



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION III  
2443 WARRENVILLE ROAD, SUITE 210  
LISLE, IL 60532-4352

September 1, 2010

Mr. Christopher R. Costanzo  
Vice-President  
Duane Arnold Energy Center  
3277 DAEC Road  
Palo, IA 52324-9785

**SUBJECT: MID-CYCLE PERFORMANCE REVIEW AND INSPECTION PLAN -  
DUANE ARNOLD ENERGY CENTER**

Dear Mr. Costanzo:

On August 5, 2010, the NRC staff completed its performance review of the Duane Arnold Energy Center. Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results for the period from July 1, 2009, through June 30, 2010. The purpose of this letter is to inform you of our assessment of your safety performance during this period and our plans for future inspections at your facility.

This performance review and enclosed inspection plan do not include security information. A separate letter designated and marked as "Official Use Only--Security Information" will include the Security Cornerstone review and resultant inspection plan.

Plant performance for the most recent quarter at the Duane Arnold Energy Center was within the Licensee Response column of the NRC's Action Matrix, based on all inspection findings being classified as having very low safety significance (Green) and all PIs indicating performance at a level requiring no additional NRC oversight (Green). Therefore, we plan to conduct reactor oversight process (ROP) baseline inspections at your facility.

While plant performance for the most recent quarter is within the Licensee Response column of the Action Matrix, there were safety significant inspection findings affecting the first three quarters of the assessment cycle. Plant performance for the first three quarters of the assessment period was within the Regulatory Response column of the NRC action matrix. This was due to one White finding in the Mitigating Systems Cornerstone, which was effective in the 2<sup>nd</sup> quarter 2009. On December 15, 2009, the NRC completed a supplemental inspection pursuant to Inspection Procedure 95001, "Inspection for One or Two White Inputs in a Strategic Performance Area."

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through December 31, 2011. The inspection plan is provided to allow for the resolution of any scheduling conflicts and personnel availability issues well in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last 9 months of the inspection plan are tentative and may be revised at the end-of-cycle review.

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

If circumstances arise which cause us to change this inspection plan, we will contact you to discuss the change as soon as possible. Please contact Kenneth Riemer at (630) 829-9628 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

**/RA/ By Gary L. Shear Acting For/**

Steven West, Director  
Division of Reactor Projects

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

Enclosure: Duane Arnold Energy Center Inspection/Activity Plan

cc w/encl: Distribution via ListServe

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Letter to C. Costanzo from S. West dated September 1, 2010

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DUANE ARNOLD ENERGY CENTER

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**Duane Arnold**  
**Inspection / Activity Plan**  
**09/01/2010 - 12/31/2011**

Planned Dates		Inspection Activity	Title	No. of Staff on Site
Start	End			
		<b>BI ENG - MODIFICATIONS / 50.59 INSPECTION</b>		<b>3</b>
09/13/2010	10/01/2010	IP 7111117T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	
		<b>BI OL - LIC. OPERATOR REQUAL PROGRAM EVALUATION</b>		<b>2</b>
09/13/2010	09/17/2010	IP 7111111B	Licensed Operator Requalification Program	
		<b>BI ENG - INSERVICE INSPECTION</b>		<b>1</b>
10/23/2010	11/22/2010	IP 7111108G	Inservice Inspection Activities - BWR	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
11/01/2010	11/05/2010	IP 2515/179	Verification of Licensee Responses to NRC Requirement for Inventories of Materials Tracked in NSTS	
11/01/2010	11/05/2010	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
11/01/2010	11/05/2010	IP 71124.02	Occupational ALARA Planning and Controls	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
01/24/2011	01/28/2011	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
01/24/2011	01/28/2011	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
01/24/2011	01/28/2011	IP 71124.04	Occupational Dose Assessment	
		<b>BI ENG - COMPONENT DESIGN BASIS INSPECTION</b>		<b>5</b>
01/31/2011	03/04/2011	IP 7111121	Component Design Bases Inspection	
		<b>BI PI&amp;R - BIENNIAL PI&amp;R INSPECTION</b>		<b>3</b>
04/11/2011	04/29/2011	IP 71152B	Identification and Resolution of Problems	
		<b>ISFSI - ISFSI INSPECTION - SCHEDULE DEPENDENT</b>		<b>2</b>
06/01/2011	09/30/2011	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
		<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
05/23/2011	05/27/2011	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
05/23/2011	05/27/2011	IP 71124.02	Occupational ALARA Planning and Controls	
		<b>OL PREP - DUANE ARNOLD INIT PREP - 06/2011</b>		<b>3</b>
06/06/2011	06/10/2011	W90245	OL - INITIAL EXAM - JUN/JUL 2011	
		<b>OL EXAM - DUANE ARNOLD INIT EXAM - JUNE-JULY 2011</b>		<b>3</b>
06/27/2011	07/08/2011	W90245	OL - INITIAL EXAM - JUN/JUL 2011	
		<b>BI EP - EP ROUTINE INSPECTION / PI VERIFICATION</b>		<b>2</b>
08/08/2011	08/12/2011	IP 7111402	Alert and Notification System Testing	
08/08/2011	08/12/2011	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
08/08/2011	08/12/2011	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
08/08/2011	08/12/2011	IP 71151-EP01	Drill/Exercise Performance	
08/08/2011	08/12/2011	IP 71151-EP02	ERO Drill Participation	
08/08/2011	08/12/2011	IP 71151-EP03	Alert & Notification System	

**Duane Arnold**  
**Inspection / Activity Plan**  
**09/01/2010 - 12/31/2011**

Planned Dates		Inspection Activity	Title	No. of Staff
Start	End			on Site
<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>				<b>1</b>
08/15/2011	08/19/2011	IP 71124.05	Radiation Monitoring Instrumentation	
08/15/2011	08/19/2011	IP 71151-BI01	Reactor Coolant System Activity	
08/15/2011	08/19/2011	IP 71151-OR01	Occupational Exposure Control Effectiveness	
08/15/2011	08/19/2011	IP 71151-PR01	RETS/ODCM Radiological Effluent	