May 23, 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: QUAD CITIES RADIATION SAFETY INSPECTION REPORT
50-254/2000006(DRS); 50-265/2000006(DRS)

Dear Mr. Kingsley:

On May 4, 2000, the NRC completed a routine inspection at your Quad Cities Nuclear Power Station. The results were discussed on May 4, 2000, with Mr. McDowell 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 radiation safety 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 public radiation safety and on the processing and shipping of radioactive materials.

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 Electronic Reading Room (PERR) link at the NRC homepage, http://www.nrc.gov/NRC/ADAMS/index.html.

We will gladly discuss any questions 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 50-254/2000006(DRS);
50-265/2000006(DRS)

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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State Liaison Officer, State of Illinois
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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:	50-254/2000006(DRS); 50-265/2000006(DRS)
Licensee:	Commonwealth Edison Company (ComEd)
Facility:	Quad Cities Nuclear Power Station, Units 1 and 2
Location:	22710 206th Avenue North Cordova, IL 61242
Dates:	May 1-4, 2000
Inspector:	David W. Nelson, Radiation Specialist
Approved by:	Wayne Slawinski, Acting Chief, Plant Support Branch Division of Reactor Safety

SUMMARY OF FINDINGS

Quad Cities Nuclear Power Station, Units 1 & 2
NRC Inspection Report 50-254/2000006(DRS); 50-265/2000006(DRS)

This report covers a four day period of announced inspection by a regional radiation specialist. This inspection focused on public radiation safety related to the licensee's processing and shipping of radioactive materials.

RADIATION SAFETY

Cornerstone: Public Radiation Safety

- There were no inspection findings identified or documented.

Report Details

2. **RADIATION SAFETY**

Cornerstone: Public Radiation Safety

2PS2 Radioactive Material Processing and Transportation

.1 Walkdown of Radioactive Waste Systems

a. Inspection Scope

The inspector reviewed the liquid and solid radioactive waste systems to assess the material condition and operability of the systems. The inspector also compared the operations of the systems to the descriptions in the Updated Final Safety Analysis Report (UFSAR) and the process control program (PCP). The inspector also performed walk-downs of the liquid and solid radwaste processing systems located in the Radwaste Building; the Mausoleum; the Laundry, Tool and Decontamination (LTD) Building; and the Interim Radwaste Storage Facility (IRSF). During this inspection, the licensee was not conducting waste processing.

b. Observations and Findings

The inspector observed that several components of the liquid waste processing system were not routinely used. For example, the cement solidification system had not been in service for a number of years, and the applicable system valves were closed to isolate these components from the remaining plant systems. However, this equipment was described as viable waste processing equipment in the UFSAR. Although the licensee indicated that the equipment could be returned to operable service, the inspector's observation indicated a difference between the UFSAR and the plant's normal/routine operations.

Prior to this inspection, the licensee began a project to identify inconsistencies between the waste processing systems described in the UFSAR and those that are routinely used to process liquid waste. The licensee intends to remove references in the UFSAR for those processes that are no longer used.

There were no findings identified and documented during this inspection.

.2 Waste Characterization and Classification

a. Inspection Scope

The inspector reviewed the licensee's method and procedures for determining the classification of radioactive waste shipments, including the licensee's use of scaling factors to quantify difficult-to-measure radionuclides (e.g., pure alpha or beta emitting

radionuclides). The inspectors also reviewed records of radioactive waste shipments to verify that the shipments were properly classified and characterized in accordance with the requirements contained in 10 CFR Part 61.

b. Observations and Findings

There were no findings identified and documented during this inspection.

.3 Shipping Preparation

a. Inspection Scope

The inspector observed licensee staff survey, label, mark, placard and perform vehicle checks, and complete emergency instructions, disposal manifest, and shipping papers for a May 3, 2000, Type A shipment of spent resin to a waste processing facility. The inspector also observed the radiation worker practices of those individuals responsible for the shipment and questioned the shipper to verify knowledge of the shipping regulations.

b. Observations and Findings

There were no findings identified and documented during this inspection.

.4 Shipping Records

a. Inspection Scope

The inspector reviewed a sampling (six) of non-excepted package shipments completed in 1999 and 2000 to verify compliance with NRC and Department of Transportation (DOT) requirements (i.e., 10 CFR Parts 20 and 71 and 49 CFR Parts 172 and 173).

b. Observations and Findings

There were no findings identified and documented during this inspection.

4. OTHER ACTIVITIES (OA)

4OA1 Identification and Resolution of Problems

a. Inspection Scope

The inspector reviewed the licensee's self assessments, audits, and problem identification forms concerning the radioactive material processing and transportation programs.

b. Observations and Findings

The inspector found that the staff was effectively using the corrective action system to identify and correct issues within the radioactive material processing and transportation programs.

4OA6 Management Meetings

The inspector presented the inspection results to members of licensee management at the conclusion of the inspection on May 4, 2000. The licensee acknowledged the findings presented. No proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

E. Anderson, Radiation Protection Manager
D. Barker, Lead Technical Health Physicist
G. Boerschig, Engineering Manager
K. Bethard, Regulatory Assurance
R. Chrzanowski, Nuclear Oversight Manager
T. Hanley, Operations Support Manager
M. McDowell, Operations Manager
A. Williams, Radiation Protection Shipping Specialist

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

None

Closed

None

Discussed

None

LIST OF ACRONYMS USED

CFR	Code of Federal Regulations
IRSF	Interim Radwaste Storage Facility
DOT	Department of Transportation
LTD	Laundry, Tool and Decontamination
PCP	Process Control Program
UFSAR	Updated Final Safety Analysis Report

LIST OF BASELINE INSPECTION PROCEDURES PERFORMED

The following inspectable-area procedures were used to perform inspections during the report period. Documented findings are contained in the body of the report.

Inspection Procedure		Report Section
Number	Title	
71122-02	Radioactive Material Processing and Transportation	2PS2
71122-02	Identification and Resolution of Problems	4OA1
(none)	Management Meetings	4OA6

LIST OF DOCUMENTS REVIEWED

Assessments and Audits

Focus Area Assessment: "Radioactive Material Processing and Shipping," March 22 - April 4, 2000;
NOA-04-99-PS02, "RAM, Effluent Monitoring, Shipping and Transportation;"
NOA-04-00-PS03, "Chemistry and Radwaste;"
NOA-04-99-009, "Radwaste Department's Management Effectiveness, Work Practices, and Control of Radwaste."

Miscellaneous

"Volume Reduction Guideline;"
"Model No. CNS 8-120B Package;"
Quad Cities UFSAR, Section 11.0, "Radioactive Waste Management;"
"Radwaste Equipment to be Abandoned."

Problem Identification Forms

Q1999-02183, Q1999-02194, Q1999-02855, Q1999-02948, Q1999-03055, Q1999-03330, Q1999-03948, Q1999-03977, Q1999-04182, Q1999-04238, Q1999-04391, Q2000-00062, Q2000-00691, Q2000-00692, Q2000-00965, Q2000-01046, Q2000-01090.

Procedures

QCRP 5620-06 (Revision 1), "10CFR61 Waste Stream Sampling and Analysis;"
CNS-FO-OP-032-44506 (Revision 1), "Set-Up and Operating for the RDS-1000 Unit at Quad Cities;"
CNS-FO-OP-048 (Revision 1), "Procedure for Installation and Operation of the In-Line Sampler;"
CNS-FO-AD-002 (Revision 1), "Operating Guidelines for the use of Polyethylene High Integrity Containers;"
RW-AA-10 (Revision 1), "Process Control Program for Radioactive Wastes."

Shipping Records

Shipments: 99-003 (Type B), 99-104 (Type A), 99-105 (Type B), 99-116 (LSA II), 99-124 (LSA II), 00-151 (LSA II), 00-315 (Type A).

NRC's REVISED REACTOR OVERSIGHT PROCESS

The federal Nuclear Regulatory Commission (NRC) 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 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	● Occupational	● Physical Protection
● Mitigating Systems	● Public	
● Barrier Integrity		
● Emergency Preparedness		

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 little effect on safety. WHITE findings indicate issues with some increased importance to safety, which may require additional NRC inspections. YELLOW findings are more serious issues with an even higher potential to effect safety and would require the NRC to take additional actions. RED findings represent an unacceptable loss of safety margin and would result in the NRC taking significant actions that could include ordering the plant to shut down.

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 incremental degradation in safety: GREEN, WHITE, YELLOW, and RED. The color for an indicator corresponds to levels of performance that may result in increased NRC oversight (WHITE), performance that results in definitive, required action by the NRC (YELLOW), and performance that is unacceptable but still provides adequate protection to public health and safety (RED). GREEN indicators represent performance at a level requiring no additional NRC oversight beyond the baseline inspections.

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. As a licensee's safety performance degrades, the NRC will take more and increasingly significant action, as described in the matrix. 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.

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