February 11, 2005

EA 03-214

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 INTEGRATED INSPECTION REPORT 05000346/2004016

Dear Mr. Bezilla:

On December 31, 2004, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Davis-Besse Nuclear Power Station. The enclosed inspection report documents the inspection findings which were discussed on January 6, 2005, with 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 (IMC) 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 NRC has determined that a violation of NRC requirements occurred. The report documents one NRC identified finding of very low safety significance which involved a violation of NRC requirements. However, because the 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 severity of a 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.

The inspectors performed enhanced inspection activities in the 2nd, 3rd, and 4th quarters of CY2004 associated with the Initiating Events, Mitigating Systems, and Barrier Integrity Cornerstone Performance Indicators. Based on the results of these inspections and evaluation of the data you submitted for each of these Performance Indicators, the Oversight Panel has determined that the Performance Indicators will be returned to normal monitoring under the baseline inspection program.

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/

Steven A. Reynolds, Chairman
Davis-Besse Oversight Panel

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

Enclosure: Inspection Report 05000346/2004016
w/Attachment: Supplemental Information

cc w/encl: The Honorable Dennis Kucinich
G. Leidich, President - FENOC
J. Hagan, Senior Vice President
Engineering and Services, FENOC
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U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No:	50-346
License No:	NPF-3
Report No:	05000346/2004016
Licensee:	FirstEnergy Nuclear Operating Company (FENOC)
Facility:	Davis-Besse Nuclear Power Station
Location:	5501 North State Route 2 Oak Harbor, OH 43449-9760
Dates:	November 14 through December 31, 2004
Inspectors:	S. Thomas, Senior Resident Inspector J. Rutkowski, Resident Inspector M. Salter-Williams, Resident Inspector J. Jacobson, Senior Engineer J. House, Senior Radiation Specialist H. Peterson, Senior Operations Engineer R. Walton, Operations Engineer
Approved by:	Christine A. Lipa, Chief Branch 4 Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000346/2004016; 11/14/2004-12/31/2004; Davis-Besse Nuclear Power Station; Other Activities.

This report covers a 7 week period of resident inspection. The inspection was conducted by regional inspectors and resident inspectors. One Green finding associated with one 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.

A. Inspector-Identified and Self-Revealed Findings

Cornerstone: Mitigating Systems

- Green. The inspectors identified a finding of very low safety significance for the licensee's failure to take timely corrective action to remove visible corrosion on several terminal connections on the station's safety-related 2P and 2N batteries. The primary cause of this finding was related to the cross-cutting area of problem identification and resolution.

  The inspectors determined that the finding was more than minor because it impacted the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This issue was determined to be of very low safety significance because there were no documented cases of any of the affected battery cell's terminal resistance measurements in excess of 150 micro-ohms. This was considered to be a Non-Cited Violation of 10CFR 50, Appendix B, Criterion XVI. (Section 4OA5)

B. Licensee Identified Findings

None

REPORT DETAILS

Summary of Plant Status

At the beginning of the inspection period, the plant was operating at approximately 100 percent power. During this inspection period, brief planned power reductions of less than 10 percent occurred on two occasions (November 21, 2004, and December 19, 2004) to support planned testing. On each occasion, the testing was completed and power was restored to approximately 100 percent. The plant operated at approximately 100 percent power for the remainder of the inspection period.

For the entire inspection period, the Davis-Besse Nuclear Power Station was under the IMC 0350 Process.

1. REACTOR SAFETY

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

1R05 Fire Protection (71111.05Q)

a. Inspection Scope

The inspectors conducted fire protection inspections focused on the availability, accessibility, and condition of fire fighting equipment; the control of transient combustibles; and the condition and 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, and their potential to impact equipment which could initiate a plant transient. Inspectors determined whether fire hoses and extinguishers were in their designated locations and available for immediate use; fire detectors and sprinklers were unobstructed; transient material loading was within the analyzed limits; and fire doors, dampers, and penetration seals were in satisfactory condition.

The following area was inspected and constitutes one sample:

- Decay Heat Cooler Room and Hatch Area

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification (71111.11)

.1 Facility Operating History

a. Inspection Scope

The inspectors reviewed the plant's operating history from October 2002 through October 2004, to assess whether the Licensed Operator Requalification Training (LORT) program had addressed operator performance deficiencies noted at the plant.

b. Findings

No findings of significance were identified.

.2 Licensee Requalification Examinations

a. Inspection Scope

The inspectors performed a biennial inspection of the licensee's LORT program. The inspectors reviewed the current year requalification biennial written examinations and annual operating test material to evaluate general quality, construction, and difficulty level. The biennial written examination material consisted of forty questions in a multiple-choice format. The questions addressed plant and control systems, administrative controls, and procedural limits. The operating test material consisted of dynamic simulator scenarios and job performance measures (JPMs). The inspectors reviewed the methodology for developing the examinations, including the LORT program 2-year sample plan, probabilistic risk assessment insights, previously identified operator performance deficiencies, and plant modifications. The inspectors assessed the level of examination material duplication during the current year annual examinations. The inspectors also interviewed members of the licensee's management and training staff, and discussed various aspects of the examination development.

b. Findings

No findings of significance were identified.

.3 Licensee Administration of Requalification Examinations

a. Inspection Scope

The inspectors observed administration of the requalification operating test to assess the licensee's effectiveness in conducting the test and to assess the facility evaluators' ability to determine adequate performance using objective, measurable performance standards. The inspectors evaluated, in parallel with the facility evaluators, the performance of seven licensed operators for one operating shift crew during two dynamic simulator scenarios. The shift crew was divided into two 5-person simulator crews for evaluation purposes, with the two remaining individuals rotating into their respective licensed positions during the second scenario. Each crew consisted of three

senior reactor operators and two reactor operators. In addition, the inspectors observed licensee evaluators administer five JPMs to a select number of operators. The inspectors observed the training staff personnel administer the operating test, including pre-examination briefings, observations of operator performance, and individual and crew evaluations after the dynamic simulator scenarios.

b. Findings

No findings of significance were identified.

.4 Examination Security

a. Inspection Scope

The inspectors observed and reviewed the licensee's overall licensed operator requalification examination security program related to examination physical security (e.g., access restrictions and simulator considerations) and integrity (e.g., predictability and bias). The inspectors also reviewed the facility licensee's examination security procedure, any corrective actions related to past or present examination security problems at the facility, and the implementation of security and integrity measures (e.g., security agreements, sampling criteria, bank use, and test item repetition) throughout the examination process.

b. Findings

No findings of significance were identified.

.5 Licensee Training Feedback System

a. Inspection Scope

The inspectors assessed the methods and effectiveness of the licensee's processes for revising and maintaining its LORT program up to date, including the use of feedback from plant events and industry experience information. The inspectors interviewed licensee personnel (operators, instructors, and management) and reviewed applicable procedures. In addition, the inspectors reviewed the licensee's quality assurance oversight activities, including licensee training department self-assessment reports. The inspectors evaluated the licensee's ability to assess the effectiveness of its LORT program and their ability to implement appropriate corrective actions.

b. Findings

No findings of significance were identified.

.6 Licensee Remedial Training Program

a. Inspection Scope

The inspectors assessed the adequacy and effectiveness of remedial training conducted since the previous annual requalification examinations. The inspectors reviewed the remedial training documentation for one individual who demonstrated unsatisfactory performance during the current biennial written examination and the subsequent post-remedial re-examination administered the previous week. The inspectors also reviewed the remedial training package for one individual who demonstrated unsatisfactory performance during the current annual operating test. The inspectors reviewed the training package to determine whether performance and knowledge weaknesses identified during the annual examination were adequately addressed. The inspectors also reviewed remedial training procedures and records to determine whether the subsequent re-evaluation was properly completed prior to returning the individuals to licensed duties.

b. Findings

No findings of significance were identified.

.7 Conformance with Operator License Condition

a. Inspection Scope

The inspectors evaluated facility and individual operator license conformance with the requirements of 10 CFR Part 55. The inspectors reviewed the licensee's program for maintaining active operator licenses to assess compliance with 10 CFR 55.53(e) and (f). The inspectors reviewed the licensee's procedural compliance and the process for tracking on-shift hours for licensed operators. The inspectors also conducted reviews to determine whether proficiency watch-standing hours were credited to the correct control room positions in accordance with Technical Specifications. The inspectors reviewed six licensed operator medical records to ensure compliance with 10 CFR 55.21 and 55.25, and medical standards delineated in ANSI/ANS-3.4. In addition, the inspectors reviewed the licensee's LORT program to assess compliance with the requalification program requirements prescribed by 10 CFR 55.59(c).

b. Findings

No findings of significance were identified.

.8 Conformance with Simulator Requirements

a. Inspection Scope

The inspectors assessed the adequacy of the licensee's simulation facility (simulator) for use in operator licensing examinations and for satisfying experience requirements as prescribed in 10 CFR 55.46, "Simulation Facilities." The inspectors reviewed a sample

of simulator performance test records (i.e., transient tests, malfunction tests, and reactor core performance tests), simulator work order records, and the process for ensuring continued assurance of simulator fidelity in accordance with 10 CFR 55.46. The inspectors reviewed and evaluated the discrepancy process to ensure that simulator fidelity was maintained. This was accomplished by a review of discrepancies noted during the inspection to determine whether they were entered into the licensee's corrective action system and by an evaluation to verify that the licensee adequately captured simulator problems and that corrective actions were performed and completed in a timely fashion commensurate with the safety significance of the item (prioritization scheme). Open simulator discrepancies were reviewed for importance relative to impact on 10 CFR 55.45 and 55.59 operator actions as well as nuclear and thermal hydraulic operating characteristics. Closed simulator discrepancies were reviewed for the last 12 months for timeliness of resolution. The inspectors reviewed the licensee's recent simulator core modeling performance testing to assess the adequacy of the simulator to replicate the actual reactor plant core's performance characteristics. The inspectors also conducted interviews with the licensee's simulator configuration control personnel and completed the checklist described in Appendix C of NRC Inspection Procedure (IP) 71111.11 to evaluate whether or not the licensee's plant-referenced simulator was operating adequately as required by 10 CFR 55.46 (c) and (d).

b. Findings

No findings of significance were identified.

.9 Biennial Written Examination and Annual Operating Test Results

a. Inspection Scope

The inspectors reviewed the overall pass/fail results of the comprehensive biennial written tests, the annual job performance measure operating tests, and the annual simulator operating tests (required to be given per 10 CFR 55.59(a)(2)) administered by the licensee during calendar year 2004. The overall results were compared with the significance determination process in accordance with NRC Manual Chapter 0609, Appendix I, "Operator Requalification Human Performance Significance Determination Process (SDP)." Year 2004 was the second year of the licensee's 24-month training program. This represents one sample.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12)

a. Inspection Scope

The inspectors evaluated the licensee's handling of performance issues related to the auxiliary feedwater system. This inspection consisted of evaluating the following licensee activities:

- work scheduling practices, including consideration of risk of transient initiation while performing work on operating components;
- use of the condition report process and WO notification system in identifying deficiencies and issues with the equipment;
- problem solving and issue resolution associated with the failures and degradations of components associated with the system;
- that maintenance activities on the components had been assigned appropriate risk classification;
- that corrective actions for the long-term reliability were appropriate;
- that pump performance trends were appropriate for normal pump testing frequency;
- that alert and action levels, per the inservice testing program, were appropriately considered in reviewing auxiliary feedwater pump performance;
- that short-term corrective actions were appropriate for deficiencies with potential to become operator workarounds or the potential to become transient initiators; and
- that maintenance rule system status determination was appropriate for the equipment's recent history and current open work items.

The inspectors also observed that the licensee was aware of the small performance margins available in the system and was developing plans for system improvements designed to increase the available margins.

This constitutes one sample.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15)

a. Inspection Scope

Condition Report 04-07274 discussed instrument inaccuracies which were not accounted for during bench testing of snubbers. These inaccuracies could have potentially resulted in nine snubbers exceeding their Technical Specification requirements for bleed rates and lockup velocities. The licensee reviewed their as-found data and determined that eight of the snubbers were within the technical specification operability range even when taking instrument inaccuracies into account. Based upon their review of the as-found data for snubber DB-SNT20, the licensee determined that the lockup velocity for the snubber could potentially be outside of its Technical Specification acceptance criteria and as a result required an operability evaluation. The inspectors reviewed Operability Evaluation 2004-0027 Revision 00 which discussed potential operability issues for snubber DB-SNT20, which is a 2 ½ inch Grinnel snubber installed on the Emergency Diesel Generator 1-2 exhaust line. This operability evaluation was reviewed to determine whether the operability of the component 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 issue to verify that the component was operable. Where compensatory measures were necessary to maintain operability, the inspectors reviewed the documents listed at the end of the report to determine whether the measures were in place, would work as intended, and were properly controlled.

This constitutes one sample.

b. Findings

No findings of significance were identified.

1R16 Operator Work-Arounds (71111.16)

a. Inspection Scope

The inspectors reviewed all of the existing operator workarounds and control room deficiencies to determine whether the cumulative conditions had a significant impact on plant risk or on the operators' ability to respond to a transient or an accident. This involved reviewing the entire list of operator workarounds, control room deficiencies, and turnover sheets. In addition, the inspectors interviewed operators and staff to determine whether that the licensee had appropriately classified the workarounds and deficiencies for significance, that the workarounds were achievable, and that the licensee had made or planned timely and appropriate corrective actions to resolve the deficiency responsible for the workaround. In addition to evaluating the individual impact of each operator workaround, the inspector evaluated the cumulative affect of all workarounds on plant safety.

This constitutes one sample.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. Inspection Scope

On November 16, 2004, the inspectors observed performance of DB-SS-03091, "Motor Driven Feed Pump Quarterly Test," Revision 06. The inspectors reviewed the test procedure and Technical Specifications to determine whether the test met the Technical Specification frequency requirements; operability and availability were properly treated and recorded in the unit log; the test was conducted in accordance with the procedures, including establishing the proper plant conditions and prerequisites; and the test acceptance criteria were met.

This constitutes one sample.

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 and Radiation Work Permit Reviews

a. Inspection Scope

The inspectors identified radiologically significant work areas within a Technical Specification locked high radiation area (LHRA) and also identified potential airborne radioactivity areas in the containment building. The inspectors reviewed the radiation work permit (RWP) and work package, which included radiological controls and surveys of these areas, to determine if radiological controls including surveys, air sampling data, postings, and barricades were adequate. These reviews and observations, along with those contained in Section 2OS1(.1) of Inspection Report 50-346/04-015 represented one sample.

The inspectors observed work activities in the LHRA and potential airborne radioactivity areas and reviewed the surveys for these areas in order to determine whether the prescribed RWP, procedures, and engineering controls were in place; licensee surveys and postings were complete and accurate; and air samplers were properly located. These reviews and observations, along with those contained in Section 2OS1(.1) of Inspection Report 50-346/04-015 represented one sample.

The inspectors reviewed the RWP and associated radiological controls used to access the containment building, and evaluated the work control instructions and control barriers that were specified in order to determine whether the controls and requirements were met. Site technical specification requirements for high radiation areas and LHRAs were used as standards for the necessary barriers. Electronic dosimeter alarm set points for both integrated dose and dose rate were evaluated for conformity with survey indications and plant policy. The inspectors determined whether the pre-job briefing emphasized to workers the actions required when their electronic dosimeters noticeably malfunctioned or alarmed. These reviews and observations, along with those contained in Section 2OS1(.1) of Inspection Report 50-346/04-015 represented one sample.

b. Findings

No findings of significance were identified.

.2 Job-In-Progress Reviews

a. Inspection Scope

The inspectors accompanied licensee personnel during an at power containment entry and observed work activities in LHRAs, potential airborne radioactivity areas, and high radiation areas that presented the greatest radiological risk to workers. Radiological conditions involved neutron and gamma streaming that produced radiological gradients which could result in a high collective dose to workers.

The inspectors reviewed radiological job requirements including RWP and work procedure requirements, and attended as low as is reasonably achievable (ALARA) job briefings. Job performance was observed with respect to these requirements to verify that radiological conditions in the work area were adequately communicated to workers through pre-job briefings and postings. These reviews and observations, along with those contained in Section 2OS1(.3) of Inspection Report 50-346/04-015 represented one sample.

The inspectors also verified the adequacy of radiological controls including required radiation, contamination, and airborne surveys for entry into a LHRA; radiation protection job coverage which included surveillance for both gamma and neutron radiation and streaming paths; and contamination controls. These reviews and observations, along with those contained in Section 2OS1(.3) of Inspection Report 50-346/04-015 represented one sample.

Work in high radiation areas having significant dose rate gradients, both neutron and gamma, was observed to evaluate the application of dosimetry to effectively monitor exposure to personnel, and to verify that licensee controls were adequate. The inspectors observed radiation protection (RP) technicians' coverage of the containment entry. This involved controlling worker and observer locations relative to radiation survey data and real time monitoring for both gamma and neutron radiation in order to maintain personnel radiological exposure ALARA. These reviews and observations represented one sample.

b. Findings

No findings of significance were identified.

.3 Radiation Worker Performance

a. Inspection Scope

During job performance observations, the inspectors evaluated radiation worker performance with respect to stated radiation protection work requirements. The inspectors also evaluated whether workers were aware of the significant radiological conditions in their workplace, the RWP controls and limits in place, and that their performance had accounted for the level of radiological hazards present. These

reviews and observations, along with those contained in Section 2OS1(.5) of Inspection Report 50-346/04-015 represented one sample.

Radiological problem reports, which found that the cause of an event resulted from radiation worker errors, were reviewed to determine if there was an observable pattern traceable to a similar cause, and to determine if this perspective matched the corrective action approach taken by the licensee to resolve the reported problems. These reviews and observations, along with those contained in Section 2OS1(.5) of Inspection Report 50-346/04-015 represented one sample.

b. Findings

No findings of significance were identified.

.4 Radiation Protection Technician Proficiency

a. Inspection Scope

The inspectors observed and evaluated RP technician performance with respect to RP work requirements. This was done to evaluate whether the technicians were aware of the radiological conditions in their workplace, the RWP controls and limits in place, and if their performance was consistent with their training and qualifications with respect to the radiological hazards and work activities. These reviews and observations, along with those contained in Section 2OS1(.6) of Inspection Report 50-346/04-015 represented one sample.

Radiological problem reports, which found that the cause of an event was RP technician error, were reviewed to determine if there was an observable pattern traceable to a similar cause, and to determine if this perspective matched the corrective action approach taken by the licensee to resolve the reported problems. These reviews and observations, along with those contained in Section 2OS1(.6) of Inspection Report 50-346/04-015 represented one sample.

b. Findings

No findings of significance were identified.

2OS2 As Low As Is Reasonably Achievable (ALARA) Planning And Controls (71121.02)

.1 Job Site Inspections and ALARA Control

a. Inspection Scope

The inspectors observed work activities in areas having the potential for significant radiation exposure levels as well as potential airborne radiological hazards during an at power containment entry. The licensee's use of ALARA controls for these work activities was evaluated using the following:

- The licensee's use of engineering controls to achieve dose reductions was evaluated to verify that procedures and controls were consistent with the licensee's ALARA reviews. The use of containment structures to provide radiation shielding and avoidance of areas of potential radiation (gamma and neutron) streaming was observed;

- During the evolution, personnel were observed to determine if they were utilizing low dose waiting areas and were effective in maintaining their doses ALARA by using lower dose areas while traversing areas within the containment building; and

- The inspectors attended the work briefing and observed ongoing work activities to determine if workers received appropriate on-the-job supervision to ensure the ALARA requirements were met. This included verification that the first-line job supervisor ensured that the work activity was conducted in a dose efficient manner by minimizing work crew size, ensuring that workers were properly trained, and that proper tools and equipment were available when the job started.

b. Findings

No findings of significance were identified.

Cornerstone: Public Radiation Safety

2PS2 Radioactive Material Processing and Transportation (71122.02)

.1 Radioactive Waste System

a. Inspection Scope

The inspectors reviewed descriptions of the liquid and solid radioactive waste systems in the Updated Final Safety Analysis Report (UFSAR). The inspectors reviewed the 2003 effluent release report for information on the types and amounts of radioactive waste (radwaste) generated and disposed. The inspectors reviewed the scope of the licensee's audit program for the radioactive material processing and transportation programs to verify that the audit program met the requirements of 10 CFR 20.1101©). These reviews represented one sample.

b. Findings

No findings of significance were identified.

.2 Radioactive Waste System Walkdowns

a. Inspection Scope

The inspectors performed walkdowns of the liquid and solid radwaste processing systems to verify that the systems agreed with the descriptions in the UFSAR and the Process Control Program, and to assess the material condition and operability of the systems. The inspectors reviewed the status of radioactive waste process equipment that was not operational or was abandoned in place, along with the licensee's administrative and physical controls, in order to ensure that the equipment would not contribute to an unmonitored release path, affect operating systems, or be a source of unnecessary personnel exposure.

No significant changes had been made to the radwaste processing system since the last inspection. The inspectors reviewed the current processes for transferring waste resin and sludge discharges into shipping or disposal containers to determine if appropriate waste stream mixing and/or sampling procedures were utilized. This included the methodologies for waste concentration averaging to determine if representative samples of the waste product were provided for the purposes of waste classification specified in 10 CFR 61.55 for waste disposal. These reviews represented one sample.

b. Findings

No findings of significance were identified.

.3 Waste Characterization and Classification

a. Inspection Scope

The inspectors reviewed the licensee's radio-chemical sample analysis results for each of the waste streams, including dry active waste, ion exchange resins, filters, sludge, and activation products. The inspectors also reviewed the licensee's use of scaling factors to quantify difficult-to-measure radionuclides such as pure alpha or beta emitters, and isotopes that decay by electron capture. The reviews were conducted to verify that the licensee's program assured compliance with 10 CFR 61.55 and 10 CFR 61.56, as required by Appendix G of 10 CFR Part 20. The inspectors also reviewed the licensee's waste characterization and classification program to ensure that the waste stream composition data accounted for changing operational parameters and thus remained valid between the annual sample analysis updates. These reviews represented one sample.

b. Findings

No findings of significance were identified.

.4 Shipment Preparation

a. Inspection Scope

The inspectors were unable to perform detailed observations of shipment preparation during this inspection. From shipping records, the inspectors were able to verify that receiving licensees were authorized to receive the shipments and that the requirements of the transport cask Certificate of Compliance were met.

From limited observations of shipment preparation in the radwaste building and a review of training materials and records, the inspectors verified that the workers had adequate skills to accomplish each task and that the shippers were knowledgeable of the shipping regulations; and that shipping personnel demonstrated adequate skills to accomplish the package preparation requirements for public transport with respect to NRC Bulletin 79-19 and 49 CFR Part 172 Subpart H. The inspectors reviewed the training records of shipping personnel, which included shipment packaging, surveying, labeling, marking, placarding, vehicle checks, emergency instructions, disposal manifest, shipping papers provided to the driver, and licensee verification of shipment readiness. The review was conducted to verify that the licensee's training program provided training consistent with NRC and Department of Transportation requirements. These reviews represented one sample.

b. Findings

No findings of significance were identified.

.5 Shipping Records

a. Inspection Scope

The inspectors reviewed five non-excepted package shipment manifests/documents completed in 2003 and 2004 to verify compliance with NRC and Department of Transportation requirements (i.e., 10 CFR Parts 20 and 71, and 49 CFR Parts 172 and 173). This included required emergency response information and the 24 hour contact telephone number. This review represented one sample.

b. Findings

No findings of significance were identified.

.6 Identification and Resolution of Problems For Radioactive Material Processing and Transportation

a. Inspection Scope

The inspectors reviewed condition reports, an audit, and field observations that covered the period from the last inspection of this area and that addressed deficiencies in the radioactive waste and radioactive materials shipping program. This was done in order

to verify that the licensee had effectively implemented the corrective action program and that problems were identified, characterized, prioritized and corrected. The inspectors also verified that the licensee's self-assessment program was capable of identifying and addressing repetitive deficiencies or significant individual deficiencies that had been identified in problem identification and resolution.

The inspectors also reviewed corrective action reports from the radioactive material and shipping programs since the previous inspection, interviewed staff, and reviewed documents to determine if the following activities were being conducted in an effective and timely manner commensurate with their importance to safety and risk:

- Initial problem identification, characterization, and tracking;
- Disposition of operability/reportability issues;
- Evaluation of safety significance/risk and priority for resolution;
- Identification of repetitive problems;
- Identification of contributing causes;
- Identification and implementation of effective corrective actions;
- Resolution of Non-Cited Violations (NCVs) tracked in corrective action system(s); and
- Implementation/consideration of risk significant operational experience feedback.

These reviews represented one sample.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification (71151)

Cornerstones: Mitigating Systems, Initiating Events

Reactor Safety Strategic Area

.1 Mitigating System Cornerstone Performance Indicator Review

a. Inspection Scope

The inspectors reviewed the reported data [3rd quarter 2003 to 3rd quarter 2004] for the following Mitigating System Cornerstone performance indicator:

- Safety System Unavailability, Auxiliary Emergency AC Power.

The inspectors used the definitions and guidance contained in Nuclear Energy Institute 99-02, “Regulatory Assessment Indicator Guideline,” Revision 2, during the conduct of this review. The inspectors reviewed station logs and condition reports to determine the accuracy of the licensee’s data submission.

This constitutes one sample.

b. Findings

No findings of significance were identified.

.2 Initiating Events Cornerstone Performance Indicator Review

a. Inspection Scope

The inspectors reviewed the reported data [1st quarter 2004 to 4th quarter 2004] for the following Initiating Event Cornerstone performance indicators:

- Unplanned Scrams per 7000 Critical Hours;
- Unplanned Scrams with Loss of Normal Heat Sink; and
- Unplanned Power Changes per 7000 Critical Hours

The inspectors used the definitions and guidance contained in Nuclear Energy Institute 99-02, "Regulatory Assessment Indicator Guideline," Revision 2, during the conduct of this review. The inspectors reviewed station logs and condition reports to verify the accuracy of the licensee's data submission.

This constitutes three samples.

b. Findings

No findings of significance were identified.

.3 Review of Returning Performance Indicator Monitoring to the Baseline Inspection Program

The inspectors performed enhanced inspection activities in the 2nd, 3rd, and 4th quarters of CY2004 associated with the Initiating Events, Mitigating Systems, and Barrier Integrity Cornerstone Performance Indicators. Based on the results of these inspections and evaluation of the licensee's submitted data, the Oversight Panel has determined that the PIs will be returned to normal monitoring under the baseline inspection program.

4OA2 Identification and Resolution of Problems (71152)

.1 Daily Review

a. Inspection Scope

As required by Inspection Procedure 71152, Identification and Resolution of Problems, and in order to help identify repetitive equipment deficiencies or specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the licensee's corrective action program. This screening was accomplished by reviewing documents entered into the licensee corrective action program and review

of document packages prepared for the licensee's daily Management Alignment and Ownership Meetings.

b. Findings

No findings of significance were identified.

.2 Semi-Annual Trend Review

a. Inspection Scope

As required by Inspection Procedure 71152, "Identification and Resolution of Problems," the inspectors performed a review of the licensee's corrective action program (CAP) and associated documents to identify trends that could indicate the existence of a more significant safety issue. The inspectors' review was focused on repetitive equipment issues, but also considered the results of daily inspector CAP item screening discussed in section 4OA2.1 above, licensee trending efforts, and licensee human performance results. The inspectors' review considered the 6 month period of July 2004 through December 2004. Inspectors also reviewed collective significance condition reports and Quality Trend Summary Reports. The review also included issues documented in the licensee's system health reports and maintenance rule assessments. The inspectors compared and contrasted their results with the results contained in the licensee's latest quarterly trend reports.

The inspectors also evaluated the reports against the requirements of NOP-LP-2001, "Condition Report Process," Revision 8 and NG-NA-00711, "Quality Trending," Revision 06, and 10 CFR Part 50, Appendix B.

b. Assessment and Observations

During the 3rd and 4th quarters of 2004, the Davis-Besse Nuclear Power Station remained under the IMC 0350 Process. As part of approval process which granted restart approval to the facility, the licensee was issued a Confirmatory Order which required, in part, that the licensee, on an annual basis, contract for independent assessments in the areas of operations performance, organizational safety culture, the corrective action program implementation, and the engineering program effectiveness. Assessments in each of these areas was completed during the 3rd and 4th quarters of 2004 and each assessment, either directly or indirectly, assessed the licensee's ability to identify and resolve issues. Senior inspectors have been assigned to review each of the completed assessments.

Although the Agency's evaluation of these Independent Assessment Reports continue, to date no new significant adverse performance trends have been identified as a result of these assessments. Additionally, based on the inspectors' evaluation of condition reports, trending reports, quality assessment reports, system health reports, and daily observations of licensee performance. There were no examples identified where the licensee failed to identify an adverse performance trend.

.3 Biennial Licensed Operator Training Program Sample Review

a. Inspection Scope

The inspectors reviewed licensee self-assessments and eleven corrective action documents written to document deficiencies identified in the licensed operator training program. The licensee's self-assessments included a review of the licensed operator training program completed approximately a month prior to this inspection activity. The self-assessments and corrective action documents were reviewed to ensure that the full extent of the issues were identified, an appropriate evaluation was performed, the condition report was appropriately prioritized, and that actions were planned or in-progress to resolve the issues.

b. Findings

No findings of significance were identified.

4OA3 Event Followup (71153)

.1 On December 23, 2004, at 0614 , the plant declared a station isolation and implemented their emergency plan off-normal procedure RA-EP-02870, "Station Isolation," due to a winter storm quickly depositing large amounts of snow in Ottawa and surrounding counties. The weather conditions caused Ottawa County, the plant's county of residence, to declare a category 3 snow emergency. At 1345, the licensee made an 8-hour notification to the NRC (Event 41286) under 10 CFR 50.72(b)(3)(xiii) for a loss of emergency response capability due to the potential inability of local population to perform an evacuation. At 1805 hours on December 23, 2004, after weather conditions improved, Ottawa County downgraded the weather emergency and the plant exited the off-normal procedure. The inspectors observed the licensee's implementation of RA-EP-02780 and sampled the licensee's manning relative to commitments for emergency planning and for normal station operations. No items of significance were identified.

.2 (Closed) LER 05000346/1998-002-01: Plant Trip Due to High Pressurizer Level as a Result of Loss of Letdown Capability

Licensee Event Report 05000346/1998-002-00, "Plant Trip Due to High Pressurizer Level As a Result of Loss of Letdown Capability" was previously evaluated and closed by inspectors in Inspection Report 05000346/99009(DRP). The details of the event, the licensee's actions, and corrective actions were documented in Inspection Report 05000346/98005(DRP). No violations of regulatory requirements or findings of significance were observed.

On November 7, 2003, the licensee submitted Revision 01 to this LER. The purpose of this revision was to update their commitments which addressed this issue. These commitments included: determining the failure mechanism for Makeup and Purification Demineralizer #3; flushing of the letdown flow path, as necessary; evaluating and testing

Valve MU4; and evaluating the Integrated Control System for a trip at low power to determine if operating practices could be enhanced.

The inspectors reviewed the licensee's corrective actions and determined them to be acceptable. This item is closed.

4OA5 Other Activities (93812)

Following restart authorization, Inspection Procedure 93812 remained in effect to facilitate the evaluation and documentation of issues not specifically covered by existing procedures, but important to the evaluation of the licensee's performance post-restart. This inspection procedure remains in effect as part of the integrated resident inspection report until a time to be determined by the Davis-Besse Oversight Panel.

.1 Evaluation of the Independent Engineering Assessment Report

a. Inspection Scope

As part of the inspection activities performed to verify the licensee's compliance with the requirements for independent assessments, as described in the March 8, 2004, Confirmatory Order Modifying License No. NPF-3, the inspectors reviewed the Confirmatory Order Independent Assessment Report of the Engineering Program Effectiveness at the Davis-Besse Nuclear Power Station, dated December 6, 2004. The inspectors reviewed the report to determine whether the report provided an overall assessment of Engineering performance, the Team's assessment activities supported the report's conclusions, and the licensee documented specific action plans to address deficiencies that were documented in the report.

b. Observations and Findings

The first annual Davis-Besse Independent Engineering Assessment required by the Order was performed during the time period of October 11, 2004 to October 22, 2004. The inspectors reviewed and documented their evaluation of the Independent Assessment Plan and implementation in Inspection Report 05000346/2004015. During the time period that the assessment team was on site, the inspectors observed many of the assessment activities while they were in progress. On December 6, 2004, the licensee submitted the Engineering Independent Assessment Final Report to the NRC. This report documented the findings of that assessment.

The final report was broken down into six areas of assessment:

- Modifications Process;
- Calculations;
- System Engineering;
- Use of the Corrective Action Program by Engineering;
- Management Topics; and
- Self Assessment

The independent assessment team reviewed engineering products in a number of areas and did not identify any discrepancies that were considered significant in terms of the validity of the work product, or indicative of a systematic deficiency in engineering work performance or management. The team identified a number of areas where changes could be made to enhance Engineering performance. These "Noteworthy Items" were captured by the licensee in the corrective action program. As a direct result of the assessment activities, the team developed conclusions in each of the assessment areas and identified the following three "Areas for Improvement":

- Slow closure of some modifications - The team identified that approximately 550 Engineering Change Requests have not yet been dispositioned and approximately 57 modifications, some installed as early as 1998, were not closed out;

- Declining focus on and rate of progress of the Calculation Improvement Program - Relatively few items have been addressed since restart and most items initially due in the March - June 2004 time frame were extended through the end of the year. Many of these items were reported as 0 percent complete; and

- Slippage of the Self Assessment schedule and mixed quality of assessment findings and corrective actions - The team found that of the 34 engineering self assessments scheduled for 2004, 7 were completed, 10 were pending completion, and 17 were canceled. Of the 16 self assessments that the team reviewed, half were found to be thorough and to identify appropriate corrective actions while the remaining half were found to be average or below average, particularly with respect to corrective actions.

In response to these issues, the licensee developed and committed to several Action Plans in the December 6, 2004 submittal. These commitments are scheduled for completion during 2005 with the exception of the classification of the 550 proposed engineering changes, which is scheduled for completion by the end of Cycle 14 (February 2006 time frame).

The assessment team also identified the following strengths during the assessment activities:

- Rapid Response Team effectiveness in supporting resolution of emergent issues;

- Internalization of Engineering Principles and Expectations; and

- Engineering Assessment Board influence on the quality of engineering work products.

c. Conclusions

The inspectors concluded that the independent assessment team's activities were of sufficient depth and scope. The results of these activities were adequately documented

and the Action Plans developed by the licensee to address the Areas For Improvement were appropriate. This independent assessment of Engineering performance was found to be in accordance with the requirements of the March 8, 2004, Confirmatory Order.

.2 Review of Operations Independent Assessment Report Revision Submittal

The inspectors documented their initial review of the Operations Independent Assessment Report in inspection report 05000346/2004015.

In a meeting on December 7, 2004, the NRC requested the licensee to provide an overall assessment of Operations Department performance beyond that already submitted to the NRC on October 8, 2004. In addition to the overall performance assessment, the NRC also requested that several of the report's documented Areas For Improvement be clarified and placed in proper context. Based on the discussion, the licensee committed to request the Operations Independent Assessment Team to revise their report to provide a comprehensive assessment of their findings and to clarify the Areas For Improvement associated with non-licensed operator/licensed operator training programs (Commitment #A21355) and Shift Manager Responsibilities (Commitment #A21341).

On December 22, 2004, the licensee submitted Revision 1 of the Independent Assessment Report of Operations Performance for the Davis-Besse Nuclear Power Station. The inspectors determined that the revision adequately documented the requested information.

The inspectors concluded that the team's assessment activities were of sufficient depth and scope; that the results of these activities were sufficiently documented; and that the Action Plans developed by the licensee to address the Areas For Improvement were adequate.

.3 Station Battery 2P/2N Terminal Corrosion

Introduction: The inspectors identified a Non-Cited Violation of 10CFR 50, Appendix B, Criterion XVI, having very low safety significance, for the licensee's failure to take timely corrective action to remove visible corrosion on several terminal connections on the station's safety-related 2P and 2N batteries. The primary cause of this finding was related to the cross-cutting area of problem identification and resolution.

Description: On December 6, during a tour of the 2P and 2N station battery room the inspectors noticed surface corrosion present on several terminal connections for each battery, and a buildup of corrosion products on the terminal connection for at least two cells.

Further inspection revealed that some corrosion had existed on several terminals of the 2P and 2N battery terminals since late 2003, and was documented in the licensee's corrective action program as Condition Report 03-10564. An apparent cause evaluation associated with this condition report, which was approved on January 19, 2004, documented, in part, the following:

> The consequences of battery post seal leakage is slow degradation of battery connections due to corrosion. This condition can be remedied by cleaning off the corrosion and re-coating the affected area with no-oxide grease. Preventative action is to replace the seals, or replace the battery. The condition is monitored during quarterly battery surveillance. The resistance of corroded connections is measured to determine if corrosion has progressed to the point of affecting the electrical contact area between the battery post and inter-cell connector. Operating history indicates that the battery can tolerate this condition without degradation of electrical contact for several months. Two orders have been initiated to remediate the condition.

Based on this evaluation, two corrective actions were initiated in January 2004. These corrective actions were for the "plant engineer to verify that work order for cleaning connections of Battery 2P [2N] is scheduled and completed." These corrective actions were subsequently deferred in July 2004. The reason for these deferrals was documented as follows:

> "Battery surveillance to date indicates that the battery connection resistance readings are not affected by the visible corrosion. Cleaning corrosion from the battery connections involves some degree of risk associated with cleaning energized components. The risk of battery connector cleaning must be weighed against the risk of "doing nothing" until batteries 2N and 2P are replaced during the mid-cycle outage. Based on visual inspection performed on 7/12/04 the risk associated with cleaning battery connections outweighs the risk of extending the maintenance."

Again in November 2004, subsequent to the performance of the DB-ME-03001, "Station Battery Quarterly Surveillance," Revision 8, for the 2P and 2N station batteries, condition reports were written which documented corrosion present on terminal connections of approximately 62 cells. Again, no action was taken to remove the corrosion and re-coat the terminal connections with no-oxide grease material.

On December 7, 2004, the inspectors had several discussions regarding the issue of battery terminal connection corrosion with senior operations department individuals. During these discussions, the inspectors learned that the Davis-Besse electrical maintenance procedures used to periodically inspect and test the station batteries did not contain instructions that allowed the electricians to address minor corrosion issues as part of those maintenance activities. Additionally, the inspectors were informed that since none of the affected battery cells had exhibited terminal connection resistance values in excess of 150 micro ohms, the licensee was willing to accept the terminal corrosion until the 2P/2N batteries were replaced in January 2005.

On December 8, 2004, the inspectors discussed this issue with the Plant Manager. Shortly after that discussion, actions were taken to clean the terminal connections on the 2P and 2N station battery, and DB-ME-03001 was revised to include instructions to clean corrosion on battery terminal connections when identified.

Analysis: The inspectors determined that not taking prompt action to correct a known deficiency on the safety-related station batteries was a performance deficiency because the issue was reasonably within the licensee's ability to foresee and correct and could have been prevented. The inspectors determined that the finding was more than minor because it impacted the Mitigating Systems cornerstone objective to ensure the availability, reliability, and capability of systems that respond to initiating events to prevent undesirable consequences. This violation was determined not to constitute an immediate safety issue and was determined to be of very low safety significance because there were no documented cases of any of the affected battery cell's terminal resistance measurements in excess of 150 micro-ohms.

Enforcement: 10CFR 50, Appendix B, Criterion XVI, states, in part, that measures shall be established to assure that conditions adverse to quality such as deficiencies, deviations, and defective material and equipment are properly identified and corrected. Contrary to this, varying degrees of corrosion existed for an extended period of time on the terminal connections for several of the cells that comprise the 2P and 2N safety-related station batteries. Because this finding was determined to have very low safety significance, and because this issue was entered into the licensee's corrective action program, this violation is being treated as a Non-Cited Violation consistent with Section VI.A of the NRC Enforcement Policy (NCV 05000346/2004016-01). The licensee entered this issue into their corrective action program as CR 04-07545.

.4 Frazil Ice Issues

During the early morning hours of December 21, 2004, the licensee observed decreasing service water intake forebay levels which were not consistent with level changes in Lake Erie. The intake forebay is a reservoir that is connected to Lake Erie by a 96 inch pipe, through which makeup water flows when there is a difference between intake and Lake levels. Diverging levels in clear winter weather is indicative of frazil ice blockage of the intake crib at the Lake Erie side of the makeup pipe. The licensee entered Section 4.2, "Actions During Frazil Ice Conditions," of procedure DB-OP-06913, "Seasonal Plant Preparation Checklist," and took actions to minimize water losses from the intake forebay. Upon completion of these actions, the forebay water level, which was at approximately the 567 feet level, was observed to be decreasing at approximately 4 inches per hour.

At an elevation of 562 feet, the licensee has sufficient water in the forebay to meet their design requirements for an ultimate heat sink. If the actual water level decreases to below 562 feet, the licensee's technical specifications require shutdown to hot standby within 2.5 hours. At 564 feet, the licensee's procedures require them to place in service a temporary pump that is sized to pump approximately 9000 gpm from Lake Erie, over the dike for the intake canal, and into the forebay via the intake canal. The lowest level reached in the intake forebay was approximately 564.8 feet before warming weather conditions restored normal makeup flow from the lake. Although the level did not decrease below 564 feet, the licensee conservatively decided to demonstrate the capability to install and operate the temporary pump.

The inspectors monitored the licensee's decision making process, compliance with existing procedures, and the installation and testing of the temporary pump. The inspectors noted that the licensee had also experienced apparent frazil ice blockage on the mornings of December 24 and December 25 but that the levels did not decrease below 565 feet level in the intake forebay.

No items of significance were identified.

.5 Containment Entry for Lubricating Oil Addition

On December 27, 2004, the licensee made a containment entry to add approximately 3 gallons of oil to the reservoir for RCP 1-2 motor lower bearing. The reactor power was maintained at approximately 100 percent. Oil addition was through a remote addition line that was located in an accessible area. Licensee personnel initially added approximately 2 quarts of oil to verify integrity of the oil addition line. The initial fill was sufficient to clear the low level alarm and also verified that oil was traveling to the oil reservoir. The inspectors observed the ALARA brief and observed the licensee's activities while in containment.

No items of significance were identified.

.6 Licensee Preparations for a Potential Work Stoppage (92709)

The majority of licensee's plant physical workers, including reactor operators, are represented by Local 245 of the International Brotherhood of Electrical Workers (IBEW). The inspectors continued to monitor the on-going contract negotiations between the licensee and the Local 245. Although both union and licensee management representatives have indicated a willingness to continue negotiations beyond the expiration date, the licensee has made preparations to ensure compliance with regulatory requirements in the event of a work stoppage. The inspectors, using guidance in Inspection Procedure 92709, "Licensee Strike Contingency Plans," have reviewed the licensee's plans for ensuring a sufficient number of qualified personnel are available to maintain the plant in a safe condition, should a work slowdown or stoppage occur.

No items of significance were identified.

4OA6 Meetings

.1 Exit Meeting

The inspectors presented the inspection results to Mr. B. Allen, and other members of licensee management on January 6, 2005. The licensee acknowledged the findings presented. No proprietary information was identified.

.2 Interim Exit Meetings

An interim exit meeting was conducted for:

- Biennial Licensed Operator Requalification Program Inspection with Mr. Allen on November 19, 2004;

- Overall assessments of the annual operating test and the biennial written examination results via telephone with Mr. Stallard on December 13, 2004; and

- Access control to radiologically significant areas, ALARA planning and controls program and radiological waste and transportation with Mr. R. Schrauder on December 10, 2004.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

B. Allen, Director, Plant Operation
M. Bezilla, Site Vice President
B. Boles, Manager, Plant Engineering
D. Bondy, Staff Instructor
P. Faris, Senior Nuclear Assessor, Davis-Besse Oversight
J. Grabnar, Manager, Design Engineering
L. Harder, Manager, Radiation Protection
R. Hovland, Manager, Technical Services
R. Hruby, Manager, Nuclear Oversight
D. Kline, Manager, Security
D. Lange, Staff Instructor
S. Loehlein, Director, Station Engineering
L. Myers, Chief Operating Officer, FENOC
D. Noble, Radiation Protection Supervisor
K. Ostrowski, Manager, Plant Operations
C. Price, Manager, Regulatory Compliance
M. Roder, Transaction Manager, Training
J. Reuter, Radwaste Shipper
R. Schrauder, Director, Performance Improvement
A. Stallard, Supervisor, Operations Training
C. Steenbergen, Shift Manager
M. Stevens, Manager, Maintenance
M. Trump, Training Manager
D. Wahlers, Supervisor, Nuclear Oversight
D. Wuokko, Compliance Supervisor, Performance Improvement

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

05000346/2004016-01	NCV	Untimely Corrective Actions to Correct Safety-Related Battery Terminal Connection Corrosion

Closed

05000346/1998-002-01	LER	Plant Trip due to High Pressurizer Level as a result of Loss of Let Down Capability

LIST OF DOCUMENTS REVIEWED

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

1R05 Fire Protection

Davis-Besse Nuclear Power Station Fire Hazard Analysis Report
Drawing A-0221F; Fire Protection General Floor Plans El 545' & 555'; Revision 07
Drawing A-2132, Sheet 6; Barrier ID- Room 113; Revision 00

1R11 Licensed Operator Requalification Program

NG-NT-00601; Control of the Plant-Referenced Simulator; Revision 3; dated November 12, 2004
NT-OT-07001; Licensed Operator Requalification Program; Revision 7
NOP-TR-1001; FENOC Conduct of Training; Revision 0
NOBP-TR-1104; FENOC Design and Development of Training Materials; Page 3; Revision 0
DBBP-TRAN-0021; Simulator Configuration Control; Revision 0; dated November 12, 2004
DBBP-TRAN-0502; Development and Conduct of Continuing Training Simulator Evaluations; Revision 0
Comprehensive Biennial Written Examination; SRO #1, 2004; RO, 2004; RO #3, 2004
Simulator Scenario: ORQ-EPE-S113; Revision 7
Simulator Scenario; ORQ-EPE-S105; Revision 9
Job Performance Measure; OPS-JPM-015; Revision 0
Job Performance Measure; OPS-JPM-052; Revision 0
Job Performance Measure; OPS-JPM-053; Revision 1
Job Performance Measure; OPS-JPM-076; Revision 1
Job Performance Measure; OPS-JPM-100; Revision 1
Job Performance Measure; OPS-JPM-101; Revision 1
Shift Manager/Unit/Field Supervisor/Shift Engineer Turnover Checklist; dated November 16, 2004
Davis-Besse Nuclear Power Station Licensed Operator Requalification Training Program Training Plan; Revision 8; dated January 30, 2004
Pre-job Briefing Package; Cycle 04-04 Management Introduction; dated November 15, 2004
Post-Training Assessment Report; Training Appraisal Questionnaire for Just-in-Time Training for Startup/Criticality and Generator Synchronization; dated October 19, 2004
Sample of Crew and Individual Simulator Performance Evaluation Forms for Year 2003
Sample of Week 1 (November 1, 2004) NRC Requalification Examination Simulator Results

Sample of Remediation Packages; NOP-TR-1001-01; Remedial/Make-Up Recommendations; Dated various
Requalification Training Attendance; Trainee Tracking - EDGs-OPS-IER-1042
Requalification Training Attendance; Trainee Tracking - RPS-OPS-SYS-1504
Requalification Training Attendance; Trainee Tracking - T.S. 2.0/3.0/4.0
Requalification Training Attendance; Trainee Tracking - OPS-GOP-1420
Requalification Training Attendance; Trainee Tracking - OPS-GOP-1430
Licensed Operator Long Term Continuing Training Schedule; Revision 3; dated November 15, 2004
TNS-04-00322; Intra-Company Memorandum; Third Quarter 2004 Proficiency Status; Revision 0; dated October 7, 2004
Listing of Closed Simulator Work Orders (SWO) Between January 01, 2002 through November 16, 2004
SWO 02-0029; Open; Update NAS on Daisy for Cycle 12 Data; Issue Date March 27, 2002
SWO 02-0116; Open; Containment RAD Reached 3600 R/hr as Read on RI 4596A/B; Issue Date April 28, 2003
SWO 03-0071; Open; Alarms 5-1-C and 5-1-D SFAS Trip Alarms Come in When Blocked; Issue Date October 17, 2003
SWO 04-0076; Open; Start Program on SPDS is Still Using Cycle 13 Data Need to Update to Cycle 14; Issue Date June 22, 2004
SWO 04-0103; Open; Turbine MS Point Out of Tolerance on PPC; Issue Date June 30, 2004
SWO 02-0012; Open; Setpoint Change or Variable P/T Trip-RPS; Issue Date February 18, 2002
SWO 02-0084; Open; Replacement of Victoreen RAD Monitors; Issue Date October 1, 2002
SWO 03-0002; Open; Maximum Allowed Boron on Simulator is 2500 ppm [meter indication]; Issue Date June 3, 2003
Simulator Certification Test; TAB01; Manual Reactor Trip; dated October 6, 2004
Simulator Certification Test; TAB02; Simultaneous Trip of All Main Feedwater Pumps; dated October 6, 2004
Simulator Certification Test; TAB05; Simultaneous Trip of All Reactor Coolant Pumps; dated October 13, 2004
Simulator Certification Test; TAB07; Maximum Rate Power Ramp 100 percent, 75 percent, 100 percent; dated October 19, 2004
Simulator Certification Test; TAB09; Main Steam Line Failure in the Reactor Building; dated October 19, 2004
Simulator Certification Test; N03; Zero Power Physics Testing (Core Physics Testing); dated March 08, 2002
Simulator Certification Test; T10; Total Loss of Feedwater; dated June 21, 2000
Simulator Certification Test; T16; Generator/Turbine Trip; dated February 16, 2003
Simulator Certification Test; T03B; Loss of All AC Power and Loss of Both Diesels; dated December 22, 2001
Condition Report (CR) 04-05449; Simulator Configuration Control Improvement Opportunities; dated September 2, 2004
CR 04-00181; Missed Technical Specification Action Statement; dated January 6, 2004

CR 04-01230; Missed Technical Specification Entry; dated February 12, 2004
CR 04-04406; Missed Surveillance Requirement 4.3.1.1.1 for RCS Flow Channel Check; dated July 6, 2004
CR 02-09434; NRC Inspection 71111.11 Licensed Operator Requal Inspection Comments; dated November 15, 2002
Operations Events Involving Technical Specifications Identified in Condition Report 04-04425; dated August 23, 2004
Self-Assessment Report 2004-0105; Simulator Configuration Control; dated September 2, 2004
Self-Assessment Report CR/CA 04-02029-06; Licensed Operator Requalification Program; dated November 4, 2004

1R12 Maintenance Effectiveness

DB-PF-0003; Maintenance Rule; Revision 06
NUREG-1482; Guidelines for Inservice Testing At Nuclear Power Plants; Revision 01
Pump and Valve Basis Document; Volume II - Pump Basis; Revision 00
MRPM 15; Maintenance Rule Program Manual; Revision 15
Davis-Besse Plant Health Report; 3rd Quarter 2004
CR 04-04656; INPO 2004 Evaluation - AFI CM.1-1 (Operating and Design Margins)

1R15 Operability Evaluations

DB-MM-05001; Bench Testing Snubbers; Revision 04
DB-PF-00107; Hydraulic Snubber Program; Revision 0
CR 04-07274; Snubber Test Inaccuracies not Accounted for in Recorded Results

1R16 Operator Workarounds

DB-OP-06013; Containment Spray System; Revision 12
Shift Manager/Unit/Field Supervisor/Shift Engineer Turnover Checklist

1R22 Surveillance Testing

DB-SS-03091; Motor Driven Feed Pump Quarterly Test; Revision 06
CR 04-07062; Instrumentation Snubber Problem
Dwg OS-012A, Sheet 1; Main Feedwater System; Revision 22

2OS2 ALARA Planning And Controls

CR04-02353; ALARA Brief Not Performed per DB-HP-01154; dated March 30, 2004
RWP 2004-2001; Containment Entry; Revision 3
ALARA Plan; RWP 2004-2001 Containment Entry

2PS2 Radioactive Material Processing and Transportation

CR04-04156; Safety Concern - Resin Transfer And Changing Rad Conditions; dated June 23, 2004

CR04-05833; Contamination Found On Vendor RAM Shipment to DB; dated September 23, 2004
CR04-06946; Provide Instructions for Transportation of Radioactive Samples Less Than 0.002 Micro-curies Per Gram; dated November 11, 2004
CR04-06943; Establish Maximum Dose Rate for Radioactive Material Area Boundary; dated November 11, 2004
CR04-07458; Missed HIC Dewatering Verification; dated December 6, 2004
CR04-08560; Issues with 10 CFR Part 61 Sampling and Analysis Program; dated October 7, 2003
NQA Field Observation; Process Control Program; dated October 27, 2003
NQA Field Observation; 10 CFR Part 61 Radwaste Classification; dated October 15, 2003
NQA Field Observation; Transfer of Spent Purification Filters; dated July 9, 2004
DB-HP-01502; Dewatering of Filter Media; Revision 5
DB-HP-03002; Dewatering Verification; Revision 2
NOP-OP-2; Shipment of Radioactive Material/Waste; Revision 4
DB-PCP; Process Control Program; Revision 6
DB-HP-06120; Miscellaneous Liquid Waste Demineralizer Operations; Revision 5
DB-HP-01712; 10 CFR Part 61 Sampling For Waste Classification; Revision 00
Qualification Matrix; Receiving Shipping Rad Material; dated December 7, 2004
BWXT Analysis Report; 10 CFR Part 61 Isotopic Data; dated April 30, 2004
Lesson Plan; Packaging, Transport And Disposal Of Radioactive Waste; Revision 1
Qualification Matrix DOT Training; dated December 8, 2004
Shipping Papers; 04-1001 Dewatered Resin, Type B Shipment; dated May 18, 2004
Shipping Papers; TR04-0002 Primary Resin Type B Shipment; dated April 2, 2004
Shipping Papers; Radwaste LSA TR03-0018; dated August 5, 2003
Shipping Papers; Radwaste LSA Filters TR03-022; dated September 23, 2003
Shipping Papers; Radwaste LSA TR03-0019; dated August 7, 2003

4OA1 Performance Indicator Verification

Unit Logs; October 1, 2003 through September 30, 2004

4OA2 Problem Identification and Resolution

CR 04–07142; Simulator Data Improvement Opportunity Noted During NRC Inspection; dated November 18, 2004
CR 04-07143; Criteria Used to Evaluate Crew Performance Could Be More Objective; dated November 18, 2004
CR-04-07144; NRC Licensed Operator Requalification Training Program Inspection [Areas Needing Improvements/Enhancements]; dated November 16, 2004
CR 04-07545; NRC Resident Questions For Batteries 2P and 2N

4OA3 Event Followup

RA-EP-02870; Station Isolation; Revision 02

4OA5 Other Activities

_____IP 92709; Licensee Strike Contingency Plans; August 12, 1992
DB-OP-06913; Seasonal Plant Preparation Checklist; Revision 10

4OA5 Other Activities (93812)

CR 04-07545; NRC Resident Questions For Batteries 2P and 2N
CR 03-10564; Corrosion on Battery 2P and 2N Battery Terminals
CR 04-03711; Station Battery 2P Corrosion
CR 04-03692; Station Battery 2N Corrosion
CR 04-07277; Corrosion Found on Cell Connections for 2N Station Batteries
CR 04-07270; Corrosion Found on Cell Connections for 2P Station Batteries
DB-ME-03001; Station Batteries Quarterly Surveillance; Revisions 8 and 9

LIST OF ACRONYMS USED

ADAMS	Agency-wide Document Access and Management System
ALARA	As Low As Is Reasonably Achievable
CCW	Component Cooling Water
CFR	Code of Federal Regulations
CR	Condition Report
FENOC	FirstEnergy Nuclear Operating Company
ICS	Integrated Control System
IMC	Inspection Manual Chapter
IR	Inspection Report
JPM	Job Performance Measure
JFG	Job Familiarization Guidelines
LER	Licensee Event Report
LHRA	Locked High Radiation Area
LORT	Licensed Operator Requalification Training
NCV	Non-Cited Violation
NRC	United States Nuclear Regulatory Commission
PARS	Publicly Available Records
PI	Performance Indicator
RCP	Reactor Coolant Pump
RCS	Reactor Coolant System
RP	Radiation Protection
RWP	Radiation Work Permit
SDP	Significance Determination Process
SWO	Simulator Work Order
TS	Technical Specifications
USAR	Updated Safety Analysis Report
WO	Work Order