

November 25, 2008

Mr. Richard L. Anderson
Vice President
Duane Arnold Energy Center
3277 DAEC Road
Palo, IA 52324-9785

SUBJECT: DUANE ARNOLD ENERGY CENTER
BASELINE EMERGENCY PREPAREDNESS BIENNIAL EXERCISE
INSPECTION 05000331/2008502(DRS)

Dear Mr. Anderson:

On October 23, 2008, the U.S. Nuclear Regulatory Commission (NRC) completed a Baseline Emergency Preparedness Biennial Exercise inspection at your Duane Arnold Energy Center. The enclosed report documents the inspection results, which were discussed on October 23, 2008, with you 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 safety 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 available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system

R. Anderson

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(ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

Hironori Peterson, Chief
Operations Branch
Division of Reactor Safety

Docket No. 50-331
License No. DPR-49

Enclosure: Inspection Report 05000331/2008502(DRS)
w/Attachment: Supplemental Information

cc w/encl: M. Nazar, Senior Vice President and
Chief Operating Officer
J. Stall, Executive Vice President, Nuclear and
Chief Nuclear Officer
M. Ross, Managing Attorney
A. Khanpour, Vice President, Nuclear Engineering
D. Curtland, Plant Manager
S. Catron, Manager, Regulatory Affairs
M. Mashhadi, Senior Attorney
T. Jones, Vice President, Nuclear Operations,
Midwest Region
P. Wells, Acting Vice President, Nuclear,
Training and Performance Improvement
R. Hughes, Director, Licensing and Performance Improvement
D. McGhee, Iowa Dept. of Public Health
Chairman, Linn County, Board of Supervisors
Chief Radiological Emergency Preparedness Section,
Dept. of Homeland Security
M. Rasmusson, State Liaison Officer

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P. Wells, Acting Vice President, Nuclear,
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D. McGhee, Iowa Dept. of Public Health
Chairman, Linn County, Board of Supervisors
Chief Radiological Emergency Preparedness Section,
Dept. of Homeland Security
M. Rasmusson, State Liaison Officer

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Letter to Richard L. Anderson from Hironori Peterson, dated November 25, 2008

SUBJECT: DUANE ARNOLD ENERGY CENTER
BASELINE EMERGENCY PREPAREDNESS BIENNIAL EXERCISE
INSPECTION 05000331/2008502(DRS)

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-331
License No: DPR-49

Report No: 05000331/2008502(DRS)

Licensee: FPL Energy Duane Arnold, LLC

Facility: Duane Arnold Energy Center

Location: Palo, IA

Dates: October 20 - 23, 2008

Inspectors: Robert Jickling, Sr. Emergency Preparedness Inspector
Regina Russell, Emergency Preparedness Inspector
Charles Zoia, Operations Engineer

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

Enclosure

SUMMARY OF FINDINGS

IR 05000331/2008502(DRS); 10/20/2008 - 10/23/2008; Duane Arnold Energy Center; Baseline Emergency Preparedness Biennial Exercise Inspection.

This report covers a 1 week period of baseline inspection by three regional inspectors. 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 October 21, 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 October 21, 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 2nd quarter 2007 through the 2nd 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 2nd quarter 2007 through the 2nd 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; performance during the 2007 offyear 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 2nd quarter 2007 through the 2nd 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

Exit Meeting Summary

On October 23, 2008, the inspectors presented the inspection results to you 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.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

R. Anderson; Site Vice President
D. Curtland, Plant Manager
R. Anderson, Business Manager
M. Casey, Chemistry Supervisor
S. Catron, Licensing Manager
M. Davis, Emergency Preparedness Manager
C. Dieckmann, Operations Manager
B. Eckes, NOS Manager
D. Engelhardt, Training Support Supervisor
S. Funk, CHP, REMP Program Manager, Sr. Health Physics Coordinator
P. Hansen, Outage and Scheduling Manager
R. Harter, Outage Manager
J. Kalamaja, Operations
K. Kleinheinz, Program Engineering Manager
N. Knapp, Emergency Preparedness Coordinator
C. Kress, Training Supervisor
J. MacIntyre, Emergency Preparedness Coordinator
N. McKenney, General Supervisor Radiation Protection Support
J. Morris, Training Manger
D. Mothena, Corporate Functional Area Emergency Preparedness Manager
B. Murrell, Licensing Engineer
R. Palmer, Emergency Preparedness Coordinator
B. Seemann, Instrument and Control Supervisor
J. Schwertfeger, Security Operations Supervisor
P. Vandersee, Emergency Preparedness Administration
T. Zimmerman, Emergency Preparedness Coordinator

Nuclear Regulatory Commission

R. Orlikowski, Senior Resident Inspector
R. Baker, 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.

CORRECTIVE ACTION PROGRAM DOCUMENTS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
CAP 061267	Review Notification from June 30, 2008, for Possible Drill and Exercise Performance Failure	October 23, 2008
CAP 061265	2008 Exercise Review Process for TSC/Operations Support Center Contamination Control	October 23, 2008
CAP 061253	2008 Exercise Page Announcement at the Alert Was Not Understandable	October 23, 2008
CAP 061246	Additional Siren Added in Middle of Quarter to DEP	October 23, 2008
CAP 061243	2008 Exercise Delay of Repair Team Dispatch	October 23, 2008
CAP 061241	2008 Exercise ORAA Not Informed of Plume Path	October 23, 2008
CAP 061229	2008 Exercise Scenario Expected Drywell Venting	October 22, 2008
CAP 061215	2008 Exercise Controller Did Not Provide Emergency Depressurize Message Resulting in Scenario Change	October 22, 2008
CAP 061189	2008 Exercise Scenario Protective Action Recommendation Change Did Not Occur as Expected	October 21, 2008
CAP 061188	2008 Exercise Severe Accident Conditions without Severe Accident Event	October 21, 2008
CAP 061148	2008 Exercise Getting the NRC Site Team Onsite	October 21, 2008
CAP 061148	2008 Exercise State Protective Actions Incorrectly Copied on Notification Form	October 21, 2008
CAP 061139	2008 Exercise TSC Notifications to Operations Shift Manager Was Not Timely	October 21, 2008
CAP 061133	2008 Exercise Ownership of Emergency Operations Procedures between Control Room and TSC	October 21, 2008
CAP 061131	2008 Exercise Resetting SCRAM Air Header Venting Not Pursued by Operations Support Center	October 21, 2008
CAP 061127	2008 Exercise Unsatisfactory Decontamination Demonstration in ORAA	October 21, 2008

EXERCISE RECORDS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
	List of Drill and Exercise Corrective Action Issues	October 19, 2006 - October 17, 2008
	Drill and Exercise Scenario Timelines	October 19, 2006 - October 21, 2008

EXERCISE RECORDS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
	2008 Exercise Classification, Notification, and Assessment Records	October 21, 2008

PERFORMANCE INDICATOR RECORDS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
	NRC PI Records for Drill and Exercise Performance	April 2007 – June 2008
	NRC PI Records for Emergency Response Organization Participation	June 2007 – June 2008
	NRC PI Records for Alert and Notification System	April 2007 – June 2008

EMERGENCY PLAN AND PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
Section H	DAEC Emergency Plan, Emergency Facilities Staffing, Activation, and Equipment	26
Section	DAEC Emergency Plan, Accident Assessment	25
Section J	DAEC Emergency Plan, Protective Response	23
Section K	DAEC Emergency Plan, Radiological Exposure Control	22
EPIP 1.2	Notifications	39
EPIP 1.3	Plant Assembly and Site Evacuation	14
EPIP 2.2	Activation and Operation of the TSC	27
EPIP 3.1	In-Plant Radiological Monitoring	19
EPIP 3.3	Dose Assessment and Protective Action	24
EPIP 4.3	Rescue and Emergency Repair Work	16
EPIP 4.5	Administration of Potassium Iodide	8

LIST OF ACRONYMS USED

ADAMS	NRC's Document 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
IP	Inspection Procedure
NEI	Nuclear Energy Institute
NRC	U.S. Nuclear Regulatory Commission
PARS	Publicly Available Records
PI	Performance Indicator
TSC	Technical Support Center