

U.S. NUCLEAR REGULATORY COMMISSION  
REGION III

Reports No. 50-254/92014 (DRP); 50-265/92014 (DRP)

Docket Nos. 50-254; 50-265

License Nos. DPR-29; DPR-30

Licensee: Commonwealth Edison Company  
Opus West III  
1400 Opus Place  
Downers Grove, IL 60515

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

Inspection At: Quad Cities Site, Cordova, Illinois

Inspection Conducted: May 5, 1992, through June 1, 1992

Inspectors: T. E. Taylor  
J. M. Shine  
P. F. Prescott  
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Approved By:

*R. C. Knop*  
R. C. Knop, Chief  
Reactor Projects Section 1B

*6/11/92*  
Date

Inspection Summary

Inspection from May 5, 1992, through June 1, 1992 (Report Nos. 50-254/92014(DRP); 50-265/92014(DRP))

Areas Inspected: Routine, unannounced safety inspection by the resident and regional inspectors of concern followup; operational safety verification; engineered safety feature systems; monthly maintenance observation; monthly surveillance observation; training effectiveness; report review; temporary instruction followup; and meetings and other activities.

Results: Of the areas inspected, no violations were identified. One unresolved item was identified in paragraph 3. One SIMS item, TI2515/112 was closed in paragraph 9.

Plant Operations

- 1) One concern relating to the use of off-normal instrumentation stickers (ONIs) was reviewed and closed. The concerns were not substantiated.
- 2) Operations activities were steady with general good performance.

## DETAILS

### 1. Persons Contacted

#### Commonwealth Edison Company (CECo)

- R. L. Bax, Station Manager
- \*G. C. Tietz, Technical Superintendent
- \*G. F. Spedl, Production Superintendent
- \*B. Strub, Assistant Superintendent - Operations
- \*R. Stols, Superintendent of Programs
- D. Gibson, Master Mechanic
- J. Sirovy, Services Director
- T. Tamlyn, Engineering and Nuclear Construction Site Manager
- \*D. Craddick, Assistant Superintendent - Maintenance
- B. Tubbs, Operating Engineer - Unit 1
- J. Kopacz, Operating Engineer - Unit 2
- J. Wethington, Assistant Tech Staff Supervisor
- D. Bucknell, Assistant Technical Staff Supervisor
- A. Misak, Regulatory Assurance Supervisor
- R. Walsh, Technical Staff Supervisor
- \*C. Smith, Nuclear Quality Program Supervisor
- K. Leech, Security Administrator
- B. McGaffigan, Assistant Superintendent - Work Planning
- J. Hoeller, Training Supervisor
- \*D. Kanakares, Regulatory Assurance

\*Denotes those attending the exit interview conducted on June 1, 1992, and at other times throughout the inspection period.

The inspectors also talked with and interviewed several other licensee employees, including members of the technical and engineering staffs; reactor and equipment operators; shift engineers and foremen; electrical, mechanical, and instrument maintenance personnel; and contract security personnel.

### 2. Concern Followup

#### AMS No. RIII-92-A-0011

A concern was raised at Quad Cities Station that electrical contractors did not follow procedures. Based on Field Monitoring Reports performed by the station, resident inspectors routine surveillances, and review of specific work requests, the concern of not following procedures could not be validated.

A concern was also raised that workers had crossed a radiologically controlled area (RCA) barrier and removed items. It was also noted that this once occurred in the presence of an NRC inspector and the inspector took no action. The location where this situation occurred was at the exit point from the RCA in the area of the whole body friskers. There

is a table provided where frisked items may be placed by workers prior to entering the whole body friskers. Once the worker has frisked through the whole body frisker, the worker may reach across the barrier, and remove their item. The worker then exits the RCA by passing through the portal monitor carrying the item. This is an acceptable practice. The station will post a sign in the area to remove any question about the practice.

A concern was also raised that a contract electrician was told to work on energized equipment. The contract electrician performing the work stated this was not a valid concern. Before starting the work he noted the circuit breaker he was to work on, had not been installed in the motor control center. He informed his supervisor and the problem was elevated to contract quality control (QC) personnel. QC incorrectly directed the circuit be reworked without proper authorization. The station subsequently identified the unauthorized work but determined it was an isolated problem and has taken appropriate corrective actions. The inspectors have no further concern regarding the unauthorized work.

A concern was raised that electrical contractor workers were performing jobs (crimping, taping, and retermination work) without the station providing the proper training. The station provided Nuclear General Employee Training followed by a 40 hour training class on valve work. The work in question was non safety related valve work and the training classes in question were not required for this work. However, the station provided direct supervision of the activities.

A concern was raised over staffing shortages in a contractor quality control group and the way this group allowed rework without documentation. Prior to this concern being raised, a Nuclear Quality Programs (NQP) inspector noted that first time contractor work was passing initial inspection at an exceptionally high rate. This was based on review of the deviation reports and daily deviation logs. The station recognized a potential problem and conducted interviews with 26 individuals from the group. NQP identified that contract quality control personnel were allowing certain rework without documenting the deviations. The problem was addressed on a management level and the personnel were given additional training. Field monitoring was used to determine that the corrective actions were adequate and the NQP inspector noted a substantial increase in deviation reports following the retraining.

These concerns are considered closed.

AMS No. RIII-92-A-0050

A concern was raised that an individual was ordered to remove an off-normal instrument (ONI) sticker on a control room front panel instrument, even though work was not done on the instrument.

The inspector verified that a work request had been previously generated and work was performed subsequent to the ONI removal. The "Off-Normal

Instrument and Equipment" (QAP 300-34, Rev. 1) procedure that was in effect allowed a 10% instrument error. The instrumentation in question was below the 10% error at the time the ONI sticker was removed. Control room operators were interviewed as to the safety significance of the instrument error. Conclusions were that in an accident scenario, it would be a hindrance, but would not contribute to worsening conditions due to other available instrumentation.

A concern was raised whether control room operators were discouraged from placing ONI stickers on off-normal instrumentation with an error greater than the 10% allowed by procedure.

None of the operators interviewed could recall an instance where they were told not to place an ONI sticker on an instrument greater than 10% off-normal. Review of the procedure and interviews with operators found no problems with the implementing or adequacy of the procedure governing the use of ONI stickers.

These concerns are considered closed.

### 3. Operational Safety Verification (71707)

During the inspection period, the inspectors verified that the facility was being operated in conformance with the licenses and regulatory requirements and that the licensee's management control system was effectively carrying out its responsibilities for safe operation. This was done on a sampling basis through routine direct observation of activities and equipment, interviews and discussions with licensee personnel, independent verification of safety system status, and review of facility records.

On a sampling basis the inspectors daily verified the following: adequate control room staffing and coordination of plant activities with ongoing control room operations; operator adherence with approved procedures; operation as required by Technical Specifications (TS); adequate monitoring of control room instrumentation for abnormalities; that onsite and offsite power was available; plant and control room visits were made by station managers; and safety parameter display system (SPDS) operation.

During tours of accessible areas of the plant, the inspectors made note of general plant and equipment conditions, including control of activities in progress (maintenance/surveillance), observation of shift turnovers, general safety items, etc. The specific areas evaluated were:

#### a. Control Room HVAC

The resident inspectors identified a potential safety concern related to elevated control room temperatures and how it impacts habitability and equipment operability. Presently, the control room heating ventilation and air conditioning (HVAC) system air

handling units (AHU) are not covered in the Technical Specifications (TS). Equipment affected by adverse temperatures includes the essential safety system inverter (104 degrees F), the prime computer (104 degrees F), and the digital equipment controllers (122 degrees F). The station black out analysis shows temperatures reaching 120 degrees F in 15 minutes and 145 degrees F in 4 hours.

As part of the licensee's submittal to the NRC for NUREG 0737 control room habitability study, operation of the AHUs with the control room emergency filtration system (CREF) was addressed. The "A" train AHU was intended to be the normal running train with the "B" train as a backup. Both trains were designed to work with the CREF unit. Currently, the AHUs are not included in the TS. Also, the "A" train AHU has never been used in conjunction with the CREF. The AHUs provided cooling for the control room and other areas needed for emergency plant operation.

In response to the resident's concerns, the licensee has issued a TS interpretation for entering the CREF TS limiting condition for operation upon inoperability of the "B" train AHU compressor, and is writing procedures to test and operate the "A" train AHU with the CREF.

The licensee is also evaluating a possible TS amendment for inclusion of the AHUs. The evaluation should be completed near the end of June 1992. This item is considered unresolved pending further review. (254/92014-01(DRP))

b. Engineered Safety Features (ESF) Systems

Accessible portions of ESF systems and components were inspected to verify: valve position for proper flow path; proper alignment of power supply breakers for proper actuation on an initiating signal; proper power supply to components required by TS or the FSAR; and the operability of support systems essential to system actuation or performance through observation of instrumentation and/or proper valve alignment. The inspectors also visually inspected components for leakage, proper lubrication, cooling water supply, etc.

c. Radiation Protection Controls

The inspectors verified that workers were adhering to health physics procedures for dosimetry, protective clothing, frisking, posting, etc., and randomly examined radiation protection instrumentation for use, operability, and calibration.

d. Security

The inspectors, by sampling, verified that persons in the protected area (PA) displayed proper badges and had escorts if

required; vital areas were kept locked and alarmed, or guards posted if required; and personnel and packages entering the PA received proper search and/or monitoring.

e. Housekeeping and Plant Cleanliness

The inspectors monitored the status of housekeeping and plant cleanliness for fire protection and protection of safety related equipment from intrusion of foreign matter.

The inspectors also monitored various records, such as tagouts, jumpers, shift logs and surveillances, daily orders, maintenance items, various chemistry and radiological sampling and analyses, third party review results, overtime records, quality assurance and/or quality control audit results, and postings required per 10 CFR 19.11.

No violations or deviations were identified.

4. Engineered Safety Feature (ESF) Systems (71710)

During the inspection, the inspectors selected accessible portions of an ESF system to verify status. Consideration was given to the plant mode, applicable Technical Specifications, limiting conditions for operation action requirements (LCOARs), and other applicable requirements.

Various observations, where applicable, were made of hangers and supports; housekeeping; valve positions and conditions; major component labeling, lubrication, etc.; conditions of electrical breakers and instrumentation; instrumentation calibration; and support systems availability.

During the inspection, the following ESF systems were walked down:

Unit 0  
Control Room HVAC System

Unit 1 and Unit 2  
125 vdc Division Batteries

No violations or deviations were identified.

5. Monthly Maintenance Observation (62703)

Station maintenance activities were observed and/or reviewed to ascertain that they were conducted in accordance with approved procedures, regulatory guides and industry codes or standards, and in conformance with Technical Specifications.

The following items were considered during this review: the limiting conditions for operation were met while components or systems were removed from and restored to service; approvals were obtained prior to

initiating the work; functional testing and/or calibrations were performed prior to returning components or systems to service; activities were accomplished by qualified personnel; and proper radiological and fire prevention controls were implemented.

The following maintenance activity was observed and reviewed:

Unit 1

1B Main Steam Line Radiation Monitor Downscale Alarm  
Troubleshooting

The inspectors monitored the licensee's work in progress and verified that it was being performed in accordance with proper procedures and approved work packages.

No violations or deviations were identified.

6. Monthly Surveillance Observation (61726)

The inspectors observed surveillance testing required by Technical Specifications during the inspection period and verified that testing was performed in accordance with adequate procedures, that test instrumentation was calibrated; that results conformed with Technical Specifications and procedure requirements and were reviewed by personnel other than the individual directing the test; and that deficiencies identified during the testing were properly resolved by the appropriate personnel.

The inspectors also witnessed portions of the following test activities:

Unit 1

QIS-5 Reactor High Pressure Calibration

Unit 2

QOS 203-3, Rev. 1 Monthly Safety and Relief Valve Acoustic  
Monitor Surveillance

No violations or deviations were identified.

7. Training Effectiveness (41400, 41701)

The effectiveness of training programs for licensed and non-licensed personnel was evaluated by the inspectors, by witnessing performance of surveillance, maintenance, and operational activities. Personnel appeared to be knowledgeable of tasks being performed. In general, activities performed indicated an effective training program.

No violations or deviations were identified.

8. Report Review

During the inspection period, the inspector reviewed the licensee's Monthly Performance Report for April 1992. The inspector confirmed that the information provided met the requirements of Technical Specification 6.9.1.8 and Regulatory Guide 4.16.

The inspector also reviewed the licensee's station Monthly Performance Update Report for April 1992.

No violations or deviations were identified.

9. Temporary Instruction 2515/112

Temporary Instructions (TI) 2515/112 instructs the inspector to evaluate the method licensees use to identify changes to the environs around reactor facilities and whether identified changes are incorporated into the Updated Final Safety Analysis Report (UFSAR).

Station personnel stated that no program was in place to identify these changes for the sole purpose of periodically updating the UFSAR. One person was assigned to update the UFSAR with information provided by other station personnel. A periodic review following the national 10 year census is made to update the emergency preparedness program but no procedure required that data be reviewed to identify population changes applicable to the UFSAR.

The facility was in the final process of issuing a rebaselined UFSAR. The rebaseline reviewed Safety Evaluation Reports, 50.59 reports, modification packages, and responses to generic letters for incorporation into the UFSAR and generated a data base for tracking the information contained within the UFSAR. During the rebaseline process environs were reviewed and updated. However the environs review was not always based on the most current information. As an example, river barge traffic was based on a U.S. Army Corps of Engineers report from 1978 even though a 1988 report had been issued.

There were no significant changes that the inspectors were aware of that have not been identified by the licensee. This TI is considered closed.

10. Exit Interview

The inspectors met with the licensee representatives denoted in Paragraph 1 during the inspection period and at the conclusion of the inspection on June 1, 1992. The inspectors summarized the scope and results of the inspection and discussed the likely content of this inspection report. The licensee acknowledged the information and did not indicate that any of the information disclosed during the inspection could be considered proprietary in nature.