OPERATING DATA REPORT

DOCKET NO. 50-346
DATE March 8, 1979
COMPLETED BY Erdal C. Caba
TELEPHONE 419-259-5000, Ext. 236

OPERATING STATUS

1. Unit Name: Davis-Besse Unit 1
2. Reporting Period: February, 1979
3. Licensed Thermal Power (MWt): 2772
4. Nameplate Rating (Gross MWe): 925
5. Design Electrical Rating (Net MWe): 906
6. Maximum Dependable Capacity (Gross MWe): to be determined
7. Maximum Dependable Capacity (Net MWe): to be determined
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:

Notes

9. Power Level To Which Restricted, If Any (Net MWe): 906
10. Reasons For Restrictions, If Any:

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	672	1,416	13,181
12. Number Of Hours Reactor Was Critical	635	1,016.3	7,648.1
13. Reactor Reserve Shutdown Hours	37	67.8	858.1
14. Hours Generator On-Line	616.2	962.9	6,696.1
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	1,447,394	2,276,332	12,463,902
17. Gross Electrical Energy Generated (MWH)	484,573	758,861	4,142,616
18. Net Electrical Energy Generated (MWH)	456,145	708,968	3,750,428
19. Unit Service Factor	91.7%	68.0%	53.5%
20. Unit Availability Factor	91.7%	68.0%	53.5%
21. Unit Capacity Factor (Using MDC Net)	to be determined		
22. Unit Capacity Factor (Using DER Net)	74.9%	55.3%	36.1%
23. Unit Forced Outage Rate	8.3%	8.1%	24.5%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
Approximately April 1979 (9 days) to repair Main Steam Safety Valve SP17A2.

25. If Shut Down At End Of Report Period, Estimated Date of Startup:

26. Units In Test Status (Prior to Commercial Operation):

	Forecast	Achieved
INITIAL CRITICALITY		
INITIAL ELECTRICITY		
COMMERCIAL OPERATION		

7903140323

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-346
UNIT Davis-Besse Unit 1
DATE March 8, 1979
COMPLETED BY Erdal C. Caba
TELEPHONE 419-259-5000, Ext. 236

MONTH February, 1979

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	746	17	778
2	744	18	775
3	747	19	781
4	746	20	781
5	749	21	782
6	741	22	105
7	742	23	239
8	744	24	757
9	751	25	755
10	756	26	761
11	670	27	754
12	756	28	683
13	348	29	
14	277	30	
15	765	31	
16	775		

INSTRUCTIONS

On this format, list the average daily unit power level in MWe-Net for each day in the reporting month. Compute to the nearest whole megawatt.

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UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-346
UNIT NAME Davis-Besse Unit 1
DATE March 8, 1979
COMPLETED BY Charles N. Alm
TELEPHONE 419-259-5000, Ext. 251

REPORT MONTH February, 1979

No.	Date	Type[1]	Duration (Hours)	Reason[2]	Method of Shutting Down Reactor[3]	Licensee Event Report #	System Code[4]	Component Code[5]	Cause & Corrective Action to Prevent Recurrence
5	79 02 13	F	23.6	H	3	NP-33-79-29	NA	NA	The reactor tripped due to the loss of power to Reactor Coolant Pumps (RCP) 1-2 and 2-1. This event was initiated by relay testing at Beaver Substation (Ohio Edison) which resulted in the de-energization of our unit "B" Bus that supplies power to the RCP 1-2 and 2-1. Refer to the Operational Summary for further details.
6	79 02 22	F	32.2	A	1	NA	HA	INSTRU	Electrical circuitry in the electro-hydraulic control of the turbine failed which led to a manual trip of the reactor because of increasing RCS pressure. The circuitry was checked out by General Electric and faulty components were replaced. Refer to the Operational Summary for further details.

1
F: Forced
S: Scheduled

2
Reason:
A-Equipment Failure (Explain)
B-Maintenance or Test
C-Refueling
D-Regulatory Restriction
E-Operator Training & License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

3
Method:
1-Manual
2-Manual Scram.
3-Automatic Scram.
4-Other (Explain)

4
Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161)

5
Exhibit I - Same Source

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OPERATIONAL SUMMARY FOR FEBRUARY, 1979

2/1/79 - 2/10/79 Reactor power was maintained at 87 percent with the generator gross load at 790 ± 10 MWe. The Main Steam Safeties SP17A2 and SP17B2 were inoperable, and therefore the unit power level was limited to 92.91 percent. Also, the high pressure feedwater heat exchanger train 1 was still isolated to complete modifications on the heat exchanger 1-4.

2/11/79 Reactor power was reduced at 0200 hours to return the high pressure feedwater heat exchanger train 1 to service. At 2255 hours reactor power was increased from 76 percent to 88 percent power, and the generator gross load was 820 ± 10 MWe.

2/12/79 Reactor power was maintained at 88 percent of full power (2772 MWT at full power).

2/13/79 The reactor tripped at 1130 hours due to the loss of power to two Reactor Coolant Pumps (RCP). This event was initiated by relay testing at Beaver Substation of Ohio Edison which caused our Transfer/Trip Receiving Relay to pickup in the Ohio Edison line panel in the relay house. This caused the "K" Bus to lockout which trips the switchyard breakers 34562 and 34564 and isolates the Startup Transformer 02 from the "B" Bus. With "B" Bus de-energized, the RCP 1-2 and RCP 2-1 lost power and tripped.

2/14/79 The reactor was returned to criticality at 0448 hours, and at 1107 hours, the turbine generator was synchronized on line. A unit power increase to 88 percent was then initiated. During the outage, the lift setpoint of the Main Steam Safety Valve SP17B2 was reset making this safety operable. The unit power level was still limited at 92.91 percent though since the Main Steam Safety Valve SP17A2 could not be repaired due to the plant conditions required. This safety is suspected of having a broken spindle.

2/15/79 - 2/21/79 Reactor power was maintained at 87 percent with the generator gross load at 815 ± 10 MWe.

2/22/79 A unit runback to 15 percent occurred at 0401 hours. A manual reactor trip occurred at 0440 hours when it was determined that a reactor trip on Reactor Coolant System (RCS) high pressure was inevitable after an inadvertent load increase signal. The event was initiated by electrical component failure in the turbine electro-hydraulic control system.

The reactor was returned to criticality at 2326 hours.

2/23/79 The turbine generator was synchronized on line at 1250 hours. During the outage, the turbine primary speed control amplifier board was replaced and calibrated. Seven main steam safety valve lift setpoints were checked due to low pressure lifts during the trip. The unit power level was then increased and attained 84 percent full power at 1730 hours. The Main Steam Safety Valve SP17A2 is still inoperable.

2/24/79 - 2/27/79 The unit power level was maintained at 84 percent with the generator gross load at 810 ± 10 MWe.

2/28/79 The RCP 1-2 tripped at 0956 hours due to a loss of seal injection flow. The unit power was automatically lowered to 75 percent by the Integrated Control System. At 2100 hours, the unit power was decreased to 50 percent to restart the RCP 1-2 and then at 2330 hours, unit power was increased to 85 percent.

The seal injection flow was lost when the wrong seal injection filter cover was unbolted by maintenance personnel. To reduce the possibility of this same error, signs will be posted to indicate filter numbers.

Also, further investigation of the turbine electro-hydraulic control system has revealed that the backup speed control circuitry may have electrical faults. The defective backup speed control circuit boards were replaced on March 4, 1979.

REFUELING INFORMATION

DATE: February, 1979

1. Name of facility: Davis-Besse Nuclear Power Station Unit 1

2. Scheduled date for next refueling shutdown: March, 1980

3. Scheduled date for restart following refueling: May, 1980

4. Will refueling or resumption of operation thereafter require a technical specification change or other license amendment? If answer is yes, what, in general, will these be? If answer is no, has the reload fuel design and core configuration been reviewed by your Plant Safety Review Committee to determine whether any unreviewed safety questions are associated with the core reload (Ref. 10 CFR Section 50.59)?

   Yes, see attached

5. Scheduled date(s) for submitting proposed licensing action and supporting information. December, 1979

6. Important licensing considerations associated with refueling, e.g., new or different fuel design or supplier, unreviewed design or performance analysis methods, significant changes in fuel design, new operating procedures.

   None

7. The number of fuel assemblies (a) in the core and (b) in the spent fuel storage pool.

   (a) 177 (b) 0 (zero)

8. The present licensed spent fuel pool storage capacity and the size of any increase in licensed storage capacity that has been requested or is planned, in number of fuel assemblies.

   Present 260 Increase size by 475 (735 total)

9. The projected date of the last refueling that can be discharged to the spent fuel pool assuming the present licensed capacity.

   Date March, 1980 - May, 1980 (assuming ability to unload the entire core into the spent fuel pool is maintained.

4. The following Technical Specifications (Part A) will require revision:

2.1.1 & 2.1.2 - Reactor Core Safety Limits (and Bases)
2.2.1 - Reactor Protection System Instrumentation Setpoints (and Bases)
3.1.3.6 - Regulating Rod Insertion Limits
3.1.3.7 - Rod Program
3.2.1 - Axial Power Imbalance (and Bases)

The following Technical Specifications (Part A) may also require revision:

3.1.2.8 & 3.1.2.9 - Borated Water Sources (and Bases)
3.2.4 - Quadrant Power Tilt (and Bases)
3.2.5 - DNB Parameters (and Bases)

FACILITY CHANGE REQUESTS COMPLETED DURING FEBRUARY 1979

FCR NO. 77-019

SYSTEM: Containment Hydrogen Analyzers

COMPONENT: Calibration Gas Vent

CHANGE, TEST, OR EXPERIMENT: On January 25, 1979, Facility Change Request (FCR) 77-019 was completed. This FCR was to install plugs in the hydrogen analyzer calibration gas vents and to remove the mechanical interlock on the calibration gas valves. This allows the containment gases trapped within the analyzer to be pumped back into containment. This change was made under the guidance of the unit architect/engineer, Bechtel Corporation. Bechtel also revised the applicable vendor drawings to reflect this change. Applicable unit procedures have also been revised.

REASON FOR THE FCR: The original design of the hydrogen analyzers vented the trapped gases into the auxiliary building atmosphere, a potential health/safety hazard.

SAFETY EVALUATION: The proposed design change does not involve an unreviewed safety question or Technical Specification change, and the probability and possibility of an accident related to radiation exposure of personnel is greatly reduced. The proposed design change will not adversely affect the operation of the instrumentation and will increase safety of the station personnel.

FACILITY CHANGE REQUESTS COMPLETED DURING FEBRUARY 1979

FCR NO. 77-345

SYSTEM: Reactor Coolant System

COMPONENT: Quench Tank

CHANGE, TEST, OR EXPERIMENT: On June 2, 1978, the physical work was completed on FCR 77-345. This FCR added a deflector to the Quench Tank rupture disc flange. This deflector consists of a 90° pipe elbow and a short length of pipe which will direct the flow of steam in a safe direction should the Quench Tank rupture disc rupture. This change was made under the direction of the unit architect/ engineer, Bechtel Corporation.

REASON FOR THE FCR: The former arrangement would allow steam to strike a cooling duct and the insulation on Steam Generator 1-2 as well as damage pressurizer heater cables (see Licensee Event Report NP-32-77-16).

SAFETY EVALUATION: The deflector being added is to change the direction of the steam flow after the rupture disc has ruptured. The deflector will not affect the safety related function of the Quench Tank.

Revision 1 - 2/9/79
Revision 2 - 3/8/79

OPERATING DATA REPORT

DOCKET NO. 50-346
DATE January 8, 1979
COMPLETED BY Erdal Caba
TELEPHONE 419-259-5000, Ext. 236

OPERATING STATUS

1. Unit Name: Davis-Besse Unit 1
2. Reporting Period: December, 1978
3. Licensed Thermal Power (MWt): 2772
4. Nameplate Rating (Gross MWe): 925
5. Design Electrical Rating (Net MWe): 906
6. Maximum Dependable Capacity (Gross MWe): to be determined
7. Maximum Dependable Capacity (Net MWe): to be determined
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:

Notes

9. Power Level To Which Restricted, If Any (Net MWe): None
10. Reasons For Restrictions, If Any:

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	744	8760	11765
12. Number Of Hours Reactor Was Critical	328.8	4839.7	6631.8
2 | 13. Reactor Reserve Shutdown Hours	367.7	406.6	790.3
14. Hours Generator On-Line	314.1	4266.2	5733.2
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	626,864	8,523,538	10,187,570
17. Gross Electrical Energy Generated (MWH)	196,972	2,859,306	3,383,755
18. Net Electrical Energy Generated (MWH)	173,312	2,611,642	3,041,460
19. Unit Service Factor	42.2%	48.7%	51.4%
1 | 20. Unit Availability Factor	42.2%	48.7%	51.4%
21. Unit Capacity Factor (Using MDC Net)	to be determined	to be determined	
22. Unit Capacity Factor (Using DER Net)	25.7%	32.9%	33.3%
23. Unit Forced Outage Rate	57.8%	25.4%	26.7%

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):
None

25. If Shut Down At End Of Report Period, Estimated Date of Startup:
26. Units In Test Status (Prior to Commercial Operation):

		Forecast	Achieved
INITIAL CRITICALITY			
INITIAL ELECTRICITY	N/A		
COMMERCIAL OPERATION			

(9/77)

Rev. 1 - 3/8/79

OPERATING DATA REPORT

DOCKET NO. 50-346
DATE February 9, 1979
COMPLETED BY Erdal C. Caba
TELEPHONE 419-259-5000, Ext. 236

OPERATING STATUS

1. Unit Name: Davis-Besse Unit 1
2. Reporting Period: January, 1979
3. Licensed Thermal Power (MWt): 2772
4. Nameplate Rating (Gross MWe): 925
5. Design Electrical Rating (Net MWe): 906
6. Maximum Dependable Capacity (Gross MWe): to be determined
7. Maximum Dependable Capacity (Net MWe): to be determined
8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:

Notes

9. Power Level To Which Restricted, If Any (Net MWe): None
10. Reasons For Restrictions, If Any:

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	744	744	12,509
12. Number Of Hours Reactor Was Critical	381.3	381.3	7,013.1
13. Reactor Reserve Shutdown Hours	30.8	30.8	821.1
14. Hours Generator On-Line	346.7	346.7	6,079.9
15. Unit Reserve Shutdown Hours	0	0	0
16. Gross Thermal Energy Generated (MWH)	828,938	828,938	11,016,508
17. Gross Electrical Energy Generated (MWH)	274,288	274,288	3,658,043
18. Net Electrical Energy Generated (MWH)	252,823	252,823	3,294,283
19. Unit Service Factor	46.6%	46.6%	51.1%
20. Unit Availability Factor	46.6%	46.6%	51.1%
21. Unit Capacity Factor (Using MDC Net)	to be determined		
22. Unit Capacity Factor (Using DER Net)	37.5%	37.5%	34.7%
23. Unit Forced Outage Rate	7.7%	7.7%	25.9%

1

24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):

25. If Shut Down At End Of Report Period, Estimated Date of Startup:

26. Units In Test Status (Prior to Commercial Operation):

	Forecast	Achieved
INITIAL CRITICALITY		
INITIAL ELECTRICITY		
COMMERCIAL OPERATION		

(9/77)

Rev. 1 - 3/8/79

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-346
UNIT NAME Davis-Besse Unit 1
DATE February 9, 1979
COMPLETED BY Charles N. Alm
TELEPHONE 419-259-5000, Ext. 251

REPORT MONTH January, 1979

	No.	Date	Type[1]	Duration (Hours)	Reason[2]	Method of Shutting Down Reactor[3]	Licensee Event Report #	System Code[4]	Component Code[5]	Cause & Corrective Action to Prevent Recurrence
1	3	79-01-14	S	.9	B	4	N/A	N/A	N/A	The turbine was tripped from 100 percent power to complete the Unit Load Rejection Test, TP 800.13.
1	4	79-01-14	S	367.5	B	4	N/A	N/A	N/A	The reactor was shutdown twice in this time frame to complete the unit tests TP 800.25, "Shutdown From Outside the Control Room", and TP 800.26, "Loss of External Load Including Loss of Offsite Power." A unit outage was then continued after the shutdown of TP 800.26 to repair many equipment failures. The major failure which required the outage was to replace the seals on Reactor Coolant Pumps 1-1 and 2-1. Refer to the Operational Summary for further details.

1
F: Forced
S: Scheduled

2
Reason:
A-Equipment Failure (Explain)
B-Maintenance or Test
C-Refueling
D-Regulatory Restriction
E-Operator Training & License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

3
Method:
1-Manual
2-Manual Scram.
3-Automatic Scram.
4-Other (Explain)

4
Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161)

5
Exhibit I - Same Source

(9/77)

Rev. 1 - 3/8/79

DOCKET NO. 50-346
UNIT NAME Davis-Besse Unit 1
DATE February 9, 1979
COMPLETED BY Charles N. Alm
TELEPHONE 419-259-5000, Ext. 251

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH January, 1979

	No.	Date	Type[1]	Duration (Hours)	Reason[2]	Method of Shutting Down Reactor[3]	Licensee Event Report #	System Code[4]	Component Code[5]	Cause & Corrective Action to Prevent Recurrence
	32	78-12-16 (Cont'd)	F	3.7	A	1	N/A	HH	PIPEXX	The unit was shutdown to repair the extraction steam line bellows. Refer to the Operational Summary of December for further details
1	1	79-01-10	S	0.0	B	4	N/A	N/A	N/A	Power was reduced to 75 percent to perform a Power Imbalance Detector Correlation Test.
1	2	79-01-12	F	25.2	H	3	NP-33-79-13	EB	ELECON	The event was initiated by the accidental grounding of the Hydrogen Analyzer AE 5028. The ground caused the 200 amp fuse on the inverter feeding Y2 Essential 120 VAC Instrument Bus to blow. The 10 amp fuse on the Hydrogen Analyzer AE 5028 was a standard fuse. The fuse was replaced with a quick acting fuse.

1
F: Forced
S: Scheduled

2
Reason:
A-Equipment Failure (Explain)
B-Maintenance or Test
C-Refueling
D-Regulatory Restriction
E-Operator Training & License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

3
Method:
1-Manual
2-Manual Scram.
3-Automatic Scram.
4-Other (Explain)

4
Exhibit G - Instructions for Preparation of Data Entry Sheets for Licensee Event Report (LER) File (NUREG-0161)

5
Exhibit I - Same Source

(9/77)