



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION I
2100 RENAISSANCE BLVD., SUITE 100
KING OF PRUSSIA, PA 19406-2713

August 31, 2016

Mr. Eric McCartney
Site Vice President
Seabrook Nuclear Power Plant
NextEra Energy Seabrook, LLC
c/o Mr. Ken Browne
P.O. Box 300
Seabrook, NH 03874

**SUBJECT: MID-CYCLE ASSESSMENT LETTER FOR SEABROOK NUCLEAR POWER
PLANT, UNIT NO. 1 (REPORT 05000443/2016005)**

Dear Mr. McCartney:

On August 9, 2016, the U.S. Nuclear Regulatory Commission (NRC) completed its mid-cycle performance review of Seabrook Nuclear Power Plant, Unit. No. 1 (Seabrook). 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, Seabrook operated in a manner that preserved public health and safety and met all cornerstone objectives. The NRC determined the performance at Seabrook 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. In addition to baseline inspections, the NRC will perform Inspection Procedure 60855.1, "Operation of an Independent Spent Fuel Storage Installation at Operating Plants." The inspections listed during the last half of the inspection period in 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.

As noted in the 2016 end-of-cycle letter (Report 05000443/2016001; ADAMS Accession No. ML16061A439) regarding the Alkali-Silica Reaction (ASR) concrete issues, the NRC will continue to provide focused oversight of NextEra's assessment of ASR progression in Seabrook concrete structures using Problem Identification and Resolution (PI&R) annual samples. We will use one of these samples to review the implementation of your corrective actions to determine their adequacy and to verify that full compliance has been achieved, as stated in our acknowledgement letter (ADAMS Accession No. ML16182A031) to your reply to the Notice of Violation in NRC Inspection Report 0500443/2016008. While tentative dates for these ongoing inspections are included in the attached inspection schedule, we understand that your corrective actions schedule is subject to change. We will coordinate closely with your ASR project management staff to select the most appropriate opportunities to inspect your activities.

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 Final 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 2515-191, "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," (ADAMS Accession No. ML16104A158) 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 assessment reviews and communicate changes in the assessment of licensee performance quarterly, and will also issue end-of-cycle assessment letters.

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 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).

E. McCartney

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Please contact me at (610) 337-5200 with any questions you have regarding this letter.

Sincerely,

/RA/

Fred L. Bower, III, Chief
Project Branch 3
Division of Reactor Projects

Docket Nos. 50-443
License Nos. NPF-86

Enclosure: Seabrook Inspection/Activity Plan

cc w/encl: Distribution via ListServ

E. McCartney

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DOCUMENT NAME: G:\DRP\BRANCH3\Assessment\ROP 17\Mid-cycle packages\MC Letters\Seabrook\Seabrook MC Assessment Letter Final.docx

ADAMS ACCESSION NUMBER: **ML16242A034**

<input checked="" type="checkbox"/> SUNSI Review		<input checked="" type="checkbox"/> Non-Sensitive <input type="checkbox"/> Sensitive		<input checked="" type="checkbox"/> Publicly Available <input type="checkbox"/> Non-Publicly Available	
OFFICE	R1/DRP	R1/DRP	R1/DRP	R1/DRP	
NAME	RVadella	MDraxton	PCataldo	FBower	
DATE	08/22/16	08/18/16	08/18/16	08/28/16	

OFFICIAL RECORD COPY

Seabrook
Inspection / Activity Plan
07/01/2016 - 06/30/2018

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			71152A - NOV 50-0443/2016008-01 (EA-16-101) F/U		3
1	07/01/2016	09/30/2016	IP 71152-Reviews	In-depth Reviews	
			7111121 - CDBI		6
1	08/01/2016	08/05/2016	IP 7111121	Component Design Bases Inspection	
1	08/15/2016	08/19/2016	IP 7111121	Component Design Bases Inspection	
1	08/29/2016	09/02/2016	IP 7111121	Component Design Bases Inspection	
			71152BI - PI&R BIENNIAL		7
1	10/03/2016	10/07/2016	IP 71152B	Problem Identification and Resolution	
1	10/17/2016	10/21/2016	IP 71152B	Problem Identification and Resolution	
			71124.08 - RADWASTE		1
1	09/26/2016	09/30/2016	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
			ASR - PI&R SAMPLE - ASR MONITORING		2
1	10/11/2016	10/14/2016	IP 71152	Problem Identification and Resolution	
			71124 - 71151 PI VERIFY 71124.01 AND 05 RAD MONT		1
1	12/05/2016	12/08/2016	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	12/05/2016	12/08/2016	IP 71124.05	Radiation Monitoring Instrumentation	
1	12/05/2016	12/08/2016	IP 71151-OR01	Occupational Exposure Control Effectiveness	
1	12/05/2016	12/08/2016	IP 71151-PR01	RETS/ODCM Radiological Effluent Occurrences	
			71152A - PI&R ANNUAL SAMPLE - ASR MONITORING		1
1	01/01/2017	03/30/2017	IP 71152-Reviews	In-depth Reviews	
			71124 - 71124.01 RAD HAZARD AND 02 ALARA		1
1	03/20/2017	03/23/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	03/20/2017	03/23/2017	IP 71124.02	Occupational ALARA Planning and Controls	
			7111108P - INSERVICE INSPECTION		1
1	04/10/2017	04/21/2017	IP 7111108P	Inservice Inspection Activities - PWR	
			71124 - 71124.01RADHAZ02ALARA03AIRBORNE04DOSE		1
1	04/10/2017	04/13/2017	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	04/10/2017	04/13/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1	04/10/2017	04/13/2017	IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	04/10/2017	04/13/2017	IP 71124.04	Occupational Dose Assessment	
			EP - EP PROGRAM INSPECTION		1
1	05/01/2017	05/05/2017	IP 7111402	Alert and Notification System Testing	
1	05/01/2017	05/05/2017	IP 7111403	Emergency Preparedness Organization Staffing and Augmentation System	

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

Seabrook
Inspection / Activity Plan
07/01/2016 - 06/30/2018

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	Start	End			
			EP - EP PROGRAM INSPECTION		1
1	05/01/2017	05/05/2017	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies	
1	05/01/2017	05/05/2017	IP 71151	Performance Indicator Verification	
			7111105T - TRIENNIAL FIRE PROTECTION		4
1	06/26/2017	06/30/2017	IP 7111105T	Fire Protection [Triennial]	
1	07/10/2017	07/14/2017	IP 7111105T	Fire Protection [Triennial]	
			71152A - PI&R ANNUAL SAMPLE - ASR MONITORING		1
1	07/01/2017	09/30/2017	IP 71152-Reviews	In-depth Reviews	
			71124 - 71124.06 RETS		1
1	07/24/2017	07/27/2017	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
			ISFSI - ISFSI LOADING CAMPAIGN INSPECTION		1
1	08/07/2017	08/11/2017	IP 60855	Operation Of An ISFSI	
1	08/07/2017	08/11/2017	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants	
			71124 - 71124.07 REMP		1
1	09/04/2017	09/07/2017	IP 71124.07	Radiological Environmental Monitoring Program	
			11/27EXM - SEABROOK INITIAL EXAM		4
1	01/22/2018	01/26/2018	U01948	FY18-SEABROOK INITIAL OPERATOR LICENSING EXAM	
1	02/19/2018	02/23/2018	U01948	FY18-SEABROOK INITIAL OPERATOR LICENSING EXAM	
			7111111B - SEABROOK REQUAL INSP WITH P/F RESULTS		2
1	12/04/2017	12/08/2017	IP 7111111B	Licensed Operator Requalification Program	
			71124 - 71151 PI VERIFY71124.02ALARA06RETS07REMP		1
1	12/04/2017	12/07/2017	IP 71124.02	Occupational ALARA Planning and Controls	
1	12/04/2017	12/07/2017	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
1	12/04/2017	12/07/2017	IP 71124.07	Radiological Environmental Monitoring Program	
1	12/04/2017	12/07/2017	IP 71151-OR01	Occupational Exposure Control Effectiveness	
1	12/04/2017	12/07/2017	IP 71151-PR01	RETS/ODCM Radiological Effluent Occurrences	
			ASR - PI&R SAMPLE - ASR MONITORING		1
1	01/01/2018	03/31/2018	IP 71152	Problem Identification and Resolution	
			EP - EP EXERCISE INSPECTION		4
1	04/02/2018	04/06/2018	IP 7111401	Exercise Evaluation	
			7111117T - PERMANENT PLANT MODIFICATIONS		3
1	03/19/2018	03/23/2018	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	
1	04/02/2018	04/06/2018	IP 7111117T	Evaluations of Changes, Tests, and Experiments and Permanent Plant Modifications	

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07/01/2016 - 06/30/2018

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
			71124.01 - 01 EXPOSURE CONTROL		1
1	04/23/2018	04/26/2018	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
			HEAT - TRIENNIAL HEAT SINK		2
1	06/04/2018	06/08/2018	IP 7111107T	Heat Sink Performance	

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