



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
2443 WARRENVILLE RD. SUITE 210  
LISLE, IL 60532-4352

August 31, 2016

Mr. Thomas A. Vehec  
Vice President  
NextEra Energy Duane Arnold, LLC  
3277 DAEC Road  
Palo, IA 52324-9785

**SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR DUANE ARNOLD ENERGY CENTER  
(REPORT 05000331/2016005)**

Dear Mr. Vehec:

On August 10, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed its mid-cycle performance review of Duane Arnold Energy Center. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from July 1, 2015 through June 30, 2016. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility.

The NRC determined that overall, Duane Arnold Energy Center operated in a manner that preserved public health and safety and met all cornerstone objectives. The NRC determined the performance at Duane Arnold Energy Center during the most recent quarter was within the Licensee Response Column of the NRC's Reactor Oversight Process (ROP) Action Matrix because all inspection findings had very low (i.e., green) safety significance, and all PIs indicated that your performance was within the nominal, expected range (i.e., green). Therefore, the NRC plans to conduct ROP baseline inspections at your facility.

The enclosed inspection plan lists the inspections scheduled through June 30, 2018. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the second half of the inspection plan are tentative and may be revised at the end-of-cycle performance review. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes. This inspection plan does not include security related inspections, which will be sent via separate, non-publicly available correspondence.

In response to the accident at Fukushima, the Commission issued Order EA-12-049, "Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," and Order EA-12-051, "Order Modifying Licenses with Regard to Reliable Spent Fuel Pool Instrumentation." The NRC conducted audits of licensee efforts towards compliance with these Orders, and the information gathered will aid staff in development of the ultimate Safety Evaluation for the site. After the NRC staff receives the Final Compliance letter for the site, the Safety Evaluation will be issued. Then, the NRC staff

will confirm through inspections the full implementation of the orders mentioned above by performing Temporary Instruction 191, "Inspection of the Implementation of Mitigation Strategies and Spent Fuel Pool Instrumentation Orders and Emergency Preparedness Communication/Staffing/Multi-Unit Dose Assessment Plans."

In Staff Requirements Memorandum – SECY 16–0009, "Recommendations Resulting from the Integrated Prioritization and Re-Baselining of Agency Activities," the Commission approved the NRC staff recommendation to discontinue the formal mid-cycle assessment process beginning in calendar year 2017. This will be the final mid-cycle assessment letter. The staff will continue to conduct quarterly assessment meetings and communicate changes in the assessment of licensee performance in accordance with the guidance in Inspection Manual Chapter 0305, "Operating Reactor Assessment Program."

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of the NRC's "Rules of Practice," a copy of this letter 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 (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Please contact me at 630–829–9731 with any questions you have regarding this letter.

Sincerely,

*/RA/*

Karla Stoedter, Chief  
Branch 1  
Division of Reactor Projects

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

Enclosure:  
Inspection Plan

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T. Vehec

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Letter to Thomas Vehec from Karla Stoedter dated August 31, 2016

SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR DUANE ARNOLD ENERGY CENTER  
(REPORT 05000331/2016005)

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**Duane Arnold**  
**Inspection / Activity Plan**  
**09/01/2016 - 06/30/2018**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>ENG BI - INSERVICE INSPECTION</b>		<b>2</b>
1	10/03/2016	10/27/2016	IP 7111108G	Inservice Inspection Activities - BWR	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	10/24/2016	10/28/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	10/24/2016	10/28/2016	IP 71124.02	Occupational ALARA Planning and Controls	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	01/30/2017	02/03/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	01/30/2017	02/03/2017	IP 71124.04	Occupational Dose Assessment	
			<b>BI EP - EP BASELINE INSPECTION / PI VERIFICATION</b>		<b>1</b>
1	02/06/2017	02/10/2017	IP 7111402	Alert and Notification System Testing	
1	02/06/2017	02/10/2017	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	
1	02/06/2017	02/10/2017	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1	02/06/2017	02/10/2017	IP 71151	Performance Indicator Verification	
			<b>BI PI&amp;R - BIENNIAL PI&amp;R INSPECTION</b>		<b>4</b>
1	03/06/2017	03/24/2017	IP 71152B	Problem Identification and Resolution	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>
1	04/17/2017	04/21/2017	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
			<b>BI ENG - COMPONENT DESIGN BASIS INSPECTION</b>		<b>6</b>
1	05/01/2017	06/02/2017	IP 7111121	Component Design Bases Inspection	
			<b>OL PREP - INIT EXAM/APRIL 2017</b>		<b>3</b>
1	05/08/2017	05/12/2017	W90355	OL - INITIAL EXAM - 2017 MAR-APR - DUANE ARNOLD	
			<b>OL EXAM - IIT EXAM/APRIL 2017</b>		<b>3</b>
1	06/05/2017	06/16/2017	W90355	OL - INITIAL EXAM - 2017 MAR-APR - DUANE ARNOLD	
			<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>2</b>
1	07/10/2017	07/14/2017	IP 71124.05	Radiation Monitoring Instrumentation	
1	07/10/2017	07/14/2017	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
			<b>FLEX - FLEX/MITIGATING STRATGIES/SFPI</b>		<b>4</b>
1	09/25/2017	09/29/2017	IP 2515/191	Inspection of Licensee's Responses to Order EA-12-049, EA-12-051 & EP Info Request March 12, 2012	
			<b>ISFSI - OPERATIONAL INSP</b>		<b>1</b>
1	10/01/2017	10/31/2017	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>
1	11/27/2017	12/01/2017	IP 71124.02	Occupational ALARA Planning and Controls	

This report does not include INPO and OUTAGE activities.  
This report shows only on-site and announced inspection procedures.

**Duane Arnold**  
**Inspection / Activity Plan**  
**09/01/2016 - 06/30/2018**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			<b>BI FIRE - FIRE PROTECTION INSPECTION AND BAG TRIP</b>		<b>3</b>
1	01/08/2018	02/09/2018	IP 7111105X	Fire Protection - NFPA 805 (Triennial)	
			<b>HEATSINK - TRIENNIAL HEAT SINK INSPECTION</b>		<b>1</b>
1	04/16/2018	04/20/2018	IP 7111107T	Heat Sink Performance	
			<b>EP - EP EXERCISE/PI VERIFICATION</b>		<b>2</b>
1	05/14/2018	05/18/2018	IP 7111401	Exercise Evaluation	
1	05/14/2018	05/18/2018	IP 7111406	Drill Evaluation	
1	05/14/2018	05/18/2018	IP 7111408	Exercise Evaluation – Scenario Review	
1	05/14/2018	05/18/2018	IP 71151	Performance Indicator Verification	

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