September 14, 2005

Mr. Mark B. Bezilla
Vice President-Nuclear, Davis-Besse
FirstEnergy Nuclear Operating Company
Davis-Besse Nuclear Power Station
5501 North State Route 2
Oak Harbor, OH 43449-9760

SUBJECT: DAVIS-BESSE NUCLEAR POWER STATION NRC PROBLEM IDENTIFICATION AND RESOLUTION INSPECTION REPORT NO. 05000346/2005014

Dear Mr. Bezilla:

On August 12, 2005, the U. S. Nuclear Regulatory Commission (NRC) completed an inspection at your Davis-Besse Nuclear Power Station. The enclosed report documents the inspection findings which were discussed on August 12, 2005, with Mr. Schrauder and other members of your staff. The findings were also discussed with you at a follow-up phone call on September 14, 2005.

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 a selected examination of procedures and representative records, observation of activities, and interviews with personnel.

On the basis of the sample selected for review, there was one finding of significance identified during this inspection. The inspectors concluded that generally, problems were properly identified, evaluated and resolved within the corrective action programs. However, during the inspection, a few minor items were noted involving corrective actions that were incomplete and some issue investigations that lacked thoroughness.

Based on the results of this inspection, the NRC has determined that one violation of NRC requirements occurred. This report documents an inspector-identified finding of very low safety significance which involved a violation of NRC requirements. Because this violation was of very low safety significance and because it was entered into your corrective action program, the NRC is treating this issue as a Non-Cited Violation consistent with Section VI.A of the NRC Enforcement Policy.

If you contest the subject or severity of the Non-Cited Violation, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator Region III, 2443 Warrenville Road, Suite 210, Lisle, IL 60532-4352; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington DC 20555-001; and the NRC Resident Inspector at Davis-Besse.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure 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).

Sincerely,

/RA/

Christine A. Lipa, Chief
Reactor Projects Branch 4
Division of Reactor Projects

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

Enclosure: Inspection Report 05000346/2005014
w/Attachment: Supplemental Information

cc w/encl: The Honorable Dennis Kucinich
G. Leidich, President - FENOC
J. Hagan, Senior Vice President of
Operations and Chief Operating Officer
Director, Plant Operations
Manager - Regulatory Compliance
D. Jenkins, Senior Attorney, FirstEnergy
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U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos:	50-346
License Nos:	NPF-3
Report No:	05000346/2005014
Licensee:	FirstEnergy Nuclear Operating Company (FENOC)
Facility:	Davis-Besse Nuclear Power Station
Location:	5501 North State Route 2 Oak Harbor, OH 43449-9760
Dates:	August 1-12, 2005
Inspectors:	G. McCoy, Senior Resident Inspector, Vogtle J. Rutkowski, Resident Inspector B. Jose, Reactor Engineer R. Smith, Reactor Engineer
Approved by:	C. Lipa, Chief Branch 4 Division of Reactor Projects

Enclosure

SUMMARY OF ISSUES

IR 05000346/2005014; 8/1/2005 - 8/12/2005; Davis-Besse Nuclear Power Station; Problem Identification and Resolution.

The inspection was conducted by a senior resident inspector from Region II, a resident inspector, and two region-based inspectors. One Green finding, which was also associated with a Non-Cited Violation, was identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, “Significance Determination Process (SDP).” Findings for which the SDP does not apply may be “Green” or be assigned a severity level after NRC management review. The NRC’s program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, “Reactor Oversight Process,” Revision 3, dated July 2000.

Identification and Resolution of Problems

The inspectors concluded that, in general, problems were properly identified, evaluated, and corrected. The licensee was effective at identifying problems and entering them into the corrective action program (CAP) for resolution. The inspectors identified several examples where condition reports were not submitted as required. The weaknesses identified in the past regarding the trending program have shown improvement. As evidenced by the continued large number of condition reports (CRs) entered annually into the CAP, the licensee maintained a low threshold for identifying problems. Generally, the licensee properly prioritized and examined issues; although several minor problems were noted where lower significance issues were mis-categorized or the investigations lacked thoroughness. The formal root cause evaluations for significant problems were thorough and detailed. Corrective actions specified for problems were generally adequate; although, several minor problems were noted where corrective actions were not complete or comprehensive. The licensee’s audits and self-assessments were effective in identifying deficiencies in the CAP and recommendations were appropriately captured.

A. Inspector-Identified and Self-Revealed Findings

Cornerstone: Mitigating Systems

- Green. The inspectors identified a Green Finding associated with a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to properly implement procedure NOP-LP-2001, "Condition Report Process." The item involved the failure to initiate condition reports for failures, malfunctions, or deficiencies identified in nuclear safety related equipment. The inspectors identified seven occurrences where licensee personnel failed to initiate a condition report for conditions adverse to quality during the period November 1, 2004, to August 1, 2005. The inspectors determined that the failure to initiate condition reports for the specific examples of conditions adverse to quality was greater than minor because if left uncorrected the issue would become a more significant safety concern involving programmatic and equipment issues.

The inspectors determined that the finding was not suitable for SDP evaluation because the failure to initiate the condition reports did not directly result in degraded or inoperable equipment. Therefore, this finding was reviewed by Regional Management, in accordance with IMC 0612 Section 05.04c, and determined to be of very low safety significance. (Section 4OA2.1.c)

B. Licensee-Identified Violations

No findings of significance were identified.

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA2 Identification and Resolution of Problems (71152)

.1 Effectiveness of Problem Identification

a. Inspection Scope

The inspectors conducted a review of Davis-Besse's process for identifying and correcting problems at the plant. The inspectors reviewed selected NRC inspection report findings issued since October 2004, selected corrective action documents, Nuclear Oversight assessments, other self-assessments, operating experience reports, and trend analyses to determine if problems were being entered into the licensee's corrective action program (CAP) at the proper threshold. The inspectors also conducted focused plant walkdowns of the emergency diesel generator electrical system, the 480 volt breakers, and the 125/250 VDC distribution system to ensure that equipment problems were entered into the CAP.

A list of the specific documents reviewed during the inspection is attached to this report.

b. Assessment

The inspectors concluded that, in general, the licensee's staff identified issues and entered them into the CAP at the appropriate threshold. The licensee appropriately used the CAP to document instances where previous corrective actions were ineffective or inappropriate. The inspectors identified a Non-Cited Violation (Green) for several occurrences when licensee personnel failed to initiate a condition report for conditions adverse to quality.

(1) Trending Program

The inspectors reviewed the licensee's program to identify trends that resulted from issues that had been entered into the CAP. The NRC and the independent assessment of the licensee's CAP have noted that trend reports were not effective in the past. The inspectors noted that the licensee has developed a new integrated performance analysis and trending program that was initiated in January 2005. The inspectors reviewed this program and the first quarterly report generated by this integrated performance analysis process and determined that it represented a good effort to improve the overall quality of the condition report trending program. Issues had been identified and entered into the CAP. However, the inspectors also concluded that insufficient time has elapsed to assess the effectiveness of this new trending program.

(2) Operating Experience

The inspectors evaluated the licensee's process for reviewing and using operating experience that originated from sources external and internal to FENOC. The inspectors also reviewed a sample of operating experience documents to determine if screening and use of the information appeared appropriate. The sample included a selection of documents addressing operating experience provided by INPO, NRC, and EPRI or through the 10CFR21 process. Additionally, the inspectors discussed the operating experience program with the Davis-Besse Operating Experience Coordinator and reviewed a July 2005, self-assessment of the program.

The Davis-Besse and FENOC operating experience program is described in non-quality administrative procedure NOP-LP-2100, "Operating Experience Program." As of 2005, the program was being coordinated on a FENOC-wide basis. Licensee staff screened incoming operating experience from external and internal sources for applicability and any further analysis as it applied to any FENOC facility. If the results of the screening determined that a document was not applicable or did not require further consideration, that determination was documented on an Operating Experience Review Log and a condition report from one of the FENOC plants. Of the documents the inspectors reviewed, there was no explanation why the documents were screened as requiring no further action but the inspectors did not determine that the lack of action was inappropriate. The inspectors did note that, on an approximately weekly basis, the operating experience screenings classified as not requiring any further action were distributed by electronic mail to select plant personnel for information. The distribution included a brief summary of the operating experience and a hyperlink to more information. Additionally, the distribution provided the reminder that if at any time during the process an evaluation was identified where further actions were needed, a condition report should be initiated. The station Operating Experience Coordinator stated it was an expectation that Davis-Besse department operating experience coordinators, as a minimum, would review the distributions. The inspectors noted that the licensee identified in a July 2005 self-assessment that approximately 1/3 of supervisors and higher level management did not open the weekly operating experience mailing. The assessment also identified the percentage increases at higher levels of management. The licensee initiated a condition report (CR 05-03862) to document the issue and determine the need for corrective action.

Procedure NOP-LP-2100 required initiation of a condition report for all new Significant Operating Experience Reports (SOERs), Significant Event Reports (SERs), Significant Event Notices (SENs), Operations and Maintenance Reminders (O&MRs), Topical Reports (TRs), NRC Information Notices addressed to nuclear power reactors or dry fuel storage licensees, and evaluation-required Operating Experience Reports (OEs). The inspectors' review did not identify any cases where condition reports were not written for those operating experience documents.

The inspectors determined that the licensee had an active program to capture and review operating experience information. Operating experience that was evaluated by the licensee as pertinent and requiring action required the generation of a condition report. The condition report process was then used to evaluate the need for any

remedial or corrective or enhancement actions. Additionally, operating experience discussion was an expectation for pre-job briefs. The inspectors did not identify any issues of significance.

(3) Failed Surveillance Tests

The inspectors reviewed a listing of 31 failed technical specification's surveillances from the period of October 2004 to July 2005. From that list the inspectors selected seven packages for review. The documents reviewed are listed in the reference section of this inspection report. The inspectors' review included the associated work order and completed surveillance procedures. The inspectors determined that for the packages reviewed, condition reports were initiated for the surveillance failures, that the condition reports satisfactorily addressed the failure issues, and that condition report references were retrievable from the surveillance packages. The inspectors did not identify any items of significance.

(4) Departmental Audits and Self-Assessments

The inspectors reviewed self-assessments and site oversight audits of activities associated with the operations and maintenance departments. The documents reviewed are listed in the reference section of this report. The audits and assessments included the time period of October 2004 though April 2005. The inspectors noted that identified issues were captured in condition reports. Also, the issues identified appeared appropriate for the indicated assessment or audit. The inspectors did not identify any items of significance.

The inspectors noted that in several cases, condition reports generated as a result of the assessments or audits were closed by the operations department by stating that the issues were adequately covered by other condition reports and no action was required by the conditions that necessitated the original writeup. An example was the condition report generated as the result of the operations department's integrated performance assessment for the period of November 1, 2004, through April 30, 2005. In that effort, a team from an operating shift crew was assembled and reviewed and "binned" condition reports and other documents from the period studied. From that study, CR 05-02836 was written which included, among other things, the statement that a significant number of conditions were binned in the categories of program non-compliance and procedure non-compliance and that these issues may indicate a potential performance trend.

CR 05-02836 was classified as a non-safety-related condition that required a fix (classified as a NF). The investigative summary for CR 05-02836 stated that, among other things, of the 31 initially identified condition report events, there were 8 events identified by the binning that were attributed to unclear procedure requirements and 8 events attributed to personnel being new to their position. The summary states that the procedure issues were being handled individually for each procedure and that since personnel were now familiar with the other events that occurred, no further corrective action was required.

The inspectors determined that the audits and assessments of the operations and maintenance departments were reviewing appropriate issues and documenting potential issues. These departments were answering each issue but it appeared that the operations department may be missing opportunities to address trends. The inspectors did not identify any items of significance.

(5) Specific System Review

EDG and 125/250 Volt DC Distribution Systems

For the generator portion of Emergency Diesel Generator System and the 125/250 volt distribution system, the inspectors reviewed several high level CRs, work orders, Maintenance Rule Status, operability evaluations, and long standing design and maintenance issues. The inspectors verified from system engineering records that the systems were in maintenance rule status a(2). The inspectors also walked down the systems with the system engineers and did not identify any issues of significance. The inspectors verified that planned or completed actions were appropriate and completed per site procedures. Furthermore, the inspectors compared work order lists to corrective action lists to determine that an appropriate CR generation threshold existed. The inspectors also interviewed the system engineers and verified the system engineers' overall knowledge of the system status and health and their willingness to identify problems and ensure that problems were corrected. During a review of the "work-in-progress log" of Work Order 200008585 inspectors noted that the electricians identified that they found copper showing on the front side of one of the U-cable lugs and that the issue had been reported to the supervisor and engineering. However, no documentation could be found as to the resolution or acceptability of the issue. In accordance with procedure NOP-LP-2001, "Condition Report Process," a CR should have been written for this condition. This failure to write a CR was documented in CR 05-04283.

480 VAC Breakers

The inspectors conducted an assessment of the licensee's 480 VAC system with particular emphasis on the 480 VAC breakers. This included reviewing system health reports, condition reports and work order documents on the system, maintenance rule status, maintenance rule action plans, and physically walking down the installed system. The review concentrated on the safety-related portion of the system, although some aspects of the non-safety related components were reviewed where the inspectors determined that the components could adversely impact overall system health. The inspectors reviewed the licensee's plans for addressing issues with aging 480 VAC molded case circuit breakers and 480 VAC metal-clad breakers for which parts were not available. The inspectors reviewed plans, as presented by the 480 VAC system engineer, associated with recent issues with environmental qualification of the fused disconnects. Thirty-two fused disconnects were installed at the beginning of the current operating cycle to address issues found in load flow studies with the response of certain safety-related circuit breakers that were installed. In July 2005, the licensee identified that 12 of the fused disconnects, without further analysis or testing, were only environmentally qualified through the current operating cycle (cycle 14) because of the

current analysis for thermal aging of the control transformers within the fused disconnect device. Also, the 480 VAC system had breakers for non-safety related loads that required additional study to determine if modifications were necessary for effective electrical coordination with their motor control center feeder breaker. The licensee was developing plans to study this further.

The 480 VAC system was in maintenance rule status (a)(1) since November 26, 2003. On February 10, 2005, although the then existing maintenance rule (a)(1) action plan had been completed, the licensee's maintenance expert panel decided that the 480 VAC system should remain as (a)(1), because of continuing issues, even though the developed (a)(1) thresholds had not been exceeded. A revised action plan was developed to improve the overall reliability of the 480 VAC system and was approved in July 2005. The revised plan has corrective actions with completion dates of March 31, 2006. After the completion of the specified corrective actions, the action plan established a maintenance rule monitoring period that will extend 24 months from the completion of all the corrective actions.

The inspectors determined that equipment issues with the 480 VAC system, including industry identified issues, have been appropriately identified and plans have been developed to address the issues. The plans included work orders and work order notifications, condition reports and developed corrective actions, maintenance rule actions plans, and quarterly system health reports. The developed action plans appeared reasonable to address the identified issues. The inspectors did not identify any equipment issues from the physical walkdown of the system or review of industry operating experience that were not documented in one or more of the licensee's systems for capturing deficiencies and developing corrective action. The inspectors did not identify any items of significance.

(6) Assessment of Work Order Documents Requiring Condition Reports

The inspectors reviewed a list of approximately 6,750 work order system notifications generated from November 1, 2004, to August 1, 2005. From that list the inspectors selected 44 notifications to review to determine if the described conditions warranted the generation of a condition report under the licensee's procedures and if a condition report existed. The initial selection criteria was qualitative and included a consideration of the system and the deficiency or condition as described by the short one-line title in the listing reviewed. The inspectors also reviewed deficiency tags on safety-related 480 VAC MCCs and reviewed if tags written since November 1, 2004, were associated with condition reports.

From the documents reviewed, the inspectors were not able to identify if condition reports existed or were required for 22 notification or work order packages and asked the licensee to substantiate that condition reports existed or substantiate that they were not required under the licensee's program. As described in the following sections, the licensee determined that seven of the work packages did not have condition reports written for the conditions described and that licensee procedures did require a condition report for those conditions.

c. Findings

Failure to Initiate a Condition Report for Equipment Conditions Adverse to Quality

The inspectors identified a Green Finding associated with a Non-Cited Violation of 10 CFR Part 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," for the failure to properly implement procedure NOP-LP-2001, "Condition Report Process," and initiate condition reports for failures, malfunctions, or deficiencies identified in nuclear safety-related equipment. The inspectors identified seven occurrences where licensee personnel failed to initiate a condition report for conditions adverse to quality in the period of November 1, 2004, to August 1, 2005. Additionally, three of those occurrences were after the licensee implemented remedial action to correct a similar finding in the previous inspection (IR 05000346/2004017).

Introduction

The licensee provided the inspectors with a list of approximately 6,750 work order system notifications generated between November 1, 2004, to August 1, 2005. From that list the inspectors selected 44 notifications to review to determine if the described conditions warranted the generation of a condition report under the licensee's procedures and if a condition report existed. The inspectors were also provided a listing of 32 failed technical specification surveillances and selected five for review and to determine if condition reports were written. The inspectors also reviewed deficiency tags on safety-related 480 VAC MCCs and reviewed if deficiency tags written since November 1, 2004, had an associated condition report.

Description

Inspection Report 05000346/2004017 documented that for the period of December 2003, through October 2004, the inspectors determined that the licensee failed to document conditions adverse to quality in a nuclear safety-related system (auxiliary feedwater) on two occasions in the 40 work orders that were reviewed. In response to that programmatic finding, the licensee, in addition to writing condition reports for each of the equipment issues, wrote a condition report (CR 04-07730) to capture and review the programmatic issue.

For CR 04-07730 the licensee completed two actions which they classified as remedial actions. One of the remedial actions involved revising and adopting changes to two non-quality related procedures (NOP-WM-1002 and NOP-WM-1003) associated with the FENOC work management system. The changes to these procedures included, among other things, a remainder of the requirements of procedure NOP-LP-2001, "Corrective Action Program," to write condition reports for conditions adverse to quality involving quality, augmented quality, or nuclear safety-related equipment, programs, or processes. Procedure NOP-WM-1002, "Work Management Screening Process," required that a screening committee that reviews and approves notifications, ensure that a condition report was initiated for deficiencies on safety-related equipment and systems. The procedure changes were implemented by the licensee on January 10, 2005.

The other remedial action for CR 04-07730 involved the issuance of a site vice president memorandum that reinforced the expectations for initiation of condition reports. That memorandum was issued on January 6, 2005.

From the documents reviewed during this inspection, the inspectors were not able to identify if condition reports existed or were required for 22 notification or work order packages and asked the licensee to substantiate that conditions reports existed or substantiate that they were not required under the licensee's program. The licensee subsequently determined that of the 22 items on the list, thirteen required condition reports and six of those issues did have condition reports.

Based on the above, the inspectors concluded that from the sample size of 44 items, seven equipment issues were identified that did not have condition reports initiated. Four of those seven notifications were initiated prior to the implementation date of the changes to the work order notification screening procedure. They were:

- Notification 600176717; Hardware Replacement on F11C & F11D; November 11, 2004. This notification was for bolting that was not able to be tightened on essential MCCs F11C and F11D.
- Notification 600177517; SW-1429 HAS AN EXCESSIVE PACKING LEAK; November 17, 2004. SW-1429 controls service water flow through the component cooling water heat exchanger 3.
- Notification 600178038; RC101 Out of Adjustment; November 22, 2004. Valve RC101 is a 3-inch manual diaphragm valve on the containment vent header to the waste gas system.
- Notification 600179481; Repair bonnet leak on MS134; December 2, 2004. MS134 is a steam trap drain on the main steam line to auxiliary feedwater pump 2.

Three of the seven notifications were issued after the corrective actions for the previous finding. (January 10, 2005) They were:

- Notification 600194276; Elect Pen 101-PCL2F gauge bad; January 25, 2005. The pressure gauge on containment electrical penetration 101 was found damaged.
- Notification 600200101; MU323 stem separation; February 22, 2005. MU323 is a 2-inch diaphragm valve in the fill line for boric acid storage tank 1.
- Notification 600214718; BF1171 blue light; June 16, 2005. BF1171 is a 480 VAC breaker supplying power to a heater for boric acid addition tank 2. The blue light, which was malfunctioning, shows when bus voltage is available.

Separate from this inspection, the licensee's staff identified two occurrences out of 20 reviewed notifications for the nuclear safety-related systems of emergency diesel generators and decay heat/low pressure injection (CR 05-03210, June 6, 2005) where condition reports should have been initiated and were not. Both of those condition reports remained open at the conclusion of this inspection.

Procedure NOP-LP-2001, “Condition Report Process,” is a quality-related administrative procedure. This procedure states that:

- Any individual identifying a Condition Adverse to Quality shall document the issue, observation, or concern, etc., by completing the “Origination” section on a CR. A “Condition Adverse to Quality” is an all-inclusive term used in reference to any of the following: Failures, malfunctions, deficiencies, deviations, defective hardware, non-conformances, or programmatic, organizational, or management weaknesses that adversely affect Quality, Augmented Quality, or nuclear safety-related equipment, programs, or processes.

- A CR shall be initiated to address all Quality, Augmented Quality, or nuclear safety-related equipment conditions and for any of the following:

  - When a work document has been generated for hardware deficiencies and there are indications of adverse equipment performance trends for equipment not intended to run to failure;
  - Failures resulting from human performance errors;
  - Repeat maintenance;
  - Non-conforming conditions;
  - Maintenance Rule component failures;
  - Operability concerns;
  - Equipment issues that do not meet expectations.

Analysis

The inspectors determined that the failure to initiate condition reports for conditions adverse to quality in nuclear safety-related systems was a performance deficiency. This inspector-identified issue was greater than minor because, if left uncorrected, the issue would become a more significant safety concern involving programmatic and equipment issues. In addition, the inspectors determined that the Reactor Safety Cornerstone attributes of equipment performance and/or configuration control were adversely affected.

The inspectors determined that the finding was not suitable for SDP evaluation because the failure to initiate the condition reports did not directly result in degraded or inoperable equipment. Therefore, this finding was reviewed by Regional Management, in accordance with IMC 0612 Section 05.04c, and determined to be of very low safety significance. Consideration included that, although this was a repeat finding from the NRC problem identification and resolution inspection of 2004, the data from the samples reviewed by the inspectors for this inspection, provided indication that the licensee’s corrective actions, while not totally effective, appeared to reduce the occurrence of failures to initiate condition reports when required. Additionally, none of the identified equipment deficiencies were sufficient to raise questions regarding the operability of installed nuclear safety-related or technical specification related equipment.

Enforcement

Title 10 CFR Part 50, Appendix B, Criterion V, requires, in part, that activities affecting quality shall be prescribed by documented instructions or procedures of a type appropriate to the circumstances and shall be accomplished in accordance with those instructions or procedures. Procedure NOP-LP-2001, "Condition Report Process," was a quality-related administrative procedure requiring that conditions adverse to quality identified by employees be entered into the CAP. Contrary to the above, the inspectors identified seven conditions adverse to quality that had not been entered into the CAP. Because the violation was of very low safety significance and the events were subsequently entered into the licensee's CAP (CR 05-04364), this violation is being treated as an NCV, consistent with Section VI.A of the NRC Enforcement Policy (NCV 05000346/2005014-01).

.2 Prioritization and Evaluation of Issues

a. Inspection Scope

The inspectors independently assessed the prioritization and evaluation of a sample of CAP documents. The inspectors reviewed selected issues identified in previous NRC inspection reports and licensee-identified condition reports which had been identified since October 2004 to verify that issues were appropriately characterized and prioritized. The inspectors reviewed the depth and scope of root and apparent cause analyses; adequacy of proposed corrective actions; and consideration of extent of condition, generic implications, common causes, and previous occurrences. The inspectors examined supporting documents such as completed work orders, surveillances, procedures, and modification packages. The inspectors also attended several condition report screening meetings during which condition reports were assigned a significance level. The inspectors also attended Corrective Action Review Board meetings which reviewed completed evaluations.

A listing of the specific documents reviewed during the inspection is attached to this report.

b. Assessment

In general, the inspectors determined that the licensee properly categorized and evaluated the issues that were reviewed. Specific reviews are described below.

(1) Work Order Backlog

The inspectors reviewed the work order backlog to determine the potential impact on corrective actions associated with condition reports. The inspectors reviewed the classification schemes for work orders, reviewed the listing of licensee-classified online corrective maintenance work orders, the progress in reducing the number of overall work orders, and licensee plans for reducing the backlog.

The licensee classified work orders into online and offline work and corrective, elective, or other maintenance. The licensee stated that their classification of work orders was consistent with industry norms. Corrective maintenance work orders represented work on power block systems, structures, or components (SSCs) where the SSC had failed or was significantly degraded to the point that failure was imminent (within its operating cycle/PM interval) and no longer conformed to or was incapable of performing the SSC's design function. Elective maintenance work orders represented work on power block equipment in which identified potential or actual degradation was minor and did not threaten the component's design function or performance criteria. Other maintenance work orders represented work not reflecting a material condition deficiency on power block equipment.

On August 2, 2005, a work order system-generated spreadsheet indicated that the licensee had 28 open online corrective maintenance work orders. The inspectors did not identify any items on that list that would significantly impact the system. On August 2, 2005, a work order system-generated spreadsheet indicated that the licensee had 816 open elective maintenance work orders. The inspectors reviewed twelve of those work orders and asked the licensee to provide additional information for four of those work orders. The inspectors determined that the classification of elective as opposed to corrective appeared consistent with licensee requirements.

The licensee tracked the status of backlogs and progress towards backlog reduction goals on a weekly basis at a morning management meeting. As of April 24, 2005, online work orders (corrective, elective, and other) totaled 2004 orders. As of July 24, 2005, that number was 1,858. This represented a reduction of 146 orders in 13 weeks or a reduction of approximately 11 orders per week. The licensee's projection was that it would have 1,470 open online orders by the end of 2005.

Separately the station has a maintenance backlog goal or target to reduce, by the end of 2005, online corrective maintenance orders to less than 30 and online elective maintenance orders to 700 or less. To support the backlog reduction effort, the licensee has augmented its normal maintenance force with 31 contract craft and support personnel.

The inspectors determined that the licensee was applying resources to reduce the overall maintenance backlog and was monitoring the progress towards those goals. The inspectors did not identify any items of significance.

(2) Operability Evaluations

The inspectors reviewed three Operability Evaluations with an emphasis on the completeness and timeliness of the evaluation. The inspectors determined that, in general, the Operability Evaluations were performed as required and were timely. Any required hold on Mode changes was correctly implemented and any Mode change hold points were properly observed while operability evaluations were being conducted.

While reviewing Operability Evaluation 03-0043 the inspectors noted that two condition reports had been written in reference to this evaluation. CR 03-08860 stated that DH61 had leakage by its seat and the only corrective action was to repair or replace the valve. This condition report did state that certain plant conditions would cause the downstream relief valve DH2797 to lift. However, no compensatory actions were put in place to prevent this from occurring. Two months later the plant conditions were established that raised system pressure above the relief valve pressure setpoint. These conditions caused the relief valve to lift resulting in increased leakage from the reactor coolant system to the reactor coolant drain tank, which was not expected by the operators and resulted in a second condition report. Inspectors noted that corrective actions could have been added to CR 03-08860 to address interim actions to anticipate or prevent the relief valve from lifting when the operators increased the operating pressure.

(3) Significant Conditions Adverse to Quality (SCAQ) Evaluations

The inspectors reviewed four condition reports that were classified as Significant Conditions Adverse to Quality. In general, inspectors determined that the evaluations appropriately evaluated the causes and reasonable corrective actions were identified to address the conditions. The inspectors identified that corrective actions were slow to be implemented for some issues. Specific observations are described below.

CR 05-01642 described a problem with the decay heat system train 2 suction piping and stated that the problem with the venting was a lack of vent valves to adequately refill the suction piping from the decay heat RCS letdown line outside containment when the system was drained for maintenance. The corrective actions included adding additional vent valves and adding procedures for preventive maintenance activities to periodically check lines for air intrusion. The corrective action to add preventive maintenance activities was closed in CR 05-01642 on March 8, 2005, by modification of an existing Corrective Action 7 of CR 03-01212 (SOER 97-1 – Potential Loss of HPI and Charging Capability from Gas Intrusion; February 13, 2003) to add checking for in-leakage in a preventive maintenance change request. That change request was initiated on March 18, 2005. As of August 4, 2005, the request was awaiting implementation approval. Corrective Action 11 of CR 05-01642 added valves that would permit venting of the impacted suction piping line without going to header suction vent common to both trains of decay heat. Notification 600207497 was written on May 3, 2005, to install a vent valve. The closure of the corrective action and notification referenced engineering design change request ECR 05-0159-00 and work order 200149108. The work order was not scheduled and referenced the design change. The design change form was initiated on May 3, 2005, but had not received any reviews. A vent valve for the other train of decay heat train 1 had the same status as the planning and scheduling for train 2.

CR 05-00939 described an issue where two restraining lugs were not engaged on the polar crane when parked after 13RFO. The inspectors reviewed the condition report and the associated root cause. No items of significance were identified. Corrective actions were open but scheduled to be completed before next refueling outage.

CR 04-04406 described a missed surveillance requirement for RCS flow channel check. Corrective Action 3, which involved action classified as “other,” had seven extensions for the completion date. Other corrective actions also had extensions. The inspectors noted that most of the extensions were associated with items mostly administrative in nature.

CR 03-07975 addressed a failed time response test for the AFW system. The root cause analysis indicated that the reason why this time response failure had not been identified or documented before was most likely due to preconditioning of the AFW pumps when the quarterly AFW pump tests were done just before the time response test. Even though this was brought out in the root cause analysis, no corrective action was initiated to ensure procedure changes were put in place to prevent the preconditioning from occurring again. It was not until approximately eight months later that CR 04-03881 was written to change the procedures to ensure preconditioning would not occur again. Also, no extended condition was addressed to check for preconditioning in other systems.

Inspectors identified that the investigation summary for CR 04-06154 was signed by a manager instead of a director. The licensee initiated condition report 05-04351 to capture this issue.

The inspectors determined that the SCAQ condition reports that were reviewed and their root causes appeared to adequately address the issues and that corrective actions, when completed, should reduce the probability of recurrence. The inspectors did not see, within the packages reviewed, clear indication of when the corrective actions would be complete since the action was dependent on other processes. Also, the inspectors noted that many corrective actions were not completed by their original expected completion date. The inspectors did not identify any items of significance.

(4) Conditions Adverse to Quality (CAQ) Evaluations

The inspectors reviewed a total of 39 condition reports classified as CAQ and their associated apparent cause evaluations or root cause reports. The inspectors verified that the condition reports were appropriately classified, and appropriate trending codes were assigned. The inspectors determined for the sample of CAQ reports reviewed, that specified investigation efforts were adequate, and that these efforts met the requirements of the licensee’s procedures. The inspectors did not identify any items of significance. In some cases, the inspectors identified weaknesses in the licensee’s implementation of the corrective action process. Specific observations are described below.

The inspectors identified that one condition report was closed without completing a corrective action and another one had less than adequate documentation.
CR 05- 00699 described an issue where a task performance evaluation (TPE) was performed by an individual who was not on the TPE authorized list. In the cause evaluation there was a recommendation for the training department to evaluate the method used to perform TPEs for all contract personnel. The inspectors noted that this action was not captured as a corrective action. CR 04-2865 identified that a system

engineer performed his job for approximately two years without completing his qualifications. The inspectors identified a weakness in the evaluation in that it did not address the adequacy of the activities independently performed by the engineer prior to the completion of his qualifications. The licensee issued CRs 05-04315 and 05-04324 to capture these issues.

The inspectors reviewed a root cause evaluation that addressed issues raised in CR 05-01427, "Reactor Power Perturbations During Number 2 Demineralizer Operations." This CR described an issue where an unusually large addition of boric acid and water to the primary plant forced the operators to reduce plant power after the rods reached the upper limit. The inspectors noted that the root cause was identified as a failure to identify a reactivity sensitive issue while the cause code attributed to the event was that a required document was not used. The inspectors felt that the inconsistency between the root cause and the cause code may be an indication that the root cause team had not fully investigated the actual root cause, but the inspectors noted that the actions recommended by the root cause team were complete and adequately addressed the issue. When the root cause team compared the charter for the root cause team to the evaluation document, the inspectors noted that the evaluation did not address all the additional questions listed on the charter. The charter specifically asked the team to look for "evidence that control room personnel do not have sufficient regard for possible reactivity change implications from routine operational activities. If so, explore possible reasons for this condition." The inspectors noted that this issue was not addressed beyond mentioning that a knowledge survey had been completed by the training department. The results of this survey or any resulting issues or corrective actions were not mentioned in the root cause report.

The inspectors reviewed CR 05–01478, which documented a collective review performed to address several unexpected reactivity changes that had occurred due to boric acid additions. The resulting review noted that there was much operating experience available that was related to this issue, and raised questions about how this operating experience was being used. The inspectors noted that no corrective action was developed to determine whether the operating experience had been used effectively.

The inspectors reviewed CR 05-03676, which addressed an inability to develop the required voltage for an unloaded EDG prior to shutdown after testing. An immediate investigation to determine operability of the EDG was performed. During that investigation, the meter used to read voltage locally was found to be reading incorrectly. Maintenance technicians initiated a notification for work request to calibrate the meter. However, no information tag was hung to alert personnel that this meter was reading incorrectly.

(5) Conditions not Adverse to Quality (NCAQ) Evaluations

The inspectors reviewed a sample of 22 condition reports that were classified as conditions not adverse to quality. The inspectors verified that the condition reports were appropriately classified, corrective actions were adequate and timely, and appropriate trending codes were assigned. The inspectors determined that the classification of the

reports was consistent with the issues identified in the condition reports and the licensee's procedural requirements.

(6) Corrective Action Review Board (CARB) and Daily CR Review meetings

The inspectors attended two CARB meetings and several daily CR review meetings. The overall quality of the condition reports presented to the CARB was acceptable and in accordance with the standards of procedure NOP-LP-2001, "Condition Report Process." The inspectors observed good discussions of condition report attributes by all members. The CARB chairman controlled the meeting well. Presenters were provided with constructive feedback from the CARB members. The inspectors determined that the CARB was an effective mechanism to improve the overall quality of the condition report evaluations.

c. Findings

No findings of significance were identified.

.3 Effectiveness of Corrective Actions

a. Inspection Scope

The inspectors reviewed selected CRs associated with the three selected risk-significant plant systems and other CRs reviewed during this inspection to verify that the licensee had identified and implemented timely and appropriate corrective actions to address the identified problems. The inspectors verified that the corrective actions were properly documented, assigned, and tracked to ensure completion. Where possible, the inspectors independently verified that the corrective actions were implemented as intended. The inspectors also verified that common causes and generic concerns were appropriately addressed. Documents reviewed are listed in the attachment to this report.

b. Assessment

The inspectors determined that, in general, the corrective actions developed and implemented were timely, effective, and commensurate with the safety significance of the problem. Specific reviews are described below.

(1) Effectiveness of Nuclear Quality Assurance Audits and Self-Assessments

The inspectors reviewed the quarterly Nuclear Quality Assurance Audit Reports and Self-Assessment Reports listed in the attachment to this report. The inspectors determined that the licensee's audits and assessments of the CAP were of appropriate depth and scope, and findings and recommendations were appropriately captured. The licensee's audits and self-assessments were consistent with the inspection team's results.

(2) Review of NCVs from Previous IRs

The inspectors reviewed the corrective actions identified for the following eleven NCVs identified from previous NRC inspection reports:

- 05000346/2003-010-03: Undervoltage time delay relay setting did not account for instrument uncertainties
- 05000346/2003-010-04: Lack of 480 VAC class 1E motor thermal overload protection
- 05000346/2003-010-05: Failure to perform adequate direct current contactor testing to ensure minimum voltage at motor operated valves
- 05000346/2003-010-06: Failure to verify adequacy of short circuit protection for direct current circuits
- 05000346/2003-010-07: Lack of calculations to ensure minimum voltage availability at device terminals
- 05000346/2003-010-15: Inadequate flooding protection for the service water system
- 05000346/2003-010-19: Preconditioning of auxiliary feedwater system during testing
- 05000346/2003-010-28: Emergency diesel generator floor drains design deficiency
- 05000346/2004-004-01: Inadequate procedure places air void in the suction to MFWP when aligned to service water
- 05000346/2004-016-01: Untimely corrective actions for safety related battery terminal corrosion
- 05000346/2005-005-01: Non-conservative operator actions - large boric acid addition to the RCS

In each case, the inspectors verified that the licensee captured the issues correctly and appropriate corrective actions had been implemented in a timely manner. No issues of significance were identified.

c. Findings

No findings of significance were identified.

4OA6 Meetings, Including Exit

On August 12, 2005, the inspectors presented the inspection results to Mr. Schrauder and other members of the licensee's staff. The inspectors confirmed that proprietary information was not provided or examined during this inspection. On September 14, 2005, a followup phone call was held to discuss the inspection results with Mr. Bezilla.

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

B. Allen, Director, Plant Operation
M. Bezilla, Site Vice-President
B. Boles, Manager, Plant Engineering
J. Grabnar, Manager, Design Engineering
L. Harder, Manager, Radiation Protection
D. Haskins, Manager, Leadership
R. Hovland, Manager, Technical
R. Hruby, Manager, Nuclear Oversight
D. Kline, Manager, Security
S. Loehlein, Director, Station Engineering
P. McClosky, Manager, Site Chemistry
L. Myers, Chief Operating Officer,
K. Ostrowski, Manager, Plant Operations
C. Price, Manager, Regulatory Compliance
R. Schrauder, Director, Performance
M. Trump, Manager, Training

NRC Personnel

C. Lipa, Chief, Reactor Projects Branch 4, Division of Reactor Projects, Region III
C. Thomas, Senior Resident Inspector, Davis-Besse Site

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

NONE

Opened and Closed

05000346/2004014-01	NCV	Failure to Initiate a Condition Report for Conditions Adverse to Quality

Closed

NONE

LIST OF DOCUMENTS REVIEWED

Procedures:

DB-OP-06316, Diesel Generator Operating Procedure, Rev 18
DB-PF-00004, Equipment Failure Trending, Rev 0
DBBP-PES-0001, System and Component Trending, Rev 0
DBBP-PES-0003, Plant Engineering System Health Reporting, Rev 1
DP-OP-00016, Temporary Configuration Control, Rev 8
ESI-001, System Engineer Qualification Card, Rev 2
FENOC Quality Assurance Program Manual, Rev 5
NG-DB-00800, Risk Determination, (Threat to Safe, Reliable Operation), Rev 3
NOBP-LP-2001, Self-Assessment and Benchmarking, Rev 6
NOBP-LP-2007, Condition Report process Effectiveness Review, Rev 2
NOBP-LP-2008, Corrective Action Review Board, Rev 4
NOBP-LP-2010, CREST Trending Codes, Rev 2
NOBP-LP-2011, Root Cause Analysis Reference Guide, Rev 2
NOBP-LP-2018, Integrated Performance Assessment & Trending, Rev 0
NOBP-LP-2100, FENOC Operating Experience Reference Guide, Rev 1
NOP-LP-2001, Condition Report Process, Rev 11
NOP-LP-2004, Internal Assessment Process, Rev 3
NOP-LP-2100, Operating Experience Program, Rev 0
NOP-WM-1002, Work Management Screening Process, Rev 1
NOP-WM-1003, Work Identification Process (Notification), Rev 1
DB-SP-03219, HPI Train 2 Pump and Valve Test
DB-OP-02511, Loss of Service Water Pumps/System
DB-SP-03157, AFP 1 Response Time Test

Condition Reports Reviewed:

02-01400, Battery room temperature concerns, 03/27/2002
02-01869, Acceptability of weephole in conduit for Aux. Feed cables, 05/06/2002
02-04322, SHRR - Potential nonconformance on SFAS CR switch HIS-5065, 08/13/2002
02-04338, SHRR - Potential design deficiencies identified in SFAS cabinets, 08/13/2002
02-04340, SHRR - Material deficiencies noted on SFAS panels in CR, 08/13/2002
02-04456, SHRR - Generally poor workmanship found in SFAS cabinets, 08/13/2002
02-05632, LIR-EDG, TS table 3.3-4 trip set point tolerance is inadequate, 09/07/2002
02-06337, SSDPC: SW calculation C-NSA-011.01-007, Rev 1 concerns, 09/20/2002
02-06451, Station and instrument air system drawing discrepancies, 09/21/2002
03-00949, EDG-1 performance does not meet USAR requirements, 02/04/2003
03-01212, SOER 97-1 potential loss of HPI and charging capability from gas intrusion, 02/13/2003
03-01399, Decay heat pump has the alert range during quarterly testing, 02/19/2003
03-01448, EDG TS table 3.3-4 trip set point may have been exceeded, 02/21/2003
03-02577, CATI: Safe shutdown concerns with EDG floor drains, 04/01/2003
03-02651, CATI: Framatome AFW calculation issues with MSSV, 04/03/2003
03-02597, Bypassed overload heaters in class 1E 480 V motors, 04/02/2003
03-03572, Lack of coordination on buses E1 and F1, 05/07/2003

03-04264, Non-Q motor loads without overload heaters, 05/30/2003
03-04303, CR 03-02597 evaluation concerns by NRC, 06/02/2003
03-04375, Potential current overloads on load center breakers feeding MCCs, 06/04/2003
03-05147, Inadvertent closure of SW 1395, 06/30/2003
03-06241, Inadvertent loss of secondary SW cooling, 08/03/2003
03-06341, Training/qualification CR - system expert requirements (TSM-101), 08/07/2003
03-06446, EDG # 2 air compressor solenoid blowdown valves, 08/10/2003
03-06475, Evaluation of overloads on motor operated valves, 08/11/2003
03-06520, CATI: Potential concern for pre-conditioning prior to surveillance test, 08/13/2003
03-06567, Potentially inadequate SRO review of CR 03-02597, 08/14/2003
03-06666, EDG fuel oil transfer pump 1-2 motor MP195-2 has low insulation resistance
03-06901, CATI: Error found in flooding calculation 15.50, rev. 1, 08/25/2003
03-06944, Fuse sizing for MV0106 and MV38700, 08/25/2003
03-06956, ITEM-0300-DC voltage drop calculation, basis for deferring corrective action, 08/26/2003
03-07006, CATI: Translation of flow balance acceptance criteria should be formalized, 08/27/2003
03-07021, DH-1 pump existing coupling tapered, 08/28/2003
03-07031, Inadequate roll over from CR 03-02616 to CR 03-03572, 08/28/2003
03-07042, CATI: UFSAR needs to be clarified on use of safety-related equipment and seismic equipment, 08/28/2003
03-07069, Adequacy of electrical DC contactor testing methodology, 08/29/2003
03-07157, Inadequate circuit breaker coordination for non-1E loads fed off 1E MCC's
03-07256, CATI: Questions on applicability of 50.59 for manual actions in fire preplans, 08/29/2003
03-07975, AFW train one inoperability due to response time, 09/23/2003
03-08623, Valve seat damage DH-13A, 10/08/2003
03-08860, DH-61 leaks past its closed seat, 10/15/2003
03-09845, SW-1399 closed automatically during swap from pump 1 to pump 3, 11/16/2003
03-10685, SW-1399 automatically isolated during service water loop 1 pump swap, 12/10/2003
03-10823, Water found in C11-3 (EDG air start compressor 1-3) crank case oil, 12/11/2003
03-10966, DH-61 leaks past its closed seat, 12/16/2003
04-00589, IN 2004-01, AFW pump recirculation line orifice fouling – potential common cause failure, 01/22/2004
04-00904, Request to replace 8 fully functional relays with ones formerly rejected, 02/03/2004
04-01205, DC bus 1 trouble, 02/11/2004
04-01214, EDG transient analysis during loss of offsite power
04-01426, Loss of 480V non-essential bus F22, 02/22/2004
04-01493, New style circuit board temporarily installed in RE4597AA without proper documentation, 02/24/2004
04-01872, Containment H2 analyzer indication pegged low, 03/13/2004
04-02476, Potential concern for pre-conditioning prior to performing AFW testing, 04/02/2004
04-02745, Loss of MCCs F33 A/B (non-essential), 04/16/2004
04-02865, Potential for performance of independent work by unqualified engineer, 04/22/2004
04-03019, P267-1, did not start when required per Att 3 of DB-PF-04153, 04/28/2004
04-03194, RE-4686 failed during a storm, 05/07/2004
04-03225, NRC IN 2004-11 cracking in pressurizer safety and relief nozzles, 05/10/2004

04-04406, DB-OP-03006 missed surveillance requirement 4.3.1.1 for RCS flow channel check, 07/06/2004
04-03881, PCR: DB-SP-03157 and DB-SP-03166 – enhancement, 06/09/2004
04-04097, SER 3-04, Reactor overpower events associated with ultrasonic feedwater flow measurement systems, 06/21/2004
04-04561, Westinghouse Technical Bulletin TB-04-13, 07/05/2004
04-04875, Plant engineering procedure adherence deficiency - NOP-TR-1006, 08/02/2004
04-04841, FT3611 and FT2799 terminations, 07/29/2004
04-05174, Boron injection flowpath clearance issues, 08/18/2004
04-05691, SAC-2 motor, 09/16/2004
04-06154, Temporary lift issue for CCW pump 1 uncoupled run, 08/08/2004
04-06486, EDG #2 day tank level low annunciator did not come in with level below setpoint, 10/21/2004
04-06750, Qualification requirements for supervisory review of ECR, 11/03/2004
04-06892, NRC IN 2004-19 Problems associated with back-up power supplies to emergency response facilities and equipment, 11/09/2004
04-07503, CNRB LP subcommittee concerns on CR 04-04406 root cause analysis, 11/17/2004
04-07616, Breaker BF1144 not received for evaluation, 12/14/2004
04-07620, Molded case breaker PM strategy, 12/14/2004
04-07668, ACD5 tripping cam making contact with tripping plunger, 12/15/2004
04-07586, There is a bottle of snoop inside the N2 regulator enclosure on SW-1358, 12/12/2004
04-07730, NRC PI&R-Programmatic concern WOS correcting equip problems with no CR written, 12/17/2004
04-07843, NRC PI&R- Corrective action adequacy for underground wetted cables, 12/16/2004
05-00055, Potential 10 CFR Part 21 From Operation Technology Inc on ETAP software, 01/04/2005
05-00084, EPRI Report – EDG voltage regulator maintenance guide, 01/05/2005
05-00139, CC1411B half trip with data lite off in SFAS Ch 4, flashing in SFAS Ch 2, 01/09/2005
05-00219, Loss of D1 bus during testing, 01/13/2005
05-00241, Nuclear training instructors working more than 24 hours in 48 hour period, 01/12/2005
05-00301, Cooling tower icing and damage during plant shutdown, 01/17/2005
05-00378, M-900F drawing error, 01/19/2005
05-00429, Individual performing work as EQ coordinator prior to qualification, 01/20/2005
05-00630, MU242 failed as-found LLRT, 01/23/2005
05-00632, MU244 failed as-found LLRT, 01/23/2005
05-00699, TPE performed by an individual was not on a TPE authorized list, 01/22/2005
05-00891, MU242 leakage rate exceeded the maximum allowable leakage, 01/29/2005
05-00923, Workers exceed 72 hours in seven days without DIR approval, 01/30/2005
05-00939, Two restraining lugs not engaged on the polar crane when parked from 13RFO, 01/30/2005
05-01048, Individual in NT exceeded overtime requirements, 02/03/2005
05-01144, Overtime deviation request was not submitted, 02/07/2005
05-01158, Station battery 2P not meeting TS limits, 02/07/2005
05-01201, Failure to complete overtime deviation requests - radiation protection, 02/07/2005
05-01300, Collective significance of operator errors and operations continuing training, 02/14/2005

05-01304, 480 VAC returned to (A)(1) red status from (A)(1) yellow by MR expert panel
05-01316, EPRI steam generator primary to secondary leak guidelines revised, 02/15/2005
05-01427, Rod and reactor power perturbations during #2 demineralizer operations, 02/20/2005
05-01478, Collective Review - Reactivity changes by RCS boric acid additions
05-01499, NRC PI&R LOG 1-4635 corrective actions adequacy for underground wetted cables, 02/24/2005
05-01642, Decay heat train 2 suction piping – refilling/restoration deficiency, 03/07/2005
05-01784, Loss of beach feeder, F4 & F6 busses due to ground fault on HBBF4, 03/15/2005
05-01849, Containment penetration for panel L49E1 not evaluated - CALC EC-118B
05-02040, April 1, 2004 – January 13, 2005 operating experience screening results, 04/05/2005
05-02102, Qual manuals being signed by individuals with lapsed OJT/TPE quals, 04/06/2005
05-02385, QC initial order review procedure noncompliance trend, 04/22/2005
05-02393, Failure of AF63 to prevent reverse flow, 04/22/2005
05-02415, Acceptance criteria not met during battery quarterly test, 04/25/2005
05-02522, Service water to MDFP not vented during transfer, 05/02/2005
05-02526, Air void in suction to MDFP when aligned to service water, 05/02/2005
05-02544, DB-MI-03428 failed test, 05/02/2005
05-02716, Spare DG air receiver tank safety valve DA-1135 failed seat leakage testing, 05/11/2005
05-02814, SOER 97-02 recommended actions not followed, 05/18/2005
05-02836, Operations IPA condition report binning – potential trend, 05/16/2005
05-02958, Personnel without proper qualifications were scheduled for respiratory FIT test, 05/24/2005
05-03182, Loss of busses F33A and F33B, possible fault on breaker BF3338, 06/05/2005
05-03184, Working hour guidelines exceeded without overtime deviation, 06/06/2005
05-03210, CR not initiated for deficiency on Q functional locations, 06/06/2005
05-03240, CR not initiated for equipment issues not meeting expectations, 06/06/2005
05-03307, The guidance of Ops directive PI-07 not being followed, 06/10/2005
05-03388, CAP self-assessment DB-SA–05-02 root cause report quality, 06/15/2005
05-03404, EDG1 inadvertent KW increase during monthly loaded test, 06/16/2005
05-03416; RFA – NSQ PBSA review request, 06/17/2005
05-03537, Overtime deviation permission obtained late, 06/23/2005.
05-03676, Could not achieve required voltage during EDG 1 shutdown,07/01/2005
05-03743, Y104 fuse blew removing power to CREVS train 1, 07/08/2005
05-03784, NRC IN 2005-13 Potential non-conservative error in modeling the Keno code, 05/17/2005
05-03899, NRC Bulletin 2005-02: EP and response actions for security-based events, 07/18/2005
05-03926, New sheaves for SBODG fan motors different that old sheaves, 07/19/2005
05-03974, SER 3-05 Weaknesses in operator fundamentals, 07/15/2005
05-04047, Evaluation method for condition reports with collective reviews, 07/26/2005
05-04086, SER 2-05DH Pumps-potential for post maintenance air intrusion – lack of procedure guidance, 07/28/2005
05-04109, AREVA EQ test report QR 03-11 test anomalies, 07/29/2005
05-04172, PCR-CR: DB-ME-03000, Station battery chargers weekly surveillance, 08/02/2005
05-04133, Isolation of SW to secondary cooling during EDG 2 testing, 07/30/2005
05-04134, CR-RFA to evaluate HPI indication with system pressure and zero flow, 07/30/2005

Notifications Reviewed:

600151842, Elevator AB-3 masonry wall modification, 06/02/2004
600176494, EDG1 alarm 43-2-D light out, 11/09/2004
600176543, Calibrate RPS CH 4 temp and pressure, 11/11/2004
600176747, SFAS channel 2 test trip bypass switch, 11/11/2004
600177517, SW-1429 has an excessive packing leak, 11/17/2004
600177517, CCW heat exchanger 3 outlet temperature, 11/17/2004
600178038, RC101 out of adjustment, 11/22/2004
600178403, MU10B leaks by seat, 11/23/2004
600179210, Newly installed valve failed its PMT, 12/01/2004
600179481, Repair bonnet leak on MS134, 12/02/2004
600189615, O2 sensor needs to be replaced, 12/17/2004
600189745, EG2 AC turbo oil pump seal leakage, 12/19/2004
600190986, SFAS Ch. 2 1600# trip light C5705, 01/03/2005
600191366, Adjust torque switch for SW1367, 01/06/2005
600193027, West trash gate CTMT missing pin, 01/18/2005
600193053, CTMT west trash gate missing cotter pin, 01/18/2005
600193812, MU244 failed LLRT test, 01/23/2005
600193827, SFAS Ch 3 HIS 7530 1600# trip blocked, 01/24/2005
600193846, SP13B3 is sticking ~ 1 1/2" from fully closed, 01/24/2005
600193852, Loose nut on snubber DB-SNC472 base plate, 01/24/2005
600194276, Elect Pen 101-PCL2F gauge bad, 01/25/2005
600194450, Investigate increase in open stroke time, 01/27/2005
600195006, PSL4931A drifting low, 01/29/2005
600195330, Repair door closure on door 370D, 02/01/2005
600195596, MU464 requires repack, 02/02/2005
600195812, CRD breaker D problem, 02/07/2005
600195887, SFAS 1 BA103 light out, 02/05/2005
600200101, MU323 stem separation, 02/25/2005
600200579, Gamma-Metrics CH 2 cable rework, 03/03/2005
600202921, AFP #1 governor operating band adjust, 03/23/2005
600203826, Electrical boxes need to be replaced, 03/31/2005
600203918, YVB out of sync light lit, 04/01/2005
600204834, Start up transformer N2 pressure low, 04/09/2005
600205155, Replace grommets on DSS channel 1, 04/12/2005
600205159, Add weep holes to low points of conduit, 04/12/2005
600206303, AF63 stuck during testing, 04/23/2005
600207322, SFAS ch.4 CTMT hi-hi press bistable, 05/02/2005
600207497, Install vent valve downstream of DH1517, 03/03/2005
600214718, BF1171 blue light, 06/16/2005
600215357, Battery 2P CTRM indication of discharge, 06/21/2005
600215508, Oil Leak at #1 MU pump, 06/23/2005

Work Orders Reviewed:

200000628, Replace all electrolytic capacitors,
200003648, 03-002017-000 K5-2; Repair station ground; 10/20/2004

200031510, Replace power fuse clip for AD101 trip fuse; 10/18/2004
200040077, Troubleshoot BF 1256 contact chatter; 10/24/2004
200056634, Implement ECP 03-0436-00; 10/21/2004
200008585, Station battery 2P replacement 1/30/2005
200059580, High resistance contacts in BF1289; 09/23/2003
200060632, Replace existing L56 contacts with new style type J contacts; 10/19/2004
200063670, Replace TR2R fuses in the EDG 2 cabinets; 10/19/2004
200067207, MP 195-2 low insulation resistance, replace motor; 11/03/2004
200099719, Elevator AB-3 masonry wall modification; 06/02/2004
200116160, PSL5164, PS5155 tubing clamp CR 04-05968; 09/30/2004
200122555, MM4004-007 08.000 H016; 05/06/2003
200123235, SW-1429 has an excessive packing leak; 11/17/2004
200128964, PSL4931A drifting low; 01/29/2005
200139140, Containment vessel LLRT-penetration #54 MU244 failed LLRT
200139074, Containment vessel LLRT-penetration #52 MU242 failed LLRT
200140283, SC 4162-001 05.000 RE8432; 05/06/2003
200148476, FP 4039-011 04; 04/28/2005
200142559, 2P station batteries quarterly surveillance train 2; 02/07/2005
200148239, P3153-001 04.100 AF63 forward flow test FA norm DB-PF03153; 04/22/2005
200149037, SFAS Ch 4 CTMT Hi-Hi press bistable; 05/02/2005
200149118, MI3428-001 08.000 FT-1821 gaseous RADWST flow calibration; 05/02/2005
200150345, PF3002 05.003 DA 1135; 05/11/2005
200154763, Breaker BF6203 tripped; 03/23/2005
200157452, Replace thermal time delay relay
200157388, Oil leak at #1MU pump; 06/23/2005

Perry Condition Reports

05-04336, OE 20599 to 20649 reviews: week of May 9, 2005; 05/18/2005
05-04235, OE 20529 to 20587 reviews: week of May 2, 2005; 05/11/2005
05-01682, OE 20038 to 20074 reviews: week of February 21, 2005; 05/02/2005
05-02414, OE 20126 to 20174 reviews: week of March 7, 2005; 03/18/2005
05-03106, OE 20279 to 20337 reviews: week of March 28, 2005; 04/07/2005
05-03360, OE 20338 to 20370 reviews: week of April 4, 2005; 04/13/2005
05-04026, OE 20478 to 20528 reviews: week of April 25, 2005; 05/04/2005

Meeting Minutes

Company Nuclear Review Board Teleconference Meeting Minutes, 2/15/2005
Company Nuclear Review Board Minutes, Davis Besse Meeting, 04/07/2005
Company Nuclear Review Board Teleconference Meeting Minutes, 05/09/2005
Company Nuclear Review Board Minutes, Davis Besse Meeting, 07/14/2005
Plant Operating Review Committee Minutes, 03/08/2005
Plant Operating Review Committee Minutes, 03/14/2005
Plant Operating Review Committee Minutes, 03/22/2005
Plant Operating Review Committee Minutes, 03/25/2005
CARB Meeting Minutes, 06/08/2005

Operability Evaluations

03-0006, Rev 0/1/2, Evaluate the vibration of decay heat pump #1
03-0009, Rev 2, EDG-1 performance does not meet USAR requirements
03-0019, Rev 2, EDG fuel oil transfer pump 1-2 motor has low insulation resistance
03-0039, Rev 0, Evaluation of the seat leakage past DH-13A/B and DH-14A/B
03-0043, Rev 0/1, Evaluates the leakage by the close seat of DH-61
04-0005, Rev 1, EDG transient analysis during loss of offsite power
05-0009, Rev 1, EDG-1 inadvertent KW increase during monthly loaded test

Internal Assessments

DB-C-04-03; DB Nuclear Oversight Quarterly Assessment Report, July 1, 2004 to October 1, 2004; 11/11/2004
DB-C-04-04; DB Nuclear Oversight Quarterly Assessment Report, October 1, 2004 to December 31, 2004; 02/04/2005
DB-C-05-01; DB Oversight Quarterly Assessment Report, January 3, 2005 to March 31, 2005; 04/29/2005
DB-SA-05-02, Davis –Besse CAP Implementation 05/23/2005 to 06/03/2005
DB-SS-05-01, Davis Besse Condition Report Common Cause Review, June 2005 dated 07/08/2005
DB-SS-05-02; OE Program Implementation Snapshot Self-Assessment Report for 2005; 07/12/2005
DSM-05-00049: Davis-Besse Maintenance Integrated Performance Assessment, November 1, 2004 through April 30, 2005; 06/13/2005
Self Assessment Report 2004-0103, Davis-Besse CAP Implementation dated 9/20/2004
TNS-05-00082: Integrated Performance Assessment, Davis-Besse Nuclear Training, November 1 - April 20, 2005; 06/09/2005.
OPS IPA 2005-01; Integrated Performance Assessment, November 1, 2004 through April 30, 2005; 05/26/2005
Davis Besse Operations Department Collective Significance Self-Assessment April 1, 2004 Through September 30, 2004
Davis-Besse Oversight Quarterly Assessment Report DB-C-05-01 dated 04/29/2005
Davis-Besse Oversight Quarterly Assessment Report DB-C-04-04 dated 02/04/2005

Other Documents

System Description for 125/250 VDC and 120V Instrumentation AC system
System Health Report for 125/250 VDC for Fourth Quarter, 2004
System Health Report for 125/250 VDC for First Quarter, 2005
Davis-Besse CAP Indicators, April, 2005
Davis-Besse Plant Health Report 1st Quarter 2005
Listing of Condition Reports on 480 VAC System and Breakers; October 2004 to August, 2005
Listing of Work Order and Notifications for 480 VAC System and Breakers; October 2004 to August, 2005
Listing of Maintenance Backlog- Corrective Orders; August 2, 2005
Listing of Maintenance Backlog- Elective Orders; August 2, 2005
Listing of Surveillance Test Failures, October 2004 to July 2005; July 19, 2005

Maintenance Rule Action (a)(1) Action Plan for the 480 Volt AC System; July 25, 2005
Maintenance Rule Action (a)(1) Action Plan for the 480 Volt AC System; November 18, 2003
Maintenance Backlog Reduction Project Current Status/Progress Charts; Undated
ECR 05-0159-00; Vent Valves Downstream of DH1517 and DH1518; May 3, 2005
DB-REV-05-0375; PM Task Request for Adding Locations to Periodic UT Check for Gas Voids; March 18, 2005
Quality Field Observation DB120052144; Corrective Action Effectiveness; April 6, 2005
03/23/2005 - Standing Order 05-003 Rev 3, for Penetration for Panel L49E1 (CAC #3 operation), and Clearance NDB-SUB002-01-013

Condition Reports Generated Due to This Inspection:

05-04211, NRC PI&R, Corrective action for EDG 1 low voltage not yet completed, 08/03/2005
05-04232, NRC PI&R, Battery 2P replacement, August 4, 2005
05-04234, NRC PI&R, Procedure typographical error, DB-ME-09200 - correction, 08/04/2005
05-04283, NRC PI&R, NCAQ CR initiated for battery 2P cable lug condition, 08/08/2005
05-04295, NRC PI&R, PCR-CR: NG-DB-00800, form DB-0197 typographical error, 08/09/2005
05-04297, NRC PI&R, Industry peer review recommendation not captured, 08/08/2005
05-04315, NRC PI&R, CR 05-00699 closure not in accordance with NOP-LP-2001; 08/09/2005
05-04316, NRC PI&R, Issues regarding CR 05-01427 root cause analysis report, 08/09/2005
05-04324, NRC PI&R, CR 04-02865 inadequate documentation; 08/10/2005
05-04351, NRC PI&R, Manager approved root cause evaluation for CR 04-06154 in place of director, 08/10/2005
05-04360, NRC PI&R Inspection Observation - Lack of Documentation in Condition Report 05-02958; 08/09/2005