



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**

REGION III  
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April 19, 2011

Mr. Barry Allen  
FirstEnergy Nuclear Operating Company  
Davis-Besse Nuclear Power Station  
5501 North State Route 2, Mail Stop A-DB-3080  
Oak Harbor, OH 43449-9760

**SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION – NRC PROBLEM  
IDENTIFICATION AND RESOLUTION INSPECTION 05000346/2011008**

Dear Mr. Allen:

On March 17, 2011, the U.S. Nuclear Regulatory Commission (NRC) completed a Problem Identification and Resolution (PI&R) team inspection at your Davis-Besse Nuclear Power Station. The enclosed report documents the inspection findings, which were discussed on March 17, 2011, with Mr. Brian Boles and other members of your staff.

This inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, and compliance with the Commission's rules and regulations and the conditions of your operating license. Within these areas, the inspection involved examination of selected procedures and representative records, observations of activities, and interviews with personnel.

The inspection team concluded that on the basis of the sample selected for review, in general, problems were properly identified, evaluated, and corrected. The team noted that the station staff reviewed operating experience for applicability to station activities. Audits and self-assessments were performed at an appropriate level to identify most deficiencies. Based on the independent assessment of safety culture results, interviews conducted during the inspection, and review of the employee concerns program, freedom to raise nuclear safety concerns was demonstrated.

Based on the results of this inspection, no findings were identified.

B. Allen

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In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records System (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC website at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

Jamnes L. Cameron, Chief  
Branch 6  
Division of Reactor Projects

Docket No. 50-346  
License No. NPF-3

Enclosure: Inspection Report 05000346/2011008  
w/Attachment: Supplemental Information

cc w/encl: Distribution via ListServe

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-346  
License No: NPF-3

Report No: 05000346/2011008

Licensee: FirstEnergy Nuclear Operating Company (FENOC)

Facility: Davis-Besse Nuclear Power Station

Location: Oak Harbor, OH

Dates: February 14, 2011, through March 17, 2011

Inspectors: A. Garmoe, Project Engineer, Team Lead  
J. Rutkowski, Senior Resident Inspector,  
Davis-Besse, Team Lead  
J. Bozga, Reactor Inspector, Mechanical  
C. Brown, Reactor Inspector, Electrical  
A. Wilson, Resident Inspector

Approved by: Jamnes L. Cameron, Chief  
Branch 6  
Division of Reactor Projects

Enclosure

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## SUMMARY OF FINDINGS

IR 05000346/2011008; 02/14/2011 – 03/17/2011; Davis-Besse Nuclear Power Station; Routine Biennial Problem Identification and Resolution (PI&R) Inspection

This inspection was performed by three NRC regional inspectors, one Davis-Besse Nuclear Power Station senior resident inspector, and the Davis-Besse Nuclear Power Station resident inspector. No findings or violations of NRC requirements were identified during this inspection. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

### **Problem Identification and Resolution**

On the basis of the sample selected for review, the team concluded that implementation of the corrective action program (CAP) at Davis-Besse Nuclear Power Station was generally effective. The licensee had a low threshold for identifying problems and entering them in the CAP. Items entered into the CAP were screened and prioritized in a timely manner using established criteria; were properly evaluated commensurate with their safety significance; and corrective actions were generally implemented in a timely manner, commensurate with the safety significance. The team noted that the licensee reviewed operating experience for applicability to station activities. Audits and self-assessments were determined to be performed at an appropriate level to identify most deficiencies. On the basis of interviews conducted during the inspection, workers at the site expressed freedom to enter safety concerns into the CAP.

#### **A. NRC-Identified and Self-Revealed Findings**

No findings were identified.

#### **B. Licensee-Identified Violations**

No violations of significance were identified.

## REPORT DETAILS

### 4. OTHER ACTIVITIES

#### 4OA2 Problem Identification and Resolution (71152B)

The activities documented in Sections .1 through .4 constituted one biennial sample of problem identification and resolution as defined in Inspection Procedure 71152.

#### .1 Assessment of the Corrective Action Program Effectiveness

##### a. Inspection Scope

The inspectors reviewed the licensee's Corrective Action (CA) program implementing procedures and attended CA program meetings to assess the implementation of the CA program by site personnel.

The inspectors reviewed risk and safety significant issues in the licensee's CA program since the last NRC Problem Identification and Resolution (PI&R) inspection in April 2009. The selection of issues ensured an adequate review of issues across NRC cornerstones. The inspectors used issues identified through NRC generic communications, department self assessment, licensee audits, operating experience reports, and NRC documented findings as sources to select issues. Additionally, the inspectors reviewed Condition Reports (CRs) generated as a result of facility personnel's performance in daily plant activities. In addition, the inspectors reviewed CRs and a selection of completed investigations from the licensee's various investigation methods, which included root cause, full apparent cause, limited apparent cause, and common cause investigations.

The inspectors selected the control rod drive system to review in detail. The inspectors' review was to determine whether the licensee staff were properly monitoring and evaluating the performance of these systems through effective implementation of station monitoring programs. A 5 year review on the control rod drive system was undertaken to assess the licensee's efforts in monitoring for system degradation due to aging aspects. The inspectors also performed partial system walkdowns of the auxiliary feedwater system and decay heat system. A review of the use of the station maintenance rule program to help identify equipment issues was also conducted.

During the reviews, the inspectors determined whether the licensee staff's actions were in compliance with the facility's corrective action program and 10 CFR Part 50, Appendix B requirements. Specifically, the inspectors determined whether licensee personnel were identifying plant issues at the proper threshold, entering the plant issues into the station's CA program in a timely manner, and assigning the appropriate prioritization for resolution of the issues. The inspectors also determined whether the licensee staff assigned the appropriate investigation method to ensure the proper determination of root, apparent, and contributing causes. The inspectors also evaluated the timeliness and effectiveness of corrective actions for selected issue reports, completed investigations, and NRC findings, including non-cited violations.

b. Assessment

(1) Effectiveness of Problem Identification

Based on the information reviewed, including initiation rates of CRs and interviews, the inspectors concluded that the threshold for initiating condition reports was appropriate. In addition, the inspectors noted that the licensee trends equipment and human performance on a regular basis.

Observations

The inspectors identified one example of a weakness with regard to entering conditions into the corrective action program at a low threshold. The licensee initiated CR 11-89925 after I&C technicians inadvertently tripped the radwaste ventilation system while performing a surveillance to calibrate radwaste area exhaust process radiation monitor RE5405A. The licensee has been changing out radiation monitors from analog to digital, thus two active procedures were in place to perform the calibration. Prior to calibrating radiation monitor RE5405A, a digital radiation monitor, the technicians were incorrectly provided with the procedure used for calibrating an analog radiation monitor. The analog procedure performs steps in a slightly different order than the digital procedure, which caused the radwaste ventilation system to trip offline. One of the technicians involved had caught the mistake of being given the wrong procedure on several previous occasions, but did not catch the error in this instance. This event could have been prevented had a condition report been written for the previous instances of being given the wrong procedure.

Findings

No findings were identified.

(2) Effectiveness of Prioritization and Evaluation of Issues

The inspectors reviewed the classification of CRs for resolution and determined that, in general, CRs were assigned appropriate prioritization and evaluation levels and evaluations in apparent cause and root cause reports that were reviewed were adequate.

Observations

The inspectors reviewed CR 10-75350, "Turbine Building HELB Concerns in CCW Pump Room." The inspectors noted that the immediate operability determination was based on engineering judgment that was not numerically or analytically based. Upon further discussion with the Engineering Department, the operability determination was updated to include numerically and analytically based information. The inspectors concluded that the Shift Manager accepted engineering judgment as a basis for operability and did not sufficiently challenge the information provided by Engineering to ensure an adequate basis for operability was provided.

The inspectors also reviewed CR 10-87473, "Pipe Stress Calculations for Temporary Shielding." Pipe stress analysis and pipe support calculations were verified to be in conformance with design and licensing basis requirements for decay heat piping systems. However, the inspectors did identify three design control violations of minor

significance involving the placement of lead shielding on piping systems. The minor violations were entered into the CA program as CR 11-90280, CR 11-90326, and CR 11-90347.

### Findings

No findings were identified.

### (3) Effectiveness of Corrective Actions

In general, the inspectors noted that the corrective actions addressed the cause of the identified problem, and appeared to have been effective in the majority of samples reviewed. The inspectors noted that at least in one department there were some inconsistencies in closing out corrective actions and that those closeouts were not in accordance with station expectations.

### Observations

The inspectors identified several examples where licensee personnel appeared to demonstrate a lack of rigor in complying with stated requirements of the CA program.

Procedure NOP-LP-2001, "Corrective Action Program," Section 4.17, states that all approved CAs shall be tracked in the condition report database from initiation until implementation. Additionally, a licensee-generated memorandum sent to Davis-Besse managers on March 10, 2010, re-iterated that CAs identifying that something "will" be done should not be closed until the action is done. The inspectors reviewed CR 09-55141, "Chemistry Plant Status Control Standing Order Noncompliance," and observed that CA #9 was closed on August 26, 2009, with work order system notifications to track remaining open items. Two of the notifications (600566034 and 600566035) were still open as of February 17, 2011. Licensee personnel stated that the CAs were completed but the notifications had not been updated in a timely manner. Additionally, it was identified that CAs #5 and #9 had not been accomplished as written, even though the CAs were closed in the CA program electronic database. As a result of the inspectors' observations, the licensee initiated CR 11-89901 and CR 11-89748.

The inspectors reviewed CR 09-67079, "Weaknesses in the Boron-10 Correction Factor Program," which was written in response to licensee identified ineffective and incomplete CA from CR 06-06669, "Boron 10 Isotopic Composition Not Accounted for in BWST, BAATS, CFTS." Corrective action #3 of CR 09-67079 called for a full review of all Chemistry full and limited apparent causes, dating to 2006, to ensure that all CAs generated as a result of those evaluations were tracked to completion. The results of that review were documented in CR 10-72273, "Incomplete Documentation of Corrective Actions," which included several examples of documentation issues or closure issues. The inspectors noted that the review did not identify that CA #9 from CR 09-55141 had remaining open items.

It was also determined that CA #4 of CR 09-67079 was closed on April 27, 2010, to an action plan that listed actions to be tracked using work order notifications 600612198, 600612199, and 600612200. The action plan stated that the due date for completion of the actions was November 1, 2010. As of February 16, 2011, those notifications were



still open even though the licensee stated that the actions had been completed. The licensee documented this issue in CR 11-89741.

The inspectors reviewed CR 10-73290, "Unattended Vehicle in the 75 Foot Exclusion Zone near the Dry Fuel Storage Pad," which was written on March 12, 2010, to document a finding issued by the NRC. All CAs and the limited apparent cause analysis were documented as completed as of April 9, 2010. The CR was scheduled to be reviewed by the Corrective Action Review Board (CARB) on November 1, 2010. However, the sponsoring manager withdrew the document until there was a revised analysis of condition applicability to similar circumstances. As of February 15, 2011, the CR had not been reviewed by the CARB, which is inconsistent with the CARB review time frame requirements of NOP-LP-2001, "Corrective Action Program." The licensee initiated CR 11-89733 to document this issue.

The inspectors reviewed CR 09-63254, "Finding MS-C-09-08-22: Ineffective Corrective Action Implementation for HSM." The CR discussed a CA from a full apparent cause evaluation (ACE) that had not been effectively implemented. The licensee performed a limited ACE to determine why the CA from the full ACE had not been effectively implemented. The limited ACE identified the cause as a failure to fully follow the CR process; however the inspectors identified that no CA was assigned to address the cause. The inspectors noted that the underlying technical issue, combustible materials within 75 feet of the horizontal storage modules (dry cask spent fuel storage), is an issue that the licensee has not been able to effectively correct for several years. Dating back to 2006, the licensee received two non-cited violations from the NRC and performed numerous apparent cause evaluations. The inspectors view the lack of a CA to address the most recent identified cause, particularly when considered as part of a long-standing issue, as a weakness in the ability to promptly take effective corrective actions.

### Findings

No findings were identified.

## .2 Assessment of the Use of Operating Experience

### a. Inspection Scope

The inspectors reviewed the licensee's implementation of the facility's Operating Experience (OE) program. Specifically, the inspectors reviewed implementing operating experience program procedures, completed evaluations of OE issues and events, monthly assessments of the OE composite performance indicators, and attended CA program meetings to observe the use of OE information. The inspectors' review was to determine whether the licensee was effectively integrating OE experience into the performance of daily activities, whether evaluations of issues were proper and conducted by qualified personnel, whether the licensee's program was sufficient to prevent future occurrences of previous industry events, and whether the licensee effectively used the information in developing departmental assessments and facility audits. The inspectors also assessed whether corrective actions, as a result of OE experience, were identified and effectively and timely implemented.

b. Assessment

The inspectors determined that the overall performance of the operating experience program was adequate.

Observations

The inspectors reviewed the licensee's dispositioning of Information Notice (IN) 2008-02, "Findings Identified During Component Design Basis Inspections (CDBI)," which communicated issues identified during recent CDBI inspections. The inspectors noted that the licensee's review of IN 2008-02 was closed to existing procedures and practices, such as the OE Program, Latent Issues Review Process, and the Engineering Design Process. There was very little, if any, applicability review performed by the licensee.

Findings

No findings were identified.

.3 Assessment of Self-Assessments and Audits

a. Inspection Scope

The inspectors assessed the licensee staff's ability to identify and enter issues into the CA program, prioritize and evaluate issues, and implement effective CAs, through efforts from departmental assessments and audits.

b. Assessment

The inspectors concluded that self-assessments and audits were typically accurate, thorough, and effective at identifying most issues and enhancement opportunities at an appropriate threshold level. However, the inspectors noted at least one assessment that did not identify issues subsequently identified by the NRC. The inspectors concluded that these audits and self-assessments were completed by personnel knowledgeable in the subject area. In many cases, these self-assessments and audits had identified issues that were not previously recognized by the station.

Observations

Site Self Assessments

The inspectors reviewed licensee self-assessment SN-SA-255, "Pre-NRC IP 95001 Inspection Assessment (Davis-Besse EP)," for adequacy. The self-assessment was prepared in August 2010, prior to the NRC 95001 supplemental inspection that was conducted in September 2010. The supplemental inspection was conducted in response to a finding of low to moderate (White) safety significance identified in 2009 for the failure to recognize an event in the electrical switchyard that met the emergency action level conditions for declaring an Alert. Self-assessment SN-SA-255 states that the assessment verified that "actions taken have been largely effective in correcting the root and contributing causes of the failure to classify." However, the NRC 95001 inspection revealed weaknesses with the adequacy of the licensee's extent of cause evaluation and concerns about whether the corrective actions would prevent recurrence.

The NRC kept the White finding open until the corrective actions and extent of cause evaluation were expanded. A follow-up NRC 95001 inspection reviewed the updated information and closed the White finding in December 2010. Based on the NRC's concerns during the initial 95001 inspection, the inspectors questioned the adequacy of self-assessment SN-SA-255. The inspectors identified weaknesses in the corrective actions and extent of cause reviews performed by the self-assessment. The licensee initiated CR 11-90395 in response to the inspector's observations.

The inspectors also reviewed self-assessment IP-SA-11-113, "Integrated Performance Assessment and Trending for Operations, Second 6 months of 2010." The inspectors identified that the self-assessment failed to identify a trend that was identified by NRC inspectors during the fourth quarter of 2010. Specifically, the NRC integrated fourth quarter Inspection Report 05000356/2010005 identified an adverse trend related to the licensee's management of Technical Specifications and Limiting Conditions for Operations, with several examples identified during the third and fourth quarters of 2010. The inspectors noted a weakness in that self-assessments, including IP-SA-11-113, review NRC inspection reports for findings and violations, but do not review the semi-annual trend review section of the report. A review of the semi-annual trend section could have led the self-assessment to document a potential adverse trend in Operations that was relevant to the second half of 2010.

Self Assessment SN-SA-10-352, "Work Order Package Completeness and Associated Impact on the Maintenance Shops," was also reviewed by the inspectors. The licensee conducted this assessment to review why 64 work orders had been placed in "Additional Planning" status between July 26 and October 4, 2010. The assessment conclusion did not identify any negative trends attributable to a particular department or process but included the statement, "Work Planning needs to continue to strive for increased quality in the work orders." Procedure NOBP-LP-2001, "FENOC Self-Assessment/Benchmarking," states that assessment results should be grouped as strengths, recommendations, and deficiencies. Deficiencies and recommendations are required by procedure to have corrective action or notification assignments. The statement referenced was not listed as a deficiency or recommendation and, therefore, had no associated corrective action or notification action that could communicate the insight to plant staff. Discussion with licensee personnel revealed that the need to strive for increased Work Order quality was being reinforced by a corrective action from the Root Cause Evaluation in CR 10-86565, which is not related to SN-SA-10-352. While the concern over work order quality in assessment SN-SA-10-352 was being addressed by a separate unrelated action, the inspectors concluded that, absent the unrelated Root Cause Evaluation, this meaningful observation would have likely not been communicated to plant staff. Such communication could have been accomplished through an assigned corrective action or notification from the self-assessment.

### Fleet Oversight Assessments

The inspectors reviewed assessments and audits conducted by Fleet Oversight, including the quarterly assessment report from the fourth quarter of 2010. Ratings of the performance of station organizations are assigned by Fleet Oversight in accordance with procedure NOBP-LP-2023, "Nuclear Operating Business Practice, Performance Assessment." That procedure specifies four levels of effectiveness using a color scheme of green, white, yellow, and red. In the fourth quarter of 2010, all departments

were rated as “effective” (White), with steady, improved, or improving trends. The inspectors noted several departments were rated as “effective” for all quarters in 2010. This included the Chemistry department which, in the fourth quarter of 2010, was rated as “marginally effective” (Yellow) in a separate assessment, MS-C-10-08-02, a multi-site audit of chemistry and environmental areas. That audit identified recurring significant issues in the laboratory quality control program, failure to satisfy Technical Specification requirements for changes to the Offsite Dose Control Manual, and issues related to chemistry sampling and analysis. The inspectors, while not having a general concern with the overall effectiveness of the assessment and audit program, did question the rating of effective for all station departments.

The inspectors also reviewed Fleet Oversight quarterly assessments for the Site Protection department for the fourth quarter 2009 and all four quarters of 2010, based on review of Condition Report 10-70483, “Site Protection Rated Marginally Effective for Fourth Quarter 2009.” The assessments show the Site Protection department transitioning from “marginally effective” (Yellow) to “effective” (White). The inspectors’ review of the assessments identified that, when taken as stand-alone documents, it was difficult to verify the conclusions that were reached. The main reason for this appears to be that the assessments focus on different items each quarter, thereby making it more difficult to trend performance. The inspectors did, ultimately, determine that the assessment conclusions were appropriate using information from other performance reports in addition to information included in the quarterly assessments.

The inspectors noted that the licensee-provided listing of assessments did not indicate any assessment of the licensee’s overall assessment program. The inspectors were advised that such an assessment was scheduled for the second quarter of 2011.

#### Findings

No findings were identified.

#### .4 Assessment of Safety Conscious Work Environment

##### a. Inspection Scope

The inspectors assessed the licensee’s safety-conscious work environment (SCWE) through the reviews of the facility’s employee concerns program (ECP) implementing procedures, discussions with the ECP coordinator, interviews with personnel from various departments, and reviews of issue reports. The inspectors also reviewed the results from a 2010 Safety Culture Survey.

The inspectors interviewed approximately 30 individuals from various departments to assess their willingness to raise nuclear safety issues. The individuals were selected to provide a distribution across the various departments at the site and included long-term contractors. The sample was of individuals predominantly at first-line supervision and below first-line supervision. In addition to assessing individuals’ willingness to raise nuclear safety issues, the interviews also addressed changes in the CA program and plant environment over the past 2 years. Other items discussed included:

- knowledge and understanding of the CA program;
- effectiveness and efficiency of the CA program;
- willingness to use the CA program;

- management's support of the CA program;
- feedback on issues raised; and
- ease of input to the CA database system.

b. Assessment

Interviews indicated that the licensee has an environment where people are free to raise issues without fear of retaliation. Documents provided to the inspectors regarding the 2010 safety culture assessment stated that Davis-Besse Nuclear Power Station maintained a healthy safety culture. Based on a review of the survey data, the inspectors concluded that the data supported that conclusion.

All interviewees indicated that station personnel would raise safety issues and were comfortable doing so. All individuals knew that, in addition to the CA program, they could raise issues to their management, the ECP, or the NRC. None of the individuals interviewed indicated they had been retaliated against for raising issues nor were they aware of anyone who had been retaliated against. Several interviewees indicated that they believe writing a condition report will result in more work for them and others indicated that condition reports can be perceived negatively by individuals involved in the documented activity. However, all individuals indicated that they would nevertheless raise safety issues through condition reports.

Findings

No findings were identified.

4OA6 Management Meetings

.1 Exit Meeting Summary

On March 17, 2011, the inspectors presented the inspection results to Mr. B. Boles, and other members of the licensee staff. The licensee acknowledged the issues presented. The inspectors confirmed that none of the potential report input discussed was considered proprietary.

ATTACHMENT: SUPPLEMENTAL INFORMATION

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### Licensee

B. Allen, Site Vice President  
P. Boissoneault, Manager, Chemistry  
B. Boles, Director, Site Operations  
K. Byrd, Director, Site Performance Improvement  
J. Cuff, Manager, Site Maintenance (Acting)  
J. Dominy, Director, Site Maintenance  
G. Hayes, Supervisor, Reactor Engineering  
J. Hook, Manager, Design Engineering  
V. Kaminskas, Director, Site Engineering  
G. Kendrick, Manager, Site Outage Management  
P. McCloskey, Manager, Site Regulatory Compliance  
D. Noble, Manager, Radiation Protection  
M. Parker, Manager, Site Protection  
R. Patrick, Manager, Site Work Management  
A. Percival, Sr. Chemistry Technologist (Liquid Radwaste and Effluent Analysis)  
S. Plymale, Manager, Site Operations  
J. Sturdavant, Regulatory Compliance  
T. Summers, Manager, Plant Engineering  
J. Vetter, Manager, Emergency Response  
A. Wise, Manager, Technical Services

#### Nuclear Regulatory Commission

D. Kimble, Senior Resident Inspector

### **LIST OF ITEMS OPENED, CLOSED AND DISCUSSED**

#### Opened

None.

#### Closed

None.

## LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspectors reviewed the documents in their entirety, but rather, that selected sections or portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document or any part of it, unless this is stated in the body of the inspection report.

### PLANT PROCEDURES

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
DB-HP-04027	Installed Shielding Inspection and Engineering Evaluation	Rev. 5
DB-ME-09101	Reactor Trip Breaker Maintenance and Testing	Rev. 3
DB-MI-04503	Channel Calibration of Process Radiation Monitors	Rev. 8
DB-OP-02522	Small RCS Leaks	Rev. 10
DB-PF-00004	Equipment Failure Trending	Rev. 0
NOBP-ER-3916	Component Health & Trending	Rev. 9
NOBP-LP-2001	FENOC Self-Assessment/Benchmarking	Rev. 15
NOBP-LP-2010	CREST Trending Codes	Rev. 9
NOBP-LP-2011	FENOC Cause Analysis	Rev. 12
NOBP-LP-2018	Integrated Performance Assessment and Trending	Rev. 7
NOPL-LP-2003	Policy – SCWE	Rev. 2
NOP-LP-2001	Corrective Action program	Rev. 26
NOP-LP-2100	Operating Experience Program	Rev. 4

### CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
N/A	Corrective Action Review Board Minutes	11/1/2011
N/A	Corrective Action Review Board Minutes	2/28/2011
06-01753	Station not in Compliance With DB-FP-0007	4/10/2006
06-02340	Potential Violation of 10 CFR 72.122C	5/19/2006
07-15336	Combustible Material Found in Sealand Containers on Dry Fuel Storage Pad	2/28/2007
07-32112	Pressurizer Level Decrease While Placing DH Train 1 in Standby	12/30/2007
08-46365	Repeat of Transient Combustible Material Located Near Horizontal Storage Modules	9/16/2008
08-46188	Violation of DB-FP-0007, Control of Transient Combustibles	9/12/2008
08-44622	Nuclear Fuel Assessment Report-2nd Quarter 2008 Fme Program Is Rated Red	8/12/2008
09-54570	Initiation of CRs For 10CFR21 Notifications	3/3/2009
09-55141	Chemistry Plant Status Control Standing Order Noncompliance	3/11/2009

**CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>	<b><u>Date or Revision</u></b>
09-56755	NRC PI&R: DB-ME-09114 Does Not Implement Recommended Torque Values	4/06/2009
09-57013	NRC PI&R 2009: CR 04-04561, Westinghouse TB-04-13 Circuit Brkr Eval & Actions	4/8/2009
09-57272	MS100 Main Steam Line 2 Isolation Valve Failed to Fully Open	4/15/2009
09-57849	Procedure Non-Compliance during #1 Purification Demineralizer Outlet Sampling	4/24/2009
09-60012	Use of Written Instructions	6/08/2009
09-61025	Loss of J Bus, Catastrophic Failure of J Bus B Phase Potential Device	6/25/2009
09-61198-02	DB-SA-09-047: Ineffective Corrective Actions	6/27/2009
09-63254	Finding MS-C-09-08-22: Ineffective Corrective Action Implementation for HSM	8/14/2009
09-67480	2009 CDBI: Inadequate Equivalency Justification Provided in ERR 90-0003-070	11/9/2009
09-67489	NRC Concern – Submerged Cables in Electrical Manhole MH3045	11/9/2009
10-70583	DB-PA-09-04: Site Protection Rated Marginally Effective for Fourth Quarter 2009	1/25/2010
09-68029	CDBI 2009: Potential Violation of 10 CFR 50.71	11/19/2009
09-65084	NRC Question with the Motor Operated Valve PM and Testing Program	10/28/2009
09-65326	NRC PI For Drill/Exercise Performance In Action Region	10/1/2009
09-66474	2009 CDBI: Procedures For LOCA Outside CTMT	10/22/2009
09-66487	Insulation Removed from Steam Piping at AFPT But Not Evaluated; IR 2009005-02	10/19/2009
09-68328	Accidental Discharge Of Security Officers Weapon	11/27/2009
09-68498	Chemistry Parameters Trending Deficiencies	12/2/2009
10-69971	CDBI 2009: Inadequate Corrective Action Taken for Potential Tornado Missiles	1/12/2010
10-70666	Electrical Manhole MH3045 – Cables Submerged	1/27/2010
10-72207	CV5005 Closed Light Did Not Illuminate During Stroke Time Test	2/28/2010
10-73290	Unattended Vehicle In The 75 Foot Exclusion Zone Near The Dry Fuel Storage Pad	3/12/2010



## **CORRECTIVE ACTION PROGRAM DOCUMENTS REVIEWED**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>	<b><u>Date or Revision</u></b>
10-74253	DB-PA-10-01: Finding: ISI Program Plan Not Updated to Meet 10 CFR 50.55A Rqmt	3/25/2010
10-75350	Turbine Building HELB Analysis Deficiency	4/14/2010
10-75790-07	Red Cross-Cutting Aspect PI For H.2.(c) - Resources / Documentation	4/22/2010
10-76811	Compliance With NOBP-LP4014, Managing Regulatory Interface	5/13/2010
10-79786	SN-SA-10-227 – Snapshot Self-Assessment Quality Issues	7/16/2010
10-82117	NRC 95001 Inspection Of The June 2009 Switchyard Event/White Finding Follow-up	9/2/2010
10-81867	IP-SA-10-244, Site Trend With Oversight of Supplemental and FENOC Personnel	8/27/2010
10-82447	Incorrect Simulator Eal Declarations	9/9/2010
10-83637	August 2010 SCWE Survey Results Indicate 3 Red Pillars For Chemistry	10/4/2010
10-83723	August 2010 SCWE Survey Results Indicate One Red Pillar For Security	10/5/2010
10-83779	NRC Finding: Submerged Cables in Electrical Manhole MH3045	10/6/2010
10-84979	Potential Compliance Issue with NRC RIS 2010-06 and Davis Besse TRM 8.7.3	10/27/2010
10-85247	Containment Normal Range Radiation Monitor	11/02/2010
10-85453	Safety Control Rod 3-4 Ratcheted IN from 100 percent to 72 percent Withdrawn	11/05/2010
10-87256	Transfer Switch for Rod 3-4 may have Degraded Set Contacts	12/17/2010
10-87348	Area For Improvement In Extent Of Cause Determination	12/20/2010
10-87473	Pipe Stress Calculations for Temporary Shielding	12/23/2010
11-89925	Misposition Radwaste Ventilation Inadvertently Tripped During RE5405A Calibration	2/22/2011

## **AUDITS, ASSESSMENTS AND SELF-ASSESSMENTS**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>	<b><u>Date or Revision</u></b>
CYCLE 16	Periodic Maintenance Effectiveness Assessment Report	5/21/2010
DB-PA-09-04	Fleet Oversight Fourth Quarter 2009 Report for Site Protection	
DB-PA-10-01	Fleet Oversight First Quarter 2010 Report for Site Protection	
DB-PA-10-02	Fleet Oversight Second Quarter 2010	

**AUDITS, ASSESSMENTS AND SELF-ASSESSMENTS**

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
	Report for Site Protection	
DB-PA-10-03	Fleet Oversight Third Quarter Report	11/11/2010
DB-PA-10-04	Fleet Oversight Fourth Quarter 2010 Report for Site Protection	
DB-SA-10-009	Implementation of Corrective Action Program	12/29/2010
DB-SA-09-042	Security Equipment Maintenance and Testing	6/9/2009
DB-SA-09-048	Site Access Controls	9/10/2009
DB-SA-09-052	EPRI PWR Secondary Water Chemistry Guidelines	7/27/2009
DB-SA-09-053	Operator Response to Stator Cooling Turbine Runback July 2009	7/27/2009
DB-SA-09-070	Chemistry Parameters Trending	12/14/2009
DB-SA-10-007	Work Group Clearance	8/30/2010
DB-SA-10-009	Implementation of Corrective Action Program	12/29/2010
IP-SA-10-157	2010 Chemistry Integrated Performance Assessment and Trending	1 <sup>st</sup> Quarter, 2010
IP-SA-10-251	Training Integrated Performance Assessment and Trending	10/4/2010
IP-SA-10-238	IPAT/Self-Assessment: Operations First 6 months, 2010	7/29/2010
IP-SA-10-312	Chemistry Integrated Performance Assessment and Trending	10/21/2010
IP-SA-11-113	IPAT/Self-Assessment: Operations Second 6 months, 2010	2/16/2011
MS-C-09-08-22	Corrective Action Program Multi-Site Audit	9/30/2009
MS-C-10-08-02	Fleet Oversight Multi-Site Audit of Chemistry and Environmental	10/14/2010
SN-IP-10-311	IPAT/Self-Assessment: Operations third quarter, 2010	11/16/2010
SN-IP-10-322	IPAT/Self-Assessment: Emergency Preparedness third quarter, 2010	11/17/2010
SN-IP-10-323	Training Integrated Performance Assessment and Trending	10/26/2010
SN-SA-10-255	Pre-NRC IP 59001 Inspection Assessment (Davis-Besse EP)	8/9/2010
SN-SA-10-176	Maintenance place keeping within procedures and work orders and work order quality	7/19/2010
SN-SA-10-352	Work Order Package Completeness and Associated Impact on the Maintenance Shops	11/2/2010
SN-SA-10-368	Cross-Cutting Aspects of NRC Inspection Report Findings for the Period October 1,2009 - September 30, 2010	11/19/2010

**CONDITION REPORTS GENERATED DURING INSPECTION**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>	<b><u>Date or Revision</u></b>
11-89733	NRC PI&R 2011: CR Not Placed in Reject Status	2/16/2011
11-89741	Notifications not Closed by Section Plan Due Dates	2/17/2011
11-89901	Untimely Completion of Notifications Associated With CA Closure	2/21/2011
11-90280	Friction Load Not Included in Analysis of Pipe Support 33B-GCB-2-H3	3/1/2011
11-90326	NRC PI&R 2011: Incomplete Evaluation of Supports 33B-GCB-2-H3 and 33B-GCB-1-H8	3/2/2011
11-90347	NRC PI&R 2011: Incomplete Evaluation of Supports 33B-GCB-2-H1 and 31-HCC-5-H1	3/2/2011
11-90395	NRC PI&R 2011: Adequacy of Self-Assessment SN-SA-255	3/3/2011
11-91081	NRC PI&R 2011: CR Corrective Actions did not Address Cause	3/14/2011

**WORK CONTROL DOCUMENTS**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>	<b><u>Date or Revision</u></b>
200288536	DB-SUB055-01 Control Rod Drive System Primary Trip Breaker	4/7/2008
200333222	DB-Spares-Breakers Unit 1 Spare Breakers	10/17/2008
600547136	Tighten Mortise Cylinder	6/9/2009
600565341	Security Vehicle Barrier	8/20/2009
600566038	DB-CH-01395; Incorporate SO 09-011	8/25/2009
600566137	Repair wheel mounts on Mobile Platform	8/26/2009

**EFFECTIVENESS REVIEWS**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>	<b><u>Date or Revision</u></b>
CR 09-51887-6	SW 4691B Found Out of Position	1/12/2009
09-60012, CA10	Maintenance and Work Order Place Keeping	7/26/2010
DB-PA-10-04	Fleet Oversight Fourth Quarter 2010	2/25/2011

**CALCULATIONS**

<b><u>Number</u></b>	<b><u>Description or Title</u></b>	<b><u>Date or Revision</u></b>
31-HCC-5-H1	Pipe Support 31-HCC-5-H1 for Makeup and Purification System	Rev. 0
33B-GCB-1-H8	Pipe Support 33B-GCB-1-H8 for Low Pressure Injection System	Rev. 0
33B-GCB-2-H1	Pipe Support 33B-GCB-2-H1 for Low Pressure Injection System	Rev. 0
33B-GCB-2-H3	Pipe Support 33B-GCB-2-H3 for Low	Rev. 1

**CALCULATIONS**

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
	Pressure Injection System	

**MISCELLANEOUS**

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
Cycle 16	Periodic Maintenance Effectiveness Assessment Report	08/26/2010
D-RPO-12	Performance Indicator – Corrective Maintenance Backlog	Jan. 2011
D-RPO-13	Performance Indicator – Deficient Maintenance Backlog	Jan. 2011
D-SPO-05	Performance Indicator - Condition Report Process Health Indicator	Dec. 2010
D-SPO-05B	Performance Indicator – Open CRs > 180 Days	Oct. 2010
D-SPO-05C	Performance Indicator – Open Condition Reports	2009-2010
D-SPO-05D	Performance Indicator – Condition Reports Open > 180 Days	2009-2010
D-SPO-05E	Performance Indicator – Open Long Term Condition Reports	2009-2010
D-SPO-05C	Performance Indicator – Condition Reports Initiated	2009-2010
IN 2008-02	Findings Identified During Component Design Bases Inspections	03/19/2008
MS-C-10-08-02	Fleet Oversight Multi-Site Audit of Chemistry and Environmental	10/14/2010
MRPM 29	Maintenance Rule Program Manual	Rev. 29
NOBP-OP-4111	5-Year Exposure Reduction Plan	Rev. 1
SD-049	Control Rod Drive System	Rev. 5
System-55-01-CRD	System Health Report 2010-4	02/03/2011

**ROOT AND APPARENT CAUSE EVALUATIONS**

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
09-51887	SW 4691B Found Out of Position	1/12/2009
09-52766	Nuclear Fuel: Reactor Core Axial Power Imbalance Predicted Versus Measured	1/29/2009
09-57272	MS100 Main Steam Line 2 Isolation Valve Failed to Fully Open	6/19/2009
09-57013	NRC PI&R 2009: CR 04-04561, Westinghouse TB-04-13 Circuit Brkr Eval & Actions	6/1/2009
09-57849	Procedure Non-Compliance during #1 Purification Demineralizer Outlet	4/24/2009

## ROOT AND APPARENT CAUSE EVALUATIONS

<u>Number</u>	<u>Description or Title</u>	<u>Date or Revision</u>
09-60017	Sampling AFI PI.2-1, Causal Analysis and Precursor Problems	6/8/2009
09-60019	Industry Feedback on High Standards and Expectations	6/8/2009
09-61025	Loss of J Bus, Catastrophic Failure of J Bus B Phase Potential Device	8/30/2009
09-65778	Misapplication of Potter & Brumfield MDR Rotary Relays	10/12/2009
09-65837	Potter & Brumfield MDR Rotary Relay Issue For CAC's	10/13/2009
09-67079	WEAKNESSES IN THE BORON-10 CORRECTION FACTOR PROGRAM	10/30/2009
09-68328	ACCIDENTAL DISCHARGE OF SECURITY OFFICERS WEAPON	11/27/2009
09-69162	Apparent Heat Balance Input Error (T476, TE-SP15A)	12/16/2009
09-69475	White Finding Identified For Inadequate Emergency Classification Of Event	12/30/2009
10-70583	DB-PA-09-04: Site Protection Rated Marginally Effective for Fourth Quarter 2009	1/25/2010
10-74253	DB-PA-10-01: Finding: ISI Program Plan Not Updated to meet 10CFR50.55A Rqmt	9/7/2010
10-78632	DB-PA-10-02 – Declining Trend in Human Performance	6/22/2010
10-79651	Failure To Notify NRC Of Unanalyzed Condition In 8 Hours	7/14/2010
10-81852	CNRB – Improving Implementation of the Corrective Action Program	8/27/2010
10-81863	CNRB – Potential Decline In Emergency Preparedness	8/27/2010
10-82447	INCORRECT SIMULATOR EAL DECLARATIONS	9/9/2010
10-82780	MS-C-10-08-02 FINDING CHEMISTRY LAB QC PROGRAM IMPLEMENTATION	9/17/2010
10-85144	NRC-NCV: Inadequate Procedure For a Loss Of Coolant Accident Outside Containment	10/30/2010
10-85453	Safety Control Rod 3-4 Ratcheted In from 100 percent to 72 percent	11/05/2010
11-87721	SFRCS ACH 2 Output Logic LED Failed To Illuminate	1/4/2011
11-88100	PRZR Code Safety Valves Setpoint Failure Reporting	1/12/2011
RCAR, 10-85453	Safety Control Rod 3-4 Ratcheted In from 100 percent to 72 percent Withdrawn	2/05/2011

## LIST OF ACRONYMS USED

ACE	Apparent Cause Evaluation
CA	Corrective Action
CAP	Corrective Action Program
CARB	Corrective Action Review Board
CDBI	Component Design Basis Inspection
CR	Condition Report
ECP	Employee Concerns Program
IMC	Inspection Manual Chapter
IN	Information Notice
OE	Operating Experience
PI&R	Problem Identification and Resolution
SCWE	Safety-Conscious Work Environment
01	

B. Allen

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Sincerely,

**/RA/**

Jamnes L. Cameron, Chief  
Branch 6  
Division of Reactor Projects

Docket No. 50-346

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Letter to B. Allen from J. Cameron dated April 19, 2011.

SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION – NRC PROBLEM  
IDENTIFICATION AND RESOLUTION INSPECTION 05000346/2011008

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