

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-456/90024(DRSS); 50-457/90025(DRSS)

Docket Nos. 50-456; 50-457

Licenses No. NPF-72; NPF-77

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

Facility Name: Braidwood Station, Units 1 and 2

Inspection At: Braidwood Site, Braidwood, Illinois

Inspection Conducted: November 28-December 13, 1990

Inspector: M. A. Kunowski  
M. A. Kunowski  
Senior Radiation Specialist

12-20-90  
Date

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

12-21-90  
Date

Inspection Summary

Inspection on November 28 through December 13, 1990 (Reports No. 50-456/90024(DRSS); 50-457/90025(DRSS))

Areas Inspected: Routine, unannounced inspection of the solid radioactive waste management and transportation of radioactive materials program (Inspection Procedure (IP) 86750). The inspector was accompanied during most of the inspection by two representatives of the Illinois Department of Nuclear Safety.

Results: The licensee is adequately implementing its program. No major problems were identified.

## DETAILS

### 1. Persons Contacted

+D. F. Ambler, Health Physics Services Supervisor  
@+E. W. Carroll, Regulatory Assurance  
P. Habel, Operations Engineer  
@M. J. Harper, Nuclear Quality Programs (NQP) Engineer  
@D. Johnson, Radwaste Operations Supervisor  
+L. O. Kim, NQP Engineer  
+K. L. Kofron, Station Manager  
@R. D. Kyrouac, NQP Superintendent  
@T. P. Meents, Radwaste Shipping Coordinator  
+D. J. Miller, Regulatory Assurance Supervisor  
+D. E. O'Brien, Technical Superintendent  
D. Stoney, Site Supervisor, Scientific Ecology Group (SEG)  
+R. Thacker, Lead Health Physicist-Technical  
@P. K. Weigert, NQP Engineer  
+R. Yungk, Operating Engineer

+Denotes those attending the onsite exit meeting on November 29, 1990.

@Denotes those attending the telephone exit meeting on December 13, 1990.

### 2. General

Routine, unannounced inspection of the solid radioactive waste management and transportation of radioactive materials program. The inspection include a review of procedures and records, interviews of personnel, and observations of equipment and facilities (Inspection Procedure (IP) 86750). The inspector was accompanied during most of the inspection by two representatives of the Illinois Department of Nuclear Safety.

### 3. Audits and Appraisals

The inspector reviewed the results of NQP Audit Number 20-90-16, which included a review of the process control program and radioactive material shipment activities. The audit was an indepth, generally performance based review, conducted by experienced and knowledgeable personnel. One finding regarding administrative requirements of the quality control group was made by the auditors. This problem was promptly corrected by the station.

No violations were identified by the NRC inspectors.

### 4. Changes in the Program and Training and Qualifications of Personnel

In mid-1990, the licensee changed vendors for radioactive waste solidification, dewatering, and packaging, from NUPAC Services, Inc., to SEG, a Westinghouse subsidiary. The change was made on a competitive bid basis and is not expected to result in any diminution of services. Discussions with the new vendor's onsite supervisor indicated that he is experienced and qualified for his position, having previously worked in the same capacity at the Byron station for several years.

The licensee also recently appointed a new radwaste shipping coordinator. The training and qualifications of this person were reviewed by the inspector and are adequate. He had been a radwaste foreman since September 1987 and was trained by the former shipping coordinator before the coordinator's recent departure. In addition, the new coordinator had received 3 days of classroom training in solid radwaste and shipping requirements at the licensee's Production Training Center in mid-1988 and mid-1990. This training, in which the licensee contracts with a vendor, was also taken by health physics personnel responsible for calculating the activities of isotopes for shipments. The more recent training session was conducted by SEG.

No violations of NRC requirements were identified.

5. Implementation of the Solid Radioactive Waste Program

In 1990, the licensee has shipped only Class A, unstable waste, typically as dry active waste (DAW) or dewatered radwaste system resins. For dewatered wastes, the licensee uses the vendor's NRC-approved topical report and its implementing procedures, which have been reviewed by the licensee and are controlled as station procedures. The licensee's most recent audit, burial site inspections, and the current NRC inspection identified no major problems with the licensee's implementation of its solid radioactive waste program. The NRC inspector, however, did observe a procedural problem during a review of shipment RWS 90-014, a liner of dewatered resins, shipped on October 5, 1990.

The resin, containing approximately 3 curies of radioactive material, was dewatered using procedure STD-P-03-051, "Transfer and Dewatering Bead Resin in Steel Liners with a Single Layer Underdrain Assembly to Less than 1/2% Drainable Liquid," Revision 0. Steps 6.3.5 and 7.3.1 state that if at any time during the dewatering operation, the temperature of the container exceeds 130 degrees Fahrenheit or increases by 20 degrees Fahrenheit or more, the operator is to stop the dewatering process and take specified actions to cool the resin. However, for this resin shipment, dewatering proceeded for 20 hours, over a late night work shift, without an operator in continuous attendance to monitor the temperature. This discrepancy was discussed with licensee and vendor representatives, who stated that the requirement for monitoring the temperature was intended for the initial hour or two of dewatering, when an exothermic reaction is most likely to occur. The licensee agreed to revise the procedure to specify the intended period of temperature monitoring. This revision will be reviewed during a future inspection (Open Item No. 50-456/90024-01(DRSS); 457/90025-01(DRSS)).

No violations of NRC requirements were identified.

6. Shipping of Low-level Wastes for Disposal, and Transportation

In addition to 15 radwaste shipments made in 1990, to date, the licensee made 72 shipments of non-radwaste radioactive materials. Approximately 75% of these shipments consisted of contaminated protective clothing and were sent to a nearby commercial laundry. A review by the inspector of records for several shipments identified no problems. One minor

paperwork discrepancy, the failure to specify on the shipping manifest the type of absorbent material used was identified by the burial site for resin shipment RWS 90-014. This was promptly corrected by the licensee.

No violations of NRC requirements were identified.

7. Exit Meeting

A meeting was held with the individuals denoted in Section 1 at the conclusion of the onsite inspection to discuss the tentative findings of the inspection. Subsequently, a telephone conference was held to discuss the resolution of the discrepancy between the dewatering procedure and current practice (Section 5). The licensee did not identify any of the tentative inspection report contents as proprietary.