October 30, 2002

Mr. Lew W. Myers
Chief Operating Officer
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
USNRC INTEGRATED INSPECTION REPORT 50-346/02-10

Dear Mr. Myers:

On September 30, 2002, the U. S. Nuclear Regulatory Commission (USNRC) completed an inspection at your Davis-Besse Nuclear Power Station. The enclosed report documents the inspection findings which were discussed on October 4, 2002, with you and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel. For the entire inspection period, the Davis-Besse Nuclear Power Station was under the Inspection Manual Chapter 0350 Process. The Davis-Besse Oversight Panel assessed inspection findings and other performance data to determine the required level and focus of followup inspection activities and any other appropriate regulatory actions. Even though the Reactor Oversight Process had been suspended at the Davis-Besse Nuclear Power Station, it was used as guidance for inspection activities and to assess findings.

Based on the results of this inspection, the USNRC has determined that one Severity Level IV Violation of USNRC requirements occurred. Procedural guidance to control the construction of scaffolding in a manner that would assure proper operation of ventilation for safety related equipment was inappropriate to the circumstances. During a post maintenance emergency diesel generator run on July 25, 2002, the EDG 2 Trouble Alarm was received due to high room temperature. A followup investigation concluded that the scaffolding in the room restricted air circulation and produced the high temperature condition. Because the violation was non-willful and non-repetitive and because it has been entered into your corrective action program, the USNRC is treating this issue as a Non-Cited Violation in accordance with Section VI.A.1 of the USNRC's 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 a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission - Region III, 801 Warrenville Road, Lisle, IL 60532-4351; the Director, Office of

Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the Resident Inspectors Office at the Davis-Besse Nuclear Power Station.

In response to the terrorist attacks on September 11, 2001 the USNRC issued an Order and several threat advisories to commercial power reactors to strengthen licensees' capabilities and readiness to respond to a potential attack. The NRC established a deadline of September 1, 2002 for licensees to complete modifications and process upgrades required by the Order. In order to confirm compliance with this order, the USNRC issued Temporary Instruction 2515/148, "Inspection of Nuclear Reactor Safeguards Interim Compensatory Measures" and over the next year, the USNRC will inspect each licensee in accordance with this Temporary Instruction. The USNRC continues to monitor overall security controls and may issue additional temporary instructions or require additional inspections should conditions warrant.

In accordance with 10 CFR 2.790 of the USNRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the USNRC Public Document Room or from the Publicly Available Records (PARS) component of USNRC's document system (ADAMS). ADAMS is accessible from the USNRC Web site at **http://www.nrc.gov/reading-rm/adams.html**(the Public Electronic Reading Room).

Sincerely,

/RA/

John A. Grobe, Chairman
Davis-Besse Oversight Panel

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

Enclosure: Inspection Report 50-346/02-10

cc w/encl: B. Saunders, President - FENOC
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U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	50-346
License No:	NPF-3
Report No:	50-346/02-10
Licensee:	FirstEnergy Nuclear Operating Company
Facility:	Davis-Besse Nuclear Power Station
Location:	5501 North State Route 2 Oak Harbor, OH 43449-9760
Dates:	July 1, 2002, through September 30, 2002
Inspectors:	S. Thomas, Senior Resident Inspector D. Simpkins, Resident Inspector J. Belanger, Senior Security Specialist S. Campbell, Senior Resident Inspector - Fermi J. Ellegood, Resident Inspector - Perry J. House, Senior Radiation Specialist R. Powell, Senior Resident Inspector - Perry J. Cameron, Senior Health Physicist
Approved by:	Christine A. Lipa, Chief Branch 4 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000346-02-10, FirstEnergy Nuclear Operating Company, on 07/01-09/30/2002, Davis-Besse Nuclear Power Station. Operability Evaluations.

This report covers a 3-month period of baseline resident inspection and announced baseline inspections of radiation protection and security. The inspection was conducted by Region III inspectors and the resident inspectors. One USNRC identified Non-Cited Violation of very low safety significance (Green) was identified during this inspection. 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 USNRC management review. The USNRC'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.

A. Inspection Findings

Cornerstone: Mitigating Systems

Green. A finding of very low safety significance was identified in that the licensee had no procedural guidance to control the construction of scaffolding in a manner that would assure proper operation of ventilation for safety related equipment. During a post maintenance emergency diesel generator run on July 25, 2002, the EDG 2 Trouble Alarm was received due to high room temperature. Licensee investigation concluded that the scaffolding in the room restricted air circulation and produced the high temperature condition.

The finding was more than minor because if left uncorrected, the lack of procedural guidance could impede the proper operation of ventilation systems for safety related equipment when the plant is not operating in Mode 6. The inspectors concluded that licensee procedure DB-MS-01637, "Scaffolding Erection and Removal," Revision 5, was not appropriate to the circumstances in that the procedure failed to consider the impact of scaffolding erection on ventilation system heat removal capability.

The finding was of very low safety significance because there was no fuel in the reactor pressure vessel and no fuel movement was in progress. This was determined to be a Severity Level IV NCV of 10 CFR 50 Appendix B, Criterion V. (Section 1R15)

B. Licensee Identified Findings

Violations of very low safety significance which were identified by the licensee have been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. These violations and corrective action tracking numbers are listed in Section 4OA7 of this report.

REPORT DETAILS

Summary of Plant Status

The plant was shutdown on February 16 for a refueling outage. During scheduled inspections of the control rod drive mechanism nozzles, significant degradation of the reactor pressure vessel head was discovered. As a direct result of the need to resolve many issues surrounding the Davis-Besse reactor pressure vessel head degradation, USNRC management decided to implement Inspection Manual Chapter 0350, "Oversight of Operating Reactor Facilities in a Shutdown Condition With Performance Problems." On June 26, 2002, the fuel was removed from the reactor and the plant remained shut down for the rest of the inspection period. For the entire inspection period, the Davis-Besse Nuclear Power Station was under the Inspection Manual Chapter 0350 Process. As part of this Oversight Process, several additional team inspections were conducted. The subjects of these inspections included; Reactor Head Replacement, Containment Health/Extent of Condition, System Health Assurance, Management and Human Performance, and Program Compliance. Status of these inspections will not be included as part of this inspection report, but upon completion, each will be documented in a separate inspection report which will be made publically available on the USNRC website.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness

1RO1 Adverse Weather Protection (7111.01)

a. Inspection Scope

The inspectors reviewed relevant procedures and performed specific plant walkdowns to verify that safety related plant equipment was protected from seasonal-related risks. Additionally, where applicable, compensatory actions were also evaluated to be present and effective. The issues evaluated included:

- The impact that the multiple mayfly hatchings had on plant ventilation systems.
- The ability of auxiliary building ventilation systems, turbine building ventilation systems, and transformer cooling systems to maintain acceptable equipment operating environments during hot summer weather.

Instead of focusing on specific safety related systems, the inspectors evaluated the broader potential impact that both of these issues posed to numerous safety related systems.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04Q)

a. Inspection Scope

The inspectors verified equipment alignment and identified any discrepancies that impacted the function of the system and potentially increased risk. The inspectors also verified that the licensee had properly identified and resolved any equipment alignment problems that would cause initiating events or impact the availability and functional capability of mitigating system. Specific aspects of this inspection included reviewing plant procedures, drawings, and the Updated Safety Analysis Report (USAR), to determine the correct system lineup and evaluating any outstanding maintenance work requests on the system or any deficiencies that would affect the ability of the system to perform its function. A majority of the inspector's time was spent performing a walkdown inspection of the system. Key aspects of the walkdown inspection included:

- valves were correctly positioned and did not exhibit leakage that would impact their function;
- electrical power was available as required;
- major system components were correctly labeled, lubricated, cooled, ventilated, etc;
- hangers and supports were correctly installed and functional;
- essential support systems were operational;
- ancillary equipment or debris did not interfere with system performance;
- tagging clearances were appropriate; and
- valves were locked as required by the licensee's locked valve program.

During the walkdown, the inspectors also observed the material condition of the equipment to verify that there were no significant conditions not already in the licensee's work control system. The inspectors performed a walkdown of the following systems:

- decay heat train train 1 (during maintenance on decay heat pump 2);
- spent fuel pool cooling system;
- trisodium phosphate baskets in containment; and
- emergency diesel generator 2 (during emergency diesel generator 1 outage).

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05Q)

a. Inspection Scope

The inspectors conducted fire protection walkdowns which were focused on availability, accessibility, and the condition of fire fighting equipment, the control of transient combustibles, and on the condition and operating status of installed fire barriers. The inspectors selected fire areas for inspection based on their overall contribution to internal fire risk, as documented in the Individual Plant Examination of External Events

(IPEEE), their potential to impact equipment which could initiate a plant transient, or their impact on the plant's ability to respond to a security event. Using the documents listed at the end of this report, the inspectors verified that fire hoses and extinguishers were in their designated locations and available for immediate use, that fire detectors and sprinklers were unobstructed, that transient material loading was within the analyzed limits, and that fire doors, dampers, and penetration seals appeared to be in satisfactory condition.

The following areas or components were inspected:

- spent fuel pool pump room;
- containment building;
- component cooling water pump room;
- service water pipe tunnel;
- service water pump room;
- service water valve room 1;
- service water valve room 2;
- train 1 high voltage switchgear room;
- train 2 high voltage switchgear room;
- diesel generator 1-1 room;
- diesel generator 1-2 room;
- emergency core cooling system pump room 1-1;
- emergency core cooling system pump room 1-2; and
- station blackout diesel generator room.

b. Findings

No findings of significance were identified.

1R06 Flood Protection (71111.06)

a. Inspection Scope

The inspectors reviewed the licensee's flood mitigation plans for risk significant areas of the plant. This inspection included review of Emergency Procedures, Alarm Response Procedures, USAR as well as walkdown of the room in which each of these systems is located. As part of this inspection, the inspectors reviewed the licensee corrective action program to ensure that any issues related to flood protection and mitigation were appropriately documented and addressed. Specific areas evaluated by the inspectors included:

- spent fuel pool pump room; and
- component cooling water pump room.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

a. Inspection Scope

The inspectors observed an operating crew on the simulator during requalification testing activities. The inspectors evaluated crew performance in the areas of:

- clarity and formality of communications;
- ability to take timely actions in the safe direction;
- prioritization, interpretation, and verification of alarms;
- procedure use;
- control board manipulations;
- oversight and direction from supervisors; and
- group dynamics.

The inspectors also observed the performance of the examination evaluators, their critique of the crew's performance, and the self-critique done by the operating crew to verify that any observed weaknesses were identified and documented by the licensee. Additionally, the inspectors reviewed the simulator configuration compared to the actual control room to verify that they were as identical as practical.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

The inspectors reviewed the licensee's implementation of the maintenance rule requirements to verify that component and equipment failures were identified, entered, and scoped within the maintenance rule and that select structures, systems and components were properly categorized and classified as (a)(1) or (a)(2) in accordance with 10 CFR 50.65. Specifically, the inspectors reviewed equipment issues and performance problems associated with the diesel fire pump to verify the pump was properly scoped in accordance with the Maintenance Rule, whether failures were properly characterized, and whether performance criteria were appropriate.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessment and Emergent Work Evaluation (71111.13)

a. Inspection Scope

The inspectors reviewed the licensee's management of plant risk during emergent maintenance activities or weather conditions that may have impacted one or more safety significant systems. The activities were chosen based on their potential impact on

increasing the probability of an initiating event or impacting the operation of safety significant equipment. The inspection was conducted to verify that evaluation, planning, control, and performance of the work were done in a manner to reduce the risk and minimize the duration where practical, and that contingency plans were in place where appropriate. The licensee's daily configuration risk assessments, observations of shift turnover meetings, observations of daily plant status meetings, and the documents listed at the end of this report were used by the inspectors to verify that the equipment configurations had been properly listed, that protected equipment had been identified and was being controlled where appropriate, and that significant aspects of plant risk were being communicated to the necessary personnel.

The inspectors reviewed the following maintenance activities:

- emergency diesel generator 2 voltage regulator controls during surveillance testing;
- risk assessment for division 1 outage week (work week beginning July 29, 2002);
- emergency diesel 1 and 2 inoperability due to inadequate missile shields for the exhaust stacks; and
- decay heat pump 2 bearing oil contamination.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

The inspectors selected condition reports (CRs) which discussed potential operability issues for risk significant components or systems. These CRs were evaluated to determine whether the operability of the components or systems was justified. The inspectors compared the operability and design criteria in the appropriate sections of the Technical Specifications and USAR to the licensee's evaluations presented on the issues listed below to verify that the components or systems were operable. Where compensatory measures were necessary to maintain operability, the inspectors verified by review of the documents listed at the end of the report that the measures were in place, would work as intended, and were properly controlled.

The conditions evaluated were:

- spent fuel pool heat exchanger qualification;
- diesel-driven fire pump overheating;
- emergency diesel generator 2 room high temperature during operations;
- inoperability of emergency diesel generators caused by inadequate tornado missile shielding and concrete foundation cracking for existing shielding; and
- inadequate interface between the IST program and design basis information.

b. Findings

The inspectors identified that there was no licensee procedural guidance to prevent the construction of scaffolding in a manner that would impede the proper operation of ventilation systems for safety related equipment. The issue was considered to be of very low safety significance and was dispositioned as a Severity Level IV NCV.

While preparing for maintenance activities in the EDG 2 room, the licensee constructed substantial scaffolding in accordance with licensee procedures. During a post maintenance EDG run on July 25, 2002, the EDG 2 Trouble Alarm was received due to high room temperature. Licensee investigation concluded that the scaffolding in the room restricted air circulation and produced the high temperature condition.

The performance deficiency associated with this event was the failure to develop procedures appropriate to the circumstances. 10 CFR 50 Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," Criterion V, "Instructions, Procedures, and Drawings," states in part that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances. The inspectors concluded that licensee procedure DB-MS-01637, Scaffolding Erection and Removal, Revision 5 was not appropriate to the circumstances in that the procedure failed to consider the impact of scaffolding erection on ventilation system heat removal capability.

Due to plant conditions at the time, no fuel in the reactor pressure vessel and no fuel movement in progress, the inspectors concluded that the finding could not be evaluated by the Significance Determination Process. Specifically, the finding could not be evaluated with USNRC Inspection Manual Chapter 0609, Appendix G, Shutdown Operations, because “shutdown operations” is defined as “hot shutdown, cold shutdown, and refueling when more than one fuel assembly is in the reactor pressure vessel and the DHR [Decay Heat Removal] system is in operation.”

The inspectors determined that the finding was a Non-SDP green finding consistent with guidance in Inspection Manual Chapter 0612, "Power Reactor Inspection Reports." The inspectors determined the finding was greater than minor because the finding, if left uncorrected, would become a more significant concern when the plant is not operating in Mode 6. In this instance, there was an actual impact on the ability of the EDG ventilation system to adequately remove heat.

This finding is a violation of 10 CFR 50 Appendix B. The result of the violation was determined to be of very low safety significance; therefore, this violation was classified as a Severity Level IV violation. This Severity Level IV violation is being treated as a NCV, consistent with Section VI.A.1 of the USNRC Enforcement Policy (NCV 50-346/02-10-01). This violation is in the licensee’s corrective action program as CR 02-03570.

No other findings of significance were identified.

1R17 Permanent Plant Modifications (71111.17)

a. Inspection Scope

The inspectors reviewed the on-going licensee efforts to replace the containment dome topcoat. This was reviewed as a permanent plant modification because the thermal conductivity of the new containment dome topcoat has a direct impact on containment vessel temperatures and pressures during post loss of coolant accident (LOCA) conditions. The inspectors verified that the design basis, licensing basis, and performance capability of risk significant SSCs had not been degraded as a result of the modification, replacement materials serve functional requirements under accident conditions and are environmentally qualified for application, and that failure modes introduced by the modification are bounded by existing analysis.

b. Findings

No findings of significance were identified

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors reviewed post-maintenance testing activities associated with maintenance on important mitigating and support systems to ensure that the testing adequately verified system operability and functional capability with consideration of the actual maintenance performed. The inspectors used the appropriate sections of Technical Specifications and the USAR, as well as the documents listed at the end of this report, to evaluate the scope of the maintenance and verify that the post-maintenance testing was performed adequately and demonstrated that the maintenance was successful and that operability was restored. In addition, the inspectors reviewed CRs to verify that any minor deficiencies identified during these inspections were entered into the licensee's corrective action system. The following activities were observed and evaluated:

- diesel-driven fire pump;
- emergency diesel generator 2 voltage regulator;
- decay heat pump 2 post overhaul testing; and
- emergency diesel generator 1 post overhaul.

b. Findings

No findings of significance were identified

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

The inspectors witnessed selected surveillance tests and/or reviewed test data to verify that the equipment tested using the surveillance procedures (SPs) met Technical

Specifications, USAR, and licensee procedural requirements, and also demonstrated that the equipment was capable of performing its intended safety functions. The activities were selected based on their importance in verifying mitigating systems capability. The inspectors used the documents listed at the end of this report to verify that the testing met the TS frequency requirements; that the tests were conducted in accordance with the procedures, including establishing the proper plant conditions and prerequisites; that the test acceptance criteria were met; and that the results of the tests were properly recorded and reviewed.

The following tests were observed and evaluated:

- two separate station blackout diesel generator tests (DB-SC-04271);
- emergency diesel generator 1 184 day test (DB-SC-3077);
- channel calibration of 48A-ISPRC02B3 reactor coolant loop 1 hot leg wide range pressure SFAS channel 3 (DB-MI-03163); and

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications (71111.23)

a. Inspection Scope

The inspectors reviewed the following temporary modifications to verify that plant changes did not affect the safety functions of risk significant safety systems. The inspectors reviewed the temporary modifications and associated 10 CFR 50.59 screenings against system design basis documentation, including the USAR and Technical Specification to determine if there were any effects on system operability or availability and to verify temporary modification consistency with plant documentation and procedures.

- temporary containment cooling;
- reactor coolant pressurizer spray valve bypass disabled in closed direction; and
- temporary flood barrier in place of the cooling tower makeup pump #1.

b. Findings

No findings of significance were identified.

EMERGENCY PREPAREDNESS (EP)

1EP6 Drill Evaluation

a. Inspection Scope

The inspectors observed two emergency preparedness drills, which contributed to the Drill/Exercise Performance and Emergency Response Organization Drill Participation performance indicators, to identify any weaknesses or deficiencies in the licensee's

ability to classify events, perform required notifications, or implement appropriate protective action recommendations. The inspectors also attended the post drill critique to verify any observed deficiency was also identified by the licensee and appropriately dispositioned.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control to Radiologically Significant Areas (71121.01)

.1 Plant Walkdowns, Radiological Boundary Verifications and Radiation Work Permit Reviews

a. Inspection Scope

The inspectors conducted walkdowns of selected portions of the radiologically restricted area, including areas within the Auxiliary and Containment Buildings where significant radiological work involving the reactor head and containment breach was occurring, to verify that radiation area boundaries and postings were in accordance with 10 CFR Part 20, licensee procedures and Technical Specifications. Areas having the potential for airborne activity, and the licensee's continuous air monitoring systems were evaluated in order to assess the adequacy of the contamination control process. The inspectors also walked down areas outside of the Containment Building where equipment for making the Containment breach was operating to verify that controls for containing radioactive materials generated in the breach process were adequate.

Radiation work permit 2002-5185 for associated reactor pressure vessel head work was reviewed to verify that work controls were adequate. These controls included protective clothing requirements, electronic dosimetry alarm set points for both dose rate and accumulated dose, remote monitoring, respiratory protection evaluations, radiological surveys, dose estimates, work plan and the "as low as is reasonably achievable" (ALARA) post job review.

b. Findings

No findings of significance were identified.

.2 Job-In-Progress Reviews

a. Inspection Scope

The inspectors observed work occurring both inside and outside of the Containment Building including preparation for the reactor head moves and Containment Building breach. This included concrete cutting preparations, a review of gamma spectroscopic

analyses of concrete to verify the quantity of radioactive materials in the concrete, disposal of concrete debris, monitoring liquid releases from wastewater generated during the concrete cutting operations, and ventilation control to ensure that there was an inward flow of air into the Containment Building. Radiological controls for waste concrete removal and waste water management were evaluated to verify that contaminated materials were not released offsite and any potential offsite dose to the public from liquid releases to the environment met the station's requirements as defined in the Offsite Dose Calculation Manual and The Radiological Environmental Technical Specifications.

The inspectors also discussed plans for moving the reactor head to the turbine building with cognizant licensee representatives, and reviewed the reactor head encapsulation process to verify that contamination control and radiological shielding were adequate to minimize dose to workers and to meet 10 CFR and 49 CFR requirements for the eventual transportation of the reactor head to a burial site.

b. Findings

No findings of significance were identified.

.3 High Dose Rate, High Radiation Area, and Very High Radiation Area Controls

a. Inspection Scope

The inspectors reviewed the licensee's controls for high dose rate material that was stored in the spent fuel pool and the licensee's inventory of materials currently stored in the spent fuel pool to verify that the licensee implemented adequate measures to prevent inadvertent personnel exposures from these materials.

b. Findings

No findings of significance were identified.

.4 Problem Identification and Resolution

a. Inspection Scope

The inspectors reviewed the licensee's condition report (CR) database from January 2002 through August 2002 concerning problems in high/locked high radiation areas, radiation worker performance, and radiation protection technician performance. Self-assessments and audits of the radiation protection and chemistry organizations were evaluated and cognizant licensee personnel were interviewed to verify that problems were identified and entered into the corrective action program for resolution. The inspectors reviewed these documents to assess the licensee's ability to identify repetitive problems, contributing causes, the extent of conditions, and to develop corrective actions which will achieve lasting results.

b. Findings

No findings of significance were identified.

3. SAFEGUARDS

Cornerstone: Physical Protection

3PP1 Access Authorization (AA) Program (Behavior Observation Only) (IP 71130.01)

a. Inspection Scope

The inspectors interviewed five supervisors and five non-supervisors (both licensee and contractor employees) to determine their knowledge level and practice of implementing the licensee's behavior observation program responsibilities. Selected procedures pertaining to the Behavior Observation Program and associated training activities were also reviewed. Also licensee fitness-for-duty semi-annual test results were reviewed. In addition, the inspectors reviewed a sample of licensee self-assessments, audits, and security logged events. The inspectors also interviewed security managers to evaluate their knowledge and use of the licensee's corrective action system.

b. Findings

No findings of significance were identified.

3PP2 Access Control (Identification, Authorization and Search of Personnel, Packages, and Vehicles) (IP 71130.02)

a. Inspection Scope

The inspectors reviewed the licensee's protected area access control testing and maintenance procedures. The inspector observed licensee testing of all access control equipment to determine if testing and maintenance practices were performance based. On two occasions, during peak ingress periods, the inspector observed in-processing search of personnel, packages, and vehicles to determine if search practices were conducted in accordance with regulatory requirements. Interviews were conducted and records were reviewed to verify that security staffing levels were consistently and appropriately implemented. Also the inspectors reviewed the licensee's process for limiting access to only authorized personnel to the protected area and vital equipment by a sample review of quarterly access authorization reviews performed by managers. The inspectors reviewed the licensee's program to control hard-keys and computer input of security-related personnel data.

The inspectors reviewed a sample of licensee self-assessments, audits, maintenance request records, and security logged events for identification and resolution of problems. In addition, the inspectors interviewed security managers to evaluate their knowledge and use of the licensee's corrective action system.

b. Findings

No findings of significance were identified.

3PP3 Response to Contingency Events (71130.03)

The Office of Homeland Security (OHS) developed a Homeland Security Advisory System (HSAS) to disseminate information regarding the risk of terrorist attacks. The HSAS implements five color-coded threat conditions with a description of corresponding actions at each level. USNRC Regulatory Information Summary (RIS) 2002-12a, dated August 19, 2002, "NRC Threat Advisory and Protective Measures System," discusses the HSAS and provides additional information on protective measures to licensees.

a. Inspection Scope

On September 10, 2002, the USNRC issued a Safeguards Advisory to reactor licensees to implement the protective measures described in RIS 2002-12a in response to the Federal government declaration of threat level "orange." Subsequently, on September 24, 2002, the OHS downgraded the national security threat condition to "yellow" and a corresponding reduction in the risk of a terrorist threat.

The inspector interviewed licensee personnel and security staff, observed the conduct of security operations, and assessed licensee implementation of the threat level "orange" protective measures. Inspection results were communicated to the region and headquarters security staff for further evaluation.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES (OA)

4OA1 Performance Indicator (PI) Verification (71151)

.1 Safety System Unavailability Performance Indicators

a. Inspection Scope

The inspectors reviewed reported data for the following systems using the definitions and guidance contained in Nuclear Energy Institute 99-02, "Regulatory Assessment Indicator Guideline," Revision 2:

- emergency AC power;
- auxiliary feedwater; and
- high pressure injection.

The inspectors reviewed station logs, condition reports, engineering logs, and system test procedures to verify the accuracy of the licensee's data submission.

b. Findings

No findings of significance were identified.

.2 Reactor Coolant System (RCS) Specific Activity Performance Indicator

a. Inspection Scope

The inspectors reviewed the licensee's reactor coolant system activity performance indicator (PI) for the reactor safety cornerstone to verify that the information reported by the licensee was accurate. The inspectors reviewed the licensee's reactor coolant sample results for maximum dose equivalent iodine-131, from September 2001 through February 2002, to verify that the greatest dose equivalent iodine (DEI) value obtained during those months corresponded with the value reported to the USNRC. As the plant was in an extended outage, the inspector was unable to observe a chemistry technician obtain and analyze a reactor coolant sample. The inspectors noted and reviewed one very minor discrepancy in the reported PI for October 2001. The reported PI value, expressed as the percentage of the Technical Specification limit, was 7.96 percent and was recorded on October 13, 2001. The chemistry data indicated that the maximum DEI value was 7.99 percent and occurred on October 25, 2001. The inspectors discussed this anomaly with the licensee and reviewed Condition Report 02-05872 generated to address the issue.

b. Findings

No findings of significance were identified.

.3 Occupational and Public Radiation Safety Performance Indicator

a. Inspection Scope

The inspectors reviewed the licensee's determination of PIs for the occupational and public radiation safety cornerstones to verify that the licensee accurately assessed and reported these PIs and had identified all occurrences as required. These indicators included the Occupational Exposure Control Effectiveness and the Radiological Effluent Technical Specifications/Offsite Dose Calculation Manual Radiological Effluent Occurrences as defined by Occupational and Public Radiation Safety PI, NEI [Nuclear Energy Institute] 99-02, "Regulatory Assessment Performance Indicator Guideline." The inspectors reviewed CRs for the year 2002, quarterly offsite dose calculations for radiological effluents for year 2001 and access control transactions for September 1, 2001 through August 14, 2002. During plant walkdowns, the inspectors also verified the adequacy of posting and controls for locked high radiation areas, which contributed to the Occupational Exposure Control Effectiveness performance indicator.

b. Findings

No findings of significance were identified.

.4 Physical Protection Performance Indicators

a. Inspection Scope

The inspectors verified the data for the following Physical Protection Performance Indicators (PI):

- Fitness-For Duty/Personnel Reliability;
- Personnel Screening Program; and
- Protected Area Security Equipment.

Specifically, a sample of plant reports related to security events, security shift activity logs, fitness-for-duty reports, and other applicable security records were reviewed for the period between October 1, 2001 and June 30, 2002.

b. Findings

No findings of significance were identified.

4OA2 Routine Review of Identification and Resolution of Problems (71151)

a. Inspection Scope

As discussed in previous sections of this report, the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify that they were being entered into the licensee's corrective action program at an appropriate threshold, that adequate attention was being given to timely corrective actions, and that adverse trends were identified and addressed.

b. Findings

No findings of significance were identified.

4OA3 Event Follow-UP (71153)

.1 LER 50-346/2002-004-00: Containment Isolation Closure Requirements for RCP Seal Injection Valves MU66A-D.

This LER documents a condition where the pressure regulating valve setpoint for the reactor coolant pump seal injection valves (MU66A-D) was inadequate to ensure closure of the valves upon receipt of a containment isolation signal. This condition represents a potential common-mode failure. As a result of this condition, during postulated accident conditions, a potential for uncontrolled radioactive leakage outside containment could be created. This condition has apparently existed since original plant construction, and is a violation of Technical Specification 3.6.3.1 for Modes 1-4. In addition, the valves were determined to be installed inconsistent with design assumptions. The causes of these conditions are less than adequate design interface communication and design control. Design basis for category 1 and 2 air operated valves (AOVs) and their associated components will be established in accordance with the AOV reliability program manual.

MU66A-D and all other category 1 and 2 AOVs will be verified to conform to their design basis requirements. The inspectors considered this to be an Unresolved Item (URI) (URI 50-346/02-10-2) pending a formal evaluation of the risk imposed by this design issue.

These issues have been entered into the licensee's corrective action program as CRs 02-02254, 02-02408, 02-02494 and 02-02994.

.2 Momentary Loss of Off-Site Power to Startup Transformer X02

On July 29, 2002, ACB 34562 and ACB 34564 cycled open then reclosed. This resulted in a momentary loss of startup transformer X02 and a fast transfer of 13.8 KV bus B to startup transformer X01. As a result of the transfer, a number of electrical loads were lost which included spent fuel pool cooling pump 2, station air compressor 2, containment purge, and fuel handling ventilation. Using the appropriate procedures, operators restored power to the spent fuel cooling pump 2 and restarted necessary electrical loads. Electrical power was maintained on startup transformer X01 until appropriate electrical checks could be made and the cause of the cycling switch yard breakers was determined. The cause of the momentary loss of power was determined to be from a "C" phase ground caused by a lightning strike to the Beaver Valley line, at a location approximately 14 miles east of the Davis-Besse plant.

This issue was documented in the licensee's corrective action program as CR 02-3530.

4OA5 Other Activities

.1 Review of Institute of Nuclear Power Operations Report

The inspectors completed a review of the final report of the Institute of Nuclear Power Operations, dated June 25, 2002.

.2 Review of Return to Service Plan Activities

One of the key building blocks in the licensee's Return to Service Plan was the Management and Human Performance Excellence Plan. The purpose of this plan was to address the fact that "management ineffectively implemented processes, and thus failed to detect and address plant problems as opportunities arose." The primary management contributors to this failure were grouped into the following areas:

- Nuclear Safety Culture;
- Management/Personnel Development;
- Standards and Decision-Making;
- Oversight and Assessments; and
- Program/Corrective Action/Procedure Compliance.

The resident inspectors had the opportunity to observe the day to day progress that the licensee made toward completing Return to Service Plan activities. Almost every inspection activity performed by the resident inspectors touched upon one of those five

areas. Observations made by the resident inspectors were routinely discussed with the Davis-Besse Oversight Panel members and were used, in part, to gauge licensee efforts to improve their performance in these areas on a day-to-day basis.

Examples of such observations included:

- Inadvertent Reduction in SFP Cooling Flow.

  As a direct result of a poor pre-job brief and poor procedure usage by the operator performing the evolution, spent fuel pool cooling flow on both spent fuel pool cooling heat exchangers was reduced to a point where the "SFP HX TOTAL FLOW LO" annunciator alarmed in the main control room.

  Although Operations did not effectively execute this important evolution, this issue was not more than a minor issue because the improper valve manipulations were quickly corrected, resulting in very minor impact on spent fuel pool cooling system operation or spent fuel pool temperature. This was documented in the licensee's corrective action program as CR 02-2857.

- Containment Coating Issues.

  The 10 CFR 50.59 screen associated with Engineering Work Request 01-0505 did not identify that containment coating properties were in the USAR or an input to containment analysis and that adding an additional topcoat of paint to the containment surface would cause a negative impact that would require a 10 CFR 50.59 evaluation.

  Although Engineering did not adequately prepare and review this work package prior to implementation, this issue was not more than a minor issue because the reactor was defueled and the error was discovered during a licensee Inter-Disciplinary Review of Engineering Work Request 01-0505 prior to the completion of a significant amount of painting. This was documented in the licensee's corrective action program as CR 02-3182.

- Operability Determination 02-2869 Rigor and Thoroughness.

  The inspectors questioned the adequacy of the operability evaluation which was performed by engineering and utilized by operations as justification to restore the diesel-driven fire pump back to an operable status. The engineering analysis lacked the appropriate thoroughness to justify the continued operation of the diesel-driven fire pump. Subsequent to the questioning of the inspectors, the diesel-driven fire pump was declared inoperable and was not restored to an operable status until significant maintenance, troubleshooting and engineering evaluations had been completed.

  Although Engineering did not exhibit appropriate rigor and thoroughness in this evaluation of the operability of plant equipment, the issue was not more than a

minor issue because the diesel-driven fire pump is neither a safety-related component nor a scoped maintenance rule component. This issue was documented in the licensee's corrective action program as CR 02-3005.

- Protected Train Signs

  During the time when work on the shield building and containment access was in progress, startup transformer X02 was deenergized. Due to the extensive construction work being performed in close proximity to the transformer, this action was prudent to remove the potential of damaging an energized component. To reduce the chances of losing off-site power during the time when startup transformer 02 was deenergized, the licensee implemented "Contingency Plan for Startup Transformer X02 Out of Service for Extended Period While Opening Containment." While startup transformer X02 was out-of-service, the only other readily available source of offsite power to the safety related electrical busses was via startup transformer X01. Even though significant work activities were occurring in the area north of the auxiliary building where the start up transformer 01 was located, the licensee failed to place protected train postings near the transformer as was required by their contingency plan.

  Although Operations did not demonstrate sensitivity to ensuring this important equipment was protected and the actions of prepared contingency plans were implemented, this issue was not more than minor because an emergency diesel generator was available to immediately supply the safety related busses should a loss of offsite power occur and contingency plans were in place to restore offsite power, within hours, via the station auxiliary transformer. This issue was documented in the licensee's corrective action program as CR 02-3606.

- Particulate Contamination in P42-2 (Decay Heat Removal Pump) Pump Reservoirs Bearing oil samples taken subsequent to the post maintenance testing for the overhaul of decay heat pump 2 revealed particulate levels many times the acceptable value for both the inboard and outboard bearing oil reservoirs. The particulate source was from the inadequate cleaning of the bearings and reservoirs prior to running the pump after final reassembly.

  Although Maintenance failed to ensure that all foreign material was removed from the bearing oil reservoirs prior to running the decay heat pump 2 for post maintenance testing, this issue was not more than minor because the decay heat pumps are not required while the fuel is removed from the core. This issue was documented in the licensee's corrective action program as CR 02-6077.

These issues were selected because they occurred throughout the reporting period and illustrate examples of ongoing weaknesses in engineering, operations, and maintenance with respect to Standards and Decision-Making, Oversight and Assessments; and Program/Corrective Action/Procedure Compliance.

4OA6 Exit Meetings

Exit Meeting

The inspectors presented the inspection results to Mr. Meyers and other members of licensee management on October 4, 2002. The licensee acknowledged the findings presented. No proprietary information was identified.

Interim Exit Meetings

Senior Official at Exit:	R. Schrauder, Director, Support Services
Date:	August 16, 2002
Proprietary:	No
Subject:	Radiological Access Control Program, and the ALARA Planning and Controls Program
Change to Inspection Findings:	No

Senior Official at Exit:	H. Bergendahl, (former) Vice President, Nuclear
Date:	August 2, 2002
Proprietary:	No
Subject:	Access Authorization Program (Behavior Observation Only) and Access Control Program
Change to Inspection Findings:	No

4OA7 Licensee-Identified Violations: The following violations of very low safety significance (Green) were identified by the licensee and are violations of USNRC requirements which meet the criteria of Section VI of the USNRC Enforcement Policy, NUREG-1600 for being dispositioned as Non-Cited Violations (NCVs):

NCV Tracking Number	Requirements Licensee Failed to Meet
NCV 50-346/02-10-03	10 CFR 20.1003 defines a High Radiation Area as an area, accessible to individuals, in which radiation levels from radiation sources external to the body could result in an individual receiving a dose equivalent in excess of 0.1 rem in 1 hour at 30 centimeters from the radiation source or 30 centimeters from any surface that the radiation penetrates. 10 CFR 20.1902(b) (Posting Requirements) requires that the licensee shall post each high radiation area with a conspicuous sign or signs bearing the radiation symbol and the words ”CAUTION, HIGH RADIATION AREA” OR “DANGER, HIGH RADIATION AREA.” Contrary to the above, this did not occur for approximately four hours in the North Canal 603' level of the Containment Building on July 19, 2002. A vacuum cleaner was left unattended and unposted during shift change. The dose rate from the vacuum cleaner was 175 millirem per hour at one foot.

The issue is described in CR No. 02-03342 and the associated Preliminary Investigation of Events report. During the time that the unposted High Radiation Area existed as a result of the vacuum cleaner, no work was performed in the area, there were no electronic dosimeter dose or dose rate alarms noted, and since area radiation levels coupled with the duration of any potential exposure precluded a substantial potential for an overexposure, the issue was determined to be of very low safety significance. Consequently, it is being treated as a NCV.

If the licensee contests this NCV, the licensee should provide a response within 30 days of the date of this inspection report, the basis for the denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555-0001, with copies to the Regional Administrator, Region III; Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555-0001; and the USNRC Resident Inspector at the Davis-Besse facility.

KEY POINTS OF CONTACT

Licensee

L. Meyers, Chief Operating Officer, FENOC
R. Fast, Plant Manager
G. Dunn, Outage Manager
M. Ginn, EP Supervisor
J. Grabnar, Manager, Design Engineering
R. Greenwood, Health Physics Services Supervisor
G. Honma, Supervisor, Compliance
D. Imlay, Superintendent, E&C Maintenance
P. McCloskey, Manager, Regulatory Affairs
G. Melssen, Maintenance Rule Coordinator
W. Mugge, Manager, Nuclear Training
D. Nelson, Manager, Work Control
R. Pell, Manager, Chemistry and Radiation Protection
J. Powers, Director, Nuclear Engineering
R. Rishel, PRA Specialist
M. Roder, Manager, Plant Operations
J. Rogers, Manager, Plant Engineering
R. Schrauder, Director, Support Services
A. Schumaker, Supervisor, Access Control (Acting)
P. Shultz, Health Physicist
G. Skeel, Manager, Nuclear Security
M. Stevens, Director, Work Management
S. Wise, Superintendent, Plant Operations
G. Wolf, Senior Licensing Engineer

LIST OF ITEMS OPENED CLOSED AND DISCUSSED

Opened

50-346/02-10-01	NCV	Failure to Develop and Use Procedures Appropriate to the Circumstances When Erecting Scaffolding in the Emergency Diesel Generator Rooms (Section 1R15)
50-346/02-10-02	URI	Containment Isolation Closure Requirements for RCP Seal Injection Valves MU66A-D (Section 4OA3.1)
50-346/02-10-03	NCV	Failure to Post a High Radiation Area When Required (Section 4OA7)

Closed

50-346/02-10-01	NCV	Failure to Develop and Use Procedures Appropriate to the Circumstances When Erecting Scaffolding in the Emergency Diesel Generator Rooms
50-346/02-10-03	NCV	Failure to Post a High Radiation Area When Required

LIST OF ACRONYMS USED

AA	Access Authorization
ADAMS	USNRC's Document System
AEOF	Alternate Emergency Operations Facility
ALARA	As-Low-As-Is-Reasonably-Achievable
ANS	Alert and Notification System
AOV	Air Operated Valve
CANS	Computerized Automated Notification System
CFR	Code of Federal Regulations
CR	Condition Report
DEI	Dose Equivalent Iodine
DEP	Drill and Exercise Performance
DHR	Decay Heat Removal
DRP	Division of Reactor Projects
DRS	Division of Reactor Safety
EDG	Emergency Diesel Generator
EP	Emergency Preparedness
EPZ	Emergency Planning Zone
ERO	Emergency Response Organization
FENOC	FirstEnergy Nuclear Operating Company
FFD	Fitness for Duty
HSAS	Homeland Security Advisory System
IMC	Inspection Manual Chapter
IPEEE	Individual Plant Examination of External Events
IST	Inservice Test
LER	Licensee Event Report
LOCA	Loss of Coolant Accident
NCV	Non-Cited Violation
USNRC	United States Nuclear Regulatory Commission
OA	Other Activities
OHS	Office of Homeland Security
PARS	Publically Available Records
PI	Performance Indicator
RCS	Reactor Coolant System
RIS	Regulatory Information Summary
SSC	System, Structure or Component
SDP	Significance Determination Process
SER	Security Event Report
SFP	Spent Fuel Pool
SP	Surveillance Procedure
TS	Technical Specifications
URI	Unresolved Item
USAR	Updated Safety Analysis Report
USNRC	United States Nuclear Regulatory Commission

LIST OF DOCUMENTS REVIEWED

1R01 Adverse Weather

Plant Procedure DB-OP-6913	Season Plant Preparation Checklist	Rev. 04

1R04 Equipment Alignment

Piping and Instrument Diagram	Drawing No. M-036A, “Component Cooling Water”	Rev. 24
Piping and Instrument Diagram	Drawing No. M-036B, “Component Cooling Water”	Rev. 30
Piping and Instrument Drawing	Drawing No. M-036C, “Component Cooling Water”	Rev. 25
OS-007	Operational Schematic Spent Fuel Pool Cooling System	Rev. 19
DB-OP-06021	Spent Fuel Pool Operating Procedure, Attachment 1, “SFP System Normal Operation Valve Checklist.”	Rev. 05
DB-OP-06904	Shutdown Operations,	Rev. 06
DB-OP-06012	Decay Heat and Low Pressure Injection System Operating Procedure	Rev. 04
DB-OP-06021	Spent Fuel Pool Operating Procedure	Rev. 05
USAR 9.3.5	Decay Heat Removal System	
USAR 6.3	Emergency Core Cooling System	
DB-CH-3003	Trisodium Phosphate Chemical Check (2/24/02)	
CR 02-1584	Trisodium Phosphate Volume vs Additional Boric Acid in Containment	
Engineering Calculation C-NSA-040.01-006	Trisodium Phosphate Volume Increase Due to Reactor Coolant System Leakage	Rev. 0
USAR Figure 9.2-2	Component Cooling Water	Rev. 22
USAR Figure 9.5-8	Emergency Diesel Generator Auxiliary Systems	Rev. 19

USAR Figure 9.5-8A	Diesel Generator Air Start System	Rev. 22
P&ID M-017A	Diesel Generators	Rev. 17
P&ID M-017B	Diesel Generator Air Start	Rev. 32

1R05 Fire Protection

USNRC Reg. Guide 1.189	Fire Protection for Operating Nuclear Power Plants	
Pre-Fire Plan	Containment - All Levels	
Pre-Fire Plan PFP-AB-312	Spent Fuel Pool Pump Room	Rev. 02
Pre-Fire Plan PFP-AB-318	Diesel Generator 1-1 Room: Rooms 318 and 318UL Fire Area K	Rev. 02
Pre-Fire Plan PFP-AB-319	Diesel Generator 1-2 Room: Rooms 319 and 319A Fire Area J	Rev. 02
Drawing No. A-223F	Fire Protection General Floor Plan El. 585’-0"	Rev. 14
Pre-Fire Plan PFP-AB-105	ECCS Pump Room 1-1: Room 105 Fire Area AB	Rev. 03
Pre-Fire Plan PFP-AB-115	ECCS Pump Room 1-2: Room 115 Fire Area A	Rev. 02
DB-FP-00007	Control of Transient Combustibles	Rev. 04
Pre-Fire Plan PFP-S6-0000	Service Building 6 and Laydown Area, Station Black-out Diesel	Rev. 03
FHAR	Davis Besse Fire Hazard Analysis Report	Rev. 42
PFP-AB-323	High Voltage Switchgear Room “B” Room 323 Fire Area Q	Rev. 05
PFP-AB-325	High Voltage Switchgear Room “A” Room 325 Fire Area S	Rev. 05
A-223F	Fire Protection General Floor Plan El. 585'-0"	Rev. 14

1R06 Flood Protection

USAR 2.4	Hydrology	
RA-EP-02830	Flooding	Rev. 00
RA-EP-02880	Internal Flooding	Rev. 01

DB-OP-02003	ECCS Alarm Panel 3 Annunciators	Rev. 02
CR-02-01157	Environmental Qualification for Flooding in the Auxiliary Building	
USAR 3.6	Protection Against Dynamic and Environmental Effects Associated with Postulated Rupture of Piping	

1R11 Licensed Operator Requalification Program

Drill Scenario ORQ-SEC-S100	Loss of Intake Structure Due to Waterborne Threat	
	Licensee Critique of Drill Scenario ORQ-SEC-S100	

1R12 Maintenance Effectiveness

Emergency Procedure DB-OP-2000	RPS, SFAS, SFRCS Trip, of Steam Generator Tube Rupture	Rev. 06
Alarm Response Procedure DB-OP-2010	Feedwater Alarm Panel 10 Annunciators	Rev. 02
Administrative Procedure DB-PF-00003	Maintenance Rule	Rev. 01
System Description Manual SD-015	Auxiliary Feedwater System	Rev. 02
Davis-Besse USAR Section 9.2.7	Auxiliary Feedwater System	
NUMARC 93-01	Industry Guideline for Monitoring the Effectiveness of Maintenance at Nuclear Power Plants	Rev. 02

1R13 Maintenance Risk Assessment and Emergent Work Evaluation

Surveillance Test Procedure DB-SC-3071	Emergency Diesel Generator 2 Monthly Test	Rev. 03

CR 02-3504	EDG #2 Voltage Regulator Resistors Overheated/Burned Up	
CR 02-3477	EDG 2 High Voltage Limit Less Than Described in Vendor Manual	
NG-DB-116	Outage Nuclear Safety Control	Rev. 00
NG-EN-307	Configuration Management	Rev. 03
CR 02-5590	Tornado Missle Protection of EDGs	
CR 02-4147	Missile Protection on Stacks About 6 Feet Short of Completely Effect	
CR 02-3606	Protected Train Signs	
	Daily Key Safety Function Status, July 29 - 31, 2002	
	Work Week Schedule for the Week of July 29, 2002	
	Davis-Besse 13RFO Shop Sort Report, July 29, 2002	
Administrative Procedure DB-OP-6904	Shutdown Operations	Rev. 04
	Davis-Besse Shutdown Safety Risk Levels Development Guide	
CR 02-6700	Decay Heat Removal Pump Bearing Stock Code Number Discrepancy	
CR 02-6077	Particulate Contamination in P42-2 Pump Reservoirs	
CR 02-6245	Trendable Copper Increase Oil Samples	
CR 02-6288	#2 Decay Heat Pump Mechanical Seals Leaking	
CR 02-6721	Decay Heat Pump #2, Functional Failure	

1R15 Operability Evaluations

CR 02-3046	DB-PF-4707, Spent Fuel Pool Heat Exchanger Acceptance Criteria Not Met
CR-03046	DB-PF-04707, Spent Fuel Pool Heat Exchangers, Acceptance Criteria Not Meet
USAR 1.2.8.2.4	Spent Fuel Pool Cooling System
USAR 9.1.3	Spent Fuel Pool Cooling and Cleanup System
CR 02-04514	Inadequate Interface Between the IST Program and Design Basis Information

USAR 9.2.1	Service Water System
CR 02-5590	Tornado Missle Protection of EDGs
CR 02-4147	Missile Protection on Stacks About 6 Feet Short of Completely Effect
Operability Justification 2002-0029	Condition Reports 02-3396, 02-3477, 02-3478, and 02-3504
CR 02-3570	Scaffolding Program Does Not Appear to Consider Impact on Ventilation
CR 02-3478	EDG #2 Room Temperature
CR 02-4146	EDG 2 Missile Shield Support Plates Have Broken and Cracked Concrete
CR 02-3347	Diesel Fire Pump Raw Water Cooling Supply Temperature
Operability Justification 2002-37	CR 02-3347
CR 02-2869	DFP High Temperature Alarm
CR 02-2975	Diesel Fire Pump Inoperable
CR 02-2975	Diesel Fire Pump Overheating
CR 02-3005	Operability Determination 02-2869 Rigor and Thoroughness
Operability Justification	CR 02-2869
CR 00-4131	Received Diesel Fire Pump Trouble Alarm Due to High Coolant Temperature After Shutdown

1R17 Permanent Plant Modifications

CR 02-3171	Containment Dome Painting Rad and Screen Failed to Identify Effect on USAR
CR 02-3182	Containment Coating Issues
	Immediate Investigation of CR 02-3182, “Containment Coating Issue”
CR 02-3266	Painting Occurring in Containment Without Approved Engineering Work Request

Engineering Work Request 01-0505-00	Recoating of Containment Dome Inside Surfaces and Appurtances Above Elevation 725'-0" With Equivalent Coating System	

1R19 Post-Maintenance Testing

Surveillance Test Procedure DB-SC-3071	Emergency Diesel Generator 2 Monthly Test	Rev. 03
Surveillance Test Procedure DB-PF-3237	Decay Heat Pump 2 Baseline Test	Rev. 00
Periodic Procedure DB-FP-4049	Diesel Fire Pump Tests	Rev. 02
CR 02-3891	No Output Voltage Indicated With #1 EDG at 900 RPM	
CR 02-3866	EDG Emergency Shutdown	
CR 02-3990	Failure of EDG 1 Overspeed Trip Test	
Mechanical Design Basis Engineering Calculation C-ME-013.01-27	Diesel Fire Pump Calculations - PCV-1041	Rev. 03
	Diesel Fire Pump Test Data Obtained From 8/05/02 Performance of DB-FP-04049	
	Diesel Fire Pump Test Data Obtained From 7/24/02 Performance of DB-FP-04049	
	Diesel Fire Pump Action Plan	Rev. 01

1R22 Surveillance Testing

DB-SC-04271	SBODG Monthly Test	Rev. 03
Surveillance Test Procedure DB-SC-3071	Emergency Diesel Generator 2 Monthly Test	Rev. 03

Surveillance Test Procedure DB-SC-3077	Emergency Diesel Generator 2 184 DayTest	Rev. 02
DB-MI-03163	Channel Calibration of 48A-ISPRC02B3 Reactor Coolant Loop 1 Hot Leg Wide Range Pressure SFAS Channel 3	Rev. 01

1R23 Temporary Plant Modifications

Temporary Modification 02-0011	Temporary Containment Ventilation	
Work Order 00-2293-006	Install TM 00-0026 Which Will Inject On Line Sealant Into the Valve Packing Area and May Disable the Capability of This Valve to be Opened	
Temporary Modification 00-26	RC-262, Pressurizer Spray Valve Bypass Will Be Disabled in the Closed Position	
Temporary Modification 02-0019	Class 1 Equipment in Service Water Pump Room 052, and Diesel Fire Pump Room	
Work Order 01-005920-000	Install TM 02-0019 to Install Temporary Flood Barrier in Place of Cooling Tower Makeup Pump #1	
NG-EN-00313	Control of Temporary Modifications	Rev. 02

1EP6 Drill Evaluation

	Davis-Besse Nuclear Power Station Emergency Preparedness Integrated Drill Manual (August 15, August 29, and September 19, 2002)	

2OS1 Access Control

2002-5185	Decon Reactor Head Stand Area Behind Water Shield: Job Package	Rev. 00
NG-NA-00702	Corrective Action Program	Rev. 03
NOP-LP-2001	Condition Report Process	Rev. 01

AR-02-OUTAG-01	NQA Audit Report (05/31/02)	05/31/02
DB-C-02-02	NQA Assessment Report	08/09/02
2002-0087	Self Assessment: Contamination and Rad Material Control	
2002-0088	Self Assessment: ALARA Reviews	
2002-0090	Self Assessment: Radiological Surveillance Program	
	Preliminary Investigation of Events Relating to CR-2002-03342	
	Davis-Besse Reactor Head Replacement 13RFO Radiation Protection Construction Opening Plan	07/31/02
	Davis-Besse Reactor Head Replacement, Reactor Head Encapsulation and Radiological Evaluation	
	Spent Fuel Pool ICA Map for SNM Accountability	07/03/02
	BWX Technologies Analysis Report	08/12/02
	Gamma Spectroscopy Analysis: Aggregate Waste	08/14/02 to 08/16/02
	Gamma Spectroscopy Analysis: Waste Water	08/13/02 to 08/15/02
	Gamma Spectroscopy Analysis: Sludge Composite	08/14/02
	Gamma Spectroscopy Analysis: Quality Assurance	08/13/02
	Reactor Coolant System Activity, Dose Equivalent Iodine	08/2001 to 02/2002
	Reactor Coolant DEI	08/2001 to 02/2002
	Occupational Performance Indicator Data Summary Report	2Qtr2001 to 2Qtr2002
	USNRC Performance Indicators: Occupational and Public Radiation Safety Cornerstones	07/2001 to 07/2002
	RETS/ODCM Radiological Effluent Indicators	08/2001 to 07/2002

	Occupational Exposure Control Effectiveness	08/2001 to 06/2002
	Access Control Records with Entry/Exit Station	08/15/02
CR 02-03342	Uncontrolled High Radiation Area	
CR 02-03591	Bubble Hoods Used Without Documentation	
CR 02-04172	Conflicting Interpretation of DB-HP 01109	
CR 02-00591	Contract Worker Chewing Gum in Containment	
CR 02-00694	Letdown Cooler Flush	
CR 02-00704	Containment Cameras During Loss of Power	
CR 02-00785	Cascade P-10 Alarm System Overridden	
CR 02-00813	Unqualified Personnel Completing Work Activities	
CR 02-00970	Contamination at RRA Exit	
CR 02-00973	Contaminated Individual	
CR 02-01004	Inaccurate Survey Reading Using Telepole	
CR 02-00820	Dose Control For Framatome Office Trailers	
CR 02-00858	Improper Transfer	
CR 02-00894	Poor Housekeeping in Containment	
CR 02-00964	Lesson From Letdown Cooler Shielding and Flushing	
CR 02-00972	Near Miss During Set-Up of CRDM Storage Tank	
CR 02-00981	Dose Rates Higher Than Planned	
CR 02-00987	Direction For Work In High Rad Area Not Complete	
CR 02-01015	Incomplete Information On Multibadge Form	
CR 02-01016	OPS Valve Line Ups Using An Incorrect RWP	
CR 02-01024	Dose Estimate Revised	
CR 02-01026	Retrieval For Fuel Assembly Grid	
CR 02-05872	Incorrect Performance Indicator Value Reported	

3PP1 Physical Protection (Access Authorization)

Semi-Annual Fitness-for-Duty Report (July-December 2001)

	Semi-Annual Fitness-for-Duty Report (January-June 2001)	
IS-AC-00023	Access Authorization List and CBOP	Rev. 04
	Reportable Event Log (October 1, 2001 to June 30, 2002)	
NOP-LP-1001	Unescorted Access Requirements	Rev. 02
IS-DP-0054	Personnel Control for Protected and Vital Areas	Rev. 11
IS-DP 00506	Lock and Key Procedures	Rev. 05

3PP2 Physical Protection (Access Control)

IS-DP-00504	Personnel Control For Protected/Vital Areas	Rev. 11
IS-DP-04001	Operation Test for Walk Through Metal Detector (11/6/01)	Rev. 03
IS-DP-04002	Performance Test for the Walk Through Metal Detector (12/04/01)	
IS-DP-04004	Performance and Operational Test for the Handheld Metal Detector (6/30/97)	Rev. 03
IS-DP-04005	Operational Test for the Walk Through Explosive Detector (9/19/00)	
IS-DP-04013	Quarterly Probability Testing of Hand Geometry Readers (4/10/00)	Rev. 02
	Security Related Condition Reports (January 1, 2002 to July 31, 2002)	

4OA1 Performance Indicator (PI) Verification

	Control Room Log Entries for Emergency Diesels October 2001 through June 2002	
	Clearance Orders for Emergency Diesels October 2001 through June 2002	
	Station Logs, January 1 through June 30, 2002	
	High Pressure Injection System Engineer's System Status Notebook	
Nuclear Energy Institute 99-02	Regulatory Assessment Indicator Guideline	Rev. 02

Surveillance Test Procedure DB-SP-03150	Auxiliary Feedwater Pump Monthly Jog Test	Rev. 02
Surveillance Test Procedure DB-SP-03151	Auxiliary Feedwater Pump Quarterly Test	Rev. 04
Surveillance Test Procedure DB-SP-03218	High Pressure Injection Train 1 Pump and Valve Test	Rev. 04

4OA3 Event Follow-up

CR 02-3530	345 KV Line Fault
CR 02-02994	MU38 Not Correctly Modeled in the PRA
CR 02-02494	RCP Seal Injection Valve Flow Direction
CR 02-02408	Collective Significance - Plant Modification Program Concerns
CR 02-02254	RCP Seal Injection Air Operated Valves Will Not Perform Safety Function
LER 2002-004	Containment Isolation Closure Requirements for RCP Seal Injection Valves MU66A-D

4OA5 Other Activities

	Davis-Besse Institute of Nuclear Operations Report	6/25/02
CR 02-2857	Inadvertent Reduction in SFP Cooling Flow	
CR 02-3182	Containment Coating Issues	
CR 02-3005	Operability Determination 02-2869 Rigor and Thoroughness	
CR 02-3606	Protected Train Signs	
CR 02-6077	Particulate Contamination in P42-2 Pump Reservoirs	