July 24, 2001

Mr. Guy G. Campbell Vice President - Nuclear 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 INSPECTION REPORT 50-346/01-10

Dear Mr. Campbell:

On June 30, 2001, the NRC completed an inspection at your Davis-Besse Nuclear Power Station. The enclosed report documents the inspection findings which were discussed on June 28, 2001, with Mr. Bergendahl 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.

No findings of significance were identified.

In accordance with 10 CFR 2.790 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 <u>http://www.nrc.gov/NRC/ADAMS/index.html</u> (the Public Electronic Reading Room).

Sincerely,

/**RA**/

Laura L. Collins, Chief (Acting) Projects Branch 4 Division of Reactor Projects

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

Enclosure: Inspection Report 50-346/01-10(DRP)

See Attached Distribution

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G. Campbell

cc w/encl: B. Saunders, President - FENOC Plant Manager Manager - Regulatory Affairs M. O'Reilly, FirstEnergy Ohio State Liaison Officer R. Owen, Ohio Department of Health A. Schriber, Chairman, Ohio Public Utilities Commission

G. Campbell

cc w/encl: B. Saunders, President - FENOC Plant Manager Manager - Regulatory Affairs M. O'Reilly, FirstEnergy Ohio State Liaison Officer R. Owen, Ohio Department of Health A. Schriber, Chairman, Ohio Public Utilities Commission

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U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: License No:	50-346 NPF-3
Report No:	50-346/01-10(DRP)
Licensee:	FirstEnergy Nuclear Operating Company
Facility:	Davis-Besse Nuclear Power Station
Location:	5501 North State Route 2 Oak Harbor, OH 43449-9760
Dates:	May 17 through June 30, 2001
Inspectors:	 K. Zellers, Senior Resident Inspector J. Belanger, Senior Physical Security Inspector L. Collins, Senior Project Engineer K. Green-Bates, Engineering Specialist J. Larizza, Fermi Resident Inspector G. O'Dwyer, Engineering Specialist
Approved by:	Laura L. Collins, Chief (Acting) Projects Branch 4 Division of Reactor Projects

SUMMARY OF FINDINGS

IR 05000346-01-10(DRP), on 05/17-06/30/2001, FirstEnergy Nuclear Operating Company, Davis-Besse Nuclear Power Station. Integrated Inspection Report.

This report covers a 6-week routine inspection, a heat sink performance inspection and a baseline security inspection. The inspection was conducted by resident inspectors and two regional engineering specialists, and a regional security specialist. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using IMC 0609 "Significance Determination Process" (SDP). The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at <u>http://www.nrc.gov/NRR/OVERSIGHT/index.html.</u> Findings for which the SDP does not apply are indicated by "No Color" or by the severity level of the applicable violation.

A. Inspector Identified Findings

No findings of significance were identified.

B. Licensee Identified Findings

No findings of significance were identified.

Report Details

Summary of Plant Status

The plant operated at 100 percent power throughout most of the inspection period. Exceptions were for a planned power reduction to 90 percent during June 22-24 for a feedwater heater drain valve repair, brief power reductions to about 93 percent for turbine testing, and to 90 percent at the request of the system dispatcher.

1. **REACTOR SAFETY**

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity

1R01 Adverse Weather (71111.01)

a. Inspection Scope

The inspectors reviewed relevant procedures and performed a walkdown of plant areas to verify that plant equipment was protected from seasonal-related risks to the plant such as mayfly infestation and hot temperatures. Transformer cooling systems were inspected for heat transfer ability. Plant ventilation system operation and actions taken to limit mayfly infestation effects were also reviewed.

b. <u>Findings</u>

No findings of significance were identified.

1R04 Equipment Alignments (71111.04)

a. <u>Inspection Scope</u>

The inspectors walked down portions of the risk significant auxiliary feedwater system. The inspectors conducted partial walk-down inspections by comparing station configuration control documentation with actual system/train lineups for the #1 and #2 auxiliary feedwater trains, during a motor driven feedwater pump outage.

b. <u>Findings</u>

No findings of significance were identified.

- 1R05 Fire Protection (71111.05)
- a. Inspection Scope

The inspectors walked down selected risk significant areas looking for any fire protection issues related to: the control of transient combustibles, ignition sources, fire detection equipment manual suppression capabilities, passive suppression capabilities, automatic suppression capabilities, and barriers to fire propagation. Areas walked down were the turbine deck area, train 1 and 2 low voltage switchgear rooms, train 1 and 2 emergency

diesel generator rooms and the condenser bay.

b. Findings

No findings of significance were identified.

- 1R07 Heat Sink Performance (71111.07)
- .1 Annual Review of Heat Exchanger Performance Testing
- a. Inspection Scope

The inspectors observed the licensee perform an inspection of the Motor Driven Feed Pump Lube Oil Cooler (E183). During this inspection, the inspectors observed the as-found condition of the heat exchangers to verify that no deficiencies that would mask degraded performance existed. Additionally, the inspectors conducted reviews to determine any potential for common cause problems, and discussed the as-found condition and historical performance of the Motor Driven Feed Pump Oil Cooler with engineering personnel. During the course of the inspection, the inspectors also reviewed a sample of heat exchanger condition reports, heat sink procedures and heat exchanger reports.

b. Findings

No findings of significance were identified.

- .2 <u>Biennial Review of Heat Sink Performance</u>
- a. <u>Inspection Scope</u>

The inspectors reviewed documents associated with testing, inspection, cleaning, and performance trending of the High Pressure Injection Pump Lube Oil Cooler 1-2, Decay Heat Removal Cooler 1-2, and Component Cooling Water Heat Exchanger 1-1. These heat exchangers were chosen based upon their relatively high risk achievement worths in the plant specific risk assessment as well as their importance in supporting required safety functions. The Decay Heat Removal Cooler 1-2 and the Component Cooling Water Heat Exchanger 1-1 were also selected to evaluate the licensee's thermal performance testing methods. The inspectors reviewed completed surveillance tests and associated calculations, and performed independent calculations to verify that these activities adequately ensured proper heat transfer. The inspectors verified that the test or inspection methodology and documentation was consistent with accepted industry and scientific practices, based on review of heat transfer texts and electrical power research institute standards (EPRI NP-7552, Heat Exchanger Performance Monitoring Guidelines, December 1991 and EPRI TR-107397, Service Water Heat Exchanger Testing Guidelines, March 1998). The inspectors also verified that Decay Heat Removal Cooler and Component Cooling Water Heat Exchanger test acceptance criteria assured

that the overall heat transfer coefficients calculated for extrapolated conditions were greater than or equal to the values assumed in the design basis calculation.

In addition, the inspectors reviewed condition reports concerning heat exchanger and ultimate heat sink performance issues to verify that the licensee had an appropriate threshold for identifying issues and entering them in the corrective action program. The inspectors also evaluated the effectiveness of the corrective actions for identified issues, including the engineering justification for operability, if applicable.

The documents that were reviewed are included at the end of the report.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11)

a. Inspection Scope

The inspectors reviewed the licensee's operator training program to evaluate operator performance in mitigating the consequences of a simulated event. The inspectors observed risk-important licensed operator actions and emergency plan implementation for an anticipated transient without scram followed by a stuck open main steam safety valve on the plant simulator to identify deficiencies and discrepancies in the training and to assess operator performance and evaluator critiques.

b. Findings

No findings of significance were identified.

1R12 Maintenance Rule Implementation

a. Inspection Scope (71111.12)

The inspectors reviewed equipment issues, surveillance failures, and other performance problems for the items listed below. The inspectors reviewed whether the components were properly scoped in accordance with the Maintenance Rule, whether the failures were properly characterized, and whether the performance criteria were appropriate.

- switchyard breakers opened up on two occasions and resulted in unplanned entries into Technical Specification (TS) Action Statements
- instrument isolation valve RC1BB stem to disk failure
- switchyard availability determination

b. Findings

No findings of significance were identified.

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

a. Inspection Scope

The inspectors evaluated the effectiveness of the risk assessments performed before maintenance was conducted on structures, systems and components (SSCs) and verified how risk was managed and if maintenance risk assessments and emergent work problems were adequately identified and resolved for the following activities:

- Motor Driven Feed Pump outage
- switchgear CD outage

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications (71111.17)

a. Inspection Scope

The inspectors reviewed the design documents and reviewed the post-installation testing of a modification to the main steam line 1 to auxiliary feed pump turbine 1-1 isolation valve MS106 Low-Low Pressure Switch (PSL4930A), and associated Agastat Relay (PSL4930X1) with modifications: ERW 01-0284-00 "AFPT 1 Main IN ISO Valve (HV106) Relay (PSL4930X1)", and Equivalent Replacement Resolution ERR 60-0001-091 "Installed Pressure Switch is Obsolete." The inspectors verified that the design bases, licensing bases, and performance capability of risk significant systems had not been degraded through the modification and that performance of the modification and subsequent testing did not place the plant in an unsafe condition. The inspectors also reviewed applicable condition reports and the Davis-Besse historical 10 CFR Part 21 Report 95-007 documentation for the Amerace E7000 relays.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19)

a. Inspection Scope

The inspectors verified that the post-maintenance test procedures and test activities were adequate to verify system operability and functional capability for the following risk significant activities:

- Replacement of the Motor Driven Feed Pump agastat relay
- Lubrication and meggering of the Motor Driven Feed Pump motor
- Replacement of low-low pressure switch, PSL4930A and associated agastat

relay PSL4930X1 for the #1 Auxiliary Feedwater Pump.

• Troubleshoot/Repair activities associated with the failure of the auxiliary feedwater pump turbine steam isolation valve MS106.

b. <u>Findings</u>

No findings of significance were identified.

1R22 Surveillance Testing (71111.22)

a. <u>Inspection Scope</u>

The inspectors observed the following surveillance tests and/or reviewed applicable test data, to verify that the subject risk-significant systems, structures and components were capable of performing their intended safety function. The inspectors conducted reviews of TS, Updated Safety Analysis Report (USAR), and licensee procedure requirements and evaluated the tests for potential preconditioning, effects on plant risk, clear and adequate acceptance criteria, operator procedural adherence, test data completeness, test frequency, test equipment range and accuracy, and post-test equipment restoration:

- Reactor Protection System Channel 1 Calibration
- Motor Driven Feed Pump Quarterly Test
- Offsite AC Sources Surveillance
- Component Cooling Water Pump Quarterly In-service Test
- b. <u>Findings</u>

No findings of significance were identified.

1R23 <u>Temporary Plant Modifications (71111.23)</u>

a. <u>Inspection Scope</u>

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 TSs to determine if there was any effects on system operability or availability and to verify temporary modification consistency with plant documentation and procedures.

- #2 Emergency Diesel Generator Air Start System Pipe
- #1 Emergency Diesel Generator Ventilation System
- b. <u>Findings</u>

No findings of significance were identified.

3. SAFEGUARDS

Cornerstone: Physical Protection

3PP4 Security Plan Changes (71130.04)

a. Inspection Scope

The inspectors reviewed Revisions 19/Change 1, 20, and 21 to the Davis Besse Industrial Security Plan and Revisions 12 and 12/Change 1 to the Davis Besse Nuclear Security Training and Qualification Plan, and Revision 3/Change 1 to the Nuclear Security Emergency Contingency Plan, to verify that the changes did not decrease the effectiveness of the submitted documents. The referenced revisions were submitted in accordance with the regulatory requirements of 10 CFR 50.54(p). Revision 19/Change 1 to the security plan was submitted by a licensee letter dated February 25, 2000. Revision 20 to the security plan and Revision 12 to the training and qualification plan were submitted by a licensee letter dated August 7, 2000. Revision 21 to the security plan, Revision 12/Change 1 to the training and qualification plan, and Revision 3/Change 1 to the contingency plan were submitted by a licensee letter dated April 15, 2001.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES (OA)

4OA1 Performance Indicator Verification

4OA1 Performance Indicator Verification (71151)

a. Inspection Scope

The inspectors reviewed Licensee Event Reports and unit log entries to determine if the performance indicators for unplanned scrams per 7000 critical hours and scrams with loss of normal heat removal were accurately and completely reported to the NRC by the licensee. The previous 12 months of data (January 2000 - February 2000) were inspected.

b. Findings

No findings of significance were identified.

4OA3 Event Follow-up (71153)

<u>(Closed) Licensee Event Report (LER) 50-346/2000-002 Revision 1:</u> Main Steam Safety Valve setpoints greater than TS allowable values. Revision 0 was evaluated in IR 50-346/2000-003 as a minor issue. Revision 1 presents an alternative corrective action plan based on Electric Power Research Institute efforts.

40A6 Exit Meeting

The inspectors presented the inspection results to Mr. Bergendahl and other members of licensee management at the conclusion of the inspections on June 28, 2001. The licensee acknowledged the findings presented. No proprietary information was identified.

Senior Official at Exit:	Howard Bergendahl
Date:	June 28, 2001
Proprietary (explain "yes"):	No
Subject:	Routine Resident Inspection; Heat Sink Inspection
Change to Inspection Findings:	No

KEY POINTS OF CONTACT

<u>Licensee</u>

- H. Bergendahl, Plant Manager
- G. Campbell, Site Vice President
- M. Widner, Work Week Manager
- M. Smith, Work Week Manager
- D. Andrews, Senior Engineer, Plant Engineering
- J. Jiamachello, Senior Engineer, Plant Engineering
- P. Mahoney, Senior Engineer, Design Basis Engineering
- A. Stallard, Senior Nuclear Advisor, Operations
- R. Hovland, Supervisor, Electrical/Control Systems, Plant Engineering
- W. Bentley, Superintendent, Operations
- T. Cobbledick, Shift Engineer, Operations
- R. Pell, Manager, Operations
- C. Gale, Senior Engineer, Nuclear, Heat Exchanger Program
- E. Matranga, Senior Engineer, Plant Engineering
- R. Cook, Compliance Engineer
- M. Nelson, Senior Engineer, Nuclear
- T. Lang, Supervisor of Nuclear Engineering

<u>NRC</u>

L. Collins, Chief (Acting), Reactor Projects Branch 4

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

<u>Closed</u>

50-346/2000-002 Revision 1 LER

Main Steam Safety Valve Setpoints Greater Than TS Allowable Values

LIST OF ACRONYMS USED

- CFR Code of Federal Regulations
- CR Condition Report
- DRS Division of Reactor Safety
- EDG Emergency Diesel Generator
- LER Licensee Event Report
- MDFP Motor-Driven Feedwater Pump
- MWO Maintenance Work Order
- NRC Nuclear Regulatory Commission
- OA Other Activities
- OS Operations Schematic
- P&ID Piping and Instrumentation Drawing
- SD System Description
- SSC Systems, Structures, and Components
- TM Temporary Modification
- TS Technical Specifications
- USAR Updated Safety Analysis Report

LIST OF DOCUMENTS REVIEWED

1R01 Adverse Weather

DB-OP-06913	Seasonal Plant Preparation Checklist	Rev 3		
1R04 Equipment Alignments				
OS-12A	Main Feedwater System			
OS-17A,B	Auxiliary Feedwater System			
Clearance SUB 045-02-008	Motor Driven Feedwater Pump Outage			
1R05 Fire Protection	<u>on</u>			
	Pre-Fire Plan			
	Fire Hazards Analysis Report			
Drawings A222F- A224F	Fire Protection General Floor Plan			
1R07 Heat Sink Pe	rformance			
CR 01-1547	Heat Exchanger Testing Frequency			
CR 01-1365	Recommendations From QA Surveillance SR- 01-ENGRG-04; Heat Sink Performance			
Toledo Edison Letter No. 1-904	Response to GL 89-13, Service Water System Problems Affecting Safety Related Equipment			
	Davis-Besse Tag Hang List for SUB050-03-002	June 13, 2001		
MWO 00-002730- 000	PM; E183 MDFP Lube Oil Cooler	June 5, 2001		
DB-SS-03091	Motor Driven Feed Pump Quarterly Test	July 11, 1997		
C-NSA-060.05- 008	Containment Post LOCA Response with Variable SW Temperature	2		
	Davis-Besse Nuclear Power Station - Performance Monitoring - Heat Exchanger Program	July 28, 1998		
DB-PF-04704	Component Cooling Water System Heat Exchanger 1 Performance Test Accomplished June 21, 2001	4		

DB-PF-04705	Component Cooling Water System Heat	3
	Exchanger 2 Performance Test Accomplished August 7, 2000	
DB-PF-04727	Decay Heat Cooler 1- 2 Performance Test Accomplished April 4, 2000	2
SR-01-ENGRG-04	QA Surveillance of Heat Exchanger Performance Monitoring , Inspection and Maintenance Program	May 31, 2001
SA-2001-0025	Self-Assessment Report Ultimate Heat Sink	June 20, 2001
SA-2001-0064	Self-Assessment Report Ultimate Heat Sink (Lake Erie and Forebay)	June 27, 2001
PCAQR 98-1511	CCW Heat Exchanger 1 Did Not Meet Acceptance Criteria for Performance Test	August 6, 1998
CR 2000-0716	DH Cooler Outlet Temperature Took a 10 Degree Step Change Increase over One Minute	April 2, 2000
CR 2000-10811	Non-Flow-Restrictive Zebra Mussel Shells Were Found During the Service Water Inspections of CCW Heat Exchanger 2 and 3	April 20, 2000
CR 2001-1123 ¹	Procedural Errors Identified During QA Review of Heat Exchanger Testing	April 25, 2001
CR 2001-1125 ¹	NRC Commitments Not Met and Implementing Procedures Changed Without Regulatory Affairs Approval	April 25, 2001
CR 2001-1335 ¹	Containment Air Cooler Air Side Fouling Criteria	May 22, 2001
CR 2001-1339 ¹	Heat Exchanger Program	May 22, 2001
CR 2001-1341 ¹	Heat Exchanger Testing Frequency	May 22, 2001
CR 2001-13651	Recommendations from QA Surveillance SR-01-ENGRG-04, Heat Sink Performance	April 25, 2001
CR 2001-1623 ²	Some Heat Exchangers Should Have Additional or More Formal Monitoring	June 26, 2001
CR 2001-1629 ²	NRC Identified CCW Heat Exchanger Test Procedures Do Not Incorporate 90 Degree F Maximum Service Water Temperature	June 27, 2001
CR 2001-1629 ²	NRC Identified Decay Heat Cooler Heat Transfer Test Calculation Discrepancy	June 28, 2001
1-71-06-30995C1	Setting Plan for 61" I.D. x 31'- 0" TL Component Cooling Heat Exchangers	4

1-71-06-30995D3	Component Cooling Heat Exchangers - Shell and Channel Details	4
1-71-06-30995D2	Tube Bundle Details for 61" I.D. x 31'- 0" TL Component Cooling Heat Exchangers	1
1-71-06-30995D1	61" DIA Tube Layout for Component Cooling Heat Exchangers	1
1-71-06-30995C3	Component Cooling Heat Exchangers - Hinged Channel Cover Details	2
1-71-06-30995C2	Support Details for Component Cooling Heat Exchangers	1
7749-M-23	Specification for Component Cooling Heat Exchangers for Davis-Besse Nuclear Power Station	3
Index #1995	Operating and Maintenance Instructions for Component Cooling Heat Exchangers, —23-20- 2	January 25, 1989
Index #28	Decay Heat Removal Cooler Vendor Technical Manual, M-517-21-5	February 14, 1989
P. O. # 022780	Decay Heat Removal Cooler Design/Construction Specification	September 1, 1976
C-2731-2	Decay Heat Removal Coolers - Baffle Cage Detail	August 13, 1971
Work Order 99- 003819-000 PM	Inspect and Clean CCW Heat Exchanger 1-1	April 17, 2000
¹ Condition re	port issued as a result of a self-assessment perform	ed in preparation for

¹ Condition report issued as a result of a self-assessment performed in preparation for this inspection.

² Condition report issued as a result of this inspection.

1R12 Maintenance Rule Implementation

	Davis-Besse System Health Reports	4 th Quarter 2000 1 st Quarter 2001
CR 2000-2385	Switchyard Breakers Opened up Due to Lightning Storm.	
CR 2000-2263	Switchyard Breakers Opened and K Bus Lost Due to a Temporary Ground on One of the Offsite Power Lines.	
USAR 8.2.1	Offsite Power Systems	
TS 3.8.1.1	Offsite Power Systems	

Maintenance Rule Program Manual	Section on Switchyard/Transformers	June 19, 2000
CR 01-1509	Failures of Velan supplied ASTM 461 GR 630 Material	
CR 00-1408	Valve RC1BB Disk Separated from the Stem	
Report IA #00-02	Independent Safety Engineering Group FENOC Electrical Power Grid Stability Study	August 24, 2000
SD-008A	13.8 KV System	
DB-OP-02001	Electrical Distribution Alarm Panel 1 Annunciators	Rev 3
CR 00-1860	Calculation C-EE-004.01-049 Concerns	
RIS 2000-24	Concerns About Offsite Power Voltage Inadequacies and Grid Reliability Challenges Due to Industry Deregulation	December 21,2000
CR 00-2065	Recommendations of the Independent Safety Engineering Group FENOC Electrical Power Grid Stability Study	
1R13 Maintenance F	Risk Assessment and Emergent Work Evaluation	<u>l</u>
CR 01-1468	Evaluate Scheduling Clearances with Safety Verification	
CR 01-1476	Material for MDFP was late	
CR 01-1475	MWO for MDFP not adequate	
CR 01-1473	Proper Tolerances Not in MWO	
CR 01-1474	Proper Torque Value for Coupling Not in MWO	
	Key Work Activities and Surveillances	week of June 4,2001
	Davis-Besse Weekly Maintenance Risk Summary Daily Review	June 5, 2001
	Work Week Schedule for June 3-9 issued	June 5, 2001
NG-DB-0001	Risk Significant Component Matrix Safety Monitor	Rev 0
	Davis-Besse Weekly Maintenance Risk Summary Daily Review	June 2, 2001
	Unit Logs	June 2, 2001

<u>1R17 Permanent Plant Modifications</u>

Dog No. E-30B SH. 8	General Guides - Misc Switch Development	Revision 8		
Dog No. E-46B SH. 54B	Steam & Condensate, Aux Feed Pump Main Steam IN ISO Valve	Revision 14		
Dog No. E-30B SH. 8E	Misc Switch Development	Revision 1		
10 CFR Part 21 Interim Report 95- 007	Amerace E7000 Series Relay Timers	June 1995		
10 CFR Part 21 Report 95-007	Amerace E7000 Series Relay Timers	October 1995		
	Instrument Information Sheet PSL-4930A	June 14, 2001		
EWR 01-0284-00	Replace AFPT 1 Main IN Iso Valve (HV106) Relay (PSL4930X1)	June 13, 200		
Equivalent Replacement Resolution ERR 60-0001-091	Aux Feed Pump 1-1 Suction After Strainer Press Switch Low Will Not Calibrate	June 13, 2001		
EN-DP-01212	Equivalent Change	January 20, 2001		
1R19 Post-Maintenance Testing				
MWO 00-816-000	Main Feedwater System and Elementary Wiring Diagrams			
SD-014	Main Feedwater System			
OS-12A	Main Feedwater System			
E-44B sheets 1A, 1B and 25	Elementary Wiring Diagrams for the MDFP			
DB-SS-03091	Motor Driven Feedwater Pump Quarterly Test	Rev 3		
CR 01-1531	PSL-4930A - Aux Feed Pump 1-1 Suction After Strainer Press Switch			
CR 01-1547	Main Steam Line 1 to Aux Feed Pump Turbine 1 Iso Valve			
MWO 00-004265- 000	MS106 Main Steam Line 1 to Aux Feed Pump Turb 1-1 ISO Valve			
MWO 00-003145- 000	PSL4930A Aux Feed Pump 1-1 Suction After Strainer Press Switch Lo			

IR22 Surveillance Testing

DB-MI-03057	RPS Channel 1 Calibration of Overpower, Power/Imbalance Flow, and Power/Pumps Trip Functions	Rev 4
DB-SS-03091	Motor Driven Feed Pump Quarterly Test	Rev 3
DB-PF-06704	Pump Performance Curves	Rev 1
	Pump and Valve Basis Document	
	Pump trending Plots for MDFP	
	Valve Trending Plots for valves FW6459 and FW6460	
System Descrip- tion SD-014	Main Feedwater System	
USAR 9.2.8	Motor Driven Feedwater Pump	
TS 3.7.1.7	Motor Driven Feedwater Pump System	
OS-12A	Main Feedwater System	
OS-17A	Auxiliary Feedwater System	
	Instrument Information Sheet for PSHL-5882 and PSHL-5883	
DB-PF-03074	Component Cooling Water Pump 3 Quarterly Test	June 11, 2001
USAR 9.2.2	Component Cooling Water System	
	Davis-Besse System Health Report	1 st Quarter 2001
	Component Cooling Water Pumps Design Basis Document	Rev 6
RP-7	IST Program Pump Relief Request	
DB-PF-06704	Component Cooling Water Pump Curve	
	Plots for Surveillance Report	May, 1999 - June, 2001
TS 3.7.3	Component Cooling Water System	
DB-SC-03041	On-Site AC Sources Lined Up, Available and Isolated	Rev 2

1R23 Temporary Plant Modifications

TM 01-0003	Diesel Generator Air Start Unit Log
USAR Section 8.3.1.1.4	Diesel Generator
P&ID M-017B	Diesel Generator Air Start
TS 3/4/8.1.1	A.C. Sources
MWO 01-2875-01	K5-2 Data Collection Plan fro CR 01-1050
MWO 01-2875-02	Inspect DA 31 CR 01-1050 Related
MWO 01-2875-03	Inspect Components between DA 31 and Air- start Motor
MWO 01-2875-04	Replace EDG Air-start Motors
MWO 01-2936-00	DA 231: Install TM 01-0003; CR 01-1082 Related
MWO 01-2936-01	DA 231: Removal TM 01-0003; CR 01-1082 Related
Temporary Modification (TM) 01-0006	TM for DA 231

LIST OF INFORMATION REQUESTED FOR HEAT SINK INSPECTION PREPARATION

The following information is needed by June 25, 2001, to support the biennial "Heat Sink Performance" inspection, Procedure 71111.07. Please provide for the following heat exchangers (HXs) [High Pressure Injection (HPI) Pump Lube Oil system Heat Exchanger 1-2, Decay Heat Removal Cooler 1-2, and Component Cooling Heat Exchanger 1-1]:

- 1. Copy of the two most recently completed tests confirming thermal performance of each HX. Include documentation and procedures that identify the types, accuracy, and location of any special instrumentation used for these tests (e.g., high accuracy ultrasonic flow instruments or temperature instruments). Include calibration records for the instruments used during these tests.
- 2. Copy of the evaluations of data for the two most recent completed tests confirming the thermal performance of each HX
- 3. Copy of the calculation which establishes the limiting (maximum) design basis heat load which is required to be removed by each of these HXs
- 4. Copy of the calculation which correlates surveillance testing results from these HXs with design basis heat removal capability (e.g., basis for surveillance test acceptance criteria)
- 5. The clean and inspection maintenance schedule for each HX
- 6. For the last two clean and inspection activities completed on each HX, provide a copy of the document describing the inspection results.
- 7. Provide a copy of the document which identifies the current number of tubes in service for each heat exchanger and the supporting calculation which establishes the maximum number of tubes which can be plugged in each HX.
- 8. Provide a copy of the document establishing the repair criteria (plugging limit) for degraded tubes which are identified in each HX.
- 9. Copy of the design specification and heat exchanger data sheets for each HX
- 10. Copy of the vendor/component drawing for each HX
- 11. Provide a list of issues with a short description documented in your corrective action system associated with these HXs in the past 3 years.
- 12. Provide HX performance trending data tracked for each HX.

If the information requested above will not be available, please contact Gerard O'Dwyer as soon as possible at (630) 829-9624 or E-mail - gfo@NRC.gov.