

December 23, 2008

Mr. Charles G. Pardee
President and Chief Nuclear Officer (CNO), Exelon Nuclear
Chief Nuclear Officer (CNO), AmerGen Energy Company, LLC
4300 Winfield Road
Warrenville IL 60555

SUBJECT: BRAIDWOOD STATION, UNITS 1 AND 2 BASELINE EMERGENCY
PREPAREDNESS BIENNIAL EXERCISE INSPECTION
05000456/2008502(DRS); 05000457/2008502(DRS)

Dear Mr. Pardee:

On November 21, 2008, the U.S. Nuclear Regulatory Commission (NRC) completed a Baseline Emergency Preparedness Biennial Exercise inspection at your Braidwood Station, Units 1 and 2. The enclosed report documents the inspection results, which were discussed on November 21, 2008, with Mr. L. Coyle 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.

Based on the results of this inspection, no NRC-identified and no self-revealed findings of significance were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made 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), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA by B. Palagi for/

Hironori Peterson, Chief
Operations Branch
Division of Reactor Safety

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

Enclosure: Inspection Report 05000456/2008502(DRS);
05000457/2008502(DRS)
w/Attachment: Supplemental Information

See Attached Distribution

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Letter to Charles G. Pardee from Hironori Peterson dated December 23, 2008

SUBJECT: BRAIDWOOD STATION, UNITS 1 AND 2 BASELINE EMERGENCY
PREPAREDNESS BIENNIAL EXERCISE INSPECTION
05000456/2008502(DRS); 05000457/2008502(DRS)

cc w/encl: Site Vice President - Braidwood Station
Plant Manager - Braidwood Station
Regulatory Assurance Manager - Braidwood Station
Chief Operating Officer and Senior Vice President
Senior Vice President - Midwest Operations
Senior Vice President - Operations Support
Vice President - Licensing and Regulatory Affairs
Director - Licensing and Regulatory Affairs
Manager Licensing - Braidwood, Byron and LaSalle
Associate General Counsel
Document Control Desk - Licensing
Assistant Attorney General
J. Klinger, State Liaison Officer,
Illinois Emergency Management Agency
Chairman, Illinois Commerce Commission

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Senior Vice President - Midwest Operations
Senior Vice President - Operations Support
Vice President - Licensing and Regulatory Affairs
Director - Licensing and Regulatory Affairs
Manager Licensing - Braidwood, Byron and LaSalle
Associate General Counsel
Document Control Desk - Licensing
Assistant Attorney General
J. Klinger, State Liaison Officer,
Illinois Emergency Management Agency
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U. S. NUCLEAR REGULATORY COMMISSION

REGION III

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

Report No: 05000456/2008502(DRS) and 05000457/2008502(DRS)

Licensee: Exelon Generation Company, LLC

Facility: Braidwood Station, Units 1 and 2

Location: Braceville, IL

Dates: November 17 through 21, 2008

Inspectors: Robert Jickling, Sr. Emergency Preparedness Inspector
Regina Russell, Emergency Preparedness Inspector
Billy Dickson, Senior Resident Inspector

Approved by: Hironori Peterson, Chief
Operations Branch
Division of Reactor Safety

Enclosure

SUMMARY OF FINDINGS

IR 05000456/2008502(DRS), 05000457/2008502(DRS); 11/17/2008 - 11/21/2008;
Braidwood Station, Units 1 and 2; Baseline Emergency Preparedness Biennial Exercise
Inspection.

This report covers a 1 week period of baseline inspection by two regional inspectors and a resident inspector. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

A. NRC-Identified and Self-Revealed Findings

Cornerstone: Emergency Preparedness

No findings of significance were identified.

B. Licensee-Identified Violations

No violations of significance were identified.

REPORT DETAILS

1. REACTOR SAFETY

Cornerstone: Emergency Preparedness

1EP1 Exercise Evaluation (71114.01)

.1 Exercise Evaluation

a. Inspection Scope

The inspectors reviewed the November 19, 2008, 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 records of other drills and exercises conducted in 2006, 2007, and 2008, to verify that those drills' scenarios were sufficiently different from the scenario used in the November 19, 2008, exercise.

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

- Control Room Simulator (CRS);
- Technical Support Center (TSC); 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 and managers to obtain the licensee's findings and 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 its exercise performance. Documents reviewed are listed in the Attachment to this report.

This exercise evaluation inspection constituted one sample as defined in Inspection Procedure (IP) 71114.01-05.

b. Findings

No findings of significance were identified

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151)

.1 Drill/Exercise Performance

a. Inspection Scope

The inspectors sampled licensee submittals for the Drill/Exercise Performance performance indicator (PI) for the period from the 1st quarter 2007 through the 3rd quarter 2008. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the Nuclear Energy Institute (NEI) Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, were used. The inspectors reviewed the licensee's records associated with the performance indicator to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the NEI guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the PI; assessments of PI opportunities during predesignated control room simulator training sessions, performance during the 2007 off-year exercise, and performance during other drills. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one drill/exercise performance sample as defined in IP 71151-05.

b. Findings

No findings of significance were identified.

.2 Emergency Response Organization Drill Participation

a. Inspection Scope

The inspectors sampled licensee submittals for the Emergency Response Organization (ERO) Drill Participation performance indicator for the period from the 1st quarter 2007 through the 3rd quarter 2008. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, were used. The inspectors reviewed the licensee's records associated with the performance indicator to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the NEI guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the PI; participation during the 2007 off-year exercise and other drills; and revisions of the roster of personnel assigned to key emergency response organization positions. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one ERO drill participation sample as defined in IP 71151-05.

b. Findings

No findings of significance were identified.

.3 Alert and Notification System

a. Inspection Scope

The inspectors sampled licensee submittals for the Alert and Notification System (ANS) performance indicator for the period from the 1st quarter 2007 through the 3rd quarter 2008. To determine the accuracy of the PI data reported during those periods, PI definitions and guidance contained in the NEI Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, were used. The inspectors reviewed the licensee's records associated with the performance indicator to verify that the licensee accurately reported the indicator in accordance with relevant procedures and the NEI guidance. Specifically, the inspectors reviewed licensee records and processes including procedural guidance on assessing opportunities for the PI and results of periodic ANS operability tests. Documents reviewed are listed in the Attachment to this report.

This inspection constituted one alert and notification system sample as defined in IP 71151-05.

b. Findings

No findings of significance were identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

On November 21, 2008, the inspectors presented the inspection results to Mr. L. Coyle, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors confirmed that none of the potential report input discussed was considered proprietary.

.2 Public and Media Briefing

On November 21, 2008, the inspector summarized the NRC's preliminary exercise inspection conclusions at a public and media briefing hosted by Department of Homeland Security/Federal Emergency Management Agency Region V Field Office staff in Joliet, Illinois.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

L. Coyle, Plant Manager
K. Appel, Corporate Emergency Preparedness Manager
L. Brooks, Shift Operations Supervisor
S. Butler, Emergency Preparedness Manager
R. Gadbois, Maintenance Director
D. Gullott, Regulatory Assurance Manager
S. McKinney, Emergency Preparedness Specialist
J. Odeen, Project Management Director
J. Petty, Regulatory Assurance Senior Specialist
B. Schipiour, Work Management Director
M. Smith, Engineering Director

Nuclear Regulatory Commission

B. Dickson, Senior Resident Inspector

Illinois Emergency Management Agency

M. Perry, Resident Inspector

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened, Closed and 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 or 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.

EMERGENCY PLAN AND PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Revision</u>
EP-AA-11	Emergency Classification and Protective Action Recommendations	14
EP-AA-111	Emergency Classification and Protective Action Recommendations	14
EP-AA-112-200-F-02	Technical Support Center Director	H
EP-AA-112-200-F-14	Radiation Protection Manager	G
EP-AA-112-200-F-22	Braidwood TSC Ventilation Lineup	B
EP-AA-112-400	Emergency Operations Facility Activation and Operation	8
EP-AA-112-400-F-02	Corporate Emergency Director Checklist	F
EP-AA-112-400-F-03	Emergency Operations Facility Director Checklist	F
EP-AA-112-400-F-16	Radiation Protection Manager Checklist	D
EP-AA-112-400-F-17	Dose Assessment Coordinator Checklist	B
EP-AA-112-400-F-18	Dose Assessor Checklist	C
EP-AA-112-400-F-21	Environmental Coordinator Checklist	B
EP-AA-112-400-F-22	Field Team Communicator Checklist	C
EP-MW-110-200	Dose Assessment	5

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
00857342.7	2008 Exercise NRC Identified Dose Assessment Error that Was Not Caught and Had No Impact on PARs	December 17, 2008
00857342.6	2008 Exercise EOF Inconsistent Dose Projection and an Inaccurate Core Damage Info. from Station	December 17, 2008
00857342.3	2008 Exercise EOF ENS Communicator Did Not Maintain an Open Line when Requested by NRC	December 17, 2008
00857298	2008 Exercise EOF Dose Projections Not Marked as Bad Data	December 17, 2008
00849807	2008 Exercise OSC Demo. Failure for Team Briefing	November 26, 2008

CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
00849798	2008 Exercise TSC ERO Performance Items Concerning Communications, Priorities, and Briefings	November 26, 2008
00849507	2008 Exercise Incorrect DAM Output Obtained and Used during Graded Exercise	November 25, 2008
00849501	2008 Exercise TSC Demo. Failure-Tracking Boards Not Effectively Used	November 25, 2008
00849476	2008 Exercise Question on Manual Actuation of Core Spray to Reduce Offsite Dose	November 25, 2008
00849438	2008 Exercise Failed DCS in Simulator, TSC, and EOF for Concurrent EALs	November 25, 2008
00849372	2008 Exercise Facility and Equipment Issues	November 25, 2008
00849303	2008 Exercise Management/Scenario Control Issues	November 25, 2008

EXERCISE RECORDS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
	2008 NRC Graded Exercise Scenario Manual	November 19, 2008
	Drill and Exercise Scenario Timelines	June 28, 2006 - November 19, 2008
	Corrective Action Program Items Identified during Drills and Exercises	June 28, 2006 - October 8, 2008

PERFORMANCE INDICATOR RECORDS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
LS-AA-2110	Monthly Data Elements for NRC ERO Drill Participation	March 2007 - September 2008
LS-AA-2120	Monthly Data Elements for NRC ERO Drill/Exercise Performance	January 2007 - September 2008
LS-AA-2130	Monthly Data Elements for NRC Alert and Notification System Reliability	January 2007 - September 2008

LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
ANS	Alert and Notification System
CFR	Code of Federal Regulations
CRS	Control Room Simulator
DRS	Division of Reactor Safety
EOF	Emergency Operations Facility
ERO	Emergency Response Organization
FENOC	FirstEnergy Nuclear Operating Company
IP	Inspection Procedure
NEI	Nuclear Energy Institute
NRC	U. S. Nuclear Regulatory Commission
PARS	Publicly Available Records System
PI	Performance Indicator
PNPP	Perry Nuclear Power Plant
TSC	Technical Support Center