



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

May 12, 2016

Mr. Brian D. Boles
Site Vice President
FirstEnergy Nuclear Operating Company
Mail Stop A-DB-3080
5501 N. State Route 2
Oak Harbor, OH 43449-9760

**SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1 – SUMMARY OF
APRIL 12, 2016, TELECONFERENCE REGARDING STEAM GENERATOR TUBE
INSERVICE INSPECTION (CAC NO. MF7398)**

Dear Mr. Boles:

On April 12, 2016, the U.S. Nuclear Regulatory Commission (NRC) staff participated in a teleconference with representatives of FirstEnergy Nuclear Operating Company (the licensee) regarding the inservice inspections of steam generators at Davis-Besse Nuclear Power Station, Unit No. 1. A summary of the teleconference and a list of participants are enclosed.

By letter dated February 29, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16057A865), the NRC staff provided questions for the licensee to address during the call. The licensee's handouts used during the call, which addressed the staff's questions, are available under ADAMS Accession No. ML16117A182.

If you have any questions, please contact me at (301) 415-1380.

Sincerely,

A handwritten signature in black ink, appearing to read "BP Purnell", is located below the "Sincerely," text.

Blake Purnell, Project Manager
Plant Licensing Branch III-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-346

cc: Distribution via Listserv

Enclosures:

1. Summary of Teleconference
2. List of Participants

SUMMARY OF APRIL 12, 2016, TELECONFERENCE
SPRING 2016 STEAM GENERATOR INSPECTIONS
DAVIS-BESSE NUCLEAR POWER STATION, UNIT NO. 1
DOCKET NO. 50-346

On April 12, 2016, the U.S. Nuclear Regulatory Commission (NRC) staff participated in a conference call with representatives of FirstEnergy Nuclear Operating Company (the licensee) regarding the ongoing steam generator (SG) inspection at Davis-Besse Nuclear Power Station (Davis-Besse), Unit No. 1. By letter dated February 29, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16057A865), the staff provided questions for the licensee to address during the call. The licensee's handouts used during the call, which addressed the staff's questions, are available under ADAMS Accession No. ML16117A182, and this information is not repeated here. Definitions of acronyms used by the licensee in its handouts are provided at the end of this summary.

Background

Davis-Besse has two once-through SGs designed by Babcock and Wilcox. These replacement SGs were installed in 2014. The tubes were hydraulically expanded for part of the length of the tubesheet and are supported by sixteen carbon steel tube support plates. The licensee stated that a number of adjustments were made in the design of their new SGs to mitigate tube-to-tube wear degradation. For example, the length of the tube-to-tubesheet expansion was adjusted to control the amount of preloading on the tubes.

The licensee stated that the integral orifice plate is in the downcomer region, and it is adjusted to set the water column height in the feedwater downcomer region of the SG. The licensee stated that tube support plate (TSP) 15S is below the auxiliary feedwater nozzle and has drilled holes in the periphery through which the tubes pass. The remaining portion of TSP 15S and the other TSPs in the SG have trefoil broached holes. The trefoil holes of the even numbered TSPs are offset from centerline to minimize tube wear at the TSP elevations.

Summary of Inspection Results

At the time of the teleconference, SG tube inspections were ongoing and the information provided by the licensee did not represent final inspection results. The information provided by the licensee was for the point when the licensee had completed 65 percent of the inspections for SG 2A and 47 percent of the inspections for SG 1B.

The licensee had identified 358 wear-like indications for SG 2A and 22 wear-like indications for SG 1B. The licensee believes the higher number of indications found in SG 2A is due to a different length of secondary side piping that runs into SG 2A. The different length is due to the physical configuration of the plant. The licensee stated it had seen similar differences with its previous SGs.

The licensee had identified 142 locations in SG 2A and 20 locations in SG 1B needing special interest exams. No tube-to-tube wear indications had been detected. The licensee stated that it

had identified 182 wear indications at TSP 16S which were distributed amongst tubes in the periphery region. The periphery region has the highest crossflow velocities.

The licensee performed as-found visual inspections of the SG channel head, but the inspections were incomplete at the time of the call. The licensee stated it would notify NRC staff if any abnormalities are found.

The NRC staff did not identify any issues during the call that required follow-up action.

Acronyms

Acronyms used in the licensee's document are defined below:

- %TW – Percent Through-Wall
- ADI – Absolute Drift Indication
- BLG - Bulge
- CAL – Calibration
- CHN – Channel
- CMOA – Condition Monitoring Operational Assessment
- COL – Column
- DB – Davis-Besse
- DDI – Distorted Dent/Ding Indication
- DEG – Degree
- DNG – Ding
- DNT – Dent
- DSI – Distorted Support Indication
- DTI – Distorted Tubesheet Indication
- EXT – Extent
- IDC – Inside Diameter Chatter
- LPI – Loose Part Indication
- LTE – Lower Tube End
- LTS – Lower Tubesheet
- MRPC – Motorized Rotating Pancake Coil
- NQI – Non-Quantifiable Indication
- OA – Operational Assessment
- OBS – Obstruction
- OD – Outside Diameter
- PLP – Possible Loose Part
- PVN – Permeability Variation
- SG – Steam Generator
- SVI – Single Volumetric Indication
- Tech Spec – Technical Specification
- TSP – Tube Support Plate
- TWD – Through-Wall Depth
- UTE – Upper Tube End
- UTS – Upper Tubesheet
- V – Volts
- VOL – Volumetric
- WAR – Wear

LIST OF PARTICIPANTS

APRIL 12, 2016, TELECONFERENCE WITH

FIRSTENERGY NUCLEAR OPERATING COMPANY (FENOC)

Name	Affiliation
Blake Purnell	NRC
Jennifer Hauser	NRC
Alan Huynh	NRC
Andrew Johnson	NRC
Tom Bilk	NRC
Thomas Briley	NRC
Phil Lashley	FENOC
William Boudreaux	FENOC
Steve Slosnerick	FENOC
Victor Newman	FENOC
Luke Twarek	FENOC
Kevin Zellers	FENOC
Alex Cullu	FENOC
Kendall Johnson	FENOC

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/RA/

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GKulesa, NRR

DHills, RIII

ADAMS Accession No. ML16130A750

***by memo**

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DATE	5/11/16	5/10/16	4/27/16	5/12/16	5/12/16

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