

**Mark B. Bezilla**  
Vice President - Nuclear

419-321-7676  
Fax: 419-321-7582

June 18, 2018  
L-18-159

ATTN: Document Control Desk  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

**SUBJECT:**

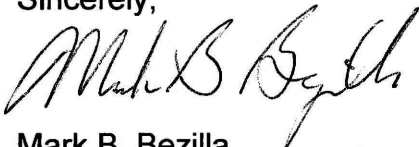
Davis-Besse Nuclear Power Station, Unit No. 1  
Docket No. 50-346, License No. NPF-3  
Davis-Besse Nuclear Power Station, Unit 1 Cycle 20 and Refueling Outage 20 Inservice  
Inspection Summary Report

In accordance with the 2007 Edition through the 2008 Addenda of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, Subsubarticle IWA-6240 and ASME Code Case N-532-5, enclosed is the summary report covering inservice inspection (ISI) activities performed during operating cycle 20 and refueling outage 20 for the Davis-Besse Nuclear Power Station.

The enclosure contains the alternate to the summary report, Form OAR-1, "Owner's Activity Report" for inservice inspections for the Class 1, 2, and 3 components. The report is for examinations performed during the cycle that were scheduled in accordance with the Fourth Interval Inspection Plan beginning September 21, 2012.

There are no regulatory commitments contained in this letter. If there are any questions or if additional information is required, please contact Mr. Thomas A Lentz, Manager – Nuclear Licensing & Regulatory Affairs, at 330-315-6810.

Sincerely,



Mark B. Bezilla

Enclosure:

ISI Owner's Activity Report, Cycle 20 and 20<sup>th</sup> Refueling Outage

cc: Nuclear Regulatory Commission Region (NRC) III Administrator  
Nuclear Reactor Regulation Project Manager  
NRC Resident Inspector  
Utility Radiological Safety Board

## **ISI OWNER'S ACTIVITY REPORT**

**CYCLE 20 & 20<sup>TH</sup> REFUELING OUTAGE**

**OUTAGE START DATE: March 3<sup>rd</sup>, 2018**

**OUTAGE COMPLETION DATE: March 27<sup>th</sup>, 2018**

**REPORTING DATE: May 31<sup>st</sup>, 2018**

### **DAVIS-BESSE NUCLEAR POWER STATION, UNIT No. 1**

**5501 North State Route #2  
Oak Harbor, OH 43449**

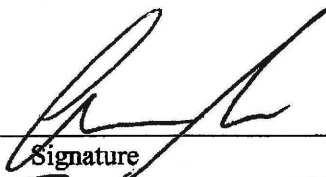
### **OWNER: FIRSTENERGY NUCLEAR GENERATION, LLC**

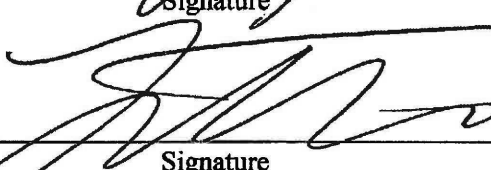
**76 South Main St.  
Akron, OH 44308**


**NRC DOCKET NUMBER: 50-346**


**OPERATION LICENSE: NPF-3**

**COMMERCIAL OPERATION: July 31, 1978**

Prepared By: Alan Scheanwald  6/1/18  
Signature Date

Reviewed By: Luke Twarek  01 JUN 2018  
Signature Date

Approved By: Dennis Schreiner   
Supervisor – Programs Signature 06/08/2018  
Date

Approved By: Kevin Zellers  6/8/18  
Manager – Technical Services Signature Date

## ABSTRACT

The 20<sup>th</sup> cycle of operation at the Davis-Besse Nuclear Power Station began on May 9<sup>th</sup>, 2016 and lasted until March 27<sup>th</sup>, 2018. Examinations performed during the cycle were scheduled in accordance with the 4<sup>th</sup> Interval Inspection Plan beginning September 21, 2012.

The following report is a summary of the Class 1, 2, 3 and Metal Containment (MC) inspection results performed during the 20<sup>th</sup> cycle of operation. This report was prepared in accordance with the requirements of subsubarticle IWA-6240 of Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, 2007 Edition; with 2008 Addenda, as well as Code Case N-532-5.

The application of Code Case-N-532-5, as endorsed in Table 1, "Acceptable Section XI Code Cases" of Regulatory Guide 1.147, Revision 17 permits the issuance of an Owner's Activity Report form (OAR-1) in lieu of a traditional summary report.

## FORM OAR-1 OWNER'S ACTIVITY REPORT

Report Number DB-OAR1-20R

Plant Davis-Besse Nuclear Power Station

Unit No. 1 Commercial Service Date July 31, 1978 Refueling Outage No. 1R20  
(if applicable)

Current Inspection Interval 4<sup>th</sup> Interval beginning 9/21/12  
(1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, other)

Current Inspection Period 2<sup>nd</sup> Period, beginning 9/21/15  
(1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>)

Edition and Addenda of Section XI applicable to the inspection plan 2007 Ed. / 2008 Add (4<sup>th</sup> Int.)

Date and Revision of inspection plans 4<sup>th</sup> Interval Inspection Plan Rev. 2 (3/2/16)

Edition and Addenda of Section XI applicable to repair/replacement activities, if different than the inspection plans Same

Code Case Used: N-513-3, N-532-5, N-638-4, N-639, N-663, N-705, N-706-1, N-722-1, N-729-4, N-770-2  
(if applicable, including cases modified by Case N-532 and later revisions)

### CERTIFICATE OF CONFORMANCE

I certify that (a) the statements made in this report are correct; (b) the examinations and tests meet the Inspection Plan as required by the ASME Code, Section XI; and (c) the repair/replacement activities and evaluations supporting completion of 1R20 conform to the requirements of Section XI. (refueling outage number)

Signed A. Scheunwald Date 6/1/18  
Owner or Owner's Representative, Title  
ISI Program Owner

### CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by THE H.S.B. I+I CO. of HARTFORD, CT have inspected the items described in the Owner's Activity Report, and state that, to the best of my knowledge and belief, the Owner has performed all activities represented by this report in accordance with the requirements of Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the repair/replacement activities and evaluation described in this report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Thomas Jeps Commission NB 9330 N I A OHIO COMMA.  
Inspector's Signature (National Board Number and Endorsement)

Date 6/8/18

**TABLE 1**

**ITEMS WITH FLAWS OR RELEVANT CONDITIONS THAT REQUIRED  
 EVALUATION FOR CONTINUED SERVICE**

Examination Category and Item Number	Item Description, Component ID	Evaluation Description
B-P & B15.10	RC13 Pressure Test Zone (Class 1 Bolted Connections)	<p>The following relevant conditions were noted during examination of Class 1 bolted connections.</p> <ul style="list-style-type: none"> <li>• Valve DH11 (Condition Report 2018-02261) – Borated water leak at valve packing.</li> <li>• Valve DH12 (Condition Report 2018-02257) – Borated water leak at valve packing.</li> <li>• Valve DH21 (Condition Report 2018-01918) – Borated water leak at valve body-to-bonnet bolted connection.</li> <li>• Valve HP56 (Condition Report 2018-01917) – Borated water leak at valve packing.</li> <li>• E24-1 Lower Manway (Condition Report 2018-02025) – Borated water leak at manway bolted connection.</li> </ul> <p>All relevant conditions were addressed per IWA-5250 as necessary and evaluated per IWA-5251 and the site's boric acid program. In addition, they were cleaned prior to being returned to service.</p>
D-B & D2.10	Component Cooling Water Heat Exchanger #3	<p>Through-wall pinhole leak on CCW Heat Exchanger #3 (Service Water side) as noted in Condition Report 2018-00844. Evaluation completed in accordance with ASME Code Case N-705, "Evaluation Criteria for Temporary Acceptance of Degradation in Moderate Energy Class 2 or 3 Vessels and Tanks" and First Energy procedure NOP-OP-1009, "Operability Determinations and Functionality Assessments".</p>

**TABLE 2**

**ABSTRACT OF REPAIR/REPLACEMENT ACTIVITIES REQUIRED FOR CONTINUED SERVICE**

Code Class	Item Description	Description of Work	Date Completed	Repair/Replacement Plan Number
1	OTSG 1B Tubes	Plug tubes following examinations	03/19/2018	200688195
1	OTSG 2A Tubes	Plug tubes following examinations	03/19/2018	200688194
2	High Pressure Injection Drain Line Socket Weld	Replace socket weld upstream of valve	03/12/2018	200743703
2	Valve SP9A3B	Replace valve	03/25/2018	200745895
3	Hydrogen Dilution Blower Inlet Muffler	Replace muffler with through-wall defect	02/22/2017	200610969
3	Service Water Piping	Replace piping with through-wall defect	03/30/2018	200710491
3	Strainer Blowdown Piping, F15-1	Replace piping with through-wall defect	09/27/2017	200726604
3	Strainer Blowdown Piping, F15-3	Replace piping with through-wall defect	10/20/2017	200728350