

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-298/90-39

Operating License: DPR-46

Docket: 50-298

Licensee: Nebraska Public Power District (NPPD)
P.O. Box 499
Columbus, Nebraska 68602-0499

Facility Name: Cooper Nuclear Station (CNS)

Inspection At: CNS, Brownsville, Nebraska

Inspection Conducted: November 27-30, 1990

Inspector:

Blaine Murray

L. T. Ricketson, P.E., Senior Radiation
Specialist, Radiological Protection and
Emergency Preparedness Section

12/31/90
Date

Approved:

Blaine Murray

Blaine Murray, Section Chief, Radiological
Protection and Emergency Preparedness
Section

12/31/90
Date

Inspection Summary

Inspection Conducted November 27-30, 1990 (Report 50-298/90-39)

Areas Inspected: Routine, announced inspection of the licensee's solid radioactive waste and radioactive materials transportation programs.

Results: Within the areas inspected, no violations or deviations were identified. One open item is discussed in paragraph 5.

Quality assurance (QA) audits resulted in significant findings and the responses to audits were timely. QA surveillances were performed on most shipments of radioactive materials. Personnel from QA, health physics (HP), operations, and maintenance had received required training in the handling of radioactive waste. The licensee's facilities for solidifying, dewatering, or compacting waste remained unchanged since the previous inspection. The licensee had implemented adequate procedures for preparing, tracking, classifying, and shipping radioactive materials and waste.

DETAILS

1. Persons Contacted

NPPD

J. Meacham, Plant Manager
M. Allen, Quality Control (QC) Coordinator
S. Bahr, Radioactive Material Shipping Technician
*R. Beilke, Radiological Support Supervisor
*R. Black, Operations Supervisor
*R. Blungardt, Operations Manager
G. Bray, Auxiliary Equipment Supervisor
*L. Bray, Regulatory Compliance Specialist
S. Bray, Operations Quality Assurance (QA) Supervisor
*J. Dutton, Training Manager
*R. Gardner, Operations Senior Manager
J. Kuttler, Senior Health Physics (HP) Specialist
C. Putnam, Jr., QA Specialist
E. Rotkvik, HP Instructor
*J. Sayer, Radiological Manager
*G. Smith, QA Manager

NRC

R. Bennett, Senior Resident Inspector
*G. Pick, Resident Inspector

*Denotes those present at the exit meeting on November 30, 1990.

2. Open Items Identified During This Inspection

An open item is a matter that requires further review and evaluation by the inspector, such as an item pending specific action by the licensee or a previously identified violation, deviation, unresolved item, or programmatic weakness. Open items are used to document, track, and ensure adequate followup on matters of concern to the inspector. The following open item was identified.

| <u>Open Item</u> | <u>Title</u> | <u>Paragraph</u> |
|------------------|------------------------|------------------|
| 298/9039-01 | Quality Control Review | 5 |

3. Organization and Management Controls (86750)

The inspector reviewed the licensee's organization, staffing, and management controls relating to solid waste and transportation programs to determine compliance with Sections 6.1 and 6.2 of the Technical Specifications (TS) and the requirements in Inspection and

Enforcement (I&E) Bulletin 79-19 and agreement with commitments in Section XIII of the Updated Safety Analysis Report (USAR).

The organization had not changed since the previous inspection. The radiological support supervisor was responsible for receipt and shipment of radioactive materials. Reporting to the radiological support supervisor were a senior health physicist and a radioactive materials shipping technician. Operations personnel (auxiliary equipment operators) were responsible for waste solidification and waste drum filling. Maintenance personnel operated the waste shredder/compactor.

The inspector reviewed QA audits entitled, "Radwaste Treatment & Disposal," for 1989 and 1990, and noted that there were two findings and two observations in the 1990 audit. Responses to the audit findings were timely and corrective actions were verified by QA.

The lead auditor was the individual who performed audits of the radiation protection (RP) program and the inspector noted that the auditor had attended a training course entitled, "Radwaste Packaging & Handling."

The inspector reviewed selected QA surveillances and noted that surveillances were performed on most radioactive shipments.

Additionally, the inspector verified that audits had been performed by the general office on certain vendors. An audit of the laboratory performing analysis of waste stream samples was performed in February 1989. Audits of manufacturers of waste containers had also been performed.

No violations or deviations were identified.

4. Training and Qualifications (86750)

The inspector reviewed the licensee's training and qualification program for personnel involved in solid radioactive waste activities and transportation of radioactive materials to determine compliance with the requirements of Section 6.1.4 of the TS and the requirements in I&E Bulletin 79-19 and agreement with commitments in Section XIII of the USAR.

The inspector reviewed training records for personnel in health physics, operations, and maintenance and noted that personnel involved in the areas covered by the inspection had attended the training course entitled, "Radwaste Packaging and Handling." The inspector reviewed the lesson plan for the course and noted that it included information on the types of containers for various shipments, responsibilities of the different departments, procedures for handling and loading, and precautions to be taken. The course was a 3-hour presentation, including a video, and was classified as recurrent training.

HP personnel had attended offsite training in the packaging and transportation of radioactive material in September 1990.

No violations or deviations were identified.

5. Radioactive Waste Management (86750)

The inspector reviewed the licensee's program for disposal of low-level radioactive waste to determine compliance with the requirements of 10 CFR 20.311, 61.55, and 61.56.

The inspector reviewed the licensee's radioactive waste solidification facility and equipment, the spent resin dewatering system, and the shredder/compactor. No changes had been made since the previous inspection.

The licensee had documentation of tests by an outside laboratory to verify that its solidification process met all requirements. The licensee had interim approval from the NRC's Office of Nuclear Reactor Regulation for its process control program.

The inspector reviewed the latest results of vendor analysis of waste stream sampling. The licensee performed annual sampling of waste streams and the results were used to derive scaling factors used to determine concentrations for the isotopes not measured directly. The inspector noted that sampling was performed in March of 1990. The results of the analysis were not received from the vendor until August and the procedure change incorporating the new figures had not been completed at the time of the inspection. Licensee representatives pointed out that they use a 3-year average factor for each isotope; therefore, the effects of annual fluctuations in analysis results were minimized.

The inspector reviewed the licensee procedure for classifying waste, verified the calculations of selected examples, and determined that the licensee's program met requirements of 10 CFR 61.55.

The inspector reviewed records of solidification of waste performed in accordance with Radwaste Procedure 2.5.4.1, "Solid Wet Waste Packaging, Storage, and Transfer System," and noted the inclusion of a QC step to verify proper solidification of waste. The licensee uses a "peer" QC program, one in which similarly qualified individuals verify satisfactory completion of a task. Licensee representatives stated that even though this operation was listed in QC Procedure 12.5, they were considering removing it because it did not conform to the intent of the QC program, as outlined in QC Procedure 12.1, which addresses items essential to the safety of the plant. Licensee representatives stated further that they would review other related radwaste, chemistry, and auxiliary equipment operating procedures to determine if they made reference inappropriately to QC requirements when it was intended only that second person verification be made. This is considered an open item pending further review by the inspector (298/9039-01).

The inspector reviewed selected examples of waste manifests. The inspector verified that the manifests contained the required addresses, descriptions, waste classifications, and certifications required by 10 CFR 20.311.

No violations or deviations were identified.

6. Transportation Activities (86750)

The inspector reviewed the licensee's radioactive materials transportation program for compliance with the requirements of 10 CFR Part 71 and the Department of Transportation (DOT) regulations, 49 CFR Parts 171 through 178.

The inspector verified that the licensee had copies of NRC and DOT regulations, burial site licenses, certificates of compliance for NRC-approved shipping containers of which the licensee was an approved user, and an approved QA program for radioactive materials packaging (No. 71-0484 - expiration date, November 30, 1992).

The licensee had completed 31 shipments of radioactive materials or radioactive waste since January 1, 1990. The inspector reviewed the documentation for selected shipments. These shipments included solidified waste, dewatered resin, and dry, activated waste. The inspector observed one of the shipments of dewatered resin prior to its departure for a burial site.

The inspector verified that the licensee had detailed procedures and checklists for preparation and shipping of radioactive material. The inspector reviewed the licensee's method of selecting packaging for radioactive shipments and confirmed that it was in accordance with requirements of 49 CFR 173. The inspector reviewed radiation and contamination surveys of shipments and procedures for loading, securing, marking, labeling of packages, and determined that they were adequate.

Licensee representatives stated that there had been no transportation incidents since the previous inspection.

No violations or deviations were identified.

7. Exit Meeting

The inspector met with the resident inspector and the licensee's representatives denoted in paragraph 1 at the conclusion of the inspection on November 30, 1990, and summarized the scope and findings of the inspection as presented in this report. The licensee did not identify as proprietary any of the materials provided to, or reviewed by, the inspector during the inspection.