

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-341/90021(DRSS)

Docket No. 50-341

License No. NPF-43

Licensee: The Detroit Edison Company
6400 North Dixie Highway
Newport, MI 48166

Facility Name: Fermi 2

Inspection At: Fermi Site, Newport, Michigan

Inspection Conducted: December 10-12, 1990

Inspector: M. A. Knowlton for 12-21-90
R. A. Paul Date

Approved By: M. A. Knowlton for 12-21-90
M. C. Schumacher, Chief Date
Radiological Controls and
Chemistry Section

Inspection Summary

Inspection on December 10-12, 1990 (Report No. 50-341/90021(DRSS))

Areas Inspected: Routine, unannounced inspection of the licensee's solid radwaste/transportation program, including: organization and management controls (IP 86750), training and qualifications (IP 86750), shipping and transportation (IP 86750), and audits and appraisals (IP 86750).

Results: The organizational structure, management controls, staffing levels, and upper management support for the radwaste/transportation program appeared generally adequate. The licensee's 10 CFR 61 waste classification, and characterization program appears to be good. No violations were identified.

DETAILS

1. Persons Contacted

- *R. Anderson, Superintendent Radiation Protection and RPM
- *R. DeLong, General Supervisor Radiation Protection
- *D. Gipson, Assistant Vice President and Manager
- *L. Goodman, Director, Nuclear Licensing
 - E. Kukosky, Radiation Protection Supervisor
 - W. Lipton, Senior Radiological Engineer
- *R. McKeon, Plant Manager
- *W. Orser, Senior Vice President, Nuclear Operations

- *S. Stasek, NRC Resident Inspector

The inspector also interviewed other licensee and contractor personnel.

*Denotes those present at the plant exit interview on December 12, 1990.

2. General

This inspection was conducted to review the licensee's solid radwaste/radioactive material shipping and transportation program and solid radwaste management program, including compliance with waste generator requirements of 10 CFR 20 and 10 CFR 61. The inspection included tours of the onsite radwaste facilities, observation of work in progress, review of representative records and reports, and discussions with licensee and contractor personnel.

3. Changes (IP 86750)

There have been no significant changes to the overall administration of the solid radwaste and transportation programs from that described in Inspection Report No. 50-341/89023. The licensee intends to change the organizational structure for implementing these programs in 1991, with apparently more responsibility for the operational part of the programs transferred to the operations department, and the radiation protection department continuing to provide oversight. The most significant change concerning the licensee's solid radwaste program has been the prohibition of all NRC licensees in the State of Michigan from transferring radioactive waste to authorized burial sites. As a result, no radioactive waste has been shipped from the station since November 7, 1990; all radioactive waste has been stored in the On Site Storage Facility (OSSF) since that time. The licensee has formulated a 5-year plan to cover waste handling, storage activities, and waste reduction at the OSSF. The use of the OSSF will continue to be reviewed during future inspections.

No deviations or violations were identified.

4. Training and Qualification of Personnel (IP 86750)

Personnel responsible for dry active waste (DAW) collection/processing, waste classification, manifest and shipment preparation, and surveying activities receive required training. The program includes comprehensive training in shipment and transfer of radioactive materials which addresses DOT and NRC requirements. The licensee also requires on-the-job-training for all workers involved in radwaste shipping surveys and receipt of radioactive material. In addition, workers involved in radwaste handling/processing are offered a course in radwaste rules and regulations given by Chem-Nuclear about yearly. The inspector verified that all radiation protection personnel allowed to carry out radwaste activities have received the required training and most have received the vendor training.

The inspector also verified that additional required training is scheduled for January 1991 to incorporate lessons learned as a result of violations and weaknesses in radwaste/transportation activities identified in Inspection Report No. 50-341/90018.

No violations or deviations were identified.

5. Implementation of Solid Radioactive Waste Program (IP 86750)

Solid radwaste continues to consist primarily of spent resins and filter sludge which are dewatered using a vendor (Chem-Nuclear) process system, and DAW. Dewatering operations are performed pursuant to NRC-approved Topical Reports and a process control program (PCP) which incorporates vendor procedures approved by the licensee. The inspector reviewed the PCP procedure and operating techniques; it appears the waste is prepared in accordance with the relevant requirements. The PCP currently allows only dewatering of resins and compaction of DAW; the licensee has recently requested it be revised to allow a vendor to perform cement solidification.

There have been no significant changes in the licensee's equipment and facilities and in the waste classification and waste reduction programs since described in Inspection Reports No. 50-341/88020 and 50-341/89023. A review of the licensee's calibration and surveillance programs for the vendor-installed trash bag and conveyor belt monitoring equipment used for waste treated as non-radioactive was performed; no significant problems were noted. The licensee's program for waste classification and characterization, and waste manifest and shipment tracking appears to be well developed, consistent with regulatory guidance, and properly implemented. DAW curie content calculational methods were reviewed and an independent calculation using another methodology was performed; no problems were found.

During a previous inspection (Inspection Report No. 50-341/89023), it was noted the licensee was experiencing high differential pressure problems with the condensate filter-demineralizers, which led to a short cycle time (2-3 days) for the condensate demineralizers. The short cycle led to an increased volume of partially spent resin which, among other things, has increased waste volume. Since that time, the licensee has

developed and implemented a condensate polisher improvement program, which has resulted in extending run times to about 9-10 days. The licensee is continuing to improve this program which, to date, has been a good effort. The inspector will continue to monitor progress in this area.

No violations or deviations were identified.

6. Audits and Appraisals (IP 86750)

In addition to inspections of each outgoing radioactive radwaste shipment, QA audits and surveillances are conducted. The last audit of the Radiological Material Transfer and Disposal Program (Audit No. 90-0127) was conducted in April and May, 1990. The audit was estimated to be about 85% performance based and the quality of the audit appeared good. One Deviation Event Report (DER) was issued and several observations were made; it appeared that adequate corrective actions were taken.

No violations or deviations were identified by the NRC inspector.

7. Transportation of Radioactive Material and Radwaste (IP 86750)

The inspector reviewed the licensee's radioactive material and radwaste transportation program to determine whether shipments are prepared and made in compliance with NRC and DOT requirements and the licensee's administrative and implementing procedures.

The inspector selectively reviewed portions of the solid radwaste shipment records for 1990 and the semi-annual waste reports. The information on the shipping papers appears to satisfy NRC, DOT, and burial site requirements, and with the exception of violations and weaknesses identified in two transportation incidents which are discussed in NRC Inspection Report No. 50-341/90018, no problems were found.

No violations or deviations were identified.

8. Exit Interview

The scope and finding of the inspection were reviewed with licensee representatives (Section 1) at the conclusion of the inspection on December 12, 1990. In particular, the inspector discussed the OSSF and the licensee's long term use of the facility (Section 3).