

April 5, 2005

Mr. Kurt M. Haas
General Manager
Big Rock Point Nuclear Plant
Consumers Energy Company
10269 U.S. 31 North
Charlevoix, MI 49720

SUBJECT: BIG ROCK POINT INSPECTION REPORT 05000155/2005-001(DNMS)

Dear Mr. Haas:

On March 10, 2005, the NRC completed inspection activities at the Big Rock Point Nuclear Plant. The purpose of the inspection was to determine whether decommissioning activities were conducted safely and in accordance with NRC requirements. Specifically, during onsite inspections on January 19 through 21, and March 7 through 10, 2005, the inspectors evaluated decommissioning support activities, radioactive waste management, and radiological safety. At the conclusion of on-site inspections on January 21 and March 10, 2005, the inspectors discussed the inspection findings with you and members of your staff.

This inspection consisted of an examination of decommissioning activities at the Big Rock Point Nuclear Plant 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, observations of activities in progress, 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> (the Public Electronic Reading Room).

K. Haas

-2-

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

Sincerely,

/RA/

Jamnes Cameron, Chief
Decommissioning Branch

Docket No. 05000155
License No. DPR-6

Enclosure: Inspection Report 05000155/2005-001(DNMS)

cc w/encl: R. A. Fenech, Senior Vice President, Nuclear, Fossil, and Hydro Operations
John King, Michigan Public Service Commission
L. Shekter Smith, Michigan Department of Environmental Quality
Chief, Nuclear Facilities Unit, Michigan Department of Environmental Quality
Department of Attorney General (MI)
Emergency Management Division, Michigan Department of State Police

Distribution:

M. Masnik, NRR w/encl
J. Shepherd, LPM, NMSS (e-mail)
G. E. Grant, RIII w/encl
M. L. Dapas, RIII w/encl
RIII Enf. Coordinator w/encl

DOCUMENT NAME: E:\Filenet\ML050950129.wpd

To receive a copy of this document, indicate in the box: **C** = Copy without enclosure **E** = Copy with enclosure **N** = No copy

OFFICE	RIII		RIII	C	RIII	C	RIII			
NAME	Snell:mb		Bonano		Cameron					
DATE	04/01/05		04/01/05		04/05/05					

OFFICIAL RECORD COPY

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No. 050-00155

License No. DPR-6

Report No. 05000155/2005-001(DNMS)

Licensee: Consumers Energy Company

Facility: Big Rock Point Restoration Project

Location: 10269 U.S. 31 North
Charlevoix, MI 49720

Dates: January 19 through 21, 2005, and
March 7 through 10, 2005

Inspectors: William G. Snell, Senior Health Physicist
Gene Bonano, Decommissioning Inspector

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

EXECUTIVE SUMMARY

Consumers Energy Company Big Rock Point Restoration Project NRC Inspection Report 05000155/2005-001(DNMS)

This routine decommissioning inspection involved a review of the Consumers Energy Company's and its contractors' current performance related to decommissioning support activities, radioactive waste management, and radiological safety. During this inspection period, major activities reviewed included facility demolition and decontamination, audits, transportation of radiological waste, and radiological safety.

Organization, Management and Cost Controls

- Based on discussions with licensee management and staff, the inspectors concluded that the licensee maintained an adequate organizational structure and workforce to conduct decommissioning activities in compliance with regulatory requirements. (Section 1.0)

Audits and Self Assessments

- The inspectors concluded that the licensee implemented CPC-2A, Quality Description for Nuclear Power Plants, Part 1, Big Rock Point Nuclear Plant, Section 18.0 Audits, as required. In addition, self assessments conducted by the onsite Radiological Protection and Environmental Services organization, although not procedurally required, were observed to be thorough and beneficial to the program. (Section 2.0)

Decommissioning Support Activities

- The inspectors concluded that licensee and contractor personnel conducted decommissioning activities in accordance with regulatory requirements and in a safe manner. Management oversight of decommissioning activities was commensurate with the scope and complexity of the activities observed. (Section 3.0)

Radiation Protection Program

- The inspectors concluded that licensee and contractor radiological work practices associated with decommissioning activities were conducted in a safe manner and commensurate with the radiological hazards associated with decommissioning the facility. (Section 4.0)

Final Status Survey

- The inspectors determined that the licensee's documentation of final status surveys of building surfaces was complete and consistent with procedural requirements. (Section 5.0)

Solid Radioactive Waste Management and Transportation

- The inspectors determined that the licensee met regulatory requirements for the processing and shipping of low-level radioactive waste for disposal. No concerns were identified regarding the control and storage of solid and liquid radioactive waste. (Section 6.0)

Report Details¹

1.0 Organization, Management and Cost Controls (36801)

a. Inspection Scope

The inspectors reviewed the licensee's actions to maintain an organizational structure consistent with its changing decommissioning focus and ensure a continued adherence to regulatory requirements. The inspectors discussed with licensee staff and management how the work force was adjusted to account for a reduction in source term and the elimination of work in some areas.

b. Observations and Findings

The size of the onsite workforce has not changed appreciably over the past year. As the scope of work has changed, resources have been reduced in some areas while increased in others. When feasible, the licensee has moved personnel from positions that were no longer needed to positions where additional resources were required.

In September of 2004, the licensee submitted a request to the NRC for approval of a revision to its Emergency Plan, which included a reduction in emergency response organization staffing requirements. This revision reflected the relocation of the spent nuclear fuel to the Independent Spent Fuel Storage Installation (ISFSI). If approved, this change will allow for a reduction in the number of personnel needed for on-shift 24-hour emergency response coverage.

c. Conclusion

The inspectors concluded that the licensee maintained an adequate organizational structure and workforce to conduct decommissioning activities in compliance with regulatory requirements.

2.0 Audits and Self Assessments (40801)

a. Scope

The inspectors reviewed the licensee's implementation of CPC-2A, Quality Description for Nuclear Power Plants, Part 1, Big Rock Point Nuclear Plant, Section 18.0 Audits. In addition, the inspectors reviewed the self-assessment program implemented by the onsite Radiological Protection and Environmental Services organization.

b. Observations and Findings

The inspectors verified that no changes had been made to CPC-2A since Revision 21 was issued in January 2004, and that audits were conducted consistent with the frequencies specified in Appendix D, Audit Frequencies, of CPC-2A. The inspectors reviewed the licensee's last two formal audits, A-04-03, Process Control Program,

¹A list of acronyms used in the report is included at the end of the Report Details.

issued on September 30, 2004, and A-04-04, Emergency Preparedness, issued on January 19, 2005. The purpose of the audits was to verify program compliance against procedural and regulatory requirements. The inspectors determined that the audits were thorough in addressing the subject matter. Weaknesses identified during the Emergency Preparedness audit were captured in two licensee Condition Reports (CRs) for followup action. The inspectors reviewed the CRs, C-BRP-04-0228 and C-BRP-05-0009, and determined that the licensee took appropriate action to address the findings identified in the audit.

The inspectors reviewed self-assessments conducted by the Radiological Protection and Environmental Services (RP&ES) organization. Although the site procedures that required these assessments were deleted in 2004 due to changing decommissioning activities, as an organization, RP&ES has continued to conduct the assessments because they are considered beneficial to the program. The inspector reviewed three recent assessments in detail: 2005-SA-0018, 2005-SA-20020, and 2005-SA-0021, which addressed dosimetry placement, radiological tool control, and the dose record-keeping system, respectively. The assessments were performance-based and thorough, and provided information to licensee management regarding the manner in which the radiological program was implemented.

c. Conclusion

The inspectors concluded the licensee implemented CPC-2A, Quality Description for Nuclear Power Plants, Part 1, Big Rock Point Nuclear Plant, Section 18.0 Audits, as required. In addition, self assessments conducted by the onsite Radiological Protection and Environmental Services organization, although not procedurally required, were thorough and considered beneficial by the licensee.

3.0 Decommissioning Support Activities (62801, 71801)

a. Inspection Scope

The inspectors evaluated decommissioning activities to verify that the licensee and its contracted workforce conducted work in accordance with license requirements. In addition, the inspectors evaluated the licensee's management and oversight of decommissioning activities.

b. Observations and Findings

The inspectors performed site tours to observe licensee staff conduct decontamination and demolition activities to verify that work instructions were adhered to and worker knowledge was adequate to ensure the work was conducted safely. The licensee and contractor personnel interviewed were knowledgeable of their work assignments and attentive to their individual tasks.

The inspectors observed the material condition of facilities and equipment and determined it to be commensurate with current decommissioning activities. A check of numerous radiological instruments used throughout the site determined that all had current calibration stickers and had received daily instrument checks.

The inspectors attended numerous licensee progress and performance meetings during which plant decommissioning activities, including safety issues, were discussed and evaluated. The inspector observed that licensee management continued to effectively address the continually changing state of decommissioning activities, radiological source term, and industrial safety issues. Communications between licensee personnel and personnel from the numerous contractors on site were effective.

c. Conclusion

The inspectors concluded that licensee and contractor personnel conducted decommissioning activities in accordance with regulatory requirements and in a safe manner. Management oversight of decommissioning activities was commensurate with the scope and complexity of the activities observed.

4.0 Radiation Protection Program (83750)

a. Inspection Scope

The inspectors observed the radiological work practices of licensee and contractor staff who conducted decommissioning activities, and interviewed licensee and contractor management and staff to verify that the program was implemented commensurate with the radiological hazards associated with decommissioning the facility.

b. Observations and Findings

During site tours, the inspectors observed the radiological work practices of the licensee and contract workers, and determined that the radiological work practices were adequate. Discussions with workers and managers determined that personnel were cognizant of precautions related to the work they were performing and knowledgeable of radiation health considerations. The inspectors determined that the licensee and its contractors communicated effectively, demonstrated appropriate concern for industrial and radiological safety, and employed good work practices.

c. Conclusion

The inspectors concluded that the licensee's and its contractor's radiological work practices associated with decommissioning activities were conducted in a safe manner and commensurate with the radiological hazards associated with decommissioning the facility.

5.0 Final Status Survey (83801)

a. Inspection Scope

The inspectors evaluated final status survey documentation to verify that building surfaces that had been decontaminated to radiological levels consistent with procedural requirements.

b. Observations and Findings

The inspectors reviewed the following work packages: 2003-0069, entitled "Spent Fuel Pool, Reactor Building T-1;" 2004-008, entitled "Stack Segments Room 605;" 2004-0008, entitled "Overburden Concrete;" 2004-0041, entitled "Pipe Tunnel Connector, Turbine Building Rm 114;" and 2004-0063, entitled "Reactor Building Room 431." The packages were complete, clearly documented survey results as required, and contained appropriate sign-offs. No concerns were identified.

c. Conclusion

The inspectors determined that the licensee's documentation of final status surveys of building surfaces was complete and consistent with procedural requirements.

6.0 Solid Radioactive Waste Management and Transportation (84750, 86750)

a. Inspection Scope

The inspectors verified that solid and liquid radioactive waste was adequately stored and controlled throughout the site. The inspectors evaluated the licensee's radioactive material transportation program to verify compliance with NRC and Department of Transportation (DOT) regulatory requirements by observing several radioactive waste shipment loadings and securing of the loads onto tractor trailers; and the surveying of the vehicles and their shipments; the placarding of the vehicles; and reviewing the associated documents and pertinent procedures. The inspectors also interviewed staff regarding the implementation of the radioactive waste shipment program for disposal of radioactive materials.

b. Observations and Findings

The inspectors determined that solid radioactive waste was stored within fenced areas of the site with boundaries posted as required. Any liquid radioactive waste generated was controlled, processed, and stored to ensure there were no inadvertent releases to the environment. No concerns were identified regarding the control and storage of solid and liquid radioactive waste.

The inspectors observed the loading, securing, surveying and placarding activities, and reviewed the radioactive material transportation manifests and all associated documents, for the disposal of: (1) a contaminated dirt and metal shipment (Manifest S-2541), and (2) activated steel packaged in one "E-Box" (Manifest S-2534). The inspectors also reviewed the licensee's procedures RM-65, Packaging Radioactive Waste for Offsite Processing, Revision 3, dated September 22, 2004, and RM-68, Shipment of Radioactive Material or Waste as Radioactive-LSA or Radioactive-SCO on Exclusive Use Vehicles, Revision 7, dated September 22, 2004. The inspectors determined that the radioactive material shipped under manifest, S-2541 with identification (ID) numbers: BRP-1708, pump casings and a "B-25" of activated pipe (packaged in a 20-foot Sealand container); BRP-309, pipe w/lead on outside of pipe (packaged in a "CRD Box"); and BRP-1759, contaminated dirt/sand (packaged in a "B-25" container); and manifest S-2534 with ID number: BRP-1492, activated steel (packaged in an "E-Box"), were processed and shipped in accordance with the licensee's procedures and with NRC and Department of Transportation regulations.

The inspectors did not identify any problems with the licensee's procedures. The loading and securing of shipments onto tractor trailers were performed in accordance with all safety procedures and guidelines. Surveys of the vehicles and their shipments demonstrated proper packaging and placement of material. Placardings of the vehicles were completed in accordance with regulations.

Licensee management conducted audits of every shipment of radioactive waste by reviewing all documents and signing off checklist RM-68-1, "Radioactive Shipment Checklist," before the material left the site.

c. Conclusion

The inspectors determined that the licensee met regulatory requirements for the processing and shipping of low-level radioactive waste for disposal. No concerns were identified regarding the control and storage of solid and liquid radioactive waste.

7.0 Exit Meeting Summary

The inspectors presented preliminary inspection findings to members of the licensee management team at the conclusion of onsite inspection activities on January 21 and March 10, 2005. The licensee acknowledged the findings presented. The licensee did not identify any documents or processes reviewed by the inspectors as proprietary.

PARTIAL LIST OF PERSONS CONTACTED

Consumers Energy Company

- * Kurt Haas, Site General Manager
- * Ken Pallagi, Radiation Protection & Environmental Services Manager
- * William Trubilowicz, Cost, Scheduling and Purchase Manager

INSPECTION PROCEDURES USED

IP 36801	Organization, Management & Cost Controls
IP 40801	Self-Assessment, Audits
IP 62801	Maintenance and Surveillance
IP 71801	Decommissioning Performance and Status Review
IP 83750	Occupational Radiation Exposure
IP 83801	Inspection of Final Surveys at Permanently Shutdown Reactors
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

<u>Opened</u>	None
<u>Closed</u>	None

Discussed

None

PARTIAL LIST OF DOCUMENTS REVIEWED

Licensee documents reviewed and utilized during the course of this inspection are specifically identified in the "Report Details" above.

LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
BRP	Big Rock Point
CFR	Code of Federal Regulations
DOT	Department of Transportation
DNMS	Division of Nuclear Material Safety
RP&ES	Radiological Protection and Environmental Services
ISFSI	Independent Spent Fuel Storage Installation
NRC	Nuclear Regulatory Commission