June 8, 2001

Mr. Oliver D. Kingsley, President
Exelon Nuclear
Exelon Generation Company, LLC
1400 Opus Place, Suite 500
Downers Grove, IL 60515

SUBJECT: DRESDEN NUCLEAR POWER STATION
NRC INSPECTION REPORT 50-237/01-011; 50-249/01-011

Dear Mr. Kingsley:

On May 15, 2001, the NRC completed an inspection at your Dresden Power Station, Units 2 and 3. The enclosed report documents the inspection findings which were discussed on May 15, 2001, with Mr. Fisher and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and to compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, the inspectors identified one issue of very low safety significance (Green). This issue was determined to involve a violation of NRC requirements. However, because of its very low safety significance, and because it has been entered into your corrective action program, the NRC is treating this issue as a Non-Cited Violation, in accordance with Section VI.A.1 of the NRC's Enforcement Policy. If you deny this Non-Cited Violation, you should provide a response with the basis for your denial, within 30-days of the date of this inspection report, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region III; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Dresden Nuclear Power Station.

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Sincerely,

/RA/

Mark Ring, Chief
Branch 1
Division of Reactor Projects

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

Enclosure: Inspection Report 50-237/01-011; 50-249/01-011

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos:	50-237; 50-249
License Nos:	DRP-19; DRP-25
Report No:	50-237/01-011; 50-249/01-011
Licensee:	Exelon Nuclear
Facility:	Dresden Nuclear Power Station, Units 2 and 3
Location:	6500 North Dresden Road Morris, IL 60450
Dates:	April 1 through May 15, 2001
Inspectors:	D. Smith, Senior Resident Inspector B. Dickson, Resident Inspector T. Madeda, Physical Security Inspector D. Funk Jr., Physical Security Inspector S. Orth, Senior Radiation Specialist R. Landsman, Project Engineer R. Zuffa, Illinois Department of Nuclear Safety
Approved by:	Mark Ring, Chief Branch 1 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000237-01-011, IR 05000249-01-011, on 04/01 - 05/15/2001, Exelon Nuclear, Dresden Nuclear Generating Station, Units 2 & 3. Radioactive material processing and transportation.

The inspection was conducted by resident inspectors, a region based project engineer, physical security specialists, and a radiation protection specialist. The inspection identified one Green finding which was a Non-Cited Violation. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at http://www.nrc.gov/NRR/OVERSIGHT/index.html.

Public Radiation Safety

Green. The inspectors identified a Non-Cited Violation concerning the failure of the licensee to provide an adequate emergency response telephone number for a shipment of radioactive waste. The designated emergency response telephone number documented on the NRC waste manifest (shipping papers) was not continuously monitored while the shipment was in transit as required by 49 CFR 172.604.

The safety significance of this finding was very low because no emergencies occurred while the shipment was in transit; therefore, an emergency responder did not use the emergency response telephone number. In addition, an alternate telephone number was also included within the shipping paperwork that was monitored throughout the shipment (Section 2PS2.4).

Report Details

Summary of Plant Status

Unit 2 began the period at full power operations. On April 3, 2001, the "B" reactor recirculation pump tripped causing the unit to go into single loop operation. Later that day, the "A" reactor recirculation pump tripped, causing the operators to insert a manual scram from approximately 280 MWe. On April 6, 2001, during startup activities with the unit at approximately 3 percent power, the "B" recirculation pump tripped and placed the unit in single loop operation. The operators inserted all control rods to shut down the unit. On April 9, 2001, operators returned the unit to full power operation. On May 6, 2001, the operators reduced load to 683 MWe to swap reactor feed pumps. The operators started the "A" reactor feed pump and secured the "C" reactor feed pump. The operators returned the unit to full power operations later that day.

Unit 3 began the period at full power operations. On April 20, 2001, the operators reduced power to 300 MWe to repair the 3C3 feedwater heater. Also, the licensee made a drywell entry to inspect and repair a 3B reactor recirculation pump seal pipe joint. On April 23, 2001, the operators reduced load to swap reactor feed pumps. On April 27, 2001, the unit scrammed on low reactor water level after the 3B reactor recirculation motor-generator set experienced malfunctions. On April 30, 2001, in preparation of repairing two moisture separator drain tank valves, the operators reduced load from 750 MWe to 600 MWe after an unexpected high alarm was received on the moisture separator. Also, the operators subsequently reduced power to 270 MWe to replace a main generator voltage regulator relay and repair the moisture separator drain tank valves.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity and Emergency Preparedness

1R04 Equipment Alignments (71111.04)

a. Inspection Scope

The inspectors selected a redundant or backup system (listed below) to an out-of-service or degraded train, reviewed documents to determine correct system lineup, and verified critical portions of the system configuration. Instrumentation valve configurations and appropriate meter indications were also observed. The inspectors observed various support system parameters to determine the operational status of the system. Control room switch positions for the systems were observed. Other conditions, such as adequacy of housekeeping, the absence of ignition sources, and proper labeling were also evaluated.

Mitigating System Cornerstone

Unit 2 Standby Liquid Control System

In addition, the inspectors reviewed the issues that the licensee entered into its corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for the issues documented in the following condition reports (CR):

CR D2001-01793	NRC Identified Concern, High Pressure Coolant Injection System Checklist
CR D2001-02094	NRC Resident Inspector Walkdown Concerns
CR D2001-01557	NRC Resident Inspector Walkdown Concerns
CR D2001-02047	NRC Resident Inspector Walkdown Concerns

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation (71111.12)

a. Inspection Scope

The inspectors assessed the licensee's implementation of the maintenance rule by determining if systems were properly scoped within the maintenance rule. The inspectors also assessed the licensee's characterization of failed structures, systems, and components, and determined whether goal setting and performance monitoring were adequate.

Mitigating System Cornerstone

Unit 3 Standby Liquid Control System
Unit 2 Reactor Feedwater Pumps

In addition, the inspectors reviewed the issues that the licensee entered into the corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for the issues documented in the following condition reports:

CR D2001-02231	Battery Acid Puddle Found Under Unit 2 250vdc Station Battery Cell #84
CR D2001-02648	Unit 2 Drywell Oxygen Analyzer Control Room Indication is Low Out of Tolerance

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Evaluation (71111.13)

a. Inspection Scope

The inspectors evaluated the effectiveness of the risk assessments performed before maintenance activities were conducted on structures, systems, and components and verified how the licensee managed the risk. The inspectors evaluated whether the licensee had taken the necessary steps to plan and control emergent work activities.

The following risk significant activities were evaluated:

Initiating Events Cornerstone

WR 990068218-01	Unit 3 "B" Reactor Recirculation System Differential Pressure Transmitter/Indication/Alarm and Motor Generator Set Interlock
WR 00318595-01	Unit 2, 2B Motor Generator Set Oil Bearing Oil Pressure Measurements

In addition, the inspectors reviewed the issues that the licensee entered into the corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for the issues documented in the following condition reports:

CR D2001-02014	Unit 2 Containment Cooling Service Water Vault Penetration Surveillance Failure
CR D2001-02302	Reactor Building Ventilation Trip Occurs During Instrument Maintenance Department Modification Work
CR D2001-02374	Unexpected Annunciator Received While Installing Test Equipment

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Non-routine Plant Evolutions and Events (71111.14)

.1 Unit 2 "B" Reactor Recirculation Pump Trip Followed by a Scram and another Pump Trip

a. Inspection Scope

The inspectors reviewed the licensee's performance during a scram from 100 percent

power on April 3, 2001. The scram was preceded by the tripping of the Unit 2 "B" reactor recirculation pump motor-generator set which placed the unit in single loop operation. The pump tripped when engineering personnel inadvertently touched a loose wire while performing a modification walkdown. Approximately four hours later, the remaining "A" reactor recirculation pump motor-generator set tripped on low oil pressure. As a result, the operators scrammed the unit. Also, during startup, the "B" reactor recirculation pump tripped again while the unit was at 3 percent power. The operators responded by inserting all control rods. The inspectors reviewed the events to ensure that the issues were adequately addressed in the licensee's corrective action program. The inspectors also interviewed plant personnel and reviewed operating and maintenance procedures to ensure that generic issues were captured appropriately in the corrective action program.

The inspectors reviewed operator logs, action tracking items and other documents. The inspectors also reviewed the licensee's corrective actions for the issues documented in the following condition reports and follow-up documents:

CR D2001-01875 2B2 Oil Pump Trip and Subsequent 2B Motor-Generator Set Trip

CR D2001-01832 Trip of 2B Recirculation Motor-Generator

CR D2001-01833 Unit 2 Scram

b. Findings

No findings of significance were identified.

.2 Unit 3 Scram on Low Reactor Water Level

a. Inspection Scope

The inspectors reviewed the licensee's performance during a scram from 100 percent power on April 27, 2001. The inspectors reviewed the events to ensure that the issues were adequately addressed in the licensee's corrective action program. The inspectors also interviewed plant personnel and reviewed operating procedures to ensure that generic issues were captured appropriately in the corrective action program.

The inspectors reviewed operator logs, action tracking items and other documents. The inspectors also reviewed the licensee's corrective actions for the issues documented in the following condition reports and follow-up documents:

CR D2001-02340 Unit 3 Scram Due to Low Reactor Level Caused by the "B" Recirculation Pump Transient

b. Findings

On April 27, 2001, Unit 3 scrammed from 100 percent on low reactor water level. The scram was precipitated by a malfunction in the 3B reactor recirculation motor-generator set speed circuitry. The 3B reactor recirculation pump sped up unexpectedly from

94 percent to 100 percent. The nuclear station operators responded by locking out the scoop tube which allowed the recirculation flow to stabilize for approximately 30 seconds. Subsequently, small power oscillations (4 percent) occurred which operators responded to by attempting to trip the pump from the control room. After this action was unsuccessful, a non-licensed operator was directed to locally trip the drive-motor breaker of the 3B reactor recirculation pump motor-generator set. Prior to this action being performed the field breaker for the pump tripped which caused reactor water level to initially increase. The feedwater control system responded to the level increase by nearly closing the feedwater regulating valves to 0 percent, and then the system attempted to respond to the significantly decreased reactor water level and started opening the feedwater regulating valves. However, the response was not timely enough to restore level before reaching the reactor water scram level.

The licensee's preliminary investigation revealed that a rack-mounted controller in the pump's speed control circuitry failed and that contacts were found open in the pump's breaker trip coil circuitry. Since an equipment problem and a potential configuration control issue may have contributed to an initiating event, the inspectors determined that additional information and evaluation using the significance determination process was needed to reach a conclusion on this issue. Based on the inability to trip the recirculation pump this issue is an **Unresolved Item (URI 50-249/01-011-01)** pending the inspectors' review of the licensee's evaluation for the open contacts in the pump's breaker trip coil circuitry.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors reviewed the operability evaluations listed below to ensure that operability was properly justified and the component or system remained available, such that no unrecognized increase in risk occurred.

Mitigating Systems Cornerstone

Operability Evaluation 01-001	Unit 2 and Unit 3 Drywell Steel Beams-Inadequate Beam Reinforcement Development Lengths

In addition, the inspectors reviewed the issues that the licensee entered into the corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for the issues documented in the following condition reports:

CR D2001-02326	Nuclear Oversight Identified Generic Concern with Assignment for Operability Determination
CR D2001-02614	Condensate Storage Tank Inventory Preservation during Appendix R Fire

CR D2001-02542 Unit 3 Scram Discharge Volume Switch, 3-302-82A, Failed Initial Operability Test

b. Findings

No findings of significance were identified.

1R16 Operator Work-Arounds (71111.16)

a. Inspection Scope

The inspectors reviewed the following operator work-arounds to assess any potential effect on the functionality of mitigating systems.

Mitigating Systems Cornerstone

Operator Work-arounds 2-0B-27 Double Notching of Control Rod Drives M-10 and K-8

In addition, the inspectors reviewed the issues that the licensee entered into the corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for the issues documented in the following condition reports:

CR D2001-01909 Technical Specification Entry for Unit 2 High Pressure Coolant Injection System Outboard Steam Admission Valve (2-2301-5)

CR D2001-01509 Unit 2/3 "B" Main Control Room Heating, Ventilation, and Air Conditioning System Requires Pressure Instrument Controllers 2/3 5741-62 in Manual

b. Findings

No findings of significance were identified.

1R19 Post Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed the following post maintenance test results to confirm that the tests were adequate for the scope of the maintenance being performed, and that the test data met the acceptance criteria.

Mitigating Systems Cornerstone

WR 991505043-01 Unit 2 Low Pressure Coolant Injection System Loop Select Logic HGA Relay Replacement

WR 991909650-03	Unit 2 “B” Reactor Feed Pump

In addition, the inspectors reviewed the issues that the licensee entered into the corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee’s corrective actions for the issues documented in the following condition reports:

CR D2001-02450	Unit 3 Reactor Building Exhaust Fan Failed Post Maintenance Testing
CR D2001-02462	2/3A Main Chimney General Electric Radiation Monitor Spiking High

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors observed surveillance testing on risk-significant equipment. The inspectors assessed whether the selected plant equipment could perform its intended safety function and satisfy the requirement contained in the Technical Specifications. Following the completion of the test, the inspectors determined that the test equipment was removed and the equipment returned to a condition in which it could perform its intended safety function.

Mitigating System Cornerstone

WR 990063713-01	Unit 2 Emergency Diesel Generator Air Compressor, Instrumentation Calibration, DIS 6600-01
WR 990087679	Unit 3 Emergency Diesel Generator Monthly Surveillance, DOS 6600-01

In addition, the inspectors reviewed the issues that the licensee entered into the corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee’s corrective actions for the issues documented in the following condition reports:

CR D2001-02341	Technical Specification Required Surveillance not Performed Prior to Control Rod Drive Cycling
CR D2001-02406	Surveillance Acceptance Criteria was Out of Tolerance

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23)

a. Inspection Scope

The inspectors screened an active temporary modification (TMOD) on a system ranked high in risk and assessed the effect of this temporary modification on safety-related systems. The inspectors also determined that the installations were consistent with the system design.

Mitigating System Cornerstone

TMOD 9900867	Weld Repair on the Turbo Charger Air Intake Box on the Unit 2 Emergency Diesel Generator, Revision 0

In addition, the inspectors reviewed the issues that the licensee entered into the corrective action program to verify that identified problems were being entered into the program with the appropriate characterization and significance. The inspectors also reviewed the licensee's corrective actions for the issues documented in the following condition reports:

CR D2001-02574	Temporary Modification Paperwork for Scram Discharge Volume did not Revise Annunciation Response Procedure
CR D2001-02671	Isolated Phase Bus Duct Temperature Elevated

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Public Radiation Safety (PS)

2PS2 Radioactive Material Processing and Transportation (71122.02)

.1 Walkdowns of Radioactive Waste Systems

a. Inspection Scope

The inspector performed walkdowns of the liquid and solid radioactive waste systems to assess their material condition and operability and to ensure that radiological hazards were adequately posted and controlled in accordance with 10 CFR Part 20 and the licensee's Technical Specifications. The inspector also compared the operations of the

liquid/solid radioactive waste systems to the descriptions in the Updated Final Safety Analysis Report and the licensee's process control program.

b. Findings

No findings of significance were identified.

.2 Waste Characterization and Classification

a. Inspection Scope

The inspector reviewed the licensee's methods and procedure for determining the classification of radioactive waste shipments, including the licensee's use of scaling factors to quantify difficult-to-measure radionuclides (e.g., pure alpha or beta emitting radionuclides). Specifically, the inspector reviewed the licensee's calendar year 2000 and 2001 radiochemical analysis results for the licensee's waste streams: ion exchange resins, evaporator bottom sediments, control rod drive filters, and dry active waste. The inspector reviewed these analyses to ensure that the scaling factors were accurately determined such that waste shipments were classified in accordance with the requirements contained in 10 CFR Part 61 and the licensee's process control program. The inspector also reviewed the licensee's measures to ensure that changes in operating parameters, that can result in changes to the waste stream composition, were identified between the annual or biennial scaling factor updates.

b. Findings

No findings of significance were identified.

.3 Ongoing Shipment Preparation and Radioactive Waste Processing Activities

a. Inspection Scope

The inspector observed four ongoing shipments of radioactive wastes (two shipments of ion exchange resins and two shipments of slightly contaminated soil) to verify that the shipping activities were performed in accordance with the requirements of 10 CFR Part 71 and 49 CFR Parts 172 and 173. Specifically, the inspector reviewed shipping calculations and paperwork, performed independent radiological surveys, and observed the packaging of the shipments and the transfer of the shipments to the carriers. In the case of one of the resin shipments, the inspector also observed the licensee's removal of a malfunctioning crane grapple from a high integrity container, which involved the radiological planning for the manual removal of the grapple in a high radiation area. During these activities, the inspector observed and interviewed the shippers and shipping personnel to ensure that the individuals were knowledgeable of the shipping regulations and to ensure that personnel demonstrated adequate skills to accomplish the package preparation requirements for public transport with respect to 49 CFR Part 172 Subpart H.

b. Findings

No findings of significance were identified.

.4 Shipping Records

a. Inspection Scope

The inspector reviewed 11 non-excepted package shipments (Low Specific Activity II, Surface Contaminated Object II, Type A, and Type B packages) completed between January 1, 2000, and the date of this inspection to verify compliance with NRC and Department of Transportation requirements (i.e., 10 CFR Parts 20, 61, and 71 and 49 CFR Parts 172 and 173).

The inspector also interviewed individuals responsible for answering the licensee's emergency response 24-hour telephone number. Specifically, the inspector questioned the individuals to verify that they could provide a caller with adequate information concerning the shipment, emergency precautions, and incident mitigation information or that the individuals had immediate access to a person who possessed such knowledge.

b. Findings

The inspector identified a Green finding and an associated Non-Cited Violation of 10 CFR 71.5 concerning an inadequate emergency response telephone number entered on one of the shipping documents.

On January 31, 2000, the licensee shipped radioactive waste (fuel channels and incore detectors) to an NRC licensed disposal facility. The waste was packaged in a Type B shipping container and was transported as an exclusive use shipment. The inspector reviewed the waste manifest and other shipping papers which accompanied the shipment and identified a discrepancy with the 24-hour emergency response telephone number. In the designated location of the NRC waste manifest (NRC Form 540), the licensee listed the office telephone number of one of its shippers as the emergency telephone number. The inspector interviewed members of the licensee's staff and confirmed that the shipper's telephone was not continuously attended during the shipment. Consequently, a call to that number may have resulted in the caller being transferred to the individual's answering message, with no additional instructions for obtaining immediate attention or emergency information. The staff indicated that the correct telephone number (control room staff) was located on an additional page within the shipping package and acknowledged the error. Although no problems occurred during the shipment, the inspector concluded that the incorrect telephone number could have confused an emergency responder and delayed attempts to mitigate a potential incident involving the shipment.

The inspector identified that the failure to adequately provide a continuously monitored telephone number on the shipping papers did not meet the requirements of 49 CFR 172.604. This finding, if uncorrected, would become a more significant safety issue because the failure to provide an adequate emergency response telephone number could delay actions to mitigate an accident involving a radioactive materials

shipment and result in an increased radiological risk to the public and to the environment. Since the issue involved a noncompliance with US Department of Transportation requirements, the issue was evaluated using the NRC Significance Determination Process for the public radiation safety cornerstone. Although the finding concerned the adequacy of emergency response information, the shipment was not involved in an actual emergency. Therefore, the licensee was not required to respond to a request for emergency response information. In accordance with the Significance Determination Process, this issue is a Green finding.

10 CFR 71.5 requires that each licensee who transports licensed material outside the site of usage, as specified in the NRC license, or where transport is on public highways, or who delivers licensed material to a carrier for transport, comply with the applicable requirements of the Department of Transportation regulations in 49 CFR Parts 170 through 189 appropriate to the mode of transportation. Regulation 49 CFR 172.604 requires that a person who offers a hazardous material (which includes radioactive materials, as specified in 49 CFR 172.101) for transportation must provide an emergency response telephone number for use in the event of an emergency involving the hazardous material. The telephone number must be: (1) monitored at all times the material is in transportation; (2) the number of a person; and (3) entered on the shipping paper either immediately following the description of the material or once on the shipping paper in a clearly visible location. Contrary to the above, the licensee provided a clearly visible emergency response telephone number (located in the designated portion of the NRC waste manifest) for a shipment of radioactive waste that was not continuously monitored. However, because of the very low safety significance of the item and because the licensee has included this item in its corrective action program (Condition Report No. D2001-02293), this violation is being treated as a Non-Cited Violation **(NCV 50-237/01-11-02; NCV 50-249/01-11-02)**.

.5 Problem Identification and Resolution

a. Inspection Scope

The inspector reviewed self-assessments, audits, and condition reports completed since January 2000, which concerned the areas of radioactive waste processing and radioactive waste/material shipping. The inspector reviewed these documents to assess the licensee's ability to identify repetitive problems, contributing causes, the extent of conditions, and corrective actions which will achieve lasting results. The inspector also discussed a trend in shipping paperwork/checklist errors with the radiation protection staff to verify that the licensee understood the trend and was implementing corrective actions to address the underlying issues.

b. Findings

No findings of significance were identified.

3. SAFEGUARDS

Cornerstone: Physical Protection

3PP3 Response Contingency Events (71130.03)

a. Inspection Scope

The inspectors reviewed the licensee's current protective strategy, which included designated targets and target sets, their associated analysis, and security and operation response procedures. The inspectors also reviewed security events reports, and the licensee's problem identification and resolution program to determine that issues related to the licensee's contingent event program were identified at the appropriate threshold and were entered into the licensee's corrective action program. Items reviewed included self-assessments, audits, and a sample of training records, force-on-force drill evaluations, and the licensee's procedure for their corrective action process. In addition, the inspectors conducted interviews with several randomly selected contracted security officers and security management personnel to evaluate their knowledge and use of the licensee's corrective action system.

The inspectors reviewed appropriate security records and procedures that were related to security drills, drill demonstrations, and drill critiques to verify the licensee's continuing capabilities to identify issues that represented uncorrected performance weaknesses or program vulnerabilities.

The inspectors reviewed records and interviewed six selected members of the uniform contract security force to evaluate and verify security training that related to alarm station operations, tactical force-on-force training, and weapon proficiency training.

The inspectors also reviewed performance indicator information related to alarm equipment performance to determine if isolated or system problems with the protected area intrusion alarm system and/or assessment system had become predictable and potentially exploitable by an adversary.

b. Findings

No findings of significance were identified.

3PP4 Security Plan Changes (71130.04)

a. Inspection Scope

The inspector reviewed Revision 64 to the Dresden Nuclear Power Station Security Personnel Training and Qualification Plan and Revision 65 and 66 to the Dresden Nuclear Power Station Security Plan, Security Personnel Training and Qualification Plan, and Safeguards Contingency Plan. The referenced revisions were submitted in accordance with regulatory requirements by licensee letter dated March 2, 2001.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES (OA)

4OA1 Performance Indicator Verification (71151)

.1 Reactor Coolant System Specific Activity

a. Inspection Scope

The inspector reviewed the licensee's chemistry data to verify that the licensee had accurately reported the reactor coolant system specific activity performance indicator for the reactor safety cornerstone. Specifically, the inspector reviewed the licensee's analytical results for reactor coolant system maximum dose equivalent iodine-131 (June 2000 through March 2001) for Units 2 and 3 and its applicable procedures. The inspector also observed a chemistry technician obtain and analyze reactor coolant system samples for both units to ensure that the licensee adequately sampled and accurately analyzed coolant samples.

b. Findings

No findings of significance were identified.

.2 Unit 2 and Unit 3 High Pressure Coolant Injection System

a. Inspection Scope

The inspectors reviewed a sample of plant records and data against the reported performance indicators for both the Unit 2 and Unit 3 high pressure coolant injection system for the reactor safety cornerstone (Mitigating System). The inspectors reviewed control room logs, out-of-service logs, the maintenance rule database, and the condition reports for December 2000 through March 2001.

b. Findings

No findings of significance were identified.

.3 Physical Protection Performance Indicators

a. Inspection Scope

The inspectors verified the data for the Physical Protection Performance Indicators pertaining to Fitness-for-Duty Personnel Reliability, Personnel Screening Program, and Protected Area Security Equipment. Specifically, a sample of plant reports related to security events, security shift activity logs, fitness-for-duty reports, and other applicable security records were reviewed for the period between September 2000 through March 2001.

b. Findings

No findings of significance were identified.

.4 Emergency Diesel Generators for Units 2, 3 and 2/3

a. Inspection Scope

The inspectors reviewed a sample of plant records and data against the reported performance indicators for the Unit 2 and Unit 3 and Unit 2/3 emergency diesel generators for the reactor safety cornerstone (Mitigating System). The inspectors reviewed control room logs, out-of-service logs, the maintenance rule database, and the condition reports for October 2000 through March 2001.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems

(Closed) Inspection Follow-up Item (50-237; 249/98-201-01)

This inspection follow-up item involved a deficiency in the licensee's protective strategy. During one force-on-force security exercise, response positions were circumvented which enabled adversaries to gain access to plant critical equipment. Immediate corrective action, which was determined to be Safeguard Information, was implemented. Further corrective action was taken that included installation of a security barrier that blocked the covert route and deployment of a response position that engaged the intruders. The inspectors verified that the noted measures were effective and are addressed in the licensee's current protective strategy. The item is closed.

(Closed) Inspection Follow-up Item (50-237; 249/98-201-02)

This inspection follow-up item identified that the licensee's tactical weapon training facility and course of fire neither provided the conditions likely to occur during an onsite contingency nor provided the conditions that occurred during onsite exercises.

The inspectors verified that the licensee's tactical weapon range and training activities provided sufficient realism to ensure that response personnel can adequately maintain familiarity and competence with assigned weapons and equipment under conditions likely to occur. This item is closed

4OA4 Management Meetings

The inspectors presented the inspection results to Mr. Fisher and other members of licensee management on May 15, 2001. The licensee acknowledged the findings presented. No proprietary information was identified.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

S. Butterfield, NRC Coordinator
V. Castle, Training Operations Manager
R. Fisher, Plant Manager
T. Fisk, Chemistry Manager
V. Gengler, Security Manager
T. Luke, Engineering Manager
J. Moser, Radiation Protection Manager
J. Nalewajka, Acting Nuclear Oversight Manager
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IDNS

R. Zuffa, Illinois Department of Nuclear Safety

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

50-249/01-011-01	URI	Cause of open contacts in the 3B motor-generator set Breaker's trip coil circuitry
50-237/01-011-02	NCV	Licensee provided a clearly visible emergency response telephone number for a shipment of radioactive waste that was not continuously monitored.

Closed

50-237/001-011-02	NCV	Licensee provided a clearly visible emergency response telephone number for a shipment of radioactive waste that was not continuously monitored.
50-237/249-98-201-01	IFI	Deficiency in Licensee's protective strategy.
50-237/249-98-201-02	IFI	Licensee's tactical weapon training facility.

LIST OF ACRONYMS AND INITIALISMS USED

CR	Condition Report
IDNS	Illinois Department of Nuclear Safety
IFI	Inspection Followup Item
LER	Licensee Event Report
NCV	Non-Cited Violation
SDP	Significance Determent Process
TMOD	Temporary Modifications
URI	Unresolved Item
WR	Work Request

LIST OF DOCUMENTS REVIEWED - (not listed previously)

2PS2 Radioactive Material Processing and Transportation

0100-9758	Shipping Papers: Fuel Channels and Incore Detectors	January 31, 2000
0200-9784	Shipping Papers: U-1 Dewatered Sludge	February 25, 2000
0500-9997	Shipping Papers: D-3 Tri-Nuke Filters	May 17, 2000
41576	Focus Area Self Assessment Report: “Radioactive Material / Waste Shipping”	March 08, 2001
CR D2000-00609	TN_RAM Radwaste Cask Certification Expiration Date	January 29, 2000
CR D2000-01011	N.O. Identifies TN RAM Shipment Preparation Checklist Errors	February 17, 2000
CR D2000-01013	N.O. Identifies Opportunity for Shipping Procedure Enhancement	February 17, 2000
CR D2000-01018	Inadequate Planning of Shipment Prep for DAW Barrels	February 18, 2000
CR D2000-01140	N.O. Identifies Outdated Posted Procedures in Radwaste	February 23, 2000
CR D2000-01432	Unit 1 Spent Fuel Cask Prototype Receipt and Transfer Lesson Learned	March 1, 2000
CR D2000-01514	Nuclear Oversight Notes Procedure Non-Compliance During CNSI Work	March 13, 2000
CR D2000-03988	Radwaste Shipment Delayed Due to Conflict in Information on Free Standing Liquid	July 20, 2000
CR D2000-04283	Radwaste DAW/S2 Processing Lacks Ownership and Organization	August 3, 2000
CR D2000-04359	Radioactive Shipment Awaiting Departure Not Posted	August 7, 2000
CR D2000-04424	Poor Quality of 10 CFR 50.59 for PORC Presentation	August 3, 2000
CR D2000-05783	D2R16 Bellow Seavan Still Not Ready to Ship After One Year	October 18, 2000
CR D2000-06180	Warehouse Personnel Require D.O.T Hazmat Refresher Training	November 8, 2000

CR D2001-00539	Shipping Trailer Paper Work and Broke Air Line Causes Shipping Delay	January 29, 2001
CR D2001-01017	Opportunities to Improve Waste Generation and Processing	February 16, 2001
CR D2001-01284	Radioactive Shipment Delayed	March 2, 2001
CR D2001-01486	RW Shipping Self Assessment -- Observation -- Make New Software Available	March 15, 2001
CR D2001-02007	Incomplete Data Sheets in Rad Shipping Paperwork (Self-Assessment Identified Deficiency)	March 29, 2001
CR D2001-02247	NRC Observation of U1 Cal Facility Posting	April 23, 2001
CR D2001-02293	Incorrect Emergency Response Number on Radioactive Shipping Manifest	April 26, 2001
D-00-039	Shipping Papers: Recirculation Motor	March 1, 2000
D-00-106	Shipping Papers: Spent Resins	August 21, 2000
D-00-151	Shipping Papers: Spent Resins	November 8, 2000
D-00-177	Shipping Papers: U-1 Fuel Pool Coupons	October 26, 2000
DM-01-006	Shipping Papers: 10 CFR 61 Samples -- CRD Filter and Spent Resin	January 19, 2001
DRP 5600-03	"Classification Radioactive Waste"	Revision 01
DRP 5600-13	"10 CFR 61 Waste Stream Sampling and Analysis"	Revision 03
DRP 5600-13	"Data Sheet A, Trending for Shifts in Scaling Factors" for Unit 2	February 15, 2001
DRP 5600-13	"Data Sheet A, Trending for Shifts in Scaling Factors" for Unit 3	February 15, 2001
DRP 5600-13	"Data Sheet A, Trending for Shifts in Scaling Factors" for Unit 2/3	February 15, 2001
DRP 5600-13	"Data Sheet B, Waste Stream Results Review" for 2/3 Dry Active Waste Stream	April 10, 2000
DRP 5600-13	"Data Sheet E, Scaling Factor Results" for 2/3 Dry Active Waste Stream	April 10, 2000
DRP 5600-13	"Data Sheet B, Waste Stream Results Review" for 2/3 Evaporator Bottoms Waste Stream	January 26, 2000
DRP 5600-13	"Data Sheet E, Scaling Factor Results" for 2/3 Evaporator Bottoms Waste Stream	January 26, 2000

DRP 5600-13	"Data Sheet B, Waste Stream Results Review" for 2/3 Spent Resin Waste Stream	May 1, 2000
DRP 5600-13	"Data Sheet E, Scaling Factor Results" for 2/3 Spent Resin Waste Stream	May 1, 2000
DRP 5610-02	"Calculation of Curie Content of Radioactive Shipments"	Revision 00
DW-01-011	Shipping Papers: 14 Drums of DAW in 14-170 Cask	February 22, 2001
DW-01-036	Shipping Papers: 2/3 DAW Seavan	March 5, 2001
DW-01-043	Shipping Papers: 2/3 Resins	April 18, 2001
DW-01-044	Shipping Papers: Condensate Resins	April 23, 2001
DW-01-045	Shipping Papers: Contaminated Soil	April 24, 2001
DW-01-046	Shipping Papers: Contaminated Soil	April 24, 2001
NOA-12-00-PS02	Nuclear Oversight Assessment: "Radwaste Processing, Shipping, and Effluent Monitoring"	February 4, 2000
RP-AA-401	"Attachment 2, ALARA Plan" for RWP 02021307	April 26, 2001
RP-AA-600	"Administrative Process for Radioactive Material/Waste Shipments"	Revision 02
RP-AA-601	"Surveying Radioactive Material Shipments"	Revision 00
RP-AA-602	"Packaging of Radioactive Material/Waste Shipments"	Revision 02
RP-AA-603	"Inspection and Loading of Radioactive Material/Waste Shipments"	Revision 00

3PP3 Response to Contingency Events

	Appendix B Tack and Element Summary Guide	December 2000, Revision 2
	Condition Reports (Security)	September 2000 - March 2001
AD-AA-106	Corrective Action Program (CAP) Process Procedure	Revision 3
	Corrective Action Program (CAP) Guidance and	September 20, 2000
	Expectations Handbook	Revision 2

	Problem Identification Form	September 2000 - March 2001
	Force-on-Force Drill Records	November 2000
BSC.2	Standard Stress Fire Course Handbook Security Self-Assessment (Protective Strategy)	March 2001
	Security Event Reports	September 2000 - March 2001
	Strategic Support Agreement	April 20, 2001
	Supplement Station Safeguards Contingency Plan	February 2, 2001
	Table Top Drills/Critiques (20)	2000 - 2001
	Weapon Qualification Records	January 2000 - March 2001

4OA1 Performance Indicator Verification - Physical Protection

	Fitness-for-Duty Performance Data Report	July - December 2000
	Security Event Reports (SER)	September 2000 - March 2001
DCP 1019-01	"Sampling"	Revision 24
DCP 3207-01	"Gamma Isotopic Analysis"	Revision 12
RS-AA-122-117	Performance Indicator - Protected Area Security Equipment	
RS-AA-122-118	Performance Indicator - Personnel Screening Program	
RS-AA-122-119	Performance Indicator - Fitness-for-Duty	
RS-AA-1222-112	"Performance Indicator -- Reactor Coolant System Specific Activity" performed for June 2000 through February 2001	Revision 01