

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-237/89015(DRSS); 50-249/89014(DRSS)

Docket Nos. 50-237; 50-249

Licenses No. DPR-19; DPR-25

Licensee: Commonwealth Edison Company
Post Office Box 767
Chicago, IL 60690

Facility Name: Dresden Nuclear Power Station, Units 2 and 3

Inspection At: Dresden Site, Morris, Illinois

Inspection Conducted: May 22-26, 1989

D. E. Miller
Inspector: D. E. Miller

5/4/89
Date

M. Schumacher
Approved By: M. Schumacher, Chief
Radiological Controls and
Chemistry Section

6/9/89
Date

Inspection Summary

Inspection on May 22-26, 1989 (Reports No. 50-237/89015(DRSS); 50-249/89014(DRSS))

Areas Inspected: Routine unannounced inspection of the licensee's operational radiation protection program including organization and management controls (IP 83722; 83750), training and qualifications (IP 83750), external exposure controls (IP 83724; 83750), internal exposure controls (IP 83750), control of radioactive materials and contamination (IP 83726; 83750), personal contamination events (IP 83750), and audits (IP 83750). Also reviewed was a previous open item (IP 92701).

Results: Overall, the radiation protection program is adequate and improving. The licensee generally responds positively to identified audit and assessment concerns. Prospects are for continued improvement in the radiation protection program. No violations were identified. Some programmatic weaknesses were identified and discussed with the licensee.

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DETAILS

1. Persons Contacted

- *D. Barnett, Quality Assurance
- *E. Eenigenburg, Station Manager
- *L. Gerner, Production Superintendent
- *R. Janecek, Senior Participant, Nuclear Safety
 - L. Jordan, Group Leader, Technical, Health Physics Services (HPS)
- *T. Lewis, Regulatory Assurance
 - L. Oshier, Group Leader, Operations/ALARA, HPS
- *K. Peterman, Regulatory Assurance Supervisor
 - K. Ritchie, ALARA Coordinator, HPS
- *D. Saccomando, HPS Supervisor
- *C. Schroeder, Technical Superintendent

- *S. DuPont, NRC Senior Resident Inspector

*Denotes those present at the exit meeting.

The inspector also contacted other licensee and contractor personnel.

2. General

This inspection was conducted to review the licensee's operational radiation protection program. Also reviewed was corrective actions for previously identified inspection findings and weaknesses. The inspector toured licensee facilities to review posting, labeling, access controls, and radioactive materials handling. No significant problems were noted. Minor posting problems were brought to the licensee's attention; the problems were immediately corrected by the licensee. Housekeeping was good.

3. Licensee Actions on Previous Inspection Finding (IP 92701)

(Closed) Open Item (237/89003-01; 249/89003-01): Hold points in feedwater check valve maintenance procedure. Procedure DMP 220-1, Feedwater Check Valve Disassembly, Seat and Disc Replacement and Reassembly, has been adequately revised to include radiological precautions and radiation protection hold points. The inspector has no further questions at this time.

4. Organization and Management Controls (IP 83722; 83750)

The inspector reviewed the licensee's organization and management controls for the radiation protection program. Also reviewed was the effectiveness of procedures and other management techniques used to implement the program, and experience concerning self-identification and correction of program implementation weaknesses.

Contained in Inspection Reports No. 50-237/88024; 50-249/88025, is a description of changes made to the health physics organization except for technicians. Since then, rad/chem technicians have been permanently assigned to technician positions in the health physics or chemistry services organizations. These reassignments were made with few resulting programmatic problems. Also, the Group Leader, Services position was eliminated; this position was titled Lead Health Physics Foreman prior to departmental changes previously described; the individual's duties were divided and given to other foremen and supervisors; the effect of this change will be reviewed during future routine inspections.

To identify programmatic weaknesses, the licensee utilizes Radiological Occurrence Reports (RORs), station and corporate QA audits and surveillances, industry assessments, and corporate assessments. The inspector reviewed RORs written during 1989 through May 19. In general, RORs are adequately investigated to determine root cause, and corrective actions implemented to reduce possibility or reoccurrence; however, followup reviews do not always appear timely, and supervisory corrective actions for personnel failure to follow radiation protection procedures may sometimes not appear strong enough. Timeliness and corrective actions for RORs will be critically reviewed during future routine inspections; this matter was discussed with the licensee during the inspection. Audits are discussed in Section 10.

No violations or deviations were identified.

5. Training and Qualifications (IP 83750)

The inspector reviewed the licensee's methods of determining qualifications of, and providing site specific training to, contract radiation protection technicians (RPTs).

The licensee, along with a contractor supervisor, reviews the resumes of contract RPTs before bringing the RPTs onsite. Once onsite, contract RPTs attend NGET and take a health physics theory test; the required passing grade is 80 percent for senior RPTs and 70 percent for junior RPTs. Those RPTs passing the theory test are provided eight to twelve hours of training concerning station radiation protection procedures and practices; the RPTs are tested on the material presented.

An instructor in the station's training department has developed a training/testing records card for contract RPTs to retain so that theory retesting would not be needed at other CECO stations for one year from a satisfactory test score. At present, there is no formal agreement between CECO stations to honor the training card.

No violations or deviations were identified.

6. External Exposure Control and Dosimetry (IP 83750; 83724)

The inspector reviewed the licensee's external exposure control and personal dosimetry programs, including: changes in facilities,

equipment, personnel, and procedures; adequacy of the dosimetry program to meet routine needs; required records, reports, and notifications; effectiveness of management techniques used to implement these programs and experience concerning self-identification and correction of program implementation weaknesses. Audits are discussed in Section 10.

The external exposure measurement and control program consists of whole body monitoring using thermoluminescent dosimeters, extremity monitoring using film ring badges, self-reading dosimeters, integrating alarming dosimeters, direct radiation surveys, radiation work permits, administrative dose limits, and a radiation dose recording system.

The licensee's whole body dose received during 1989 through May 7 was about 770 person-rem; the licensee's projected goal for 1989 through May 7, 1989 was about 774 person-rem. Most of the dose was received during the Unit-2 outage which ended February 19. In addition to the dose discussed above, about nine person-rem was received while performing preparation work for the Radioactive Waste Upgrade Project; the licensee plans to maintain separate records for the upgrade project.

The licensee has altered its routine and job specific direct radiation monitoring programs to add flexibility and attempt to eliminate performance of unnecessary surveys. The program now calls for exercise of more judgement when establishing frequency and locations of routine surveys, and frequency of performance of RWP verification surveys.

Also, to reduce surveys, the licensee has ordered several additional portable area radiation monitors (ARMs); the licensee plans to use the ARMs on RWP jobs where the ARMs can be positioned to monitor for changes in exposure rates so that frequency of performance of verification surveys by RPTs can be reduced.

The inspector selectively reviewed survey records, radiation work permits, and dosimetry reports for work being performed during this inspection. No significant problems were noted.

No violations or deviations were identified.

7. Internal Exposure Control and Assessment (IP 83750, 83726)

The inspector reviewed the licensee's internal exposure control and assessment programs, including: changes in facilities, equipment, personnel, and procedures affecting internal exposure control and personal assessment; determination whether engineering controls, respiratory equipment, and assessment of individual intakes meet regulatory requirements; required records, reports, and notifications; effectiveness of management techniques used to implement these programs; and experience concerning self-identification and correction of program implementation weaknesses.

The licensee's program for controlling internal exposures includes use of protective clothing, respirators and equipment, and control of surface

and airborne radioactivity. A selected review was made of air sample survey results, radiation work permits, and engineering controls for work performed during this inspection. No significant problems were noted.

Whole body count data was selectively reviewed for counts performed during 1989 through May on company and contractor personnel. Several followup counts were performed on persons who showed elevated initial counts. Followup counting was adequate to verify that the 40 MPC-hour control measure was not exceeded.

No violations or deviations were identified.

8. Control of Radioactive Materials and Contamination (IP 83750)

The inspector reviewed the licensee's program for control of radioactive materials and contamination, including: adequacy of supply, maintenance, and calibration of contamination survey and monitoring equipment; effectiveness of survey methods, practices, equipment, and procedures; adequacy of review and dissemination of survey data; and effectiveness of methods of control of radioactive and contaminated materials.

Several contamination control initiatives are discussed in Inspection Reports No. 50-237/87036; 50-249/87035. Most of these initiatives have been implemented. Implementation of these and other initiatives have apparently resulted in reduced personal contamination incidents (Section 9). Additional initiative that are in process or planned include relocation of most hot shop work to a new enclosed facility on the main turbine floor. Contaminated hot shop tools are being moved from the maintenance shop area, which is outside the main RCA, to inside the RCA; a new tool storage area has not yet been established to house the tools; the tool storage area is planned. Another planned initiative is establishment of a small tool decontamination station within the RCA near the Unit-2 trackway RCA egress point.

During this inspection, several tours of radiologically controlled areas were made to review radioactive materials handling practices. As discussed in past inspection reports, several unobserved exits from the main RCA to outdoor areas exist. Their existence increases the potential for loss of control of radioactive materials. During this inspection, the inspector was informed that in response to a CECo Radioactive Materials Task Group, the licensee is to provide an action plan by September 1, 1989, concerning how the potential for release of radioactive materials via these exits will be reduced. No other potential problems were noted during the inspector tours.

No violations or deviations were identified.

9. Personal Contamination Events (IP 83750)

As previously discussed in Inspection Reports No. 50-237/88009(DRSS); 50-249/88011(DRSS), early in 1987 the licensee formed a committee composed of several station managers and supervisors to review personal

contamination events and develop an action plan aimed at reducing the number of such events. The comprehensive plan that resulted consisted of more than 50 action items. The action items have been completed or are in progress. The number of personal contamination events meeting the industry reporting standard was 1,768 in 1986, 874 in 1987, 534 in 1988, and 100 in 1989 through May 21; indicating a significant reduction in events during a two and a half year period. The licensee continues to investigate individual personal contamination events to determine root cause and continues to seek additional methods to reduce personal contamination events.

No violations or deviations were identified.

10. Audits (IP 83750)

The inspectors reviewed the licensee's program for self-identification and correction of programmatic weaknesses. The program consists of station quality assurance audits and surveillances, corporate audits and assessments, and industry assessments. Selectively reviewed were individual audits and assessments, extent of audits and assessments, qualification of auditors/assessors, and adequacy and timeliness of corrective actions. This was a program review.

The inspector reviewed results of station and corporate audits and assessments of the licensee's radiation protection program performed since July 1988. Several possible improvements were identified during the audits/assessments; none were regulatory violations.

The licensee's audit/assessment/surveillance program provides good management control tools for self-identification of programmatic weaknesses. Corrective actions normally appear adequate and timely.

No violations or deviations were identified.

11. Exit Meeting

The inspector met with licensee representatives (denoted in Section 1) at the conclusion of the inspection on May 26, 1989, to discuss the scope of the inspection and the findings. The inspectors also discussed the likely informational content of the inspection report regarding documents and processes reviewed by the inspector during the inspection. The licensee identified no such documents/processes as proprietary.