March 30, 2000

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 EMERGENCY PREPAREDNESS INSPECTION REPORT

50-254/2000004(DRS); 50-265/2000004(DRS)

Dear Mr. Kingsley:

On March 17, 2000, the NRC completed a routine inspection at your Quad Cities Nuclear Station. The results of this inspection were discussed on March 16, 2000, with Mr. G. Barnes and other members of your staff. The enclosed report presents the results of that inspection.

The inspection was an examination of activities conducted under your license as they relate to emergency preparedness and to compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas the inspection consisted of a selective examination of procedures and representative records, observations of activities, and interviews with personnel. Specifically, this inspection focused on the implementation of your emergency preparedness program. In addition, we reviewed your staff's evaluation of the performance indicators for the Emergency Preparedness cornerstone.

Based on the results of this inspection, the NRC did not identify any issues which were categorized as being of risk significance.

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 (PDR).

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

Sincerely,

/RA/

Wayne Slawinski, Acting Chief Plant Support Branch

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

Enclosure: Inspection Report 50-254/200004(DRS); 50-265/200004(DRS)

See Attached Distribution

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| NAME   | WSlawinski for<br>JFoster:jp | WSlawinski | MRing    |  |
| DATE   | 03/30/00                     | 03/30/00   | 03/30/00 |  |

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 cc w/encl:

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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 No: 50-254/2000004(DRS); 50-265/2000004(DRS)

Licensee: Commonwealth Edison Company

Facility: Quad Cities Nuclear Power Station

Units 1 and 2

Location: 22710 206th Avenue North

Cordova, IL 61242

Dates: March 15-17, 2000

Inspector: J. Foster, Senior Emergency Preparedness Analyst

Approved by: Wayne Slawinski, Acting Chief, Plant Support Branch

**Division of Reactor Safety** 

# NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) recently revamped its inspection, assessment, and enforcement programs for commercial nuclear power plants. The new process takes into account improvements in the performance of the nuclear industry over the past 25 years and improved approaches of inspecting and assessing safety performance at NRC licensed plants.

The new process monitors licensee performance in three broad areas (called strategic performance areas): reactor safety (avoiding accidents and reducing the consequences of accidents if they occur), radiation safety (protecting plant employees and the public during routine operations), and safeguards (protecting the plant against sabotage or other security threats). The process focuses on licensee performance within each of seven cornerstones of safety in the three areas:

#### Reactor Safety

# **Radiation Safety**

# **Safeguards**

- Initiating Events
- Mitigating Systems
- Barrier Integrity
- Emergency Preparedness

Occupational

Physical Protection

• Public

To monitor these seven cornerstones of safety, the NRC uses two processes that generate information about the safety significance of plant operations: inspections and performance indicators. Inspection findings will be evaluated according to their potential significance for safety, using the Significance Determination Process, and assigned colors of GREEN, WHITE, YELLOW or RED. GREEN findings are indicative of issues that, while they may not be desirable, represent very low safety significance. WHITE findings indicate issues that are of low to moderate safety significance. YELLOW findings are issues that are of substantial safety significance. RED findings represent issues that are of high safety significance with a significant reduction in safety margin.

Performance indicator data will be compared to established criteria for measuring licensee performance in terms of potential safety. Based on prescribed thresholds, the indicators will be classified by color representing varying levels of performance and incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections. WHITE corresponds to performance that may result in increased NRC oversight. YELLOW represents performance that minimally reduces safety margin and requires even more NRC oversight. And RED indicates performance that represents a significant reduction in safety margin but still provides adequate protection to public health and safety.

The assessment process integrates performance indicators and inspection so the agency can reach objective conclusions regarding overall plant performance. The agency will use an Action Matrix to determine in a systematic, predictable manner which regulatory actions should be taken based on a licensee's performance. The NRC's actions in response to the significance (as represented by the color) of issues will be the same for performance indicators as for inspection findings. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, which can include shutting down a plant, as described in the Action Matrix.

More information can be found at: http://www.nrc.gov/NRR/OVERSIGHT/index.html.

### **SUMMARY OF FINDINGS**

Quad Cities Nuclear Power Station, Units 1 & 2 NRC Inspection Report 50-254/2000004(DRS); 50-265/2000004(DRS)

The report covers a 1-week period of announced inspection by a regional Emergency Preparedness Analyst. This inspection focused on the implementation of the emergency preparedness program, and included a review of the licensee's three performance indicators (PIs) associated with emergency preparedness.

#### **REACTOR SAFETY**

# **Cornerstone: Emergency Preparedness**

There were no findings identified and documented during this inspection.

### **Performance Indicators Verification**

 Alert and Notification System (ANS), Drill & Exercise Participation, and Drill & Exercise Performance Indicators. The inspector verified that the licensee had properly gathered information and reported these three Performance Indicators, which were in the green band (Section 20S4).

# **Report Details**

# 1. REACTOR SAFETY

Cornerstone: Emergency Preparedness

# 1EP2 Alert and Notification System Testing

### a. Inspection Scope

The inspector discussed the design of the equipment for alert and notification system (sirens) testing with the licensee, and reviewed the procedure for and frequency of system testing. A routine periodic test of the system was not observed, but will be conducted in a future inspection. Reviews were also conducted of siren testing and related corrective action documentation. The statistics gathered to determine overall siren reliability were also reviewed.

# b. Observations and Findings

There were no findings identified and documented during this inspection.

# 1EP3 Emergency Response Organization Augmentation Testing

#### a. Inspection Scope

The inspector reviewed the semi-annual augmentation test procedure, augmentation call lists, results from augmentation tests, and the licensee's analysis of test results. Corrective actions related to augmentation testing were reviewed to ensure that they were properly tracked and action taken as appropriate.

# b. Observations and Findings

There were no findings identified and documented during this inspection.

# 1EP5 Correction of Emergency Preparedness Weaknesses and Deficiencies

# a. Inspection Scope

The inspector interviewed members of the emergency planning staff and reviewed the licensee's self assessments, audits, corrective action program procedures, and problem identification forms (PIFs) concerning the emergency preparedness program for 1999 and 2000 to the date of the inspection. In addition, the inspector reviewed corrective action documentation concerning emergency preparedness or related activities, which had been initiated since January of 1999. The inspector verified that the licensee's most recent evaluation of the emergency preparedness program was adequate.

# b. Observations and Findings

There were no findings identified and documented during this inspection.

### 2OS4 Performance Indicator Verification

#### a. Inspection Scope

The inspector verified the licensee's system for identifying the data utilized to determine the values for the three performance indicators for emergency preparedness, comprised of Alert and Notification System, Emergency Response Organization (ERO) Drill Participation, and Drill and Exercise Performance. The procedure for emergency preparedness performance indicator data gathering was reviewed and discussed with the licensee, and documentation relative to the raw data for each indicator was evaluated. Current and historical records for each performance indicator were reviewed. Simulator training, siren testing, and maintenance, and drill/exercise records were also reviewed. The methodology for determining simulator training "opportunities" was reviewed and discussed.

# b. Observations and Findings

There were no findings identified and documented during this inspection.

#### 4 OTHER ACTIVITIES

#### 4OA4 Other

# a. <u>Inspection Scope</u>

The inspector toured the Technical Support Center and Operations Support Center and evaluated the adequacy of these facilities to support emergency response operations.

### b. Observations and Findings

There were no findings identified and documented during this inspection.

# 4OA5 Management Meetings

#### .1 Exit Meeting Summary

The inspector presented the inspection results to Mr. G. Barnes and other members of licensee management at the conclusion of the inspection on March 16, 2000. The licensee acknowledged the findings presented and did not identify any information discussed as proprietary.

# PARTIAL LIST OF PERSONS CONTACTED

# <u>Licensee</u>

- E. Anderson, Radiation Protection Manager
- J. Anderson, Emergency Preparedness Coordinator
- G. Barnes, Site Manager
- K. Bethard, Regulatory Assurance, NRC Coordinator
- M. Hayse, Nuclear Operations Assistant Manager
- J. Spirovy, Nuclear Oversight
- F. Tague, EP Trainer
- M. Vonk, NGG Emergency Planning
- J. Young, Corp. Emergency Planning

# Illinois Department of Nuclear Safety

R. Ganser, Resident Engineer

|               | HEMS OPENED, CLOSED, AND DISCUSSED |
|---------------|------------------------------------|
| <u>Opened</u> |                                    |
| None.         |                                    |
| Closed        |                                    |
| None.         |                                    |
| Discussed     |                                    |

None.

# **INSPECTION PROCEDURES USED**

| 71114.02 | Alert and Notification System Testing                |
|----------|--|
| 71114.03 | Emergency Response Organization Augmentation Testing |
| 71114.05 | Problem Identification and Resolution Program        |
| 71151    | Performance Indicator Verification                   |

#### LIST OF ACRONYMS USED

ANS Alert and Notification System

CEPIP Corporate Emergency Plan Implementing Procedure

DRS Division of Reactor Safety

ERO Emergency Response Organization NRC Nuclear Regulatory Commission

PDR Public Document Room
PI Performance Indicator
PIF Problem Identification Form

#### LIST OF DOCUMENTS REVIEWED

#### Assessments and Audits

03/25/99 Quad Cities Assessment, EP Program

09/01/99 Quad Cities EP Program Assessment

09/07/99 Quad Cities EP Performance Indicator Focus Area Self-Assessment

10/04/99 Off-site Interface Self-Assessment

01/25/2000 Quad Cities 2000 EP Self-Assessment

03/03/2000 Evaluation of Drill and Exercise Performance (DEP) Under PI 08 S.18

03/13/2000 Quad Cities Station EP Focus Area Assessment - GSEP Training Documentation

Quad Cities Station Assessment Report, Nuclear Oversight Assessment NOA-04-99-01, "Plant Support Corrective Actions," dated February 8, 1999

Quad Cities Station Assessment Report, Nuclear Oversight Assessment NOA-04-00-PS02,

"Emergency Preparedness Program," dated February 3, 2000

Quad Cities Station Assessment Report, Nuclear Oversight Assessment NOA-04-99-PS03,

"Emergency Preparedness Program," dated December 14, 1999

Quad Cities Station Assessment Report, Nuclear Oversight Assessment NOA-04-99-032,

"Emergency Preparedness Program," dated June 4, 1999

Quad Cities Station Assessment Report, Nuclear Oversight Assessment NOA-04-99-PS01,

"Plant Support Corrective Actions," dated February 3, 2000

GSEP Training Status printout as of March 9, 2000

#### Miscellaneous

02/08/00 memorandum, Quad Cities Focus Area assessment Respirator Program Qualifications

08/27/99 Trend Investigation PIF 99-02697 Respirator Qualifications

11/2/99 memorandum Policy for Respirator Qualifications for OSC Responders

12/09/99 memorandum Calculation of Siren Data for NRC Historical Submission

09/13/99 Letter, Fulton Contracting, PNS System Testing

03/10/00 Draft siren trend report, CECO Siren Failures -1999

03/16/00 Quad Cities Station Plan of the Day

03/16/00 Action Tracking Statistics for March 16, 2000 Printout

Emergency Preparedness Department Training and Reference Material, Drill, Exercise and Event Performance, NRC Performance Indicator 08 (S.18) Guidance, dated February 1, 2000

Emergency Preparedness Department Training and Reference Material, Alert and Notification System Reliability, Performance Indicator (S.20) Guidance, dated September 15, 1999

# Problem Identification Forms

Q1996-01225,.04470, 04500,04381, 04345, 04325, 04278, 04174, 03801, 03785, 03769, 03629, 03625, 03413, 03404, 03397, 03371, 03355, 03342, 03319, 03255, 03250, 03067, 03032, 02993, 02992, 02981, 02900, 02898, 02897, 02894, 02884, 02858, 02693, 02636, 02626, 02573, 02534, 02402, 02246, 02114, 02069,01945, 01944.

Q2000-01106, 01105, 01082, 01078, 01051, 00623, 00600, 00597, 00396, 00257, 00192, 00193, 00113.

Trend Investigation on GSEP Communications. PIF Q1999-03396 12/10/99 Root Cause Report re PIF Q1999-02636, Unannounced GSEP Staffing Augmentation 08/24/99

#### Procedures

CEPIP 1130-01, Revision 12, "Conduct of ERO Off-hours Augmentation Drills" RS-AA-122-109, Revision 0, "Performance Indicator - Emergency Response Organization Drill Participation"

RS-AA-122-108, Revision 0, "Performance Indicator - Emergency Response Organization Drill/Exercise Performance"