set of radiation monitors is derived from the essential service system. The inspector verified that the power sources for the steam line radiation monitors had been changed.

(Closed) deviation 50-254/265-78-21, 78-22: Control procedures for housekeeping. The inspector verified that the identified arons have been cleaned and adherence to cleanliness procedures is being implemented.

8. Site Review of Licensee Event Reports

Licensee event reports were reviewed to verify that details were accurately reported; that the cause has identified; that the event was reviewed and evaluated in accordance with Technical Specifications; and the corrective action was taken as described in the report. The following LER's were reviewed:

Unit 1

Ro 78-33 dated December 19, 1978, Inlet Isolation Dampers Failed to Close. The inspector verified that no leakage of the reactor building atmosphere to the environs occurred and the defective solenoid pilot valves were replaced.

Unit 2

Ro 79-01 dated January 4, 1979, Inlet Air Heater on "A" SB6T system not operating. Th inspector verified, following calibration of the effected flow switch; that "A" SB6T was retested satisfactorily.

9. Office Review of Event Reports

The inspector reviewed licensee's event reports to ascertain whether corrective actions discussed in the reports appear appropriate and whether information reported to the NRC satisfies reporting requirements. The following event reports were reviewed and are considered closed:

Unit 1

Ro 78-32 dated December 18, 1978, surveillance frequency for HPCI switches not in accordance with Technical Specifications.

Ro 79-01 dated January 7, 1979, RCIC Steam Line High Flow Differential Pressure Switch inoperable.

Unit 2

Ro 78-39 dated December 18, 1978, Surveillance Frequency for testing HPCI switches not in accordance with Technical Specifications.

Ro 78-40 dated December 21, 1978, Main steam line low pressure switch tripped, not in accordance with Technical Specifications.

10. Inspection and Enforcement Bulletin/Circular Followup

The inspector reviewed action taken by the licensee with regard to Bulletins and Circulars to verify that responses to IE Bulletins represent the action taken by the licensee and that IE Circulars sent to the licensee were received and reviewed.

(Closed) IE Bulletin No. 78-08: Radiation levels from fuel element transfer tubes. The transfer tubes described in the Bulletin do not exist at Quad-Cities. However, transient radiation fields have been identified during refueling and are controlled during fuel transfer.

(Closed) IE Bulletin No. 78-14: Deterioration of Buna-N Components in ASCo Solenoids. The Buna-N components in question have been identified. A program for replacement of components has been developed.

11. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection on March 2, 1979. The inspector summarized the scope and findings of the inspection.

The licensee acknowledged the statements by the inspector with respect to the item of noncompliance (Paragraph 4).