September 26, 2007

EA-07-017

Mr. Gary Van Middlesworth
Site Vice President
Duane Arnold Energy Center
3277 DAEC Road
Palo, IA 52324-9785

SUBJECT: DUANE ARNOLD ENERGY CENTER
NRC SUPPLEMENTAL INSPECTION REPORT NO. 05000331/2007503(DRS)

Dear Mr. Van Middlesworth:

On August 31, 2007, the U.S. Nuclear Regulatory Commission (NRC) completed a supplemental inspection at your Duane Arnold Energy Center (DAEC). This inspection was conducted in response to a White inspection finding associated with the failure of the DAEC 2006 full-scale exercise critique to identify a weakness associated with a Risk Significant Planning Standard (RSPS) which was also a Drill and Exercise Performance (DEP) Performance Indicator (PI) failure evaluated exercise. The enclosed inspection report documents the inspection results, which were discussed with Mr. Dean Curtland, Plant Manager, and other members of your staff, at the exit and regulatory performance meetings conducted on August 31, 2007.

The NRC performed this supplemental inspection in accordance with Inspection Procedure 95001, "Inspection For One or Two White Inputs in A Strategic Performance Area," to assess your evaluation of a White finding which impacted the Emergency Preparedness (EP) Cornerstone. 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 objectives of this inspection were to: (1) provide assurance that the root causes and the contributing causes of the risk significant performance issues are understood; (2) provide assurance that the extent of condition and extent of cause of the issues are identified; and (3) provide assurance that the corrective actions are sufficient to address the root causes and contributing causes, and to prevent recurrence. The inspection effort consisted of a review of selected documents and procedures, and discussions of the issues with your emergency planning staff, and focused on assessing the adequacy of your root cause evaluation, the corrective actions taken to address the effectiveness of post exercise critique processes, and your actions to prevent recurrence.

Based on the results of this supplemental inspection, no findings of significance were identified. We determined that your evaluation identified the root and contributing causes associated with the failure, identified both the extent of condition and extent of cause associated with the issues, and that appropriate corrective actions had been implemented to address the causes and prevent recurrence of the issues.

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 Agencywide Document Access and Management System (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

We will gladly discuss any questions you have concerning this inspection.

Sincerely,

/RA/

Steven West, Director
Division of Reactor Safety

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

Enclosure: DAEC Supplemental Inspection Report 05000331/2007503(DRS)
w/Attachment: Supplemental Information

cc w/encl: J. Stall, Senior Vice President, Nuclear and Chief Nuclear Officer
R. Helfrich, Senior Attorney
M. Ross, Managing Attorney
W. Webster, Vice President, Nuclear Operations
M. Warner, Vice President, Nuclear Operations Support
R. Kundalkar, Vice President, Nuclear Engineering
J. Bjorseth, Site Director
D. Curtland, Plant Manager
S. Catron, Manager, Regulatory Affairs
Chief Radiological Emergency Preparedness Section, Dept. Of Homeland Security
M. Rasmusson, State Liaison Officer

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S. Catron, Manager, Regulatory Affairs
Chief Radiological Emergency Preparedness Section, Dept. Of Homeland Security
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Letter to Mr. Gary Van Middlesworth from Steven West dated September 26, 2007

SUBJECT: DUANE ARNOLD ENERGY CENTER
NRC SUPPLEMENTAL INSPECTION REPORT NO. 05000331/2007503(DRS)

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REGION III

Docket No:	50-331
License No:	DPR-49
Report No:	05000331/2007503
Licensee:	FPL Energy Duane Arnold, LLC
Facility:	Duane Arnold Energy Center
Location:	Palo, Iowa
Dates:	August 27 through August 31, 2007
Inspectors:	R. Baker, Resident Inspector
Approved By:	E. Duncan, Chief Plant Support Branch Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000331/2007503; 08/27/2007 - 08/31/2007; Duane Arnold Energy Center; Supplemental Inspection; Inspection Procedure (IP) 95001, "Inspection for One or Two White Inputs in a Strategic Performance Area."

This supplemental inspection was performed by the Duane Arnold Resident Inspector. 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.

Cornerstone: Emergency Preparedness

The NRC performed this supplemental inspection to assess the licensee's evaluation of a White inspection finding associated with the DAEC 2006 full-scale evaluated exercise (Reference NRC Inspection Report 05000331/2006009). The licensee's exercise critique failed to identify a weakness associated with a Risk Significant Planning Standard (RSPS) which was also a Drill and Exercise Participation (DEP) Performance Indicator (PI) failure. This finding impacted the Emergency Preparedness Cornerstone. This supplemental inspection was performed in accordance with Inspection Procedure 95001, "Inspection for One or Two White Inputs in a Strategic Performance Area," and assessed the licensee's root and contributing cause evaluation, extent of condition and extent of cause, and completed and proposed corrective actions to address the effectiveness of post exercise critique processes, and your actions to prevent recurrence.

Based on the results of this supplemental inspection, the inspector concluded that: (1) the licensee understood the root causes and the contributing causes of the risk significant performance issues that resulted in the White finding; (2) the licensee identified the extent of condition and extent of cause of the issues; and (3) the licensee's corrective actions are sufficient to address the root causes and contributing causes, and to prevent recurrence.

A. <u>Inspector-Identified and Self-Revealed Findings</u>

None.

B. <u>Licensee-Identified Violations</u>

None.

REPORT DETAILS

01 INSPECTION SCOPE

The NRC performed this supplemental inspection to assess the adequacy of the licensee's root cause and contributing cause evaluation, the extent of condition and extent of cause, and the completed and proposed corrective actions to address the effectiveness of post exercise critique processes. The performance issue associated with the failure of the licensee's exercise critique process to identify a weakness associated with a Risk Significant Planning Standard (RSPS) which was also a Drill and Exercise Participation (DEP) Performance Indicator (PI) failure, was characterized as having low to moderate risk significance (White), in NRC Inspection Report 05000331/2006009, and directly impacted the EP Cornerstone.

01.01. Background Information

On December 5, 2006, the NRC completed an inspection at the DAEC. The inspection findings were discussed at an initial exit meeting on October 19, 2006, with the licensee. Following the on site inspection, additional information was provided by the licensee staff that was reviewed in the Region III office. Following review of this additional information, an exit meeting was conducted with members of the licensee staff by telephone on December 5, 2006.

The inspection included a review of the circumstances involving the failure of the DAEC full-scale exercise critique presented to the NRC on October 19, 2006, to identify a weakness associated with a RSPS. Specifically, the licensee's critique did not identify a performance weakness associated with a failure to recognize an emergency action level entry condition. Based on the NRC's review of this issue, the failure of the licensee's full-scale exercise critique to identify a weakness associated with an RSPS was a performance deficiency and an Apparent Violation of emergency preparedness planning standard 10 CFR 50.47(b)(14), associated RSPS 10 CFR 50.54(b)(4), and the requirements of Section IV.F.2.g of Appendix E to 10 CFR Part 50.

This finding was assessed using the applicable EP Significance Determination Process and was preliminarily determined to be of low-to-moderate safety significance (White) because the planning standard function was lost in that the critique presented to the NRC failed to identify a performance weakness during a full-scale exercise, where there were multiple emergency response facilities participating as discussed in NRC Inspection Manual Chapter (IMC) 0609, Appendix B, Section 4.14.

At the licensee's request, a Regulatory Conference was held on March 1, 2007, to further discuss the licensee's views on the issue. The conference summary, including the presentation materials, can be found in the ADAMS as ML070650592.

On April 2, 2007, the NRC documented the final significance determination of the issue. The failure of the DAEC's exercise critique process to identify a weakness associated with a RSPS, which was also a DEP PI failure, was determined to be a White finding.

02 EVALUATION OF INSPECTION REQUIREMENTS

02.01. Problem Identification

a. *Determine that the evaluation identifies who identified the issue (i.e., licensee, self-revealing, or NRC), and under what conditions.*

The inspector determined that the root cause evaluation adequately explains who identified the issue and under what conditions.

On December 5, 2006, the NRC completed an inspection at the DAEC. The inspection findings were discussed at an initial exit meeting on October 19, 2006, with the licensee. The inspection included a review of the circumstances involving the failure of the DAEC full-scale exercise critique presented to the NRC on October 19, 2006, to identify a weakness associated with a RSPS. Following the on site inspection, additional information was provided by the licensee staff that was reviewed in the Region III office. Following review of this additional information, an exit meeting was conducted with members of the licensee staff by telephone on December 5, 2006. On January 19, 2007, the NRC issued EP Inspection Report 05000331/2006009, Preliminary White Finding, which detailed the preliminary finding as White because the planning standard function was lost in that the critique presented to the NRC failed to identify a performance weakness during a full-scale exercise.

The licensee entered the issue into the corrective action program as corrective action process (CAP) document, CAP 044936, "2006 Biennial EP Exercise," on October 19, 2006, and updated the CAP document with a description of the apparent violation when the EP Inspection Report 05000331/2006009, Preliminary White Finding was issued. Additionally, the root cause evaluation problem statement clearly states that "DAEC's critique presented to the NRC on October 19, 2006, failed to identify a weakness that was associated with a RSPS. This is a potential White finding."

b. *Determine that the evaluation documents how long the issue existed, and any prior opportunities for identification.*

The inspector determined that the root cause evaluation adequately identified how long the issue existed and prior opportunities for identification.

The root cause evaluation reviewed documents within the licensee's corrective action program to determine if previous similar events have occurred. The review covered the previous 30 months and focused on documented instances of conditions adverse to quality that did not have a CAP document written or where the condition was not immediately identified. Of the more than 2300 documents screened, 11 CAPs were identified for further evaluation. The documents reviewed by the inspector are listed in the Attachment. Of these, five were considered untimely and were not initially initiated because the individual did not consider the problem worthy of a CAP or the problem was still being evaluated for whether or not an adverse condition existed. Although these occurrences were similar to the performance issue associated with the EP exercise, only one involved previous exercises, with the drill occurring on June 23, 2004, and the CAP

being written on June 25, 2004. The root cause evaluation determined that there were not any previous similar events of a nature that should have prevented the current event from occurring, and did not discover any previously missed opportunities related to this issue.

c. *Determine that the evaluation documents the plant specific risk consequences (as applicable) and compliance concerns associated with the issue.*

The inspector determined that the licensee's evaluation adequately documented the plant-specific risk consequences and compliance concerns associated with the White EP finding reported for the 4th quarter of 2006.

The safety significance of the performance deficiency where the licensee's critique presented to the NRC failed to identify a performance weakness associated with a RSPS, during a full-scale exercise where there were multiple emergency response facilities involved, was low-to-moderate because the planning standard function was lost. While the inaccurate scenario did not adversely impact the decisions in this specific scenario, the failure to identify the weakness in performance resulted in a missed opportunity to correct a deficiency as required by 10 CFR Part 50 Appendix E, Section IV.F.2.g.

As stated in the licensee's root cause evaluation, the potential significance of a similar failure during a real plant event is that the public health and safety could be jeopardized if the declaration of an emergency classification is not timely and accurate. The purpose of conducting drills and exercises is to ensure that if an actual emergency occurs, the DAEC staff can adequately respond to the event and, in concert with offsite agencies, protect the public health and safety.

This deficiency was associated with a simulated condition rather than an actual plant condition, so there was no threat to the public health and safety. No compliance issues were identified.

02.02. Root Cause and Extent of Condition and Extent of Cause Evaluation

a. *Determine that the problem was evaluated using a systematic method(s) to identify root cause(s) and contributing cause(s).*

The inspector determined that the licensee's evaluation of the performance deficiency that resulted in the White EP finding was adequately evaluated using systematic methods to identify root and contributing causes.

Licensee personnel performed individual interviews, reviewed applicable process and corrective action program documentation, and utilized Event and Causal Factor Charting, Failure Mode Charting, Barrier Analysis and Task Analysis, Why Staircase Analysis methodologies. The licensee's root cause evaluation results and conclusions were based upon the outcome of these root cause evaluation tools.

The licensee concluded that the root cause which led to the identified performance deficiency was:

- Emergency Preparedness has not formalized a leadership role that ensures the site meets all requirements of Emergency Plan (E-Plan) related drills, exercises, and critiques.

The licensee also determined that the major contributing factors to the identified root cause were:

- The processes, as described by EP procedures, do not clearly drive the determination of whether a weakness exists in a RSPS.

- The EP processes do not drive the user towards timely initiation of CAPs per the corrective action program process guidance, nor do they give reasonable alternative acceptable timelines for identification of issues.

- Scenario guidance gives delay criteria instructing controllers to deliver a message to declare an EAL if "Emergency classification discussion will not draw to the appropriate conclusions very soon." This guidance is intended to ensure controllers interject when potential weaknesses arise.

The inspector concluded that the systematic methodologies that were utilized to identify the root and contributing causes described above were appropriate and that evaluation adequately addressed the organizational issues that were identified to exist.

b. *Determine that the root cause evaluation was conducted to a level of detail commensurate with the significance of the problem.*

The inspector concluded that the root cause evaluation was sufficiently self-critical and conducted to a level of detail commensurate with the significance of the EP issue. The root cause explored both the human performance issues and the organizational processes that contributed to the existence of the identified issue.

The root cause evaluation noted that each section of the E-Plan has corresponding Emergency Plan Implementing Procedures (EPIPs) in place to validate review and approval criteria with the exception of the areas related to the drill and exercise program and equipment maintenance. For example, fire team drills are not as structured as the EP drills, and do not incorporate the level of detail necessary for scenario development, evaluation material, and performance criteria associated with a successful training exercise. Also, emergency response organization equipment deficiencies were primarily identified as part of a pre-exercise walk-down versus using routine maintenance tasks. The licensee developed and implemented new EPIPs for both of these areas.

The inspector also determined that the evaluation prescribed appropriate corrective actions to address the licensee's identified reasons for why the violation occurred, the identified extent of conditions and extent of cause issues, as well as prevent recurrence.

c. *Determine that the root cause evaluation included a consideration of prior occurrences of the problem and knowledge of prior operating experience.*

The inspectors determined that the root cause evaluation included adequate consideration of prior occurrences of the problem and knowledge of prior operating experience.

The root cause evaluation has a dedicated section entitled, “Operating Experience,” which addresses both internal and external operating experience. The licensee’s review of the corrective action program noted 11 occurrences where the failure to promptly identify a condition adverse to quality was identified by other review processes. Only one of these involved previous EP exercises, with a CAP being submitted two days following the drill. The root cause evaluation determined that there were not any previous similar events of a nature that should have prevented the current event from occurring, and did not identify any previous similar occurrences or events.

The licensee also performed an extensive search of external (INPO, NRC) web sites for a failure to critique deficiencies during EP exercises to determine if any previously documented corrective actions to prevent recurrence or industry experience recommendations were ineffective. Although six issues over the past four years were identified which were similar to the licensee’s issue, sufficient differences existed to determine that was not a repeat event for the licensee.

d. *Determine that the root cause evaluation included consideration of potential common cause(s) and extent of condition of the problem.*

The inspectors determined that the root cause evaluation adequately addressed the extent of condition and the extent of cause of the issue.

A comprehensive extent of condition and extent of cause evaluation performed by the licensee concluded that the issue of timeliness of reporting identified issues using the corrective action program during drill and exercise training sessions is limited to this occurrence in EP, and to deficiencies observed during fire and medical drills. These issues have been identified in the licensee’s corrective action program as corrective actions to prevent recurrence from this root cause evaluation.

The licensee performed an extent of cause analysis to determine if the root cause issue of ‘EP not formalizing a leadership role that ensures the site meets all requirements of E-Plan related drills, exercises, and critiques’ existed in other departments within the organization. Vulnerabilities that may have existed for other processes, were captured under the extent of condition evaluation involving fire and medical drills. No other issues were identified from the licensee’s evaluation.

The following condition evaluations were performed to ensure adequate extent of condition and extent of cause reviews:

- Condition Evaluation (CE) 005138, “Review EPDMs 1008 and 1003 for Affect on Emergency Plan.”

- CE 005143, “Lack of Procedure Direction for Crews Validating EP Scenarios to Be in the Drill.”

e. *Determine that the root cause evaluation, extent of condition, and extent of cause appropriately considered the safety culture components as described in IMC 0305.*

The inspector determined that the licensee’s root cause evaluation did not document a thorough review of all safety culture components as described in IMC 0305. The licensee’s evaluation documented the fact that the root cause team did not identify the failure to report problems in the corrective action program, or the failure to promptly identify problems, as generic issues at the site, and that there is no Safety Conscious Work Environment impact per the guidance provided in SECY-06-0122. However, the licensee’s evaluation did not lead an independent reviewer to conclude that safety culture as a whole had been reviewed, to include problem identification and resolution, human performance, and management systems/environment.

The inspector interviewed personnel who had participated on the root cause team and determined that a review of all safety culture components was conducted, but was poorly documented in the final evaluation. The licensee entered CAP 052145, “Root Cause Evaluation (RCE) 1060 - Safety Culture Assessment,” into the corrective action program track completion of the following corrective actions:

- Complete an independent comparison of the SECY-06-0122 guidance document to RCE 1060;

- Revise RCE 1060, Revision 1, to include a more detailed discussion of Safety Culture; and

- Revise the RCE manual to include more detail on what is required when documenting Safety Culture assessments in RCEs and propose actions to align FPL fleet in the matter.

The inspector concluded that the licensee’s root cause evaluation, extent of condition, and extent of cause appropriately considered the safety culture components as described in IMC 0305, and corrective actions are in place to ensure the licensee’s assessment is adequately documented in the root cause evaluation.

02.03. Corrective Actions

a. *Determine that appropriate corrective action(s) are specified for each root/contributing cause or that there is/was an evaluation that no actions are necessary.*

The inspector determined that appropriate corrective actions were specified for each root cause and contributing cause. The corrective actions were determined to be appropriate for the items addressed in the root cause evaluation.

The following specific corrective actions were implemented to prevent recurrence of the issue identified as the root cause:

- CA 045486, “2006 Biennial EP Exercise - Revise EP Program Procedures,” to revise the EP program procedure to include an oversight role in all E-Plan related activities, including fire and medical drills;

- CA 045487, “2006 Biennial EP Exercise - Controller Quals,” to develop and implement a Lead Controller qualification standard;

- CA 045488, “2006 Biennial EP Exercise - Controller Quals/EP 1008 & 1010,” to revise the Emergency Response Drill and Exercise Program and EP Department Performance Indicators procedures to place Lead Controller qualified individuals and EP personnel in specific roles in the drill structure to provide oversight and guidance;

- CA 045489, “2006 Biennial EP Exercise - Drill Grading Criteria,” to revise the scenario development guide and drill grading criteria to put specific times in for different types of drill anomalies (weakness, RSPS weakness, etc.); and

- CA 045490, “2006 Biennial EP Exercise - E-Plan Pass/Fail - Fire/Medical Drills,” to create an EPIP specifically for drills which incorporates specific E-Plan related pass/fail criteria for fire and medical drills, and includes reporting mechanisms to ensure E-Plan requirements are met.

The following specific corrective actions were implemented to prevent recurrence of the issues identified as the three major contributing causes:

- CA 045491, “2006 Biennial EP Exercise - Define Weakness,” to revise the definition of ‘weakness’ in Emergency Planning Department Manual (EPDM) 1008 procedure to include examples and to specifically define RSPS weakness;

- CA 045492, “2006 Biennial EP Exercise - EP-035 Revision,” to revise EPDM Form 035 to clearly identify which Planning Standards are considered risk significant and to include pass/fail criteria;

- CA 045493, “2006 Biennial EP Exercise - Scenario Development,” to revise scenario development procedure to require RSPSs be identified with specific pass/fail criteria in the controller drill materials (scenario);

- CA 045494, “2006 Biennial EP Exercise - Controller Training - RSPS,” to add RSPS specific criteria and discussions to controller and lead controller training programs and to controller briefings, as well as the drill and exercise manual;

- CA 045495, “2006 Biennial EP Exercise - Identification of Issues and Weaknesses,” to revise EPDM 1008 and 1010 to describe the process used for identification of issues and weaknesses, including when CAPs are required for each type of issue identified;

- CA 045496, “2006 Biennial EP Exercise - E-Plan Related CAPs,” to add the process and criteria for E-Plan related CAPs to controller training, lead controller training, and to the drill and exercise manual; and

- CA 045497, “2006 Biennial EP Exercise - Contingency Messages,” to provide additional guidance in scenario and controller briefs for the deliverance of contingency messages including when contingency messages should be delivered to ensure scenario continues, and whether the deliverance of a contingency message constitutes a failure.

The corrective actions to prevent recurrence noted above have been completed and are currently in place at the DAEC facility.

b. *Determine that the corrective actions have been prioritized with consideration of the risk significance and regulatory compliance.*

The inspector determined that the corrective actions were adequately prioritized with consideration of risk significance and regulatory compliance.

The licensee identified corrective actions to address the root causes and contributing cause identified in the evaluations. While it was not clear if specific risk information was used in prioritizing the corrective actions, it appears that the licensee scheduled and performed the corrective actions based upon completion of all corrective actions prior to the performance of any future exercises. The exercise scheduled for the 1st quarter of 2007 was cancelled to ensure that revised required training would be completed prior to being evaluated. Corrective actions that addressed the root causes and contributing causes were prioritized higher than corrective actions not directly associated with the root and contributing causes.

c. *Determine that a schedule has been established for implementing and completing the corrective actions.*

The inspector determined that an acceptable schedule was established for the implementation and completion of corrective actions in accordance with the licensee’s corrective action program. With the exception of documenting the effectiveness review in the corrective action program, all other corrective actions had been accomplished. For the action that remained to be completed, scheduled for the end of October 2007 following the next scheduled evaluated exercise, the inspector determined that an appropriate schedule had been established.

d. *Determine that quantitative or qualitative measures of success have been developed for determining the effectiveness of the corrective actions to prevent recurrence.*

The inspector determined that adequate qualitative and quantitative measures of success were developed for determining the effectiveness of corrective actions to prevent recurrence.

The effectiveness reviews will not be completed until after the next evaluated exercise scheduled for early 4th quarter of 2007, and these reviews will be reviewed during future resident baseline inspections.

03 MANAGEMENT MEETINGS

Exit Meeting Summary

On August 31, 2007, the inspector presented the inspection results to the Site Vice President, Mr. Gary Van Middlesworth, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspector asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

Regulatory Performance Meeting

On August 31, 2007, as part of the exit meeting associated with the 95001 inspection, the NRC met with the licensee to discuss their performance in accordance with Section 06.05.a.1 of IMC 0305. During this meeting, the NRC and licensee discussed the issues related to the one White finding in the Reactor Safety strategic performance area that resulted in DAEC being placed in the Regulatory Response Column of the Action Matrix. This discussion included the causes, corrective actions, extent of condition, extent of cause, and other planned licensee actions.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee
G. Van Middlesworth, Site Vice President
D. Curtland, Plant Manager
S. Catron, Licensing Manager
R. Murrell, Regulatory Affairs
P. Sullivan, Emergency Preparedness Manager
R. Titus, Emergency Preparedness Coordinator
T. Zimmerman, Emergency Preparedness Coordinator
J. Cadogan, Engineering Director
W. Eckes, Nuclear Oversight Manager
J. Morris, Training Manager
R. Nelson, Communications Manager
G. Pry, Maintenance Manager
J. Windschill, Radiation Protection Manager
D. Mothena, Fleet Emergency Preparedness Manager
T. Jones, Vice President, Operations Support

Nuclear Regulatory Commission
E. Duncan, Chief, Plant Support Branch, Division of Reactor Safety
R. Baker, Resident Inspector

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.

Documents Reviewed During Inspection

RCE 001060, Revision 1; EP Drill Critique Failed to Identify a Weakness Associated with a RSPS; dated July 25, 2007
Apparent Cause Evaluation 001661, Revision 1; 2006 Biennial EP Exercise Identified Incorrect Start Time for Site Area Emergency Declaration; dated December 20, 2006
CAP 044936; 2006 Biennial EP Exercise; dated October 19, 2006
CAP 030703; CAPs Not Written for CAQs Discovered During Self-Assessment; dated February 12, 2004
CAP 031742; CAP Detailing Storm Effects Not Written in a Timely Manner; dated May 24, 2004
CAP 036024; Identification of 'D' Main Steam Line Boot Replacement Identified Late in Process; dated April 18, 2005
CAP 044551; New CAP Not Written When Operability or Functionality Concern Identified; dated September 29, 2006
CAP 046180; CAP Not Written at the Time Service Water Piping Wall Thinning Was Identified; dated January 3, 2007
CAP 046572; CAP Not Written for Week 52 Dose; dated January 22, 2007
CAP 037050; ODAM Problem Not Identified on CAP Side of T-Track; dated July 8, 2005
CAP 044554; SOMS Section 2402-1G031-R0 Issues Not Identified in the CAP; dated September 30, 2006
CAP 031085; Doors Not Being Reported and Repaired in a Timely Manner; dated March 24, 2004
CAP 032033; Ops Department Not Notified of Equipment with Potential to Impact Operability; dated June 18, 2004
CAP 032110; Full Scale Emergency Response Drill Issues and Enhancements (Drill on 6/23/04, CAP on 6/25/04); dated June 25, 2004
CAP 044797; Excessive Delay to Initiate Level 'C' CAPs Following ERO Response Drill; dated October 12, 2006
CAP 049485; Negative Comments From 2006 Evaluated Drill Not Documented in CAP; dated May 3, 2007
CAP 050437; EP Snapshot Self-Assessment on RCE Corrective Actions - During the Assessment of RCE 1060 Some Discrepancies or Administrative Errors Were Discovered; dated June 15, 2007
CAP 050438; EP Snapshot Self-Assessment on RCE Corrective Actions - The RCE 1060 Corrective Actions Working Table Contains Some Errors or Is Incomplete; dated June 15, 2007
CAP 050439; EP Snapshot Self-Assessment on RCE Corrective Actions - A Number of Enhancements Were Suggested By the Self-Assessment Reviewer; dated June 15, 2007
CE 005138; Review EPDMs 1008 and 1003 for Affect on Emergency Plan; dated March 22, 2007

CE 005143; Lack of Procedure Direction for Crews Validating EP Scenarios to Be in the Drill; dated March 23, 2007
CA 044541; 2006 Biennial EP Exercise - Expand the Formal Process for Review and Approval of EP Drills and Exercises to All Exercise Materials; dated November 20, 2006
CA 044542; 2006 Biennial EP Exercise - Revise EPDM 1008, Emergency Response Drill and Exercise Program; dated November 20, 2006
CA 044543; 2006 Biennial EP Exercise - Revise EPDM 1010, EP Department Performance Indicators (PIs); dated November 20, 2006
CA 045486; 2006 Biennial EP Exercise - Revise EP Program Procedures; dated March 23, 2007
CA 045487; 2006 Biennial EP Exercise - Controller Quals; dated March 23, 2007
CA 045488; 2006 Biennial EP Exercise - Controller Quals/EP 1008 & 1010; dated March 23, 2007
CA 045489; 2006 Biennial EP Exercise - Drill Grading Criteria; dated March 23, 2007
CA 045490; 2006 Biennial EP Exercise - E-Plan Pass/Fail - Fire/Medical Drills; dated March 23, 2007
CA 045491; 2006 Biennial EP Exercise - Define Weakness; dated March 23, 2007
CA 045492; 2006 Biennial EP Exercise - EP-035 Revision; dated March 23, 2007
CA 045493; 2006 Biennial EP Exercise - Scenario Development; dated March 23, 2007
CA 045494; 2006 Biennial EP Exercise - Controller Training - RSPS; dated March 23, 2007
CA 045495; 2006 Biennial EP Exercise - Identification of Issues and Weaknesses; dated March 23, 2007
CA 045496; 2006 Biennial EP Exercise - E-Plan Related CAPs; dated March 23, 2007
CA 045497; 2006 Biennial EP Exercise - Contingency Messages; dated March 23, 2007
CA 045498; 2006 Biennial EP Exercise - CAP Generation; dated March 23, 2007
EPDM 1008; Emergency Response Drill and Exercise Program; Revision 7
EPDM 1008; Emergency Response Drill and Exercise Program; Revision 8
EPDM 1010; Emergency Planning Department Performance Indicators; Revision 8
EPDM 1010; Emergency Planning Department Performance Indicators; Revision 9
EPDM 1015; Scenario Development Program; Revision 1
EPDM 1015; Scenario Development Program; Revision 2
EPDM FORM EP-035; Drill/Exercise Objective & Eval Process; Revision 4
EPDM FORM EP-035; Drill/Exercise Objective & Eval Process; Revision 5
EPIP 6.1; Drill and Exercise Program; Revision 0
EPIP 6.2; Maintenance of Emergency Response Facilities and Equipment; Revision 0

LIST OF ACRONYMS USED

ADAMS	Agencywide Document Access and Management System
CAP	Corrective Action Process
CE	Condition Evaluation
CFR	Code of Federal Regulations
DAEC	Duane Arnold Energy Center
DEP	Drill and Exercise Participation
EP	Emergency Preparedness
EPDM	Emergency Planning Department Manual
EPIP	Emergency Preparedness Implementing Procedure
E-Plan	Emergency Plan
IMC	Inspection Manual Chapter
INPO	Institute of Nuclear Power Operations
IR	Inspection Report
NRC	Nuclear Regulatory Commission
PI	Performance Indicator
RCE	Root Cause Evaluation
RSPS	Risk Significant Planning Standard