

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

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Report Nos: 50-237/99015(DRS); 50-249/99015(DRS)

Licensee: Commonwealth Edison Company (ComEd)

Facility: Dresden Nuclear Generating Station, Units 2 and 3

Location: 6500 N. Dresden Road
Morris, IL 60540

Dates: August 9-13, 1999

Inspectors: W. Slawinski, Senior Radiation Specialist
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Approved by: Gary L. Shear, Chief, Plant Support Branch
Division of Reactor Safety

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EXECUTIVE SUMMARY

Dresden Nuclear Generating Station, Units 2 and 3 NRC Inspection Reports 50-237/99015(DRS); 50-249/99015(DRS)

This routine, announced inspection assessed the effectiveness of the licensee's programs for the management of solid radioactive waste (radwaste) and for the transportation of radioactive material and radwaste. Specifically, the inspectors evaluated the implementation of the licensee's process control program (PCP) for processing waste streams into forms acceptable for land disposal and reviewed waste characterization methods, waste shipment manifesting, package preparation, and the training of staff involved in shipment activities. The inspectors also reviewed the station's audit program and assessment activities relative to waste processing and transportation, a November 1998 incident involving leakage of the liquid radwaste discharge line and the status of facilities and equipment associated with the radwaste program. Within these areas, the following conclusions were made:

Plant Support

- Experienced vendor staff and adequate licensee oversight of processing activities ensured effective implementation of the radwaste management program. Waste streams were processed onsite in accordance with vendor and licensee PCPs and station approved procedures, and dewatered waste streams were sampled and independently verified by station staff to ensure regulatory limits for free standing liquid were met. Plans to reduce the generation of dry active waste were developed and reduction strategies were implemented to address licensee identified deficiencies (Section R1.1).
- The licensee's program for the classification of radwaste shipments was technically sound, effectively implemented by staff well-versed in its application and included a comprehensive program for scaling factor derivation, trending and analyses (Section R1.2).
- The radioactive material and radwaste packaging and transportation program was effectively implemented. Shipments were appropriately classified and controlled, vehicle and package surveys were performed competently, and shipment manifests were completed in accordance with requirements (Section R1.3).
- A deficiency was identified with the method used by the radiation protection staff to ensure a package's contents were properly cribbed to prevent shifting during transit and discrepancies with worksheets and checklists in the shipment procedure were noted, both of which the licensee planned to address (Section R1.3).
- A November 1998 radwaste river discharge line and discharge valve flange leak was repaired, a decommissioning file was established as required by 10 CFR 50.75(g), and a radiological assessment supported the licensee's decision to postpone area remediation pending site decommissioning (Section R1.4).
- Material condition and housekeeping improvements in the radwaste building were noted and initiatives for additional, necessary improvements were ongoing (Section R2.1).

- Radioactive material inventory deficiencies were identified and several containers housing contaminated tools, equipment and radwaste stored in satellite radiologically restricted areas were not labeled in accordance with NRC requirements, resulting in a Severity Level IV Non-Cited Violation (Section R2.1).
- The training provided to staff involved in packaging, preparation, and shipment of radioactive materials and radwaste satisfied Department of Transportation regulations and imparted an adequate level of knowledge to ensure effective program implementation. The licensee's training program also included non-required elements that enhanced the training program such as a qualification itinerary and a continuing education program for radiation protection technicians (Section R5.1)
- While the licensee developed a comprehensive audit program which was implemented sufficiently to assess safety significant aspects of the radioactive materials transportation and radwaste processing programs, recent limited surveillance activities reduced the value of the oversight program (Section R7.1).

Report Details

IV. Plant Support

R1 Radiological Protection and Chemistry (RP&C) Controls

R1.1 Radioactive Waste (Radwaste) Management

a. Inspection Scope (86750)

The inspectors reviewed the licensee's solid radwaste management program including the licensee's process control program (PCP), the vendor's PCP and associated vendor implementing procedures for the processing of radwaste streams, the licensee's involvement and oversight of radwaste processing activities, and the development and implementation of a station plan to reduce the volume of contaminated dry wastes (dry active wastes (DAW)) generated at the station.

b. Observations and Findings

The licensee's solid radwaste streams consisted of depleted ion exchange resins from condensate and radioactive waste processing systems, evaporator concentrates, filter media, irradiated metals, and various types of DAW. Wastes from Unit-1, which is being decommissioned, included resin, sludge and DAW.

The licensee continued to employ experienced contractors to process wet solid wastes to meet the waste characteristic requirements of 10 CFR Part 61. Higher radioactive content spent resins (displaying contact dose rates >15R/hr) were dewatered by vendor personnel onsite using station approved procedures, packaged in high integrity containers (HICs) to satisfy waste stability requirements and shipped directly to licensed burial sites. Lower radioactivity resins (<15 R/hr), evaporator concentrates, and filter media were partially dewatered onsite, packaged in HICs and shipped to a vendor facility for thermal processing to meet the free standing liquid requirements of 10 CFR Part 61. These wastes were subsequently transferred by the vendor to a licensed burial site. Station laborers collected and packaged DAW from various areas within the plant and the waste was shipped to vendors for sorting, compaction or incineration, and disposal. Offsite contractor services were also used to decontaminate or process metals incident to free release or disposal. Station personnel indicated that vendor processing equipment was well maintained and functioned properly, ensuring that waste streams were appropriately processed.

The licensee maintained a PCP to establish the parameters and test criteria to ensure that radioactive waste was processed in a manner to ensure compliance with the requirements in 10 CFR Part 61 and with the low level disposal site licenses. The inspectors reviewed the vendor's and the licensee's PCP and determined that these documents provided sufficient information on the methodologies used to process each waste type generated at the station and were consistent with the requirements in 10 CFR Part 61. The inspectors verified that the PCP was revised to address deficiencies previously identified by the NRC (Inspection Report 50-237/98020(DRS); 50-249/98020(DRS)) and that it was consistent with the Updated Final Safety Analysis Report and current waste processing activities.

Licensee personnel provided effective oversight of vendor onsite processing activities. For example, vendor processing procedures were approved through the station's onsite review process, processing activities were continually monitored by station radwaste staff, and the successful completion of certain processing steps were independently verified by radwaste personnel. The inspectors' review of the vendor's procedure for dewatering confirmed that it was consistent with regulatory requirements and included tests to ensure that specified requirements were met. Vendor personnel interviewed by the inspectors confirmed that station radwaste staff monitored processing activities and independently verified that these activities were completed safely and in accordance with procedure. The inspectors review of waste processing data sheets confirmed that dewatered waste streams met 10 CFR Part 61 limits for free standing liquid. Additionally, the licensee's corporate health physics staff periodically audited offsite vendor facilities and a recent audit reviewed by the inspectors concluded that waste was properly tracked and controlled by the contractor.

The licensee recognized the need to reduce the amount of DAW generated at the station and took steps to identify and address deficiencies in this area. The licensee recently developed a DAW reduction plan, which focused efforts in problematic areas that resulted in unnecessary DAW generation at the plant and included a schedule of specific actions to address each noted deficiency. The inspectors' determined that the proposed actions adequately addressed those areas identified by the licensee as needing improvement. The plan implemented many of the 1997 Electric Power Research Institute (EPRI) recommendations for reduction of DAW generation and included steps to better control materials entering radiologically restricted areas (RRAs), continued efforts to identify sources of excessive DAW production, and establishment of a management committee to support the DAW plan. Reasonably timely and realistic schedules were established to rectify past poor practices and early phases of the minimization plan were proceeding satisfactorily.

c. Conclusions

Experienced vendor staff and adequate radwaste staff oversight of processing activities ensured effective implementation of the radwaste management program. Waste streams were processed onsite in accordance with vendor and licensee PCPs and station approved procedures, and dewatered waste streams were sampled and independently verified by station staff to ensure regulatory limits for free standing liquid were satisfied. Plans to reduce DAW generation were developed and reduction strategies were initiated to address licensee identified weaknesses.

R1.2 Classification of Radwaste Shipments

a. Inspection Scope (86750)

The inspectors reviewed the licensee's methods for determining the radioactivity content and classification of radwaste shipments, and evaluated waste stream sampling and analysis practices and scaling factor program implementation. Corporate and station radiation protection (RP) staff were interviewed about the classification program, sample analysis and waste stream scaling data and program implementing procedures were reviewed, and calculations were independently made to verify program implementation.

b. Observations and Findings

The licensee established a scaling factor program for the sampling of radwaste streams and for analysis of difficult to measure (DTM) radionuclides used to determine the concentration of waste shipments, consistent with industry guidance and the NRC's branch technical position on waste classification. The licensee sampled and analyzed Unit-2/3 waste streams that included resins from the spent resin storage tank, evaporator bottoms (concentrator waste) sludge, a variety of DAW, filter media, and occasionally powdered resin from the cleanup sludge tanks. Unit-1 samples included DAW and resin and sludge generated from a vendor supplied advanced liquid processing system and from radwaste storage tanks, respectively. Waste streams typically classified as class A were sampled biennially and those typically classified as class B or C such as resins from the spent resin tank were sampled annually, unless reactor coolant chemistry data indicated a potential shift in waste classification. Unit-1 waste streams were sampled and analyzed annually, or previous samples and scaling factor data were decay corrected since waste stream isotopic contents remained stable because Unit-1 had not operated and was defueled for many years.

Sample analyses were contracted to a vendor laboratory, and scaling factors were generated by the laboratory to correlate the concentration of DTM radionuclides to more easily measured gamma emitters. Results were then averaged with recent historical data to establish waste stream specific scaling factors, which were used to calculate the radioactivity content of waste shipments pursuant to 10 CFR Part 61. Scaling factor data was entered into a database, and waste shipment classification was determined by a vendor supplied software program which related measured package dose rates to the concentrations of gamma emitters.

The inspectors determined that the licensee's scaling factor program and waste classification methods were technically sound and included a comprehensive procedure which provided guidance on waste stream sampling, scaling factor derivation, and specific criteria for trending reactor water chemistry data that could affect waste stream classification. Concentrations of technetium-99 (Tc-99) and iodine-129 (I-129), fission products not normally identified in the licensee's waste streams, were scaled using boiling water reactor averages consistent with industry practices. Industry averages for Tc-99/I-129 were also used for Unit-1, which yielded conservative scaling data since these water soluble isotopes would not be expected to appreciably exist in the residual waste streams or otherwise be produced during decommissioning activities. Waste shipment tritium concentrations were calculated annually based on conservative assumptions of waste stream moisture content and measured reactor coolant system tritium results, which the inspectors determined to be appropriate. The staff also ensured that representative waste stream samples were obtained, that area smear surveys for DAW were collected in appropriate plant locations, and that reasonable steps were taken to ensure that sample moisture content was equivalent to the processed waste stream.

The inspectors selectively reviewed waste stream sampling information for 1998 and 1999 to date, independently calculated the activity content of recent waste shipments and compared them to the licensee's values, discussed waste classification activities with involved RP staff and determined that the scaling factor based waste classification program was implemented appropriately by knowledgeable staff. The inspectors also verified that reactor coolant chemistry data was trended in accordance with procedure.

c. Conclusions

The licensee's program for the classification of radwaste shipments was technically sound, effectively implemented by staff well-versed in its application and included a comprehensive program for scaling factor derivation, trending and analyses.

R1.3 Shipment Preparation and Transportation

a. Inspection Scope (86750)

The inspectors reviewed the radioactive material and radwaste packaging and transportation program for compliance with NRC, Department of Transportation (DOT), and waste burial site license requirements. This review included interviews with RP staff involved in the transportation program, observation of shipment preparation activities, and inspection of records of past shipments and applicable procedures.

b. Observations and Findings

Designated shipment qualified personnel provided continual oversight of the radioactive material and radwaste transportation program and ensured by direct involvement that packages were properly prepared, that waste destined for burial site disposal was correctly characterized, and that all applicable NRC and DOT requirements were met before a shipment was certified and its release was authorized from the site.

In most instances, the licensee used a vendor software program to compute the activity of each package offered for transport based on dose-to-curie calculations. In completing this calculation, the software accounted for the isotopic abundances in each waste stream and decay corrected each shipment as applicable. The inspectors independently verified that the software's activity calculations were accurate for several radioactive material and radwaste shipments made during 1998 and 1999 through the date of the inspection. Also, the licensee's corporate health physics staff periodically verified the software calculations and last confirmed the accuracy of the computations in early 1999.

The inspectors reviewed Procedure DRP 5600-07, "Shipment of Radioactive Materials," and other procedures governing the implementation of the transportation program and determined that they were consistent with the station's practices and with DOT and NRC regulations. The inspectors also found that procedures were generally thorough, in that they provided sufficient guidance to ensure that requirements were met. However, the licensee planned to correct inspector identified errors in the worksheets used to prepare shipments of surface contaminated objects (SCOs) and to expand procedure checklists to more fully coincide with DOT requirements. The inspectors confirmed that errors in some numerical values listed on the SCO worksheets did not affect shipment compliance.

The inspectors observed the loading and preparations for two outgoing radioactive material shipments that were made during the inspection. The inspectors verified that the packages were properly marked, labeled and blocked and braced to satisfy DOT requirements, and that the vehicle was placarded and the driver was provided appropriate written instructions for exclusive use shipments. In addition, the inspectors determined that a radiation protection technician (RPT) completed comprehensive

radiation surveys to support shipment preparation and was knowledgeable of radiological survey requirements and associated DOT criteria. The inspectors noted, however, that shipment qualified staff only visually checked the cribbing of contaminated scaffolding and other equipment contained in two "seavans" (large packages) that were loaded weeks earlier by station laborers, a practice that RP management acknowledged should be supplemented by physical checks.

The station made over 250 radioactive material and approximately 75 radwaste shipments during the 15 month period preceding the inspection, including several made directly to a low level waste burial site after onsite processing. Most radwaste shipments made during this period were sent to waste processors prior to ultimate disposition by the vendor. The inspectors verified that six selected radioactive material/radwaste shipments made since June 1998 were correctly classified according to 10 CFR Part 61 and DOT regulations, that scaling factors were properly applied, that package labeling and marking was satisfactory, and that results of package and transport vehicle surveys satisfied DOT requirements. The inspectors also verified that shipment manifests were completed consistent with the regulations, included proper emergency response information, and that radwaste shipments were tracked as required by 10 CFR Part 20.

c. Conclusions

The radioactive material and radwaste packaging and transportation program was effectively implemented. Shipments were appropriately classified and controlled, vehicle and package surveys were performed competently, and shipment manifests were completed in accordance with requirements. However, a deficiency was identified with the method used by licensee staff to ensure a package's contents were properly cribbed to prevent shifting during transit and discrepancies with shipment procedure worksheets and checklists were noted, both which the licensee planned to address.

R1.4 Radwaste Discharge Line Leakage Problem

a. Inspection Scope (83750)

The inspectors reviewed the circumstances and the licensee's actions associated with a leak in the radwaste river discharge line and isolation valve. Licensee RP staff were interviewed, problem identification forms and associated documentation were reviewed and photographs of the affected areas were viewed.

b. Observations and Findings

During work on the radwaste river discharge canal isolation valve in November 1998, the licensee identified that leakage from the valve flange contaminated the soil in the immediate vicinity of the valve. The flange leak was repaired and soil samples showed the presence of cobalt-60, cesium-137 and manganese-54 at concentrations slightly above the lower limits of detection for environmental samples. Subsequently, leakage was identified in the radwaste discharge line just upstream of the isolation valve where the line emerged from the ground. The soil in the vicinity of the discharge line was excavated, the line leak repaired and additional soil characterization samples showed concentrations of radionuclides similar to those collected near the flange leak.

Licensee assessments showed that the contaminated soil did not create an external radiation dose hazard or otherwise pose a radiological hazard to the environment since releases made from plant operations to the radwaste discharge line were controlled and evaluated for compliance with public dose limits. According to the licensee, the discharge line had been replaced several years ago because of previous line leaks, which had also deposited small quantities of radioactive material in the soil. Since the contaminated soil was located within the owner controlled area and in a posted radiologically restricted region of the site, the licensee decided to leave the soil in place and a decommissioning file was established pursuant to the requirements of 10 CFR 50.75(g). The inspectors evaluated the licensee's response to the problem and concluded that the licensee's actions were adequate and that the licensee's documentation satisfied regulatory requirements.

c. Conclusions

A November 1998 radwaste river discharge line and discharge valve flange leak was repaired, a decommissioning file was established as required by 10 CFR 50.75(g), and a radiological assessment supported the licensee's decision to postpone area remediation pending site decommissioning.

R2 Status of RP&C Facilities and Equipment

R2.1 Walkdowns of Radwaste Facilities and Satellite Storage Areas

a. Inspection Scope (86750)

An inspector conducted walkdowns of the Unit-2/3 radwaste building, the Unit-1 radwaste yard and satellite RRAs where radioactive material and radwaste was stored, and evaluated material condition, housekeeping and radiological posting and controls.

b. Observations and Findings

The inspector verified that high and locked high radiation areas were controlled in accordance with regulatory requirements and that areas were posted consistent with 10 CFR Part 20. The inspector noted that material condition in the radwaste building was adequate and had improved since previously reported (Inspection Report 50-237/98025 (DRS); 50-249/98025(DRS)). In particular, the licensee recently completed a floor drain hydrolazing project in the Max Recycle Area of the Radwaste Building, repaired several piping and valve leaks and reduced the backlog of DAW in the radwaste building storage bays. While some improvements in radwaste building housekeeping were also noted, the licensee recognized that additional improvement was necessary to achieve the higher standards maintained in other areas of the plant. To ensure continued and sustained improvement in the radwaste building, the licensee assigned one of its radwaste specialists responsibility for the area. The individual tracked work request completion status and provided weekly progress reports to station management. However, the licensee postponed completion of the Unit-2/3 main concentrator waste tank vault cleanup, a project initiated in March 1998, while problems with robotic equipment used for the cleanup were resolved and a planned October 1999 refueling outage was completed. The licensee acknowledged that the projects postponement would impact completion of radwaste building housekeeping initiatives.

Inspector walkdowns of satellite RRAs revealed problems with the labeling of several containers housing radioactive material and radwaste, and with the inventory of the materials stored in these areas. Specifically, several seavan containers located in the Unit-1 radwaste yard and housing a variety of tools and equipment contaminated with small but unknown quantities of radioactive material were not labeled to indicate that the containers stored radioactive material. Similarly, approximately ten "B-25" boxes stored in an outdoor area adjacent to the Interim Radwaste Storage Facility and housing contaminated soil and equipment were either not labeled to indicate the presence of radioactive material, or existing labeling was weathered and worn and label information was not legible. In addition, the specific radioactive content of the containers was unknown because inventories were not completed. Therefore, the labeling exemptions of 10 CFR 20.1905 did not apply even though radiation work permits controlled entry into these areas.

10 CFR 20.1904 requires that each container of licensed material bear a durable, clearly visible label bearing the radiation symbol and the words "Caution, Radioactive Material" or "Danger, Radioactive Material." The label must also provide sufficient radiological information to permit individuals handling or using the containers, or working in the vicinity of the containers, to take precautions necessary to avoid or minimize exposures. The failure to clearly label the B-25 boxes and the seavan containers are examples of a violation of 10 CFR 20.1904. This Severity Level IV violation is being treated as a Non-Cited Violation, consistent with Appendix C of the NRC Enforcement Policy (50-237/99015-01(DRS); 50-249/99015-01(DRS)).

After the labeling problem was brought to the licensee's attention, the containers identified by the inspector were labeled and the licensee walked down other satellite RRAs to ensure that no other unlabeled containers existed. Problem Identification Form (PIF) # 99-321 was generated and the violation was entered into the licensee's corrective action program. The licensee recognized the need for a radioactive material inventory system and a corporate procedure was drafted to address that deficiency. The RP staff was developing an inventory system and implementing procedure to coincide with the corporate guidance.

c. Conclusions

Material condition and housekeeping improvements in the radwaste building were noted and initiatives for additional, necessary improvements were ongoing. Radioactive material inventory deficiencies were identified and several containers housing contaminated tools, equipment and radwaste maintained in satellite RRAs were not labeled in accordance with NRC requirements, resulting in a Severity Level IV Non-Cited Violation.

R5 Staff Training and Qualifications in RP&C

R5.1 Training of Staff Involved in the Transportation of Radioactive Material and Radwaste

a. Inspection Scope (86750)

The inspectors reviewed the training provided to station staff involved in radioactive material transportation activities (i.e., hazardous material (hazmat) employees). The inspectors discussed the training program with station staff; reviewed training

certificates, test results, and lessons plans; and evaluated qualification criteria for RP and chemistry staff involved in radioactive material transport.

b. Observations and Findings

The licensee identified individuals who were responsible for ensuring that radwaste and radioactive materials were properly packaged and prepared for transport and designated several "shipping qualified personnel" who were approved to sign radioactive materials shipping papers and authorize the release of shipments. These individuals verified that packages were properly marked and labeled, that waste destined for burial site disposal was properly characterized, and that all NRC and Department of Transportation requirements were met before certifying the shipment and authorizing its release. In addition, several shipping "inspectors" were assigned to provide oversight of packaging and surveys during shipment activities, RPTs were assigned radiation survey responsibility, and station laborers were responsible for loading and unloading packages containing radioactive material.

The inspectors reviewed the training lesson plans, training certificates, and test results for selected individuals involved in the shipping and receipt of radioactive material packages. The inspectors' review determined that the course material provided to these hazmat employees satisfied 49 CFR 172.704 requirements, that the information provided was accurate, that recurrent training was provided at the required interval, and that appropriate personnel completed hazmat training. The licensee tested the workers on the information provided, as required, and maintained documentation to demonstrate that workers successfully completed the courses. Interviews of shipping qualified personnel revealed that they were very knowledgeable of pertinent transportation requirements.

Although not a regulatory requirement, the station also developed on-the-job qualification programs for RPTs and shipping inspectors involved in radioactive material shipping activities. The inspectors reviewed these qualification criteria and noted that they included elements that would effectively assess worker knowledge and covered pertinent transportation requirements and industry events. The RPT qualification criteria also included annual performance based continuing education which required that the technicians properly respond to hypothetical shipping scenarios.

c. Conclusions

The training provided to staff involved in packaging, preparation, and shipment of radioactive materials and radwaste satisfied DOT regulations and imparted an adequate level of knowledge to ensure effective program implementation. The licensee's training program also included non-required elements that enhanced the training program such as a qualification itinerary and a continuing education program for RPTs.

R7 **Quality Assurance in RP&C Activities**

R7.1 Audits and Assessments of Radwaste Processing and Transportation

a. Inspection Scope (86750)

The inspectors reviewed the quality assurance (QA) program to assess the station's ability to identify and correct problems related to radwaste processing and transportation of radioactive materials. Specifically, the inspectors interviewed nuclear oversight department (NOD) and RP personnel and reviewed NOD field observations completed between July 1998 and August 1999.

b. Observations and Findings

The inspectors determined that the NOD audit program was generally comprehensive and included aspects essential for effective problem identification and resolution. For example, the station's master audit plan (MAP) was developed based on Institute for Nuclear Power guidelines and included areas for inspection that were similar to those included in NRC inspection procedures. To ensure the proper level of oversight, the plan permitted adjustment of audit frequency and scope based on previous findings. Lead auditors developed specific issues to be addressed and guidance on inspection techniques to ensure that each area was sufficiently evaluated. In addition, the station had recently implemented a continuing assessment program which was expected to permit more thorough assessments, in that the revised plan permitted longer review times and provided more structured guidance regarding areas to be reviewed. Timely resolution of audit findings was accomplished through a NOD database tracking system and the plant's corrective action system. An appropriate level of independence among audit team members was accomplished by including individuals from other stations.

The inspectors reviewed the NOD staffs implementation of the radwaste processing and transportation audit program. Audits of the radwaste and transportation programs were conducted biennially as required by the station's QA program and MAP and problems identified were addressed in a timely manner, as documented in Inspection Report 50-237/98020(DRS); 50-249/98020(DRS). In accordance with station procedure, the NOD supplemented the formal assessments with field observations, which were performed at the discretion of the oversight group. Although these audit activities ensured that safety significant issues were addressed, there were minimal surveillance activities related to implementation of the waste processing or radioactive material shipment programs since the last formal audit. Specifically, although field observations focused on radiological work practices during radwaste operations, there were no field observations or other NOD assessments of vendor processing activities or shipment activities since at least July 1998. During this thirteen month period, numerous opportunities existed to conduct performance based reviews of these activities, in that approximately 300 shipments were made and several waste streams were processed onsite. Other than an informal self-assessment completed on August 4-6, 1999, the RP staff also did not recently evaluate implementation of these program areas. In addition, according to NOD staff, review of the station's waste classification methods and scaling factor program were not routinely included in their field observations or audits, in part, because station staff lacked expertise in this area. While the licensee's recent performance in the areas of radwaste processing and transportation has been good, the licensee acknowledged that increased oversight in

these program areas would permit proactive identification of potential problems and add value to the program.

c. Conclusions

While the licensee developed a comprehensive audit program which was implemented sufficiently to assess safety significant aspects of the radioactive materials transportation and radwaste processing programs, recent limited surveillance activities reduced the value of the oversight program.

V. Management Meetings

XI Exit Meeting Summary

The inspectors presented the inspection results to Mr. Heffley and other licensee management and staff at the conclusion of the inspection on August 13, 1999. The licensee acknowledged the inspection findings and identified no proprietary information.

PARTIAL LIST OF PERSONS CONTACTED

J. Almon, Training Manager
D. Ambler, Regulatory Assurance Manager
S. Bell, Shipment Health Physicist (Corporate)
D. Doggett, Radiation Protection Field Operations Supervisor
R. Fisher, Operations Manager
T. Fisk, Chemistry Supervisor
M. Gagnon, Shipment Health Physicist
D. Haney, Chemistry Radwaste Specialist
M. Heffley, Site Vice President
R. Kelly, Regulatory Assurance, NRC Coordinator
C. Kolotka, Chemistry Radwaste Specialist
W. Lipscomb, Executive Assistant
J. Moser, Radiation Protection Manager
L. Oshier, Radiation Protection Technical Support Supervisor
M. Pacilio, Work Control Manager
M. Pavey, Nuclear Oversight Assessor
B. Stoffels, Maintenance Manager
J. Stone, Nuclear Oversight Manager
D. Villicana, Radiation Protection Training Administrator

INSPECTION PROCEDURES USED

IP 83750: Occupational Radiation Exposure
IP 86750: Solid Radioactive Waste Management and Transportation of Radioactive Materials

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-237/99015-01 NCV Failure to label containers housing radioactive materials and
50-249/99015-01 stored in satellite radiologically protected areas.

Closed

50-237/99015-01 NCV Failure to label containers housing radioactive materials and
50-249/99015-01 stored in satellite radiologically protected areas.

Discussed

None

LIST OF ACRONYMS USED

CFR	Code of Federal Regulations
DAW	Dry Active Waste
DOT	Department of Transportation
DTM	Difficult to Measure
EPRI	Electric Power Research Institute
Hazmat	Hazardous Material
HIC	High Integrity Container
LSA	Low Specific Activity
MAP	Master Audit Plan
NOD	Nuclear Oversight Department
PCP	Process Control Program
PIF	Problem Identification Form
QA	Quality Assurance
Radwaste	Radioactive Waste
RP	Radiation Protection
RP&C	Radiological Protection and Chemistry
RRA	Radiologically Restricted Area
RPT	Radiation Protection Technician

PARTIAL LIST OF DOCUMENTS REVIEWED

Station Procedures

DRP 5600-07, (Rev 02), Shipment of Radioactive Material
DRP 5600-03, (Rev 01), Classification of Radioactive Waste
DRP 5610-06, (Rev 06), Surveying Radioactive Material Shipments
DRP 5600-13, (Rev 02), 10 CFR 61 Waste Stream Sampling and Analysis
DAP 07-02, (Rev 4), Dresden Nuclear Power Station Process Control Program
DAP 09-05, (Rev 07), Review and Approval of Non-Station Work Group Procedures
NO-31, (Rev 1), Field Observation Program
NO-38, (Rev 1), Master Audit Plan

Other Documents

10 CFR 50.75 (g) file #99-003, Radwaste Line Discharge Valve Leak Area

Shipment Manifests and Associated documentation for:

Shipment # 99-136, August 11, 1999, (Unit 2/3 DAW)
Shipment # 99-127, June 30, 1999, (Unit 1 DAW)
Shipment # 1198-8742, November 19, 1998, (Unit 2/3 Dewatered Spent Resin)
Shipment # 99-122, June 28, 1999, (Unit 2/3 Concentrator Waste)
Shipment # 99-9132, May 21, 1999, (Unit 2/3 Irradiated Hardware)
Shipment # 98-0233, November 20, 1998, (Unit 2/3 DAW)

Chem-Nuclear Systems, Inc. Document FO-OP-023, (Rev 17), Bead/Resin/ Activated Carbon Dewatering Procedure for CNS 14-215 or Smaller Liners.

Chem-Nuclear Systems, Inc. Document DM-OP-022, (Rev 05), Process Control Program for CNSI Liquid Waste Processing Systems.

Dresden Updated Final Safety Analysis Report, (Rev 3), Chapter 11.4, Solid Waste Management System.

Lesson Plan, Level II Radioactive Materials Shipping Training, (Rev 3).

Lesson Plan, Radioactive Materials Shipping, (Rev 14).

Lesson Plan, Radioactive Materials Shipping Initial training, (Rev 3).

Package Vehicle Inspector On-the-Job training Manual, (Rev 0).

Qualification Checklist 12T0604, "Inspect, Prepare, Control, and Survey Radioactive Shipments", (Rev 1).

Qualification Checklist 12T0605, "Perform Surveys of Radioactive Materials Received", (Rev 3).