

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 50-373; 50-374
Licenses No: NPF-11; NPF-18

Reports No: 50-373/97010(DRS); 50-374/97010(DRS)

Licensee: Commonwealth Edison Company

Facility: LaSalle County Nuclear Power Station
Units 1 and 2

Location: 2601 North 21st Road
Marseilles, IL 61341

Dates: June 22-27, 1997

Inspector: N. Shah, Radiation Specialist

Approved by: G. L. Shear, Chief, Plant Support Branch 2
Division of Reactor Safety

EXECUTIVE SUMMARY

LaSalle County Nuclear Power Plant, Units 1 and 2
NRC Inspection Reports 50-373/97010; 50-374/97010

This inspection included a review of the solid radioactive waste (radwaste) processing and shipping and the radiological environmental monitoring (REMP) programs. Observations of significant radiological work, such as the ongoing spent fuel pool inventory reduction/cleanup, were also performed.

- The licensee's as-low-as-reasonably-achievable (ALARA) planning and radiological controls for the spent fuel pool cleanup project were effective. A significant skin exposure from a hot particle contamination occurring during the job was well characterized by the licensee. Appropriate controls were used for items stored in the fuel pool (Section R1.1).
- The licensee's solid radwaste and transportation program was implemented consistent with regulatory requirements. However, several problems were identified with the accuracy of shipping procedures, tracking/logging of shipments and RP review of shipping packages. In particular, a Non-Cited Violation was issued for the procedural problem (Section R1.2).
- The REMP program was well implemented (Section R1.3).
- The licensee's inspection of infrequently entered radwaste tank rooms identified no ongoing leakage or corrosion concerns and was done using appropriate ALARA controls (Section R2.1).
- Several problems were observed with the licensee's radioactive material storage program which, collectively, indicated weaknesses in the communication of radiological hazards to the worker and in the control of radioactive material. Management expectations for these concerns were not clearly communicated in station procedures (Section R2.2).
- Radiological housekeeping and radworker performance were observed to be acceptable in the Units 1 and 2 Turbine and Reactor Buildings. One additional example of poor communication of radiological hazards to workers was identified with ladder survey tags. The licensee was effectively addressing contamination control concerns identified with the overhead ventilation units (Section R4.1).
- Overall, radiation exposure for routine radwaste processing and shipping activities was low and was consistent with the work performed. Radiological controls and contractor oversight of observed radwaste activities was good (Section R4.2).
- The licensee's audit of the radwaste transportation program was technically sound and did not identify any significant shipping issues. However, several of the deficiencies identified by the inspector were recurrent and should have been addressed by corrective actions taken to resolve the audit findings. This was

considered an example of a weakness in the licensee's oversight of the radwaste processing and transportation program (Section R7.1).

Report Details

IV PLANT SUPPORT

R1 Radiological Protection and Chemistry (RP&C) Controls

R1.1 Spent Fuel Pool Inventory Reduction/Cleanup

a. Inspection Scope

The inspector reviewed the licensee's cleanup of the spent fuel pool and cask well areas, a hot particle event that occurred during the job, and the control of items stored in the pool. The inspection consisted of a review of radiation work permit (RWP) no. 970249 (revision (rev.) 0) "Clean up of Spent Fuel Pools and Cask Well" and of station procedure no. LFP-100-5 (rev. 4) "Control of Material/Equipment in or Around the Spent Fuel Storage Pools, Cask Well, Drywer/Separator Pit, Reactor Cavity, and New Fuel Storage Vault," interviews with workers, observations of work and attendance at pre-job and ALARA planning meetings.

b. Observations and Findings

The work scope consisted of removing, packaging and shipping irradiated waste products (such as control rod drive components and low range power range monitors) in the pools and well areas. Contractors were performing the work with station RP oversight and about 7.6 rem total exposure was estimated for the project. As of June 1997, about 1 rem was accrued with the work being about 5% complete. The additional exposure was due to significant levels of alpha contamination (100-300 disintegrations per minute (dpm)) being identified on the contractors equipment during the incoming radiological surveys. This required that the equipment be decontaminated prior to performing work. Based on this emergent activity, the licensee was planning to reevaluate the dose goal.

The inspector noted that RP controls were based on previous similar work, were appropriately listed on the RWP and were well communicated during the prejob and ALARA planning meetings. In particular, the RP staff responsible for the job were aware of the importance of maintaining proper controls over movement of irradiated components and were familiar with industry events where significant exposures had occurred during similar work. During walkdowns, the inspectors observed good job coverage by the RP technicians and oversight of contractors. For example, RP technicians used both underwater and extendable (i.e. teletector) radiation instruments to perform radiological surveys of items being removed from the pool and a water lance was used to reduce contamination levels and area dose rates. The inspector also noted that appropriate controls (i.e. air sampling, postings, etc) were established for those areas having high levels of alpha contamination and that the RP staff had established provisions for internal dose monitoring (including bioassay) in the event of an intake.

The inspector reviewed an event where a worker received about 500 mrem shallow dose from a 150,000 dpm hot particle (primarily cobalt-60) received during the fuel pool work. The particle was identified by the RP staff after the worker was unable to clear a personnel contamination monitor. The inspector verified that the licensee had appropriately calculated the exposure and that a subsequent radiological survey had identified no other hot particles in the area.

The inspector verified that items stored in the pool were appropriately logged as required by the above procedure and, through interviews, that workers were aware of the procedural requirements and of industry concerns regarding the use of nylon rope/cord in high radiation fields.

c. Conclusions

The licensee's ALARA planning and radiological controls for the spent fuel pool cleanup project were effective. A significant skin exposure from a hot particle contamination occurring during the job was well characterized by the licensee. Appropriate controls were used for items stored in the fuel pool.

R1.2 **Solid Radioactive Waste (Radwaste) and Transportation Programs**

a. Inspection Scope

The inspector reviewed the licensee's solid radwaste and transportation programs as described in the Final Safety Analysis report (FSAR) and Process Control Program (PCP). The review included records of past shipments (denoted below), interviews with applicable plant personnel, and a review of training records and NRC guidance documents concerning radwaste shipping and transportation. The licensee's implementation of the following station procedures was also reviewed:

LRP 5600-4 (rev 3), "Completion of Radioactive Material Shipping Record"
LAP 100-27 (rev 13), "Guidelines for Radioactive Waste/Material Shipments"
LRP 5600-7 (rev 4), "Shipment of Radioactive Materials"
LRP 1520-8 (rev 2), "Determination of Waste Classification for Radioactive Waste Shipments"
LAP 1700-14 (rev 8), "Radioactive Waste/Material Shipment Inspection and Documentation Review"
LRP 5610-6 (rev 0), "Surveying Radioactive Material Shipments;" and
LRP 1520-9 (rev 6), "External Exposure Control of Solid Radioactive Waste Shipments"

Additionally, the inspectors reviewed radwaste shipment nos. 97-010 (Bead Resin), 97-01 (Dry Active Waste and Filters), 97-46 (Evaporator Bottoms) and 97-37 (Dry Active Waste and Filters). There were no licensee shipping activities occurring during this inspection.

b. Observations and Findings

There were no significant changes in the solid radwaste processing program as described in the PCP and FSAR. An increasing trend was observed in radwaste volume and shipments owing to the extended outage work and a significant effort, since 1995, to reduce the amount of radwaste stored on-site. For example, as of June 1997, the licensee had made about 41 shipments (about 780 m³) compared to 49 shipments (about 2494 m³) total in 1996. The licensee expected these numbers to decline once the outage work was completed and from increased worker awareness (through training) of the need for reducing generated waste.

The inspector verified that the licensee maintained current copies of NRC, Department of Transportation (DOT) and applicable burial site regulations. Licensee personnel responsible for the transfer, packaging and transport of radwaste were trained (within the last two years) and were knowledgeable of the revised DOT rules. In particular, the inspectors verified that the licensee was familiar with the revised requirements for Low Specific Activity, Surface Contaminated Objects and Fissile material shipments. Additionally, the inspectors verified that DOT Subpart H HAZMAT training was provided to the appropriate workers (primarily operators, RP technicians and contract station laborers).

However, the inspector identified several problems with the following specific aspects of the shipping program:

- There were numerous examples where the shipping procedures listed the incorrect regulatory reference or where the guidance as stated was wrong or confusing. For example, attachment T of procedure no. LRP-5600-7 incorrectly stated that the limited quantity for packages containing liquids other than tritium was $\leq 1E-04$ of the radionuclide's A_1 value instead of $\leq 1E-04$ of the A_2 value as stated in table 7 of 49 CFR part 173.425. The inspector verified that there had been no recent limited quantity shipments, that those workers responsible for implementing this procedure understood the correct regulatory requirements, and that the licensee planned to further review and revise the affected procedures. The failure to maintain accurate guidance in the shipping procedures is being treated as a Non-Cited Violation consistent with Section IV of the NRC Enforcement Policy (NCV 50-373/374-97010-01).
- The licensee did not designate, in writing, those individuals responsible for the safe packaging, transfer and transport of radwaste per the guidance in NRC Inspection and Enforcement (IE) Bulletin no. 79-19 (dated August 1979). Although not a regulatory requirement, such a list, as stated in the bulletin, ensures that personnel having such responsibility are clearly identified and that they have received the appropriate training.

The inspector also identified a problem with the logging/tracking of radwaste shipments. In particular, the inspector noted that the licensee had not yet received a receipt notification from the burial site for several shipments that were shipped

about 12-18 days earlier. 10 CFR Part 20, appendix F, section E, required that the licensee initiate an investigation and contact the NRC if no receipt notification has been received within 20 days after shipment. The licensee was aware of the requirement, but was not aware that the shipments in question were approaching the due date. Subsequently, the licensee contacted the burial site and confirmed that the shipments had been received prior to the 20 day limit. These concerns were discussed with RP management who planned to develop corrective actions.

The licensee used a vendor program (i.e. RADMAN) to classify waste, determine if any reportable quantity (RQ) limits were exceeded and to generate shipping papers. The inspectors verified that the program database contained the correct RQ and radwaste activity limits for waste classification, used system internationale (SI) units when applicable and, through independent calculation, that shipment no. 97-46 was correctly characterized. Additionally, the inspectors verified that valid licenses and certificates of compliance were maintained for shipping casks and high integrity containers (HICs) used in the above shipments.

While reviewing the above shipping packages, the inspector identified a discrepancy with the shipping papers for shipment no. 97-37. The RADMAN classification sheet for this shipment indicated that the sum of the RQ fraction was ≥ 1.0 . However, the manifest did not include the letters "RQ," which was required (per 49 CFR 172.203(c)(2)) when this limit was exceeded. Although RP shipping personnel had identified this discrepancy, they did not verify whether the shipment contained a reportable quantity before shipping. Subsequently, the licensee verified that the shipment was not a reportable quantity and determined that the problem resulted from a rounding-off error in RADMAN. Several other errors with shipping papers were also identified by the inspector. For example, the manifest for shipment no. 97-01 correctly listed the shipping cask no. as USA/9094/A, but the associated notification to the state of South Carolina Department of Public Health incorrectly listed the cask as no. USA/9176/A. These discrepancies were not violations of regulatory requirements, but collectively indicated a weakness in the licensee's review of shipping paperwork.

Scaling factors for 10 CFR part 61 waste characterization analyses were generated consistent with the NRC Branch Technical Position for waste classification and waste form. When necessary, these factors were reviewed by the licensee if there was a significant variance in routine sampling results or after significant changes in reactor water chemistry.

c. Conclusions

The licensee's solid radwaste and transportation program was implemented consistent with regulatory requirements. However, several problems were identified with the accuracy of shipping procedures, tracking/logging of shipments and RP review of shipping packages. In particular, a Non-Cited Violation was issued for the procedural problem.

R1.3 Radiological Environmental Monitoring Program (REMP)

a. Inspection Scope (84750)

The inspector reviewed the licensee's implementation of the REMP program. The inspection consisted of a review of the 1996 annual REMP report, interviews with workers and observations of routine REMP sampling and collection activities performed by a contractor technician.

b. Observations and Findings

The REMP program was conducted as described in the FSAR, Offsite Dose Calculational Manual (CDCM), and licensee Technical Specifications. Required environmental samples were collected and analyzed; missing samples (and corrective actions) were documented; and the annual land use census had been conducted as required. The environmental sample results were analyzed at the lower limits of detection specified in the ODCM and indicated that there had been no discernable radiological impact on the environment from the operation of the facility. Observed air sampling equipment was within calibration and well maintained. Sampling locations were as described in the 1996 report and the ODCM. The contract technician was knowledgeable of the sampling process and used good sample collection technique. Through interviews, the inspector verified that the contractor had good oversight by both contract and licensee management and that identified discrepancies were documented.

c. Conclusions

The REMP program was well implemented.

R2 Status of RP&C Facilities and Equipment

R2.1 Condition of Radwaste Tank Rooms

a. Inspection Scope

The inspector reviewed the results of a recent licensee inspection of infrequently entered radwaste tank rooms. The inspection consisted of interviews with workers and a review of the licensee's videotaped results. The licensee does not have a formal program for this type of inspection, but, as documented in inspection report 95011, had done a similar walkdown (with NRC accompaniment) in 1995.

b. Observations and Findings

The licensee's inspection was performed for 25 mrem (similar to the 1995 results) and used good ALARA techniques such as the use of remote video surveillance. The specific areas/tanks inspected were: the ultrasonic resin clean waste sludge tanks, the spent resin pump room, the radwaste discharge and sample tanks, the

unit 1 head tank, and the units 1 & 2 waste flocculation, waste floor drain concentrator and floor drain and chemical waste collector tanks.

The above tanks were observed to be in good condition with only minor housekeeping (i.e. hoses laying on floor, spent clothes hampers overflowing, etc) and/or material condition (such as peeling paint) problems identified. Several of the rooms had spots of dried resin from past spills, but no signs of current leakage. Radiological conditions in the rooms were consistent with historical results. Overall, these observations were similar to those made during the 1995 walkdown.

This inspection did not include the units 1 and 2 waste concentrator tank rooms, which were identified as having significant corrosion and leakage problems (from past events) during the 1995 tour. As stated in report no. 95011, these tanks were monitored by licensee personnel and were not being used. Licensee RP staff stated that there was no indication of new leakage and that efforts to clean up and abandon these areas were ongoing.

c. Conclusions

The licensee's inspection of infrequently entered radwaste tank rooms identified no ongoing leakage or corrosion concerns and was done using appropriate ALARA controls.

R2.2 Radwaste and Radioactive Material Storage Areas

a. Inspection Scope

The inspector performed a walkdown of those areas used for radioactive waste or material storage to verify that appropriate radiological controls were used. The areas observed included the Interim Radwaste Storage Facility (IRSF), the Dry Active Waste (DAW) Building (warehouse #1), Building no. 34 (used for contaminated oil storage) and several outdoor storage areas/trailers. The inspection included a review of station procedure no. LRP 5721-2 (rev. 0), "Radiological Posting and Labeling Requirements."

b. Observations and Findings

Overall the storage areas were observed to be in good condition and there were no signs of leakage/corrosion from the materials being stored. The areas were secured and access was controlled by RP or radwaste personnel, as appropriate. Radiological controls were generally well implemented, but numerous problems were observed with faded (but still legible) radioactive material labels or postings, old (i.e. not applicable) labels not being removed, and inconsistent information (such as dose or contamination levels, date surveyed, and item description) on the labels. Although none of the observed deficiencies constituted a regulatory violation, a note on p. 3 of the above procedure stated that dose rates, date and survey data (i.e. contamination) should be included on the labeling.

The inspector was also concerned with the licensee's tracking and control of stored radioactive material. Discussions with licensee personnel indicated that there was no formal ownership or tracking of the number and location of radioactive material storage areas or of the items being stored. Step F(17) of the above procedure stated that a log should be maintained for any storage area containing radioactive materials and lists required information (such as survey data, description, location, etc) that should be included in the log entry. Poor ownership and tracking of stored radioactive material and associated storage areas was a precursor in many industry radioactive material control events.

Collectively, the observed problems indicated weaknesses in the communication of radiological hazards to the worker and in the control of stored radioactive material. Additionally, the use of the word "should" in the above procedure, indicated that management expectations were not clearly communicated. Licensee management planned to evaluate these observations and develop corrective actions.

c. Conclusions

Several problems were observed with the licensee's radioactive material storage program which, collectively, indicated weaknesses in the communication of radiological hazards to the worker and in the control of radioactive material. Management expectations were not clearly communicated in station procedures.

R4 Staff Knowledge and Performance in RP&C

R4.1 Plant Walkdown and Observations of Work

a. Inspection Scope

The inspector performed a walkdown of the units 1 and 2 Turbine and Reactor Buildings, including observations of work and radworker performance. Although the station was in an outage, the majority of ongoing work was routine and of only minor radiological significance.

b. Observations and Findings

Overall, radiological housekeeping and radworker performance were considered acceptable. In particular, the inspector noted that contamination boundaries in the units 1 and 2 condensate heater bays, a recurrent problem area, were well defined and that groundwater and/or system leakage was diked or routed to floor drains preventing intrusion into clean areas. Interviews with workers, indicated that RWP requirements and station expectations for radioactive material control, that behavior in contaminated and high radiation areas, and that good ALARA practices (i.e. time, distance, shielding) were well understood. Workers were observed to be appropriately using personnel contamination monitoring instruments and material ingress/egress from the radiological posted area was appropriately controlled by RP technicians.

The inspector did identify some problems with radiological labels and controls. Specifically:

- There were several ladder survey tags which were faded or hard to read. These tags identified overhead areas which had been surveyed by RP personnel and, therefore, were considered accessible by workers.
- There were several areas where airflow from overhead ventilation ducts blew across posted contaminated areas and into clean areas. Some of these areas included the units 1 and 2 "B" fuel pool cooling pumps and the control rod drive filter changeout areas on the 761' elevation of the units 1 and 2 Reactor Building.

The problem with the ladder survey tags was considered another example of the weakness in the communication of radiological hazards to the worker discussed in section R2.2. Licensee RP staff was aware of the ventilation problems and was evaluating corrective actions with the plant engineering group. In the interim, contamination levels in the affected areas were maintained ALARA to avoid any potential spread and routine radiological surveys verified that contamination had not spread to clean areas.

c. Conclusions

Radiological housekeeping and radworker performance were observed to be acceptable in the units 1 and 2 Turbine and Reactor Buildings. One additional example of poor communication of radiological hazards to workers was identified with ladder survey tags. The licensee was addressing contamination control concerns identified with the overhead ventilation units.

R4.2 **Radwaste Processing Activities**

a. Inspection Scope

The inspector reviewed the licensee's historical radiological performance for selected routine radwaste activities and observed the transfer and dewatering of ultrasonic resin cleaner resin and the operation of the Advanced Liquid Processing System (ALPS). The resin dewatering system and ALPS were owned and operated by contractors. This inspection included a review of the following documents:

- RWP no. 970133 (rev. 2) "Processing Radwaste Liners and Applicable Work," and no. 960139 (rev. 0) "Transfer of High Level Dry Waste to DAW HIC for Disposal."
- Vendor Procedure no. CNSI FO-AD-002 (rev. 22) "Operating Guidelines for Polyethylene HICs," no. CNSI FO-OP-O32-4134 (rev. 2) "Set-up and Operating Procedure for RDS-1000 unit at LaSalle Station," and CNSI DM-OP-C44-41314 (rev. 7) "Operating Procedure for CNSI ALPS at ComEd LaSalle Station."

- CNSI surveillance report no. S-95-04 (dated August 11, 1995), "CNSI Field Operations at LaSalle Station"

b. Observations and Findings

Overall, radiation exposure for radwaste activities was low and was consistent with the increase in processing and shipping activities as discussed in Section R1.2. Specifically, the exposure totals were (as of June 1997):

	<u>1995</u>	<u>1996</u>	<u>1997</u>
Radwaste Processing:			
Processing radwaste liners	2.2 rem	4.9 rem	1.5 rem
Transfer high level wastes to DAW HIC	n/a	0.41	0.21
Radwaste Shipping:			
Survey/Inspect/Crib Shipments	0.85 rem	1.2 rem	0.30 rem
Sorting/Compacting/Shipping DAW	2.9	4.2	0.91

In 1995, the licensee was still performing onsite storage and was performing limited radwaste activities (primarily resin dewatering). For the ALPS, which began operation in mid 1996, the total exposure was 2.2 rem and 3.2 rem for 1996 and through June 1997, respectively.

Radiological controls and contractor oversight for the resin dewatering and ALPS activities were good. The inspector observed an RP technician and Radwaste Supervisor frequently walkdown activities in the Radwaste Building and discuss radiological and job performance concerns with the workers. Remote radiological surveillance instruments were installed on the above vendor systems and workers were knowledgeable of area dose rates and RWP requirements. Owing to limited space in the Radwaste Building, both vendor systems were in close proximity which significantly increased background dose rates. For example, dose rates near a remote resin dewatering system gauge, which was frequently read by the contract operator, averaged between 20-40 mrem/hr. Typically, the contract operators received 4-8 mrem/day during system operation and had each accrued about 650 mrem as of June 1997. Both contractors stated that their annual exposure remained below the license's administrative limit of 2 rem and that they were under increased monitoring by the RP group. Station radwaste management was aware of the exposure concerns and was working with the RP and engineering groups to resolve the issue.

The inspector verified that the contractors were knowledgeable of the procedural requirements and that the above procedures had been through the licensee's onsite review process. Through interviews, the inspector determined that the contractors, RP technicians and radwaste supervisory personnel were aware of lessons learned from industry events during radwaste processing and of the findings of the above vendor audit.

c. Conclusions

Overall, radiation exposure for routine radwaste processing and shipping activities was low and was consistent with the work performed. Radiological controls and contractor oversight of observed radwaste activities was good.

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

R7.1 **Solid Radwaste and Transportation Audits**

a. Inspection Scope

The inspectors reviewed licensee actions following several violations identified by the NRC during a January 1997 inspection of the radwaste transportation and shipping program (inspection report (IR) no. 50-295/304-96021) at the Zion nuclear station. In response to these issues, the licensee conducted a corporate audit (concluding on March 24, 1997) of this program.

b. Observations and Findings

The inspector's independent review concluded that the audit was thorough and effectively addressed those areas found deficient during the above Zion inspection. The licensee's audit concluded that the shipping and transportation program was technically sound and had not resulted in any significant shipping issues. Several minor weaknesses were identified with the DOT HAZMAT training records, the 10 CFR part 61 scaling factor program, the accuracy of radwaste program procedures, and the use of outdated regulatory terminology and references in the FSAR and PCP. These findings were not of a significant regulatory nature and were being corrected by the licensee. However, the inspector noted that several of the problems discussed in section R1.2 were not effectively addressed through the self-assessment process. For example, several of the errors discussed in the above section were in procedures that had been revised based on the audit findings. Although it could not be established whether these errors resulted from the failure to identify them during the original audit or during the licensee's review of the revised procedure, the overall observation was considered a weakness in the licensee's oversight of the radwaste processing and transportation program.

c. Conclusions

The licensee's audit of the radwaste transportation program was technically sound and did not identify any significant shipping issues. However, several of the deficiencies identified by the inspector were recurrent and should have been addressed by corrective actions taken to resolve the audit findings. This was considered an example of a weakness in the licensee's oversight of the radwaste processing and transportation program.

R8 **Miscellaneous RP&C Issues**

The following items identified in previous inspection reports were reviewed by the inspectors:

(Closed) Violation 50-373/374-96013-09: Violation for examples of failure to follow RP procedures. The inspector observed during plant walkdowns (section R4.1) that the identified problems with radiological postings and controls had been corrected, that the associated procedures were revised and, verified through interviews, that workers understood station requirements. This violation is considered closed.

(Closed) Violation 50-373/374-97005-01: Violation for examples of failure to follow RP procedures. This violation and the associated corrective actions were similar to that described above and is considered closed.

X1 **Exit Meeting Summary**

The inspectors presented the inspection results to members of licensee management at the conclusion of the inspection on June 27, 1997. The licensee acknowledged the findings presented and did not identify any of the documents listed as proprietary. A partial listing of those attending the exit included:

- D. Farr, Operations Manager
- L. Guthrie, Restart Manager
- C. Jeanblanc, Radwaste Coordinator
- S. Kovall, Lead Health Physicist--Technical
- G. Polleto, Site Engineering Manager
- D. Rhodes, Chemistry Manager
- S. Smith, Acting Plant Manager
- W. Subalusky, Site Vice-President

INSPECTION PROCEDURE USED

IP 84750 REACTOR WATER CHEMISTRY AND GASEOUS AND LIQUID EFFLUENT
RELEASE PROGRAM
IP 86750 SOLID RADIOACTIVE WASTE AND TRANSPORTATION PROGRAM
TI 2515/133 IMPLEMENTATION OF REVISED DEPARTMENT OF TRANSPORTATION
REGULATIONS

ITEMS OPENED, CLOSED or DISCUSSED

Open

50-373/374-97010-01 NCV Incorrect information in shipping procedures (section
R1.2)

Closed

50-373/374-96013-09 VIO Violation for examples of failure to follow RP
procedures (section R8)

50-373/374-97005-01 VIO Violation for examples of failure to follow RP
procedures (section R8)

Discussed

LIST OF ACRONYMS USED

ALARA	As-Low-As-Reasonably-Achievable
RWP	Radiation Work Permit
ODCM	Offsite Dose Calculation Manual
FSAR	Final Safety Analysis Report
PCP	Process Control Program
rev.	revision
DAW	Dry Active Waste
DOT	U. S. Department of Transportation
SI	System Internationale
RQ	Reportable Quantity
C of C	Certificate of Compliance
HIC	High Integrity Container
IRSF	Interim Radwaste Storage Facility
mrem/hr	millirem per hour
RP&C	Radiation Protection and Chemistry
dpm	disintegrations per minute
REMP	Radiological Environmental Monitoring Program

LIST OF DOCUMENTS REVIEWED

NRC Waste Technical Position, Revision 1 (dated January 24, 1991)
NRC Final Waste Classification and Waste Form Technical Position Papers (dated May 11, 1983)
NRC Final Branch Technical Position on Concentration Averaging and Encapsulation (dated April 12, 1994)
NRC Supplemental Guidance on the Implementation of 10 CFR part 61 (dated January 30, 1994)
NRC IE Bulletin no. 79-19 "Packaging of Low-Level Radioactive Waste for Transportation and Burial" (dated August 10, 1979)
NRC Generic Letter no. 95-09 (and supplements) "Monitoring and Training of Shippers and Carriers of Radioactive Materials" (dated November 3, 1995).
Topical Report for RDS-1000 system No. RDS-25506-01-P-A, rev. 1 (dated March, 1988)
LAP 200-6 (rev. 7), "LaSalle Process Control Program"