

August 30, 2005

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

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

Dear Mr. Van Middlesworth:

On August 9, 2005, the NRC staff completed its performance review of the Duane Arnold Energy Center for the first half of the calendar year 2005 assessment cycle. Our technical staff reviewed the performance indicators (PIs) for the most recent quarter and inspection results over the previous 12 months. 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 physical protection information. A separate letter designated and marked as "Exempt from Public Disclosure in Accordance with 10 CFR 2.390" will include the physical protection review and resultant inspection plan.

Plant performance for the most recent quarter 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 only reactor oversight process (ROP) baseline inspections at your facility through March 31, 2007.

Additionally, the staff has identified a substantive cross-cutting issue in the area of human performance. This human performance cross-cutting issue was identified by assessing plant performance utilizing IP 71152 to review problem identification and resolution (PI&R) issues during routine baseline inspections and during the biennial PI&R inspection. Over the course of the assessment period, the inspectors identified five Green findings/violations where human performance was not adequate. Four of these were in the reactor safety strategic performance area (SPA) (three initiating events and one mitigating systems cornerstones), and one in the radiation safety SPA (occupational radiation safety cornerstone). Specifically, the findings/violations were attributed to inadequate human performance by plant personnel in following approved procedures (four findings), and one finding for failure to properly identify unapproved combustibles on a scaffold.

We plan to perform a focused inspection using Inspection Procedure 71152, "Identification and Resolution of Problems." This inspection will select human performance issues for a more in-depth review.

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through March 31, 2007. Significant inspections planned include a safety system design and performance capability inspection (SSDPC) in March 2006, and a fire protection inspection in late November 2006. The inspection plan is provided to minimize the resource impact on your staff and 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 nine months of the inspection plan are tentative and may be revised at the end-of-cycle review meeting.

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 Web site 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 me at (630) 829-9629 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

*/RA/*

Bruce Burgess, Chief  
Reactor Projects Branch 2  
Division of Reactor Projects

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

Enclosure: Duane Arnold Energy Center  
Inspection/ Activity Plan

See Attached Distribution

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J. Cowan, Executive Vice President and Chief Nuclear Officer  
J. Bjorseth, Site Director  
D. Curtland, Plant Manager  
S. Catron, Manager, Regulatory Affairs  
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B. Lacy, Nuclear Asset Manager  
Chairman, Linn County Board of Supervisors  
Chairperson, Iowa Utilities Board  
The Honorable Charles W. Larson, Jr.  
Iowa State Senator  
D. Flater, Chief, Iowa Department of Public Health  
D. McGhee, Iowa Department of Public Health  
Chairman, Benton County Supervisors  
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Coordinator, Benton County Emergency Services  
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**Duane Arnold**  
**Inspection / Activity Plan**  
**09/01/2005 - 03/31/2007**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	<b>HEATSKB - BIENNIAL HEAT SINK INSPECTION</b>		<b>1</b>			
1	IP 7111107B	Heat Sink Performance		10/03/2005	10/07/2005	Baseline Inspections
	<b>MOD/5059 - MODIFICATIONS/50.59 INSPECTION</b>		<b>3</b>			
1	IP 7111102	Evaluation of Changes, Tests, or Experiments		11/14/2005	11/18/2005	Baseline Inspections
1	IP 7111117B	Permanent Plant Modifications		11/14/2005	11/18/2005	Baseline Inspections
	<b>BI - EFFLUENTS, REMP, AND RAD MATERIAL</b>		<b>2</b>			
1	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		02/06/2006	02/10/2006	Baseline Inspections
1	IP 7112203	Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control P		02/06/2006	02/10/2006	Baseline Inspections
	<b>SSDPC - SAFETY SYS DESIGN &amp; PERFORMANCE CAPABILI</b>		<b>5</b>			
1	IP 7111121	Safety System Design and Performance Capability		03/20/2006	04/21/2006	Baseline Inspections
	<b>BI - RAD MATERIAL TRANSPORT</b>		<b>1</b>			
1	IP 7112202	Radioactive Material Processing and Transportation		08/28/2006	09/01/2006	Baseline Inspections
	<b>FPI - TRIENNIAL FIRE PROTECTION INSPECTION</b>		<b>3</b>			
1	IP 7111105T	Fire Protection [Triennial]		09/11/2006	09/29/2006	Baseline Inspections
	<b>71114 - BIENNIAL EP EXERCISE</b>		<b>1</b>			
1	IP 7111401	Exercise Evaluation		10/16/2006	10/20/2006	Baseline Inspections
1	IP 71151	Performance Indicator Verification		10/16/2006	10/20/2006	Baseline Inspections
	<b>FY 2007 - DUANE ARNOLD INIT PREP 11/2006</b>		<b>3</b>			
1	W90144	DUANE ARNOLD - NOV/DEC 2006		11/06/2006	11/10/2006	Not Applicable
	<b>71111.11 - LIC OPERATOR REQUAL PROGRAM EVALUATION</b>		<b>2</b>			
1	IP 7111111B	Licensed Operator Requalification Program		11/13/2006	11/17/2006	Baseline Inspections
	<b>BI - ACCESS CONTROL AND PI VERIF</b>		<b>1</b>			
1	IP 7112101	Access Control to Radiologically Significant Areas		11/13/2006	11/17/2006	Baseline Inspections
1	IP 71151	Performance Indicator Verification		11/13/2006	11/17/2006	Baseline Inspections
	<b>FY 2007 - DUANE ARNOLD INIT EXAM 12/2006</b>		<b>3</b>			
1	W90144	DUANE ARNOLD - NOV/DEC 2006		12/04/2006	12/08/2006	Not Applicable
	<b>71121.03 - INSTRUMENTATION</b>		<b>1</b>			
1	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		02/19/2007	02/23/2007	Baseline Inspections