

December 6, 2004

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

SUBJECT: BRAIDWOOD STATION, UNITS 1 AND 2
NRC EMERGENCY PREPAREDNESS INSPECTION
REPORT 05000456/2004009(DRS); 05000457/2004009(DRS)

Dear Mr. Crane:

On November 19, 2004, the NRC completed an inspection at your Braidwood Station. The enclosed report documents the inspection findings, which were discussed on November 19, 2004, with Mr. T. Joyce 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 2.390 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). 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 Nos. 50-456; 50-457
License Nos. NPF-72; NPF-77

Enclosure: Inspection Report 05000456/2004009(DRS);
05000457/2004009(DRS)

See Attached Distribution

cc w/encl: Site Vice President - Braidwood Station
Plant Manager - Braidwood Station
Regulatory Assurance Manager - Braidwood Station
Chief Operating Officer
Senior Vice President - Nuclear Services
Vice President - Operations Support
Vice President - Licensing and Regulatory Affairs
Director Licensing
Manager Licensing - Braidwood and Byron
Senior Counsel, Nuclear, Mid-West Regional
Operating Group
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Illinois Department of Nuclear Safety
State Liaison Officer
Chairman, Illinois Commerce Commission
W. King, FEMA, Region V

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REGION III

Docket Nos: 50-456; 50-457
License Nos: NPF-72; NPF-77

Report No: 05000456/2004009(DRS); 05000457/2004009(DRS)

Licensee: Exelon Generating Company, LLC

Facility: Braidwood Station, Units 1 and 2

Location: 35100 S. Route 53
Suite 79
Braceville, IL 60407-9617

Dates: November 15 through November 19, 2004

Inspectors: T. Ploski, Senior Emergency Preparedness Inspector
R. Jickling, Emergency Preparedness Inspector
S. Ray, Senior Resident Inspector

Observer: M. Wilk, Reactor Engineer

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

Enclosure

SUMMARY OF FINDINGS

IR 05000456/2004009(DRS); 05000457/2004009(DRS); 11/15/2004 - 11/19/2004; Braidwood Station; Emergency Preparedness Specialist Report.

The report covers a one-week baseline inspection by two regional emergency preparedness inspectors and a senior 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 period April 1, 2003, through September 30, 2004. 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 November 2004 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 excerpts of records of six emergency preparedness drills, which were conducted between May 2003 and November 2004, to determine whether those drills' scenarios were sufficiently different from the scenario used in the November 17, 2004, 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 Center (OSC); 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 TSC, OSC, 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 associated with 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 PI data submitted to NRC for the period from April 2003 through September 2004. The following PIs were reviewed:

Common

- ANS;
- ERO Drill Participation; and
- Drill and Exercise Performance.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems

The following performance concern, which could have adversely impacted emergency response activities if events had been real, was independently identified by the licensee and by the inspectors during the November 2004 exercise:

- Due to the different methods used by TSC and OSC staffs to categorize response priorities, some inplant repair teams were not dispatched from the OSC in a timely manner.

4OA6 Meetings

.1 Exit Meeting

An exit meeting was conducted for:

- Emergency Preparedness with Mr. T. Joyce and other members of licensee management and staff at the conclusion of the inspection on November 19, 2004. The licensee acknowledged the information presented. No proprietary information was identified.

.2 Public and Media Briefing

- On November 19, 2004, 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 Joliet, Illinois.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

K. Alshire, Emergency Preparedness Manager
D. Ambler, Regulatory Assurance Manager
S. Butler, Coordinator
S. Erickson, Corporate Emergency Preparedness Exercise Coordinator
J. Gerrity, Emergency Preparedness Coordinator
T. Joyce, Site Vice President
S. McCain, Corporate Emergency Preparedness Manager

Illinois Emergency Management Agency

J. Roman, Engineer

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

Braidwood Station Exercise Scenario Manual; dated November 17, 2004

Braidwood 2004 Pre-Exercise Findings and Observations Report; dated October 13, 2004

Draft Braidwood 2004 Exercise Findings and Observations Report; undated

Braidwood May 2003 Mini-Drill Scenario Narrative Summary

Braidwood October 2003 Mini-Drill Scenario Time Line

Braidwood April 2004 Mini-Drill Scenario Narrative Summary

Braidwood July 2004 Mini-Drill Scenario Narrative Summary

Braidwood August 2004 Mini-Drill Scenario Time Line

Braidwood November 2004 Mini-Drill Scenario Narrative Summary

Braidwood Station Annex to the Exelon Standardized Emergency Plan; Revision 13

EP-AA-110; Assessment of Emergencies; Revision 5

EP-AA-110-302; Core Damage Assessment - Pressurized Water Reactors; Revision 1

EP-AA-111; Emergency Classification and Protective Action Recommendations; Revision 8

EP-AA-112; Emergency Response Organization and Emergency Response Facility Activation and Operation; Revision 9

EP-AA-112-100; Control Room Operation; Revision 6

EP-AA-112-200; TSC Activation and Operation; Revision 5

EP-AA-112-300; OSC Activation and Operation; Revision 5

EP-AA-112-400; EOF Activation and Operation; Revision 5

EP-AA-113; Personnel Protective Actions; Revision 5

EP-AA-114; Notifications; Revision 5

EP-MW-110-200; Dose Assessment; Revision 3

EP-MW-114-100; Midwest Region Offsite Notifications; Revision 4

CR 00275014; Exercise Weakness - Controller Performance

CR 00275029; Revise Procedure for TSC Emergency Ventilation System

40A1 Performance Indicator Verification

EP-AA-125-1001; Emergency Preparedness Performance Indicator Guidance; Revision 3

EP-AA-125-1002; ERO Drill/Exercise Performance - Performance Indicator Guidance; Revision 3

EP-AA-125-1003; ERO Readiness - Performance Indicator Guidance; Revision 4

Braidwood Station's Emergency Planning Zone Sirens' Daily and Monthly Operability Reports - April 2003 Through September 2004

LS-AA-2110; Monthly PI Data Elements for ERO Drill Participation - April 2003 Through September 2004; Revision 5

LS-AA-2120; Monthly PI Data Elements for Drill/Exercise Performance - April 2003 Through September 2004; Revision 3

LS-AA-2130; Monthly PI Data Elements for ANS Reliability - April 2003 Through September 2004; Revision 4

LIST OF ACRONYMS USED

ANS	Alert and Notification System
CFR	Code of Federal Regulations
CR	Condition Report
CRS	Control Room Simulator
DEP	Drill and Exercise Performance
EOF	Emergency Operations Facility
ERO	Emergency Response Organization
NRC	United States Nuclear Regulatory Commission
NUREG	Nuclear Regulatory Guide
OSC	Operations Support Center
PI	Performance Indicator
TSC	Technical Support Center