

August 25, 1999

Mr. Oliver D. Kingsley  
President, Nuclear Generation Group  
Commonwealth Edison Company  
ATTN: Regulatory Services  
Executive Towers West III  
1400 Opus Place, Suite 500  
Downers Grove, IL 60515

SUBJECT: NRC INSPECTION REPORT 50-254/99015(DRS); 50-265/99015(DRS)

Dear Mr. Kingsley:

On August 20, 1999, the NRC completed the pilot baseline maintenance rule implementation inspection at your Quad Cities Nuclear Station. The results of this inspection were discussed on August 20, 1999, with Mr. J. Dimmette, Jr., and other members of your staff. The enclosed report presents the results of this inspection.

The purpose of this pilot program inspection was to evaluate the effectiveness of the maintenance rule program and to review the periodic evaluation specifically required for 10 CFR 50.65 (the maintenance rule). The inspection consisted of a review of documents related to maintenance rule implementation as well as interviews with responsible personnel. No issues were identified.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

Original /s/ R. N. Gardner

Ronald N. Gardner, Chief  
Electrical Engineering Branch  
Division of Reactor Safety

Docket Nos. 50-254; 50-265  
License Nos. DPR-29; DPR-30

Enclosure: Inspection Report 50-254/99015(DRS);  
50-265/99015(DRS)

See Attached Distribution

cc w/encl: D. Helwig, Senior Vice President, Nuclear Services  
C. Crane, Senior Vice President, Nuclear Operations  
H. Stanley, Vice President, Nuclear Operations  
R. Krich, Vice President, Regulatory Services  
DCD - Licensing  
J. Dimmette, Jr., Site Vice President  
G. Barnes, Quad Cities Station Manager  
C. Peterson, Regulatory Affairs Manager  
M. Aguilar, Assistant Attorney General  
State Liaison Officer, State of Illinois  
State Liaison Officer, State of Iowa  
Chairman, Illinois Commerce Commission  
W. Leech, Manager of Nuclear  
MidAmerican Energy Company

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 50-254; 50-265  
License Nos: DPR-29; DPR-30

Report Nos: 50-254/99015(DRS); 50-265/99015(DRS)

Licensee: Commonwealth Edison Company

Facility: Quad Cities Nuclear Power Station  
Units 1 and 2

Location: 22710 206th Avenue North  
Cordova, IL 61242

Dates: August 16 - 20, 1999

Inspector: M. J. Farber, Reactor Engineer  
R. A. Langstaff, Reactor Engineer

Approved by: Ronald N. Gardner, Chief,  
Electrical Engineering Branch  
Division of Reactor Safety

## **SUMMARY OF FINDINGS**

Quad Cities Nuclear Power Station, Units 1 & 2  
NRC Inspection Report 50-254/99015(DRS); 50-265/99014(DRS)

This report covers the pilot baseline inspection of maintenance rule implementation. The inspection period was August 16 -20, 1999 and was conducted by two regional inspectors.

### **Cornerstone: Initiating Events**

No findings were identified in this cornerstone.

### **Cornerstone: Mitigating Systems**

No findings were identified in this cornerstone.

### **Cornerstone: Barrier Integrity**

No findings were identified in this cornerstone.

## Report Details

### Summary of Plant Status

Both units operated at full power during the week of the inspection.

#### 1. **REACTOR SAFETY**

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

#### 1R12 Maintenance Rule Implementation (71111-12)

##### .1 Maintenance Effectiveness

###### a. Inspection Scope

The inspectors reviewed the maintenance rule functional failure determinations, performance criteria, and risk significance classification for three systems: the station blackout diesel generator, safe shutdown makeup pump, and feedwater level control systems. Additionally, the inspectors reviewed the maintenance rule (a)(1) goals and action plans for the feedwater level control system.

###### b. Observations and Findings

There were no findings identified and documented during this inspection.

##### .2 Periodic Evaluation Review

###### a. Inspection Scope

The inspectors reviewed the licensee's periodic evaluation of maintenance rule effectiveness. This periodic evaluation was prepared as required by 10 CFR 50.65(a)(3). The licensee's conclusions with regard to reliability and availability balancing, (a)(1), and (a)(2) evaluations were examined by reviewing maintenance rule implementation for the station blackout diesel generator, safe shutdown makeup pump, and the feedwater level control systems.

###### b. Observations and Findings

There were no findings identified and documented during this inspection.

#### 40A5 Management Meetings

##### .1 Exit Meeting Summary

The inspector presented the inspection results to Mr. J. Dimmette, Jr., and other members of licensee management in an exit meeting on August 20, 1999. The licensee acknowledged the information presented. No proprietary information was identified.



## PARTIAL LIST OF PERSONS CONTACTED

### Licensee

E. Anderson, Radiation Protection  
W. Beck, Regulatory Assurance  
R. Chrzanowski, Nuclear Oversight  
D. Craddick, Station Engineering  
S. Darin, System Engineering  
J. Dimmette Jr., Site Vice President  
R. Freeman, Maintenance  
A. Fuhs, Regulatory Assurance  
R. Ganser, Illinois Dept. Nuclear Safety  
R. Gideon, Work Control  
E. Jebesen, Station Engineering  
R. Kelley, Dresden Regulatory Assurance  
S. Laughlin, Station Engineering  
A. Lewis, Station Engineering  
M. McDonald, Operations  
D. Peters, Nuclear Oversight  
C. Peterson, Regulatory Assurance  
J. Purkis, Station Engineering  
M. Strait, Corporate Maintenance Rule Coordinator  
D. Tubbs, Mid-American Energy  
D. Wozniak, Engineering Manager

### NRC

L. Collins, Resident Inspector  
R. Gardner, Branch Chief  
C. Miller, Senior Resident Inspector  
R. Walton, Resident Inspector

## LIST OF DOCUMENTS REVIEWED

### Problem Identification Forms

- PIF Q1997-03431, QIP 100-17
- PIF Q1997-04800, U-2 RPV Level Lowering Unexpectedly
- PIF Q1998-01121, Missing Belts on U-1 SBO Diesel Gen. Radiator Fan
- PIF Q1998-01184, SBO Fuel Oil Transfer Pump Grease
- PIF Q1998-01264, U2 Rx Lvl Master Lvl Controller
- PIF Q1998-02552, 1-A Feed Reg Valve Lock-up, Valve Ramps to Open Position
- PIF Q1998-03089, Master Feedwater Controller Erratic Output
- PIF Q1998-03139, U-1 SBO DG Output Breaker Will Not Close
- PIF Q1998-03145, Unit One SBO fuel oil transfer pump surveillance failed

- PIF Q1998-03725, SBO Diesel Programmable Logic Control Failure upon RTS
- PIF Q1998-04135, Unit 1 Reactor Scram on Low Water Level
- PIF Q1998-04182, U-2 Feedwater Transient
- PIF Q1998-04193, 2B FW Reg Valve Instability
- PIF Q1998-04220, Feedwater Valve Leak
- PIF Q1998-04413, Oil Leak on Feedwater Reg Hyd Skid
- PIF Q1998-04843, 1-2901-10 Valve Failed QCOP 2900-07 During Q1R15
- PIF Q1998-05468, U2 Feed Reg Vlv Lock-Up
- PIF Q1998-05595, 1A Feedwater Reg Valve Locked Up During Startup
- PIF Q1998-05658, SBO DC Lube oil pump fuse blown
- PIF Q1999-00080, U2 Rx Water Low Level
- PIF Q1999-00297, 2C RFP Flow Square Rooter Output Failed
- PIF Q1999-00503, U2 Feedwater Level Transient
- PIF Q1999-00724, 2-0642A Feed Water Reg Vlv Stuck in Position
- PIF Q1999-01289, Safe Shutdown Make-Up Pump Room Cooler
- PIF Q1999-01299, Maintenance Rule System Z0600-01 should be (a)(1), exceeded OSS Time
- PIF Q1999-01823, 1A Feedwater Regulating Valve Locked Up
- PIF Q1999-01892, Slow Feedwater Reg Valve Response During Feedwater Pump Swap
- PIF Q1999-02007, 1A Feedwater Reg Valve Lockup
- PIF Q1999-02180, U1 SBO Inoperable
- PIF Q1999-02283, Unit 1 SBO DG Overspeed Trip Limit Switch
- PIF Q1999-02366, U1 SBO Electrical Room High Temperature

#### Expert Panel Meeting Minutes

- Expert Panel Meeting 98-005 Minutes, February 19, 1998
- Expert Panel Meeting 98-08 Minutes, March 13, 1998
- Expert Panel Meeting 98-11 Minutes, March 27, 1998
- Expert Panel Meeting Minutes, August 27, 1998
- Expert Panel Meeting Minutes, September 24, 1998
- Expert Panel Meeting Minutes, April 15, 1999
- Expert Panel Meeting Minutes, May 20, 1999
- Expert Panel Meeting Minutes, August 12, 1999

#### Procedures

- NSP-ER-3010, Revision 0, Maintenance Rule

#### Reports

- Quad Cities Nuclear Generating Station Maintenance Rule Periodic Evaluation, Evaluation Period July 1, 1996 to April 30, 1998, dtd June 25, 1998
- Maintenance Rule Assessment, dtd August 2, 1999
- Balancing of Maintenance Rule Reliability and Availability, dtd August 11, 1999
- Feedwater Control Maintenance Rule (a)(1) Cause Determination and Goal Setting  
Maintenance Rule - Corrective Actions for Feedwater Level Control, dtd May 5, 1999

