

September 28, 2006

Mr. Christopher M. Crane  
President and Chief Nuclear Officer  
Exelon Nuclear  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: NRC INSPECTION REPORT 050-00010/05-015 (DNMS)  
DRESDEN NUCLEAR POWER STATION UNIT 1

Dear Mr. Crane:

On September 20, 2006, the NRC completed inspection activities at the Dresden Nuclear Power Station Unit 1. The purpose of the inspection was to determine whether the decommissioning activities were conducted safely and in accordance with NRC requirements. Specifically, during onsite inspections on June 1, 2006 and September 20, 2006, the inspectors evaluated decommissioning activities, management oversight of decommissioning activities, radioactive waste management, and radiological safety. At the conclusion of the on-site inspections on June 1 and September 20, 2006, the inspector discussed the inspection findings with members of your staff.

This inspection consisted of an examination of decommissioning activities at the Dresden Nuclear Power Station Unit 1 as they relate to safety and compliance with the Commission's rules and regulations. Areas examined during the inspection are identified in the enclosed report. Within these areas, the inspection consisted of a selective examination of procedures and representative records, and interviews with personnel.

Based on the results of this inspection, the NRC did not identify any violations.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). The NRC's document system is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

C. Crane

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We will gladly discuss any questions you may have regarding this inspection.

Sincerely,

*/RA/*

Jamnes L. Cameron, Chief  
Decommissioning Branch

Docket No. 050-00010  
License No. DPR-2

Enclosure:  
Inspection Report 050-00010/05-015(DNMS)

cc w/encl: Site Vice President - Dresden Nuclear Power Station  
Dresden Nuclear Power Station Plant Manager  
Dresden Nuclear Power Station Decommissioning Plant Manager  
Regulatory Assurance Manager - Dresden  
Chief Operating Officer  
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Senior Vice President - Mid-West Regional Operating Group  
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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No. 050-00010

License No. DPR-2

Report No. 050-00010/05-015(DNMS)

Licensee: Exelon Nuclear

Facility: Dresden Nuclear Power Station Unit 1

Location: 6500 N. Dresden Road  
Morris, IL 60450

Dates: June 1, 2006  
September 20, 2006

Inspectors: William Snell, Senior Health Physicist

Approved by: Jamnes L. Cameron, Chief  
Decommissioning Branch  
Division of Nuclear Materials Safety

Enclosure

## **EXECUTIVE SUMMARY**

### **Dresden Nuclear Power Station, Unit 1 NRC Inspection Report 050-00010/05-015(DNMS)**

This routine decommissioning inspection included a review of the licensee's current performance related to decommissioning activities, management oversight of decommissioning activities, radioactive waste management, and radiological safety.

#### **Organization, Management and Cost Controls**

- The inspector concluded the licensee's decommissioning program continued to make progress towards SAFSTOR dormancy, although work was often delayed due to a higher priority provided to work activities on Units 2/3. (Section 1.0)

#### **Self-Assessment, Auditing and Corrective Action**

- The licensee was actively addressing deficiencies identified during the 2005 5-year structural audit of Unit 1. (Section 2.0)

#### **Decommissioning Performance and Status Review**

- The licensee was adequately controlling radiological work areas. The licensee adequately addressed the one industrial safety issue involving an operating dehumidifier sitting in a puddle of water with its electrical cord laying in the water. (Section 3.0)

#### **Occupational Radiation Exposure**

- The inspector concluded that the licensee was implementing adequate radiological controls throughout the Unit 1 structures and work areas. (Section 4.0)

#### **Radioactive Waste Treatment, and Effluent and Environmental Monitoring**

- The licensee continues to make progress in the processing of the liquid radioactive wastes associated with Unit 1. (Section 5.0)

#### **Solid Radioactive Waste Management and Transportation**

- The inspector determined that the licensee complied with NRC and Department of Transportation requirements for the shipment of radioactive waste from Dresden Unit 1. (Section 6.0)

## Report Details<sup>1</sup>

### **1.0 Organization, Management and Cost Controls (36801)**

#### 1.1 Inspection Scope

The inspectors reviewed the licensee's decommissioning program to verify that it was effective in progressing towards SAFSTOR dormancy.

#### 1.2 Observations and Findings

The licensee continued to manage activities associated with Unit 1 through two separate groups. Routine activities that were generally non-unit specific in content, such as periodic maintenance, radiation surveys, and surveillances, were completed by plant personnel assigned to Units 2/3. Work associated with achieving SAFSTOR dormancy for Unit 1 was assigned to three employees who were dedicated to Unit 1 activities. Most of the SAFSTOR work on Unit 1 was contracted out, and much of that was done during outages on Units 2/3 when additional contract workers were already on-site. Because work on Units 2/3 is normally a higher priority due to their operational status, work on Unit 1 is often delayed until workers can be made available. None of the work deferred for Unit 1 resulted in delays to address issues related to safety.

#### 1.3 Conclusion

The inspector concluded the licensee's decommissioning program continued to make progress towards SAFSTOR dormancy, although work was often delayed due to a higher priority provided to work activities on Units 2/3.

### **2.0 Self-Assessment, Auditing and Corrective Action (40801)**

#### 2.1 Inspection Scope

The inspectors reviewed the licensee's activities associated with addressing issues identified during the 2005 5-year structural audit of Unit 1.

#### 2.2 Observations and Findings

The inspectors discussed with the licensee the results of 2005 5-year structural audit of Unit 1, in which a number of deficiencies were identified. None of the deficiencies were of significant concern, but the licensee was addressing all the items to ensure the long term integrity of the Unit 1 structures.

#### 2.3 Conclusion

The licensee was actively addressing deficiencies identified during the 2005 5-year structural audit of Unit 1.

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<sup>1</sup>A List of acronyms used in the report is included at the end of the Report Details.

### **3.0 Decommissioning Performance and Status Review (71801)**

#### **3.1 Inspection Scope**

The inspectors conducted plant tours to assess field conditions and decommissioning activities and ensure that radioactively contaminated areas were being controlled.

#### **3.2 Observations and Findings**

During site tours the inspectors noted that the material condition of facilities and equipment were commensurate with current decommissioning activities. Although little work was in process during the tours, work areas were observed to be adequately roped off and access controlled. The individuals conducting the tours with the inspectors were cognizant of the Unit 1 work activities in process, the dose levels throughout the Unit 1 facilities, and the locations of contaminated areas.

While conducting the tours an industrial safety issue was identified on the 488 foot elevation of the Unit 1 Containment Building near the Sub-Pile Room. The sump pump in the Sub-Pile Room had failed, and as a result of in-leakage of ground water there was a large puddle of water (about an inch deep) that had to be walked through to get into the Sub-Pile Room. In the middle of the puddle was an operating dehumidifier with its electrical cord laying in the water. The licensee had a work order in place to address the sump pump, and planned actions to secure the electrical cord out of the puddled water.

#### **3.3 Conclusion**

The licensee was adequately controlling radiological work areas. The licensee adequately addressed one industrial safety issue involving an operating dehumidifier sitting in a puddle of water with its electrical cord laying in the water.

### **4.0 Occupational Radiation Exposure (83750)**

#### **4.1 Inspection Scope**

The inspectors reviewed the radiological controls associated with Unit 1 structures and work areas.

#### **4.2 Observations and Findings**

The inspectors determined that access to the SFP Building required a keycard for entry and personal monitoring for contamination prior to exiting. Access to the Unit 1 Containment and the Radwaste Basement required dressing out in anti-contamination clothing and entry through locked doors. Although no significant work was in progress at the time of the inspections, the licensee had established appropriate radiological boundaries around all observed work areas, appropriate radiation protection caution signs were posted, step-off pads were in use to control the spread of contamination, and radiation, high radiation, and contaminated areas were being adequately controlled.

#### 4.3 Conclusion

The inspector concluded that the licensee was implementing adequate radiological controls throughout the Unit 1 structures and work areas.

### 5.0 **Radioactive Waste Treatment, and Effluent and Environmental Monitoring (84750)**

#### 5.1 Inspection Scope

The inspectors reviewed the licensee's processing of liquid radioactive waste associated with Unit 1.

#### 5.2 Observations and Findings

The licensee was in the process of draining the water from the Unit 1 SFP. This evolution has been on hold since late in 2005 when the turbine building drain tank pumps, which were used to transfer the water to the Units 2/3 radwaste system, began to fail. The licensee had obtained two new pumps and had completed the installation of one of the pumps. As soon as the tag-out on the installed pump was removed, the licensee would continue with the removal of the SFP water. Eventually the second pump, as well as the breakers for these pumps, will be replaced. The two spare breakers were currently being re-furbished. Once the SFP is drained, the filtration equipment will be moved to the Chem-Cleaning Building to begin processing the water in the 102 Tank. This tank holds 155,000 gallons and is about 80 percent full.

#### 5.3 Conclusions

The licensee continues to make progress in the processing of the liquid radioactive wastes associated with Unit 1.

### 6.0 **Solid Radioactive Waste Management and Transportation (86750)**

#### 6.1 Inspection Scope

The inspectors reviewed the shipping documents for two radioactive waste shipments containing material from Dresden Unit 1 to verify compliance with NRC and Department of Transportation requirements.

#### 6.2 Observations and Findings

The inspector reviewed shipping documents for Shipment No. DW-06-101, containing Dry Active Waste (DAW), and Shipment No. DW-06-098, containing dewatered fuel pool resin and dewatered filter media. The paperwork for both waste shipments were found to contain the required documents, which included survey reports of the shipments, NRC Form 540, Uniform Low-Level Radioactive Waste Manifest (Shipping Paper), and NRC Form 541, Uniform Low-Level Radioactive Waste Manifest (Container and Waste Description). All forms were found to be properly filled out and signed off as necessary. No issues were identified with the shipping documents for either shipment.

### 6.3 Conclusion

The inspector determined that the licensee complied with NRC and Department of Transportation requirements for the shipment of radioactive waste from Dresden Unit 1.

### 7.0 **Exit Meeting Summary**

The inspectors presented the inspection results to licensee management at the conclusion of the onsite inspections on June 1 and September 20, 2006. The licensee acknowledged the findings presented.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## SUPPLEMENTAL INFORMATION

### PARTIAL LIST OF PERSONS CONTACTED

#### Licensee

\*J. Ellis, Regulatory Assurance Manager

\*J. Panozzo, Unit 1 Project Manager

\*R. Christensen, Senior Project Manager

\*J. Griffin, Regulatory Assurance Specialist

\* Indicates presence at the exit meeting held on September 20, 2006.

### INSPECTION PROCEDURES USED

IP 36801	Organization, Management & Cost Controls
IP 40801	Self-Assessment, Auditing and Corrective Action
IP 71801	Decommissioning Performance and Status Review
IP 83750	Occupational Radiation Exposure
IP 84750	Radioactive Waste Treatment, and Effluent and Environmental Monitoring
IP 86750	Solid Radioactive Waste Management and Transportation of Radioactive Materials

### ITEMS OPENED, CLOSED, AND DISCUSSED

Opened        None

Closed        None

Discussed    None

### LIST OF ACRONYMS USED

CFR	Code of Federal Regulations
DAW	Dry Active Waste
NRC	Nuclear Regulatory Commission
SAFSTOR	Safe Storage Condition
SFP	Spent Fuel Pool

### DOCUMENTS REVIEWED

Documents used during the inspection were specifically identified in the Report Details, above.