January 25, 1984

MEMORANDUM FOR: Frank Young, OSP

FROM: Gary Sanborn, Regional State Liaison Officer

SUBJECT: ADVANCE NOTIFICATION OF WASTE SHIPMENTS

As you requested, I made a check by telephone of all Region IV states to determine any changes to the list of individuals officially designated to receive advance notification of waste shipments under Parts 71 and 73 of our regulations.

Attached is a compilation of those changes. I understand that State Programs will request confirmation of any changes in writing in April. Let me know if I can provide any additional information to assist you in this undertaking.

/s/

Gary Sanborn
Regional State Liaison Officer

Attachment

cc: R. Bangart
R. Doda
R. Heyer
R. Hall

OFFICE ▶	RSLO:RIV	SGRS:RIV	RA:RIV				
NAME ▶	GSanborn:bm	RDoda	JTCollins				
DATE ▶	1/25/84	1/25/84	1/30/84				AB-1

ARKANSAS	No change.
COLORADO	The telephone number is correct, but the individual to receive advance notifications is now Captain Lonnie Westphal of the Colorado State Patrol.
IDAHO	No change.
KANSAS	No change.
LOUISIANA	The telephone number is correct, but a change in individuals is to take place in March. Colonel Garrison is scheduled to retire and Governor-elect Edwards has named Colonel Wiley McCormick to replace him as Head of the Louisiana State Police. Of course, Governor Edwards will have the option of choosing to which office he would like the notifications to go.
MONTANA	The telephone numbers have changed. Larry Lloyd's new telephone number is (406) 444-3671. Colonel Gilbertson's new telephone number is (406) 444-3034.
NEBRASKA	No change.
NEW MEXICO	No change.
NORTH DAKOTA	No change.
OKLAHOMA	No change.
SOUTH DAKOTA	No change.
TEXAS	There has been no official change, but again I would point out that Dr. Bernstein would not, under ordinary circumstances, receive these notifications. Instead, they would most likely be diverted to Mr. John Bass in the Bureau of Radiation Control.
UTAH	No change.
WYOMING	Thomas Schell left the state's employ in December. Until a replacement is named, Judy Newton, the lone employee in the Radiological Health Services section, will assume his responsibilities, including the receipt of advance notifications of waste shipments.

4 PRR

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

DEC 10 1984

Docket No. 50-10
Docket No. 50-237
Docket No. 50-249

Commonwealth Edison Company
ATTN: Mr. Cordell Reed
Vice President
Post Office Box 767
Chicago, IL 60690

Gentlemen:

This refers to the routine safety inspection conducted by T. M. Tongue, S. Stasek, M. Jordan and J. Bjorgen of this office during the period of October 17 through November 19, 1984, of activities at Dresden Nuclear Power Station, Units 1, 2, and 3, authorized by NRC Operating Licenses No. DPR-02, DPR-19, and DPR-25, and to the discussion of our findings with Mr. D. Scott and others of your staff at the conclusion of the inspection.

The enclosed copy of our inspection report identifies areas examined during the inspection. Within these areas, the inspection consisted of a selective examination of procedures and representative records, observations, and interviews with personnel.

No items of noncompliance with NRC requirements were identified during the course of this inspection.

In accordance with 10 CFR 2.790(a), a copy of this letter and the enclosure(s) will be placed in the NRC Public Document Room unless you notify this office, by telephone, within ten days of the date of this letter and submit written application to withhold information contained therein within thirty days of the date of this letter. Such application must be consistent with the requirements of 2.790(b)(1). If we do not hear from you in this regard within the specified periods noted above, a copy of this letter and the enclosed inspection report will be placed in the Public Document Room.

8501080036 2p.

A/4-1

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

W. D. Shafer, Chief
Projects Branch 2

Enclosure: Inspection Report
No. 50-010/84-16(DRP)
No. 50-237/84-19(DRP)
No. 50-249/84-18(DRP)

cc w/encl:
D. L. Farrar, Director
of Nuclear Licensing
D. J. Scott, Station
Superintendent
DMB/Document Control Desk (RIDS)
Resident Inspector, RIII
Phyllis Dunton, Attorney
General's Office, Environmental
Control Division

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report Nos. 50-010/84-16(DRP); 50-237/84-19(DRP); 50-249/84-18(DRP)

Docket Nos. 50-010; 50-237; 50-249 License Nos. DPR-02; DPR-19; DPR-25

Licensee: Commonwealth Edison Company
P.O. Box 767
Chicago, IL 60690

Facility Name: Dresden Nuclear Power Station, Units 1, 2, and 3

Inspection At: Dresden Site, Morris, IL

Inspection Conducted: October 17 through November 19, 1984

Inspectors: T. M. Tongue

S. Stasek

J. Bjorgen

M. Jordan

Approved By: N. J. Chrissotimos, Chief
Projects Section 2C

12-7-84
Date

Inspection Summary

Inspection during the period of October 17 through November 19, 1984 (Reports No. 50-10/84-16(DRP); 50-237/84-19(DRP); 50-249/84-18(DRP).
Areas Inspected: Routine, unannounced resident inspection of previous inspection findings, regional requests, operational safety, events, surveillances, maintenance, refueling activities, licensee event reports, spent fuel shipments, generic letters, and special reports. The inspection involved a total of 216 inspector-hours onsite by four NRC inspectors including 42 inspector-hours onsite during off-shift.
Results: Of the nine areas inspected, no items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

*D. Scott, Station Superintendent
R. Ragan, Operations Assistant Superintendent
J. Eenigenburg, Maintenance Assistant Superintendent
*J. Wujciga, Administrative and Support Services Assistant Superintendent
*J. Brunner, Technical Staff Supervisor
R. Christensen, Unit 1 Operating Engineer
J. Almer, Unit 2 Operating Engineer
T. Ciesla, Unit 3 Operating Engineer
J. Doyle, Q.C. Supervisor
D. Sharper, Waste Systems Engineer
G. Myrick, Radiation Chemistry Supervisor
B. Saunders, Station Security Administrator
T. Gilman, Chemistry Supervisor
S. McDonald, Radiation Protection Supervisor
B. Zank, Training Supervisor
*R. Stobert, Quality Assurance Inspector

The inspectors also talked with and interviewed several other licensee employees, including members of the technical and engineering staffs, reactor and auxiliary operators, shift engineers and foremen, electrical, mechanical and instrument personnel, and contract security personnel.

*Denotes those attending the exit interview conducted on November 19, 1984, and informally at various times throughout the inspection period.

2. Action on Previous Inspection Findings

(Closed) Noncompliance (237/84-02-03(DRP)): Rod Worth Minimizer taken out of service without following proper procedure and operating personnel not notified. Licensee has issued a new procedure, DAP 7-13, to control maintenance on the RWM.

(Closed) Noncompliance (237/84-03-02(DRP); 249/84-02-02(DRP)): Compressed gas cylinders in safety-related areas with inadequate restraints. Licensee has instituted weekly QC inspections, installed new holding racks in the control rod drive areas, and purchased new tie-down straps for use in all areas of the plant. Also, a meeting was held on October 29, 1984, with all plant personnel, outlining the new program.

(Closed) Noncompliance (237/84-11-02(DRP); 249/84-10-02(DRP)): Cardox System master discharge valve not tested for auto-actuation. Licensee has modified procedure DFPP 4145-1, "Cardox System Semi-Annual Maintenance Test" to include a test for auto-actuation of the master valve.

(Closed) Inspection Item (010/83-08-02(DRP); 237/83-11-02(DRP); 249/83-09-02(DRP)): The licensee "Out-of-service" tag-out system for multiple outages created a situation where some personnel received unnecessary radiation exposure. The licensee has modified Dresden Administrative Procedure DAP 3-5 such that tag-outs in high radiation areas require only one set of tags.

(Closed) Unresolved Item (50-010/83-24-01(DRP)): Radioactive contamination leaching phenomenon on the exterior of the spent fuel cask. Through conversations between the licensee, NRC, and Department of Transportation (DOT) it was resolved that the licensee could use smear efficiencies to ensure meeting DOT limits and could not use contamination averaging. The licensee has implemented this in their procedure DRP 1480-2, "Arrival and Departure Survey of Spent Fuel Shipping Casks". The NRC will be issuing formal guidance on this issue.

(Open) Inspection Item (010/84-02-01(DRP); 237/84-03-01(DRP); 249/84-02-01(DRP)): Water tank radiation shields found with low water level. The licensee took prompt corrective action to refill those shields with low water levels. In addition, monthly surveillances are conducted to assure that the levels are optimum. The licensee is presently converting the temporary surveillance to a permanent procedure. This item will remain open until that procedure is implemented.

No new items of noncompliance or deviations were identified.

3. Regional Requests

a. By a memo dated October 3, 1984, from W. D. Shafer, the resident inspector was requested to review the requirements to have direct positive position indication on relief valves and their applicability to Dresden. The origin of these requirements come from NUREG-0737 and are outlined under task action item II.D.3 of that document. In response to this task item, the licensee installed, tested and made operational, an acoustic monitoring system for each of Units 2 and 3. This gives operating personnel a direct indication of relief valve position via flow monitoring on the downcomer pipes, with backup indication coming from temperature elements on the downcomers, and pilot valve position and annunciation (pneumatic pressure and annunciation for the Target Rock valve) in the control room. Also, the acoustic monitoring system has been incorporated into station technical specifications.

Recently, a question on environmental qualification (EQ) has been raised concerning individual components of the acoustic monitoring systems installed at Dresden. The licensee performed tests on the various components and came to the conclusion that portions of the system needed to be upgraded to meet E.Q. requirements. Presently, the licensee has modifications underway to make these changes.

b. The resident inspector was requested to review the licensee's original commitments to I.E. Bulletin 80-06, "Engineered Safety Feature (ESF) Reset Controls", against the final commitments as documented as acceptable by NRR in the Safety Evaluation Report (SER) dated March 29, 1982. In the original responses to the bulletin, dated June 10, 1980, and March 20, 1981, the licensee committed to modify the control switches for Isolation Condenser valves 1301-1, 2, and 4, and all of the Primary Containment Isolation System (PCIS) Group I valves from two position, maintained-contact type switches to three-position, return to normal type switches. The inspector verified that all associated control switches had been modified as required on both Units 2 and 3.

No items of noncompliance or deviations were identified in this area.

4. Operational Safety Verification

The inspectors observed control room operations, reviewed applicable logs and conducted discussions with control room operators during the period from October 17 to November 19, 1984. The inspectors verified the operability of selected emergency systems, reviewed tagout records and verified proper return to service of affected components. Tours of Units 2 and 3 reactor buildings and turbine buildings were conducted to observe plant equipment conditions, including potential fire hazards, fluid leaks, and excessive vibrations and to verify that maintenance requests had been initiated for equipment in need of maintenance.

During the inspection period while Unit 2 was in a refuel outage, the inspectors verified that surveillance tests were conducted, containment integrity requirements were met, and emergency systems were available as necessary.

Throughout the entire inspection period, Unit 1 remained in a long-term shutdown condition with all fuel removed from the vessel. The inspectors verified that all applicable requirements for Unit 1 were met during this period.

The inspectors, by observation and direct interview, verified that the physical security plan was being implemented in accordance with the station security plan.

The inspectors observed plant housekeeping/cleanliness conditions and verified implementation of radiation protection controls. During the inspection, the inspectors walked down the accessible portions of the following systems to verify operability by comparing system lineup with plant drawings, as-built configuration or present valve lineup lists; observing equipment conditions that could degrade performance; and verified that instrumentation was properly valved, functioning, and calibrated.

a. Unit 2

Unit 2 Emergency Diesel Generator.

b. Unit 3

Standby Liquid Control System, portions of Core Spray System, and portions of Low Pressure Coolant Injection System.

c. Unit 2/3 (Common)

Standby Gas Treatment System and Swing Emergency Diesel Generator.

The inspectors reviewed new procedures and changes to procedures that were implemented during the inspection period. The review consisted of a verification for accuracy, correctness, and compliance with regulatory requirements.

The inspectors also witnessed portions of the radioactive waste system controls associated with radwaste shipments and barreling.

These reviews and observations were conducted to verify that facility operations were in conformance with the requirements established under technical specifications, 10 CFR, and administrative procedures.

No items of noncompliance or deviations were identified in this area.

5. Followup of Events

During the inspection period, the licensee experienced several events, some of which required prompt notification of the NRC pursuant to 10 CFR 50.72. The inspectors pursued the events onsite with licensee and/or other NRC officials. In each case, the inspectors verified that the notification was correct and timely, if appropriate, that the licensee was taking prompt and appropriate actions, that activities were conducted within regulatory requirements and that corrective actions would prevent future recurrence. The specific events are as follows:

a. October 20, 1984, Unit 3: A reactor scram occurred on a low reactor water level condition due to a failure of the master level controller in the feedwater control system. During the scram, control rod drive (CRD) J-07 scrammed from position 48 (full-out) to position 46 (6 inches into the core) and stopped. The operator then drove the CRD to position 00 (full-in) using the reactor manual control system (RMCS). During subsequent investigation, the rod was scrammed from position 00 and then from position 48 and operated satisfactorily.

The root cause of the scram was found to be a failure of the scram outlet manual isolation "112" valve on the hydraulic control unit, (HCU) for CRD J-07. During inspection of the valve, it was found that the disc had become separated from the stem. The licensee repaired the valve and then performed a 10% sampling of similar "112"

valves to verify the one failure was an isolated incident. Prior to and during unit restart, friction testing, functional scram testing, CRD differential pressure testing, and scram timing were performed to ensure rod operability. The inspector witnessed the licensee's corrective actions, surveillance tests performed, and reviewed the data collected. All licensee actions were found to be adequate and the unit was returned to power on October 23, 1984.

Due to a similar incident which occurred at Quad Cities Nuclear Power Station on October 25, 1984, where the "112" valve was found closed (i.e. the control rod did not insert during a scram), Dresden management agreed to take further actions in regard to CRD J-07 to ensure its operability. These commitments were initially outlined via telephone conversation with Region III personnel on October 31, 1984. The actions included commitment to perform monthly stall flow tests (withdrawal only) on J-07, and to include J-07 in the next half-core scram surveillance done. If the acceptance criteria was not met on the outlined tests, the licensee agreed to begin bi-monthly scram testing with the option of going to monthly tests. Degradation of the drive would be indicated if the limit on scram timing of 7.0 seconds or half of the margin from the previous test to 7.0 seconds is exceeded. If further degradation was indicated, one of the following would be done: (1) fully insert J-07 to position 00 and electronically deactivate it, (2) leave J-07 at position 48 and perform a new shutdown margin analysis considering two rods full-out, or (3) shutdown the unit and changeout CRD J-07. Regardless of the above commitments, the licensee will remove and overhaul J-07 during the next scheduled refuel outage. These actions are considered an open item to be followed by the inspectors as appropriate. (249/84-18-01(DRP))

b. October 26, 1984, Unit 3: A reactor scram and Group I isolation occurred during a controlled unit shutdown to repair a bellows in the main turbine steam seal system. While taking the main turbine off-line, the main steam bypass valves momentarily opened and reduced steamline pressure to the Group I isolation setpoint. The isolation then caused a reactor scram. All safety systems operated as required and, following needed repairs, the unit was returned to power on November 1, 1984.

6. Monthly Surveillance Observation

The inspectors observed technical specifications required surveillances for Control Rod Drive (CRD) Friction Testing, CRD Scram Functional Testing, CRD Scram Timing, and CRD Stall Flow and Differential Pressure Testing for Unit 3, and verified that the testing was performed in accordance with adequate procedures, that test instrumentation was calibrated, that limiting conditions for operation were met, that removal and restoration of the affected components were accomplished, that test results conformed with technical specifications and procedure requirements and were reviewed by personnel other than the individual directing the test, and that any deficiencies identified during the testing were properly reviewed and resolved by appropriate management personnel.

The inspectors also witnessed portions of the following test activity:

Unit 3

Whole Core Local Power Range Monitors (LPRM) Calibration.

No items of noncompliance or deviations were identified in this area.

7. Monthly Maintenance Observation

Station maintenance activities of safety-related systems and components listed below were observed/reviewed to ascertain that they were conducted in accordance with approved procedures, regulatory guides and industry codes or standards and in conformance with technical specifications.

The following items were considered during this review: the limiting conditions for operation were met while components or systems were removed from service; approvals were obtained prior to initiating the work; activities were accomplished using approved procedures and were inspected as applicable; functional testing and/or calibrations were performed prior to returning components or systems to service; quality control records were maintained; activities were accomplished by qualified personnel; parts and materials used were properly certified; radiological controls were implemented; and, fire prevention controls were implemented. Work requests were reviewed to determine status of outstanding jobs and to assure that priority is assigned to safety-related equipment maintenance which may affect system performance.

The following maintenance activities were observed/reviewed:

a. Unit 2

Unit 2 Emergency Diesel Generator Annual Inspection

b. Unit 3

Source Range Monitors 22 and 23 Troubleshooting and Repair, Control Rod Drive J-07 Air Pilot Solenoids Inspection and Overhaul and Control Rod Drive J-07 Scram Outlet Valve Inspection.

No items of noncompliance or deviations were identified in this area.

8. Refueling Outage Activities - Unit 2

During the refueling outage on Unit 2, the inspectors verified that containment integrity was maintained as required by technical specifications; verified that acceptable housekeeping was maintained on the work areas; and, verified that staffing during the outage was in accordance with technical specifications and approved procedures. The inspectors witnessed portions of the 125 volt battery discharge surveillance and the chemical cleaning of the primary piping and verified conformance with applicable requirements.

No items of noncompliance or deviations were identified in this area.

9. Licensee Event Reports Followup

Through direct observations, discussions with licensee personnel, and review of records, the following event reports were reviewed to determine that reportability requirements were fulfilled, immediate corrective action was accomplished, and corrective action to prevent recurrence had been accomplished in accordance with technical specifications.

a. Unit 1

010/84-002 (Closed) Sphere Integrity Not Maintained Per Technical Specification 3.7.

No fuel was in the vessel or within the containment sphere during the time integrity was required for the Unit 1 chemical decontamination process.

b. Unit 2

237/84-018 (Closed) Fire System Monthly Inspection Past Due.

Procedure DFPP 4114-2 "Reactor Building Monthly Fire Equipment Inspection of Units 2 and 3" was not completed within the required surveillance interval but was approximately one day late.

237/84-020 (Closed) Inoperable Fire Hose Reels.

Licensee was conducting a review of modifications for 10 CFR 50, Appendix R and identified two of seven fire hose root valves shut. The valves were immediately opened and they will be added to the monthly fire inspection lists. These modifications are not committed to be in place until January 1985.

c. Unit 3

249/84-015 (Closed) Unit 3 Reactor Scram.

Scram was due to low condenser vacuum caused by failure of a bellows in the discharge line of the relief valve on the seal steam header. This line discharges directly to the main condenser.

249/84-016 (Closed) Unit 3 Reactor Scram.

The event was caused by a loss of main condenser vacuum from a circulating water valve failure while reversing water flow. The affected valve was lubricated and cycled several times satisfactorily. The licensee will torque test similar valves.

249/84-017 (Closed) Unit 3 Reactor Scram.

This occurred while the unit was shut down when jumper leads were removed from electrical terminal screws. The licensee will delete or modify the procedure and modify the contact screws so they do not have to be loosened to make up jumper connections.

249/84-019 (Open) As Found Test Failure of Type Bond C Tests (Containment Local Leak Rate Tests).

This LER will remain open until reviewed by a regional containment systems expert.

The preceding LERs have been reviewed against the criteria of 10 CFR 2, Appendix C, and when the incidents described meet all of the following requirements, no Notice of Violation is normally issued for that item.

a. The event was identified by the licensee,

b. The event was an incident that, according to the current enforcement policy, met the criteria for Severity levels IV or V violations,

c. The event was appropriately reported,

d. The event was or will be corrected (including measures to prevent recurrence within a reasonable amount of time), and

e. The event was not a violation that could have been prevented by the licensee's corrective actions for a previous violation.

No items of noncompliance or deviations were identified in this area.

10. Spent Nuclear Fuel Shipments

During this inspection period, the resident inspectors inspected two shipments of Unit 1 spent nuclear fuel upon its arrival at Dresden from West Valley, New York. The shipments that arrived at Dresden were inspected upon arrival for proper placarding, container labels and appropriate documentation, and the driver was interviewed for any unusual circumstances encountered. The inspectors also conducted confirmatory surveys on the exterior of the shipment for radiation and removable radioactive contamination. The survey results showed that the levels encountered were within applicable regulatory limits and agreed with the surveys conducted by the licensee.

On one shipment, the cask was found to be contaminated to greater than the NRC reporting limits. A smear efficiency test demonstrated that the contamination level was well below the Department of Transportation limit for removable contamination.

No items of noncompliance or deviations were identified in this area.

11. Generic Letter Followup

Each of the following Generic Letters (GL) was reviewed by the resident inspector to verify (1) that the generic letter was received by appropriate licensee management, (2) that, if required, plant specific actions were as described in the licensee's written response, and (3) that the licensee's written response, if required, was clear and consistent with the understanding of onsite management.

(Closed)	GL 84-02	Notice of Meeting Regarding Facility Staffing.
(Closed)	GL 84-03	Availability of NUREG-0933 "A Prioritization of Generic Safety Issues".
(Closed)	GL 84-04	Safety Evaluation of Westinghouse Topical Reports Dealing With Elimination of Postulated Pipe Breaks in PWR Primary Main Loops.
(Closed)	GL 84-05	Change to NUREG-1021 "Operator Licensing Examiner Standards".
(Closed)	GL 84-06	Operator and Senior Operator License Examination Criteria for Passing Grade.
(Open)	GL 84-07	Procedural Guidance For Pipe Replacement at BWRs.
(Closed)	GL 84-08	Interim Procedures For NRC Management of Plant-Specific Backfitting.

Concerning GL 84-07, this generic letter will remain open until a decision is made by the licensee concerning pipe replacement plans at Dresden.

No items of noncompliance or deviations were identified in this area.

12. Report Review

During the inspection period, the inspectors reviewed the licensee's Monthly Operating Report for October 1984 and the Operating Data Report for 1982 and 1983. The inspectors confirmed that the information and data provided met the requirements of Technical Specifications 6.6.A.3 and Regulatory Guide 1.16.

Licensee personnel identified a discrepancy in that the data provided in the 1982 and 1983 report had not been submitted with the monthly reports as planned. The licensee is, or has, implemented corrective action by submitting the missing information and modifying the Monthly Operating Reports to incorporate all of the information. This will ultimately eliminate the need of the annual reports after 1984. The inspectors reviewed this matter and found it to be acceptable.

No items of noncompliance or deviations were identified.

13. Exit Interview

The inspectors met with licensee representatives (denoted in Paragraph 1) informally throughout the inspection period and at the conclusion of the inspection on November 19, 1984, and summarized the scope and findings of the inspection activities. The licensee acknowledged the findings of the inspection.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
631 PARK AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406

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15 NOV 1984

Docket No. 110-3505

License No. ISNM-84-005

Nuclear Assurance Corporation
ATTN: Mr. F. L. Danese
Supervisor, Cask Operations
24 Executive Park West
Atlanta, Georgia

Gentlemen:

Subject: Inspection No. 110-3505/84-01

This refers to the inspection conducted by Mr. W. G. Martin of this office on September 12, 1984, at the U. S. Customs port of entry and in transit, of an irradiated reactor fuel shipment authorized by NRC License No. ISNM-84-005.

Areas examined during this inspection are described in the NRC Region I Inspection Report which is enclosed with this letter. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector.

Within the scope of this inspection, no violations were observed.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosure will be placed in the Public Document Room.

No reply to this letter is required. Your cooperation with us in this matter is appreciated.

Sincerely,

for Thomas T. Martin, Director
Division of Engineering and
Technical Programs

Enclosure: NRC Region I Inspection Report No. 110-3505/84-01

cc:
Public Document Room (PDR)
Nuclear Safety Information Center (NSIC)
State of Georgia
State of New York

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A/4-3

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 110-3505/84-01

Docket No. 110-3505 License No. ISNM-84-005

Licensee: Nuclear Assurance Corporation

24 Executive Park West

Atlanta, Georgia

Facility Name: Spent Fuel Shipment

Inspection At: Shipment Point of Entry into U.S., Alexander Bay, New York and enroute to Watertown, New York

Inspector: W. G. Martin
W. G. Martin, Physical Protection Inspector — 11/7/84 date

Approved by: R. R. Keimig
R. R. Keimig, Chief, Safeguards Section
Nuclear Materials and Safeguards Branch — 11/7/84 date

Inspection Summary: Inspection on September 12, 1984 (Report No. 110-3505/84-01)

Areas Inspected: Routine, announced inspection of an irradiated fuel shipment at the point of origin into the United States and while enroute. The inspection included an examination of the general requirements for shipments of irradiated fuel as well as the requirements for shipments of irradiated fuel by road. The inspection started during an off shift period and involved 8 inspector hours by one NRC region based inspector.

Results: No violations were identified in the areas inspected.

DETAILS

1. Key Persons Contacted

*F. L. Danese, Supervisor, Cask Operations, Nuclear Assurance Corporation
G. N. Dixon, Cask Service Engineer, Nuclear Assurance Corporation
A. E. Holland, Driver/Escort, Tri-State Motor Transit Company
R. B. Holland, Driver/Escort, Tri-State Motor Transit Company
R. LaPierre, Chief, Operations, U.S. Customs Service, Alexander Bay, N.Y.
A. P. O'Neill, Sheriff, Jefferson County

*denotes telephone contact

2. Exit Interview

Due to the nature of the inspection, no formal exit interview was held. The results of the inspection were discussed by telephone between the Supervisor, Cask Operations, Nuclear Assurance Corporation (NAC) and the inspector.

3. Background

Region I was notified by letter dated August 27, 1984, that NAC, as agent for Atomic Energy of Canada, Limited (AECL), planned to make a series of spent fuel shipments from an AECL facility at Chalk River, Ontario Canada to the DOE Savannah River Plant, Aiken, South Carolina. On April 2, 1982, NRC-NMSS approved the shipment routes proposed by NAC. The port of entry for the shipments was Alexander Bay, New York.

4. 81310 - Transportation of Irradiated Fuel (General Requirements)

The inspector verified that the licensee followed established procedures and regulatory requirements for the physical protection of irradiated fuel in transit through:

a. Verification that there were two driver/escorts with the transport vehicle. Discussions were held with the escorts relative to their training, knowledge of route and procedures, and contingency preparedness.

b. Examination of the vehicle's tamper seals and verification that the seals were intact when the transport vehicle departed the U.S. Customs checkpoint.

c. A functional test of the communications equipment and a review of the driver's trip log to confirm that 2 hour check calls to the Tri-State dispatcher in Joplin, Missouri were made.

d. Verification through discussions with the driver/escorts that the transport vehicle was equipped with an immobilization device.

e. Verification through direct measurements that radiation readings were within NRC regulatory limits.

f. Verification by direct observation that at least one driver/escort remained with the truck during fuel/rest stops.

No deficiencies were identified.

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OCT 24 1984

Docket No. 99990081

MEMORANDUM FOR: Richard W. Starostecki, Director, Division of Project and Resident Programs

FROM: Edward C. Wenzinger, Chief, Projects Branch No. 3, DPRP

SUBJECT: PERIODIC UPDATE OF WEST VALLEY FUEL SHIPMENTS

This is the eleventh in a series of periodic reports to describe the ongoing NRC oversight function of spent fuel shipments from the West Valley site. A report of this type is issued at approximately monthly intervals. The following describes DPRP and DETP actions since the last report.

Between September 1 and October 6, 1984, three Commonwealth Edison (CECo) and 16 Wisconsin Electric Point Beach (PB) shipments were made.

Notes:

- Region I inspectors (Martin, Roth) covered three of the three CECo shipments and four of the sixteen PB shipments (survey and monitoring). No inadequacies were identified.

- West Valley personnel continued a dialogue throughout the month with Oyster Creek (GPU) with regard to revised spent fuel assembly cask loading procedures, scheduling of shipments, transport routes, etc.

- During the week of September 17, 1984, a Region I inspector (Roth) observed preparations for and the start of packaging of one failed fuel assembly for shipment back to Wisconsin Electric. The procedures were considered to be adequate to allow safe packaging of this fuel assembly.

- Region I was notified by West Valley personnel that the New York State DOT (NYSDOT) had issued a letter to Home Transportation Company, the carrier for the Commonwealth Edison shipments, concerning the safety of the trailer being used. NYSDOT required the carrier to have a Professional Engineer certify that continued use of the trailer would be safe considering the number of repaired cracks which have been identified in structural members of the trailer. This certification must be issued by October 28, 1984. If the certification is not issued, continued use of the trailer in the State of New York will be denied the carrier.

- On September 14, 1984, the NRC amended Certificate of Compliance No. 9016 for the TN-9 cask to authorize the transport of failed Dresden 1 fuel assemblies and failed Dresden 1 thoria rods within the Dresden 1 canister assembly with modified wiper seals. The TN-9 cask must be loaded in accordance with the operating instructions described in Section 5.0 of the TN-8 and TN-9 Safety Analysis Report Second Addendum for the TN-9 Packaging, Revision 1, dated August 31, 1984. NRC inspectors observed part of the packaging and shipment of failed fuel assemblies in shipment No. 28. No inadequacies were identified.

- Continuing discussions are being held between NRC Region I (G. Smith) and NMSS personnel with government officials from New York and New Jersey concerning the transport route between West Valley and the Oyster Creek facility.

- As of October 6, 1984, shipments to Commonwealth Edison are expected to be completed during November, 1984. Shipments to Oyster Creek are expected to begin during November, 1984 and Rochester Gas and Electric (RG&E) has indicated they could begin to receive fuel during July, 1985. NFS is committed to remove their fuel during August and September, 1985. Oyster Creek has initiated in-pool rack modification to facilitate receipt of spent fuel from West Valley. Training of personnel on the handling of the TN-9 cask of Oyster Creek is expected to start during the week of October 15, 1984.

As of October 10, 1984, shipments to Wisconsin Electric have been completed. Fourteen Dresden, 224 Oyster Creek, 81 Ginna, and 125 NFS spent fuel assemblies remain at the West Valley site. These fuel assemblies will account for at least 117 additional shipments of spent fuel assemblies from the West Valley site. To date, a total of 142 shipments have been made to CECo and Point Beach. These shipments account for the removal of 307 spent fuel assemblies from the West Valley site.

Edward C. Wenzinger, Chief
Projects Branch No. 3

cc:
J. Allan
T. Gody
T. Martin
P. H. Lohaus
J. Joyner
R. Bellamy
R. Keimig
E. Greenman
T. Elsasser
J. Robertson
J. Roth
W. Martin
G. Smith
R. Greggor, RIII
A. Grella, IE
L. Rouse, NMSS
R. Stiens, DOE West Valley
J. Cook, NMSS
E. McCabe

RPB1 4

OCT 19 1984

In Reply Refer To:
Docket: 50-298/84-15

Nebraska Public Power District
ATTN: J. M. Pilant, Manager, Technical
Staff-Nuclear Power Group
P.O. Box 499
Columbus, Nebraska 68601

Gentlemen:

This refers to the inspection conducted by Messrs. D. L. DuBois and R. Wise and Ms. C. Abigail Evans of this office during the period July 1-August 31, 1984, of activities authorized by NRC Operating License DPR-46, for Cooper Nuclear Station, and to the discussion of our findings with Mr. P. V. Thomason, and other members of your staff at the conclusion of the inspection.

Areas examined during the inspection included operational safety verifications, monthly surveillance and maintenance observations, licensee event followup, plant trips - safety system challenges, refueling preparation, spent fuel shipping, and BWR recirculation system piping replacement. Within these areas, the inspection consisted of selective examination of procedures and representative records, interviews with personnel, and observations by the inspectors. These findings are documented in the enclosed inspection report.

During this inspection, it was found that certain of your activities were in violation of NRC requirements. Consequently, you are required to respond to these violations in writing, in accordance with the provisions of Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Your response should be based on the specifics contained in the Notice of Violation enclosed with this letter.

In accordance with 10 CFR 2.790(a), a copy of this letter and the enclosure will be placed in the NRC Public Document Room unless you notify this office, by telephone, within 10 days of the date of this letter, and submit written application to withhold information contained therein within 30 days of the date of this letter. Such application must be consistent with the requirements of 2.790(b)(1).

The response directed by this letter and the accompanying Notice of Violation is not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL-96-511.

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Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

Original Signed By
E. H. Johnson

E. H. Johnson, Chief
Reactor Project Branch 1

Enclosures:
1. Appendix A - Notice of Violation
2. Appendix B - NRC Inspection Report 50-298/84-15

cc w/enclosures:
Paul V. Thomason, Division Manager
of Nuclear Operations
Cooper Nuclear Station
P.O. Box 98
Brownville, Nebraska 68321

bcc to DMB (IE01)

bcc distrib. by RIV:

RPB1	Resident Inspector	J. Collins, RA
RPB2	Section Chief (RPB1/A)	MIS System
EP&RPB	R. Denise, DRS&P	RIV File
KANSAS STATE DEPT. HEALTH		A. Evans
NEBRASKA STATE DEPT. HEALTH		R. Wise
Enforcement Officer		

APPENDIX A

NOTICE OF VIOLATION

Nebraska Public Power District
Cooper Nuclear Station

Docket: 50-298/84-15
License: DPR-46

Based on the results of an NRC inspection conducted during the period of July 1-August 31, 1984, and in accordance with the NRC Enforcement Policy (10 CFR Part 2, Appendix C), 49 FR 8583, dated March 8, 1984, the following violation was identified:

1. Failure to Perform Accurately a Part of Technical Specification Required Surveillance Test 6.2.4.1

   Cooper Nuclear Station Technical Specification, Section 3.4.C.2 states, "The temperature of the liquid control solution shall be maintained above the curve shown in Figure 3.4.2." CNS Surveillance Procedure 6.2.4.1, Attachment A, page 13 of 15, is performed to ensure that liquid control system solution temperature is within the limits specified on Technical Specification, Figure 3.4.2.

   Contrary to the above, on July 18, 1984, licensee personnel entered an incorrect value of liquid control solution temperature onto the blank provided in Surveillance Procedure 6.2.4.1. The licensee did not recognize that the incorrect value of liquid control solution temperature did not meet the minimum requirement of Technical Specification, Figure 3.4.2.

   This is a Severity Level IV Violation. (Supplement I.D) (298/8415-01)

Pursuant to the provisions of 10 CFR 2.201, Nebraska Public Power District is hereby required to submit to this office, within 30 days of the date of this Notice, a written statement or explanation in reply, including: (1) the corrective steps which have been taken and the results achieved; (2) corrective steps which will be taken to avoid further violations; and (3) the date when full compliance will be achieved. Consideration may be given to extending your response time for good cause shown.

Dated: OCT 19 1984

Cooper
Spent Fuel Pool
Shipment
Aug 21-23, 1984

APPENDIX B

U. S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-298/84-15

Docket: 50-298 License: DPR-46

Licensee: Nebraska Public Power District (NPPD)
P. O. Box 499
Columbus, Nebraska 68601

Facility Name: Cooper Nuclear Station (CNS)

Inspection At: Cooper Nuclear Station, Nemaha County, Nebraska

Inspection Conducted: July 1 - August 31, 1984

Inspectors: D L DuBois 9/28/84
D. L. DuBois, Senior Resident Inspector (SRI) Date

C. Abigail Evans 10-5-84
C. Abigail Evans, Physical Protection Specialist Date

for Russell Wise, Radiation Specialist 10-5-84
Date

Approved: R. Hall 10-5-84
R. Hall, Acting Chief, Physical Protection Section Date

for B. Murray, Chief, Facilities Radiological Protection Section 10-5-84
Date

for J. P. Jaudon, Chief, Project Section A, Reactor Project Branch 1 10/17/84
Date

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Inspection Summary

Inspection Conducted July 1 - August 31, 1984 (Report 50-293/84-15)

Areas Inspected: Routine, announced inspection of operational safety verifications, monthly surveillance and maintenance observations, licensee event followup, plant trips - safety system challenges, refueling preparation, spent fuel shipping, and BWR recirculation system piping replacement. The inspection involved 156 inspector-hours onsite by three NRC inspectors.

Results: Within the eight areas inspected, one violation was identified (failure to perform accurately a part of Technical Specification required Surveillance Test 6.2.4.1, paragraph 2).

DETAILS

1. Persons Contacted

Principal Licensee Personnel

*L. Kuncl, Assistant General Manager - Nuclear
*P. Thomason, Division Manager of Nuclear Operations
*K. Wire, Operations Manager
*V. Wolstenholm, QA Manager
*J. Meacham, Technical Manager
*D. Whitman, Technical Staff Manager
J. Sayer, Staff Assistant - ALARA/IGSCC
L. Roder, Administrative Services Manager
*C. Goings, Regulatory Compliance Specialist
R. Brungardt, Operations Supervisor
J. Flaherty, Lead Mechanical Engineer
W. Ward, Security Specialist - NPPD
F. Reavis, Security Supervisor - CNS
M. Hamm, Security Specialist - CNS
G. Horn, Construction Manager - CNS
L. Bednar, Electrical/I&C Supervisor
M. Edgerton, Shift Supervisor
G. Mace, Plant Engineering Supervisor

The NRC inspectors also interviewed other licensee and contractor personnel.

*Indicates presence at exit meeting.

2. Operational Safety Verification

The SRI observed control room operations, instrumentation, and controls; reviewed applicable logs; and conducted discussions with control room operators. The SRI verified operability of:

- "A" and "B" Diesel Generators Starting Air Systems
- "A" Core Spray System
- "A" and "B" 115 VDC Battery Rooms Ventilation Systems
- Reactor Core Isolation Cooling System Pump
- Snubbers - N.E. Quadrant of the Reactor Building

The SRI reviewed safety clearance records, including verification that affected components were removed from and returned to service in a correct and approved manner; that redundant equipment was verified operable; and that limiting conditions for operation were adequately identified and maintained. The SRI also verified that maintenance requests had been initiated for equipment discovered to require repair or routine preventive upkeep, appropriate priority was assigned, and maintenance commenced in a timely manner commensurate with assigned priorities.

Tours of accessible areas of the facility were conducted to verify that minimum shift crew requirements were met, to observe normal security practices, plant and equipment conditions including cleanliness, radiological controls, fire suppression systems, emergency equipment, potential fire hazards, fluid leaks, excessive vibration, and instrumentation adequacy.

On July 18, 1984, while reviewing daily control room log sheets and surveillance tests, the SRI noted an off-normal data entry on Surveillance Procedure (SP) 6.2.4.1, "Daily Surveillance (Technical Specification)." Specifically, the data entry of concern was located on Attachment A, "Operations Daily Surveillance Log", page 13 of 15, "Standby Liquid Control System and REC Head Tank Level Checks," Item 2. Item 2 states, "Solution temperature (TIC-48 Rack 25-19): _____(Minimum Temperature 85°F)."

The value of the data entered in the blank of Item 2 was obtained by an unlicensed station operator (SO) during his tour of the reactor building and was initially recorded as 104°F on the SO's reactor area log sheet, Attachment B, page 3, of Procedure 2.1.11. When the SO returned to the control room, he incorrectly transferred a solution temperature value of 70° instead of 104°F to Item 2 of SP 6.2.4.1, Attachment A, page 13 of 15. The SO signed his name below Item 2 at 1:55 a.m..

It should be noted that the Standby Liquid Control System entries on page 13 of 15 do not require a review by a licensed operator. An engineering review is required after the log sheets are completed. After the SRI brought the error to the attention of the on-shift SRO, the log entry was corrected to read 104°F.

CNS Technical Specifications, Section 3.4.C.2, requires that liquid control solution temperature be maintained above the curve shown in Figure 3.4.2. Although it was subsequently determined that the actual solution temperature met the Technical Specification requirement, the initial entry of 70°F should have been immediately recognized as out-of-specification and appropriate corrective measures implemented.

The failure to perform accurately and to interpret properly the CNS Technical Specification required by SP 6.2.4.1, as stated above, constitutes a Severity Level IV Violation. (8415-01)

The SRI observed a reactor startup and heatup on August 10, 1984. The startup was performed following an automatic reactor scram that occurred at 4:38 p.m. on August 8, 1984 (see paragraph 6 for details). The SRI observed that shift crew manning requirements were met, Technical Specification required pre-startup checks were completed satisfactorily, operating personnel adhered to approved operating procedures, and the licensee provided observation and hands-on experience to licensed personnel and licensee trainees. The reactor achieved criticality at 5:10 a.m., August 10, 1984.

The SRI observed performance of the following plant procedures during the reactor startup and heatup:

2.1.1	Cold Startup Procedure
2.1.3	Approach to Critical
2.1.15	Reactor Recirculation Pump Operation
2.2.56	Main Steam and Turbine Bypass System
2.2.77	Turbine Generator

The SRI reviewed the following completed plant procedures which were performed as a result of the August 1984, scram and August 10, 1984, startup:

2.1.1.2	Technical Specifications Pre-Startup Checks
2.1.2	Scram Recovery Checklist, Attachment A
2.1.4	Normal Shutdown from Power
2.1.5	Emergency Shutdown From Power, Attachment A
6.1.1	SRM Functional Test (Reactor not in run)
6.3.10.13	North and South SDV Vent and Drain Valves Cycling Open Verification, and Timing Test

The tours, reviews, and observations were conducted to verify that facility operations were in conformance with the requirements established in the CNS Operating License and Technical Specification.

3. Monthly Surveillance Observations

The SRI observed Technical Specification required surveillance tests to verify that test prerequisities were completed, testing was performed in accordance with approved procedures, test instrumentation was in calibration, limiting conditions for operation were met, removal and subsequent restoration of affected components was accomplished, test

results conformed with Technical Specification and procedure requirements, tests were reviewed by personnel other than the person directing the tests, and deficiencies identified during testing were properly reviewed and resolved by appropriate management personnel.

The SRI observed the performance of the following surveillance tests:

6.1.2	IRM Functional Test (Mode Switch not in run)
6.1.24	Rod Worth Minimizer Functional Test for Startup
6.1.26	Rod Sequence Control System Functional Test for Startup
6.2.4.1	Daily Surveillance (Technical Specifications)

These reviews and observations were conducted to verify that facility surveillance operations were in conformance with the requirements established in the CNS Operating License and Technical Specification.

No violations or deviations were identified in this area.

4. Monthly Maintenance Observations

The following clearance orders were independently verified by the SRI for proper placement/restoration of affected components:

84-394	"C" Service Water Pump
84-463	HPCI Auxiliary Oil Pump

Included with the above were checks for availability of redundant equipment, adequate isolation and clearance, work was accomplished by qualified personnel in accordance with approved procedures and Technical Specification requirements, verification that QC checks were performed as required, cleanliness controls and health physics coverage were adequate, and post maintenance surveillance testing was performed to prove operability of the affected component and/or system.

These reviews and observations were conducted to verify that facility maintenance operations were in conformance with the requirements established in the CNS Operation License and Technical Specification.

No violations or deviations were identified in this area.

5. Licensee Event Report Followup (LER)

The following LERs are closed on the basis of the SRI's inoffice review, review of licensee documentation, and discussions with licensee personnel:

- LER 84-006 Unmonitored Plant Off-Gas Stack Release
- LER 84-007 Inoperable Standby Gas Treatment System

- LER 84-008 Unmonitored Radioactive Liquid Discharge
- LER 84-009 Technical Specification Requirement/APRM Flow Bias Unit Operations Conflict

6. Plant Trips - Safety System Challenges

The SRI reviewed records and interviewed plant personnel concerning an unscheduled reactor scram that occurred on August 8, 1984, at 4:38 p.m. (Scram Report 84-05). The reactor was operating at 91% of rated power, normal operating conditions prior to the scram.

High plant area room temperature was being experienced due to the hot, summer conditions existing at the immediate site area. Inplant ventilation systems' capabilities have been historically marginal during the hottest period of the summers for basically two reasons: river water temperature is at its maximum (river water is used to cool heat exchangers that are used in the plant ventilation cooling systems); and outside air that is drawn into the plant ventilation intake ducts is also very hot.

Approximately 1 hour prior to the scram, the licensee began experiencing intermittent actuation of main steam line leak detection high temperature trip switches from the area of the steam tunnel. Investigation indicated that no steam leaks existed but did reveal that the steam tunnel air temperature was very hot. Portable fans were being placed in the steam tunnel to supplement normal ventilation when Group I isolation channels B and C tripped, thus causing an immediate closure of all main steam isolation valves (MSIVs) which, in turn, actuated an automatic reactor scram.

Following the scram, the plant operators maintained reactor water inventory by manual operation of the reactor core isolation cooling pump (RCIC). Reactor pressure control was automatically provided by the low-low set feature of the automatic depressurization system (ADS). Operators were required to reenergize nonvital 4160 VAC busses when they failed to automatically transfer to the startup transformer following the loss of the main generator. Vital 4160 VAC busses automatically transferred to the emergency transformer as required. Both emergency diesels automatically started but were not required to supply power to Vital 4160 VAC busses due to successful transfer of those busses to their emergency source. No other safety systems were required to operate. The plant was restarted and returned to power on August 10, 1984.

The SRI conducted interviews with plant personnel and reviewed control room records, indicators, recorders, and computer logs applicable to the automatic reactor scram. The SRI verified that the plant responded as designed, that plant personnel performed appropriate immediate and followup corrective actions, and that no unreviewed safety questions existed.

The SRI reviewed Station Operations Review Committee (SORC) meeting minutes Nos. 298, 299, and 300 dated August 9 and August 10, 1984, respectively. The purpose of the review was to ensure that the licensee had thoroughly reviewed the above scram and that these reviews, inspections, special tests, and surveillances indicated that plant startup could be authorized.

Prior to plant startup the licensee performed the following:

- Replaced an overheated General Electric (GE) 120 VAC type HFA relay, RPS-REL-5A-K4D, which is used for actuation of primary containment high pressure protection (reference Nonconformance Report (NCR) 002676 dated August 10, 1984).

- Successfully tested the automatic transfer feature of the nonvital 4160 VAC busses per Maintenance Work Request 84-1706 (reference NCR 002664 dated August 9, 1984, and SORC Meeting No. 298 dated August 9, 1984).

- Replaced 16 main steam line break temperature detectors and raised the trip setpoints for all detectors to 193°F. The Technical Specification required setpoint is <200°F (reference NCR 002666 dated August 9, 1984).

- Prestartup surveillance procedures and prestartup checks.

The inspections, reviews, and observations were conducted to verify that facility operations were in conformance with the requirements established in the CNS Operating License and Technical Specifications.

No violations or deviations were identified in this area.

7. Refueling Preparation

The SRI reviewed the following approved plant procedures applicable to the handling, inspection, transfer, and storage of new fuel assemblies for technical adequacy:

- 3.1 Special Nuclear Materials Control and Accountability Instructions

- 3.2 Receiving and Handling Unirradiated Fuel

- 3.3 Inspection and Channeling of Unirradiated Fuel

The SRI reviewed the following completed licensee documentation which is applicable to the inspection, transfer, and storage of new fuel assemblies:

- 3.1 Attachment A, Fuel Movement Data Sheet - SNM Transfer other than Refueling Outage
- 3.3 Attachment A, Fuel Assemblies Check Sheet
- G.E. Customer Site Receiving Inspection Record - Fuel Bundles; G. E. Form QC-152 (4/82).

On July 23, 1984, the SRI observed the following licensee activities associated with the handling, inspection, transfer, and storage of new fuel assemblies:

- Removal from metal shipping containers (MSC).
- Transfer to the inspection stand and subsequently to storage in the spent fuel pool.
- Removal of plastic shipping spacers.
- General inspection and cleaning of new fuel.
- Dimensional measurements taken of fuel rod spacings, spring lengths, channel spacing, and channel fastener torque.
- Channeling of fuel bundles in the new fuel inspection stand.

MSC No.	Fuel Bundle No.	Channel No.
1-0626	LY 6448	3850 D
1-0626	LY 6461	3998 D
1-2278	LY 6462	4090 D
1-2278	LY 6466	4075 D

The reviews and observations were performed to verify that the licensee had approved and had available technically adequate procedures for use during fuel handling, inspection, and storage activities; and that licensee personnel adhered to those procedures during the performance of those activities. The SRI also verified that documentation of the above activities was complete and accurate.

No violations or deviations were identified in this area.

8. Spent Fuel Shipment

The SRI, in accompaniment with an NRC Region IV based physical security specialist and a radiation specialist, performed a special inspection associated with the licensee's preparations for shipment of spent fuel from CNS. Included in the inspection were observations and reviews of

applicable procedures, documentation, surveys, inspections, and shipping document preparation.

The NRC inspectors verified by review of licensee documentation, through discussions with responsible personnel, and by independent inspection that the licensee completed the following:

- Shipping documents
- Notification of affected state governors
- Proper placarding of the transport vehicles
- Appropriate labeling of the spent fuel shipping casks
- Establishment of provisions for response by escorts and local law enforcement agencies
- Testing of communications systems
- Training of on-board escort personnel
- Proper loading, testing, and sealing of the spent fuel shipping casks
- U. S. Department of Energy and U. S. Nuclear Regulatory Commission "Nuclear Material Transaction Report," DOE/NRC Form 741, signed and dated August 22, 1984
- Bill of Lading, signed and dated August 22, 1984
- CNS Procedure 9.5.3.7, Attachment B, HP-14A, Radioactive Material Shipment Record, signed and dated August 22, 1984
- CNS HP-138, Contamination Survey - Sample Count Data Sheets
- CNS HP-141, Contamination Survey - Railroad Car for IF 300 Irradiated Fuel Shipping Cask
- CNS HP-142, Contamination Survey - IF 300 Shipping Cask
- CNS HP-143, Radiation Survey - IF 300 Shipping Cask
- CNS HP-[illegible], Contamination Survey - Tennelec Sample Count Data Sheet

Independent radiation and contamination surveys were performed by the NRC inspectors. Surveys of the following were performed and verified to be satisfactory:

- Contact radiation surveys of the shipping casks
- Radiation surveys at a distance of three meters from the transport vehicles
- Radiation surveys adjacent to occupied passenger compartments that were located adjacent to the cask rail cars
- Contamination surveys of the shipping casks surfaces
- Contamination surveys of the cask transport vehicles

The SRI reviewed CNS Procedure 3.7, Revision 6, dated August 6, 1984, for detail and technical adequacy. The licensee incorporated into Procedure 3.7 specific handling instructions for the G.E. Type IF 300 spent fuel shipping cask. Also included within Procedure 3.7 is Attachment E, "Handling and Loading of IF300 Spent Fuel Shipping Cask Data Sheet." The data sheet provided two functions: it identified important steps used in the receipt, inspection, preparation, movement, loading, leak testing, decontamination, loading of the cask onto the transport vehicle, and final preparation for shipping; and it provided a checkoff list including spaces for signatures and/or initials of personnel who perform or witness the performance of key steps of the procedure. The SRI verified that Attachment E of Procedure 3.7 was properly completed, signed, and dated.

The NRC inspectors attended a special meeting conducted on-site by the licensee at 8:00 p.m., August 22, 1984. Attendees included representatives from the shipper, NPPD board of directors, and federal and state agencies. The meeting consisted of a final review of licensee preparations and documentation of activities relevant to the shipment of the spent fuel from CNS. The licensee determined that all preparations and requirements were completed. The spent fuel shipment left the CNS at approximately 10:00 p.m. on August 22, 1984, and arrived at the G.E. Morris Operation Complex, Morris, Illinois, on August 24, 1984. The shipment consisted of 3 spent fuel shipping casks, each of which contained 18 spent fuel bundles. The spent fuel cask identification numbers were:

- USA/9001/B F301
- USA/9001/B F302
- USA/9001/B F304

The observations, reviews, and independent inspections were conducted to verify that spent fuel handling and shipment operations were in

conformance with the requirements established in the CNS Operating License and Technical Specifications.

No violations or deviations were identified in this area.

9. BWR Recirculation System Piping Replacement

The SRI traveled to the NRC Region IV office located at Arlington, Texas, and to NRC Headquarters at Bethesda, Maryland, during this inspection period. The purposes of both trips were to present and to receive recent information concerning the upcoming recirculcation system piping replacement activities that are to commence at CNS following the scheduled September 24, 1984, plant shutdown. The duration of the outage is expected to last approximately 8 months.

On July 5, 1984, the SRI traveled to the NRC Region IV office to attend a meeting with Mr. John T. Collins, NRC Region IV Administrator, and selected members of the regional staff. The purposes of the meeting were to:

- Receive information from the SRI which he acquired during his trips to NRC Region II office, Hatch Nuclear Station, and the NPPD General Office, during June, 1984. Hatch Nuclear Station underwent recirculation system piping replacement from spring to summer of 1984. CNS will undergo recirculation system piping replacement during the winter of 1984 through the spring of 1985.

- Discuss NPPD's plans and schedules for the upcoming 8 month outage.

- Review the status of NPPD's preparation for the outage including staffing, procedure development, training, and procurment of materials.

- Discuss NRC inspections and manpower needs as they relate to the upcoming outage.

On July 12, 1984, the SRI attended a meeting at NRC Headquarters, Bethesda, Maryland. The meeting consisted of a presentation by NPPD to NRC personnel in attendance which included the following subjects:

- An overview of the CNS recirculation system piping replacement project.

- A discussion of the piping installation including weld techniques, procedures, equipment qualification, and post installation/preoperational test program.

- The proposed ALARA program including methods and techniques for implementation.

- Technical Specification revisions that would become necessary as a result of the recirculation system modifications.

- An open discussion period which provided the NRC an opportunity to ask questions and express concerns to the licensee relative to the overall piping replacement project.

No violations or deviations were identified in this area.

10. Exit Meetings

Exit meetings were conducted at the conclusion of each portion of the inspection. The division manager of nuclear operations was informed of the above findings.

SEP 17 1984

Docket No. 99990081

MEMORANDUM FOR: Richard W. Starostecki, Director, Division of Project and Resident Programs

FROM: Edward C. Wenzinger, Chief, Projects Branch No. 3, DPRP

SUBJECT: PERIODIC UPDATE OF WEST VALLEY FUEL SHIPMENTS

This is the tenth in a series of periodic reports to describe the ongoing NRC oversight function of spent fuel shipments from the West Valley site. A report of this type is issued at approximately monthly intervals. The following describes DPRP and DETP actions since the last report.

Between July 30, and August 31, 1984, five Commonwealth Edison (CECo) and 12 Wisconsin Electric Point Beach (PB) shipments were made.

Notes:

- A Region I inspector (Martin) covered three of the five CECo shipments and and three of the twelve PB shipments (survey and monitoring). No inadequacies were identified.

- West Valley personnel continued a dialogue throughout the month with Oyster Creek (GPU) with regard to revised spent fuel assembly cask loading procedures, scheduling of shipments, transport routes, etc.

- On August 8, 1984, DOE received instructions from Wisconsin Electric concerning procedures for packaging two failed fuel assemblies. These assemblies are scheduled for packaging during September, 1984.

- On August 15, 1984, a DOE-West Valley inspection of the TN-9 cask trailer revealed that the front cross-member support I-beam between the two main I-beam trailer support structures had developed a crack. The trailer was immediately removed from service and repaired.

- On August 21, 1984, a conference telephone call was held by NRC personnel from NMSS, Region I (Roth), Region III, Research, IE:HQ, and NRR. The Transnuclear request to amend Certificate of Compliance No. 9016 for the TN-9 cask to authorize use of the D-1 canister for the transport of failed fuel assemblies with cladding defects greater than pinholes and hairline cracks was discussed. A deficiency in the D-1 canister lid design was identified and several analytical tests to assure that the cask internals and spent fuel storage pools would not become grossly contaminated were discussed. On August 27, 1984, these concerns were discussed with Transnuclear and Commonwealth Edison personnel at the NMSS offices in Silver Spring, Maryland. Transnuclear submitted a revised amendment application dated August 31, 1984. The revised application is currently undergoing review. This amendment is required to transport 13 failed fuel assemblies in the TN-9 cask.

A/4-7

- On August 27, 1984, the NRC amended Certificate of Compliance No. 9016 for the TN-9 cask to authorize a one time shipment of 18 thoria spent fuel rods in a modified D-1 canister placed inside one of the fuel compartments of the Model TN-9 packaging along with up to six D-1 fuel assemblies.

- On August 28, 1984, DOE-West Valley, GPU, and State of New York personnel held a briefing at the West Valley site for local government officials and media personnel. This briefing described the procedures to be used and routing for the return of spent fuel assemblies to the GPU-Oyster Creek facility.

- Continuing discussions are being held between NRC Region I (G. Smith) and NMSS personnel with government officials from New York and New Jersey concerning the transport route between West Valley and the Oyster Creek facility.

- As of September 6, 1984, shipments to Wisconsin Electric and Commonwealth Edison are expected to be completed during October and November, respectively. Shipments to Oyster Creek are expected to begin during October, 1984 and Rochester Gas and Electric (RG&E) has indicated they could begin to receive fuel during July, 1985. NFS is committed to remove their fuel during August and September, 1985. RG&E has indicated that in-pool rack modifications may start as early as October 1, 1984. These rack modifications are required in order to facilitate receipt of spent fuel from West Valley.

- As of August 31, 1984, 16 Point Peach, 35 Dresden, 224 Oyster Creek, 81 Ginna, and 125 NFS spent fuel assemblies remain at the West Valley site. These fuel assemblies will account for at least 136 additional shipments of spent fuel assemblies from the West Valley site. To date, a total of 123 shipments have been made to CECo and Point Beach. These shipments account for the removal of 270 spent fuel assemblies from the West Valley site.

for Lowell E. Tripp
Edward C. Wenzinger, Chief
Projects Branch No. 3

cc:
J. Allan
T. Gody
T. Martin
P. H. Lohaus
J. Joyner
R. Bellamy
R. Keimig
E. Greenman
T. Elsasser
J. Robertson
J. Roth
W. Martin
G. Smith
R. Greggor, RIII
A. Grella, IE
L. Rouse, NMSS
R. Stiens, DOE West Valley
J. Cook, NMSS
E. McCabe

AUG 14 1984

Docket No. 99990081

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FROM: Edward C. Wenzinger, Chief, Projects Branch No. 3, Division of Project and Resident Programs

SUBJECT: PERIODIC UPDATE OF WEST VALLEY FUEL SHIPMENTS

This is the ninth in a series of periodic reports to describe the ongoing NRC oversight function of spent fuel shipments from the West Valley site. A report of this type is issued at approximately monthly intervals. The following describes DPRP and DETP actions since the last report.

Between June 30, 1984 and July 27, 1984, four Commonwealth Edison (CECo) and 11 Wisconsin Electric Point Beach (PB) shipments were made.

Notes:

- A Region I inspector (Martin) covered two of the four CECo shipments and three of the eleven PB shipments (survey and monitoring) in accordance with the July 17, 1984 memo from E. C. Greenman to R. W. Starostecki, et.al, concerning revisions (reductions) to the Region I inspector coverage of West Valley spent fuel shipments. No inadequacies were identified.

- During the week of June 18, an alternate route through western New York from the site to the New York Thruway through Eden, New York was approved for use by the NRC. Local inhabitants of the town of Eden, New York became upset about the transport of spent fuel through their town. DOE contractor and New York State Department of Health personnel conducted a series of town meetings in order to alleviate the fears of the Eden townspeople.

- On July 10, 1984, the NRC amended Certificate of Compliance No. 9016 for the TN-9 cask to authorize use of the optional D-1 canister assembly with Commonwealth Edison Company D-1 spent fuel assemblies "with cladding defects no larger than pinholes and hairline cracks. Use of the canister with known or suspected failed fuel assemblies (rods) and fuel with cladding defects greater than pinholes and hairline cracks is not authorized."

- On July 9, 1984, DOE-West Valley issued a proposed updated fuel shipment schedule. This schedule shows completion of shipments to PB during September, 1984; completion of shipments to CECo during October, 1984; and, initiation of shipments to GPU (Oyster Creek) during September, 1984. There has been no resolution of the starting date for the return of spent fuel to the RG&E Ginna facility. However, shipments to Ginna are expected to begin during early to mid 1985. DOE expects to ship the NFS fuel to Idaho during the fall of 1985.

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- A route survey between West Valley and the Oyster Creek plant was conducted by Region I and NMSS personnel during the week of July 23, 1984 (Martin, G. Smith). Acceptability of the surveyed route is being evaluated.

- As of July 27, 1984, 28 Point Beach, 59 Dresden, 224 Oyster Creek, 81 Ginna, and 125 NFS spent fuel assemblies remain at the West Valley site. These fuel assemblies will account for at least 153 additional shipments of spent fuel assemblies from the West Valley site. To date, a total of 106 shipments have been made to CECo and Point Beach. These shipments account for the removal of 223 spent fuel assemblies from the West Valley site.

for E. C. Wenzinger

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