

October 27, 2003

Mr. Thomas Coutu  
Site Vice President  
Kewaunee Nuclear Plant  
Nuclear Management Company, LLC  
N490 Hwy 42  
Kewaunee, WI 54216-9511

SUBJECT: KEWAUNEE NUCLEAR POWER PLANT  
NRC EMERGENCY PREPAREDNESS INSPECTION  
REPORT 05000305/2003007(DRS)

Dear Mr. Coutu:

On October 2, 2003, the NRC completed an inspection at your Kewaunee Nuclear Power Plant. The enclosed report documents the inspection findings, which were discussed on October 2, 2003, with Mr. K. Hoops and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and 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. Specifically, this inspection focused on emergency preparedness, including your staff's determinations of performance indicators for the Emergency Preparedness Cornerstone.

On the basis of the results of this inspection, no findings of significance were identified.

In accordance with 10 CFR Part 2.790 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). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

*/RA/*

Kenneth Riemer, Chief  
Plant Support Branch  
Division of Reactor Safety

Docket No. 50-305  
License No. DPR-43

Enclosure: Inspection Report 05000305/2003007(DRS)

See Attached Distribution

T. Coutu

-2-

cc w/encl: D. Graham, Director, Bureau of Field Operations  
Chairman, Wisconsin Public Service Commission  
State Liaison Officer  
W. Curtis, FEMA, Region V

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T. Coutu

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cc w/encl: D. Graham, Director, Bureau of Field Operations  
Chairman, Wisconsin Public Service Commission  
State Liaison Officer  
W. Curtis, FEMA, Region V

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-305  
License No: DPR-43

Report No: 05000305/2003007(DRS)

Licensee: Nuclear Management Company, LLC

Facility: Kewaunee Nuclear Power Plant

Location: N 490 Highway 42  
Kewaunee, WI 54216

Dates: September 22 through October 2, 2003

Inspectors: T. Ploski, Senior Emergency Preparedness Inspector  
R. Jickling, Emergency Preparedness Inspector  
M. Morris, Resident Inspector

Approved by: Kenneth Riemer, Chief  
Plant Support Branch  
Division of Reactor Safety

Enclosure

## SUMMARY OF FINDINGS

IR 05000305/2003007(DRS); 09/22/03-09/26/03; Kewaunee Nuclear Power Plant; Emergency Preparedness Specialist Report.

The report covers a one-week baseline inspection by two regional emergency preparedness inspectors and a resident inspector. The inspection focused on the Emergency Preparedness Cornerstone in the Reactor Safety strategic performance area during the biennial emergency preparedness exercise. This inspection also included a review of records related to the three emergency preparedness performance indicators for the twelve month period ending June 30, 2003. No findings of significance were identified.

The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

A. Inspector-Identified and Self-Revealed Findings

None.

B. Licensee-Identified Violations

None.

## REPORT DETAILS

### 1. REACTOR SAFETY

#### **Cornerstone: Emergency Preparedness**

#### 1EP1 Exercise Evaluation (71114.01)

##### a. Inspection Scope

The inspectors reviewed the September 23, 2003 biennial emergency preparedness exercise's objectives and scenario to ensure that the exercise would acceptably test major elements of the licensee's emergency plan and to verify that the exercise's simulated problems provided an acceptable framework to support demonstration of the licensee's capability to implement its plan. The inspectors also reviewed a summary of emergency classification and offsite protective action recommendation opportunities associated with eight drills, which were conducted in 2002 and 2003, to determine whether those opportunities were sufficiently different from those forecast in the scenario used in the September 23, 2003 exercise.

The inspectors evaluated the licensee's exercise performance, focusing on the risk-significant activities of emergency classification, notification, and protective action decision making, as well as implementation of accident mitigation strategies in the following emergency response facilities:

- Control Room Simulator (CRS);
- Technical Support Center (TSC);
- Operations Support Facility (OSF)
- Radiological Analysis Facility (RAF); and
- Emergency Operations Facility (EOF).

The inspectors also assessed the licensee's recognition of abnormal plant conditions, transfer of responsibilities between facilities, internal communications, interfaces with offsite officials, readiness of emergency facilities and related equipment, and overall implementation of the licensee's emergency plan.

The inspectors attended post-exercise critiques in the CRS, TSC, and EOF to evaluate the licensee's initial self-assessment of its exercise performance. The inspectors later met with the licensee's lead exercise evaluators to obtain the licensee's refined assessments of its exercise participants' performances. These self-assessments were then compared with the inspectors' independent observations and assessments to assess the licensee's ability to adequately critique station performance during the exercise.

##### b. Findings

No findings of significance were identified.

#### 4. **OTHER ACTIVITIES**

##### 4OA1 Performance Indicator (PI) Verification (71151)

###### a. Inspection Scope

The inspectors reviewed the licensee's records related to each of the three emergency preparedness PIs to verify that the licensee's program was implemented consistent with the industry guidelines in Nuclear Energy Institute publication No. 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 2, and related licensee procedures. Specifically, licensee records related to the performance of the Alert and Notification System (ANS), key Emergency Response Organization (ERO) members' drill participation, and Drill and Exercise Performance (DEP) were reviewed to verify the accuracy and completeness of the data submitted to NRC for the period from July 2002 through June 2003.

###### b. Findings

No findings of significance were identified.

##### 4OA2 Identification and Resolution of Problems

The following performance concerns, which could have adversely impacted response activities if scenario events had been real, were independently identified by the licensee and by the inspectors during the September 2003 exercise:

- The TSC and EOF responders' understandings of the CRS crew's actions and support needs needed improvement.
- Coordination among senior OSF, RAF, and TSC responders needed improvement to ensure common understanding of priorities assigned to inplant teams' missions and more timely dispatch of high priority inplant repair teams.
- There was insufficient understanding of the use of the Health Physics Network communications line to help satisfy NRC responders' information needs.
- The need to assess the value of a proceduralized deputy for the licensee's senior EOF responder was identified.

##### 4OA6 Meetings

###### .1 Exit Meeting

The inspectors presented the inspection results to Mr. K. Koops and other members of licensee management and staff at the conclusion of the inspection on October 2, 2003. The licensee acknowledged the information presented. No proprietary information was identified.



.2 Public and Media Briefing

On September 26, 2003, an inspector summarized the NRC's preliminary conclusions on the licensee's exercise and critique performances at a public and media briefing hosted by Federal Emergency Management Agency staff in Algoma, Wisconsin.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee

K. Davidson, Operations Manager  
L. Gerner, Acting Regulatory Affairs Manager  
G. Harrington, Engineering Support - Licensing  
K. Hoops, Site Director  
J. Morlino, Emergency Preparedness Manager  
M. Vonk, Corporate Emergency Preparedness Specialist

### **LIST OF ITEMS OPENED, CLOSED AND DISCUSSED**

#### Opened and Closed

None

#### Discussed

None

### **LIST OF DOCUMENTS REVIEWED**

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety but rather that selected sections of portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

#### 1EP1 Exercise Evaluation

KNPP Exercise Scenario Manual; September 2003

Summary of Emergency Classification and Protective Action Recommendation Opportunities Associated With 2002 and 2003 Integrated Facility Drills

Licensee Critique Report for the September 23-24 Ingestion Pathway Exercise; Revisions 0 and 1

EPIP-AD-01; Personnel Response to the Plant Emergency Siren; Revision K

EPIP-AD-02; Emergency Class Determination; Revision AG

EPIP-AD-03; KNPP Response to an Unusual Event; Revision AI

EPIP-AD-04; KNPP Response to an Alert or Higher; Revision AN

EPIP-AD-07; Initial Emergency Notifications; Revision AU  
EPIP-AD-11; Emergency Radiation Controls; Revision S  
EPIP-AD-19; Protective Action Guidelines; Revision S  
EPIP-EOF-02; EOF Activation; Revision AB  
EPIP-EOF-04; EOF Staff Action for Alert or Higher; Revision AL  
EPIP-EOF-08; Continuing Emergency Notifications; Revision AA  
EPIP-OSF-02; OSF Operations; Revision V  
EPIP-RET-02; In-Plant Radiation Emergency Team; Revision X  
EPIP-RET-02A; Radiation Protection Office/RAF Activation; Revision U  
EPIP-SEC-03; Personnel Assembly and Accountability; Revision AG  
EPIP-SEC-05; Personnel Evacuation; Revision G  
EPIP-TSC-01; TSC Organization and Responsibilities; Revision S

#### 4OA1 Performance Indicator Verification

Procedure GNP-03.01.01, Appendix D; Emergency Preparedness Cornerstone;  
Revision G

EPMP 09.03; ANS System Testing and Maintenance; Revision K

Forms GNP-03.18.01; Appendix D-3; Alert and Notification System; Revision G

Remote Terminal Unit Status Report; July 2002 Through June 2003

Forms EPIP-AD-07-01; Event Notice Nuclear Accident Reporting System Form;  
February 2003 Through March 2003

Forms GNP-03.18.01-04; Emergency Preparedness Drill and Exercise Performance;  
January Through March 2003

Forms GNP-03.18.01-05; Drill and Exercise Performance Evaluation; February and  
March 2003

Monthly and Quarterly Records of Opportunities for the ANS, ERO, and DEP  
Performance Indicators; July 2002 Through June 2003

CAP 014278; Siren Alert Test on January 1, 2003 - Reset Problem

CAP 014815; Siren Test Failure

## LIST OF ACRONYMS USED

ANS	Alert and Notification System
CAP	Corrective Action Program
CRS	Control Room Simulator
DEP	Drill and Exercise Performance
EOF	Emergency Operations Facility
EPIP	Emergency Plan Implementing Procedure
EPMP	Emergency Plan Maintenance Procedure
ERO	Emergency Response Organization
KNPP	Kewaunee Nuclear Power Plant
NUREG	Nuclear Regulatory Guide
OSF	Operational Support Facility
PI	Performance Indicator
RAF	Radiological Analysis Facility
TSC	Technical Support Center
USNRC	United States Nuclear Regulatory Commission