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UNITS 1, 2, and 3

SEMI-ANNUAL REPORT

JULY 1, 1974-DECEMBER 31, 1974

DRESDEN NUCLEAR POWER STATION

COMMONWEALTH EDISON COMPANY

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DRESDEN NUCLEAR POWER STATION

SEMI-ANNUAL REPORT

JULY 1, 1974 THROUGH DECEMBER 31, 1974

SECTION I: DRESDEN UNIT #1

I. Unit #1

A. Operations Summary

1. Changes In Plant Design

Described in Section E of this report.

2. Performance Characteristics

a. Equipment performance is shown in the chronological history that follows:

Unit One Chronological History

July 1
Unit 1 began the semi-annual reporting period in the latter stages of the cycle IX refueling outage. At this time the outage had extended to 267 days with all major repair items completed. Preparations for unit startup commenced. Inaddition the shipment of spent fuel assemblies continued. A total of fourty-seven (47) casks have been shiped to date.

July 2
Reactor mode switch locked in refuel and completing startup surveillance

July 3
Reactor mode switch to "start" at 1510 hours. Reactor criticality reached at 1955 hours. Reactor scrammed on spurious trip on channel 5 at 2148 hours. Mode switch to "refuel".

July 4
Reactor mode switch to "start" and reactor criticality reached at 0011 hours. While verifing control rods, A-5 and D-4 showed no response on the nuclear instrumentation. Both drives were fully inserted into the core and removed from service. Reactor heating was continued at 50°F per hour. Completed nuclear temperature coefficient testing.

July 5
At 0125 hours the reactor was accidentally scrammed by turning the #2 vac. isolation switch to trip instead of reset. The reactor was again brought criticat at 0410 hours. Reactor in "run" mode at 1150 hours. Unit placed on system at 1247 hours

ending a 270 day refueling outage. At 2253 hours the unit was taken off-system to functional test the turbine overspeed trips. The emergency govenor oil trip with lock-out operated satisfactorily. In addition after adjusting the govenor stops the normal overspeed tripped at 1910 RPM and the back-up overspeed tripped at 1870 RPM.

July 6
Unit #1 synchronized to system at 0015 hours. Load increased to 82 MWe by pulling control rods at 0630 hours. At approx. 0900 hours control rod blade D-10 failed to show any Nuclear Instrumentation Response. It was fully inserted into the core and removed from service.

July 9
At 0840 hours "B" S.S.G. Loop was taken out of service because of a union leak on the recirculation pump motor air detection unit. Unit load reduced to 53 MWe and 192 MWt. "A" and "D" S.S.G. loop were the only two loops in service at this time.

July 11
Completed incore amplifier calibration at 53 MWe and 192 MWt. Increased load to 95 MWe and 312 MWt at approx. 2330 hours. All control rods were verified.

July 12
Returned "B" S.S.G. to service at approx. 0830 hours. Unit load increased to 107 MWe and 358 MWt.

July 13
At 1004 hours "B" S.S.G. loop was removed from service beacuse of a recirculation pump bowl gasket leak extending half-way around the flange. Reactor power was reduced to 265 MWt at 80 MWe.

July 14
During the weekly control rod instrument response surveillance A-7 failed to indicate any power change. It was than fully inserted and removed from service.

July 18

At 1535 hours "B" S.S.G. recirculation loop was placed in service. Reactor power, increased to 384 MWt at 114 MWe. Reactor power was further increated to 451 MWt at 130 MWe at 2108 hours.

July 19
Adjusted core pattern to compensation for O.O.S. drives at 1830 hours. Reactor power was 412 MWt at 125 MWe. Corrected secondary steam control valve problem by bleding the pressure off the lift ratio adjustment. All four (4) S.S.G. recirculation loops in service.

July 20 through Aug 1
Steady reactor operation between 122 MWr and 120 MWe.

August 2

Started dropping load at 1420 hours in preparation to come off system for a scheduled maintenance outage. Secondary load limit tripped at 1725 hours. Unit off system at 2054 hours; turbine tripped during oil trip test because of failure of lock-out valve to disarm trip. At 2129 hours the reactor scrammed due to high flux channels 3 and 4. No control rod movement was in progress at the time. Reactor mode switch in "Refuel" at 2225 hours.

August 3

During the maintenance outage repairs were made to the turbine secondary control valve linkage, turbine steam seal header piping, MO-139 packing leak, MO-168 packing leak, MO-169 gland seal leak off piping and MO-167 packing leak. Inaddition "B" unloading heat exchanger was inspected for tube leaks. None were found.

Friction tested control rod drives A-5, A-7, D-4, D-5, G-10, E-6, D-10, D-3, C-8, and B-9. The results indicated abnormally low friction pressures for CRD's A-5, A-7, D-4, and D-10.

August 4

At 1635 hours the **ECCS** system automatically started. No **immediate** reason was evident. At 1850 hours the reactor mode switch was placed to "start". Reactor criticality was reached at 1948 hours.

August 5

Unit syncronzied to system at 0940 hours. Reactor power was 149 MWt at 51 MWe.

August 6

Increased reactor power to 433 MWt at 130 MWe. All control rods verified on nuclear instrumentation.

August 7 through Aug 13

The reactor operated bewteen 135 MWe and 129 MWe. On Aug 13 "B" S.S.G. was removed from service at 1435 hours because of excessive tube leakage (150,000 #/hr) and flage leakage. Reactor power was maintained by increasing sec. stm. flow from 320,000 #/hr to 660,000 #/hr utilizing "A", "C", and "B" S.S.G. recirculation loops.

August 14

The incore amplifiers were calibrated at 1305 hours. At 1825 hours the secondary load limit tripped at 480 psig while increasing load. The load limit was reset at 1830 hours. It again tripped at 1832 hours because of a high water level in "D" S.S.G. reset at 1845 hours and increased load to 145 MWe.

August 15 through 17

The unit operated between 145 MWe and 140 MWe until 2322 hours on August 16 when the secondary load limit tripped while removing "C" S.S.G. from service (100,000 #/hr tube leak). At 0030 hours on Aug 17, the secondary load limit was reset and **again** tripped at 0155 hours. It was reset at 0215 hours on August 17.

August 18 through 31

The reactor operated at steady state conditions between 111 MWe and 115 MWe until the unit was taken off system at 2208 hours on Aug 31 to investigate the control rod blade problem. At 2330 hours on Aug 21 the reactor was placed in the "start" mode of operation. Prior to shutting down the reactor the turbine overspeeds were tested. The normal overspeed tripped at 1940 RPM and the back-up overspeed tripped at 1885 RPM. Inaddition the reverse power relay tripped in 82 seconds.

September 1 through 3

At 0235 hours the reactor mode switch was locked in "shutdown". Preparations begun to remove the reactor head blocks. At 0830 hours on Sept. 3 the reactor mode switch was locked in "refuel".

September 4

The reactor head insulation, vent piping and core spray piping was removed. Rx water level was 4" below the flange.

September 5

Work began on "B" S.S.G. recirculation pump bowl gasket reapir. The copper gasket was replaced with a flexation gasket. Reactor water level was 24" below the flange.

September 7

Completed filling Rx control to 21'at 1400 hours. Completed incore string removal from reactor at 2030 hours.

September 9

Reactor head removed at 1105 hours. Began increasing reactor control level at 1455 hours.

September 10-11

Reactor canal water level at 20' and removed turning valve. Installed the unloader suction screen.

Sept 12 through 15

Began control rod blade inspection at 1355 hours on Sept 12. Verified that control rod blades A-5, A-7, D-4 and D-10 were unlatched and wedged between there respective full assemblies. Inspection completed at 1405 hours on sept 15. At that time, all 80 control rods were successfully pull tested per procedure 300-S-XI.

September 16

Completed the installation of seven (7) reconstituted fuel assemblies in the core.

September 17 through 22

Started to repair tube leaks in "C" S.S.G. on Sept 17. Completed repair on Sept 20 with the hydro of 580 psig. Completed installation of thirty (30) new fuel assemblies on Sept. 22. Inaddition the core was verified and checked for height on Sept 22.

September 23
Completed friction testing all 80 CRD's and scram testing of A-5, A-7, D-4, and D-10 CRD's.

September 24
Ultrasonically and visually examined ten (10) welds on the 6" bypass line in "B" S.S.G. recirculation loop. Reactor mode switch to "shutdown" at 0106 hours.

September 25 through October 1
Installed turning vane and commenced canal draining and canal decontamination program. Completed repacking of MO-139. Reactor head placed in position Oct. 1.

October 2
Completed first tightening pass on reactor head bolting.

October 3
Reactor canal filled to 22' and all 16 incores installed in the reactor core.

October 4 through October 11
Commenced reactor canal draining and decontamination program. At 1002 hours on Oct. 5 the reactor mode switch was placed in "refuel" for CRD scram testing. Scram testing completed at 0510 hour on Oct. 6. Vessel head tensioning completed on Oct. 10.

October 12
Maintenence work completed on "B" SSG tube repair and "B" SSG recirculation loop pump gasket installation. Reactor mode switch locked in "shutdown".

October 13
Reactor mode switch locked in "refuel" at 1600 hours. Completed the installation or the reactor head insulation, vent piping and core spray piping.

October 14
Reactor mode switch to "start" at 2255 hours. Pre startup check surveillances completed.

October 15
Completed nuclear shutdown margin testing at 0330 hours. Reactor criticallity reached at 0630 hours. Reactor brought subcritical at 1220 hours for incore instrumentation repair. Reactor mode switch to "refuel" at 1239 hours. Reactor mode switch to "start" at 1515 hours. Completed reactor temperature coefficient testing at 1610 hours. At 1935 hours the reactor scrammed on low primary drum level. The reactor was again brought critical at 2109 hours. At 2211 hours the reactor again scramed due to a short period on startup channel #9. Reactor criticallity was again achieved at 2246 hours.

October 16

Reactor manually scramed at 0418 hours because of an increase in sphere radioactivity. Reactor mode switch to "Shutdown". At 0449 "B" SSG recirculation loop was isolated because of a pump bowl gasket leak. At 0555 hours the reactor mode switch was placed in "start". Reactor criticality was reached at 0712 hours. At 1353 hours the unit was syncronized to the system ending a **246** day maintenance outage.

October 17 through 23

The reactor operated at steady state conditions between 80 MWe and 100 MWe with "A", "C" and "D" recirculation loops in service until 1200 hours.on October 23. At this time the unit was taken off system for maintenance. At 1249 **hours the reactor mode switch** was placed in "start". At 1430 the reactor mode switch was placed in "Refuel".

October 24

Repairs were completed to MO-139 and "B" SSG recirculation pump bowl gasket. Inaddition steam leaks were repaired in the North and South primary steam sample lines located in "C" instrument room. At 1508 hours the reactor mode switch was placed in "start". Reactor criticality was reached at 1630 hours.

October 25

Reactor locked in "Run" at 0115 hours. The unit was put on system at 0325 hours with all recirculation loops in service.

October 26 - November 3

The reactor operated at steady state conditions between 98 MWe and 84 MWe. The MO-139 down stream suction valve bonnet leak was verified on Nov. 1.

November 4

Control rod program adjusted to the 75% pattern. Reactor power was 528 MWt at 150 MWe. At 1440 hours "C" S.S.G. recirculation loop removed from secure for repairs to MO-139 (Bonnet leak). At that time the secondary load limit tripped. Reset at 1507 hours.

November 5 through 12

The reactor operated at steady state conditions between 131 MWe and 139 MWe utilizing "A", "B", and "D" recirculation loops. On Nov. 12 at 1000 hours "1A" screen wash pump was found inoperative during a weekly surveillance. Reactor power increased to 507 MWt at 150 MWt by pulling rods to the 100% power pattern at 1757 hours on Nov. 12.

November 13 through 22

The reactor operated at steady state conditions between 150 MWe and 139 MWe until 1720 hours on Nov. 22. At this time preparations began to place "C" S.S.G. recirculation loop into service after repairs to MO-139 were completed.

November 23

At 0400 hours "B" S.S.G. recirculation loop was removed from service because of tube leakage (90,000 #/hr). The reactor rod pattern was then varied at 0550 hours to reflect a reactor power of 487 MWt at 142 MWe. At 1300 hours "D" & "E" primary feedwater heaters were valved out of service because of tube leaks in "D" heater.

November 24 through December 14

The reactor operated at steady state conditions between 133 MWt and 151 MWt utilizing "A", "C", and "D" recirculation loops. On Nov. 11 "B" S.S.G. was hydrostatically tested at 600 psig with no indication of any tube leakage. However, the SW manhead was leaking. "B" S.S.G. loop was placed in service at 1642 hours on December 14. At 2010 hours "A" SSG Loop was removed from service because of a 40,000 #/hr tube leak. The secondary load limit tripped at 2015 hours and was reset at 2035 hours.

December 15 through 31

On Dec 15 a steam leak was detected in the North loop crossunder piping from the intermediate to high pressure turbine. The reactor operated at steady state conditions of approx. 141 MWe until Dec. 17 when the incore amplifiers were calibrated and reactor load was increased. Steady operation was maintained between 165 MWe and 170 MWe for the rest of the month. "A" SSG was repaired and returned to service at 1400 hours on December 29.

b. Dresden Unit 1 Fuel Performance Summary

	Core Average Exposure	Lead Assembly	Location	Exposure
July 1, 1974	11,904.7 MWD/T	G-58	05-56	25,230
August 1, 1974	12,091.8 MWD/T	G-58	05-56	25,336
Sept. 1, 1974	12,299.4 MWD/T	G-58	05-56	25,453
Oct. 1, 1974	10,745.6 MWD/T	DU-104	04-69	21,368
Nov. 1, 1974	10,834.8 MWD/T	DU-104	04-69	21,406
Dec. 1, 1974	11,109.5 MWD/T	DU-104	04-69	21,494
Jan. 1, 1975	11,411.2 MWD/T	DU-104	04-69	21,598

DRESDEN UNIT ONE NEW FUEL ASSEMBLIES

INSTALLED DURING THE SEPTEMBER MAINTENANCE OUTAGE

Assembly Identification Number	Core Location
UN-447	58-20
UN-366	58-06
UN-368	56-18
UN-372	56-16
UN-378	56-14
UN-374	56-12
UN-373	56-10
UN-450	60-20
UN-375	60-16
UN-385	60-14
UN-421	60-12
UN-377	60-10
UN-379	62-16
UN-367	62-10
UN-369	64-06
UN-384	64-16
UN-386	64-10
UN-371	64-6
UN-380	66-20
UN-387	66-16
UN-397	66-14
UN-381	66-12
UN-376	66-10
UN-449	66-06
UN-383	68-20
UN-388	70-18
UN-389	70-16
UN-457	70-14
UN-382	70-12
UN-395	70-10

DRESDEN UNIT ONE RECONSTITUTED ASSEMBLIES

INSTALLED DURING THE SEPTEMBER MAINTENANCE OUTAGE

Source Assemblies (Cycle 6 fuel)	Reconstituted Assemblies	Core Location
UN 016	UNG33	74-15
UN 032	UN 047	63-02
UN 065	UN 051	64-25
UN 066	UN 067	56-05
	UN 070	51-14
	UN 087	73-18
	UN 091	52-19

3. Procedure Changes

Unit one procedures are listed below: Procedures with asteries apply to units one, two, and three.

1.* Operation of the Emergency Trailer Air Sample Counter (37-3-A-1 Rev 0)
This procedure was written to describe operation of air sample counter in environs emergency trailer.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because procedure is for use of a portable air sample counter to be used mainly offsite and does not affect plant operation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because procedure is for use of a portable air sample counter to be used mainly offsite and plant operation is not affected.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe plant operation is in no way jeopardized through the use of this procedure.

2.* Curie Content of Radioactive Shipments (37-1-11 Rev 1)
This procedure was revised to include new containers used for shipping radioactive material.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because procedure is a calculation only and will not effect plant operation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because procedure is a calculation only and no additional hazards are created.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because procedure is for calculations only and plant operation will remain the same.

3.* Incore Flux Calibrations: Tech Staff Calculations (38-700-S-II)
This procedure was written to outline the proper calculational methods needed for the incore flux calibration.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation is unaffected.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation is unaffected.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the incore system is in no way degraded. Safety will be enhanced by the use of an approved procedure to perform this calculation.

4. Combating the Acts of Nature (PEOP-II)
This procedure was revised to include earthquakes, tornados as well as flooding.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the procedure will not affect the safety of any system or subsystem needed to mitigate the consequences of an accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the procedure does not downgrade any system or subsystem.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the basis for any tech specs are not affected through the implementation of this procedure.

5. Combating Forced Evacuation of the Control Room (PEOP III Rev 0)
This procedure was written to provide guidelines in the event the control room must be evacuated.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure provides a means of shuting down the reactor in the event the control room must be evacuated.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the safety systems designed to mitigate the consequences of a nuclear accident are not downgraded through the use of this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the safety of the reactor is not reduced through the use of this approved procedure.

6. Plant Fire (PEOP IV Rev 0)
This procedure was written to outline the steps to be taken in the event of a fire in the plant.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure is not safety related.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure is not safety related.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure is not safety related.

7. Power Operation (GPOP XVII)
This procedure was written to outline the steps taken during power operation of the reactor.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure will allow proper operation of the reactor and will not effect the design operation of any safety system.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the design of any safety system has not been altered through the use of this procedure.

The margin of safety, as defined in the basis for any Technical specification is not reduced because the basis of any tech specs will not be altered through the use of this procedure.

8. In Core Flux Monitors- Incore Flux Monitor Calibrations- Wire Irradiation (33-200-XXI, Rev 0)
This procedure was written to outline the steps necessary to irradiate wires to obtain data necessary for incore amplifier calibration.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation is unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation is unchanged.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of an approved procedure to perform this calibration uniformly and correctly.

9. Reactor Level - Refuel Level Instrument Restoration To normal (33-200-XXII Rev 0)
This procedure was written to list steps needed to restore refuel level instrument to its normal condition.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the procedure assures instrument reliability and does not change the probability of an occurrence.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure is intended to assure the operability of existing equipment.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure is intended to help to insure that the level requirements of the tech specs are met.

10. Recirculating System-Combating Loss of Coolant Flow (200-AN-I Section C Rev 1)
This procedure was revised to outline the steps to be taken in the event of a loss of coolant flow condition.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation under normal conditions remains the same.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation is not changed by this procedure.

The margin of safety, as defined in the basis for any Tech Specs is not reduced because safety will be enhanced through the use of an approved procedure under these conditions.

11. Reactor System - Minor Leakage (200-AN-III)
This procedure was written to outline steps necessary in the event of a minor leak from the primary system.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure will not alter the operation of the system or systems necessary to mitigate the consequences of a nuclear accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the implementation of this procedure will not downgrade the system.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the basis for any tech specs are not affected by the implementation of this procedure.

12. Reactor System High Core Differential Temperature (200-AN-IV Rev 0)
This procedure was written to provide steps to be taken in the event of a high core differential temperature.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure will not effect any system needed to mitigate the consequences of a nuclear accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the use of this procedure will not downgrade any safety system.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the basis of any tech specs will not be effected through the use of this procedure.

13. Nuclear Boiler & Recirc High Level in the Secondary Steam Generator Drum Level
The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation remains unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation under normal conditions is not altered.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe system operation is not degraded.

14. Nuclear Boiler & Recirc High Reactor Pressure (200-AN-VII)
The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure doesn't change normal system operation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because no change to normal system operation is being affected.

The margin of safety, as defined in the basis for any Technic.l Specification is not reduced because system operation is not degraded.

15. Nuclear Boiler & Recirc Loss of Recirculating Pump (200-AN-IX)
This procedure was written to outline the proper response to a recirculating pump loss.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation is not changed.

The possibility for an accident or malfunction of a different type than any previou: ly evaluated in the FSAR is not created because normal system operation is unaffected.

The margin of safety, as defined in the basis for any Tech Spec is not reduced because safe system operation is in no way degraded.

16. Recirculating System - Loss of Coolant Flow (200-AN-X Rev 0) This procedure was written to outline the proper response to a loss of coolant flow condition.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because normal system operation is unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because normal system operation is unaffected.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because system operation is in no way degraded by this procedure.

17. Reactor system - Low Reactor Water Level (200-AN-XI Rev 0) This procedure was written to outline the steps necessary in the event of low reactor water level.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure will not affect the safe operation of any system needed to mitigate the consequences of a nuclear accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the system will not be downgraded through the implementation of this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the basis of any Tech Specs will not be altered through use of this procedure.

18. Nuclear Boiler & Recirc Recirculating Pump Overload (200-AN-XII) This procedure was written to outline the proper response to a recirculating pump overload condition.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation is not changed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because normal system operation is unaffected.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe system operation is not degraded.

19. Nuclear Boiler & Recirculating System - High Temperature in the Recirculating Pump (200-AN-XIII Rev 0)
This procedure was written to outline the proper response to a recirculating pump high temperature condition

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation under normal conditions is unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation under normal conditions remains unchanged.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe system operation is not degraded.

20. Main Steam Line System - Post Incident Primary Steam Drum Level Transmitter and Recorder Calibration (33-200-0-1 Rev 0)
This procedure was written to outline the steps necessary to calibrate the post incident primary steam drum level transmitter and recorder.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this calibration procedure assures proper system operation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure assures the proper operation of existing equipment and does not affect system function.

The margin of safety, as defined in the basis for any Technical specification is not reduced because this procedure assures compliance with the new Tech Specs.

21. Refueling- Draining the Reactor Vessel to Allow Vessel Head Removal (200-0-VI)
This procedure was written to outline the proper method of draining the reactor vessel to allow vessel head removal.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because normal system operation is unchanged through the use of this procedure.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because normal system operation will only be delineated, not changed by this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe system operation will be enhanced through the use of an approved procedure to perform this work.

22. Main Steam Line System - Primary Steam Drum Pressure Recorder (33-200-0-V, Rev 0)
This procedure was written to outline the steps necessary to calibrate the primary steam drum pressure recorder.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this calibration procedure assures proper system operation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure assures the operation of existing equipment.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure assures compliance with the new tech specs.

23. Nuclear Boiler & Recirc - Draining the Reactor Vessel Completely and Refilling to Normal Refueling Level (200-0-VII)
This procedure was written to outline the proper method of draining the reactor vessel completely and refueling to normal refueling level.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation will not be affected.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because basic system operation will not be affected.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe system operation will be enhanced through the use of an approved procedure to perform this function.

24. Reactor System - Electromatic Relief Valve Test (200-S-II Rev 1)
This procedure was revised to include the steps to follow in the event of safety valve failure.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure will not effect the operation of any system or subsystem necessary to mitigate the consequences of a nuclear accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the design operation of any safety system will not be downgraded through use of this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the basis of any tech specs will not be altered through use of this procedure.

25. Recirc and Nuclear Boiler - Reactor Thermal Heat Balance Calculation Procedure (200-S-VI)
This procedure was

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation is unaffected.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation is unaffected.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the use of an approved procedure will help ensure that the calculation is performed. This will actually increase the margin of safety.

26. Reactor System - Critical Heat Flux Ratio Analysis (200-S-VII)
This procedure was written to be used in the calculation of the critical heat flux ratio.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the procedure will not alter the design nor operation of the system. It will only show the proper format of the calculation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the system has not been down graded by the implementation of this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure will allow the calculation of the CHFR to be made and to ensure no tech spec violation is made.

27. Reactor System - Primary Steam Isolation Valve Closure Scram Test (200-S-VIII)
This procedure was written to outline the proper steps taken to test the primary steamline isolation valve closure scram.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure will not affect the operation or the design of the system. It will provide guidlines for the checking of the system for proper operation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the system will not be downgraded or altered in the design function through the implementation of this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the basis for any Tech Spec will not be altered through the implementation of this procedure.

28. Condensate - Combating Loss of Condenser Vacuum (300-AN-III Rev 1) This procedure was written to outline the proper response to a loss of condenser vacuum condition.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation under normal conditions is not changed.

The possibility for an accident or malfunction a different type than any previously evaluated in the FSAR is not created because basic system operation is not changed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety system operation will be enhanced through the use of an approved procedure in the proper format to respond to this condition.

29. CRD Hydrolic - Loss of Scram Dump Tank Volume (300-AN-VIII) This procedure was written to outline the proper response to a loss of scram dump tank volume.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation under normal conditions is unchanged.

The possibility or an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because normal system operation remains unchanged.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of an approved procedure to respond to this abnormal condition.

30. Control Rod Drive - Recovery from Mispositioned Rod(s) or a Rod Drop (300-AN-IX)
This procedure was written to provide guidelines to the operator in the event of a rod drop or mispositioned rod.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the procedure will not alter the design operation of the control rod drive system.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the procedure will not downgrade the system.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the implementation of this procedure will insure that the limits defined in the tech specs are met.

31. Control Rod Drive System - Scram Dump Tank Level Switch Test (33-300-0-1 Rev 0)
This procedure was written to list steps and precaustions necessary to test scram dump tank level switches for indication, alarm, block rod withdrawal, and reactor scram.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the procedure will insure proper operation of the scram dump tank level switches thereby decreasing the probability of an occurrence.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation and function is the same.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the procedure provides a means to test operability and system safety will not be degraded.

32. CRD Valving Out CRD Accumulators (300-0-III Rev 0)
This procedure was written to outline the proper method for valving out CRD Accumulators

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation is not changed by this procedure.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation is not effected.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of an approved procedure to ensure that this work is performed correctly.

33. CRD Hydralic - Valving out the Operational Barksdale and Placing the Standby in Operation (300-0-IV Rev 0)
This procedure was written to outline the proper method of placing the standby barksdale valve into operation.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation remains unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure just spells out the correct method of changing barksdales.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of this approved procedure.

34. CRD Switching from Barksdale to Acromatic Control (300-0-V)
This procedure was written to outline the proper method of shifting from barksdale to acromatic control.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because safety will be enhanced through the use of an approved procedure. System operation is unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because operation of the system is not changed.

The margin of safety, as defined inthe basis for any Technical Specification is not reduced because safety will be enhanced by using an approved procedure to ensure that this operation is done uniformly.

35. CRD - Taking CRDS out of Service (300-0-VI)
This procedure was written to out line the proper method of taking CRDS out of service.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation is not changed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because basic system operation will not be affected.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of an approved procedure to help ensure that this task is performed correctly.

36. Control Rod System - Control Rod Blade Pull Testing (300-0-VII Rev 0)
This procedure was written to verify by pull testing the CRD blade that the CRD Blade is coupled to the control rod drive.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure will ensure that the control rod blade is coupled to the control rod drive.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system integrity is increased by this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the margin of safety will be increased by having a set of defined procedures to ensure coupling of CRD's.

37. CRD - Rod Block Test and Calibrations (300-S-IX Rev 0)
This procedure was written to outline the proper conduct of Rod Block Tests and Calibration.

The probability of an occurrence or the consequence of an accident, or malfunctionof equipment important to safety as previously evaluated inthe FSAR is not increased because system operation is not changed by this procedure.

The possibility for an accident or malfunction of a differant type than any previously evaluated in the FSAR is not created because system operation remains unchanged.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of an approved procedure to perform this surveillance.

38. CRD Hydralic-Manual Scram Test (300-S-X Rev 0)
This procedure was written to outline the proper method of performing a manual scram test.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure does not affect normal system operation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because normal system operation remains unchanged.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the uniform routine testing made possible through use of this approved procedure.

39. Control Rod System - Control Rod Blade Pull Test (300-S-XI Rev 1)
This procedure was changed to correct previous calculated valves for the pull force required to ensure that the CRD Blade is coupled to the drive.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the scale location was relocated to read the exerted force directly.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the procedure outline is not changed, only the scale force.

The margin of safety, as defined in tne basis for any Technical Specification is not reduced because the procedure change involves the scale force required to pull test the CRD blade.

40. Reactor Protection System - High Flux (500-AN-III Rev 0)
This procedure was written to outline the steps to be taken in the event of high flux.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure will not effect the systems necessary to mitigate the consequences of a nuclear accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the design operation of no safety system will not be effected through use of this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the basis of no technical specifications will be altered through use of this procedure.

41. Reactor Protection System - Malfunction of the Pressure Control (System 500-AN-IV Rev 0)
This procedure was written to outline the steps necessary in the event of a malfunction of the pressure control system.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of the procedure will not effect any system or subsystem which would mitigate the consequences of a nuclear accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the procedure will not downgrade any safety system or subsystem.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the implementation of this procedure will not effect the basis of any tech spec but will ensure the limits defined are met.

42. Reactor Protection System - Short Period (500-AN-V Rev 0)
This procedure was written detailing the operation of the reactor at a short period.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure describes the operator action in the event of a short period condition. The procedure does not alter the design operation of the system or any component.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the procedure doew not downgrade the system or design intent.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure is not mentioned in the basis for the tech specs. will not be altered by the implementation of this procedure.

44. Safety System - Reactor Scram (500-AN-VIII Rev 0)
This procedure was written to outline the proper response to a reactor scram.

The probability of an occurrence or the consequence of an accident, malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the basic system operation remains the same.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the basic system operation under normal conditions remains the same.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the safe system operation is not degraded in any way.

45. Reactor Protection System - Reactor High Pressure Scram (33-500-0-I Rev 0)
This procedure was written to outline steps necessary to make functional tests and calibrate instruments for Unit - 1 High Pressure Reactor Scram.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation is not altered by functional tests and calibrations.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this new procedure will enhance instrument reliability due to improved calibration.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure will assure Tech Spec compliance.

46. Reactor Protection System - Transfer of a Safety System from Motor Generator Feed to an Alternate Source (500-O-II Rev 0)
This procedure was written for the transfer of the safety system from the motor generator set to an alternate source.

The probability of an occurrence or the conse[illegible]ence of an accident, or malfunction of equipment important to safe[illegible] as previously evaluated in the FSAR is not increased because this procedure does not effect the safety system design or operation. This procedure provides a guideline to transfer power for the safety system.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the design intent of the system is not changed or altered by this procedure implementation.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the procedure will only provide guidelines in the transfer of power sources and not alter system design or alter any tech spec requirement.

47. Reactor Protection System - Reactor Vessel Low Water Level Scram and ECCS (33-500-O-II Rev 0)
This procedure was written to outline the steps necessary to perform functional tests and calibration of reactor vessel low water level scram and core spray injection level sensors.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the reactor vessel low water level scram and core spray injection level sensors can now be adequetly checked.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the possibility should decrease because an adequet functional check of the system can now be performed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the level sensors are now being checked to a greater degree.

48. Safety System - Periodic Checks of Safety System Sensors (500-S-I Rev 1)
This procedure was revised into the new station standard format.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the basic system operation remains the same.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the basic system operation remains the same.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe system operation is in no way degraded by this change.

49. Reactor Protection System - Reactor Protection System Checkout (500-S-VI)
This procedure was written to outline the proper method of checking for the proper operation of the reactor protection system.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation is unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation is unchanged.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be chanced through the use of an approved procedure to perform the check for correct operation.

50. Nuetron Monitoring System - Replacement of In Core Neutron Detectors (33-700-XVII Rev 0)
The procedure was written to outline the proper method of replacing in core neutron detectors.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the system is unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because normal system operation is unchanged.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because system operation is in no way degraded by this procedure.

51. Neutron Monitoring System - Repair of In-Core Flux Monitoring System (33-700-XVIII Rev 0)
This procedure was written to outline the proper method of repairing the in-core flux monitoring system with the reactor in the start up or run modes.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation is not changed by this procedure.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because basic system operation is not changed through the use of this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of an approved procedure to perform this repair.

52. Neutron Monitoring System - In-Core Monitor Amplifier Calibration (33-700-XV Rev 0)
This procedu was a new procedure for the calibration of the in-core neutron nitor amplifier.

The probabili of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure will not downgrade any system needed to mitigate the consequences of a nuclear accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the systems necessary for reactor safety will not be altered or downgraded through the use of this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the basis of any tech specs will not be altered through the use of this procedure.

53. Neutron Monitoring - Loss of Flux Indication (700-AN-III)
This procedure was written to aid the operator in the event of loss of flux indication.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure will not effect any system necessary to mitigate the consequences of a nuclear accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the procedure will not downgrade the operation of any system or sub system

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the implementation of this procedure will provide a means where by the limits defined in the Tech Specs are met.

54. Neutron Monitoring System - Neutron Flux High Scram (33-700-0-II, Rev 0)
This procedure was written to list steps and precautions necessary to test if neutron flux high scram function will scram the reactor at or below 123% of selected power range.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the probability of an occurrance should be decreased since the operability of the scram circuitry will be insured.

Th possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation and function is not changed.

The margin of safety, as defined in the basis for any Tech spec is not reduced because the operability of the scram circuitry will be insured.

55. Neutron Monitoring System - Out of Core High Neutron Flux Functional Test (700-S-III Rev 0)
This procedure was written for checking output trip relays on 2.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this test does not change anything which has already been extablished by safety analysis.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this test does not change anythind already established by safety analysis.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because it meets Tech Specs.

56. Neutron Monitoring System - Intermediate Range Monitor Current and Short Period Scram Calibration (33-700-0-XI Rev 0)
This procedure was written to outline the steps necessary to calibrate and functionally test IRM current and short period scram.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this calibration procedure assures proper system operation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure assures the operation of existing equipment.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure assures compliance with the new tech specs.

57. Refueling - Filling and Monitoring the Reactor Vessel Level During Refueling (800-0-XXXIV)
This procedure was written to outline the proper method of filling and maintaining the reactor vessel level during refueling.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation is not changed by this procedure.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure only cover operations during refueling.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of an approved procedure to perform this function.

58. Shutdown Cooling System - Loss of Shutdown Cooling (1000-AN-III)
This procedure was written to outline the steps to take in the event of a loss of shutdown cooling.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure will not affect the operation of the system but will enable the operator to properly operate the system in an abnormal condition.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the design operation of this system will not be altered through the implementation of this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the basis as defined in the Tech Specs are not is not affected by the implementation of this procedure.

59. Unloading Heat Exchanger - Unloading Heat Exchanger Suction Screen (1000-0-IV Rev 0)
This procedure was written to insure that the suction pipe penetrations in the reactor for the unloading heat exchangers are properly covered with the unloading suction screens.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because outline of steps required to place screen into position will insure that the work will be done correctly.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because procedure and safety analysis reduces the possibility of an accident or malfunction.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the procedure outlines steps to be followed when placing screen into reactor.

60. Standby Liquid Control - Combating Conditions Requiring Use of Emergency Boration or Standby Liquid Control System (1100-AN-III)
This procedure was written to provide guidance in the use of the standby liquid control system.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure will not alter the ability of any system or subsystem required to mitigate the consequences of a nuclear accident.

60. Standby Liquid Control - Combating Conditions Requiring Use of Emergency Boration or Standby Liquid Control System (1100-AN-III)
This procedure was written to provide guidance in the use of the standby liquid control system.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure will not alter the ability of any system or subsystem required to mitigate the consequences of a nuclear accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the procedure will not downgrade any system or subsystem.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the procedure will ensure that the limits defined in the basis for the Tech Spec are not exceeded.

61. Clean up System - High Conductivity in Main Steam and Condensate (1200-AN-IV Rev 0)
This procedure was written to outline the operators actions in the event of high conductivity in the Main Steam or Condensate.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the cleanup system is now safety related.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the cleanup system is non safety related.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the cleanup system is non safety related.

62. Isolation Condenser - Emergency Condenser Auto Initiation (1300-AN-III Rev 0)
This procedure was written to outline the steps necessary in the event the emergency condenser is required.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure will not effect any subject necessary to mitigate the consequences of a nuclear accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure will not effect or downgrade any safety system.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the implementation of this procedure will not effect the basis of any tech specs.

63. Isolation Condenser - High Level in the Emergency Condenser (1300-AN-IV)
This procedure was written to outline steps to be taken in the event of a high level in the emergency condenser.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the use of this procedure will not effect any system needed to mitigate the consequences of a nuclear accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the systems necessary to effect reactor safety are not effected through use of this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the basis of any Tech Specs will not be altered through use of this procedure.

64. Isolation Condenser - Low Level in Emergency Condenser (1300-AN-V Rev 0)
This procedure was written to outline the actions to be taken in the event of a low level in the emergency condenser.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the use of this procedure will not effect any system necessary to mitigate the consequences of a nuclear accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the use of this procedure will not degrade any system.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the basis of any Tech Specs will not be effected through this procedure.

65. Emergency Condensor - Emergency Condensor Water Level (33-1300-C-1 Rev 0)
This procedure was written to outline the steps necessary to calibrate emergency condensor water level monitor.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this Calibration Procedure assures proper system operation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure assures the operation of existing equipment.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure assures compliance with the new tech specs.

66. Emergency Condenser System - Emergency Condenser System (1300-S-I Rev 3)
This procedure was written to eliminate the prerequsisite that the reactor be in cold shutdown.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the system valves can be safely operability tested with the reactor operating.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation remains the same.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe system operation is in no way degraded by this change.

67. Core Spray System - Reactor Pressure to Core Spray Header Differential Pressure Calibration (33-1400-0-I Rev 0)
This procedure was written to list steps and precaustions necessary to calibrate reactor pressure to core spray header differential pressure sensors to permit injection valves to open when core spray is greater than reactor pressure.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the calibration of the reactor pressure to core spray header differential pressure sensors can now be acurately checked.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the high degree of dalibration of the reactor pressure to core spray header differential pressure sensors will decrease this possibility.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the safety of the system will be enhanced through the use of this procedure.

68. Core Spray System - Sphere High Pressure Scram and Eccs. (33-1400-0-II Rev 0)
This procedure was written to list steps and precautions necessary to perform functional test and calibration of sphere high pressure scram and core spray system initiation sensors.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the sphere high pressure scram and core spray sensors can be adequetly checked.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because an adequet functional check of the system can now be prefored.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the sphere high pressure scram and core spray sensors are now being checked to a greater degree.

69. Core Spray System - Primary Steam Drum Low Water Level Scram and ECCS (33-1400-0-3 Rev 0)
This procedure was written to list steps and precaustions to perform functional tests and calibration of level sensors that cause reactor scram and core spray initiation on a primary steam drum low water level.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the primary steam drum low water level sensors can be adequetly checked.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the primary steam drum water level sensors will be functionaly tested and calibrated to a high degree of accuracy.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of this procedure.

70. Core Spray System - Nitrogen Supply to High Pressure Poison Tank Low Pressure Alarm Calibration (33-1400-0-V Rev 0)
This procedure was written to outline the steps necessary to calibrate the nitrogen supply to high pressure poison tank low pressure alarm.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this calibration procedure assures proper system operation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the procedure assures the operation of an existing alarm.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure assures compliance with the new Tech Specs.

71. Core Spray - Core Spray System Valve Operability (1400-S-I Rev 2)
This procedure was revised to update core spray valve operability. Add note after part F.1.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the body of the procedure remains unchanged and the intent is not altered.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the body of the procedure is not changed and the intent is not altered.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the procedure has been upgraded to reflect the valve interlock associated with CS-16.

72. Low Pressure Coolant Injection System - Post Incident Reactor Pressure Recorder Calibration (33-1500-0-1 Rev 0)
This procedure was written to outline the steps necessary to calibrate the post incident reactor pressure recorder.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this calibration procedure assures proper system operation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure assures the operation of existing equipment.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure assures compliance with the new tech specs.

73. Drywell and Torus - Loss of Containment Integrity (1600-AN-III)
This procedure was written to outline the steps necessary in the event of a loss of containment integrity.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure will ensure that proper and timely action is taken in the event of a loss of containment.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the procedure will not degrade system or component necessary to mitigate the consequences of a nuclear accident.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the procedurew will provide guidelines whereby the specifications defined in the Tech specs will not be exceeded.

74. Reactor Containment - Power Operated Isolation Valves (1600-S-I Rev 1)
This procedure was revised to include the proper isolation valves.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the primary containment isolation valves which are in existance will be checked for operation to assure proper operability if needed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the valves will be tested on a quarterly basis.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the tech spec requirement will be met.

75. Leak Check of 16 Foot Bottled Equipment Hatch (38-1600-S-XVII)
This procedure was written to outline the proper method of leak checking the 16 foot bottled equipment hatch.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the operation of containment is not changed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the operation of the 16 foot bottled equipment hatch is not changed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of an approved procedure to perform this work.

76. Emergency Condenser - Leak Check of Emergency Condenser Manhole Covers (38-1600-S-XIX)
This procedure was written to outline the proper method of conducting a leak test of the emergency condenser.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation is unaffected.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation is unaffected.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe system operation is in no way degraded.

77. Containment - Leak Check of the Fuel Transfer Tube Cover, Transfer, and Bypass Valves (38-1600-S-XX)
This procedure was written to outline the correct method of checking the fuel transfer tube cover, transfer, and bypass valves.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation is in no way degraded.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation is in no way degraded.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because through the uniformity of testing brought on by the use of an approved procedure, the safety will actually be enhanced.

78. Containment System - Post Incident Sphere Pressure Los and High Indication Calibration (33-1600-0-1 Rev 0)
This procedure was written to outline the steps necessary to calibrate the post incident sphere pressure low and high indicators.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this calibration procedure assures proper system operation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure assures the operation of existing equipment.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure assures compliance with the new tech specs.

79. Containment System - Post Incident Sphere Water Level Indicator Calibration (33-1600-0-11 Rev 0)
This procedure was written to outline the steps necessary to calibrate the post incident sphere water level indicator.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this calibration procedure assures proper system operation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure assures the operation of existing equipment.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this is a new procedure to assure compliance with the new tech specs.

80. Process Radiation Monitor - High Radioactivity on Process Monitors (1700-AN-III)
This procedure was written to outline the steps to be taken in the event of a high radioactivity in the process radiation monitors.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the use of this procedure will not alter the design operation of any safety system.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the procedure will not alter or downgrade any safety system.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the basis of any Tech Specs will not be altered through use of this procedure.

81. Process Radiation Monitoring - High Radioactivity - Service Water Discharge (1700-AN-IV Rev 0)
This procedure was written to outline the steps necessary in the event of high activity in the service water discharge.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure will not effect the operation of any system or subsystem needed to mitigate the consequences of a nuclear accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the use of this procedure will not downgrade the system or subsystem needed to provide reactor safety.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure will not effect any basis of the tech specs.

82. Process Radiation Monitoring System - High Radiation in the Air Ejectors (1700-AN-V Rev 0)
This procedure was written to outline the steps to follow in the event of a high activity in the air ejectors.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure will not effect the operation of any system or subsystem necessary to mitigate the consequences of a nuclear accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure will not downgrade any safety system or subsystem.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the basis of any tech specs will not be effected through use of this procedure.

83. Process Radiation Monitoring System - High Radioactivity in the Stack Gas and Emergency Cooling Vent (1700-AN-VI Rev 0)
This procedure was written to outline the steps necessary in the event of high radioactivity in the stack gas and emergency cooling vent.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure will not effect the design operation of any system or subsystem necessary to mitigate the consequences of a nuclear accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the systems needed to provide reactor safety will not be downgraded through use of this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the items covered in the basis of the tech specs will not be altered through use of this procedure.

84. Radiation Monitoring - Emergency Condenser Vent Radiation Monitor System (1700-0-III Rev 0)
This procedure was written for the operation of the emergency condenser vent radiation monitoring system.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure describes the operation of radiation monitoring of the emergency condenser vent and does not alter the design or operation of the system.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the system design remains unchanged through the implementation of this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the implementation of this procedure will provide guidelines such that limits defined in the tech specs are not exceeded.

85 Process Radiation Monitoring System - Emergency Condenser Vent Radiation Monitor (33-1700-0-3 Rev 0)
This procedure was written to outline the steps necessary to calibrate and functionally test emergency condenser vent radiation monitor.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this calibration procedure assures proper system operation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this is a new procedure which assures consistant performance on an existing system.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this is a new procedure developed to assure this is a new procedure developed to assure compliances with the new tech specs.

86. Radiation Monitoring - Process Liquid Radiation Monitoring on Core Spray System (1700-0-IV Rev 0)
This procedure was written for the operation of the liquid radiation monitor on the core spray system.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure provides guidelines for the operation of the system. The design intent and operation of the system will not be altered by this procedure.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the design intent of the system and the operation of the system remain unchanged. The system will not be downgraded through the use of this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the procedure will ensure proper system limits and thus provide plant operation in the limits of the tech specs.

87. Off Gas System - Off Gas Radiation Monitor Calibration and Functional Test (33-1700-0-4 Rev 0)
This procedure was written to describe the off gas radiation monitor calibration and functional test.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this calibration procedure assures proper system operation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure assures consistant calibration of an existing device.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure was developed to assure compliance with the new tech specs.

88. Process Radiation Monitoring - Process Liquid Radiation Monitoring System (1700-0-V Rev 0)
This procedure was written to specify start up, operation and shutdown of the process liquid monitor system.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure will not effect the operation of any safety system required to mitigate the consequences of a nuclear accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because there will be no safety system downgraded through use of this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the basis of any tech spec will not be altered through the use of this procedure.

89. Calibration of Radwaste Demineralizer Effluent Process Monitor (33-1700-XI Rev 0)
This procedure was written to outline the proper method of calibrating the radwaste deminerlizer effluent process monitor.

The probability of an occurrence or the consequence of an accident, malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation will remain unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because basic system operation is unaffected by this calibration procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of an approved procedure to perform this calibration.

90. Process Radiation Monitor - Off Gas Radiation Monitoring System 1 and 2 (1700-0-I Rev 0)
This procedure was written to outline the operation of the off gas radiation monitor.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure will not alter the operation or design of operation of the system. This procedure will provide guidelines in the correct operating of the system.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the system design and operation has not been downgraded or altered through the use of this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the procedure provided proper operation within the limits defined in the tech specs.

91. Process Radiation Monitors - Stack Continuous Air Monitor Calibration (33-1700-0-I rev 0)
This procedure was written to list steps and precautions necessary to calibrate the stack continuous air monitor.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the increased degree of calibration of the stack continuous air monitors will decrease the probability of an occurrence or the consequence of an accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the system operation remains unchanged.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because system safety will be enhanced through the use of an approved procedure.

92. Process Radiation Monitor System Stack Gas Radiation Monitor Calibration (33-1700-0-V Rev 0)
This procedure was written to list steps and precaustions necessary to calibrate stack gas radiation monitoring instruments numbered RE 126, RAM 127-2, RAM 128-3, RAM 128-4, RAM 128-5, RPW 128, RRS 128-1, RRS-128-2.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the calibration of the stack gas radiation monitoring instruments will be enhanced.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because adequit functional checks of the system can now be made thus the possibility should decrease.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the safety of the system is not downgrade by the use of this procedure.

93. Area Radiation Monitoring System-High Radiation in Sphere Exhaust (1800-AN-III Rev 0)
This procedure was written to aid the operator in the event of a high radiation condition in the sphere exhaust system.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure will not effect the design operation of any safety system or component.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the system will not be downgraded through the use of this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the basis for any tech. spec. will not be effected through use of this procedure.

94. Area Radiation Monitor System-High Radiation in the Turbine Building (1800-AN-IV Rev 0)
This procedure was written for operation in the event of a high radiation condition in the turbine building.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure does not alter the system design or operation nor does it effect any safety related system

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the system is not downgraded by the implementation of this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure will not alter any requirement for the basis of the tech specs.

95. Area Radiation Monitor System - High Radiation in Auxiliary Buildings (1800-AN-V Rev 0)
This procedure was written to provide the operation department with guidelines to follow in the event of high radiation in the auxiliary buildings.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure will not alter the design operation of any safety system.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this will not downgrade the present system or the operation of the system.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure does not effect any basis for the tech specs.

96. Area Radiation Monitor System - High Radiation in the Sphere (1800-AN-VI Rev 0)
This procedure was written to outline the steps necessary for required operator action in the event of a sphere high radiation condition.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure gives guidelines to the operator in the event of sphere high radiation. It dows not alter the system operation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the system is not downgraded by the implementation of this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the basis of any tech specs does not cover the operation of the area radiation monitors.

97. Radwaste System - Reactor Water Filter Precoating and Startup (2000-0-1 Rev 1)
This procedure was revised into the new format with no change in intent.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation will remain unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because basic system operation remains the same.

The margin of safety, as defined in the basis for any technical specification is not reduced because safe plant operation is in no way degraded by this change.

98. Radwaste System - Sampling and Processing the Laundry Drain Tanks (2000-0-XXVII Rev 1)
This procedure was revised to include the valves to be operated during the transfer of water from the main laundry tank to "A" or " holdup tanks. In addition several precaustions and limitations were added.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the procedure is clearified by establishing additional precautions and limitations which will decrease the probability of an occurrence.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the piping is not revised and the method of liquid transfer and sampling is not changed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the procedure increases the margin of safety as specified in items 1 and 2.

99. Laundry System - Laundry Holdup Tanks "A" & "B" (2000-0-XXVII Rev 4) This procedure was revised for the installation of four 2 inch valves, a section of 2 inch pipe and cut and cap a section of pipe inexisting laundry system which will allow recirculation of one laundry drain tank while filling or draining the other tank.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the existing system is not downgraded by this addition.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system reliability will be increased with this modification.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the system will be upgraded by this modification.

100. Radwaste - Waste Discharge to the River (2000-0-XXVIII Rev 3) This procedure was revised to take into account the changed dilution flow with the warning valve open and the inclusion of the added 0-2 G.P.M. Flow Meter.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation will be unmodified.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation will not be modified.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe plant operation will not in any way be degraded by this change.

101. Radwaste System - Locked Valve Surveillance (2000-S-I Rev 0) This procedure was written to add surveillance of locked valves.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because boundry valve will be perodically checked.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the surveillance is added.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because it does not change operation.

102. Steam Piping - Testing of Electromatic Relief Valves (3000-S-I)
This procedure was written to outline the proper method of conducting tests of the electromatic relief valves.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation is not changed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation is not changed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of an approved procedure to perform these tests.

103. Feedwater System - Low Level on the Secondary Steam Generator (3200-AN-VI Rev 0)
This procedure was written to aid the operator in the event of a low water level in a secondary steam generator.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the feedwater system is not safety related and not mentioned in the FSAR.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the system is not safety related.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the system is not safety related and not defined in the basis of the tech specs.

104. Condensate System - Combating Loss of Condenser Vacuum (3300-AN-III Rev 0)
This procedure was written to outline the actions to be taken in the event that condenser vacuum is lost.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation under normal conditions is not being changed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation remains unchanged.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because system operation is not being downgraded.

105. Feedwater System - Loss of Control Power to Secondary Feedwater Controls (3200-AN-XIII Rev 0)
This procedure was written to outline operation action in the event control power is lost to the secondary feedwater controls.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure does not alter the design operation of the system or component.

The possibility for an accident or malfuncti[illegible] of a different type than any previously evaluated in the FS[illegible] is not created because the system operation remains unchange[illegible] and the system or components are not downgraded.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the system operation is not defined in any basis for the tech specs.

106. Condensate - Loss of Sphere Closed Cooling Water (3700-AN-III Rev 1)
This procedure was revised to expand operators responses to a loss of sphere closed cooling water.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the sphere closed cooling water system is non safety related.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the sphere closed cooling water system is non safety related.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the sphere closed cooling water is non safety related.

107. Fire Protection System - Resetting the Grinnell Multimatic Valve (4100-0-IV)
This procedure was written to provide guidance in the operation of the Grinnell Multimatic valve.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure will not affect the safe operation of the system or alter the design operation intent.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the system will not be downgraded through the implementation of this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the implementation of this procedure will not affect the basis of any Tech Spec.

108. Instrument Air System - Failure of Instrument Air System (4700-AN-IV Rev 0)
This procedure was written to aid the operators in the event a loss of instrument air occurs.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the instrument Air System is not safety related and thus is not covered in the FSAR.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the system is not safety related.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the system is not safety related and thus not mentioned in the tech specs.

109. Instrument Air - Loss of Instrument Air to Scram Valves (4700-AN-V Rev 0)
This procedure was written to outline the proper response to a loss of instrument air to the scram valves condition.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation is not changed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because normal system operation is unaffected.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe system operation is not degraded.

110. Instrument Air System - Startup and Operation of Instrument Air System (4700-O-II Rev 1)
This procedure was reformated to include the startup and operation of the instrument air system.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure will not alter the operation of the system or its design intent.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the system is non safety related as defined in the FSAR.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the system is not mentioned in any margin or basis of the tech specs.

111. Off Gas System - Combating Fuel Cladding Failure or High Activity in Reactor Coolant or Offgas (5400-AN-IV Rev 0)
This procedure was written to outline the steps necessary in the event of fuel cladding failure or high activity in reactor coolant or off gas.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the implementation of this procedure will not effect the safe operation of the unit or any system needed to mitigate the consequences of a nuclear accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the safety systems are not effected through implementation of this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the basis of any Technical Specs will not be effected by this procedure.

112. Direct Current System - 125 V DC System Failure (9800-AN-III Rev 1)
This procedure was revised to reflect the conditions of battery failure and charging generator malfunction.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation under normal conditions remains unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because normal system operations remain unchanged.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of an approved procedure to respond to this condition.

113. Direct Current System - Loss of Both D.C. Generators (9800-AN-IV Rev 0)
This procedure was written to outline the proper response when both direct current generators are lost.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation is not changed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because normal operation remains the same.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of an approved procedural response to this condition.

4. Surveillance

On July 29, 1974 a new Dresden - 1 Technical Specification was issued. All required surveillances to meet this specification were met with the exception of two discrepencies. A violation of reporting a low Diesel Generator Fuel Oil stroage tank level and an extended period of an instrument surveillance which was required over every three months. All surveillances were completed satisfactorily which included the above mentioned discrepencies. The primary containment vessel pentration inspection, control rod drive friction and scram tests, control rod blade pull test, primary containment isolation valve closure and timing test and other required instrument calibrations. Inaddition, ten (10) welds on "B" secondary steam generator recirculation loop 6" by-pass were ultrasonically and visually inspected. No indications were noted. A description of the control rod uncoupling investigation during the September/October 46 day maintenance outage is given below:

<u>Dresden Unit 1 Control Rod Uncoupling</u>

During unit startup following the 1973 fall refueling outage, control rod/control rod drive following could not be verified by neutron instrumentation response for control rods D-4, A-5, D-10 and A-7. Each control rod was fully inserted and the control rod drive (CRD) electrically disarmed and removed from service. An investigation following reactor shutdown at 2208 hours on August 31, 1974 revealed that the unverified control rods were not initially coupled during the 1973 fall refueling outage. The control rods were found lodged between their respective fuel assemblies. No physical damage to the control rods, associated fuel assemblies or coupling mechanisms was noted. The control rods were then coupled to the CRD's and verified for coupling by a mechanical pull test divice. A visual inspection of the core was conducted and the reactor was returned to operation at 0712 hours on October 16, 1974.

5. Results of Periodic Containment Leak Rate Tests

Table IE shows the results of the periodic containment leak rate tests performed during the period from July 1, 1974 to December 31, 1974.

6. Changes, Tests and Experiments Requiring Authorization from the Commission

No changes, tests or experiments requiring commission authorization were performed during the period from July 1, 1974 to December 31, 1974.

7. Key Changes in Plant Operations Organization
The following key changes in plant operating personnel occurred during the period from July 1, 1974 to December 31, 1974.

Administrative Assistant to the Superintendent-Larwence D. Butterfield.

Operating Engineer - George Klopp.

B. Power Generation

Power generation during the reporting period is summarized in Table 1A. Figures 1A through 1F are monthly historgrams of thermal and electrical power versus time.

C. Shutdowns

Table 1B shows all shutdowns encountered during the six month reporting period. This table includes the data, duration, cause, method and unit status for each shutdown. Corrective actions taken to preclude recurrence are listed.

D. Maintenance

A discussion of corrective maintenance performed on safety related components is presented in table 1C. This table gives a description of the maintenance that was performed, including the cause and effect of malfunction, action taken to preclude recurrence and effect on safe reactor operation.

E. Changes, Tests and Experiments

A list of all changes, tests and experiements carried out without prior commission approval is presented below. A brief description and summary safety evaluation for each change is also given.

1. Standby Liquid Control
This modification involves heat tracing and insulating the suction and discharge piping for the liquid poison system pumps.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the probability of malfunction is reduced and probabilities of other malfunctions are unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because no existing plumbing is being physically modified with respect to its function in poison injection.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this modification reduces the probability of malfunction or failure of a safety related system. The margin of safety is actually increased.

2. Reactor - Secondary Steam Generator Recirculating Pump
This modification involves the installation of a 0.125 inch Flex-I-Talic Gasket for the "1B" sec steam generator recirculating pump.

D-1 7-13-7-

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because with the installation of this type of gasket, the seal life will be increased and leakage reduced.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because sealing capability of this gasket increases reliability of pump and reduces possibility of an accident or malfunction.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because with increased sealing capability the margin of safety is increased also.

3. Off gas System
This modification involves the installation of test connections in the off gas system to DOP test high efficiency filters.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the system design has not been downgraded by this modification. The penetrations into off gas piping will be capped when not in use.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system integrity will be maintained through use of valves and pipe caps. Therefore, no unreviewed safety accident or malfunction is created.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the integrity of the system and system operation remains unchanged by the modification. The margin of safety as defined in the basis for any Tech Specs is not reduced.

4. Main Steam Sample Lines (Primary Sampling)
This modification involves instalating isolation valves in main steam sample lines located in "C" instrument room.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the work will be done during outage. The work will increase the inherent safety of the system.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the system will remain basically unchanged.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the modification is designed to increase the margin of safety.

5. Control Rod Drive - Pressure Switch
This modification involves replacement of present switch with upgraded switch. Model PS-221-2

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the safety and design operation of the system has not been affected through the installation of an upgraded switch. The system will continue to function in the design manner and will not effect any system necessary to mitigate the consequences of a nuclear attack.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the system will be upgraded through the installation of the improved design switch and will not downgrade the system or component of the system.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the basis for the Tech Specs will not be altered or affected by the installation of a new improved design pressure switch.

TABLE 1A

Dresden Unit 1 Power Generation Summary - July-December-1974

Month	Gross Thermal Power (MWHt)	Gross Electrical Power (MWHe)	Reserve Shutdown Hours	Hours Reactor Critical	Hours Reactor On Line
July	236,118	62,010.13	0	671:02	635:13
August	260,767	81,210.22	0	697:09	681:22
September	0	0.90	0	0:0	0:0
October	112,387	31,420.45	0	375:35	331:42
November	346,205	99,290.17	0	720:00	720:00
December	379,688	114,950.17	0	744:00	744:00
Total	1,335,165	388,882.04	0	3,204:46	3,111:17

Maximum Dependable Capacity (MWe)

Gross	Net
210	200

TABLE 1B

UNIT 1 REACTOR SHUTDOWNS

SHUTDOWN NUMBER	DATE & TIME	CAUSE	DURATION HOURS	METHOD OF SHUTDOWN	PLANT STATUS DURING OUTAGE	CORRECTIVE ACTION (IF APPLICABLE)
1	10/9/73 @ 0342	Eighth Partial Refueling Outage	67:50*	Manual	Cold Shutdown	NA
2	7/3/74 @ 2148	Spurious Reactor Scram	2:23	Automatic Scram	Cold Shutdown	NA
3	7/5/74 @ 0125	Operator Error	2:45	Automatic Scram	Hot Shutdown	NA
4	8/2/74 @ 2127	Miscellaneous Steam Leaks	46:21	Manual	Cold Shutdown	Repair Steam Leaks
5	8/31/74 @ 2330	Investigate Control Rod Drive Blade "Following" Problems	1063:00	Manual	Cold Shutdown	Removed Reactor Vessel Head And Properly Latched Blades
6	10/15/74 @ 1238	Startup Tests	2:40	Manual	Hot Shutdown	NA
7	10/15/74 @ 1605	Startup Tests	5:04	Manual	Hot Shutdown	NA
8	10/15/74 @ 2211	High Neutron Flux	0:36	Automatic Scram	Hot Shutdown	NA
9	10/16/74 @ 0418	Steam Leak on "B" Recirc Pump Flange	2:54	Manual Scram	Hot Shutdown	Repair Leak
10	10/23/74	Leak on Sample Line	15:41	Manual	Hot Shutdown	Repaired Leak

TABLE - I C

Dresden Unit I   Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
July 1	Control rod drive sys/accumulators #17 and 21	Air entering water side of accumulator	Bad seal between piston and cylinder	Replaced all cylinder assemblies	None. Required maint. done during shutdown as for normal wear.
July 1	Control rod drive sys/accumulator #10	Air leaking past piston	Pitted cylinder, broken T-ring assemblies	Dismantled cleaned and rebuilt the accumulator	None. Preventative maint unit was shutdown
July 1	Control rod drive sys/accumulators #4	Air leaking past piston	Bad seal between piston and cylinder	Replaced cylinder assemblies	None
July 1	Control rod drive sys/accumulator #27	Air leaking past piston	Pitted cylinder and broken T-rings	Dismantled, cleaned and rebuilt accumulator	None
July 1	Control rod drive sys/accumulator #6	Air leaking past piston	Pitted cylinder, broken T-ring assemblies	Dismantled, cleaned and rebuilt accumulator	None
July 1	Control rod drive sys/accumulator #14 vent valve	valve inoperative	bad valve seat	Rubber removed from seat and new gasket installed	None. Required maint. done during shutdown as far normal wear.
July 1	Reactor protection sys/A.O.V #502 sphere vent valve	Air regulator leakage	Defective diaphragm	Replaced with new unit and repaired old one	Excessive instrument air consumption. No safety significance since valve remained operable during period of leakage and was closed during the repairs.
July 2	Control rod drive sys/accumulators #'s 8,18,19,23	Vent valves leaking when fuel closed	Bad valve seat	Relapped all the valves listed and installed new bonnet gaskets	None. Maintenance was done during shutdown.
July 3	Control rod drive sys/accumulator #7 scram outlet valve	Diaphragm air leak	Defective diaphragm	Replaced diaphragm	None. Rods were inserted prior to repair.

TABLE - I C

Dresden Unit I   Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
July 3	Containment system/ Transfer valve MO541	No effect	No malfunction	Transfer tube MO 541 jumper interlock to allow dry tube transfer. Removed jumper upon completion.	No effect
July 3	Main Steam line sys/B recirc pump cooler	Leaking tubes in recirc pump cooler	Normal wear	Replaced all tubes in cooler	No effect. Required maint. due to normal wear
July 3	Neutron monitoring system/channel 11	Many spurious trips	Grounded ion chamber	Viseral inspection and voltage picks performed	Spurious trips were a nuissance but had no effect on safe operation. Repair done in "Refuel" with no rods out.
July 4	Neutron monitoring sys/channel 7	None. Channel 7 inoperable	Cable cut back about 2 ft. and connectors thrown away	Replaced connectors. Log n checked, ion chamber checked.	No effect. Repair done while in "Refuel". All rods in.
July 4	Control rod drive sys/accumulator #17	Could not clear high water alarm	Unknown	Shop worked on accumulator 17 and cleared alarm	No effect. Required maintenance.
July 6	Control rod drive sys/accumulator #21	Repeated high water alarms	Bad cylinders	Replaced both bad cylinders.	No effect. Drives were inserted during repair

TABLE - I C

Dresden Unit I Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
July17	Recirc system/B secondary steam generator recirc pp	Pump bowl gasket leaking	Bolts not tightened evenly	Heated bolts on half which was leaking and tightened	None. Leakage was contained. Steam generator was isolated and out of service during repairs
July17	Neutron monitoring sys/incore monitor 116B	Monitor became very erratic when rods were pulled in the vicinity of the monitor	Erratic flux amplifier	Replaced with spare	None. Incore instrumentation meets tech specs requirements
July18	Contain. sys/sphere pressure transmitter	None	None	Transmitter was calibrated	None
July20	Recirculation sys/ "C" SSG	Leak	Leaking tube	Plugged 5 tubes	None. Reactor shutdown
Aug 2	Neutron monitoring sys/ A channel 2	Repeated spurious ½ scrams	Defective A	Replaced with spare	None
Aug 3	Control rod drive sys/Accumulator #23	Leaking pressure switch	Leaking pressure switch	Replaced with new switch	None.
	Nuetron monitoring sys/LR ch. #9	Channel #9 inoperable. found blown 1A fuse.	Blown 1A fuse	Replaced 3 ft of cable on detector end and installed new connectors	None.

TABLE - I C

Dresden Unit I Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Aug 3	Main steam line sys/ MO 167	Leak	Valve required repacking	Valve was repacked	Non. Unit was shutdown: valve remained operable-packing leak created airborn condition
Aug 3	Main steam line sys/MO 168	Leak	Valve required repacking	Valve was repacked	None. Unit was shutdown and cold during repaired
Aug 4	Netron monitoring sys/channel #9	Spurious trip	Burned HN connector on & HV lead @ north wall	Replaced connector	None
Aug 5	Standby liquid control sys/poison sys test gage	gage read 400#	Defective gage	Removed gage. Gage belonged to contractors	None
Aug 5	Main stm line sys/ gland leak off MO-169	Leak	Normal wear	Valve was rebuilt	None
Aug 7	Control rod drive sys/accumulator #23	Would not hold air pressure	unknown	Replaced accumulator	None. The drive discharge valves were left open to allow the drives to scram in by reactor pressure.

TABLE - I C

Dresden Unit 1 Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Aug10	Nuetron monitoring sys/ch #11	Repeated AB Short period trip	Defective log n amplifier	Installed new log n amplifier	None
Aug10	Containment system/ emergency escape lock	No malfunction	None	Strongback installed in order to allow leak rate test to be performed	None. Lock was tested with the doors closed.
Aug12	Neutron monitoring sys/Ch #5 A	Read downscale	Defective unit	Replaced with new unit	None
Aug13	Neutron Monitoring/ system L and N recorders (ch. #9 emerg cond vent, cond. demin. eff. and ch#6 A	Bad standardizing motors	Normal wear	Replaced standardizing motors	None
Aug13	Containment Sys/ Equipment lock	No malfunction	None	Strongback installed to allow leak rate test	None
Aug 13	Neutron monitoring system/ch #2	Spurious trips	Bad A	Replaced A and checked trip point	None
Aug 20	Nuetron monitoring system/ A #2	Spurious readings	Bad A	Replaced	None
Aug 21	Neutron monitoring system/ A #1	Downscale spikes	Bad standardizing rheostat	Replaced	None

TABLE - IC

Dresden Unit I Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Aug 27	Neutron monitoring sys/encore monitor #115D	Received high alarm and flashing light checked incore and found downscale reading	Bad fuse	Replaced fuse and calibrated current to 4.3 A @ 100%	None
Aug 29	Neutron monitoring system/flux amp 101C	Spurious flux readings	Flux amplifier no good	Replaced flux amp.	None. Incore instrumentation remained within technical specifications limits
Aug29	Neutron monitoring system/incore monitor 104C	Reading too high	unknown	Calibration was checked and found o.k.	None
Sept 7	Control rod drive sys/accumulations #'s 22 &24	High H_2O alarm would not clear	Accumulators were drained and alarms were not cleared	Performed functional test by draining accumulators and insuring that alarms cleared	None. Reactor was in refuel mode during test
Sept 7	Process radiation monitoring sys/ ch#4 negative H.V. and ch#7 signal cables	Spurious Trips	Defective Cables	Spare leads were used instead of replacement	None
Sept 7	Reactor core isolation coolant sys/ isolation condenser	High level reading	unknown	Checked level transmitter found nothing wrong	None. Reactor was in refuel mode with no fuel moves in progress

TABLE -I C

Dresden Unit I Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Sept 9	Control rod drive sys/accumulator #25	Spurious high water alarm	Dirty electrode	Cleaned and dried electrode and well	None. Drives were inserted
Sept 9	Control rod drive sys/accumulator#25	Spurious high water alarm	unknown	Installed rebuilt accumulator	None. Reactor in shutdown
Sept 9	Neutron monitoring sys/Ch #8	Downscale indication	found ch 8 @ mid position with full in light	Put to full in position and put in a work order to have electricians check limit switches	None
Sept10	Reactor vessel sys/ reactor head	None	None	Removed reactor head and turning vane following procedure in Ch 36-1	None. Overhaul outage; reactor in shutdown mode
Sept15	Neutron monitoring sys/ A#1	scram	Found loose sensor	Clamped sensor in carriage	None
Sept17	Neutron monitoring sys/ A #1	Channel #1 Scrammed the reactor twice	Defective H.V.P.S. and range switch	Replaced H.V.P.S. and reapired range switch	None

TABLE - C

Dresden Unit I Maintenance Summary 1974

Date	System/Component	Effect of mal-function	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Sep18	Standby liquid control sys/poison sys	None	None	Calibrat on of thermostats for heat tracing poison system piping	None
Sep18	Neutron monitoring sys/ch#2 A	Amplifier - Ch #2 would not reset	Erroneous trip setpoint	Trip setpoint was readjusted	None. Reactor was cold 212°F, head was off, switch in refuel mode.
Sep18	Neutron monitoring sys/Ch#5 A	Trip light suspicious	No malfunction	Ch 5 amplifier was checked out and found ok	None. Reactor was cold 212°F with head off and switch locked in refuel mode.
Sep 18	Neutron monitoring sys/Ch#2 A	Scram had no red light on amplifier	Unknown	Tested and check out ok	None. Reactor was cold 212°F with head off and switch locked in refuel mode.
Sep 1[illegible]	Neutron monitoring sys/Ch#5 Amp	Surveillance 700-S-III	Surveillance 700-S-III	Surveillance 700-S-III	None
Sep 19	Control rod drive sys/Accumulator #11	Scram inlet valve diaphragm leaking	Unknown	Initiated a separate work order to tighten all diaphragms	None

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Dresden Unit I   Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Sep1	Diesel fire pump day tank	Diesel fire pump would not turn on auto-matically, but would turn on manually. However, if turned on manually, it would not shut off.	Unknown	Trouble-shooting	None
Sep20	Core spray sys/core spray pump	Sys was being operated incorrectly	Sys was being operated incorrectly	Engineering was notified as to proper operation	None. No failure occured: problem was caused by lack of knowledge
Sep20	Control rod drive sys/accumulators	No malfunction	None	Job merely involved rebuilding of spare accumulators	None
Sep21	Emergency diesel generators/solenoid in fill line to diesel oil day tank	None	Bad solenoid	Rebuilt solenoid	None. Reactor was in refuel mode with all rods in and no work being done over/in the vessel.

TABLE - IC

Dresden Unit I   Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Sep23	Control rod drive sys/Accumulator #24	Accumulator would not remain charged	Normal wear	Accumulators replaced with rebuilt units	None
Sep 25	Neutron monitoring sys/Ch #8 drive limit switches	Detector was stopping at Midposition with full-in lamp indication	Lack of knowledge	Checked out ok	None. Position indicators do not affect drive operation.
Sep 25	Control rod drive sys/Accumulator #21	Low air pressure problem	Normal wear	Installed new O-rings and rebuilt accumulator	None
Sep 26	Control rod drive sys/Accumulator#10 upper air charging valve	Bent stem	Bent stem	Replaced stem and disc	None. Reactor in cold shutdown and drive accumulators out of service
Sep 27	Control rod drive sys/accumulator #14	Air side drain (water detector blowdown)-Both valves leaking through	Normal wear	Replaced seat and disc on both valves	None
Sep 28	Main steam line sys/"B" Secondary steam generator loop	Tube leak in generator	Tube leak	Plugs inserted in leaking tubes with QC approved plugs. "B" S.S.G. was "hydro" tested and no further leaks were found	Leak resulted in minor contamination in "B" S.S.G. and was contained in the shere. No effect on the public

TABLE - IC

Dresden Unit I   Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Sep 30	Control rod drive sys/accumulator #25 scram valves	Leaking	Leaky scram valves Normal wear	Replaced disc, stem and seals on both inlet and outlet valves. Both valves were then properly adjusted	None
Sep 30	Main steam line sys/"C" secondary steam generator	None	None	Replacement of metal diaphragm with a flexitaelic gasket	None. Reactor at atmospheric pressure with all rods inserted
Oct 1	Main steam line sys/"C" secondary steam generator room MO 139	Leak	Bad, worn packing	Repacked valve	None. Reactor in shutdown, "C" loop isolated
Oct 2	Control rod drive sys/scram dump tank magnatrol 264A	None	Lack of knowledge	Functionally tested related relays and switches and found sys in proper working condition	None. Reactor in refuel mode during testing
Oct 2	Neutron monitoring sys/ A ch#2	Two spurious trips	Bad A	Replaced A and changed H.V.P.S.	Nona Reactor in cold Shutdown

TABLE - I(

Dresden Unit I Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Oct 3	D.C. Sys/"B" battery charger	Rheostat faulty	Rheostat was dirty	Cleaned adjusting rheostat	None. Reactor in shutdown mode.
Oct 3	Main steam line sys/"C" secondary steam generator	Leak	Tube leak	Plugged leaks following procedure 36-15	None. Reactor in refuel mode
Oct 4	D.C. Systems/"A" battery charger	Faulty rheostat	Dirty rheostat	Cleaned rheostat	None. "B" battery charger was in service during the job.
Oct 7	Core spray system/ Core spray flow test valve #21	No malfunction	leak off line needed to be repacked or capped	Installed ½" pipe cap	None
Oct 7	Neutron monitoring system/ch #5	No malfunction	Lower trip setting was too high	Trip setting was lowered from 121 to 115	None. Reactor in shutdown mode.
	Control rod drive sys/accumulator #25	Drives drift in	Worn scram inlet valve	Rebuilt valve	None. Drives were full in during repairs

TABLE - IC

Dresden Unit I Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Oct 9	Control rod drive sys/accumulatory #2	Poor scram times	Scram inlet valve was only open 1/8". Worn stem and seat	Rebuilt stem and machined seat	None. Reactor in refuel mode with all rods full in.
Oct 10	D.C. Systems/"B" battery charger	Regular maintenance	Regular maintenance	Changed all brushes and cleaned collector rings	None. Reactor in refuel mode.
Oct 10	Reactor feedwater sys/secondary feed stop valve	Required maint. for bad packing	Normal wear	Repacked valve	None. Reactor in refuel mode and feedwater not required.
Oct 11	Reactor feedwater sys/Primary feedwtr header drain valves (before B & C by-pass)	Leaking valves	Normal wear	Replaced disc and lapped seat on both valves	None. Reactor in shutdown and header isolated and drained.
Oct 14	Control rod drive sys/Accumulators 8,21,22&24	No malfunction	Accumulator high water alarm test. Results: #8 and 22 found to have broken switches. #21 had a loose wire and 24 worked fine.	Test conducted and deficiencies corrected.	None. Reactor subcritical and respective rods full in.

This page was added to cover a numbering error.

TABLE -I C

Dresden Unit I Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Oct 15	Neutron monitoring sys/incore scram logic test	Test failed, numerour incore combinations failed to trip safety system	NSO placed incores in "bypass mode" while test was being conducted thus preventing safety system trip	Test was repeated and favorable results obtained	Incores are not needed when the reactor is @ less than 350 MWth. Reactor was in refuel mode with no rods out. No safety hazard was presented to the public or plant personnel.
Oct 15	Control rod drives sys/accumulator #14 vent valve	Bad leak	Normal wear	Replaced valve disc and nut	Accumulator remained operable but leak caused excessive input to radwaste.
Oct 15	Reactor vessel head/ reactor vessel head	No malfunction	None	W.R. involved the reinstallation of reactor vessel head and shield blocks at completion of outage.	None. Reactor in cold shutdown.
Oct 16	Neutron monitoring sys/incore amplifiers 103A, 106D, 111D and 108A	Normal wear	Normal wear	Replaced 103A & 106D with spare amplifiers and set zero adjustment on 108A and 111D	None. Incores are not necessary when reactor is below 350 MWth.

TABLE - IC

Dresden Unit I Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Oct17	Containment sys sphere interlock (personnel)	"Open" button would not always work	Locking mechanism was overtravelling	Adjusted limits on door locking travel	Failure is random-sphere integrity apparently not adversely affected.
Oct17	Neutron monitoring sys/Ch #8 drive	Bad drive limits	Unknown	Set drive limits to correspond to Ch #10	None

TABLE - IC

Dresden Unit I   Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Oct 17	4 KV Switchgear/ G.E. type M26 switchgear	No malfunction	None	Preventative maintenance: involved tightening bolts on stationary auxilary contact assembly	None. Reactor in cold shutdown.
Oct 19	Containment sys/sphere vent valve AO 503	Valve failed in closed position and other isolation valve was operable	Normal wear	Valve key was replaced. Incident report was initiated	With valve not connected to operator, there was no way to predict the position of a failure. It was not possible to maintain negative pressure in the sphere with AO 503 failed closed.
Oct 21	Control rod drive sys/accumulator #4	Drives would not withdraw	Unknown	Removed ASCO valves and checked seats and stems; all looked good	None. Drives were fully inserted.
Oct 21	Recirculation sys/ reactor drum level	Reactor scrammed @ -10" instead of -16"	Unknown	Checked trips, all four were found to be within Dresden limits. Checked calibration of primary drum high water level yarway. All four scram relays and drum high level yarway agreed in indication.	None

TABLE - I C

Dresden Unit I   Maintenance Summary 1974

Date	System/Component	Effect of mal-function	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Oct 23	Main steam line sys/ MO 138 & 141	Packing leak	Packing loose	Tightened packing	Reactor in cold shutdown
Oct 23	Main steam line sys/ MO 169 Primary stm stop	Packing leak	Packing leak	Tightened packing	Reactor in cold shutdown
Oct 23	Main steam line sys/MO 168	Packing leak	Packing leak	Tightened packing	Reactor in cold shutdown
Oct 23	Recirculation system/ "C" Reactor recirc. pump	Pump tripped with about 80A	Tripped relay	Reset relay and monitored current for minimum test time. Relay OK	None
Oct 24	Recirc. sys/"C" reactor recirc pump	Pump tripped with about 80A	Tripped relay	Check out motor. Test ok	None
Oct 24	Neutron monitoring sys/Ch #5 A	Spurious trips	bad connection	cleaned connectors	None. Only one channel was by passed.
Oct 24	Recirculation sys/ "B" secondary stm generator recirc pump	Possible flange leak on north side of pump	Loose bolts	Used bolt heaters and tightened down bolts	None. Reactor in shutdown and loop isolated. Leakage was insufficient and contained in the sphere. No hazard to the public or to personnel was presented.

TABLE - IC

Dresden Unit I   Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Oct24	Neutron monitoring sys/Ch # A	Recorder went down-scale	Bad A	Replaced A with spare and tested	None
Oct25	Containment sys/ sphere personnel lock	Doors were slamming shut too hard	Doors out of adjustment	Adjusted doors as necessary. And performed local leak rate test.	None.
Oct25	Neutron monitoring sys/ A #5	½ scram occurred when channel #5 was taken off of "By-pass".	Unknown	Took channel off bypass, no trips occurred. Too little information to identify the problem. Checked trip points.	None
Oct25	Neutron monitoring system/incore monitor	Incore monitoring indication at 100 MWe shows 5 to 8% on all incore monitors	Unknown	Did surveillance of incore monitors and results showed no problems	None. Reactor was @ 350 MWth.

TABLE - IC

Dresden Unit I   Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Oct 28	Neutron monitoring sys/Ch#1 A	No power	Blown fuse	Replaced fuse	None. Only one channel was out of service during repairs
Oct 29	Control rod drive sys/accumulator #25	Drives drifting in	Scram outlet valve out of adjustment	adjusted scram outlet valve	None. Drives inserted full in and accumulator was valved out during repair
Oct 29	Containment Sys/Sphere ventilation isolation valves	Routine inspection	Connecting linkage	Replaced worn parts	None. Inspection was performed and the work done with the valve closed
Oct 30	Containment sys/sphere ventillation isolation valves	Routine inspection	Connecting linkage	Added set screws as necessary & staked all set screws	None
Nov 2	Neutron monitoring sys/Ch #[illegible] A	Reading went to zero after ½ scram: could not reset until A was wiggled. Also, red indicating light above meter did not light up	Faulty A	Replaced A with spare	None. Only one channel was by-passed

TABLE - IC

Dresden Unit I   Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Nov 2	Neutron monitoring sys/Ch#8	Reading downscale	Faulty log amplifier with spare	Replaced log amplifier with spare	None. Reactor in shutdone
Nov 12	Emergency diesel gen/diesel oil transfer pump	Pump inoperable	Blow fuse because of old age	Replaced fuse and removed local grounded pushbutton station	None. Day tank was full and checking of control leads after replacement of fuse did not render the pump inoperable
Nov 13	Water sys/"A" screen wash pump	Pump could not develop discharge pressure	Normal wear	Pump was rebuilt	None. "B" screen wash pump and the diesel fire pump were in service
Nov 14	Neutron monitoring sys/Incore monitore 113C	Read 85%	Equipment was in need of calibration	Calibrated, checked and cleaned cable	None. Incore was reading too high
Nov 15	Neutron monitoring sys/Ch#6 detector	Was hard to move when repositioning	Unknown	None was necessary	None. Only one channel was bypassed

TABLE - IC

Dresden Unit I Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Nov 15	Neutron monitoring sys/flux amp #103B	Would not zero with test equipment	Bad resistor and electrometer tube	Replaced resistor and electrometer tube. Calibrated	None. Only one channel bypassed.
Nov 15	Neutron monitoring sys/flus amp #103A	Would not zero with test equipment	Dirty electrometer tube	Cleaned electrometer tube	None. Only one channel was bypassed
Nov 15	Neutron monitoring sys/Ch#1 detector	Hard to move when repositioning	Unknown	Not necessary	Only one channel was bypassed
Nov 15	Reactor level control sys/emergency fuel pump	During emergency feed pump test, pressure on P-11 read too high	Pressure gage was in need of calibration	Pressure gage was calibrated and found to have been reading 125 PSI too high	None. Pump remained in service
Nov 15	Control rod drive sys/accumulator#21	Would not remain [illegible] charged	Leaking packing on pressure gage	Tightened packing	None. Accumulator remained in service

TABLE - IC

Dresden Unit I Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Nov 15	Neutron monitoring sys/flux amp #103D	Would not zero with test equipment	Dirty range switch and electrometer	Cleaned range switch and electrometer	None. Only one channel was by-passed
Nov 16	Sphere containment sys/sphere supply isolation valve	Leak	Controller was blowing water	Water was blown out and booster relays were replaced	None. Valve remained closed during repairs
Nov 16	Control rod drive sys/accumulator #3	High water alarm would not clear	Not known	Situation was investigated and no problem was found	None
Nov 16	Sphere containment sys/sphere vent A0501	Failed leak rate test	Valve was not fully closed due to linkage out of adjustment	Linkage was adjusted. Leak rate test re-done	None. The leak rate test results were within technical specification limits
Nov 16	Control rod drive sys/CRD #C-5 position indication	Past position 5 or 6 indicating is erratic so that physical location of the rod is not known	Not determined	Rod position was verified by observing response of micro monitors 108 & 109	None

TABLE - I C

Dresden Unit I Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Nov 16	Neutron monitoring sys/Ch#1 A	Found loose wires in plug not making good contact and deteriorated power lead	Normal wear	Repaired connector on amplifier. Also replaced AC feed cable and calibrated the amplifier	None. Only one channel was by-passed
Nov 16	Neutron monitoring sys/Ch # [illegible] A	Spiking and spurious trips	Range switch in wrong position	None was necessary	None
Nov 20	Sphere containment sys/shpere personnel lockouter door	Door was difficult too close	Broken chainkeeper cap screw	Replace cap screw on chain keeper	None. Sphere integrity was in effect during repairs at all times
Nov21	Neutron monitoring sys/Ch#5 A	Spurious trips	Bad A	Replaced A with spare	None. Only one channel was bypassed
Nov 21	Main steam line sys/ "C" secondary steam generator M.O. 139	Bonnet flange leak in suction downstream valve. Also found defective gear limit switch	Defective flange gasket and gear limit switch	Replaced defective parts	None. Recirculation loop was shutdown and isolated

TABLE -I C

Dresden Unit I Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Nov 27	Core spray sys/Core spray valves 32 and 33	Valves 32 and 33 failed to open while 1400-S-I surveillance was being performed	Found that valves 32 and 33 will not open when CS16 is closed because of an interlock	Trial and error allowed determination of the problem. Procedure change was initiated to correct deficiency in procedure 1400-S-I	None. Core spray system remained operable
Nov 30	Neutron monitoring sys/incore flux amplifier #113C	Not noted in work request package	Bad flux amplifier	Replaced with spare	None. Core monitoring remained within tech specs limits
Dec 6	Sphere containment sys/emergency escape hatch	Not specified in W.R. package	Bad linkage	Replaced pin in linkage and performed leak rate test	None. Sphere integrity remained in effect
Dec 6	D.C. sys/"A" battery charger P105A	Not specified in W.R. package	Bad brushes	Replaced 4 short brushes	None. Routine maintenance
Dec 13	Fuel building crane/fuel building crane hook	Small hook has a small crack in it	Small hook had a small crackin it	Ground 1/8" around crack and ordered a new hook	None

TABLE - IC

Dresden Unit I   Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Dec 13	Recirculation sys/"B" recirc pump coolant alarm	Received low level alarm in control room	Short in D.C. circuit	Leads were hooked up properly and alarm cleared	None. Alarm performed its proper function
Dec 15	Neutron monitoring sys/ A Ch#5	Spurious trips	Deffective A	Replaced tube sockets and circuit components which were defective	None
Dec 17	Control rod drive sys/accumulator #23	Low pressure alarm	Union ahead of pressure gage was leaking	Opened union and cleaned and polished threads-reinstalled with application of pipe dope.	None. Scram capability remained in effect
Dec 18	Control rod drive sys/Accumulator #24	High water alarm no alarm light in control room	Not apparent after investigation	None necessary	None
Dec 23	Neutron monitoring sys/Ch #11	Showed 7 sec period with no power increase	Bad tubes	Replaced three bad tubes	None. Only one channel was by passed
Dec 26	Core spray sys/station hydrostatic test pmp	No malfunction	None	Connected pump to core spray injection header drain line for surveillance 1400-S-I step #10	None Scheduled surveillance

TABLE I D

Dresden Unit 1 Incident Reports Requiring

Corrective Maintenance

Date of Occurrence	Incident Number	Component Requiring Corrective Maint.	Date Maint. Completed
10-17-74	I-12-1-74-14	Exhaust Isolation Valve AO-503	10-23-74
10-17-74	I-12-1-74-15	Line 0701 and 0702	10-24-74
11-2-74	I-12-1-74-16	Line Between "C" Holdup Tank and Discharge Valve AO-45	11-4-74
11-7-74	I-12-1-74-17	Diesel Oil Transfer Pump Fuse	11-7-74
11-12-74	I-12-174-18	"A" Screen Wash Pump	11-13-74

TABLE IE

RESULTS OF PERIODIC CONTAINMENT LEAK RATE TESTS

COMPONENT TESTED	% LEAKAGE PER DAY	% OF LICENSE LIMIT
Sphere Ventilation Inlet Valves	.00644	2.680
Sphere Ventilation Exhaust Valves	.00049	0.206
Fuel Transfer Tube	.01374	5.712
16 Ft. Equipment Hatch	0.150	6.164
Personnel Lock	.0039	1.6348
Equipment Lock	.01588	6.62
Escape Hatch	.000751	.2103
Secondary Feedwater Isolation Valve MO-8	0.000182	0.0758
Primary Feedwater Isolation Valve MO-9	0.0000267	0.01112
Primary Steam MO-169 & MO-170 Valves	0.110	45.833
Emergency Condenser Manhole	0.004588	1.912
Flow Control Valve FCV-510	0.00001443	0.006
2" Sphere Penetration to Radwaste	0	0

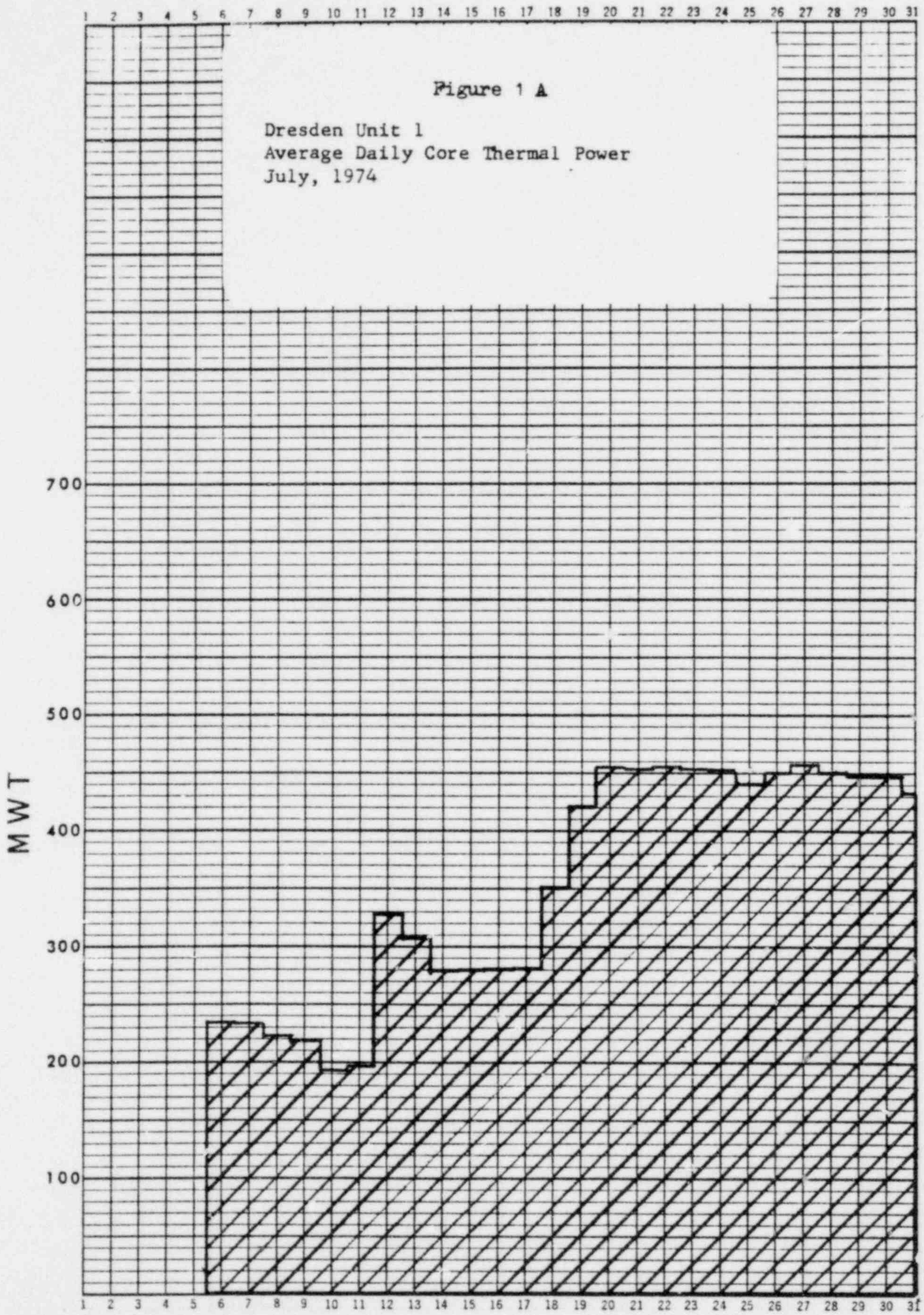

Figure 1 A

Dresden Unit 1
Average Daily Core Thermal Power
July, 1974

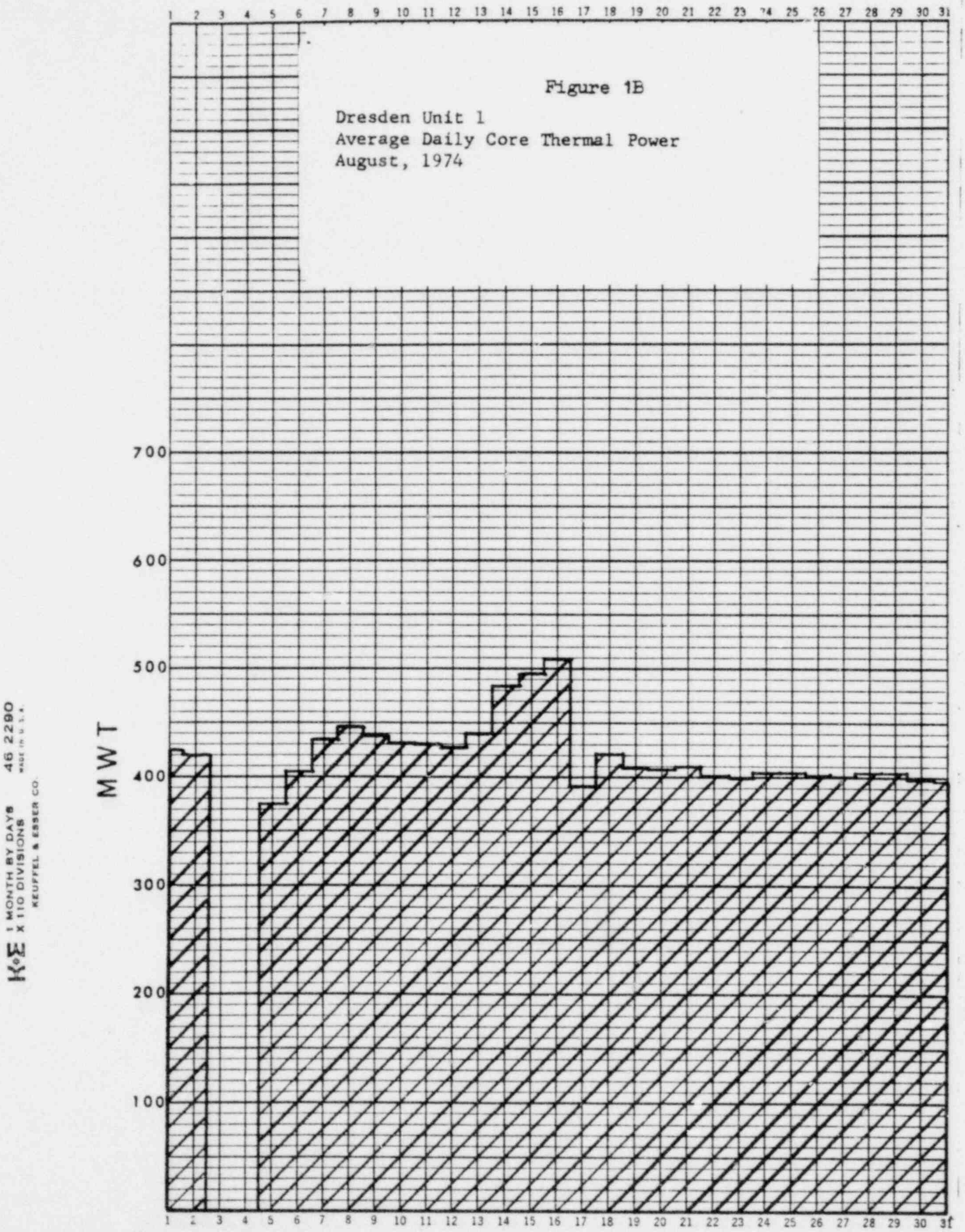
Figure 1B
Dresden Unit 1
Average Daily Core Thermal Power
August, 1974
MWT
700
600
500
400
300
200
100
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
K-E 1 MONTH BY DAYS X 110 DIVISIONS 46 2290
KEUFFEL & ESSER CO.

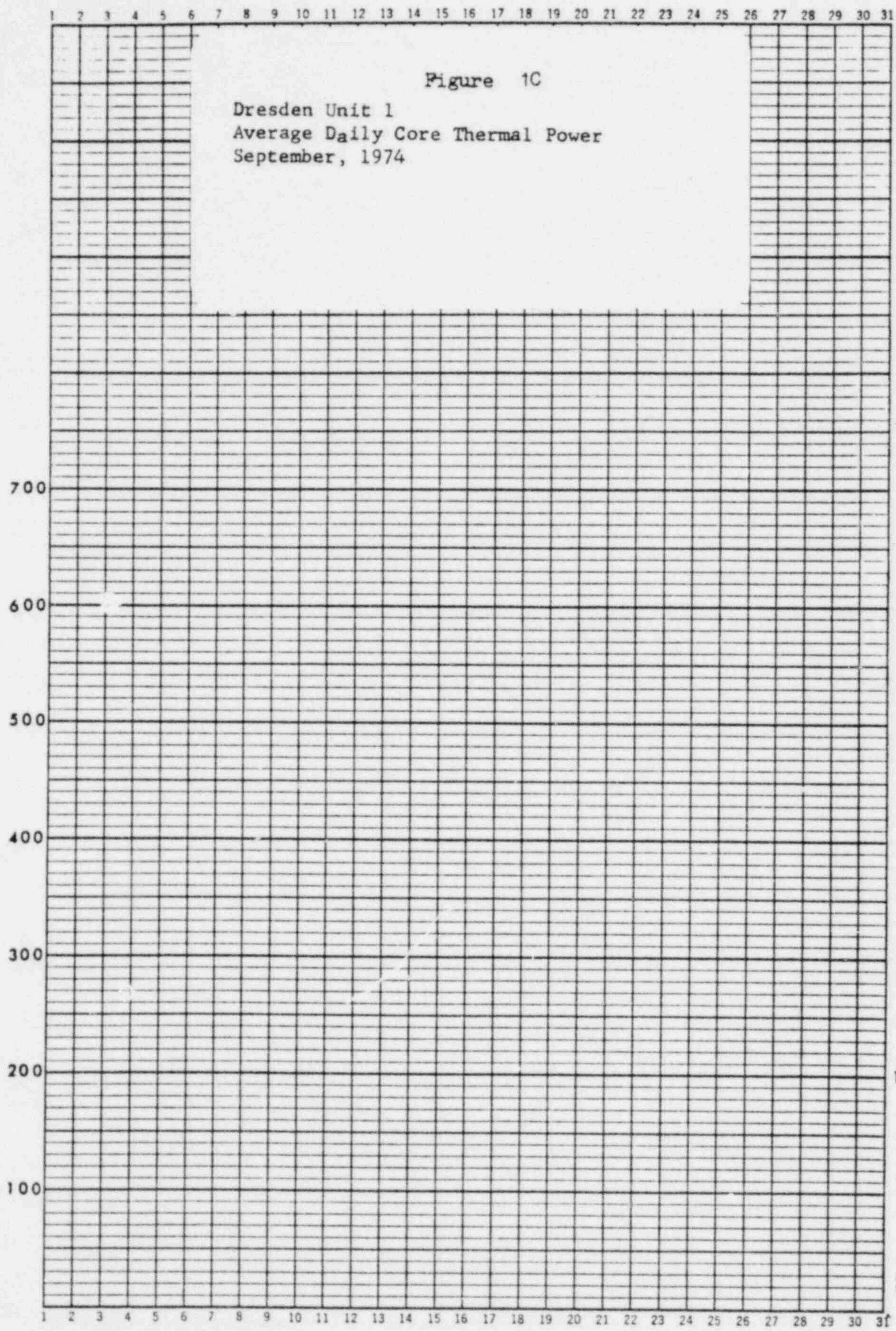

Figure 1C

Dresden Unit 1
Average Daily Core Thermal Power
September, 1974

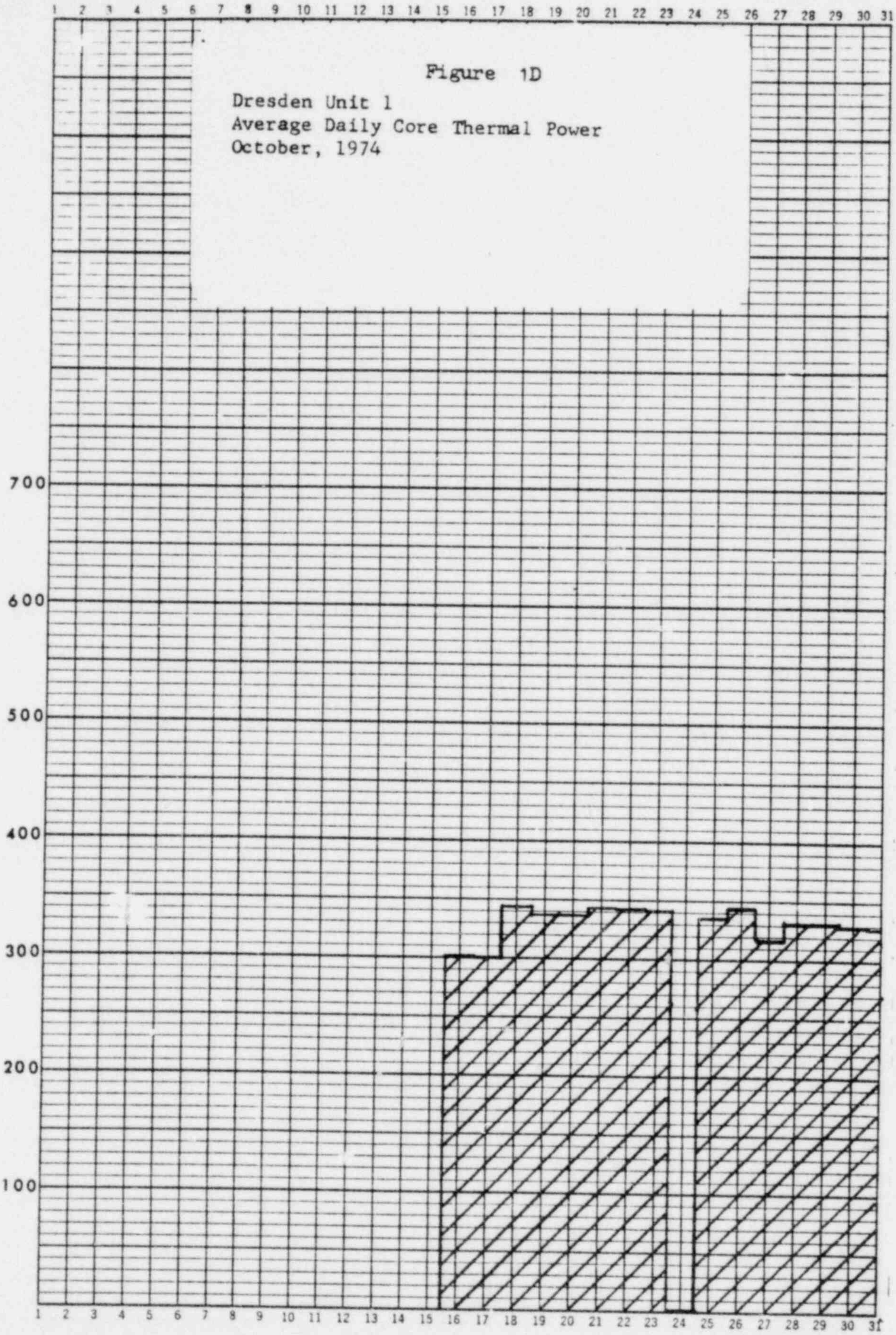

Figure 1D

Dresden Unit 1
Average Daily Core Thermal Power
October, 1974

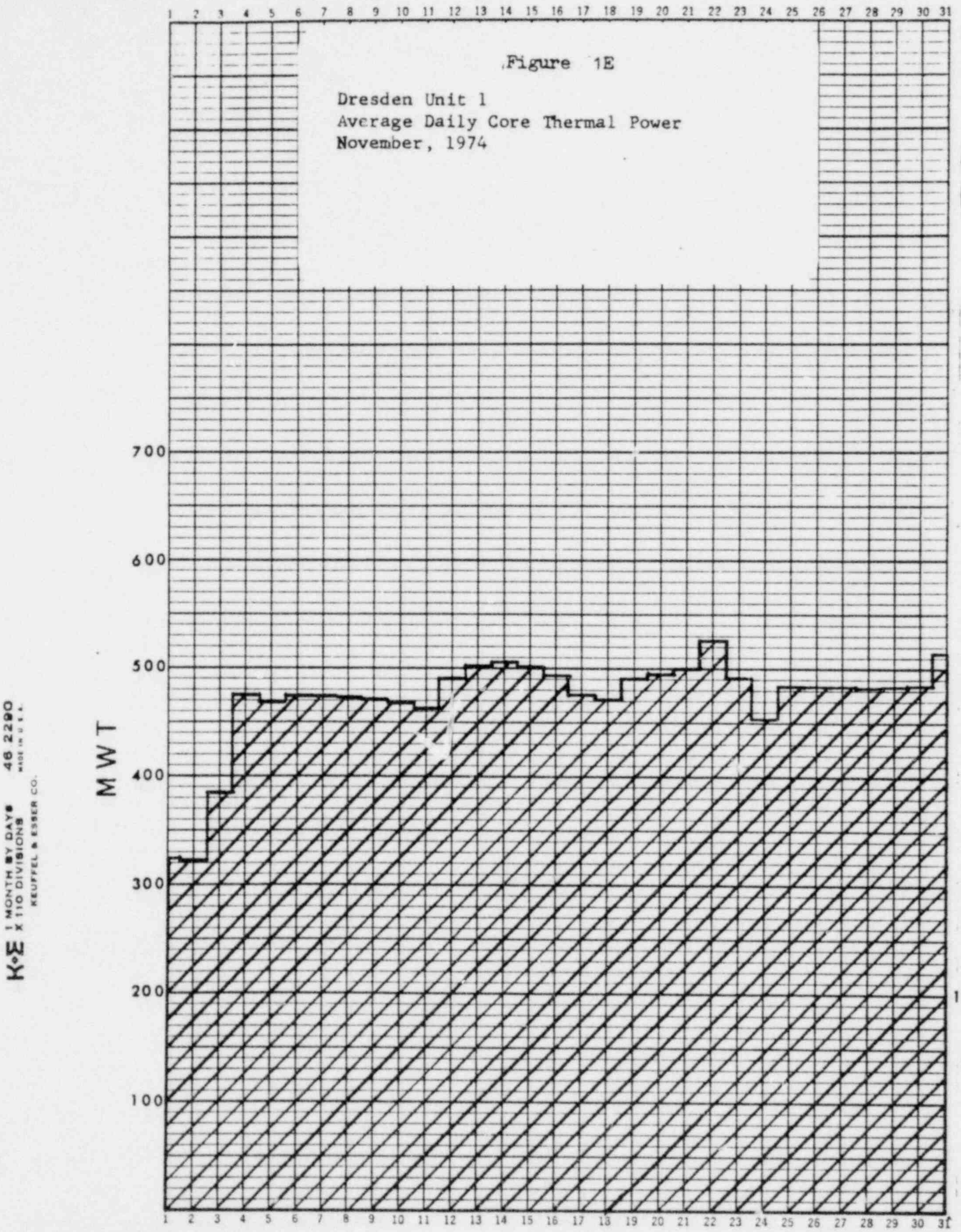

Figure 1E
Dresden Unit 1
Average Daily Core Thermal Power
November, 1974
MWT
700
600
500
400
300
200
100
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
K+E 1 MONTH BY DAYS X 110 DIVISIONS 46 2290
KEUFFEL & ESSER CO.

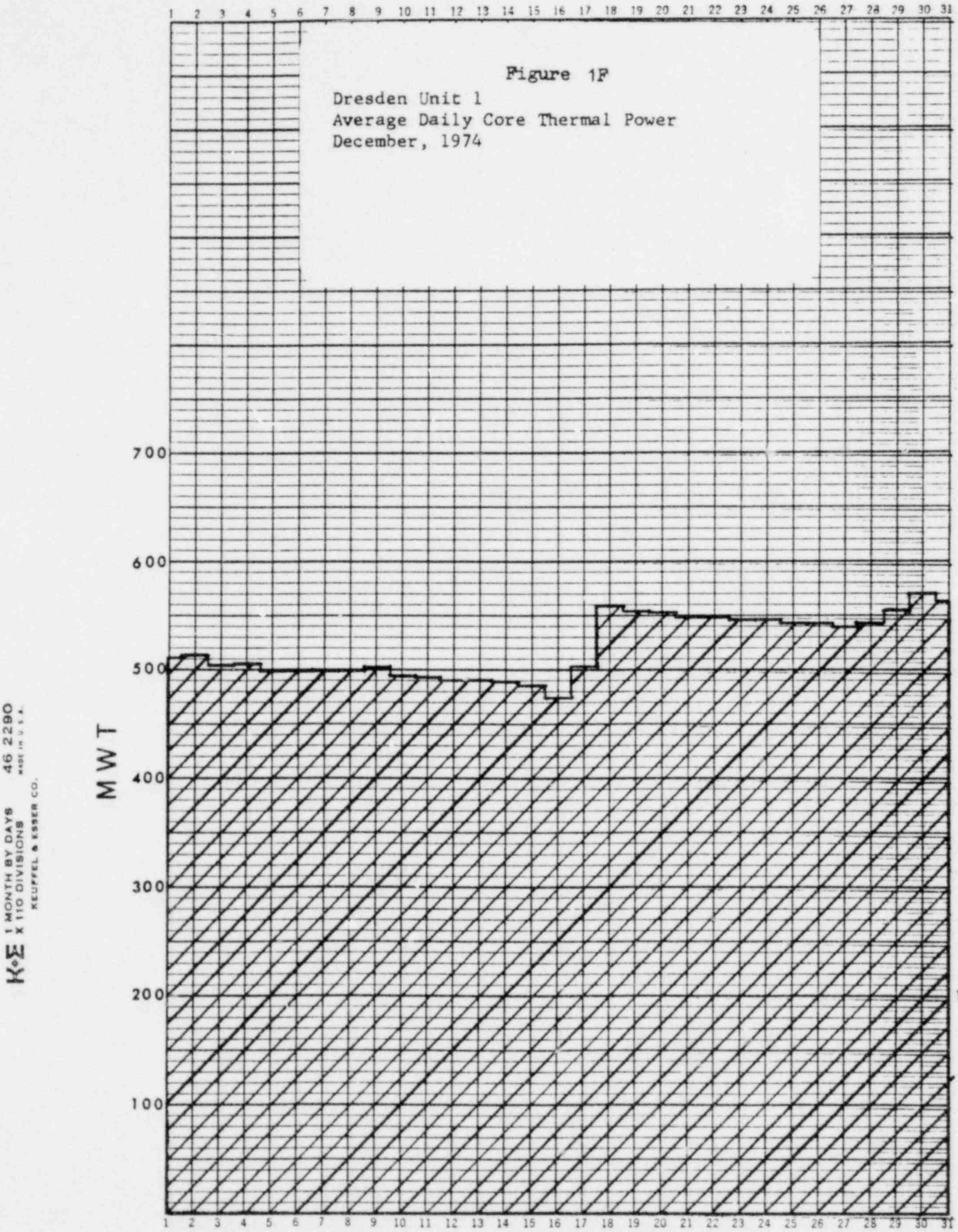

Figure 1F

Dresden Unit 1
Average Daily Core Thermal Power
December, 1974

DRESDEN NUCLEAR POWER STATION

SEMI-ANNUAL REPORT

SECTION II DRESDEN UNIT #2

I. Unit #2

A. Operations Summary

1. Changes in Plant Design

Described in Section E of this report.

2. Performance Characteristics

a. Equipment performance is shown in the chronological history which follows.

Unit #2 Chronological History

July 1 to July 27
The unit operated in the "Run" mode at loads of between 200 MWe and 752 MWe until 2135 hours on July 27 when the unit was removed from the system. The reactor was in the "startup" mode at 2200 hours on July 27.

July 28 to August 1
The unit was placed in the "Shutdown" mode at 0007 on July 28. The unit remained shutdown to repair primary containment isolation valves, until 2247 on July 31 when reactor startup was begun. The unit was critical at 0055, placed in the "Run" mode at 1020, and on system at 1747 hours, August 1. Load was increased to 465 MWe.

August 2 to August 3
The unit operated between 465 MWe and 380 MWe until 0630 on August 3 when a unit shutdown was begun. The unit was off system at 1406 on August 3 to replace the generator reverse power relay. The unit was back on system at 1424 on August 3 and load was increased to 425 MWe.

August 4 to August 11
The unit operated between 600 MWe and 700 MWe, except for short surveillance load drops. On August 11, a load drop was begun and the unit was off system at 0602 to test the generator reverse power relay. The unit was on system at 0613, off system at 0616, on system at 0635, off system at 0639, on system at 0655 and off system at 0659 for further reverse power relay testing. The unit was again on system at 0711 on August 11 and a load increase to 630 MWe was made.

August 12 to Auguat 22

The unit operated at loads between 630 MWe and 590 MWe, except for short surveillance load drops, until 1700 on August 22 when a unit shutdown was begun to replace control rod drives. The unit was off system at 2247 on August 22, and the reactor was in the "Startup" mode at 2355.

August 23 to August 27

The reactor was in the "Shutdown" mode at 0240 on August 23 and remained shutdown to replace uncoupled control rod drives. The unit startup began at 0110 on August 27. The reactor was critical at 0235 and in the "run" mode at 1213. The unit was on system at 1444 and load was increased to 460 MWe.

August 28 to September 1

Following control rod sequence adjustments on August 28, the load was increased at 4 MWe per hour up to 608 MWe. The unit operated between 608 MWe and 588 MWe, except for short surveillance load drops, until 0900 on September 1 when a manual reactor scram was initiated due to increasing water level in the condensate pump room due to a failed cooling water line on a condensate booster pump.

September 2

Following repairs to the failed cooling water line, a reactor startup began at 1135. The reactor was critical at 1325 and the unit was on line at 2006 and load was increased to 280 MWe.

September 3

At 0504, the reactor scrammed on a turbine-generator load mismatch signal which was caused by a valving error on an instrument. Following scram recovery, reactor startup began at 0730. The reactor was critical at 1157 and the unit was on system at 1842. The unit load was increased to 418 MWe.

September 4 to September 12

The unit load was increased at 4 MWe per hour to 690 MWe, and the unit operated between 690 MWe and 670 MWe, except for short surveillance load drops, until 1725 on September 12. At that time a unit shutdown was begun to investigate the cause of excessive leakage in the drywell.

September 13 to October 6

The unit was off system at 0246 on September 13, and the reactor was in the "Startup" mode at 0330. The reactor was in the "Shutdown" mode at 0843. An investigation in the drywell revealed hairline cracks in both the A and B recirculation pumps discharge valve bypass lines. The unit remained shutdown to replace the sections of piping which had leaks. Inspections of other parts of the piping and similar piping elsewhere on the recirculation disclosed no indications of any additional cracking. At 1630 on October 6, startup of the reactor was begun. The reactor was critical at 2009.

October 7 to October 8

The reactor was placed in the "Run" mode at 0525 on October 7. The unit load was increased to 370 MWe and remained at this approximate load while scram testing and surveillance tests were performed. At 1800 on October 8, a load reduction was begun to take the unit off line to repair the pressure regulator circuitry. The unit was off system at 2129 and the unit was in the "Startup" mode at 2300. The unit remained in a "Hot Standby" condition while repairs were made to the pressure regulators.

October 9 to October 18
Following repairs to the pressure regulators controls, the reactor was placed in the "Run" mode at 0533 on October 9 and the unit was back on system at 0648. The load was increased to 385 MWe, and after rod pattern adjustments were made, a load increase at 4 MWe/hr was begun at 1610 on October 9. The load increase was terminated at 1430 on October 13 due to maximum core flow at a load of 615 MWe. The unit operated between 580 and 615 MWe until 0945 on October 15 when rod pattern adjustments were made and load was increased to 666 MWe. The unit operated at loads between 666 MWe and 650 MWe until 0216 on October 18 when load was dropped to 300 MWe to remove 2B recirculation pump from service due to a real leak. At 2100, a unit shutdown was begun in order to repair the seal leak on 2B recirculation pump.

October 19 to October 22
At 0120 on October 19 the unit was off system, and the reactor was in the "Startup" mode at 0250. At 0320, the reactor scramed after a Group I isolation which should have been bypassed in the "Startup" mode. Investigation of the reactor mode switch revealed no anomalies. At 0706 the reactor was in shutdown and the unit remained shutdown to replace the seal on 2B recirculation pump. At 0951 on October 22, startup of the unit was begun. The reactor was critical at 1222 and the reactor was in the "Run" mode at 1919.

October 23 to November 2
At 0442 the unit was placed on system and load was increased to 320 MWe. Following surveillance tests, the unit load was increased at 4 MWe/hr beginning at 1800 on October 24. The unit operated between 670 MWe and 700 MWe, except for short surveillance load drops, until 2200 on November 1 when a load drop was begun for surveillance testing. At 0327 on November 2, the reactor scramed on low water level due to a malfunction of the feedwater regulating valves. A reactor startup was begun at 0650 and the reactor was critical at 0852. The reactor was in "Run" mode at 1243 and held at operating conditions until 2210 when the decision was made to shutdown for refueling.

November 3 to December 31
The reactor was returned to the "startup" mode at 0005 on November 3 and was in "Shutdown" at 0650. The unit remained shutdown for the rest of the year for its scheduled refueling outage. Major outage items performed during this period included local leak rate testing, fuel sipping, replacement of 156 fuel assemblies, control balde testing, replacement of one control blade, replacement of all 41 LPRM strings, jet pump inspection, and main turbine generator overhaul. Inspection of the feedwater spargers revealed cracks in the spargers and plans were made to replace them. During the inservice inspection, additional leaks were discovered in the "B" recirculation pump discharge valve bypass line, and replacement of the piping in both A & B bypass lines was scheduled during the outage.

b. Fuel Performance

Fuel Performance - Dresden Unit 2

Fuel performance for Dresden Unit 2 is shown in Attachment #1.

3. Procedure Changes

a. The following procedure changes are for Dresden Units 2 and 3.

1. Probable Maximum Flood of Units 2 and 3 (010-AN-V Rev 1)
This procedure was revised to reflect the new predicted probable maximum flood water levels and then placed in new format.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the procedure remains basically unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the only changes were the extension of the diesel oil vent pipe and placing the procedure in the new format.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe plant operation will in no way be degraded by this revision.

2. Reactor Buidling - Accelograph Operability Check (020-S-I Rev 1)
This procedure was reformated to provide more instructions in the checking of the accelograph.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the accelograph is non safety related.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the accelograph is non safety related.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the accelograph is non safety related.

3. Misc Piping, Pumps and Valves - Loss of Cooling Water to a vital Component (040-AN-I, Rev 0)
This procedure was issued to outline the steps to be taken in the event of loss of cooling water to a vital component.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because Basic System Operation remains unchanged.

The possibility for an accident or malfunction of a different type than any previ‑ sly evaluated in the FSAR is not created because normal system operation is the same.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of an approved procedure to combat this abnormality.

4. Nuclear Boiler and Recirculating System - Draining and Filling the Reactor Pressure Vessel (200-XIX Rev 0)
This procedure was written to outline the proper method of draining and filling the reactor pressure vessel.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation remains unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because proper filling of the reactor pressure vessel will be enhanced by this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the margin of safety will remain unchanged.

5. Neutron Monitoring System - Repair of In-core Flux Monitoring System (33-200-XX Rev 0)
This procedure was written to properly outline the repair of the in core flux monitoring system.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation remains the same.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because normal system operation is unchanged.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because system operation is not degraded through the use of this procedure.

6. Recirculation and Nuclear Boiler - Inspection of Reactor Coolant Primary System Boundary (200-XXI Rev 0)
This procedure was written to describe the proper method of performing an inspection of the reactor coolant primary system boundary.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation is in no way changed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation is no way changed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because system operation is in no way degraded.

7. Rod Worth Minimizer - Temporary Operating Procedure (200-XXII Rev 0) This procedure was written to describe Unit 2 Rod Worth Minimizer initialization procedure.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the equipment function remains the same. This is only a procedure for starting of the rod worth minimizer.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because once started the rod worth minimizer will do the same job as always.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure will aid in using the rod worth minimizer and fulfilling the technical specifications.

8. Nuclear Boiler & Reculating System - Relief Valve or Safety Valve Stuck Open (200-AN-XV Rev 1)
This procedure was revised to incorporate recomendations, made by General Electric Company, in the event of a relief valve or safety valve stuck open condition.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure will reduce the consequence of equipment

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure reduces the possibility of a malfunction of the pressure suppression system during a blowdown of reactor to pool.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure will insure that the margin of safety defined in the Tech Specs is maintained.

9. Nuclear Boiler and Recirculation System - Low Reactor Water Level (200-AN-XVI Rev 0)
This procedure was written to outline the steps to be taken in the event of low reactor water level.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation under normal conditions will remain the same.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation will not be changed under normal conditions.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of an approved procedure to handle this abnormality.

10. Start Up Procedure - Manual Recording of Reactor Vessel Flange and Shell Temperatures and Recirculating Loop Temperatures During Heatups and Cooldowns (200-AN-XVIII Rev 0)
This procedure was written to provide for manual recording of vessel shell and flange temperatures and recirculating loop temperatures during heatups and cooldowns when recorders are non-operational.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because data monitoring is provided for in the event of recorder failure.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because no new activities are proposed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the procedure will provide for Tech Spec. compliance under all circumstances.

11. Auto Blowdown - Auto Blowdown System (32-200-S-I)
This procedure was changed to insure that torus water level and temperature remain within the Technical Specification limits during testing.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation is not changed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation is not changed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe operation of the system is in no way degraded.

12. Steam Leak Detection System - Steam Leak Detection Testing (200-S-II Rev 1)
This procedure was revised add a limitation and action to fill out a work request if the as found valves deviate by more than 10°F from the stated valve.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation remains unaffected.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation will remain the same.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe plant operation is in no way degraded by this change.

13. Recirculation System - Jet Pump Operability Check (200-S-III Rev 2) The procedure was revised to perform Jet Pump operability checks in accordance with revised technical specification surveillance requirements.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the revised surveillance procedure has been determined to imporve the detection of a jet pump problem. The FSAR conditions evaluated do not consider a single failure as intollerable and this procedure does not change the system.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this is a change in a surveillance procedure which is determined to be a better means of detection of a problem.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this surveillance procedure revision better determines the status of jet pumps and therefore allows better monitoring of system status.

14. Procedure for Calculating Reactor Heat Balance (38-200-S-IV) This procedure was written to outline the steps necessary to perform a reactor heat balance.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure involved no change in plant operation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because plant operation is not changed by this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the safety is unaffected.

15. Determining Radial and Axial Flux Distribution (38-200-S-V Rev 0) This procedure was written to outline the steps necessary to perform a determination of the axial and radial flux distribution.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic plant operation will not be changed through the implementation of this procedure.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation is unchanged.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of an approved procedure for this calculation.

16. Rod Worth Minimizer - Rod Worth Minimizer Program Load from Paper Tape (38-200-S-VI Rev 0)
This procedure was written to change the format to agree with the form used on new procedures.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the function of the rod worth minimizer is unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure is only used to ready the rod worth minimizer computer for service.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure is needed to ready the rod worth minimizer so the tech specs can be adhered to.

17. Rod Worth Minimizer - Rod Worth Minimizer Procedure for Initializing 4040 Computer (38-200S-VII Rev 0)
This procedure was written to change the format to agree with the form used on new procedures.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the function of the rod worth minimizer is unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure is only used to ready the 4040 computer for operation.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because a surveillance procedure is performed after this procedure to ensure rod worth minimizer operability.

18. Rod Worth Minimizer - Procedure for Punching Rod Worth Minimizer Withdrawal Sequence Tape (38-200-S-VIII Rev 0)
This procedure was written to change the format of the procedure to make it the same as the other procedures being used in chapter 38.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure is intended to instruct a person on the correct format for punching a control rod sequence tape for the rod worth minimizer.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because checks are made before each start up to verify that the correct sequence is loaded.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the rod worth function is unchanged.

19. Rod Worth Minimizer - Procedure for Loading the Control Rod Sequence into the Rod Worth Minimizer (38-200-S-IX Rev 0)
This procedure was written to outline the procedure for loading the Control Rod Sequence into the R.W.M.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this is a procedure to ready the R.W.M. for operation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this would be done before the R.W.M. is used.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this would be required before the surveillance could be done.

20. Control Rod Drive - Uncoupled Control Rod (300-AN-VI Rev 2)
This procedure was revised to eliminate attempts to recouple rod and completely insert drive.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because drive is immediately fully inserted.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because most probable accident would be a rod drop accident which is analyzed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because nature of accident is not changed and possibility is reduced.

21. Control Rod Hydraulic System - Control Rod Drop (300-AN-IX Rev 0)
This procedure was written to describe the symptoms of a control rod drop and the action that the operator should take if he determines that a control rod drop has occurred.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure describes the operator action in the unlikely event of a control rod drop accident and as such it is designed to limit the consequences of the accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure describes actions which are designed to minimize the consequences of a control rod drop accident and as such does not create the possibility for an accident or malfunction not previously evaluated.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the procedure should help to avoid exceeding any Technical Specification limits in the event of a control rod drop accident.

22. Control Rod Drive - Control Rod Drive Tests (300-S-I Rev 2)
This procedure was revised to change the criteria (on page 3 of 18) for verifying coupling.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation will remain the same.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation will not be modified.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe plant operation will in no way be degraded.

23. Control Rod Drive - Control Blades (300-S-III Rev 0)
This procedure was written to outline the steps necessary to perform a control rod blade inspection.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because plant operation is not changed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because plant operation is unchanged.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because plant operation is not changed.

24. Control Rod Drive - Unit 2/3 Scram Test Procedure (38-300-S-III Rev 0)
This procedure was written to outline the proper steps for scram testing.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the procedure was previously approved by SRB and in use but had not been added to Chapter 38.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the procedure was previously approved by SRB and in use but had not been added to Chapter 38.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the procedure was previously approved by SRB and in use but had not been added to Chapter 38.

25. Control Rod Drive Hydraulic System - Control Rod Coupling Integrity Verification (38-300-S-VII Rev 0)
This procedure was written to describe the method to be used for the control rod coupling integrity verification.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the verification described does not change the ability of any system or component to function as designed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the verification described does not change the ability of any system or component to function as designed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the verification described in this procedure is required by Technical Specifications.

26. Reactor Protection System - Startup Operation and Shutdown of The Reactor Protection System (500-I Rev 0)
This procedure was written to outline the porper method of starting up, operating and shutting down of the reactor protection system.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation remains unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation is not being changed by this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of an approved procedure for this operation.

27. Reactor Protection System - Turbine First Stage Pressure 40% Scram (33-500-III Rev 1)
This procedure was written to change the trip setting from 390± 5.P.S.I.G. increasing pressure.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this change provides a more conservative setpoint therefore the probability of an occurrence or consequence of an accident is not increased.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this change will provide more reliable instrument performance.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this change further assures tech spec compliance.

28. Reactor Protection System - Turbine First Stage Pressure 40% Scram (33-500-III Rev 2)
This procedure was revised to provide proper format, add electrical print to reference section, and lowers setpoint 3.psi to allow for an 8 psi drift before violating tech specs.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because changes do not effect FSAR.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because changes do not effect FSAR.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because set point is being lowered so the switch setpoints will remain within tech specs.

29. RPS System - RPS Function Response Time Test (33-500-V Rev 1)
This procedure was revised to add a test of the scram reset time delay relays 590-122A and B.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the probability of an occurrence should be decreased since the operability of the scram reset circuitry will be tested.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the possibility for an unreviewed accident will remain the same since the system function will remain the same since the system function will remain the same.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the operability of the of the scram reset circuitry will be assured.

30. Reactor Protection System - Unit 2/3 Control Rod Sequence Interchange (500-S-III Rev 0)
This procedure was written to standardize the methods used for control rod sequence interchange.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased becasue this procedure does not affect the ability of any system to operate as designed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure does not affect the ability of any system to operate as designed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure does not affect the margin of safety.

31. Reactor Protection System - Reactor Mode Swtich Scram Circuit Test (500-S-VII Rev 1)
This procedure was revised to correctly test a time delay on the scram reset permissive.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this specific procedure is not addressed in the FSAR.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because conduct of this procedure will insure safety system operability.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure is written to satisfy a tech spec surveillance requirement.

32. Neutron Monitoring System - Source Range Monitor Rod Block Calibration Check (33-700-I Rev 3)
This procedure was revised to add the direction with which the input signal is applied when calibrating the source range monitor retract trip. Also adds a check list for instrument calibration data.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure change simply clarifies the direction with which an input signal will be applied when calibrating the source range monitor retract permit trip.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure clarifies an existing procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure aides in assuring tech spec compliance.

33. Neutron Monitoring System - Repair of the In-Core Flux Monitoring System (33-700-XIII Rev 0)
This procedure was written to outline the steps necessary to perform repairs on the in-core flux monitoring system.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation will remain unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because basic system operation will not be altered by this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of an approved procedure to perform this work.

34. Neutron Monitoring System - Replacement of Neutron Detectors (33-700-XIV Rev 0)
This procedure was written to describe the proper performance of neutron detector replacement.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation remains unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the system is not being changed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of an approved procedure for this work.

35. Replacement of Out of Core Neutron Detectors (33-700-XVI Rev 0)
This procedure was to outline the proper method for replacement of neutron detectors-out of core.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation will not be changed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because basic system operation will remain the same.

The margin of safety, as defined in the basis for any Tec nical Specification is not reduced because the system will be enhanced through the use of an approved procedure to perform this calibration.

36. Neutron Monitoring System - Loss of Flux Indication (700-AN-IV Rev 0)
This procedure was written to outline the proper action to be taken in the event of a loss of flux indication.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because safety will be enhanced through the use of an approved procedure to combat this abnormality.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because basic system operation will remain the same during normal conditions.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced by the operator directions provided by this procedure.

37. Neutron Monitoring - Traveling In-Core Probe Isolation (700-AN-V Rev 0)
This procedure was written to outline the proper response to a drywell pressurization when the traveling in-core probes are not isolated.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation under normal conditions remains the same.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operating philosophy under normal conditions remains the same.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe system operation is in no way degraded.

38. Neutron Monitoring System - Calculation of the Minimum Critical Power Ratio (38-700-S-I)
This procedure was written to outline the proper method of calculating the minimum critical power ratio.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the MCHFR will still be maintained above 1.9 until such time as the AEC approve, the change to MCPR. Using both MCHFR and MCPR as limits should decrease the probability of an occurrence.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the MCHFR will still be maintained above 1.9 until such time as the AEC approves the change. Using both MCHFR and MCPR as limits should decrease the probability of an occurrence.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the minimum critical heat flux ratio will still be maintained above 1.9 in accordance with the tech specs. The MCPR is still another restriction and should increase the margin of safety.

39. Neutron Monitoring - Intermediate Range Monitoring Downscale Rod Block Functional Test (700-S-III Rev 1)
This procedure was placed in the standard station format.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this surveillance remains basically unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation remains unchanged.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because performance of the surveillance test is in no way degraded by this procedural change.

40. Reactor Level Instrumentation - HeadOff (33-800-1 Rev 0)
This procedure was written to provide for reactor water level instrumentation during head off activities.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this is a new procedure to assure instrumentation reliability.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the reactor will be in the refuel or shutdown mode with the reactor head off.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the technical specifications will be abided by during the time in which the reactor head is off.

41. Reactor Level Instrumentation - Head Off (33-800-11 Rev 0)
This procedure was written to provide for reactor water level instrumentation during head off activities.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this is a new procedure to assure instrumentation reliability.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the reactor will be in the refuel or shutdown mode with the reactor head off.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the Technical Specifications will be abided by during the time in which the reactor head is off.

42. Refueling System - Reactor Building 125/5 Ton Overhead Crane (800-XV Rev 1)
This procedure was revised to upgrade procedure regarding reactor building 125/5 ton overhead crane as per AIR # 12-74-524.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the procedure has actually been upgraded in order to minimize the probability of an accident or malfunction.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the change in the procedure does not in any way affect the object of the procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the procedure has been upgraded.

43. Reactor Manual Control - Control Rod Blade Installation (800-XXII Rev 0)
This procedure was written to outline the installation of a control rod blade.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure calls for the installation of a basic safety component. Verification of the control rod coupling is attained in the procedure and the control rod will be tested prior to its use.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because all Q.A. and control rod tests will be performed on the blade before and after installation thus assuring the effectiveness of the control rod before use.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the margin of safety is maintained or increased since in the worst case the core configuration and control rod configuration will be to that before the blade was removed.

44. Neutron Monitoring System - Replacement of Low Power Radiation Monitoring Strings (800-XXIII rev 0)
This procedure was written to allow for the replacement of one or more low power radiation monitors during a refueling outage.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because with the reactor in the refuel mode. The low power radiation monitors are not part of the safety system of the plant, hence the removal and replacement of the low power radiation monitors does not increase the probability of an occurrance.

The possibility of an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the low power radiation monitors will be replaced before the reactor mode switch will be taken out of refuel that is before the low power radiation monitors are backin service as part of the safety system hence no possibility of an accident.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the margin of safetyduring this period of low power radiation monitor replacement will not change because the LPRM's are not in the safety system at this time.

45. Unit 2/3 Reactor Level Instrumentation - Head Off (800-XXIV Rev 0) This procedure was written to describe operating procedure for head-off instrumentation for unit 2/3.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure will enable operator to know reactor level with head off.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the reactor will either be in refuel or shutdown mode of operation with reactor head off.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the reactor will be in refuel or shutdown.

46. Refueling - Irradiated Fuel Damage While Refueling (800-AN-I Rev 0)
This procedure was written to outline the proper actions to be taken in the event of irradiated fuel damaged while refueling.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation will not be changed by the use of this procedure.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because no change in normal plant operation is being affected.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced by the existence of an approved procedure to handle this abnormality.

47. Rechar System - Control Room and Local Board Annunciator Procedures (900-AN-I)
This procedure was revised by adding figure 17A and Table 17A, Revising Figures 5 and 11 and tables 5 and 11, and adding figure 26 and table 26.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because function and operation of equipment is unchanged by these procedures.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because accidents or malfunctions of the rechar system have been evaluated in DNPS special report 4A, which has become part of the FSAR.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the system will reduce off-gas activity to the stack, increasing the margin of safety.

48. Shutdown Cooling System - Loss of Shutdown Cooling (1000-AN-I Rev 0)
This procedure was written to outline the proper response to a loss of shutdown cooling.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because safety will be enhanced through the use of a detailed procedure to combat this abnormality.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because basic system operation will not be changed in any way.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because system operation will not be degraded.

49. Isolation Condenser - Isolation Condenser Steam Line High Flow and Isolation Condenser Condensate Line High Flow (33-1300-1 Rev 1)
This procedure was revised to add a precaution to place the isolation condenser valves 1301-1,2,3,4 in the "closed" Position to prevent cycling of valves.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the probability of an occurrance should be decreased because the valves would not be cycled as often which could cause them to trip from external overload.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the possibility for an accident which was not previously evaluated would be decreased because valve operability would be assured.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure did not change the system functions.

50. Isolation condenser - Drainage of Isolation Condenser Shell Side to Torus (1300-II Rev 0)
This procedure was written to delineate the steps required to drain the shell side of the isolation condenser to the torus using the Core Spray Suction Header Drain Line.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the actual operation of the isolation condenser is not changed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the isolation condenser shell side is still being drained to a radiological control reservoir.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because prior to sending the water to the torus, analysis of the isolation condenser water on the shell side shall be performed to insure reactor water chemistry specs are maintained.

51. Core Spray System - Core Spray Header Differential Pressure (33-1400-I Rev 1)
This procedure was written to change the setpoint from 130±5 inches increasing pressure to 128.5±5inches increasing pressure. Also add surveillance number 55 to upper right of page 4.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the switch will be set to a more conservative point. This will assure that the probability of an occurrence or the consequence of an accident will not increase.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the new switch setting will further assure safety analysis requirements.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the change will further assure switch operability.

52. Low Pressure Coolant Injection System - Low Pressure Coolant Injection System Recirculation Loop Break Detection (33-1500-V Rev 0)
This procedure was written to outline steps used to calibrate switches in the low pressure coolant injection system recirculation loop break detection.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the system is designed as a redundent system to allow for an inoperable sensor. With this procedure only one switch will be worked on at a time.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure does not degrade the system or increase the possibility for an accident or malfunction of a different type than evaluated in FSAR.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure assures the operability of a system addressed in the tech specs.

53. Low Pressure Coolant Injection System - Low Pressure Coolant Injection System Recirculation Pump Running (33-1500-VI Rev 0) This procedure was written to outline the steps necessary to calibrate the low pressure coolant injection system switches which determines recirculating pump operating condition.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure instructs as to the proper method of calibrating existing equipment. It does not change the status of the low pressure coolant injection system or the probability of an occurrence or consequence of an accident as previously evaluated in the FSAR.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure involves existing equipment. Its purpose is to allow loop select on low pressure coolant injection system to function.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the switches involved are not addressed in the tech specs.

54. Low Pressure Cooling Injection System - Low Pressure Cooling Injection System Recirculating Loop 900 psi recirculating Pump Trip (33-1500-VII Rev 0)
This procedure was written to allow calibration of barksdale reactor pressure switches in low pressure cooling injection logic which trip recirculating pumps at 900 psi so break detector logic can function.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure will be used during refueling outage when reactor pressure is below 900 psi or to calibrate switch during normal operation when switch requires maintenance.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this is a new procedure to increase reliability of equipment addressed in the FSAR.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because these switches are not addressed in the Tech Specs.

55. LPCI - LPCI System Tests and Checks (32-1500-S-I)
This procedure was revised to add information relative to the interlocks on M.O.'s 1501-22 A and B to assist operator.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the change is informative in nature only and does not change the conduct of the procedure.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the change is informative only and does not change the conduct of the procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the change is informative only and does not change the conduct of the procedure.

56. LLRT Procedure for LPCI Isolation Valves (38-1500-S-I)
This procedure was written to outline the proper performance of the leak rate tests on the LPCI isolation valves.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure does not affect basic plant operations.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because no change in plant operating techniques is effected by the use of this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of an approved procedure in the performance of these LLRT tests.

57. Reactor Suppression - Reactor Suppression to Reactor Building Vacuum Breaker (33-1600-II Rev 1)
This procedure was revised to correct for installation of pressure switches which replace differential pressure switches.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment imp rtant to safety as previously evaluated in the FSAR is not increased because the procedure will only be changed to correct for new switches, system operation and function will remain the same.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the intent of the procedure was not changed, only the specific type of equipment used to achieve the intent.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure directs mechanics as to the proper technique to assure the switches meet tech spec requirements.

58. Torus - Torus Level Verification Using Local Sightglass (1600-IV Rev 0)
This procedure was written to provide direction for the operators to verify torus level using local sightglass.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure provides better torus level verification and does change system operation or probability of an occurrance.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure involves use of new instrumentation to assure the performance of existing equipment.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure provides a method by which a tech spec requirement may be verified.

59. Containment System - Torus Level Switch and Level Indicator Calibration (33-1600-IV Rev 0)
This procedure was written to outline the steps necessary to calibrate the torus switch and level indicator.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure aides in achieving compliance with a requirement for minimum and maximum torus water level. It assures proper level as noted in FSAR. It does not increase the probability of an occurrence or consequence of an accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure is intended to assure the operability of an existing FSAR system.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure is intended to assure that the tech spec limits are not violated.

60. Pressure Suppression System - Pressure Suppression Air Operated Valve Pressure Switch Setpoint (33-1600-V Rev 0)
This procedure was written to accomplish functional check of the pressure suppression air operated valves and pressure switch setpoint for valve 1601-20A, 20B, 21, 22, 23, 24, 56, 60 and 63.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure is to be accomplished only during outages when the pressure suppression chamber and the drywell are vented. This procedure does not modify, remove or replace any equipment in the existing system.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure does not modify, remove or replace any equipment in the existing system.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure does not change any Technical Specification parameter. This procedure does verify the closing time of the isolation valves are within Tech Spec limits.

61. Containment System - Primary Containment Oxygen Analyzer (33-1600-VI Rev 0)
This procedure was written to outline steps needed for functional check and calibration of the primary containment oxygen analyzer.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because a functional check and calibration does not change system operation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure assures more reliable operation of the primary containment oxygen analyzer.

The margin of safety, as defined in the basis for any Technical Specfication is not reduced because this procedure assures compliances by assuring consistant instrument calibration.

62. Suppression Chamber-High/Low Level (32-1600-AN-III)
This procedure was written to more clearly detail operator response to torus water level variations. It also includes the proper use of a newly installed sight tube to verify the indicated level.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure does not affect the condition and thus is creates no safety problem.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because there is no change in the system.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the procedure imporves intelligence, with regard to the sight tube portion, concerning maintenance of the margin of safety as related to torus water level.

63. Local Leak Rate Testing of Primary System Isolation Valves (38-1600-S-0)
This procedure was revised to 1) increase the accuracy of the test and to 2) require that tests which exceed the tech spec limits be reported.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the procedure does not appreciably affect the running of the tests which are designed to mitigate the consequences of an accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the tests are designed to find malfunctioning equipment and this mitigate the consequences of an accident.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the margin of safety is increased by this testing.

64. Pressure Suppression - Local Leak Rate Test for Bellows Seal Penetrations (38-1600-S-1 Rev 2)
This procedure was revised to initiate AEC notification in event a tech spec limit is exceeded.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the procedure was not changed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the procedure was not changed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the procedure was not changed.

65. Pressure Suppression - Local Leak Rate Test Procedure Bellows Seal Penetrations (38-1600-S-I Rev 3)
This procedure was revised to assure that leak rate tests on bellows seals are made prior to any repair work on them.

The probability of an occurrence or the conse uence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the change only insures that an "as found" leak rate is found for use in determining the total containment leakage and as such has no safety significance.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the change only insures an "as found" leak rate is found and as such does not increase the probability of any accident or malfunction.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the procedure change does not affect any safety system.

66. LLRT Procedure - Double Gasketed Seals(38-1600-S-III Rev 0)
This procedure was written to describe the LLRT process for double gasketed seals.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the operation remains unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because safety will be enhanced by the use of this approved procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of an approved testing procedure.

67. Pressure Suppression -Primary Isolation Valves (1601-S-III Rev 3) This procedure was revised to add a paragraph detailing the reportability of failure of a valve to close.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the procedure is not changed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the procedure is not changed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the procedure is not changed.

68. Pressure Suppression System - Local Leak Rate Test Procedure-Electrical Penetration (38-1600-S-VII) This procedure was revised to 1) increase the accuracy of the test results and to 2) require that any test which exceeds any Tech Spec limit be reported.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the change does not appreciably alter the running of the test which is designed to mitigate the consequences of an accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the test is designed to find malfunctioning equipment and allow reapirs to be made mitigating the consequences of an accident.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because there is an increase in the safety margin by this testing.

69. Pressure Suppression - Local Leak Rate Testing of Double Gasketed Seals (38-1600-S-XII Rev 1) This procedure was revised to reflect: 1) Changes in the procedure to increase the accuracy of the test and 2) Reportability of exceeding a tech spec limit.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the probability of an occurrance or consequence of an accident is reduced by this procedure. This test will locate malfunctioning equipment. It will not increase the probability of equipment malfunction.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the procedure reduces the consequences of an accident and locates malfunctioning equipment.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe system operation will be enhanced through the use of an approved procedure to perform this work.

70. Pressure Suppression System - Local Leak Test Procedure - Electrical Penetration (38-1600-S-VII Rev 2)
This procedure was revised to assure that leak rate tests of electrical penetrations will be done prior to any repair work on them.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation and function remains the same.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation remains unchanged.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe plant operation is in no way downgraded by this procedure.

71. Pressure Suppression - Suppression Chamber to Drywell Vacuum Breaker Operability Test (1600-S-XII Rev 4)
This procedure was revised to add a paragraph detailing the reportability of a failure of a vacuum breaker to close.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the procedure has not changed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the procedure has not changed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the procedure has not changed.

72. Primary Containment Inerting System - Nitrogen Makeup Valve Operability checks (1600-S-XIV Rev 0)
This procedure was written to incorporate new tech spec required surveillance into station procedures.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this surveillance will ensure operability of safety related equipment.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system is operated in accordance with approved procedures.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this surveillance is required by the technical specifications.

73. Primary Containment Inerting System - Containment Purge Operability Check (1600-S-XV Rev 0)
This procedure was written to incorporate a new surveillance procedure into the station procedures to comply with tech spec.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure will enhance the probability that the system is operable.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because approved operating procedures will be followed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this surveillance is required by the tech spec.

74. Suppression Chamber - Suppression Chamber to Reactor Building Vacuum Breaker Operability Test for Unit 2 and 3 1601-31A & B (1600-S-XVI Rev 0)
This procedure was written to outline the steps for checking the suppression chamber to reactor building vacuum breakers units 2 and 3-1601-31A & B.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure will help inusre the operability of the vacuum breakers.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure does not created because this procedure does not change system design or operation.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure meets tech spec requirements.

75. Pressure Suppression System - Local Leak Rate Testing of the Personnel Access Lock (38-1600-S-XXI)
This procedure was written to present a proper sequence for the local leak rate testing of the personnel access lock.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure will insure the leak tightness of the personnel access lock and hence will mitigated the consequences of an accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the procedure will identify a possible malfunction so repairs can be made thus mitigating the consequences of an accident.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure will increase the margin of safety.

76. Pressure Suppression System - Local Leak Rate Testing of the Personnel Access Lock (38-1600-S-XXI Rev 1)
This procedure was revised to add the stipulation that leak rate tests must be run prior to any repair work being done on the personnel access.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure does not affect system function or operation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation remains unchanged.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe plant operation is in no way degraded by this procedure.

77. Reactor Building Close Cooling Water Radiation Monitor (33-1700-III Rev 1)
This procedure was revised to add functional test and correct for use with new soruce.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the intent has not been changed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation remains unchanged.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe plant operation is in no way degraded by the procedure.

78. Process Radiation Monitor System - Service Water Effluent Radiation (1700-IV Rev 1)
This procedure was revised to correct typing errors and change format.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the intent of the procedure had not been changed. Since only typing errors and format was changed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the equipment function has not been altered from what has been evaluated in the FSAR.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure is intended to assure compliance with the tech specs.

79. Process Radiation Monitoring System - Unit 2 and 3 Plant Chimney Radiation Monitor (1700-V Rev 3)
This procedure was revised to correct typing errors and procedure format.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure revision was needed to correct typing errors and reformat. It did not change system operation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure increases the reliability of an existing instrument.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because no tech spec basis has been changed.

80. Process Monitoring System - Offgas Ventillation Radiation Monitoring System (1700-V Rev 1)
This procedure was modified to make its content more complete.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation is unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation is not changed significantly.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because system operation is not degraded.

81. Process Rad Monitoring - PRM Calibration of Sphere Closed Cooling Water Process Monitor (33-1700-XII Rev 0)
This procedure was written to outline the proper method of calibrating the sphere closed cooling water process rad monitor.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation remains the same.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because normal system operation will remain the same.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe system operation will be enhanced through the use of an approved procedure to perform this work.

82. Process Monitoring System - Reactor Building Crane Monitoring (1700-VIII Rev 1)
This procedure was basically reformated with several additions being made to improve its content.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation is unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because basic system operation is unchanged.

The margin of safety, as defined in the basis for any Technical specification is not reduced because system operation is not being degraded.

83. Isolation Condenser - Isolation Condenser Ventillation Radiation Monitoring System (1700-IX Rev 1)
This procedure waschanged to its content more accurate and complete.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation remains unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because basic system operation is the same.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of an approved procedure in the performance of this operation.

84. Process Radiation Monitoring - Main Steam Line Radiation Monitoring Scram and Isolation Functional Test (1700-S-I Rev 0)
This procedure was written to outline the steps necessary for functional testing of the main steam line radiation monitor scram and isolation alarm.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation is unchanged by this procedure.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system function and operation will remain the same.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because system safety is in no way degraded.

85. Area Radiation Monitors - Calibration of Unit 2 and 3 Area Radiation monitors (33-1800-I Rev 0)
This procedure was written to outline the proper method of calibrating the unit 2 and 3 area radiation monitors.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because basic system operation is not changed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because normal system operation is unaffected.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe system operation is not degraded.

86. Radwaste - Operation of The Storage Hopper and Drum Filling System (2000-1 Rev 2)
This procedure was revised to remove spent resin and filter sludge transfer system and the related centrifuge system. These are covered in a new procedure. Also revised to detail operation of drum filling to reflect installation of automatic hopper discharge valve operation.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the system is not safety related.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the system is not safety related.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this is not a margin of safety concern.

87. Radwaste - Floor Drain Collector Subsystem (2000-IV Rev 1)
This procedure was revised to include information on new floor drain surge tank and sumps and also to detail procedure of water transfer as related to maximum recycle system.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system is not safety related.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system is not safety related.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because system is not considered in Technical Specifications.

88. Radwaste - Operation of Waste Collector Filters (2000-V Rev 1)
This procedure was changed to explain the operation of the new waste collector filters. The new filter system is automatic and the revised procedure contains a description of the events which occur automatically in addition to the operators duties.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the operating steps will remain the same, only they will be carried out automatically . A malfunction of the new system would not be unlike any than could occur in the manual operation of the existing system.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the function of the equipment is the same as the existing equipment, only the capacity of the filters is changed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the margin of safety in the radwaste area is the building and this will not be altered by the installation of the new filters, tanks and controls.

89. Radwaste System - Maximum Recycle Floor Drain Waste System (2000-XXIII rev 0)
This procedure was written to outline the steps taken in operation of the radwaste maximum recycle system.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this is not a safety related system.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this is not a safety related system.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this is not a safety related system and therefore not a margin of safety concern.

90. Maximum Recycle Resin Transfer - Radwaste Demineralizer Resin Transfers (2000-XXIV Rev 0)
This procedure was written to incorporate a procedure for transferring max recycle demineralizer resins.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this system is not safety related.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this system is not safety related.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this system is not safety related.

91. High Pressure Cooling Injection System - HPCI Steam Line High Flow (33-2300-I Rev 1)
This procedure was revised to change trip setting from 146 ± 2 in P increasing pressure to 145.5 ± 2 in P increasing pressure.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the switch will be set at a more conservative point therefore the probability of an occurrence remains the same.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the procedure change does not alter system function or operation.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this change assurres continuing compliance with the tech specs.

92. High Pressure Cooling Injection System - HPCI flow Calibration (33-2300-II Rev 1)
This procedure was revised to add square root converter, indicator and flow switch to procedure and to reformat procedure.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the change in procedure will not change the system operation and function.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this change provides for a more complete calibration of a system which is defined in the FSAR.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this change further insures compliance with tech spec requirements by providing accurate HPCI flow calibration.

93. HPCI - Reactor Low Pressure HPCI Turbine Trip (33-2300-III Rev 1)
This procedure was revised to assure trip switch resets before reactor pressure reaches 90 psi and to change switch setpoint from 110 ± 5 psi to 105 ± 5 psi.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the intent has not been changed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the intent has not been changed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because it further assures tech spec compliance.

94. HPCI - HPCI Turbine Reset (33-2300-III Rev 4)
This procedure was revised to lower setpoint to 8.0 ± 5 psi increasing pressure.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the switch will still perform its intended function.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the switch will still perform its intended function.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this is not mentioned in tech specs.

95. Main Steam - Main Steam Isolation Valve Local Leak Rate Test (38-3000-S-I Rev 2)
This procedure was revised to 1) increase the accuracy of the test and 2) require that any results exceeding technical specifications be reported.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the procedure for running the test is not appreciably changed and the test is run to mitigate the consequences of an accident.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the test is designed to find malfunctioning equipment so repairs can be made thus lessening the consequences of an accident.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because running this test actually increases the safety margin.

96. Main Steam - Main Steam Line Isolation Valve Local Leak Rate Test (38-3000-S-I Rev 3)
This procedure was revised to assure that leak rate tests are done on MSIV's prior to any repairs.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the change only insures that an "as found" leakage from the containment and as such has no safety significance.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the change only insures that an "as found" leakage is obtained prior to repairs being done and as such does not affect plant safety.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the change only insures compliance with the AEC Directive to Dresden.

97. Heater Drain Piping - Moisture Separator Normal Drainage (3500-II Rev 1)
This procedure was revised to reflect installation of the "D" Feedwater flow balancing station.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the flow balancing station will equalizer the flow to the 3 "D" Feedwater heaters which will lessen the likelyhood of a drain cooler overflowing.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the worst possible occurrence or malfunction, a reactor scram or turbine trip, is already evaluated in the FSAR.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this addition will not produce any new malfunctions or occurrences that have not already been discussed in the FSAR and will not change the base for any Tech Specs.

98. Circulating Water System - Units 2 and 3 Closed Cycle Operation (4400-IX Rev 0)
This procedure was written to list steps necessary to put units 2 and 3 on closed cycle operation and for lake blowdown.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the consequences of a dam failure are lessoned since the water goes back to the intake canal.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because plant operation is not changed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because plant operation is not changed and this specific system is not dealt with in the tech specs.

99. Instrument Air System - Instrument Air System (4700-I Rev 3)
This procedure was revised to reflect the addition of the 4th instrument air compressor.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the instrument air system is non safety related and is not mentioned in the FSAR.

This procedure will not alter the design intent of the system but will provide a guideline for its proper operation.

The possibility for an accident or malfunction of a different in the FSAR is not created because the system isnon safety related and not mentioned in the FSAR the system design intent remains unchanged.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the system is not safety related and not mentioned in the basis of the tech specs.

100. Instrument Air System - Instrument Air Compressors (4700-III rev 1) This procedure was revised to reflect the addition of the 4th instrument air compressor.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the procedure does not effect operation of any safety system or component described in the FSAR.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this will not effect the system design operation but will provide guidelines for its operation. This system is not safety related.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this system is not mentioned in the tech specs or in the basis.

101. Rechar System - Offgas System Startup (5400-IV Rev 0) This procedure was written to outline the steps necessary to perform off gas system startup.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because function or operation of equipment as previously evaluated in the FSAR is unchanged by this procedure.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because accidents or malfunctions of the Rechar System have been evaluated in DNPS special report 4A, which has become part of the FSAR.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the system will reduce off gas activity to the stack, increasing the margin of safety.

102. Rechar System - Startup of the Glycol System (5400-V Rev 0) This procedure was written to outline the steps necessary to perform glycol system startup.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because function or operation of equipment as previously evaluated in the FSAR is unchanged by these procedures.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because accidents or malfunctions of the rechar system have been evaluated in DNPS special report 4A, which was become part of the FSAR.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the system will reduce off gas activity to the stack, increasing the margin of safety.

103. Rechar System - Shutdown of Rechar System (5400-VI Rev 0)
This procedure was written to outline the steps necessary to shutdown the rechar system.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because function and operation of equipment as previously evaluated in the FSAR is unchanged by this procedure.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because accidents or malfunctions of the rechar system have been evaluated in DNPS Special Report 4A, which has become part of the FSAR.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the system will reduce off gas activity to the stack, increasing the margin of safety.

104. Rechar System - Startup of the Charcoal Adsorber System (5400-VII Rev 0)
This procedure was written to outline the steps necessary to startup the charcoal adsorber system.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because function and operation of equipment as previously evaluated in the FSAR is unchanged by this procedure.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because accidents or malfunctions of the rechar system have been evaluated in DNPS special report 4A, which has become part of the FSAR.

The margin of safety, as defined inthe basis for any Technical Specification is not reduced because the system will reduce off gas activity to the stack increasing the margin of safety.

105. Rechar System - Placing Standby Recombiner in Service (5400-VIII Rev 0)
This procedure was written to outline the steps necessary to place the standby recombiner in service.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because function and operation of equipment is unchanged by these procedures.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because accidents or malfunctions of the rechar system have been evaluated in DNPS special report 4A, which has become part of the FSAR.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the system will reduce off gas activity to the stack, increasing the margin of safety.

106. Rechar System - Placing Standby Cooler Condenser and Prefilter in Service (5400-IX Rev 0)
This procedure was written to outline steps necessary in placing the standby cooler condenser and prefilter in service.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the function and operation of equipment is unchanged by this procedure.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because accidents or malfunctions of the rechar system have been evaluated in DNPS special report 4A, which has become part of the FSAR.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the system will reduce off gas activity to the stack, increasing the margin of safety.

107. Off Gas System - Off Gas System Abnormal Operating Procedure (5400-AN-III Rev 0)
This procedure was written to outline the procedure in the event of an off gas explosion.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure will insure a prompt and orderly shutdown following an off gas explosion and minimize the consequences.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure does not change system design or performance.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure will insure a prompt shutdown and minimize any radioactive releases.

108. Mechanical Vacuum Pump - Mechanical Vacuum Pump Surveillance (5400-S-VI Rev I)
This procedure was revised to properly affect a main steam line high high radiation trip for vacuum pump surveillance. Original procedure did not produce the required trip as anticipated.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because revision is made to cause a trip for purpose of surveillance. No system or logic change has been affected.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because operation of system is not changed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because there is no system change.

109. Rechar System Ventilation - Loss of Filter Building Ventilation System (5700-AN-IV Rev 0)
This procedure was written to outline operator actions following loss of filter building ventilation.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because function and operation of equipment is unchanged by this procedure.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because accidents or malfunctions of the rechar system have been evaluated in DNPS special report 4A, which has become part of the FSAR.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the system will reduce off gas activity to the stack, increasing the margin of safety.

110. Rechar System Ventilation - Loss of Recombiner Rooms Ventilation System (5700-AN-V Rev 0)
This procedure was written to outline operator actions following loss of recombiner rooms ventilation.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the function of operation of equipment as previously evaluated in the FSAR is unchanged by this procedure.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because accidents or malfunctions of the rechar system have been evaluated in DNPS special report 4A, which has become part of the FSAR.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this system will reduce off gas activity to the stack increasing the margin of safety.

111. Nitrogen Inerting System - Calibration of Pressure Transmitter PT1624 and PT 1625 (33-8500-I Rev 0)
This procedure was written to outline the proper calibration Technique for PT 1624 and PT 1625.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation is unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operating characteristics are not being changed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe system operation will be enhanced through the use of an approved procedure to perform these calibrations.

112. Nitrogen Inerting System - Nitrogen Inerting (8500-I Rev 2)
This procedure was revised to reflect a change in the low temperature alarm setpoint, a change in the tech specs, and some new data.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the change in the low temperature alarm setpoint will give the operator more time to act and keeping the 2/3 diesel room ventilation fan on at all times will insure adequate ventilation in the room.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because there is no equipment change or construction involved.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the change in procedure will insure that the tech specs will be maintained.

113. Nitrogen Makeup to Drywell - Calibration of PIC 8540-1 (33-8500-II Rev 0)
This procedure was written to outline the proper calibration technique for PIC 8540-1.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation is not changed by this procedure.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system functioning remains the same.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced through the use of an approved procedure to perform this work.

114. Nitrogen Inerting System - Nitrogen Inerting System Tests (33-8500-III Rev 0)
This procedure was written to outline the proper conduct of calibration checks on various nitrogen inerting system instruments.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operating is unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because calibration checks as presented in this procedure enhance safety.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because system operation is in no way downgraded.

115. Nitrogen Inerting System - Calibration of the Beckman F-3 Oxygen Analyzer (33-8500-IV Rev 0)
This procedure was written to outline the proper method of calibrating the Beckman F-3 Oxygen Analyzer.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because system operation remains the same.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because operation of the system is in no way changed by this procedure.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safety will be enhanced by the use of an approved calibration procedure.

116. Records - Administrative Procedures (30-113A)
This procedure was written to require personnel to use the latest revisions of drawings in accordance with QP 6-52.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because use of the latest prints will reduced the possibility of an error being made during maintenance or operation.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because use of the latest print revisions does not create the potential for an accident or malfunction.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this procedure is in compliance with the QP's and has no effect on safety margins.

117. Rechar System - Rechar System Operating Routines (Chapter 32 Appendix C Rev 0)
This procedure was written to outline new shift routines for rechar system addition for units 2 and 3.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because function and operation of equipment is unchanged by these procedures.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because accidents or malfunctions of the rechar system have been evaluated in DNPS special report 4A, which has become part of the FSAR.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the system will reduce off-gas activity to the stack, increasing the margin of safety.

118. Chapter 36-207 - Inspection and Maintenance of Unit 2/3 480 V MCC Breakers and contractors (36-207 Rev 2)
This procedure was revised to correct mistakes in BUS numbering and include a check off sheet.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because inspection and maintenance will be more efficient as a result of this procedure.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because system operation and function is unchanged.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because safe operation is in no way degraded by this procedure.

119. Diesel Generator - One month Inspection - Electrical (36-241 Rev 0)
This procedure was written to outline one month inspection of 2/3 diesel generators (electrical).

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because better surveillance will insure the reliable operation of the diesel generator.

The possibility for an accident or malfunction of a different type than previously evaluated in the FSAR is not created because inspections will minimize the possibility of a malfunction.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because margin of safety will be increased.

120. Drywell - Initial Drywell Entry Following Deinertion (37-3-H-3 Rev 1)
This procedure was revised to read "Particulate Filter" rather than "Millipore" on pages 2 and 9.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because original procedure is corrected as to the type of particulate filter actually used for protable air sampling.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the procedure was corrected to reduce the possibility of an accident.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the correct filter will now be used, increasing margin of safety.

121. Administrative Procedure (Documents to be Audited)
This procedure was written to delete one subject to be audited and replace it with another.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because this procedure change concerns the auditing of certain materials and as such does not affect the safety of the plant.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because this procedure change concerns the auditing of certain materials and as such is not related to the safety of the plant.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the procedure change is not related to the safety of the plant.

4. Surveillance

The six month reporting period between July 1 and December 31, 1974 showed all required surveillance on Dresden Unit 2 successfully completed. Unit 2 shutdown for its third refueling outage on November 2, 1974. As a result of the outage, the operating cycle and refueling surveillances are still in progress. The major surveillances completed by December 31, 1974 are:

1) Station 24/48 volt, 125/250 volt D.C. battery discharge load tests completed between December 2-6.

2) Standby gas treatment system charcoal and particulate filter tests completed in October

3) Dresden Dam Failure Test completed in November

4) Core Spray Logic checks completed in November

5) Secondary containment leak rate test completed on November 4

5. Results of Periodic Containment Leak Rate Tests

Table II E shows the results of periodic containment leak rate tests performed during the period July 1 to December 31, 1974.

The completed list of refueling outage containment local leak rate testing performed during this time period will be reported in a separate report to the NRC.

6. Changes, Tests and Experiments Requiring Authorization from the Commission

No changes, tests, or experiments requiring commission authorization were performed during the period from July 1 to December 31, 1974.

7. Key Changes in Plant Operating Organization

For the key changes in plant operating personnel, see Unit 1, Section I. A.7.

B. Power Generation

Power generation during the reporting period is summarized in table II A. Figures II A through II F are monthly histograms of thermal and electrical power versus time.

C. Shutdowns

Table #B shows all shutdowns encountered during the six month reporting period.

D. Maintenance

A discussion of corrective maintenance performed on safety related components is presented in table II C. This table gives a discription of the maintenance performed, including the cause and effect on safe reactor operation.

E. Changes, Tests and Experiments

A list of all changes test and experiments carried out without prior commission approval is presented below. A brief description and summary safety evaluation for each change is also given.

1. Recirculation System - MOV-2-202-6A and 6B.
This modification involves a change of breakers for the following valves 202-6A and 6B. In addition the magnetic trip settings will be changed to recommended settings.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the probability of an accident should be decreased because the possibility of spurious breaker trips is reduced.

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The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the possibility of an unreviewed accident should be decreased since the number of spurious trips will be reduced.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the margin of safety will remain unchanged since the system function remains unchanged.

2. SBLC, SGTS, ESS and D/G
This modification involves the mdofication of the control circuitry for the SBLC, the SGTS, and the 480V supply to the ESS and diesel auxiliary.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the system has been upgraded and the operation of the system has not been changed.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the operation of the system has not been changed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the circuit modifications do not involve a change in the Technical specifications.

3. Reactor Water Cleanup System
This modification involves the replacement of the existing breaker on valve(s) MO-1201-1 and the setting of the magnetic trip setting at dial position 2.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the logic for operation of these valve(s) is unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the increased size of the circuit breaker will lower the chance of nuisance trips and therefore increase the reliability of the valve(s).

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the affected valves will be surveillance tested as frequently and in the same manner as before this modification.

4. Reactor Water Clean-up System
This modification involves the replacement of existing breakers, overload relays, and overload heaters on valve(s) 1201-4. The magnetic trip setting is set at dial position 2 also.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the logic for operation of these valve(s) is unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the increased circuit breaker size will lower the chance of nuisance trips and therefore increase the reliability of the valve(s).

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the affected valves will be surveillance tested as frequently and in the same manner as before this modification.

5. Low Pressure Coolant Injection System
This modification involves the replacement of existing the circuit breaker on valves MO-1501-32 A and 32B. The trip setting is also set at dial position 2.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the logic for the operation of these valve(s) is unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the increased size of the circuit breaker will lower the chances of nuisance trips and therefore increase the reliability of the valve(s).

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the affected valves will be surveillance tested as frequently and in the same manner as before this modification.

6. Low Pressure Coolant Injection System
This modification involves the replacement of existing the circuit breaker and overloads on valves MO-1501-11A and 11B. The magnetic trip is set atdial position 2 also.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the logic for operation of these valves is unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the increased size of the circuit breakers will lower the chances of nuisance trips and therefore increase the reliability of the valve.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the affected valves will be surveillance tested as frequently and in the same manner as before this modification.

7. Low Pressure Coolant Injection System
This modification involves the replacement of overloads and heaters on valves MO-1501-21A and 21B.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the logic for operation of these valves is unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because possible nuisance trips by overload devices will be eliminated therefore increasing the reliability of the valves.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the method of operating the valves does not change.

8. Process Radiation Monitor
This modification involves the installation of a time delay kit in the main steam line high radiation monitors to prevent tripping of upscale high trip when switch S1 or S2 is released after testing action when the input signal is at low level. The time delay kit is connected to standoffs E101 and E102 in the monitor.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the time delay is only approximately 100 milli seconds; therefore there is no adverse affect on the normal performance of the monitor.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the radiation monitor will operate as it did before the modification was installed if the circuit fails open and the monitor will fail in the safe mode if the circuit shorts out.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the monitors will be operated and tested in the same manner as before the modification

9. Feedwater System
This modification involves the replacement of the existing stainless steel sealing ring with a silastic (silicone rubber) "O" ring in the area between the body and seat in reactor feedwater check valves 2-220-58A and B, and 2-220-62 A and B.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the viton material used in the new "O" rings will provide a more reliable seal.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because only the material of the "O" ring is being changed.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because no Technical Specification restrictions are placed on the Fluoride and the Fluoride content remains lower than the Technical Specification requirement for chlorides. Also the water inventory content will be elevated only for a short period of time.

10. Miscellaneous

This modification involves the replacement of overloads and heaters on various motor operated valves.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because there is no change in the logic for operating these valves.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the modification eliminates possible nuisance trips of valves by overload devices and therefore increases the reliability of the valve.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because there is no change in the method of operating the valves.

TABLE 2A

DRESDEN UNIT 2 POWER GENERATION SUMMARY - JULY-AUGUST, 1974

MONTH	GROSS THERMAL POWER (MWHt)	GROSS ELECTRICAL POWER (MWHe)	RESERVE SHUTDOWN HOURS	HOURS REACTOR CRITICAL	HOURS REACTOR ON LINE
July	1,395,749	436,566	0	648:00	645:35
August	1,092,635	344,261	0	647:05	613:05
September	494,538	147,765	0	258:27	242:02
October	848,670	257,639	0	523:49	485:30
November	54,421	17,858	0	27:27	27:27
December	0	17	0	0:0	0:0
TOTAL	3,886,013	1,204,106	0	2104:48	2013:39

Maximum Dependable Capacity (MWe)

Gross	Net
840	800

TABLE 2B

UNIT 2 REACTOR SHUTDOWNS

SHUTDOWN NUMBER	DATE & TIME	CAUSE	DURATION HOURS	METHOD OF SHUTDOWN	PLANT STATUS DURING OUTAGE	CORRECTIVE ACTION (IF APPLICABLE)
1	7/27/74 @ 2400	Leaking Containment Isolation Valves	96:50	Manual	Cold Shutdown	Repair Valves
2	8/23/74 @ 0230	Uncoupling Problem With Control Rod Drives	96:05	Manual	Cold Shutdown	Replace Control Rod Drives
3	9/1/74 @ 0900	Cooling Water Line To Condensate Booster Pump Ruptured	28:25	Manual Scram	Cold Shutdown	Repaired Line and Dewatered Pump Room Basement
4	9/3/74 @ 0504	Gen/Turbine Mismatch Signal Due to Valving Error	6:53	Automatic Scram	Hot Shutdown	NA
5	9/13/74 @ 0545	Leaks on Recirc System Piping	566:24	Manual	Cold Shutdown	Repaired Leaks
6	10/19/74 @ 0320	Bad Recirc Pump Seal	81:02	Manual	Cold Shutdown	Replaced Seal
7	11/2/74 @ 0327	Refueling Outage And Turbine Overhaul	1436:33	Automatic Scram	Cold Shutdown	NA

TABLE - _ C

Dresden Unit II   Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
July 5	CRD/Accumulator 46-15 N_2 Fill valve	Packing leak	Packing loose	Replace packing	None
July 5	CRD/CRD #761C	Contact blade uncoupled from dirve	Inner filter not connected	Overhauled CRD	None. Control rod inserted
July 5	Process Rad monitoring "D" MSL Rad Monitor	Half scram condition	Dirty Plug and Jack	Cleaned plug and jack	None-"B" channel operable
July 5	Primary Cont. cooling/CCSW "B" Pump	Leaking	Pump packing bad	Repacked pump	None
July 9	CRD/Accumulator 34-31 N_2 Fill valve	Packing leak	Bad packing	Replace packing	None
July 11	Reactor building/ 2/3 Reactor doors	Broken latch and misaligned piston	Normal use	Replace latch and adjust piston	Opening of both door compromised secondary containment
July 15	Process Radiation monitoring "D" MSL Rad monitor	Spurious half scrams	normal wear	Replace monitor	None-Other channel operable
July 18	HPCI/HPCI oil pump filter "B"	Alarm condition	Dirty filter	Cleaned Strainer	None
July 18	Process Rad monitoring "A" fuel pool RAD monitor	Alarm condition	Alarm point set wrong	reset alarm point	none
July 19	CRD/Accumulator 26-35 N_2 Fill valve	Packing leak	Packing loose	Repacked valve	None
July 19	CRD/Accumulator 30-03 N_2 Fill valve	Packing leak	Packing loose	Repacked valve	None
July 20	CRD/Accumulator 30-35 N_2 fill valve	Packing leak	Packing loose	Repack valve	None

TABLE - II C

Dresden Unit II   Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
July22	LPCI/MO 1501-19B	Not opening properly	Loss of cap screws to generator motor	Remount gen and replace cap screws	"B" loop unavailable but "A" loop functional
July23	D-C sys/CKT 11 Reserve feed	Ground on bus	Breaker misaligned	Ground cleared through breaker operations	None
July23	Neutron monitoring sys/LPRM 32-09, 24-41, 40-41	Spiking high	unknown	Reset current in LPRM	None
July26	HPCI/HPCI Aux oil pump filter	Filter alarm high	Clogged strainer	Cleaned strainer	None
July26	PCCS/MO 1501-22A	Valve would not open	Interlocked	Operated interlocked valve and installed heater	None. Worked on auto iniation
July26	PCCS/MO 1501-22B	Valve would not open	Interlocked	Operated Interlocked valve and installed heater	None. Worked on auto iniation
July26	Nuetron monitoring/ LPRM	Some LPRM not reading when in bypass	Normal use	Waited until shutdown	None. Sufficient LPRM to satisfy APRM
July27	Diesel Gen/ 2/3 diesel "B" air compressor	Breaker would not stay closed	Normal use	Inspected and was ok	Routine surveillance
July27	Pressure suppression sys/AO-2-1601-27	Valve leaked	Bad valve seat	Blind flange installed for drywell integrity	None
July29	Pressure suppression sys/torus vacuum breaker valve	Excessive leakage	Unknown	Inspected & nothing wrong. Tested all right	None. Second vacuum breaker available
July30	Pressure suppression sys/AO valve 1601-21	Valve leaked	Bad valve seat	Replaced valve	Compromised primary containment

TABLE - II C

Dresden Unit II Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
July 30	CRD/Accumulator 38-19 26-31 N_2 Fill valve	Excessive leakage	Bad packing	Repack valves	None. Reactor shutdown
July 30	Pressure suppression sys/AO valve 2-1601-22	Excessive leakage	Bad valve seat	Replaced valve	Failure of this valve and 1601-21 compromised primary containment
July 31	Pressure suppression sys/line 2-8502-8" and 2-8506-18"	Crack in line	Unknown	Welded crack	Primary containment compromised
July 31	CRD/Accumulator-14-55 38-15, 06-15 N_2 fill valve	Excessive leakage	Packing loose	repack valves	None. Reactor shutdown
July 31	Reactor-turbine interlock	Door dragging	Door misaligned	Adjusted door	None
Aug 1	HPCI/HPCI steam line drain 2301-64	Excessive leakage	Packing leaked	Repacked valve	None. HPCI was out of service but all other systems in service
Aug 3	Radiation Process monitoring/MSL A & B Rad monitor	Meters and recorder not agreeing	Out of calibration	Calibrated meters and recorders	None
Aug 5	HPCI/HPCI cooling water return valve 2301-48	Not closing properly	Normal wear	Adjusted contact	None out of service in required position
Aug 6	CRD/Accumulator 22-03 N_2 Fill valve	Excessive leakage	Packing leaked	Repack valves	None
Aug 6	Process Radiation Monitoring/2/3 A stack gas pump	Failure	Normal wear	Replace pump	None- "13" pump available
Aug 7	HPCI/valve 2-2301-14	Failed to open or close	Capacitor bad	Replaced capacitor and adjusted timer	None-HPCI operable

TABLE - II C

Dresden Unit II Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Aug 9	Process radiation monitoring 2/3A stack gas pump	N/A	N/A	Overhaul	N/A
Aug10	Pressure suppression sys/torus temperature recorder	Temperature recorder reads high	Wires reversed	Reverse wires	None
Aug11	HPCI/valve 2-2301-11	Leaking	Valve not fully closed	Valve slugged	None. HPCI operable
Aug 11	Turbine-Generator/ turbine control valve #1	No half-scram produced	Erratic solenoid valve		
Aug 11	Reactor/MSL 261-30A pressure switch	Spurious group I Alarms	Erratic switch	adjusted switch	none. Low pressure TRIP within specs.
Aug 13	Fire sys/2/3 fire valve MO 2-3906	Will not close on auto start	limit error	reset limits	none
Aug 13	CRD/Accumulator 18-11 N_2 Fill Valve	Leaking valve	Loose packing	Repacked valve	None.
Aug 17	CRD/Accumulator 10-47 N_2 Fill valve	Leaking valve	Loose packing	Repacked valve	None
Aug 19	LPCI/"A" LPCI pump Suction gage	Gauge read upscale	Gauge out of calibration	Recalibrated gauge	None
Aug 19	CRD/Accumulator 10-35 N_2 fill valve	Leaking valve	Loose packing	Repacked valve	None
Aug 19	Primary containment cooling/2B containment cooling water pump	Leaking pump	Seals bad	Repacked pump	None
Aug21	Neutron monitoring/ IRM #18	Reads downscale and doesn't change scales	Dirty connector	Cleaned connector	None

TABLE - II C

Dresden Unit II   Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Aug 22	Diesel Gen/Diesel Gen Starter	Starter did not produce enough power to start	Worn vanes and Cyclinders	Replace starter	None. Other starters were on diesel
Aug 22	Nuclear boiler-recirc spare reactor recirc pump	Pump leaked	Bad seal	Overhaul/replaced seal	None. Spare
Aug 23	Feedwater control/ "B" yarway panel 902-5	Reading low	Pointer hitting face	Fixed pointer and recalibrated meter	None
Aug 24	CRD/Accumulator 14-15 N_2 Fill valve 18-47	Leaking valve	Worn seals	Repacked valve	None
Aug 24	CRD/CRD L-9 (42-35)	Overtraveled rod	Drive uncoupled	Replaced CRD	Unit derated 80 MWe Drive inserted until removal
Aug 24	CRD/CRD K-11 (38-42)	Overtraveled rod	Drive uncoupled	Replaced CRD	Drive inserted until removal. Shutdown margin maintained
Aug 24	Radiation Process Mon/"D" MSL Rad Mon	Half-scrams	Dirty connections	Cleaned Connections	None. Half scram may caused shutdown but did not
Aug 24	Pressure suppression sys/snubbers	Leaking snubbers	Shift seal leak	Replace oil & replace snubbers	Could affect piping under earthquake condition or severe vibrations
Aug24	Pressure suppression sys/solenoid valve 1601-20B	Air leak	Broken case on solenoid valve	Overhauled valve	None
Aug 25	Nuclear Reactor/Isolation Relay 595-103C	Relay chatter	Bad relay	Replaced Relay	Possibility of trip

TABLE - II C

Dresden Unit II Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Aug 25	Nuclear Reactor/ "B" recirc pump flange	Flange leak	Loose bolts	Tighten bolts	None
Aug 25	Nuclear Reactor/ Electromatic 2-203-3B	Pilot valve leak	Bad gasket & pilot assembly	Replace gasket and pilot assembly	None. Valves still operable
Aug 25	Nuclear Reactor/"A" Recirc pump suction MO 2-202-4A	Leaking valve	Loose packing	Tighten packing	None
Aug 25	Nuclear Reactor/ Reactor vent 202-50	Leaking valve	Loose packing	Tighten packing	None
Aug 25	Pressure suppression / snubbers 25-26-28	Oil leak	Shaft seal leaking	Replace snubbers	Detrimental to piping in case of severe shock or earthquake.
Aug 25	Nuclear Reactor/"C" & "D" MSIV-203-1C & 203-1D	Steam leak	Loose packing	Tightened packing	None. Leaking into primary containment
Aug25	Nuclear Reactor/"C" electromatic relief valve	Leaking gasket	Load gasket	Replace gasket	None. Reactor in shutdown.
Aug 25	Pressure suppression /torus hi/lo level plain	Reading high	calibration	Calibrated	None. Routine
Aug 25	Pressure suppression /drywell equipment hatch	N/A	N/A	Open and closed	None. Required for drywell entry
Aug 25	Pressure suppression /CRD Hatch	N/A	N/A	Open and closed	None

TABLE - II C

Dresden Unit II Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Aug 25	Reactor building/ interlocked doors	Interlock not functional	Broken crash bar	Repaired crash bar	Momentary lapse of secondary containment
Aug26	Isolation condenser/ isol cond vent root valve 2-1301-10	Leaking	Packing leak	Replace packing	Small leak of steam in secondary containment
Aug26	Neutron monitoring/ TIP system 32-25	TIP would not insert	Bad tubing	Replace tubing	None
Aug 26	CRD/Accumulator 02-39,30-19,02-23 N_2 Fill valve	Leaking	Packing worn	Replace packing	None
Aug30	Process rad monitoring/ A & B channels MSL Rad monitoring	Alarmed trip points low	Uncalibrated	Recalibrated	None
Aug 30	Nuclear Reactor/MSL low press alarm	No relay dropout	Calibration error	Recalibrated	None
Aug30	Diesel Gen/2/3 Diesel starting air compressor brkr	Relay chatter	oil in line	purged line	none. Still operable
Aug30	D-C Sys/125V Battery Charger	Charger Trips	Bad Crad	Replaced Card	None. Other charger available
Aug30	Process Rad monitor/ Reactor building vent sys "A"	Fans trip	Trip point low	Reset trip point	None
Aug 30	CRD/CRD 2-9 (6206)	N/A	N/A	Overhaul	None
Sep2	CRD/Acc 46-39 N_2 Fill Valve	Excessive leaking	Normal wear	Replace packing	None
Sep 3	CRD/Acc 42-23 N_2 Fill Valve	Excessive leaking	Normal wear	Replace packing	None

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Dresden Unit II Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Sep 3	CRD/ACC 22-51 N_2 Fill valve	Excessive leaking	Normal wear	Replace packing	None
Sep 3	Nuetron monitoring/ APRM flow monitor	Alarm	Bad square root converter	Replaced and recalibrated square root converter	None
Step 5	D-C sys/125V D-C CKT 2 to Bus 23	Ground	None found	None	None
Sep 6	CRD/ACC 38-31 N_2 fill valve	Excessive leaking	Packing worn	Replace paking	None
Sep 6	CRD/ACC 42-55 N_2 Fill valve	Excessive leaking	Bad seals	Replace packing	None
Sep 7	CRD/ACC 38-55 N_2 Fill valve	Excessive leaking	Packing loose	Replace Packing	None
Sep 7	Nuclear reactor/MSL Isolation Relay 595-103C	Half scram condition	Chattering Relay	Replace Relay	None
Sep 9	CRD/ACC 46-11 N_2 Fill valve	Excessive valve	Packing bad	Replace packing	None
Sep 9	Process RAD monitor/ MSL RAD Mon	Meter hi and recorder low	Calibration error	Recalibrated	None. Trips still functional
Sep 10	CRD/ACC 34-19 N_2 Fill Valve	Excessive leaking	Packing bad	Repacked valve	None.
Sep 10	CRD/ACC 34-55 N_2 Fill valve	Excessive leaking	Loose packing	Repacked valve	None.
Sep 10	CRD/ACC 30-55 N_2 Fill valve	Excessive leaking	Packing bad	Repacked valve	None.
Sep 10	Process rad monitor/ MSL Hi Rad "B"	Failed to trip on Hi Hi test	New time delay	Action all right per MOD	None.

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Dresden Unit II Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Sep 11	CRD/ACC 30-39 N_2 Fill valve	Excessive leaking	Packing bad	Repacked valve	None
Sep 11	Diesel Gen/ 2/3 diesel gen "B" starting air compressor	Brkr. on bus 38-4 burnt	Repeated opening and closing of contractor	Rebuilt contractor and wiring	None. Other AIR compressor available
Sep 12	120V-AC ESS/120V auto thrower switch	Switch will not reset	None	Found operable	None. ESS not needed for safe shutdown
Sep 12	Reactor building/ Reactor building hi rad mon	Annuciator would not clear on normal reading	Rollers stuck	Cleared rollers	None
Sep 13	LPCI/LPCI valve 2-1501-19E breaker	Breaker tripped and would not reset	Dirty contacts	Cleaned contacts	None. Redundant supply available
Sep 14	Neutron mon./IRM channel 17	Bypass IRM	Bad detector	Replace detector	None
Sep 14	Pressure suppression sys/drywell purge valve AO-1601-55	Would not hold purge	Disc wouldn't seat	Repair valve	Unless other valves on same line closed, loss of primary containment
Sep 15	LPCI/LPCI manual valve 2-1501-26A	Leaking	Bonnet seal loose	Tighten bonnet seal	In run mode. Failure of bonnet weal would prohibit valve being isolated from reactor
Sep 15	Pressure suppression sys/snubbers 2-6-7-21-25-28	Lack of oil	Failure of seals	add oil	None. Maintenance
Sep 15	Nuclear Reactor/ 2-202-9B valve indication	No visual indication	Burnt bulb	Replace bulb	None

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Dresden Unit II Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Sep 15	Nuclear Reactor/3C electromagnetic pilot valve	Inspection	Gasket bad	Replaced disc and gasket	None.
Sep 16	Reactor building/ Reactor building Interlocked doors	Door not interlocking	Broken lock	Replaced lock	None
Sep 16	Neutron monitoring/ IRM 18	No response	Cable open-circuit	Changed calbe	None
Sep 16	Nuclear Reactor/ Head vent valve 2-220-50	Excessive leaking	Valve packing bad	Repacked valve	None.
Sep 17	Nuclear Reactor/ Valve 2-202-6B	Valve does not open fully	Bad limit switch	Changed limit switch	None.
Sep 18	480 V A-C Switchgear /B.T. 28-29 BKR	BKR will not latch	Mechanical latch misadjusted	Adjust mech latch	Failure of B.T. 28-29 coupled with another crosstie failure could result in ECCS failure
Sep 20	Neutron monitoring/ SRM channel 23	Test period does not respond properly	Bad D.C. Amp	Replaced DC AMP	None. SRM not impaired
Sep 24	Diesel GEN/2Diesel pan alarm	Pan alarms	Primary fuse blows	Changed power supply to alarm	None
Sep 25	Main steam sys/MSL low pressure-chan A	Erronus Alarm	Bad alarm card	Replace CARD	None.
Sep 26	Nuclear reactor/2C-electromatic relief valve	Leaking	Bad pilot assembly	Rebuild pilot assembly	None
Sep 27	SBGT/SBGT "B" Damper	Damper tripped	Bad motor	Rebuild motor	None. Other sys available

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Dresden Unit II   Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Sep 27	Nuclear reactor/2-263-52A press. swith	LPCI and core spray not at correct press point	Broken screw or set point	Replace screw and adjust	None. LPCI still operable
Sep 27	SBGT/2/3 SBGP Timer	Check timing	None	Checked timing	None. Timing ok
Sep27	Reactor building/ personal interlock door	Door did not interlock	Bad solenoid	Replace solenoid	None. Secondary containment held throughout
Sep 27	CRD/ACC 18-07 N_2 Fill valve	Excessive leaking	Worn packing	Replace packing	None
Sep 27	CRD/ACC 18-27 N_2 Fill valve	Excessive leaking	Bad packing	Replace packing	None
Sep 27	CRD ACC 10-23	Excessive leaking	Bad packing	Replace packing	None
Sep 27	CRD ACC 46-35	Excessive leaking	Bad packing	Replace packing	None
Sep 27	CRD ACC 50-51	Excessive leaking	Bad packing	Replace packing	None
Sep 27	CRD ACC 54-19	Excessive leaking	Bad packing	Replace packing	None
Sep 27	CRD ACC 54-31	Excessive leaking	Bad packing	Replace packing	None
Sep 27	CRD ACC 38-27	Excessive leaking	Bad packing	Replace packing	None
Sep 27	Core spray/valve 2-1402-4B test vlv	Valve not closing completely	Torque setting low	Adjusted torque setting	None. System operable
Sep 27	Core spray/valve 2-1402-4B	Will not close against flow	low torque setting	Adjusted torque setting	None. Test sys only
Sep 27	Steam sys/MSIV-2-203-1B	Close more than 10% during surv	Dirty pilot	Cleaned pilot	None. Test mode

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Dresden Unit II Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Sep 28	Pressure suppression /reactor building interlock doors	Door would not interlock	Bad solenoid	Replaced solenoid	None
Sep 30	Isolation condenser	N/A	N/A	Verify valve control circuit wiring	N/A
Sep 30	CRD/CRD 30-43	Pilot solenoid buzzing	None	Not buzzing upon inspection	None
Sep 30	Primary containment cooling sys/CCSW Pump "A"	Leaking	Bad seals	Replace packing	None. Maintenance
Sep 30	PCCS/CCSW Pump "A"	Leaking	Bad packing	Replace packing	None
Oct 1	CCSW/CCSW "B" Pump	Leaking	Bad seals	Repacked pump	None
Oct 1	HPCI/HPCI gland seal cond hotwell drain pump control	push button not covered-near drain point	Cover lost	Replace cover	None
Oct 1	HPCI/HPCI L.P. drain pot trap-2-2301-2	Steam leaking	Clean valve seat	Clean seat	HPCI still operable but torus temp rise needed control to stay within specs
Oct 2	Isolation condenser/ isol cond return	Limit error	switch setwrong	Set swtich	None
Oct 2	Press suppression/ Reactor interlock doors	Interlock failure	Failed microswitch	Replaced switch	None
Oct 2	Nuclear reactor/MSL low pressure	Alarm conditon	None	None	None. Random condition
Oct 2	HPCI/HPCI injection valve 2301-8	Will not auto-close	None	Checked circuit	None

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Dresden Unit II Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Oct 2	CRD/ACC 02-27 N_2 Fill valve	Leaking	Normal wear	Repacked valve	None
Oct 2	HPCI/HPCI emergency oil pump	No operating indication	None	Checked circuit	None
Oct 3	Nuclear reactor/2B reactor recirc pmp	Bolts loose	Normal use	Tighten bolts and take feeler gage readings	None
Oct 3	Nuclear reactor/ MSIV 1-B	Leaking	Bad cylinder tube ring & seals	Replaced rings & seals	Failure would have caused scram
Oct 3	Primary containment cooling/CCSW pump	Leaking	Packing worn	Replaced packing	None. Routine maint.
Oct 3	SBGT/SBGT 2/3 "A" valve 7510	Leaking solenoid vlv	Normal wear	Overhauled solenoid vlv	None
Oct 4	Nuclear reactor/ reactor safety valves	Gag valve for hydro	N/A	N/A	None
Oct 4	Primary containment cooling sys/2D CCSW pump	Leaking	Packing bad	Replace packing	None. Maintenance
Oct 4	Pressure suppression /valve 2-1601-55	Limit error	Wrong limits	Reset limits	None
Oct 5	HPCI/HPCI valve MO-2-2301-35	None	None	Cleaned contact	None. Maintenance
Oct 5	Isol cond/vlv 13 of1	Leaking	Worn packing	Tightened packing	None. Maintenance
Oct 5	Nuclear reactor/ electromatic relief pilot valve	Leaking	Stem disk and gasket bad	Replaced stem disk and gasket	None. Valve still operable
Oct 5	Nuclear Reactor/2B Recirc pmp disc vlv	Leaking	Worn packing	Tightened packing	None

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Dresden Unit II Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Oct 5	HPCI/HPCI oil reservoirs oil filter	N/A	N/A	Replace oil filters	None. Maintenance
Oct 5	Neutron monitoring/ APRM	N/A	N/A	Scram setpoint change from 117% to 112%	None
Oct 5	Nuclear Reactor/1B MSIV pilot valve	Leaking	Dirty air piston assembly	Cleaned air piston assembly	None. MSIV operable
Oct 6	Reactor building/ 2/3 diesel reactor interlock door	No interlock	Bad micro switch	Replace. Micro switch	Physically possible to break secondary containment
Oct 6	CRD/ACC 18-19 N_2 Fill valve	Leaking	Bad packing	Replaced packing	None
Oct 6	Process rad mon/ 2/3 chimney monitor pump	Pump pulling too small amount of gas sample	Bad pump	Replaced pump	None
Oct 6	CRD/ACC 30-07 N_2 fill valve	Leaking	Worn seals	Replaced packing	None
Oct 6	CRD/ACC 26-55 N_2 Fill valve	Leaking	Bad packing	Replaced packing	None
Oct 7	Process radiation mon/2/3 B spare stack gas sample pump	N/A	N/A	Overhaul	None
Oct 8	LPCI/valves 1501-27B & 28B	N/A	N/A	Check torque settings	None
Oct 9	Nuclear reactor/ safety valve 2-203-4E	Testing safeties	N/A	N/A	None. Testing only

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Dresden Unit II Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Oct 9	CRD/ACC 50-23 N_2 fill valve	Leaking	Normal wear	Replace packing	None
Oct 9	Process radiation monitoring/ 2/3 "A" stack gas sample pump	Pump would not work	Normal use	Replaced with spare pump	Failure of this pump plus failure of other pump violated tech specs but did not have safety signifigance
Oct 9	Area rad monitoring / reactor building vent stack A.R.M.	A.R.M. read 2MR or higher	None	A.R.M. not out of calibration	None
Oct 9	A.R.M./reactor bldg vent stack	Will not reset	Bad alarm switch	Repaired alarm switch	None
Oct 10	OFF GAS sys/monitor	Would not alarm at correct set point	Alarm point set too high	Reset and change alarm points	None
Cot 10	Reactor protection sys/"B" flow converter	Flow indicator reads high	Calibration error	Calibrated points	Trip point were within allowable limits
Oct 11	Process rad mon/ 2/3 "A" spare stack gas aample pump	None	None	Overhauled pump	None
Oct 11	Nuclear reactor/6" safety valves	None	None	Set replacement Valve	None
Oct 12	Primary containment sys 2B CCSW pump	Leaking	Normal wear	Replace and repacked packing	
Oct 12	CRD/ACC 42-15 N_2 fill valve	Leaking	Normal wear	Replaced packing	None
Oct 14	CRD/ACC 34-47,26-47 N_2 fill valve	Leaking	Normal wear	Replaced packing	None

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Dresden Unit II Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Oct 15	Nuclear reactor/MSL 2-203-43 valve	Leaking	Normal wear	Replacing with tested valve	Leaked steam into primary containment
Oct 16	CRD/2/3 spare CRD ACC	None	None	Overhauled spare acc	None
Oct 16	HPCI/HPCI turbine oil reservoir heater	Charred oil/carbon found on heater	Temp set point too high	Reset temp to 90%	None
Oct 16	Crane/2/3 125 Ton reactor bldg crane	None	None	Set speed to slow for fuel cask moving	None
Oct17	Control room/C.R. annunciators	Replaced	Wear	Overhaul and repair all cards	None
Oct 18	Neutron monitoring/ LPRM display	Lites do not stay lit	Bad card	Replaced card	None
Oct 18	Area radiation mon/ reactor bldg vent monitor "A"	Monitor drifts and trips fans	Bad sensor	Replaced swnsor	Caused inadvertent fan trips
Oct 18	Primary containment cooling/2/3 core height permission lites 263-73B	None	None	Replaced switch	None
Oct 19	Nuclear reactor/ reactor mode switch	Locked in start and GRI isol @ 850 psi	None	Checked linkage, contacts then tested	Switch did not fail therefore no safety problem
Oct 19	Pressure suppression sys/drywell equip. hatch	None	None	Opening for work	None. Required for entry into drywell
Oct 20	Nuclear Reactor/"B" reactor recirc pump suction valve	Valves not closing properly	Torque points set low	Reset set torque points	Torque switch failure prevented valve closure which may have compromised LPCI inject into

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Dresden Unit II Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Oct 20	CRD/Scram back-up valves 02-302-19A	Hangs up in open position	None	Worked ok in shop tested and ok in position	Prevented resetting of scrams
Oct 20	CRD/rod select. switch for M2(46-07)	Will not select	Bad switch	Replaced switch	None
Oct 20	Pressure suppression sys/drywell outer door interlocking pin	None	None	Replace with bolt	None
Oct 20	Press supp sys/dry-well equip hatch	N/A	N/A	Close after maint	None
Oct 21	Nuclear reactor/ mode switch	Scram relay too fast	Calibration error	Reset timing	None
Oct 21	HPCI/HPCI mo 2-2301-8	Leaking	Normal wear	Tighten packing	None. Valve operable
Oct 21	HPCI/HPCI AO-2301-65 valve	Diaphragm leaking air	loosened bolts	tighten bolts	None. Valve operable
Oct 21	HPCI/Steam valve 2301-3	Stem bent during test	Unknown	Replaced packing, disk and drive nut	None. HPCI operable during repair
Oct 21	Nuclear reactor/2B reactor recirc pmp seal	Leaking water	Normal wear	Replaced seal	Required unit outage
Oct 21	CRD/ACC 22-31 N_2 fill valve	Leaking N_2	Normal wear	Replaced packing	None
Oct 21	CRD/Accumulators 42-19 and 34-03 fill valve	N_2 fill valve leak	Normal use	Replaced packing	None

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Dresden Unit II   Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Oct 21	LPCI/Check valve 1501-25B	No closed indication	Bad closed limit switch	Used spare limit switch	None. Indication only
Oct 22	Primary containment cooling system/2/3 core height permissive	No 2/3 core permissive	Bad mercury switch	Replaced magnet and mercury switch on yarway	None. No failure
Oct 22	Pressure suppression sys/drywell snubbers 15 and 17	Bad snubber	Polyurethane failed	Rebuilt snubbers	Could have reduced primary system capability to with stand an earthquake; start up delayed 16 hours for repair
Oct 24	Recirculation sys/ spare pump seal		Worn seal	Rebuilt seal	None. spare seal rebuilt to original spec
Oct 25	Recirculation sys/ spare pump seal	Worn seal	Normal use	Reapired seal	None. Spare seal rebuilt to original spec
Oct 25	Reactor bldg/ 2/3 interlock door	Interlock by 2/3 diesel generator door going outside of plant is sprung	Normal use	Door repaired	Possible degradation of secondary containment
Oct 26	Pressure suppression sys/drywell high pressure alarm	Alarm did not go off with drywell pressure at 1.45	Read settings incorrectly	Recommended labeling annunciator window	None. No failure found
Oct 28	CRD/Rod indicator	Do not get any white select light for about 50% of the drives	Bad fuse	Replaced fuse	None.
Oct 28	Recirculation sys/ pump seal	Worn seal	Normal use	Rebuilt seal	None. Spare seal rebuilt to original specs
Oct 31	LPCI/Flow indicator	Zero flow in system and indicator reads 3000 gpm	Bad transmitter	Replaced and calibrated transmitter	None. indication only

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Dresden Unit II Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Nov 1	CRD/west bank of accumulators	West bakn wouldn't test	Spurious failure of test circuitry	Tested, found to be functioning properly	None
Nov 2	Neutron monitoring sys/IRM ch. 14	Downscale alarm appears on range 3 in source range	Maladjustment alarm should appear on range 2	Checked ch. 14 ok	None
Nov 2	Neutron monitoring sys/APRM #3	Rod block and scram came at 15.6%	Slight maladjustment due to drift	Readjust to 15%	Negligible-even though exceeded tech spec limits of 15%. Problem discovered prior to rod withdrawal.
Nov 7	Pressure suppression sys/torus manway hatches	No malfunctions	No malfunctions	Routine outage work. Open access hatches	None
Nov 7	CRD/N_2 supply valve on accumulators 18-35, 30-23, 34-27, 50-15, 10-11, 58-27, and 42-39	N_2 leak	Normal wear	Replaced packing	None
Nov 8	Pressure suppression sys 1 drywell equip hatch	No malfunction	no malfunction	Routine outage work. Open hatch	None
Nov 8	Neutron monitoring sys/SRM's and IRM's	No malfunction	No malfunction	Removed shorting links	None. Refueling outage requirements
Nov 8	CRD/N_2 supply valve on accumulators 06-35, 14-51, 26-15, 18-15, 06-47, 42-35, 54-43, 46-47, 30-31, 58-31, 50-15, 58-27, 42-39 and 34-27	N_2 Leak	Normal wear	Replaced packing	None. All rods at 00

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Dresden Unit II Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Nov 11	CRD/N_2 supply valve on accumulators 22-27, 10-43, 22-39, 38-15, 54-39, 06-39, 54-43 and 14-47	N_2 leak	Normal wear	Replaced packing	None
Nov 9	CRD/scram inlet valve on 22-39	Valve leaks through	Stem off adjustment	Adjusted stem	None. Drive held full in by scram pressure
Nov 12	Pressure suppression sys/U 2/3 reactor building trackway doors	Broken lasp on outside door, bent slide bolt	Normal	Replaced lasp, straightened forking pins. Also installed new angle irons around door bottoms	None. Inner door still available for containment
Nov 14	Nuclear boiler sys/control room shorting links	No malfunction	No malfunction	Installed shorter links in panel 902-15 and 902-17 for response checks	None. Routine maintenance
Nov 15	HPCI/MO valve 2301-6	Motor leads at terminal block in breaker burnt up	Defective terminal block cutting hammer	Replaced terminal block cutting hammer	Motor operated valve was operable at all times when HPCI required. Failure occurred while HPCI not required. Manual valve operation still possible.
Nov 15	Local mounted instrument/jet pump riser dp switch 261-34B	Downscale "B" dp readings	Calibration switch would not reset because was hitting Hi stop	Reset calibration switch	Failure would not prevent LPCI loop select logic from operation
Nov 23	CRD/A-7 Scram inlet valve	Valve leaks through	Normal	Readjusted stroke	None. In shutdown, failure caused rod to drift past 00.
Nov 24	CRD/M-14 scram inlet valve	Valve leaks through	Normal use	Readjusted stroke	None. In shutdown, failure caused rod to drift in

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Dresden Unit II Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Nov 24	CRD/N_2 fill valve, accumulator 46-43	N_2 leak	Normal use	Replaced packing	None. All rods in, reactor shutdown.
Nov 24	CRD/accumulator 30-19	Poor accumulator performance	Defective accumulator (See 11-26 summary)	Replaced accumulator with new one	Negligible. All rods in, insert capability still present
Nov 25	Diesel generator sys/"B" air compressor	Closing coil bangs in and out before holding in	Loose connection, water torus inside	Fixed connection	None. Redundent compressor available for starting air
Nov 26	CRD/Accumulator 30-19	Requires frequent recharging	Leaky accumulator	Accumulator removed (also replaced after removal, see 11-24 summary)	None
Nov 27	Neutrons monitoring sys/APRM flow bias converter	Noisy signal, rod blocks appearing	Off-calibration converter	Recalibrated system	None
Nov 28	CRD/46-19 refuel platform interlock wiring	No malfunction	No malfunction	Jumper installed to allow refuel platform to go over core with drive 0.0.5 at 48. Jumper removed.	None. Required to replace control balde
Nov 29	Diesel generator sys/2-3 "B" air compressor pressure switch	Erratic switch causing compressor motor contactor to chatter	Dirty switch	Cleaned, check snubber and recalibrate	None. Other starting air compressor still available
Nov 29	Reactor protection sys/group I isolation relay 595-103C	Relay chatter near trip point	Vibration of sensing line	Recalibrate pressure switch	None
Dec 2	CRD/Accumulators 38-47 and 38-43 fill valves	N_2 valve leak	Normal use	Replaced packing	None. All rods inserted; reactor shutdown and cooled down during failure

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Dresden Unit II Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Dec 2	LPCI/Flow indicator 902-3	Flow indicator reads 750gpm with pumps off	Calibration of transmitter not correct	Recalibrated flow transmitter	None. LPCI operability not affected.
Dec 2	LPCI/valve Mo2-1501-38B	Unable to engage handwheel and operate manually	Gear loose and extended from motor shaft	Put gear back in place, put set screw in place and wired down set screw	None. Electric operation not affected
Dec 3	CRD/Accumulator 26-51 fill valve	N_2 packing leak	Normal use	Replaced packing	None. All rods in.
Dec 3	125 volt sys/ station battery	No malfunction	No malfunction	Tested batteries	None. Tested batteries found no problem
Dec 3	Pressure suppression sys/electrical penetration X-2025	No malfunction	None	Radiation shields removed and cover plate removed (drywell side) to allow for leak repair covered in another W.R.	Reactor was at atmospheric pressure.
Dec 5	Diesel generator sys/U-2 diesel generator "A" starting air compressor breaker	Breaker was found tripped several times this week. Resets ok	Not known	Cleaned and reapaired breaker	None. Reactor protection sys remained operable
Dec 5	Electrical sys/U-2 125 V battery charger	A.C. Feed kept tripping	Normal wear	Replaced high D.C. trip card	None. Reactor in cold shutdown.
Dec 6	Nuclear boiler (recirc.) sys/ valve MO2-202-7A	Excessive leak from valve packing	Normal wear	Repacked valve	None. Routine maintenance
Dec 7	Nuetron monitoring sys/source range monitor #23	Suspicious step change during steady state reactor oper	Dirty connectors	Cleaned & reinsolated connectors	None. Nuclear instrumentation redundancy provided adequate monitoring

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Dresden Unit II Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Dec 10	Standby gas treatment sys/"A"- train standby gas electric preheater	Preheater would not shut off	Dirty aux contacts and bad screws	Cleaned aux contacts and replaced screws	None. System remained operable
Dec 10	Control rod drive sys/accumulator 42-27	N_2 leak	Bad packing	Installed new ethylene-propylene packing was installed	None. All rods were full in during repair
Dec 11	Neutron monitoring sys/U-2 source range monitor recorder (black pen).	Pen was moving too-slowly	Bad bearing in motor	Replaced bearing	None
Dec 11	Pressure suppression sys/reactor turbine building interlock (outside door)	Interlock on outside door was found to be inoperable	Bad plunger in solenoid	Replaced bearing	None. Secondary containment integrity remained in effect all times
Dec 11	Neutron monitoring sys/intermediate range monitor #14	No malfunction	No malfunction	Adjusted downscale alarm so that it would come in on range 2 while unit is down. (normally goes to range 3)	None
Dec 11	Reactor recirculation sys/feedwater check valves "B" line	Primary system was degraded	Normal wear	Rebuilt check valves 58B, 62B, 62A, and 58A.	None. Feedwater sys was not required at this time. Reactor was in "refuel" and the cauities were filled.
Dec 11	Low pressure coolant injection sys/LPCI service water	Bad pointer on meter	Bad pointer on meter	Replaced pointer on meter	None. Corrective maintenance

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Dresden Unit II Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Dec 17	Low pressure coolant injection sys/SW# 2-261-34C	No malfunction	Switch was found tripped with "0" differential pressure	Replaced "low" micro-switch and adjusted as per barton procedure	None. Malfunction was found during scheduled surveillance during shutdown
Dec 17	Low pressure coolant injection sys/SW#2-261-34A	No malfunction	Switch was found tripped with "0" differential pressure	Replaced "low" micro-switch and adjusted as per Barton procedure	None. Malfunction was found during scheduled surveillance during shutdown.
Dec 18	Standby liquid control sys/ relief valves	No malfunction	No malfunction	Removed and reset relief valves	None. Reactor was in cold shutdown.
Dec 19	Standby liquid control sys/SBLC Pumps A & B Gear Cases	Leaks	Bolts on housing were loose	Tightened all bolts	None. Reactor was in cold shutdown
Dec 19	Diesel generator sys/U 2/3 diesel generator	No malfunction	No malfunction	Performed required relay tests	None
Dec 20	Pressure suppression sys/penetration X-105C (main steam line)	Belows seal failed local leak rate test	Leak in testing line	Renewed section of bad stainless steel tubing	None.
Dec 20	Standby liquid control system/ SBLC pumps A & B	No malfunction	No malfunction	Adjusted packing on pumps	None. Reactor in cold shutdown
Dec 20	Reactor building/ Reactor building East interlock door (reactor building side)	Latch was not operating properly	Bad plunger	Replaced plunger and adjusted lock switch	None. Integrity remained in effect at all times

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Dresden Unit II Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Dec 20	Electrical sys/U2/3 Battery charger (250 V DC)	Battery charger Oscillating	No malfunction was found	N/A	None
Dec 20	Diesel generator sys/U 2/3 diesel generator	Oil leak at union near base	Normal wear	Union tightened	None
Dec 23	Core spray sys/ isolation valve 2-1402-6A	No malfunction	Dirty limit switch	Cleaned limit switch	None. Core spray system remained operable
Dec 26	Diesel generator sys/ U 2/3 diesel generator	Crankase Pressure alarm	No malfunction	N/A	None
Dec 26	Diesel generator sys/ U 2/3 diesel generator	Diesel generator "trouble" alarm on panel 902-8 does not come up when an alarm comes up on the local panel	No malfunction	N/A	None
Dec 26	Reactor vessel head/reactor vessel head vent AO2-220-46	Leak reported	Solenoid valve was leaking through&escaping through the exhaust port	Removed and tested solenoid and found no leak	None
Dec 26	Reactor vessel head/reactor vessel	Leak reported	solenoid valve was reported to have been leaking	No leak was found upon testing	None
Dec 27	Pressure supression sys/reactor building bellows seal	Leakage reported	No malfunction	Bellows was not leaking	None
Dec 28	Low pressure coolant injection sys/LPCI select circuit	No malfunction	N/A	Bad relay replaced	None. Reactor in cold shutdown.

TABLE - II C

Dresden Unit II Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Dec 30	Reactor recirculation system/MO valves	No malfunction	N/A	Adjusted MO valves torque switches per procedure 36-223	None. Reactor in cold shutdown.
Dec 31	Standby liquid control system/ Hydro test gage	No malfunction	N/A	Installed 2000# gage on SBLC line #2-1102-1½"A Between FS 2-1151 and 1101-16 (½" vent line)	None. Reactor in cold shutdown.

TABLE II D

Date of Occurrence	Incident Number	Component Requiring Corrective Maint.	Date Maint Completed
7-22-74	I-12-2-74-26	LPCI MO Valve 1501-19.3	7-22-74
7-26-74	I-12-2-74-26	AO Valve 1601-22	7-27-74
7-26-74	I-12-2-74-33	AO Valve 1601-21	7-30-74
7-29-74	I-12-2-74-34	N_2 Inerting Line 2-8503-8LX	7-30-74
7-30-74	I-12-2-74-35	DrainLine 2-3508A-10"-C	7-30-74
8-1-74	I-12-2-74-37	HPCI Mo Valve 2301-48 Breaker	8-5-74
8-23-74	I-12-2-74-41	Reactor Feed pump minimum Flow Valve PCV-2-3201B	8-23-74
8-2-74	I-12-2-74-36	CRD K-11	8-24-74
8-24-74	I-12-2-74-42	Drywell Snubbers	8-25-74
9-1-74	I-12-2-74-43	2B Condensate Booster Pump Vent Line	9-3-74
9-13-74	I-12-2-74-45	Recirc Loop A (2-0203B-4"-A and 2-0201B--28"-A)	9-13-74
9-26-74	I-12-2-74-47	Pressure Switch on 2/3 Radwaste Waste Filter	9/27/74
9-27-74	I-12-2-74-48	A Primary Standby Gas Treatment Timer	9-27-74
9-12-74	I-12-2-74-46	B Reactor Feed Pump Minimum Flow Line	10-3-74
10-4-74	I-12-2-74-50	Safety Valve 2-203-4E	10-4-74
10-6-74	I-12-2-74-51	"A" and "B" Stackgas Sample Pump	10-7-74
10-18-74	I-12-2-74-52	"B" Recirculation Pump Suction Valve (MO2-0202-4B)	10-20-74

TABLE II D

Dresden Unit II Incident Report Requiring

Corrective Maintenance

Date of Occurrence	Incident Number	Component Requiring Corrective Maint.	Date Maint Completed
10-21-74	I-12-2-74-53	Hydraulic Piping Restraint	10-22-74
10-22-74	I-12-2-74-54	Gland Leakoff Valve 2-1202-99A	10-23-74
11-2-74	I-12-2-74-59	#4 Control Valve Circuitry	11-3-74
11-14-74	I-12-2-74-66	HPCI MO 2301-6	11-15-74
12-10-74	I-12-2-74-73	LPCI Drain Line 1501-25	
12-16-74	I-12-2-74-78	LPCI Pressure Switch 261-34A 261-34C	12-6-74
12-23-74	I-12-2-74-79	Main Steam Line MO 222-1	12-24-74
12-28-74	I-12-2-74-81	LPCI Relay 284	12-28-74

Table II E

Periodic Containment Leak Rate Results

Date of Test	Penetration No.	Leakage Path Tested (Piping between valves)	Calculated leak Rate scf/hr	Tech Spec limit scf/hr	Comments
7-26	-----	1601-20B & 1601-31B	7.454	29.4	
7-26	X-125	1601-24, 23, 60, 61, 62, 63	9.149	29.4	
7-29	-----	1601-20A & 1601-31A	2.609	29.4	
7-29	X-126	1601-21, 22, 56, & 55	378.53	29.4	
7-31	X-126	1601-21, 22, 56 & 55	26.31	29.4	Subsequent to valve repairs
8-25	X-100	Drywell equipment hatch	.069	58.8	
8-25	X-102	CRD Removal Hatch	0	58.8	

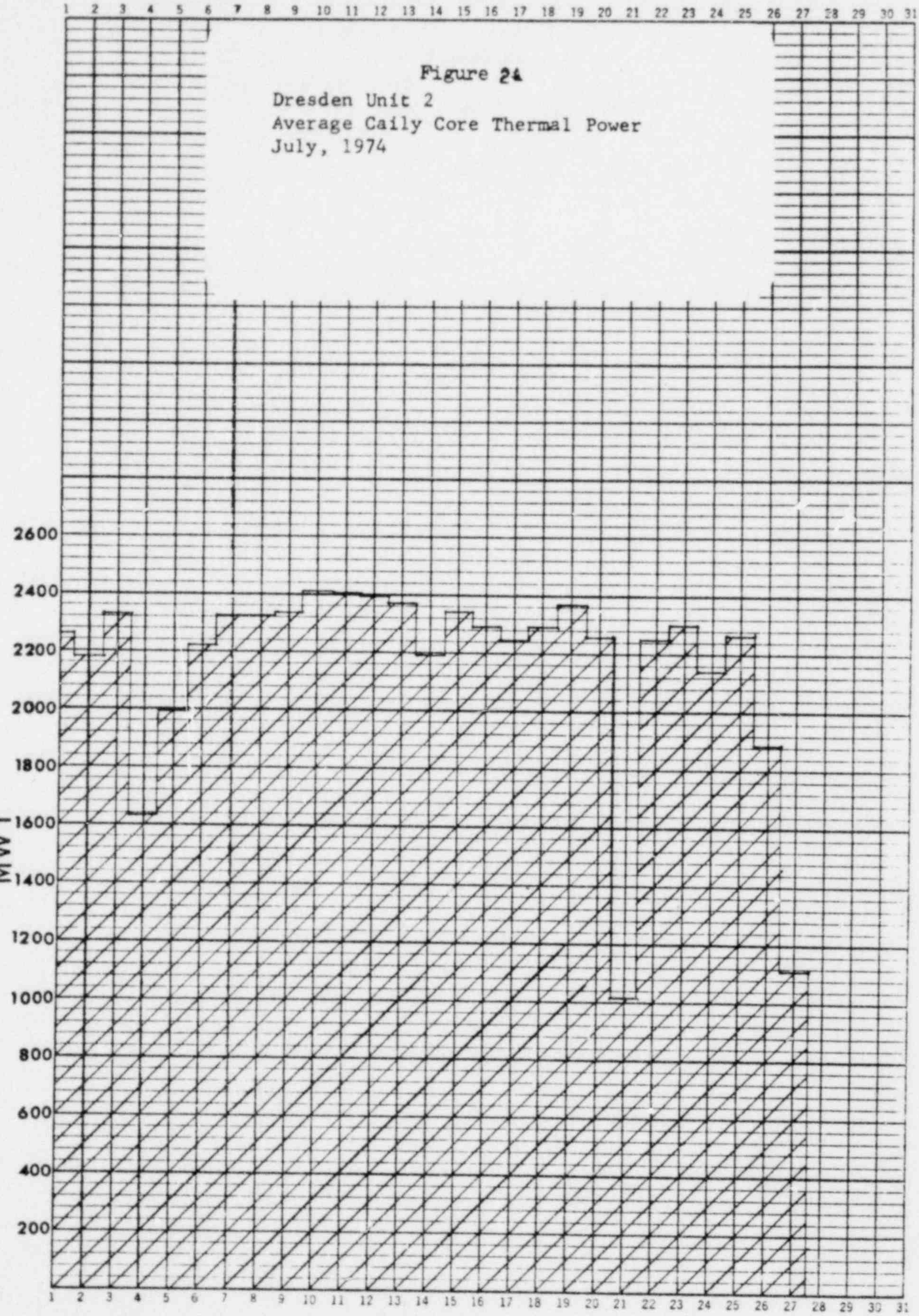


Figure 24
Dresden Unit 2
Average Caily Core Thermal Power
July, 1974

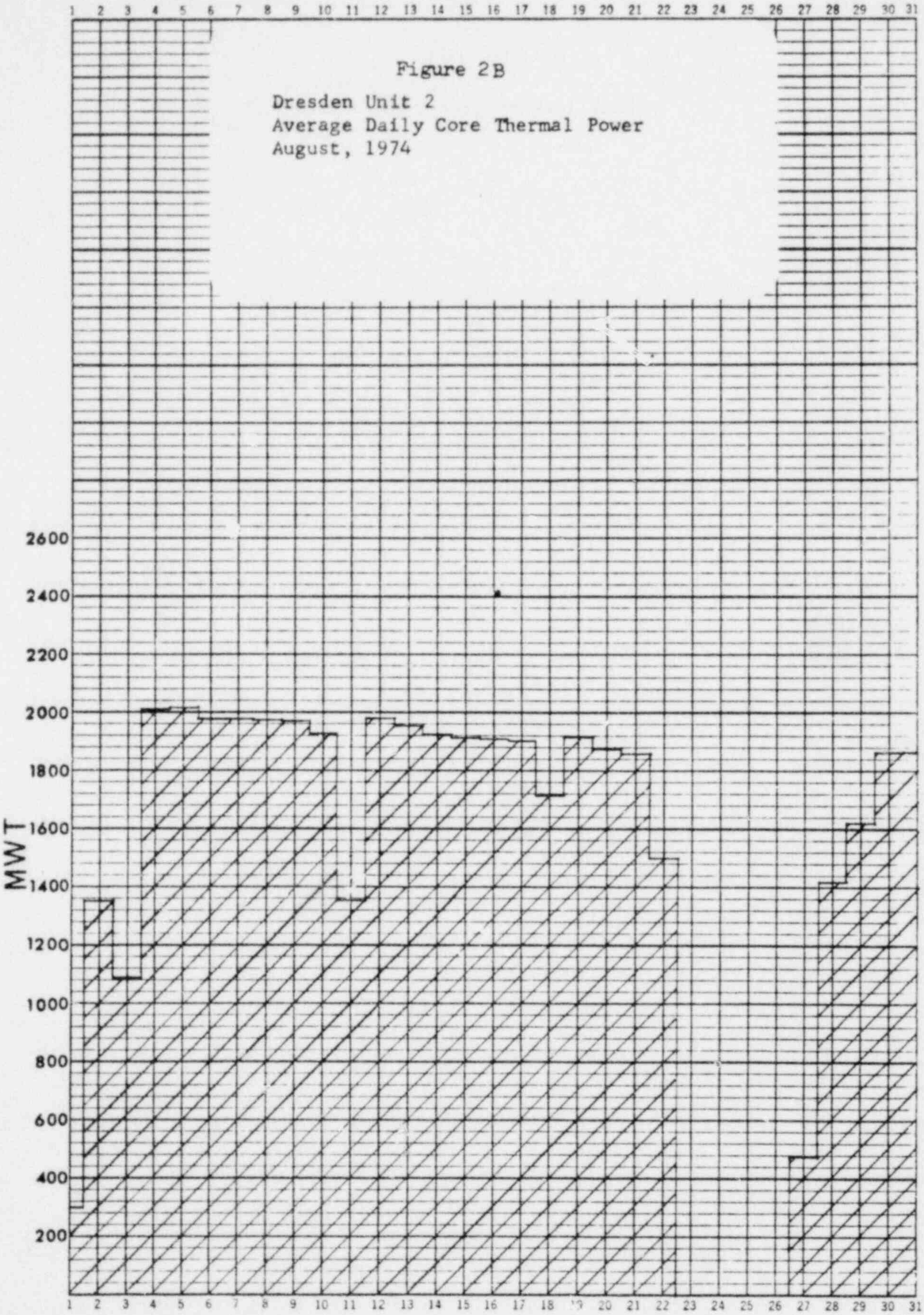


Figure 2B

Dresden Unit 2
Average Daily Core Thermal Power
August, 1974

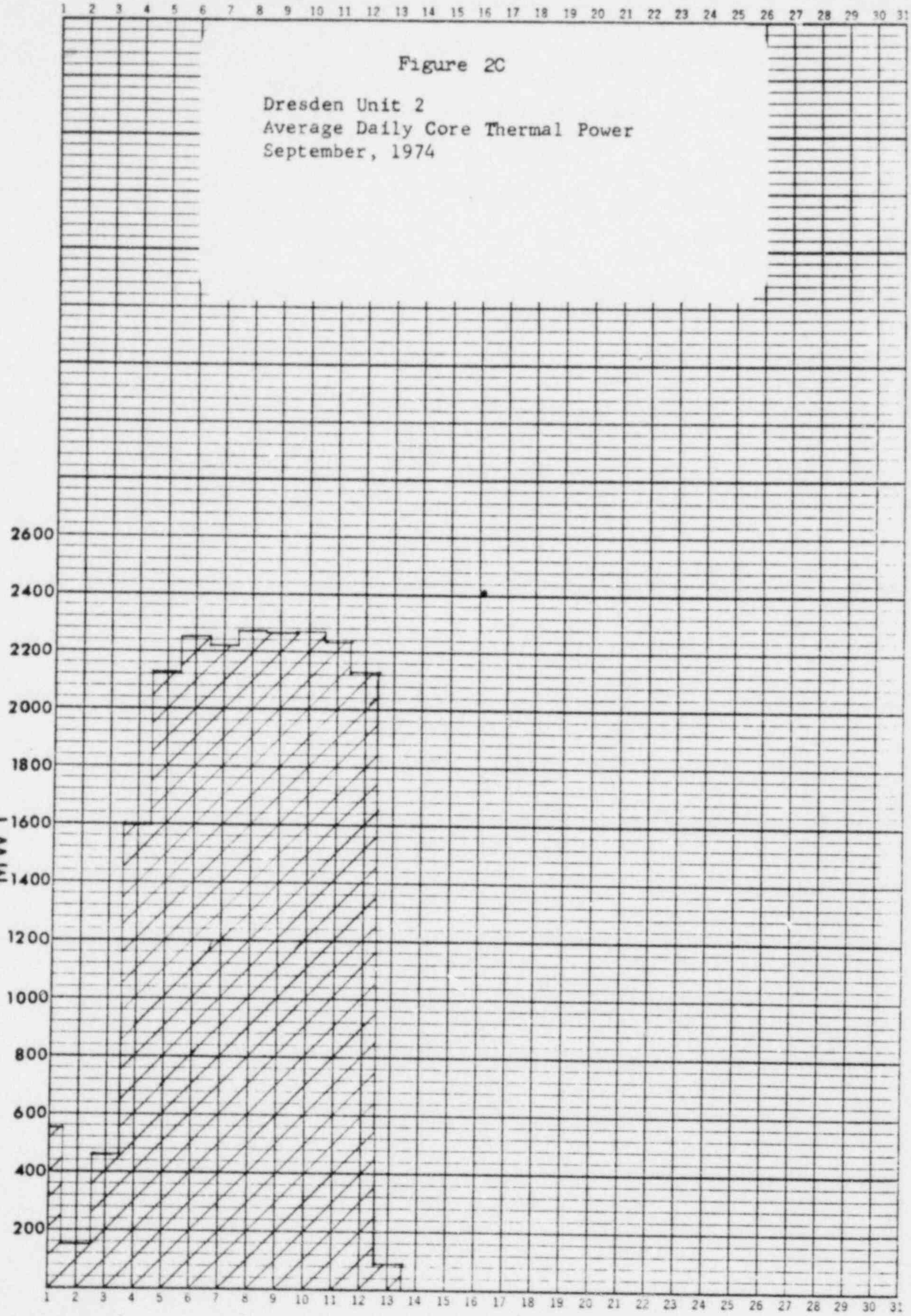
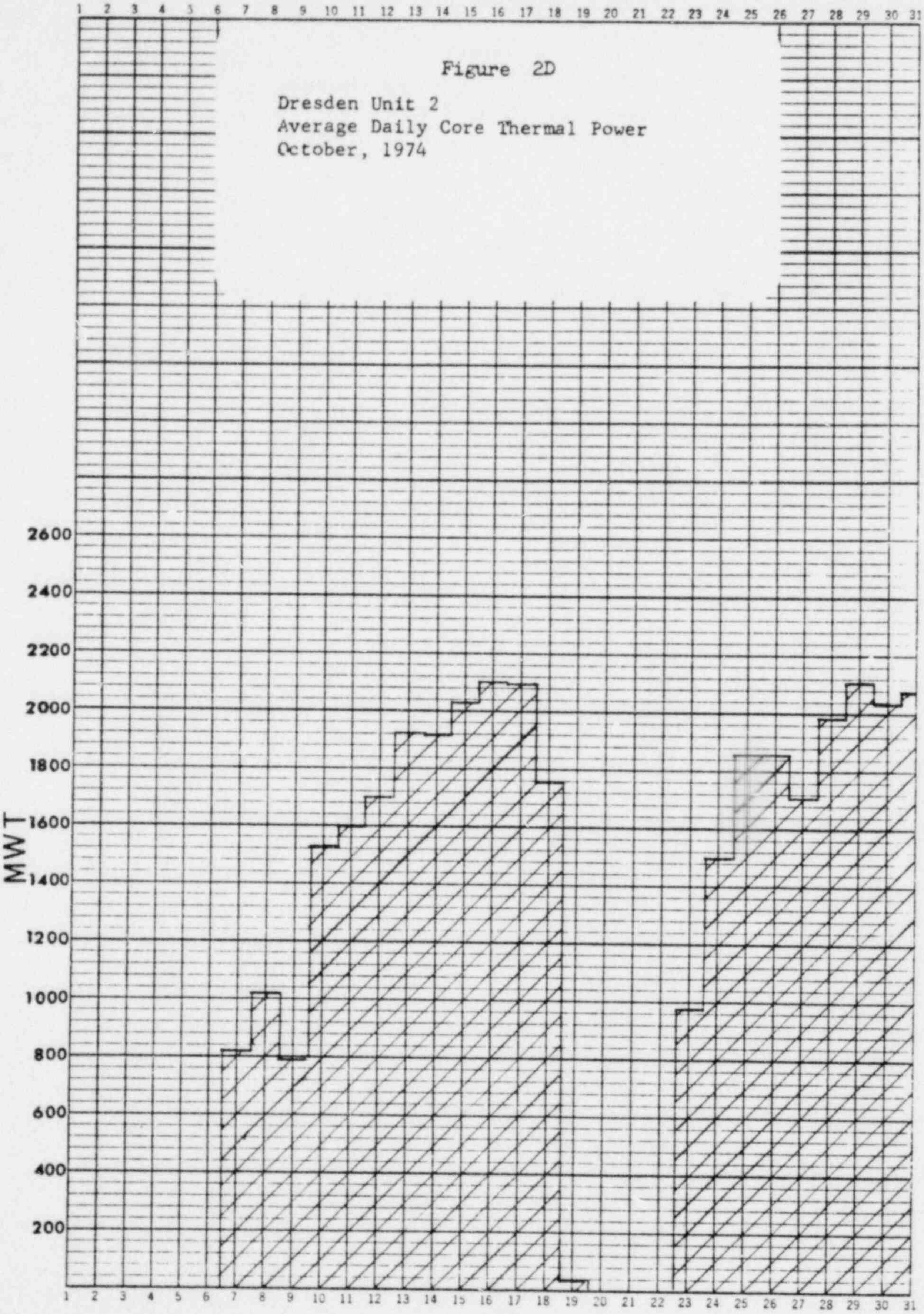


Figure 2C

Dresden Unit 2
Average Daily Core Thermal Power
September, 1974



K-E 1 MONTH BY DAYS X 110 DIVISIONS 46 2280 KEUFFEL & ESSER CO. MADE IN U.S.A.

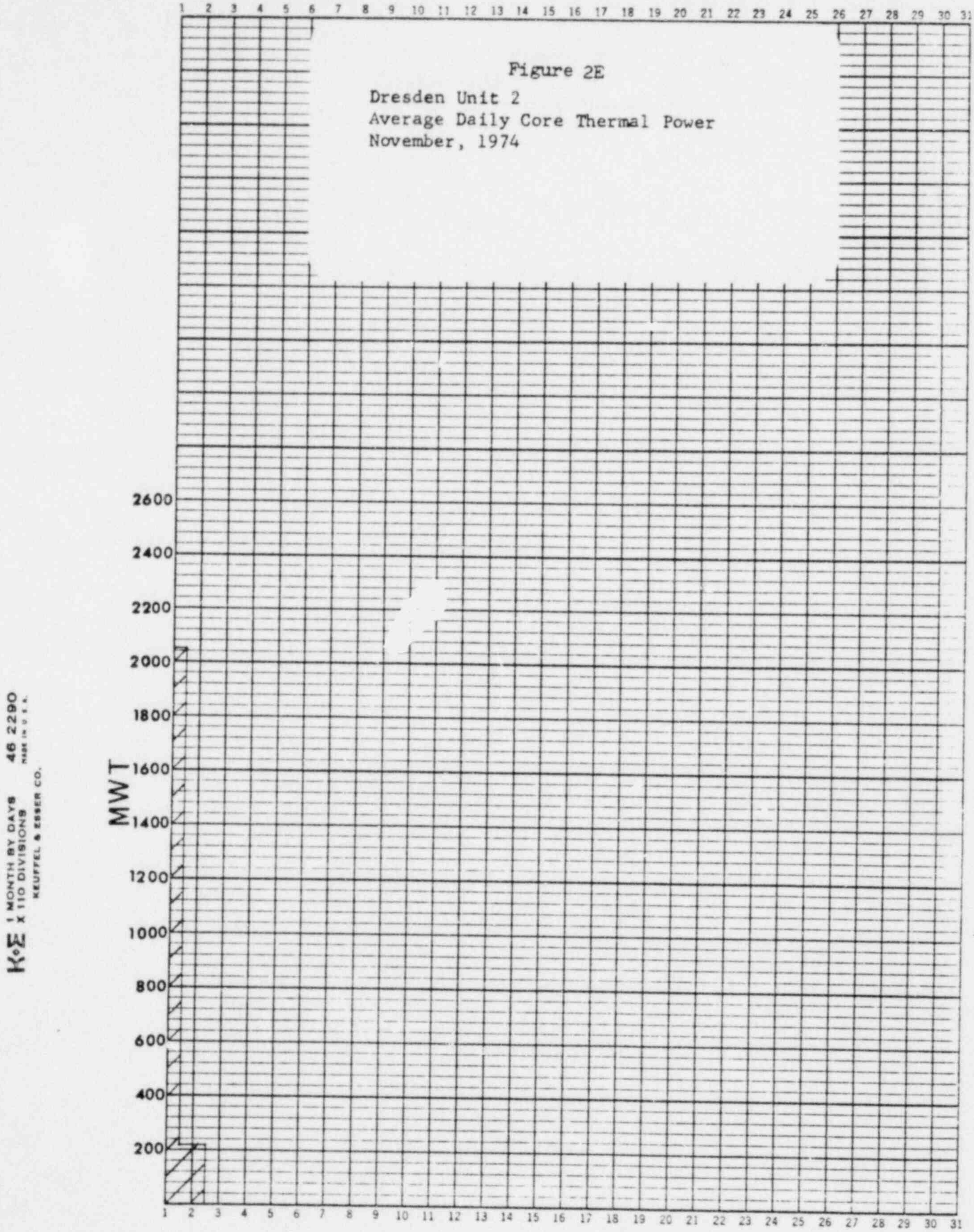


Figure 2E

Dresden Unit 2
Average Daily Core Thermal Power
November, 1974

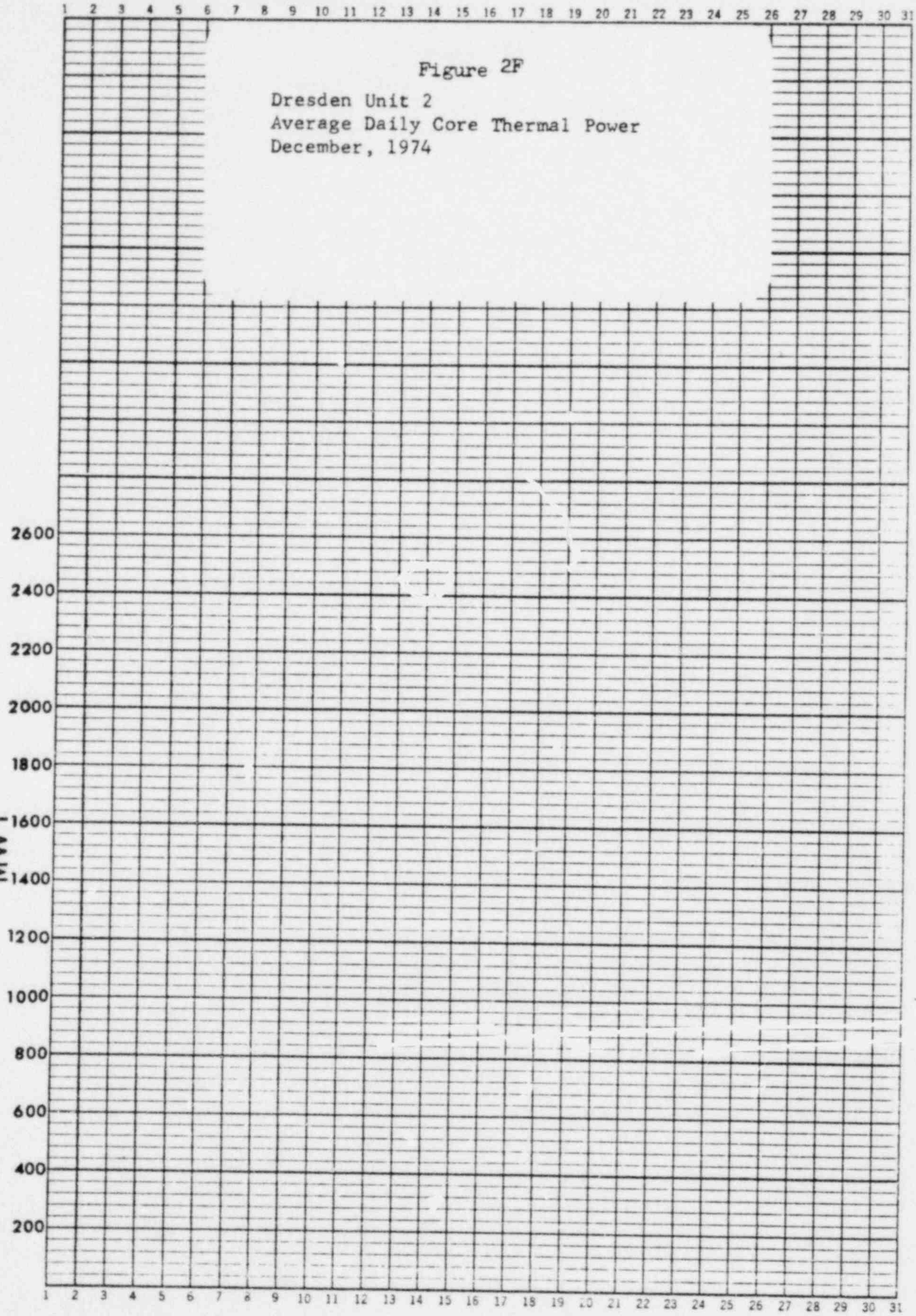


Figure 2F

Dresden Unit 2
Average Daily Core Thermal Power
December, 1974

DRESDEN NUCLEAR POWER STATION

SEMI ANNUAL REPORT

JULY 1 THROUGH DECEMBER 31, 1974

SECTION III DRESDEN UNIT #3

I. Unit #3

A. Operations Summary

1. Changes In Plant Design

Described in section E of this report

2. Performance Characteristics

a. Equipment performance is shown in the chronological history which follows

Unit three chronological history

July 1
Reactor critical mode switch in start up.

July 2
Unit placed in "Run" mode at 0600 hours. Pulled control rods to 340 megawatts electric and began 36 hour soak.

July 3
Electrical load at 449 megawatts. Reactor level oscillating two to three inches.

July 4 through July 11
Unit ran at steady load of 599 megawatts electric until July 11.

July 11 through July 15
Unit off system due to leak on "A" recirculation pump seal.

July 15 through July 20
Unit placed in "Run" mode. Load increase begun. Load increased to about 700 megawatts were it remained until July 19 when load was decreased to perform routine surveillance testing.

July 21
Following surveillance testing load was again increased to 700 megawatts electric until July 22.

July 22 through July 24
On July 22 at about 0421 hours the unit scramed due to a water hammer in the core spray system. The reactor was made critical at 1815 hours on July 22. The mode switch was placed in "Run" and load was increased to 522 megawatts. Load remained at that level until July 24.

July 24 through July 29
A load drop commenced due to a leak on "3B" reactor feed pump. During the leak repair electrical load was 265 megawatts. Load remained at this level until July 26. On July 26 the unit come off line due to the failure of 3-1601-22 valve to pass a leak test. Repairs were completed by July 29 and the unit was placed in the startup mode.

July 29 through August 3
Load was increased to about 700 megawatts electric were it remained until August 3 when load was decreased to perform routine surveillance testing.

August 3 through August 7
Following completion of surveillance testing load was again increased to 750 megawatts were it remained until August 7 when load again drop to perform surveillance testing.

August 8 through August 15
From August 8 through August 15 the unit operated at a steady load of 750 megawatts.

August 15 through August 19
On August 15 the unit scramed due to a loss of instrument air because of an inadvertant valve closure. The unit was again critical on August 16, and load was increased to 760 megawatts. Load remained at 760 megawatts until August 19 when load was dropped to perform surveillance.

August 20 through August 23
On August 20 following a routine surveillance test load was increased to 760 megawatts were it remained until August 23.

August 23 through August 27
On August 23 load dropped to about 400 megawatts because of a trip of the 3B recirculation pump. The pump trip was caused by flashing of the exciter brushes. Load remained at 400 megawatts until August 27 when repairs were completed.

August 27 through August 31
Following repairs to the 3B recirculation pump load was increased to 760 megawatts were it remained until August 31 when load was dropped to perform surveillance testing.

September 1 through September 7
Following surveillance testing load was increased to 750 megawatts were it remained until September 7 when the unit came off line due to a turbine steam leak.

September 8 through September 14
Following the repair of the turbine steam leak the unit was brought to a power level of 750 megawatts. The unit dropped load on September 14 to perform routine surveillance testing.

September 15 through September 20

Following surveillance, load was increased to 750 megawatts where it remained until September 20. On September 20 the unit was shutdown due to a leak on a feedwater discharge header low pressure switch tap.

September 20 through September 27

From September 20 through September 27 the unit was shutdown to perform repairs on the feedwater header leak.

September 28 through October 31

On September 28 repairs were completed on the feedwater header and the unit was placed on system. Load was increased to 750 megawatts were it remained except for routine surveillance drop until October 31.

October 31

On October 31, a rod interchange was in progress. During the interchange an off gas high radiation limit was reached.

November 1 through November 4

Following the rod interchange load was increased to about 700 megawatts where it remained until November 4 when the unit scramed due to MSIV pilot valve malfunction.

November 5 through November 7

The unit was placed in the start up mode to repair the main steam line isolation valves. Load was increased to 209 megawatts following repairs.

November 8 through November 9

Load was increased to about 400 megawatts where it remained until November 9 when control rods were inserted to reduce a high off gas radiation condition. The unit came off line at 1110 hours on November 9 due to a reactor scram from low condenser vacuum.

November 10 through November 27

The unit was brought critical at 1245 hours on November 10. Load was increased to 500 megawatts where it remained until November 27 when a spurious MSIV closure occurred.

November 27 through November 30

Following the scram on November 27 the unit was placed in start up and load was increased to 500 megawatts where it remained until November 30.

November 30 through December 31

On November 30 the unit came off line due to a loss of secondary containment. Secondary containment integrity was lost when unit three reactor building blow out panels blew out. Following repair of secondary containment the unit was brought to a load of about 400 megawatts. The unit operated at about 400 megawatts through out December.

b. Fuel Performance

MONTHLY DATA FOR DRESDEN UNIT 3

Month	Core Avg. Exposure MWD/T (at end of month)	Highest Exposure: Bundle	Location	MWD/T
July	8636	DD093	23-14	11088
August	9113	DD093	23-14	11573
September	9452	DD093	23-14	11938
October	9811	DD093	23-14	12458
November	10062	DD093	23-14	12647
December	10341	DD182	21-16	12975

3. Procedure Changes
All procedure changes for Dresden unit three are listed under unit two section II.A.3 since the procedure changes apply to both units.

4. Surveillance
The six month reporting period 01 July 1974 through 31 December 1974 shows unit-3, Dresden, up and operating with no major outages. All required surveillances for unit three were successfully completed. No major surveillances were required for this reporting period.

5. Results of Periodic Containment Leak Rate Test
Table III.E shows the results of the periodic containment leak rate test for the period of July 1, 1974 through December 31, 1974.

6. Changes, Test and Experiments Requiring Authorization from the Commission
No changes, tests, or experiments requiring commission authorization were performed during the period from July 1, 1974 through December 31, 1974.

7. Key Changes in Plant Operating Organization
Key changes in plant operating personnel are described in section I.A.7.

B. Power Generation

Power generation for unit three for the period of July 1, 1974 through December 31, 1974 is shown in table III.A. Figures III.A through III.F. are monthly histograms of thermal power.

C. Shutdowns

Table III.B shows all shutdowns during the six month period of July 1, 1974 through December 31, 1974. The table includes date, duration, cause, method and unit status for each shutdown.

D. Maintenance

A discussion of corrective maintenance performed on safety related components is presented in table III.C.

E. <u>Changes, Tests, and Experiments</u>

A list of all changes, tests and experiments for unit three carried out without prior commission approval is presented below.

1. Recirculation System

   This modification involves the replacement of existing breakers and overload heaters for valves MO-3-202-6A, MO-3-202-6B. The magnetic trips are also set.

   The probability of an occurrence or the consequence of an accident or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the logic for operation of these valve(s) is unchanged.

   The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the increased circuit breaker size will lower nuisance trips and therefore increase the reliability of the valve(s).

   The margin of safety, as defined in the basis for any Technical Specifications is not reduced because the affected valves will be surveillance tested as frequently and in the same manner as before this modification.

2. Reactor Water Cleanup System

   This modification involves the replacement of an overload relay and overload heater for valve 3-1201-4.

   The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the logic for operation of this valve is unchanged.

   The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the change will lower the chances of nuisance trips and therefore increase the reliability of the valve.

   The margin of safety, as defined in the basis for any Technical Specification is not reduced because the affected valves will be surveillance tested as frequently and in the same manner as before this modification.

3. Reactor Water Cleanup System

   This modification involves the replacement of an existing circuit breaker for valve MO-3-1201-7 and the setting of the trip setting at dial position 2.

   The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not created because the increased size of the circuit breaker will lower the chances of nuisance trips and therefore increase the reliability of the valve(s).

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the change will lower the chances of nuisance trips and therefore increase the reliability of the valve.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the affected valves will be surveillance tested as frequently and in the same manner as before this modification.

4. Reactor Water Cleanup System

This modification involves the replacement of an existing circut breaker for valve MO3-1201-1 and setting the trip at dial position 2.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the logic for operation of these valve(s) is unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the increased circuit breaker size will lower the chances of nuisance trips and therefore increase the reliability of the valve(s).

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the affected valves will be surveillance tested as frequently and in the same manner as before this modification.

5. Core Spray

This modification involves the replacement of existing circuit breakers and overload heaters for valve(s) 1402-4B.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the logic for operation of these valve(s) is unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the increased size of the circuit breakers will lower the chances of nuisance trips and therefore increase the reliability of the valve(s).

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the affected valves will be surveillance tested as frequently and in the same manner as before this modification.

6. Low Pressure Coolant Injection System

This modification involves the replacement of existing circuit breakers and overloads for valves 1501-11A and 11B. The trip setting was also set at 2.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the logic for operation of these valve(s) is unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the increased size of the circuit breakers will lower the chances of nuisance trips and therefore increase the reliability of the valve(s).

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the affected valves will be surveillance tested as frequently and in the same manner as before this modification.

7. Low Pressure Coolant Injection System

This modification involves the replacement of existing circuit breakers and overloads for valves MO-1501-32A and 32B. The trip setting was also set at position 2.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the logic for the operation of these valve(s) is unchanged.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the increased size of the circuit breakers will lower the chances of nuisance trips and therefore increase the reliability of the valve(s).

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the affected valves will be surveillance tested as frequently and in the same manner as before this modification.

8. Process Radiation Monitor

This modification involves the installation of a time delay kit in the main steam line high radiation monitors to prevent tripping of upscale high trip when switch 51 or 52 is released after testing action when the input signal is at low level. The time delay kit is connected to standoffs E101 and E102 in the monitor.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the time delay is only 100 milliseconds; therefore there is no adverse affect on the normal operation of the radiation monitor.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the radiation monitor will operate as it did before the modification and the monitor will fail in the safe mode if the time delay circuit shorts out.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the monitors will be operated and tested in the same manner as before the modification.

9. Feedwater and High Pressure Coolant Injection Systems

This modification involves the addition of bracing to the 3/4" test connections on A and B feedwater lines in the "X" area, on A and B feedwater lines in the drywell or the west feed water lines in the "X" area, and on the HPCI testable check valve in the "X" area.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because all repairs and mods insure that the affected systems are at least as good as originally outlined in the FSAR.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because a loss of feedwater accident is an analyzed transient in the FSAR and all mods and repairs aid in ensuring the operability of the feedwater system.

The margin of safety, as defined in the basis for any technical specification is not reduced because the feedwater system is not addressed in the technical specifications.

10. Feedwater system

This modification involves the installation of acoustic sensors on Unit 3 feedwater lines.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the addition of accoustic sensors on reactor feedwater piping does not change the safety analysis of the reactor feedwater system nor is the accoustic sensor system itself a safety system.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because the loss of the accoustic sensor system does not affect any safety system in the station.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because the operation of the accoustic sensor system is not a basis for any technical specification since loss of the sensor system does not affect any safety system in the station.

11. Nitrogen Inerting - Instrument Taps

This modification involves eliminating an instrument tap for FE3-8541-6 on line 3-8506-18"-LX and replacing 18" length of pipe with A53 grade B 18" pipe.

The probability of an occurrence or the consequence of an accident, or malfunction of equipment important to safety as previously evaluated in the FSAR is not increased because the instrument tap is not connected to any instrument.

The possibility for an accident or malfunction of a different type than any previously evaluated in the FSAR is not created because tap will be removed and not replaced.

The margin of safety, as defined in the basis for any Technical Specification is not reduced because this is not mentioned in Tech Specs.

TABLE III A

DRESDEN UNIT 3 POWER GENERATION SUMMARY - JULY - AUGUST, 1974

Month	Gross Thermal Power (MWHt)	Gross Electrical Power (MWHe)	Reserve Shutdown Hours	Hours Reactor Critical	Hours Reactor on Line
July	899,315	288,376	0	603:14	536:29
August	1,507,739	496,668	0	740:29	737:27
September	1,061,927	352,451	0	551:42	510:20
October	1,523,488	506,221	0	745:00	745:00
November	924,909	296,579	0	671:36	505:27
December	969,920	310,515	0	722:53	711:24
Total	6,887,298	2,250,810	0	4035:11	3836:07

Maximum Dependable Capacity

Gross	Net
838	800

TABLE III B

UNIT 3 REACTOR SHUTDOWNS

Shutdown Number	Date & time	Cause	Duration Hours	Method of shutdown	Plant Status During Outage	Corrective Action (if applicable)
1	7/1/74 @ 0001	Low water level caused a reactor scram	2:16	Automatic scram	Cold shutdown	Repaired feedwater pmp discharge valve
2	7/11/74 @ 1820	Failed recirc pump seal	79:41	Manual	Cold shutdown	Replaced seal
3	7/22/74 @ 0421	Spurious high steam flow signal	10:32	Automatic Scram	Hot shutdown	N.A
4	7/22/74 @ 1608	Pipe vibration caused false scram signal	2:07	Automatic scram	Hot shutdown	N.A
5	7/27/74 @ 0640	Leaking containment isolation valves	46:10	Manual	Cold shutdown	Repair valves
6	8/15/74 @ 1620	Operator error	3:31	Automatic scram	Hot shutdown	N.A
7	9/21/74 @ 0017	Leaks on feedwater system piping	160:58	Manual	Cold Shutdown	Repaired leaks
8	9/28/74 @ 0046	Hi flux during startup	3:26	Automatic scram	Hot shutdown	Recommenced startup
9	9/28/74 @ 1632	Feedwater control valve closed during mod test	3:44	Automatic scram	Hot shutdown	N.A.
10	11/4/74 @ 1344	MSIV trip	24:32	Automatic scram	Hot shutdown	Replace pilots
11	11/8/74 @ 1858	Reactor power spike caused by recirc pump speed change	2:47	Automatic scram	Hot shutdown	N.A.

TABLE III B (cont'd)

UNIT 3 REACTOR SHUTDOWNS

Shutdown Number	Date & Time	Cause	Duration Hours	Method of Shutdown	Pl[illegible] Du[illegible]e	Corrective Action (if applicable)
12	11/9/74 @ 1110	Pressure spike on 3A recombiner sys caused disc on stm jet air ejector to rupture	13:30	Automatic scram	Hot [illegible]	Replaced rupture disc
13	11/27/74 @ 1452	Spurious MSIV trip	5:41	Automatic scram	Hot shutdown	N.A.
14	11/30/74 @ 2206	Loss of secondary contain	23:01	Manual shut-down	Cold Shutdown	Repaired containment wall on refueling floor

TABLE -IIIC

Dresden Unit III Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
July 3	Nuclear boiler/main steam, MSIV 3-203-16	Valve failed PT test	Stellite seating surface damaged	Re-stellite seating surface and machine stellite after welding	None
July 8	Control rod drive/ N_2 supply valve on accumulator 30-03	N_2 leak, won't hold charge	Packing and seals bad	Repacked valve, replaced seat and O-rings	None. Drive would have scrammed without N_2 charge. Drive at 00 during maintenance
July 8	Control rod drive 1 accumulator 30-03	None. (installed jumper to clear rod block)	No malfunction	None. (Removed jumper)	None. Drive was O.O.S. at Position 00. Accumulator alarm not required
July12	Control rod drive 1 N2 Supply valve on accumulators 38-51, 38-39, and 54-39	N_2 Packing leak	Lose Packing	Repacked valve, Replaced seat and O-rings on each	None. Drive at 00 during maintenance
July12	HPCI/M.O. valve 3-2301-3	N.A. no equipment malfunctioned. Incorrect settings had been used	N.A.	#912 D.C. field contractor readjusted to correct gap. Aux. contact lever adjusted	None. HPCI operability not required during maintenance
July13	Neutron monitoring sys/"B" TIP ball valve	Valve sticks open when exercised	Normal wear	Ball valve replaced with new one	None. Primary containment not required during replacement
July13	Nuclear boiler/ feedwater check vlv 3-220-62B	Leaky pressure seal	Worn pressure seal	Installed new pressure seal ring	None. Primary containment not required dur- replacement
July14	Pressure suppression sys/D.W. equipment hatch	No malfunction	No malfunction	Equipment hatch opened and closed for outage	None. Primary containment wasn't required during removal and replacement
July14	Reactor recirculation sys/recirculation pump seal #2	Low seal pressure	Damaged	Replace seal	None Reactor in shutdown mode during replacement

TABLE - III C

Dresden Unit III Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
July14	Control rod drive / N_2 supply valve on accumulators 26-43, 54-23, 06-47, 34-59, 38-31, 46-47, 58-27	N_2 Packing leak	Bad seals and "O" rings	Repacked valves, replaced sent and O-rings	None. Drives at 00 during maintenance
July14	Neutron monitoring sys/SRM #24 drive mechanism	Erratic drive mechanism	Detector drive faulty	Installed new detector drive, drive tube and shuttle tube	None. Unit in shutdown during maintenance and 3 other SRM's operable
July14	Neutron monitoring Sys/APRM-4	Hi alarm and rod block at 12% does not function	Drift	Readjust setpoints	None. Channels 5 and 6 remained operable throughout maintenance
July16	Primary containment cooling/containment cooling sump water pump	Pump failed to start	Racking screw cove, not closed all the way	Repair rack in mechanism test system	None. The redundent required pump was operable during maintenance
July17	Standby liquid control sys/tank hi-temperature alarm	Hi temp alarm won't reset	Set point too low for ambient temp. @ 96° F	Raise set point to 110°F, functional check	None. Work allows alarm to function properly during high temperature conditions
July17	Diesel generator sys, unit 3	No malfunctions	No malfunction	Monthly surveillance performed	None. Backup systems operable
July20	Control rod drive/ N_2 supply valve accum. 42-11	Packing leak	Loose packing	Replaced packing	None. Shutdown margin met during repairs
July20	Reactor building/ personnel interlock	Door latch inoperable	Broken latch	Installed new latch	None. Secondary cont. maintained throughout
July20	Process radiation monitoring/MSL rad monitors A,B,C	Monitors reading Hi-Hi	Calibration off	Readjust calibration	None. Settings were within limits

TABLE - IIIc

Dresden Unit III Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
July21	Process radiation monitoring/"0" MSL rad monitor	No malfunction	No malfunction	Unit checked to assure operability. No problems found	None. Spare unit routine check
July22	LPCI sys/valve 1501-5A	Valve only partially closes on operability check	Valve disc binding in guides	Adjusted shutoff limit switch to full open	None. LPCI flows remained within specs
July22	CRD sys/valve 302-8	Valve will close but not open so pressure can be increased but not decreased	Bolt fell out of control switches	Repaired control switch	None. Drive pressure controled by manual bypass
July28	Pressure suppression sys/valve AO-3-1601-22	Valve leaks	Bad valve seat	Both piping ends blind flanged awaiting new valve. Leak tested	None. Unit was shutdown
July28	Nuclear boiler/MSIV 1B limit switch	Intermediate indication on valve position was given even though valve was open provided closed signal to RPS which gives a scram signal	Failure of limit switch	Switch repaired	None. Reactor in cold shutdown
July28	Pressure suppression sys/valve 3-1601-21	Leakage through valve	defective valve seat	Replaced valve	None. Unit was shutdown in accord with tech specs in required time interval
July31	Pressure suppression sys/valve 2-1601-55	Valve leaking around body to bonnett gasket	Bad valve seat	Separated flanges, cleaned and added gasket compound	None. Reactor was shutdown
Aug 1	CRD/accumulator fill valve 50-51	N_2 Leak	Lose packing	Replaced packing	None. Could scram without N_2 pressure

TABLE - III C

Dresden Unit III Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Aug 2	CRD/accumulator fill valve 22-55	N_2 Leak	Bad seat and "O" ring	Replaced packing, seat, and O-ring	None. Could scram without N_2 pressure
Aug 5	CRD/accumualtor fill valve 38-11	N_2 leak	Packing lose	Replaced packing	None. Could scram without N_2 pressure
Aug 8	CRD/accumulator fill valves 30-19, 34-35	N_2 leak in each	Packing bad	Replaced packing	None. Could scram without N_2 pressure
Aug 9	Neutron monitoring sys/"3 B" TIP ball valve	TIP ball valve will not close	Normal use, coil wire broken	Replaced top portion of ball valve	None. Shear valve remained operable
Aug 9	Core spray sys/dp switch 1459 B	Switch housing leaking	Loose fitting	Tightened fitting	None. Switch remained functioned throughout
Aug 13	CRD/N_2 fill valve on accumulator 30-19	N_2 leak	Seals and packing bad	Replaced packing	None. Retained scram capability with reactor pressure
Aug 23	CRD/fill valve on accumulator 10-19	N_2 leak	Bad fill nipple and cap	Replaced packing and reparied fill nipple and cap	None. Retained scram capability with reactor pressure
Aug 23	Diesel generator/ unit 3 "B" air compressor	Loose key way on motor pulley	Lose set screw	Tightened set screws	None. Diesel generator operable throughout
Aug 23	HPCI/minimum flow valve M.O. 3-2301-14	Valve appeared not to open	Unknown	Operation set up right sequence and valve operated properly	None. HPCI remained operable throughout
Aug 23	HPCI/valve 3-2301-14	Valve did not auto close on turbine trip	Unknown	Reset turbine trip and valve operated properly	None. Valve would auto open if required and remained manually operable if closure required

TABLE - III C

Dresden Unit III Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Aug 30	CRD/N_2 fill valve accumulator 50-11	N_2 leak	Bad seals and "O" ring	Installed new packing	None. Drive retained scram capability on reactor pressure
Sep 9	Process radiation monitoring/MSL rad monitor	MSL monitor meter and recorder reading different from each other	Recorder off calibration	Recalibrate recorder	None. Automatic action unaffected.
Sep 6	Neutron monitoring System/ LPRM 16-17	Reading downscale	Unknown	Checked, found reading ok	none
Sep 7	Core spray / valve MO 3-1402-38A	No malfunction	No malfunction	Valve stroke and current limits checked ok	None. Valve not inoperable merely being checked
Sep 8	Turbine generator/ Turbine stop valves 1 & 3	The 1 & 3 did not stop at 10% during surveillance	Faulty microswitches	Replace microswitches	None. Problem didn't affect scram system, merely test circuity
Sep 8	CRD/N_2 fill valve accumulators 54-43, 46-27 and 10-23	N_2 leak	Packing lose	Replaced packing	None. Drive retained scram capability on reactor pressure; requirements of inoperable accumulators met.
Sep 9	Neutron monitoring sys/APRM #3	APRM reading erraticly	Reactor changed load and caused APRM gain adjust to drift	Readjust gain	None. 5 of 6 APRMS were operable
Sep 9	Neutron monitoring sys/LPRM 56-25, affect APRM is channel 3	LPRM reading downscale	Broke seal on neutron	None. Refueling outage required for replacement	None. Sufficient additional LPRM's are operable to ensure adequate flux determination and APRM operability

TABLE - III C

Dresden Unit III Maintenance Summary 1974

Date	System/Component	Effect of mal-function	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Aug 30	CRD/N_2 fill valve accumulator 50-11	N_2 leak	Bad seals and "O" ring	Installed new packing	None. Drive retained scram capability on reactor pressure
Sep 9	Process radiation monitoring/MSL rad monitor	MSL monitor meter and recorder reading different from each other	Recorder off calibration	Recalibrate recorder	None. Automatic action unaffected.
Sep 6	Neutron monitoring System/ LPRM 16-17	Reading downscale	Unknown	Checked, found reading ok	none
Sep 7	Core spray / valve MO 3-1402-38A	No malfunction	No malfunction	Valve stroke and current limits checked ok	None. Valve not inoperable merely being checked
Sep 8	Turbine generator/ Turbine stop valves 1 & 3	The 1 & 3 did not stop at 10% during surveillance	Faulty microswitches	Replace microswitches	None. Problem didn't affect scram system, merely test circuity
Sep 8	CRD/N_2 fill valve accumulators 54-43, 46-27 and 10-23	N_2 leak	Packing lose	Replaced packing	None. Drive retained scram capability on reactor pressure; requirements of inoperable accumulators met.
Sep 9	Neutron monitoring sys/APRM #3	APRM reading erraticly	Reactor changed load and caused APRM gain adjust to drift	Readjust gain	None. 5 of 6 APRMS were operable
Sep 9	Neutron monitoring sys/LPRM 56-25, affect APRM is channel 3	LPRM reading downscale	Broke seal on neutron	None. Refueling outage required for replacement	None. Sufficient additional LPRM's are operable to ensure adequate flux determination and APRM operability

TABLE - IIIC

Dresden Unit III Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Sep 9	Neutron monitoring Sys/ARPM #1	No malfunction	No malfunction	APRM checked. No problem found	None. No problem found
Sep 9	CRD/#46-19, gasket on filter 3-0305-136	Leaky gasket	Bad "O" ring	Replaced "O"-ring	None. Drive not rendered inoperable by failure
Sep 10	CRD/fill valve accumulator 10-23	N_2 leak	Lose packing	Replaced packing	None
Sep 13	240 volt sys/battery charger	Appeared that battery charger was bad	Hydrometer reading was wrong	Replaced hydrometer	None. No problem with charger found. Hygrometer inerror
Sep 14	Core spray/minimum flow valve 3-1402-38A	Failure of valve to auto open at low flow	Not engaged causing motor to lose a phase	Put contacts back on terminals and tightened	None.Core spray would still perform its injection function with valve inoperable; valve operable manually throughout
Sep 14	Neutron monitoring sys/T.I.P. machine ball valve	Ball valve did not close when directed to from control room	Closing spring loose	Tightened closing spring 3 more points	None. Shear valve remained operable for isolation if required.
Sep 14	CRD/Accumulator 42-19 fill valve	Valve stem packing leak	Packing on stem bad	Replaced packing	None. Drive capable of scram via reactor pressure or manual insertion
Sep 15	Pressure suppression sys/toru snubbers T3 and T15	Oil level slightly down	Normal use	Oil added	None. Routine level make-up, snubbers remained operable
Sep 16	HPCI/HPCI turbine trip low reactor pressure switches 2389A, B, C, and D	Setpoint drifting	Type of pressure switch used	Replaced all switches with pre-cycled switches	None. The installation of precycled switches should reduce the probability of setpoint drift. One switch replaced at a time;HPCI still available

TABLE - III C

Dresden Unit III Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Sep 17	CRD/Accumulator 10-23	Hi water alarm up, blew accum down, alarm will not clear	Unknown	Checked level switch, found ok alarm cleared	None. No problem found
Sep 20	Neutron monitoring System/"E" T.I.P. machine	Probe will only travel a short distance	Ball valve limit switch out of adjustment	Adjusted ball valve limit switch	None. did not affect valve operability
Sep 22	Pressure suppression sys/AO-1601-22	No malfunction	No malfunction	Removed blind flange and installed butterfly valve	None. Valve was installed during a period when primary containment was not required
Sep 23	Nuclear Boiler/ Target Rock Relief valve	Loose connector on alarm	Lose connector	Adjusted and tightened connector	None. Alarm circuitry only affected
Sep 24	Pressure suppression sys/drywell snubbers #9,22, and 24	Snubbers low on fluid	Normal use	Filled snubbers with oil	None snubbers were operable
Sep 24	Nuclear boiler/ suction drain valves 220-63A and 64A	Slight leak from drain tap	Improper cap fit	Threaded and installed a high pressure carbon steel cap	None. Minor leakage at threaded connection
Sep 24	Recirculation sys/ MO 202-6B	Valve leaking	Lose packing	Pulled up on packing	None. Valve operability not affected
Sep 25	HPCI/valve 2301-3	Packing leak	Lose packing	Repacked valve	None. HPCI not required during repairs; HPCI operability not hindered by leak
Sep 25	LPCI/Testable check valve AO-3-1501-25B	Packing leak	Lose packing	Tightened down on bonnet nuts	None. Minor leak of no consequence
Sep 26	CRD/Accumualtors 38-15 and 42-15 fill valve	N_2 fill valve leak	Worn packing	Replaced packing	None. Rx in cold shutdown all rods in, during failure and repairs

TABLE - III C

Dresden Unit III Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Sep 26	Recirculation sys/ 3B recirc pmp	Seal leak	Worn seal	Changed seal	None. Floor drain and equipment drain LCO's not exceeded
Sep 26	Pressure suppression sys/torus purge line 3-8506-18"	Crack in purge line	N_2 temperature to low	Repaired crack in line	None. Isolation valves surrounding the failed section were closed and out of service ensuring containment integrity
Sep 27	Primary containment cooling system/ band D containment cooling service water pump running alarm	Pump running alarm can be cleared when pumps are running	Improper mechanical linkage in breaker cubicle	Adjusted mechanical linkage in breaker cubicle	None. Alarm affected only; operability of CCSW pumps not affected
Sep 25	Feedwater sys/feedwater check valve 3-220-58B	Valve leaked	Worn seal ring; smell cuts in valve body	Replaced seal ring and loned valve body	None. Minor contaminated water leakage to a controlled area was the only consequence of this failure
Sep 25	Neutron monitoring Sys/No. 3 APRM	Down scale alarm on when switch is in APRM	Faulty recorder selector switch	Replaced selector switch	None. No effect on APRM operability, merely recorder input selection problem
Sep 25	Neutron monitoring sys/ARPM 3 and RBM 7	Switch hanging up	Unknown	Replaced test push button switch	None. No effect on APRM/RBM safety function, merely a recorder input problem
Sep 25	Core Spray/injection valves 1402-6A and 6B	Packing leak	Lose packing	Tightened packing	None. No safety consequences from tightening packing

TABLE - IIIC

Dresden Unit III Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Sep 25	HPCI/Drain pot 3-2301-54	Packing leak	Lose packing	Repacked valve	None. Leak was of no safety consequence, repair was conducted while HPCI was not needed
Sep25	HPCI/Drain pot LSH 3-2365, Hi lo valves	Packing leak	Lose packing	Repacked valve	None. HPCI not required during repairs
Sep 27	Nuclear boiler/ main steam line isolation valve	Open limit switch failed	Faulty switch	Wires and arm were moved to the spare switch on the same M.S.I.V.	None. Position indicator switch only, R.P.S. switches remained operable
Sep 27	Nuclear boiler/ 2 "D" main steam isolation valve pilot	Valve leak	Dirty pilot piston	Cleaned piston	None. Leakage of pilot does not affect safety function of MSIV's
Sep 27	Pressure suppression sys/valve 1601-20A	Solenoid air leak	Worn solenoid	Overhauled solenoid	None. Valve fails safe on loss of air
Sep 27	Area radiation monitor/fuel pool ARM	Irratic ARM readings that trip reactor vent fan and the S.B.G.T.	Bad sensor converter	Replaced converter	None. Spiking was conservative in nature
Sep 28	HPCI/valve 3-2301-48	Contractor would not pull in	Contractors not adjusted properly	Adjusted "M" contactor	None. Valve not required for HPCI operability
Sep 28	HPCI/valve 503-2301-31	Packing leak	Bad packing nut	Replaced base yoke & repacked valve	None. Failure had no effect on HPCI operability
Sep 30	CRD/Accumulators 58-35 and 02-27 fill valve	N_2 fill valve leak	Worn packing	Replaced packing	None. Drive retained scram capability via reactor pressure

TABLE - III C

Dresden Unit III   Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Oct 1	Reactor bldg/interlock doors	Reactor and turbine building doors could be opened simultaneously	Bad micro switch	Replaced micro switch	None. Interlock enforced procedurally. Secondary containment was not compromised
Oct 2	CRD/Accumulators 38-55 and 58-31 fill valve	N_2 leak	Worn seals	Repack valve	None. Drives retained shutdown capability via reactor pressure and manual insertion
Oct 5	Nuclear boiler/3B recirc pump M.G. set bailey positioner	Spikes in Bailey Positioner feedback signal to amplifier board causing power swing	Carbon buildup around brushes on control drive motor	Cleaned carbon buildup from collector rings	None. Cleaning carbon from collector rings is preventive maintenance
Oct 12	CRD/accumulator 34-47 nitrogen valve	N_2 leak	Lose packing	Repack valve	None. Retained scram capability via reactor pressure or manual insertion
Oct 15	Primary containment cooling sys and LPCI/3D. containment cooling service water pump discharge pressure gauge	Gauge not reading correctly	Gauge plugged	Checked and calibrated gauge; cleaned snubber	None. Pressure gauge has no effect upon C.C.S.W. operability
Oct 15	Primary containment Cooling System and LPCI/3B C.C.S.W. pump discharge pressure gauge	Gauge not reading correctly	Gauge out of calibration	Checked and calibrated gauge	None. Pressure gauge has no effect upon C.C.S.W. operability
Oct 16	Standby liquid control sys/tank level indicator	Local level reading and control room reading do not coincide	Bubbler partially plugged; transmitter off calibration	Cleaned out bubbler and recalibrated transmitter	None. Erroneous remote reading of tank level, local indication was always available and tank level remained within tech specs

TABLE - III C

Dresden Unit III Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Oct 16	CRD/Accumulator 06-23	Accumulator leak	Bad seals	Replaced accumulator and "O" rings	None. Drive capable of manual insertion and scram via reactor pressure
Oct 16	250 volt sys/250 volt battery charger	Will not go on equalize charge	Dirty float potentiometer	Adjusted float voltage, and cleaned float potentiometer	None. Charger operable in float mode and 2/3 charger operable.
Oct 26	Emergency diesel sys/cooling water pump	Discharge pressure gauge leaked at fitting	Broken pipe nipple	Replaced broken nipple between gauge isolation valve and pump discharge line	None. Pump operable during failure: 2/3 pump used during repair
Oct 30	250 volt sys/battery charger	Charger tripping several time per shift	Bad voltmeter	Replaced voltmeter	None. 2/3 charger available throughout
Nov 1	Process radiation monitoring/main stm line radiation mon.	Hi alarm for A,B, & C lines are different on the meter and recorder. Hi-Hi trip for a recorder set too high	Recorder off calibration	Recalibrate recorder	None. Monitors produce required trip action at the appropriate point, recorder problem only
Nov 1	CRD accumulator 30-31 charging valve	N_2 leak	Crushed gasket	Replaced gasket	None. Drive capable of manual insertion and scram via reactor pressure
Nov 4	Neutron monitoring sys/intermediate range monitor ch. 11	Irratic response	Dirty input connectors leading to pre-amp	Cleaned connectors	None. No safety significance due to redundant instruments
Nov 4	Neutron monitoring sys/APRM ch. 3	Get half scarm when local alarms are reset	Static electricity discharge through H.H. reset switch	Cleaned reset button	None.

TABLE - III C

Dresden Unit III Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Nov 5	Nuclear boiler/"B" Machine tip ball valve	Valve operation sluggish; valve does not close right away when closed	Spring tension not correct	Adjusted spring tension	None. Back-up shear valve operable; no timing requirements exist for the valve
Nov 5	HPCI/HPCI valve 2301-3	Slight leak aroung valve bonnet	Bonnet bolts loose	Tightened bonnet bolts	None. Leak did not affect valve or HPCI operability
Nov 5	HPCI/Emergency Bearing Oil Pump	Local push button indicating light socket burned up	Short in socket	Replaced socket	None. HPCI operability not required at time of failure and not affected by failure
Nov 5	CRD/Accumulator 02-35 Fill valve	Packing leak	Lose packing	Replaced packing	None. Drive retained scram capability via reactor pressure and manual insertion
Nov 6	Steam piping sys/ main steam isolation Valves 3-203-2B, 2A, 2C, and 2D	Valves leak through exhaust. When valve is in the open position	O-rings might become detached	Replaced poppets	None. Poppets were replaced with an approved improved model designed to securely retain the O-rings
Nov 9	CRD/Accumulator 22-55 withdrawal Asco Valve	Valve not operable	Dirty relay contacts	Cleaned relay contacts	None. Drive was capable of being inerted individually via scram test toggle or on reactor scram
Nov 12	CRD/Accumulator 30-03 N_2 fill connection	N_2 fill connection in block fitting leaks	No teflon tape on threads of block fitting	Block fitting removed and reinstalled with tape on threads of fitting	None. Drive was capable of scram insertion via reactor pressure and manual insertion
Nov 21	24/48 voltage sys/ Hi/lo voltage alarm	Alarm did not clear when chargers reset	Instantaneous overvoltage relay was not reset	Overvoltage relay reset	None. No problem with alarm; merely an incorrect reset technique

TABLE -III C

Dresden Unit III Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Nov 21	HPCI/Elertro hydraulic main terminal box	Loose connections	Normal wear (vibration)	Tightened connections	None. HPCI demonstrated to be operable prior to and after repair
Nov 22	Containment sys/ pressure suppression valve A03-1601-20B	Torus to reactor bldg vacuum breaker will not operate	Pressure switch not at correct setting due to drift	Adjusted pressure switch	None. Switch drift caused valve to remain in fail safe position; the other vacuum breaker was operable
Nov 25	Containment sys/ valve A03-1601-20B	Air leak at solenoid operator	Solenoid supposedly bad	Replaced solenoid; found problem was defective pressure switch (refer to Nov 22)	None. Solenoid found ok (refer to Nov 22)
Nov 26	Core spray and flooding sys/core spray test valve 3-1402-4A	M.O. became hot and thermally tripped; auto reset twice during attempts to open and close valve during pump test	Unknown	Check valve, found ok	None. No problem found
Nov 27	Reactor bldg/interlock doors west end	Door not operating properly	Hinges loose	Adjusted hinges and tightened screws	None. Secondary containment was not compromised; repair consisted only of routine adjustments
Nov 27	Neutron monitoring sys/IRM channel 11	Channel 11 indications differed from other channels	Dirty connector to pre-amp	Cleaned connectors	None. Required no. of IRM's were operable
Nov 28	Core spray/core spray valve 1402-24A	M.O. will close but not open	Broken limit switch stack	Replaced limit switch stack	None. Valve was manually placed in the position required for core spray operability
Dec 3	Control rod drive/ accumulator 22-59 charging wtr valve	Cannot get charging wtr to the accumulator	Charging wtr vlv stem separated from disk	Valve repaired	None. Drive capable of manual insertion and scram via reactor pressure

TABLE - IIIC

Dresden Unit III Maintenance Summary 1974

Date	System/Component	Effect of malfunction	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Dec 3	CRD/Accumulator 30-03; fill valve	N_2 leak	Lose packing	Replaced packing	None. Retained capability to scram via manual insertion or reactor pressure
Dec 5	Reactor bldg/turbine bldg to reactor bldg interlock doors	Interlock doors appeared to be malfunctioning	Unknown	Reset and checked, found ok	None. Found no problem, containment not compromised
Dec 6	CRD/Accumulator 30-33 drain valve	None	Chicago fitting broken off	Replaced fitting	None. No effect on operability; fitting installed for convenience in draining
Dec 7	HPCI/3-2301-9 and 49 local MO station open lights	Light inoperable	Bulb base broken off	Replaced bulb	None. Routine P.M., HPCI operability not affected
Dec 9	HPCI/3-2301-14 and 49 local MO station closed light	Light inoperable	Bulb base broken off	Replaced bulb	None. Routine P.M., HPCI operability not affected
Dec 10	CRD/CRD 22-55 relay	Arcing contacts	Normal contact wear	Replaced relay	None. Drive was still operable
Dec 11	Neutron monitoring sys/LPRM 2C-16-41	Reads high intermitently	Unknown	Checked LPRM and found to be ok	None. No failure found, returned to service
Dec 12	Reactor bldg/Reactor bldg interlock doors	Both interlock doors can be opened at once	Defective plunger and switch	Replaced plunger and switch	None. Interlock was enforced procedurally until repairs were completed
Dec 18	Reactor bldg/Reactor bldg interlock door	Outer door was missing lower door seal on west side of door	Normal wear	Replaced seal on door	None. Containment was not borken, repairs to seal strips are expected maintenance items on high traffic door
Dec 22	CRD/Accumulator 54-19 fill vlv	N_2 leak	Worn gasket	Replaced gasket	None. Drive capable of manual insertion & scram via reactor pres.

TABLE - IIID

Dresden Unit III Maintenance Summary 1974

Date	System/Component	Effect of mal-function	Cause of malfunction	Action taken to Preclude reoccurrence	Effect on safe operation of reactor
Dec 23	Neutron monitoring sys/LPRM 40-33	LPRM input to group 2 level C, gives sporadic high indications resulting in high alarm	Unknown	Checked LPRM and found to be ok	None. No failure found, returned to service
Dec 26	Core spray and flooding sys/core spray test valve 3-1402-4A	M.O. will not close valve against pump discharge pressure	Motor undersized	Replaced motor. Ordered larger sized motor	None. Valve required for test only, not required for core spray injection
Dec 31	Pressure suppression sys/check valves AO-1601-22 and AO-1601-60	Excessive amount of leakage from the check valve	Dirty valve	Removed check valves; cleaned and installed the same valves	None. Valve operability not compromised

TA_ III D

Dresden Unit III Incident Reports Requiring

Corrective Maintenance

Date of Occurrence	Incident Number	Component Requiring Corrective Maint.	Date Maint Completed
7-19-74	I-12-3-74-22	dpis 3-2352	7-19-74
7-26-74	I-12-3-74-23	AO valve 1601-22 and 1601-21	7-27-74
7-26-74	I-12-3-74-24	AO valves 1601-55 and 1601-56	7-29-74
8-7-74	I-12-3-74-25	"B" T.I.P. Ball Valve	8-8-74
9-20-74	I-12-3-74-30	Pressure TAP 3241-12A	9-21-74
9-24-74	I-12-3-74-29	Line 3-8506	9-25-74
11-9-74	I-12-3-74-33	3A Reactor Feed Pump Min Flow Line 3-3205A-6"	11-12-74
11-9-74	I-12-3-74-34	"A" Air Ejector	11-12-74
11-30-74	I-12-3-74-35	Secondary Containment Blowout Panels	12-2-74
12-1-74	I-12-3-74-36	A Reactor Feedpump Min Flowline 3-3205A-6"	12-2-74

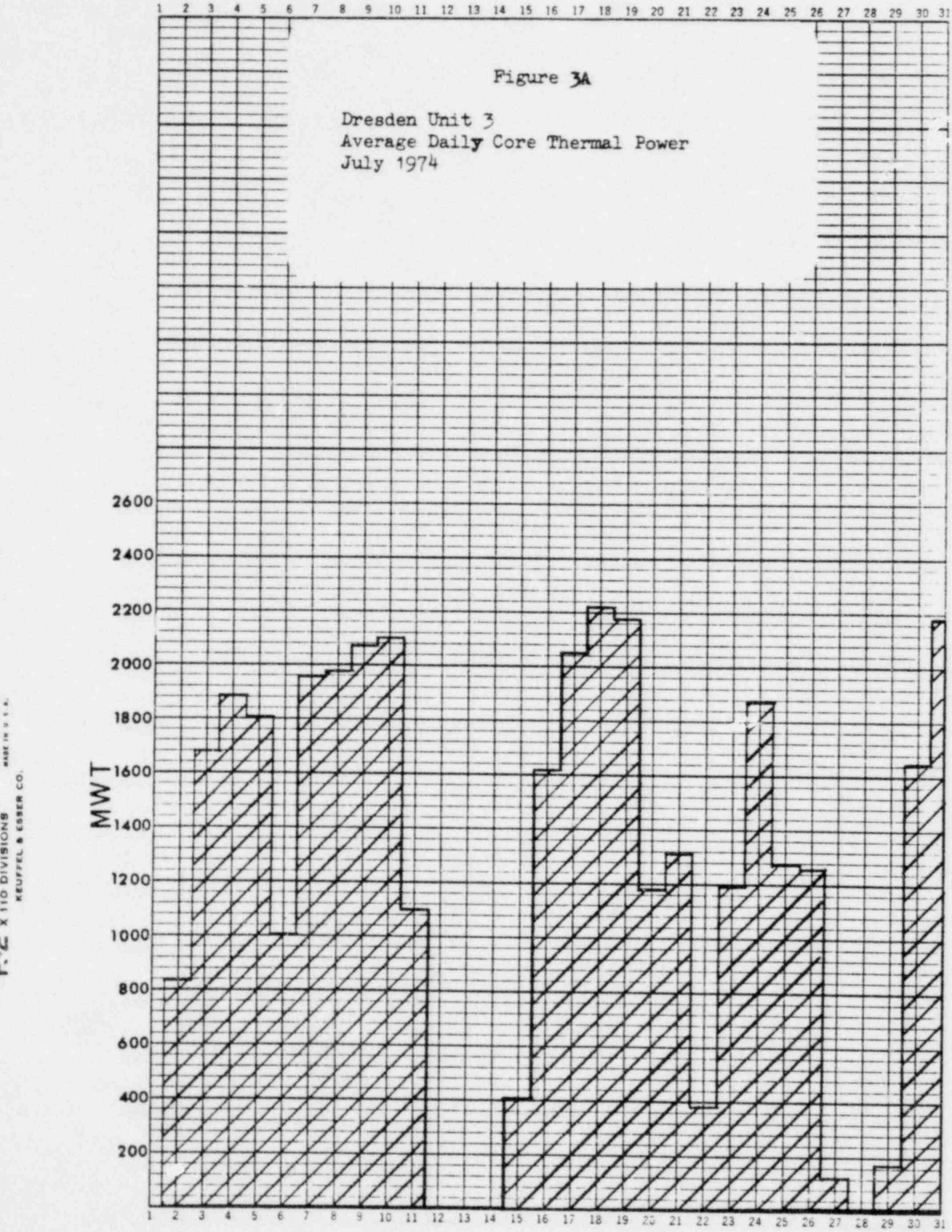
TABLE III E

PERIODIC CONTAINMENT LEAK RATE RESULTS

DATE OF TEST	PENETRATION NO.	LEAKAGE PATH TESTED (Piping between valves)	Cal. leak rate scf/hr	Tech spec limit scf/hr	Comments
July 15,74	X-100	Drywell Equip hatch	0.073	58.763	
July 26,74	X-126	1601-21,-22,-55,-56 &8502-500	10,000	29.381	Valve 1601-22 was cracked
July 26,74	X-126	1601-21,-55,-56,8502-500, and bling flange for 1601-22	3788.12	29.381	Valve 1601-22 had a cracked seal
July 28,74	X-126	1601-21,-55,-56,8502-500 and blind flange for 1601-22	20.305	29.381	Valve 1601-21 replaced
July 29,74	X-314	1601-20A and 1601-31A	7.157	29.381	
July 29, 74	X-314	1601-20B and 1601-31B	0.662	29.381	
July 29,74	X-1256X-318	1601-23,-24,-60,-61,-62, & -63	0	29.381	
Sept 24,74	X-126	1601-21,-22,55,-56, & 8502-501	7350	29.381	Pipe 3-8506-16" had a crack
Sept 26,74	X-126	1601-21,-22,-55,-56, & 8502-501	16.22	29.381	Repair of crack and Valve 1601-22
Oct 31,74	X-314	1601-20A and 1601-31A	2.60	29.381	
Oct 31,74	X-314	1601-20B and 1601-31B	5.53	29.381	
Oct 31,74	X-126	1601-21,-22,-55,-56 and 8502-501	21.66	29.381	
Nov 1,74	X-1256X-318	1601-23,-24,-60,-61,-62, and -63	19.13	29.381	
Dec 3, 74	X-314	1601-20B and 1601-31B	0.691	29.381	

Figure 3A

Dresden Unit 3
Average Daily Core Thermal Power
July 1974



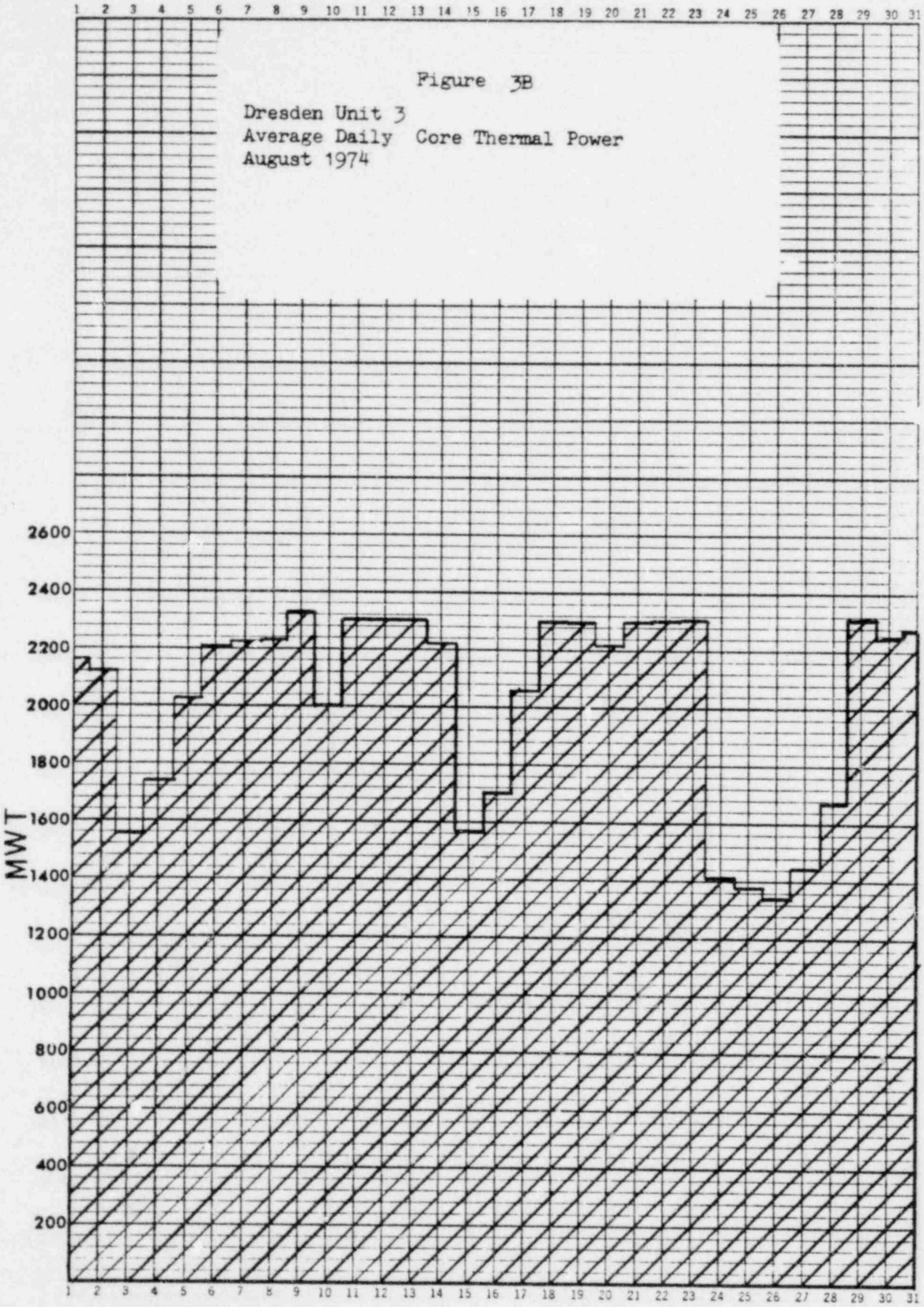


Figure 3B
Dresden Unit 3
Average Daily Core Thermal Power
August 1974

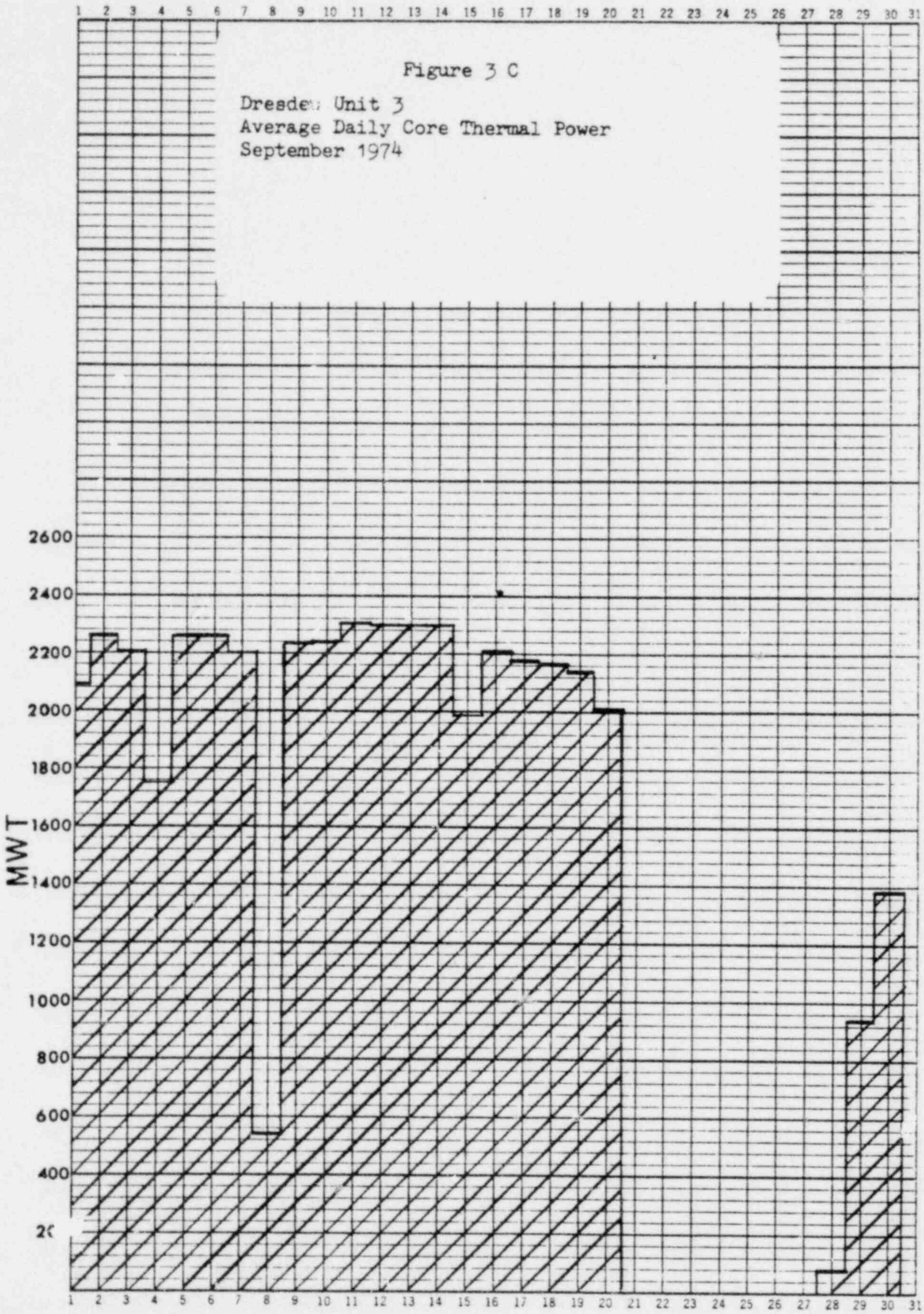


Figure 3 C

Dresden Unit 3
Average Daily Core Thermal Power
September 1974

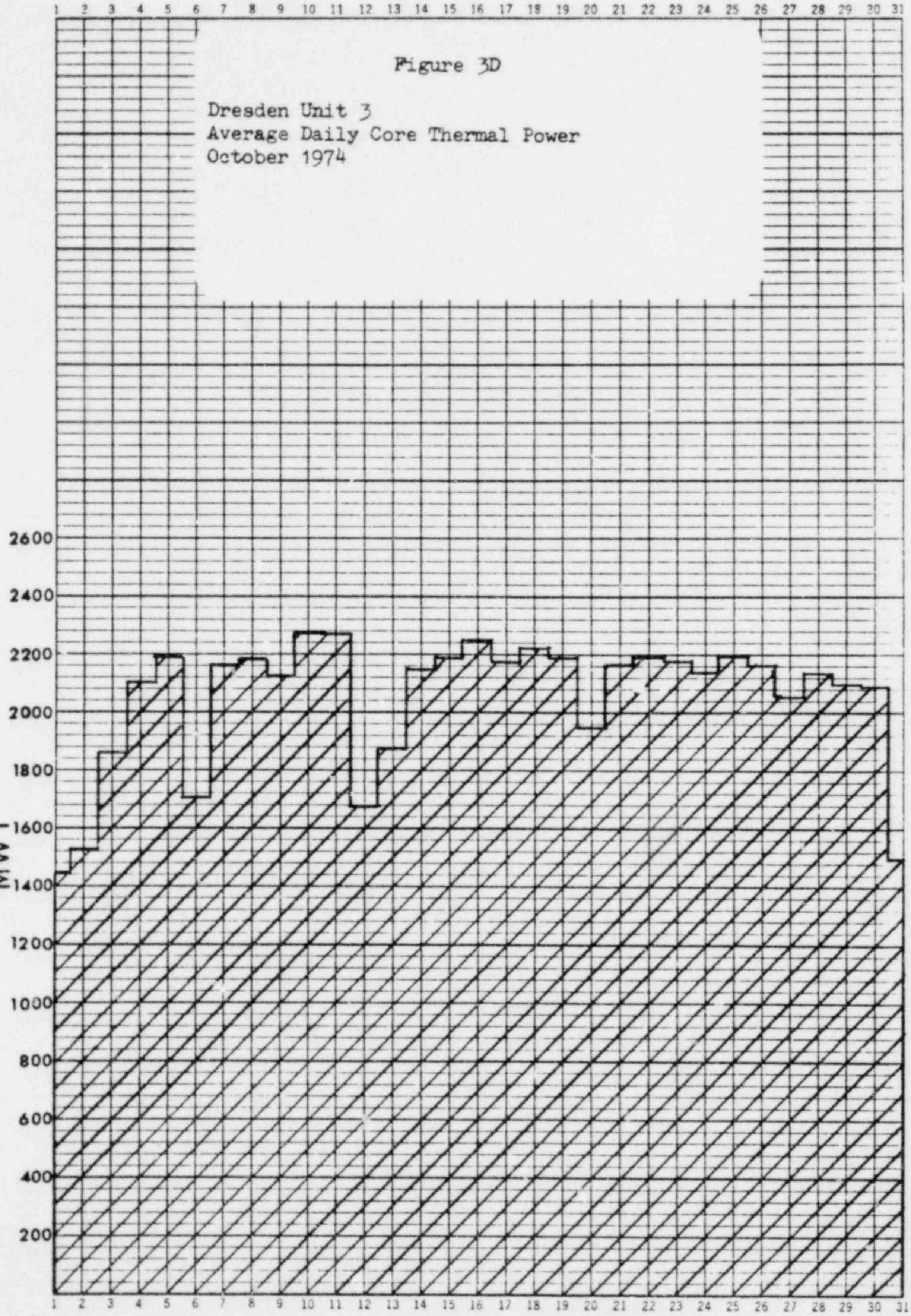


Figure 3D

Dresden Unit 3
Average Daily Core Thermal Power
October 1974

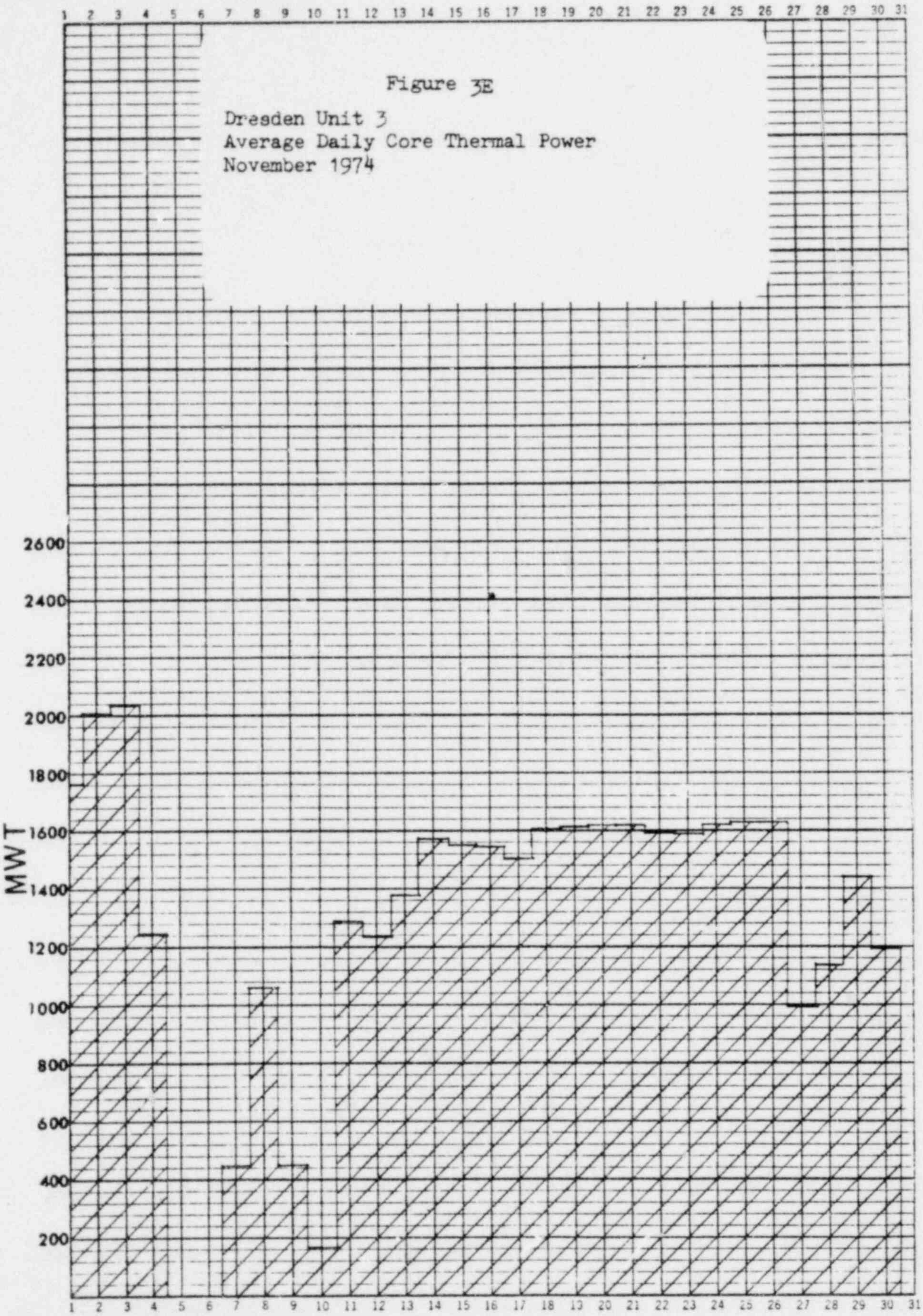


Figure 3E

Dresden Unit 3
Average Daily Core Thermal Power
November 1974

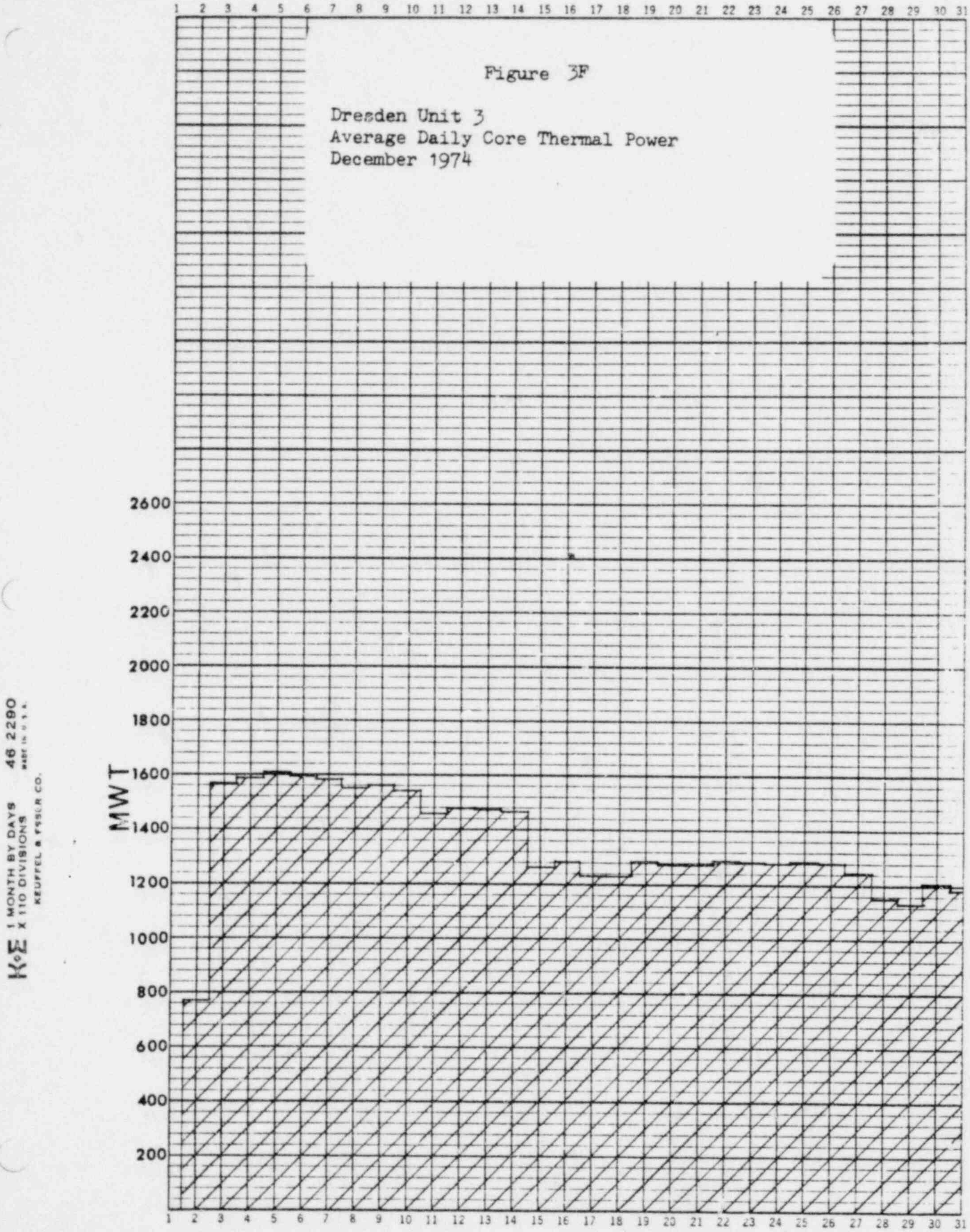


Figure 3F

Dresden Unit 3
Average Daily Core Thermal Power
December 1974

ATTACHMENT #1

DRESDEN UNIT 2

FUEL PERFORMANCE REPORT

END OF CYCLE 3

ATTACHMENT #1

Dresden Unit Two

Fuel Performance Report End-of-Cycle 3 Introduction

The unit two reactor became critical at 10:04 pm on May 9, 1972, following the second refueling outage. The generator was synchronized at 5:03 pm on May 10, 1972. A month-by-month summary of hours critical, number of scrams from critical, number of shutdowns, and average off-gas release is given in Figure 1.

The third refueling outage began at 3:27 am on November 2, 1974 when the reactor scrammed during surveillance.

During the outage, a complete out-of-core sipping program identified 38 defective fuel assemblies, which were discharged. Also discharged were 118 high exposure bundles, 109 of which were not sipped. Discharged assemblies were replaced with 124 assemblies of the 8x8 design and 32 assemblies of the 7x7 design.

In addition, all 41 LPRM strings and one control rod were replaced as indicated on Figure 2.

The fuel was rearranged in the core, with the new 8x8 type fuel being **symmetrically** dispersed in rings 2 through 7 and the new 7x7 type fuel being symmetrically dispersed in ring 8. (See Figures 3 & 4) figure 5 gives the cycle 3 core loading map.

Fuel Performance Analysis Data

The following report addresses topics with which the Atomic Energy Commission has expressed specific interest.

I. General

A. Reactor

1. Fuel vendor - General Electric Company

2. a. Fuel assembly type numbers:
   Type 1
   Type 2

   b. Core loading map - See Figure 5.

   c. Fuel rod distribution in assembly - See Figure 6 and Figure 7.

3. Goal burnup for each assembly - See Figure 8.

B. Fuel Design Data - See Figure 9.

C. Fuel Fabrication Data
Fabrication data is available at the vendor's fuel fabrication facility.

II. Operating Data

A. Power maps of core at beginning and end of cycle. See Figures 10 and 11.

B. Rod movements during cycle. Records of rod movements are available at the station.

C. Number and magnitude of power cycles. Logs of all power changes are available at the station.

D. Number of shutdowns. See Figure 1.

E. Number of depressurizations. Records of depressurizations are available at the station.

III. Performance Data

A. Cycle Data

1. Calculated assembly exposures at beginning and at end of cycle. See Figures 13 and 14.

2. Maximum instantaneous assembly power. The station does not have the capability to monitor this parameter.

3. Maximum instantaneous fuel pin power. The station does not have the capability to monitor this parameter.

B. Fuel Assembly Inspection

1. Type and location of inspection.

a. Incore sipping.
Due to the reactor power level for the two weeks prior to the outage, there was no incore sipping program.

b. Out-of-Core Sipping
On November 10, 1974, the out-of-core sipping of 615 fuel assemblies began. A total of thirty eight (38) leakers were found.

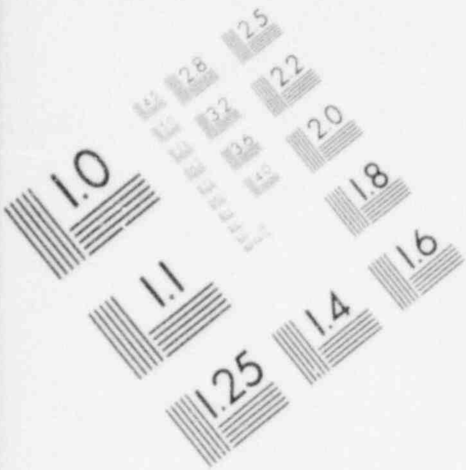
2. Total number of fuel assemblies inspected. A total number of 615 fuel assemblies were sipped out of core.

3. Total number of suspect and leaker assemblies. See Figure 15.

C. Discharged Assemblies

1. Total number discharged. There were 38 leakers discharged and 118 high exposure bundles at EOC-3. (See Figure 12)

2. Map locations for each cycle of exposure. See Figure 12.



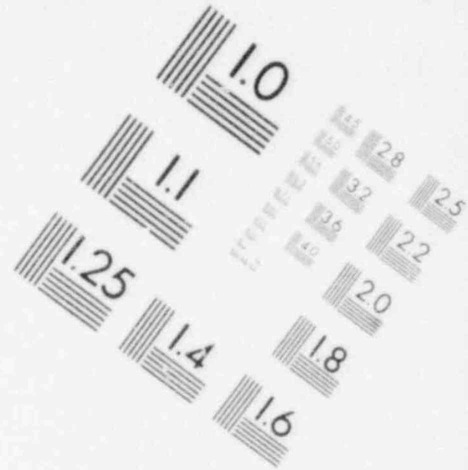
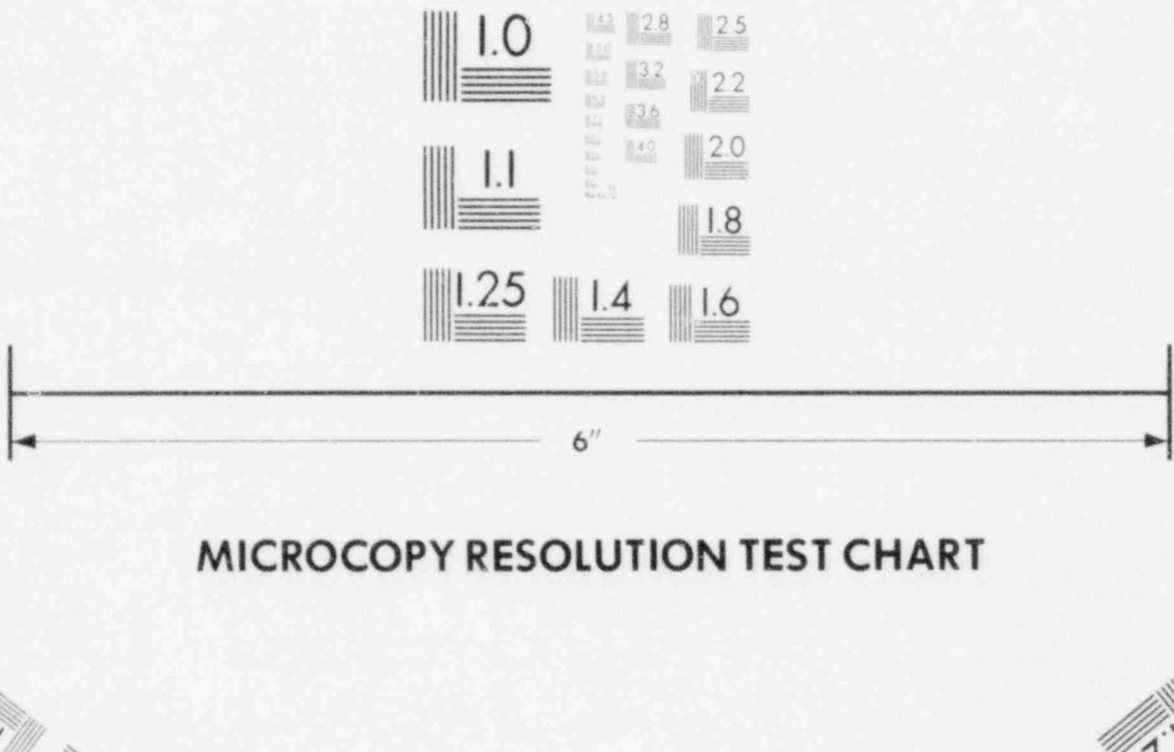
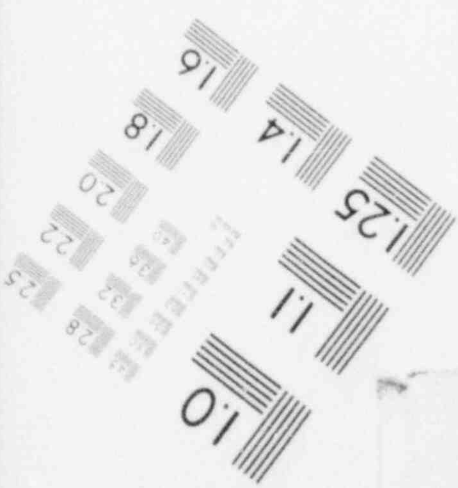
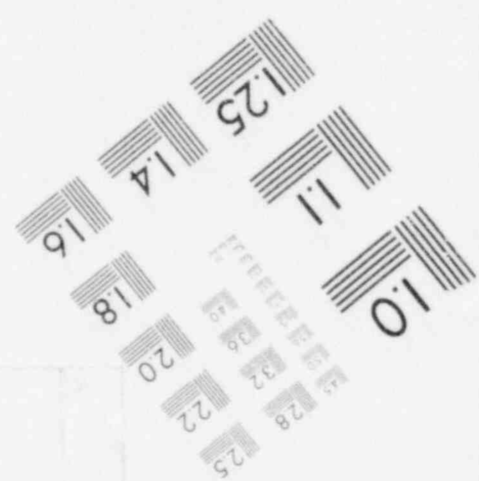


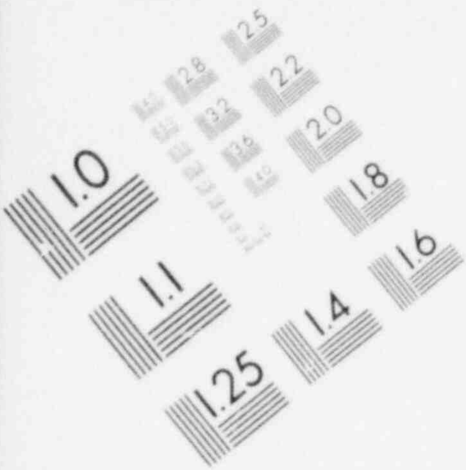
IMAGE EVALUATION TEST TARGET (MT-3)



MICROCOPY RESOLUTION TEST CHART







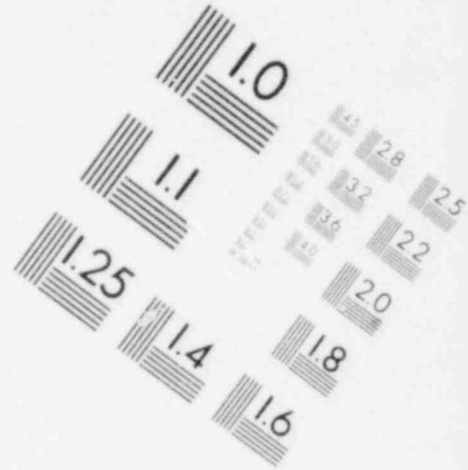
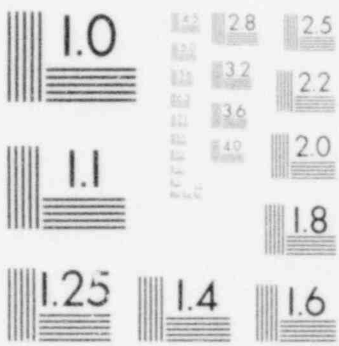
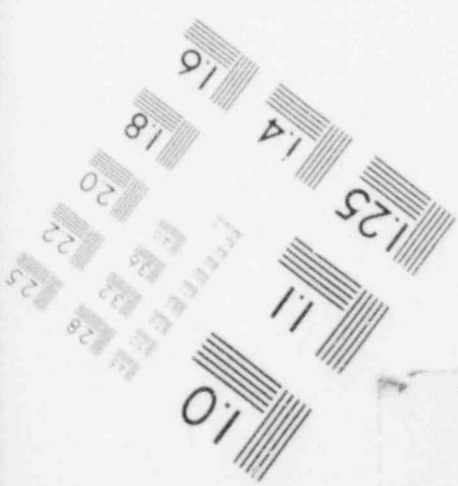


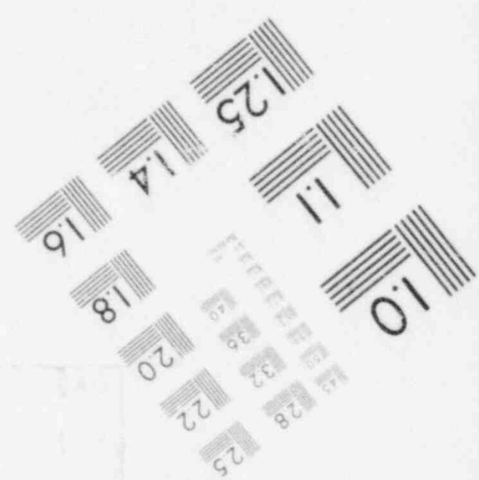
IMAGE EVALUATION
TEST TARGET (MT-3)



6"

MICROCOPY RESOLUTION TEST CHART





3. Maximum instantaneous assembly power during exposure history. The station does not have the capability to monitor this function.

4. Number and type of **interim** inspections for each assembly. All of the "CY" fuel assemblies were out-of-core sipped at EOC-2. No other testing was conducted with the exception of assemblies CY164 and CY588 which were reconstituted.

5. Rod removal and replacement plan at EOC-2.

REPLACED (PERFORATED) RODS

Bundle	Matrix Location	Serial Number	Original Enrichment w/o U-235	Weight, Kg UO2	Weight, Kg U
CY 164	E1	MK 1563	2.47	4.397	3.874
CY 588	D5	MA 1183	2.47	4.533	3.994
	F3	MA [illegible]45	2.47	4.552	4.011
	E5	MA 0436	2.47	4.566	4.023
	F4	MA 1160	2.47	4.530	3.991

REPLACEMENT RODS

Bundle	Matrix Location	Serial Number	Original Enrichment w/o U-235	Weight, Kg UO2	Weight, Kg U
DN 480	D5	PA 4470	2.44	4.527	3.986
	F3	PA 4855	2.44	4.535	3.993
	E5	PA 4485	2.44	4.526	3.985
	F4	PA 4484	2.44	4.520	3.980
DN 587	E1	PN 1357	2.44	4.385	3.861

No rod removals or replacements were performed at EOC-3.

D. Fuel Rod Basin Examination
No such examinations were performed at EOC-2.

E. Performance Data for Each Suspect of Failed Rod
None

F. Examinations in Hot Cells
None.

FIGURE 1

DRESDEN UNIT 2

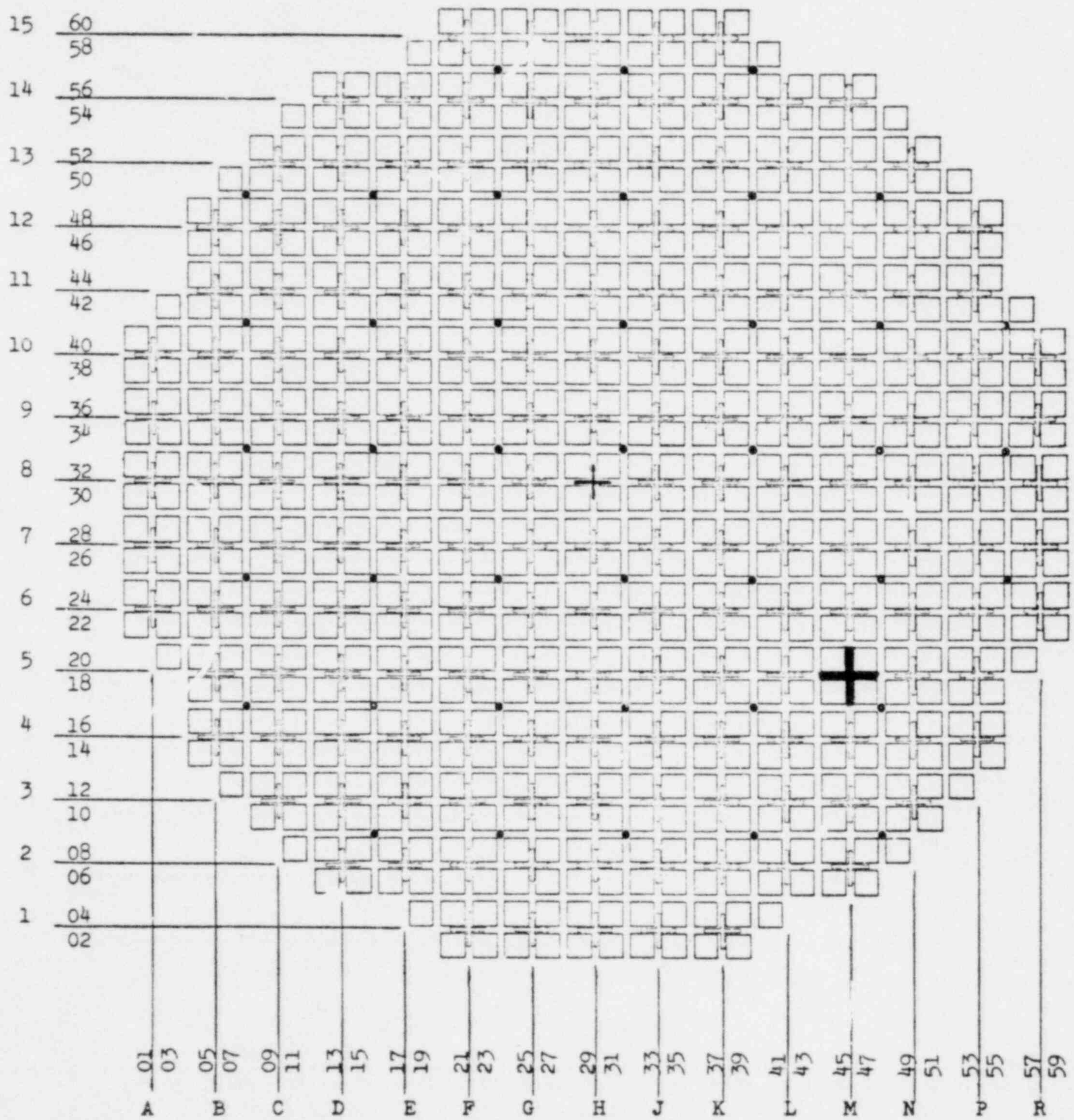
MONTHLY OPERATING INFORMATION FOR CYCLE 3

MONTH-YR	HRS:MIN CRITICAL	NO. OF SHUTDOWNS	NO. OF SCRAMS	OPERATING AVG. OFFGAS, UCi/sec
May 1972	488:56	6	3	1074
June 1972	609:04	5	3	4004
July 1972	645:46	1	0	5464
August 1972	723:49	4	4	6346
September 1972	391:08	2	0	2568
October 1972	315:15	1	0	1705
November 1972	586:29	4	1	4403
December 1972	528:03	4	2	5604
January 1973	704:02	2	2	5021
February 1973	666:31	1	0	6948
March 1973	579:44	1	0	11254
April 1973	622:46	3	1	12124
May 1973	744:00	0	0	4303
June 1973	637:32	4	0	7997
July 1973	744:00	0	0	9313
August 1973	480:15	1	0	3634
September 1973	706:05	2	1	8841
October 1973	672:47	2	1	11833
November 1973	650:32	3	2	12360
December 1973	744:00	0	0	18660
January 1974	743:00	0	0	10760
February 1974	287:35	2	1	7160
March 1974	689:10	2	1	9140
April 1974	720:00	0	0	10100
May 1974	744:00	0	0	9910
June 1974	565:48	1	1	15740
July 1974	648:00	1	0	21630
August 1974	647:05	1	0	14390
September 1974	258:27	3	2	14510
October 1974	523:49	1	0	10470
November 1974	27:27	1	1	15230
December 1974	0	0	0	0
CYCLE 3 TOTALS	18095:05	58	26	8755

Figure 2

DRESDEN UNIT 2

LOCATION OF REPLACEMENT CONTROL BLADE AND LPRM'S



CONTROL ROD 46-19 REPLACED AND ALL LPRM STRINGS

DRESDEN UNIT 2

BOC-4

LOCATION OF LJO (8x8) ASSEMBLIES

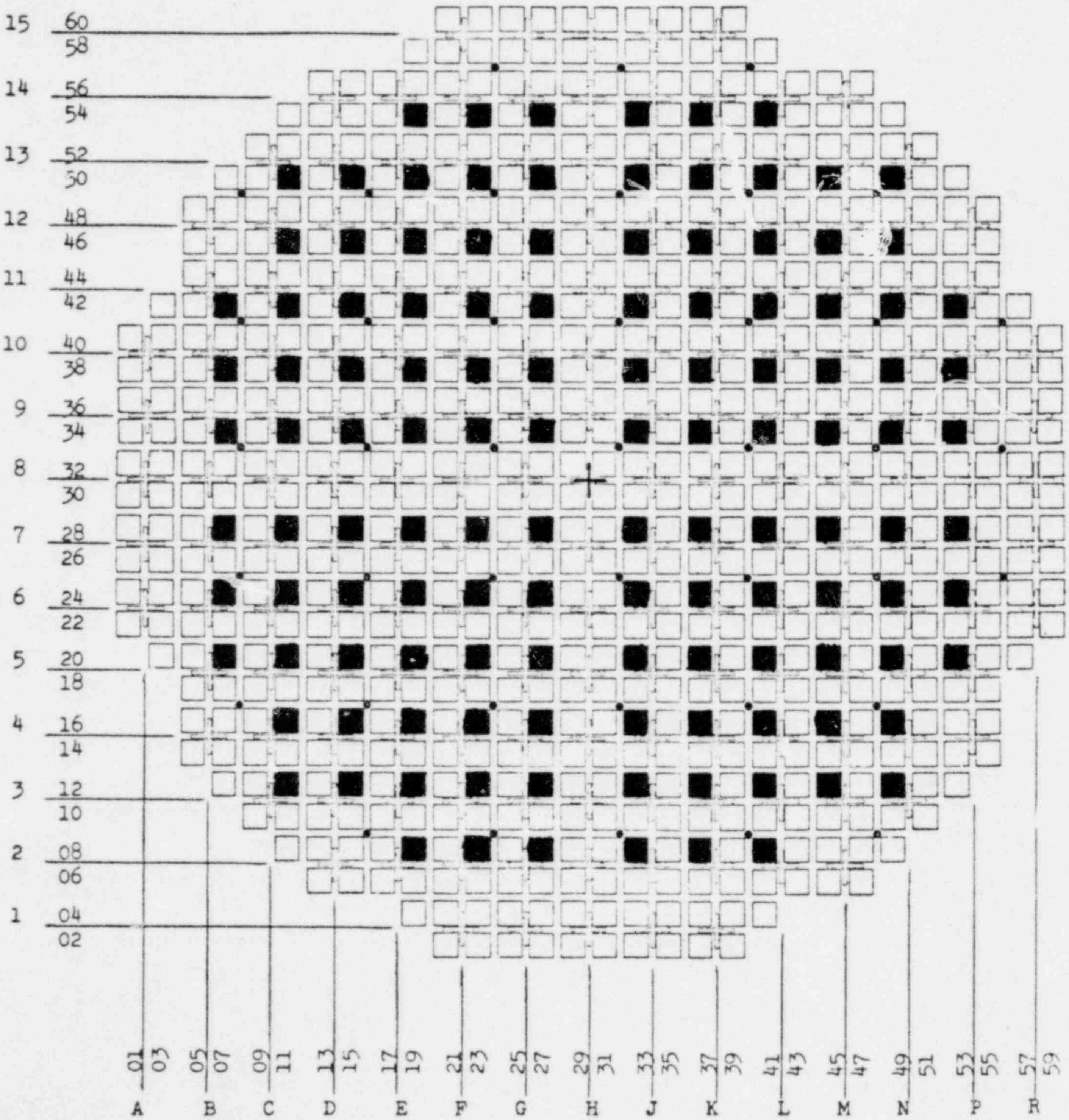


Figure 4

DRESDEN UNIT 2

BOC-4

LOCATION OF GEB (7x7) ASSEMBLIES

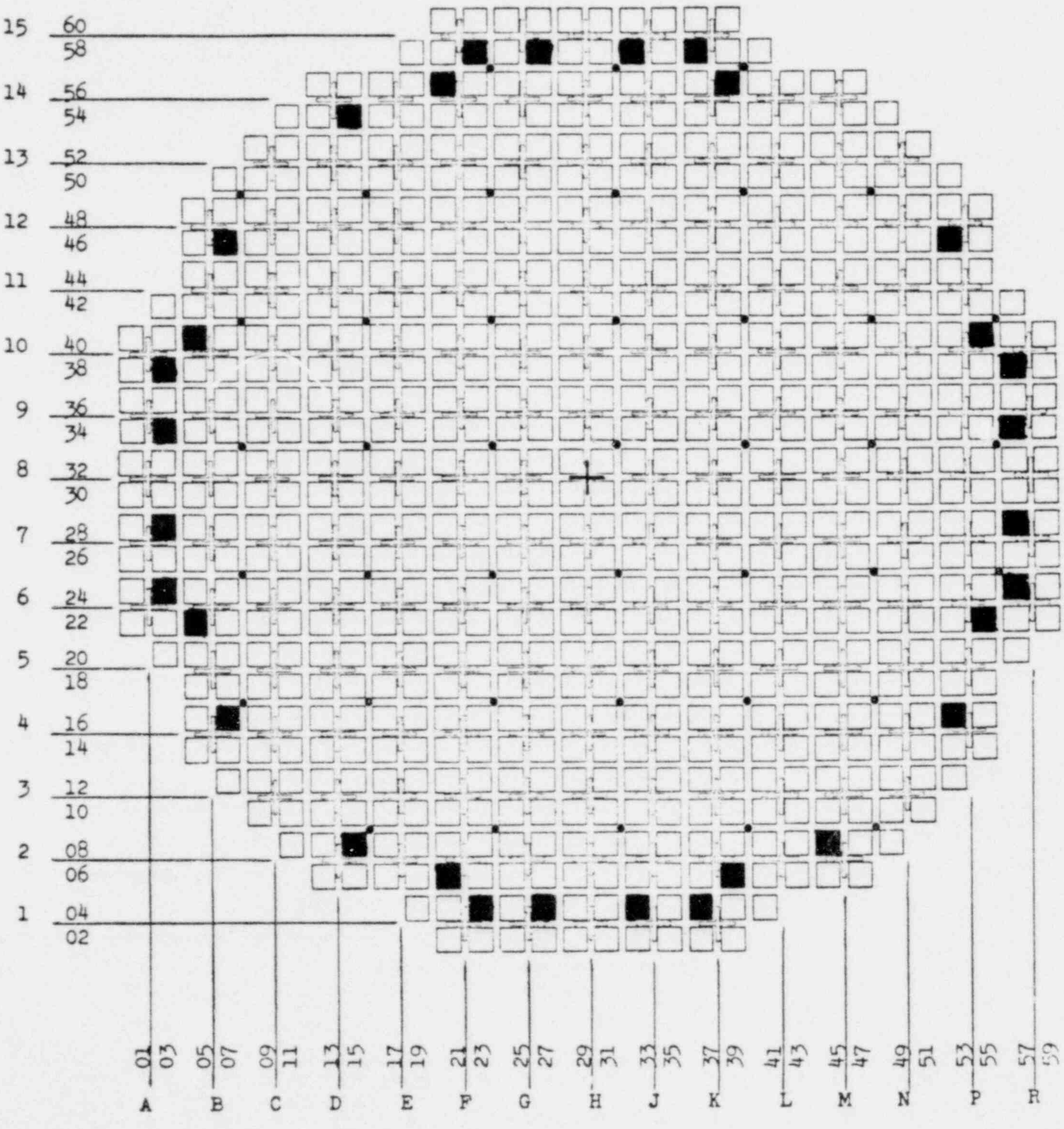
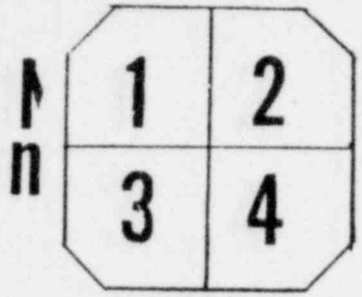


Figure 5
Page 1



EOC-3 S/N'S

1

CY 615 CY 462 CY 679 CY 684 CY 478

CY 680 CY 164 CY 620 CY 709 CY 513 CY 646

CY 608 CY 563 CY 617 CY 557 CY 673 CY 614 DN 744 DN 792 CY 463

CY 622 CY 659 CY 612 CY 524 DN 755 DN 98 DN 67 DN 726 DN 727 DN 159

CY 532 CY 609 CY 639 CY 687 DN 986 DN 189 DN 729 DN 869 DN 988 DN 3 DN 804

CY 648 CY 706 CY 182 CY 611 DN 784 DN 44 DN 185 DN 781 DN 865 DN 965 DN 969 DN 815

CY 682 CY 710 CY 685 CY 578 DN 980 DN 201 DN 855 DN 854 DN 28 DN 73 DN 782 DN 795 DN 26

CY 560 CY 464 CY 480 DN 783 DN 8 DN 228 DN 836 DN 840 DN 989 DN 40 DN 750 DN 816 DN 927

CY 689 CY 658 DN 176 DN 233 DN 915 DN 863 DN 146 DN 93 DN 892 DN 884 DN 19 DN 64 DN 773

CY 468 CY 654 DN 779 DN 157 DN 218 DN 801 DN 895 DN 142 DN 118 DN 894 DN 2 DN 20 DN 65 DN 771

CY 640 CY 187 CY 472 DN 126 DN 912 DN 867 DN 95 DN 71 DN 742 DN 839 DN 114 DN 217 DN 952 DN [illegible] DN 188

CY 649 CY 610 CY 469 DN 128 DN 817 DN 906 DN 106 DN 80 DN 759 DN 818 DN 102 DN 226 DN 819 DN 807 DN 187

CY 616 CY 686 DN 934 DN 1 DN 143 DN 116 DN 891 DN 333 DN 162 DN 215 DN 736 DN 770 DN 171 DN 59 DN 805

CY 613 CY 605 DN 62 DN 827 DN 133 DN 111 DN 936 DN 896 DN 161 DN 229 DN 778 DN 765 DN 136 DN 61 DN 767

CY 656 CY 509 CY 528 DN 990 DN 752 DN 911 DN 50 DN 47 DN 885 DN 638 DN 194 DN 192 DN 796 DN 728 DN 122

Figure 5
Page 2

CY 520 CY 562 CY 511 CY 474 CY 707

CY 688 CY 510 CY 556 CY 632 CY 186 CY 475

CY 493 DN 809 DN 925 DN 43 CY 575 CY 598 CY 711 CY 625 CY 627

DN 227 DN 698 DN 866 DN 88 DN 89 DN 724 CY 641 CY 621 CY 705 CY 473

DN 748 DN 149 DN 113 DN 955 DN 945 DN 164 DN 213 CY 604 CY 484 CY 587 CY 704

2

DN 803 DN 145 DN 110 DN 846 DN 944 DN 168 DN 216 DN 761 CY 618 CY 155 CY 534 CY 590

DN 56 DN 931 DN 971 DN 139 DN 35 DN 832 DN 813 DN 30 DN 211 CY 596 CY 579 CY 619 CY 626

DN 53 DN 951 DN 967 DN 131 DN 134 DN 849 DN 848 DN 78 DN 214 DN 752 CY 606 CY 701 CY 708

DN 725 DN 173 DN 0 DN 909 DN 937 DN 135 DN 121 DN 97 DN 85 DN 934 DN 81 CY 624 CY 702

DN 946 DN 105 DN 993 DN 839 DN 756 DN 152 DN 94 DN 931 DN 82 DN 17 DN 96 DN 758 CY 525 CY 568

DN 204 DN 966 DN 935 DN 995 DN 210 DN 858 DN 831 DN 36 DN 101 DN 829 DN 872 DN 23 CY 466 CY 178 CY 599

DN 203 DN 901 DN 954 DN 69 DN 208 DN 841 DN 859 DN 27 DN 150 DN 845 DN 871 DN 24 CY 461 CY 535 CY 667

DN 810 DN 163 DN 57 DN 943 DN 842 DN 41 DN 52 DN 897 DN 739 DN 9 DN 968 DN 76 DN 221 CY 700 CY 561

776 DN 160 DN 63 DN 921 DN 886 DN 54 DN 16 DN 878 DN 811 DN 7 DN 6 DN 960 DN 222 CY 555 CY 632

125 DN 979 DN 962 DN 190 DN 177 DN 780 DN 787 DN 106 DN 18 DN 937 DN 950 DN 976 CY 487 CY 604 CY 576

POOR ORIGINAL

Figure 5
Page 3

CY 518	CY 653	CY 643	DN 978	DN 972	DN 913	DN 58	DN 45	DN 877	DN 912	DN 195	DN 193	DN 769	DN 802	DN 48
CY 577	CY 655	DN 224	DN 914	DN 12	DN 992	DN 887	DN 899	DN 120	DN 165	DN 735	DN 826	DN 158	DN 987	DN 731
CY 669	CY 530	DN 223	DN 797	DN 13	DN 961	DN 834	DN 835	DN 119	DN 154	DN 823	DN 814	DN 156	DN 51	DN 747
CY 683	CY 642	CY 650	DN 83	DN 812	DN 905	DN 999	DN 38	DN 882	DN 923	DN 107	DN 220	DN 950	DN 793	DN 197
CY 467	CY 168	CY 455	DN 66	DN 953	DN 904	DN 10	DN 32	DN 926	DN 928	DN 973	DN 232	DN 817	DN 820	DN 198
	CY 470	CY 582	DN 760	DN 11	DN 191	DN 844	DN 903	DN 14[illegible]	DN 90	DN 868	DN 825	DN 178	DN 230	DN 753
		CY 517	CY 660	DN 15	DN 200	DN 918	DN 942	DN 140	DN 137	DN 866	DN 907	DN 180	DN 202	DN 741
		CY 573	CY 681	CY 471	DN 736	DN 167	DN 130	DN 919	DN 880	DN 104	DN 79	DN 930	DN 775	DN 181
		CY 647	CY 637	CY 634	CY 638	DN 179	DN 172	DN 743	DN 673	DN 103	DN 77	DN 764	DN 768	DN 174
			CY 651	CY 657	CY 148	CY 671	DN 766	DN 123	DN 129	DN 730	DN 789	DN 7[illegible]	DN 91	DN 778
				CY 691	CY 584	CY 508	CY 631	DN 87	DN 117	DN 794	DN 822	DN 68	DN 60	DN 777
					CY 565	CY 712	CY 460	CY 456	DN 732	DN 86	DN 75	DN 734	DN 808	DN 155
						CY 527	CY 453	CY 459	CY 458	CY 559	CY 516	DN 749	DN 821	CY 574
									CY 633	CY 184	CY 476	CY 486	CY 529	CY 564
										CY 695	CY 567	CY 526	CY 483	CY 457
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29

3

Figure 5
Page 3

3

CY 518	CY 653	CY 643	DN 978	DN 972	DN 913	DN 58	DN 45	DN 877	DN 912	DN 195	DN 193	DN 769	DN 802	DN 48
CY 577	CY 655	DN 224	DN 914	DN 12	DN 992	DN 887	DN 899	DN 120	DN 165	DN 735	DN 826	DN 158	DN 987	DN 731
CY 669	CY 530	DN 223	DN 797	DN 13	DN 961	DN 834	DN 835	DN 119	DN 154	DN 823	DN 814	DN 156	DN 51	DN 747
CY 683	CY 642	CY 650	DN 83	DN 812	DN 905	DN 999	DN 38	DN 882	DN 923	DN 107	DN 220	DN 950	DN 793	DN 197
CY 467	CY 168	CY 455	DN 66	DN 953	DN 904	DN 10	DN 32	DN 926	DN 928	DN 973	DN 232	DN 817	DN 820	DN 198
	CY 470	CY 582	DN 760	DN 11	DN 191	DN 844	DN 903	DN 141	DN 90	DN 868	DN 825	DN 178	DN 230	DN 753
		CY 517	CY 660	DN 15	DN 200	DN 918	DN 942	DN 140	DN 137	DN 866	DN 907	DN 180	DN 202	DN 741
		CY 573	CY 681	CY 471	DN 736	DN 167	DN 130	DN 919	DN 880	DN 104	DN 79	DN 930	DN 775	DN 181
		CY 647	CY 637	CY 634	CY 638	DN 179	DN 172	DN 743	DN 673	DN 103	DN 77	DN 764	DN 768	DN 174
			CY 651	CY 657	CY 148	CY 671	DN 766	DN 123	DN 129	DN 730	DN 789	DN 70	DN 91	DN 778
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						CY 527	CY 453	CY 459	CY 458	CY 559	CY 516	DN 749	DN 821	CY 574
									CY 633	CY 184	CY 476	CY 486	CY 529	CY 564
										CY 695	CY 567	CY 526	CY 483	CY 457
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29

DN 74 DN 933 DN 963 DN 209 DN 186 DN 938 DN 924 DN 199 DN 21 DN 837 DN 917 DN 984 CY 479 CY 699 CY 485

DN 763 DN 184 DN 183 DN 948 DN 958 DN 225 DN 982 DN 853 DN 893 DN 108 DN 29 DN 890 DN 857 CY 522 CY 665

DN 745 DN 175 DN 92 DN 949 DN 772 DN 166 DN 977 DN 798 DN 875 DN 147 DN 100 DN 876 DN 888 CY 583 CY 481

DN 206 DN 970 DN 964 DN 109 DN 153 DN 910 DN 922 DN 148 DN 138 DN 828 DN 861 DN 124 CY 477 CY 698 CY 697

DN 205 DN 975 DN 947 DN 115 DN 151 DN 852 DN 929 DN 144 DN 42 DN 874 DN 851 DN 127 CY 676 CY 185 CY 690

DN 751 DN 55 DN 998 DN 920 DN 824 DN 5 DN 34 DN 364 DN 862 DN 170 DN 207 DN 768 CY 592 CY 696

DN 959 DN 14 DN 996 DN 883 DN 916 DN 291 DN 941 DN 830 DN 870 DN 169 DN 182 CY 594 CY 523

DN 46 DN 957 DN 956 DN 37 DN 132 DN 643 DN 799 DN 22 DN 231 DN 791 CY 449 CY 591 CY 558

DN 49 DN 879 DN 946 DN 33 DN 112 DN 966 DN 800 DN 39 DN 219 CY 450 CY 589 CY 590 CY 602

DN 790 DN 965 DN 4 DN 932 DN 968 DN 25 DN 84 DN 737 CY 588 CY 165 CY 566 CY 465

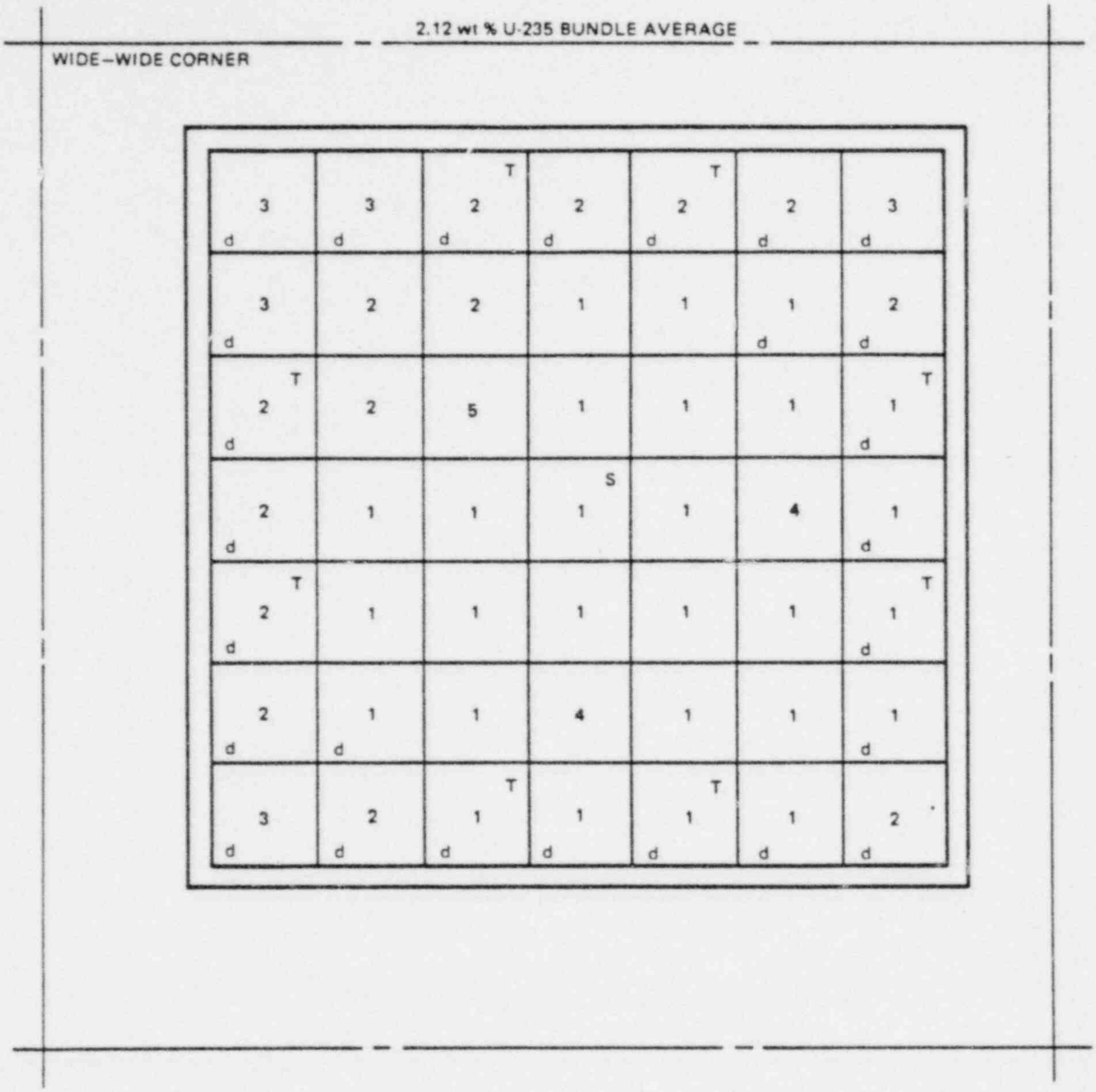
DN 746 DN 983 DN 974 DN 881 DN 856 DN 31 DN 979 CY 597 CY 601 CY 593 CY 571

DN 212 DN 765 DN 733 DN 99 DN 72 DN 754 CY 668 CY 581 CY 600 CY 533

CY 603 DN 757 DN 740 CY 661 CY 623 CY 569 CY 482 CY 525 CY 585

CY 628 CY 645 CY 670 CY 607 CY 169 CY 554

CY 586 CY 512 CY 652 CY 572 CY 454



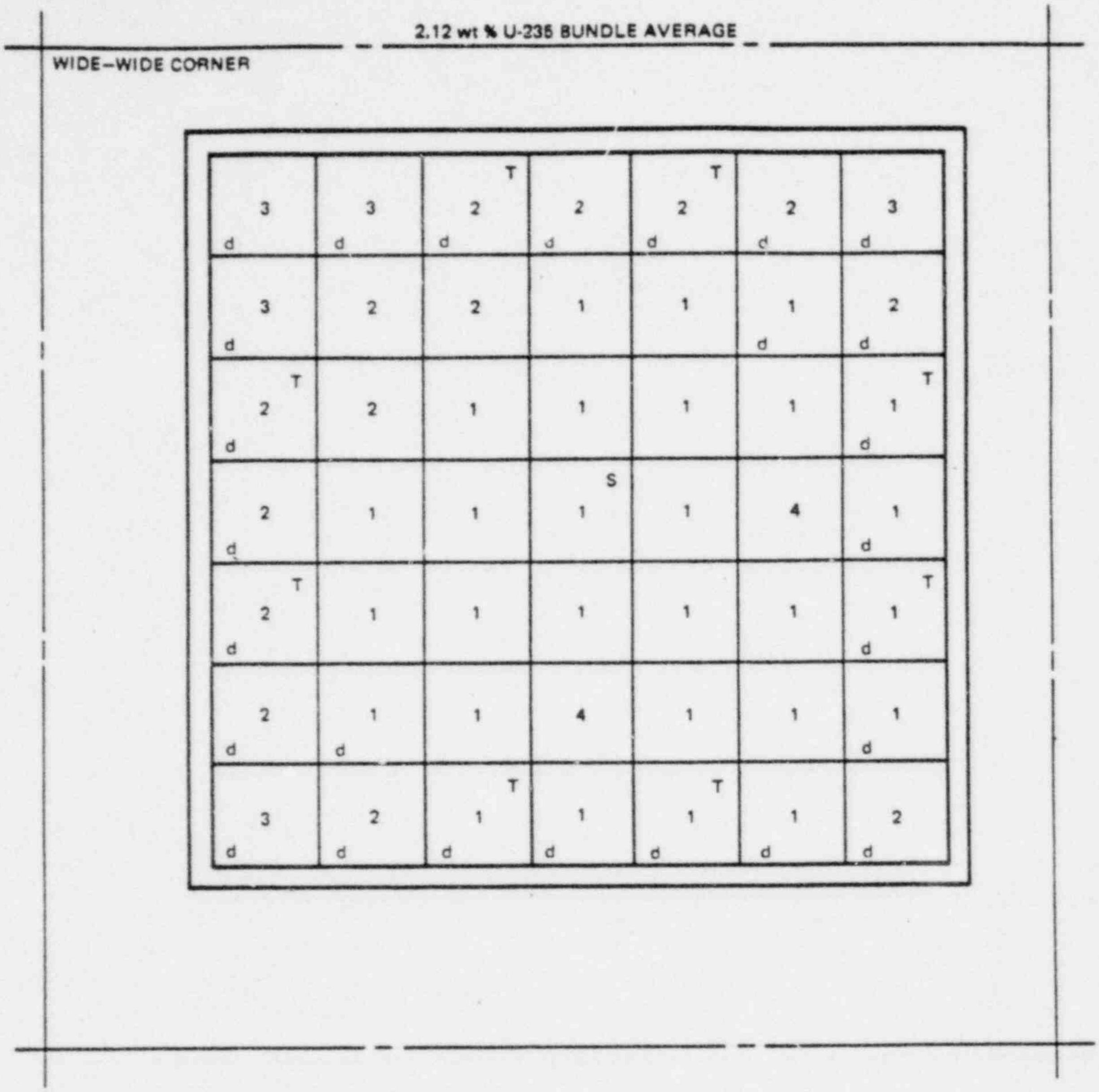
ROD TYPE	U-235 (wt %)	Gd_2O_3 (wt %)	NUMBER OF RODS
1	2.47	0	27
2	1.70	0	14
3	1.20	0	5
4	2.47	3.0	2
5	2.47	0.5	1

S = SPACER CAPTURE ROD

T = TIE ROD

d = DISHED ROD IN A DISHED BUNDLE

Figure 6 Bundle Design for Replacement Initial Fuel, Type 1



ROD TYPE	U-235 (wt %)	Gd_2O_3 (wt %)	NUMBER OF RODS
1	2.47	0	28
2	1.70	0	14
3	1.20	0	5
4	2.47	3.0	2

S = SPACER CAPTURE ROD

T = TIE ROD

d = DISHED ROD IN A DISHED BUNDLE

Figure 7.. Bundle Design for Replacement Initial Fuel, Type 2

POOR ORIGINAL

THE BUNDLE ID-S AND EXPOSURE (MWD/T)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	CY0615 6772	CY0462 6714	CY0679 7244	CY0684 7487	CY0478 7587
2	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	CY0680 7810	CY0164 9724	CY0620 10796	CY0709 11194	CY0513 11425	CY0646 11603
3	0 0	0 0	0 0	0 0	0 0	0 0	CY0608 5596	CY0563 7037	CY0617 8248	CY0557 10736	CY0673 10739	CY0614 11136	DN277 9643	DN598 9748	CY0463 10868
4	0 0	0 0	0 0	0 0	0 0	CY0622 7383	CY0659 9629	CY0612 10812	CY0524 11457	DN369 9996	DN544 10121	DN258 10328	DN366 10159	DN624 10236	DN267 10288
5	0 0	0 0	0 0	0 0	CY0532 6721	CY0609 10150	CY0639 11097	CY0687 11539	DN200 9183	DN467 9517	DN471 9865	DN684 10358	DN456 10146	DN229 10229	DN080 10456
6	0 0	0 0	0 0	CY0648 7206	CY0706 10172	CY0182 11700	CY0611 12003	DN576 9737	DN279 9461	DN468 9615	DN018 9898	DN017 10074	DN227 10280	DN044 10391	DN011 10592
7	0 0	0 0	CY0682 5605	CY0710 9655	CY0685 11186	CY0578 12088	DN594 9803	DN353 10000	DN442 9716	DN433 9730	DN428 9755	DN024 9742	DN041 10492	DN049 10666	DN137 10751
8	0 0	0 0	CY0560 7037	CY0464 10823	CY0480 11623	DN612 9819	DN693 10040	DN029 10150	DN047 9850	DN085 9852	DN031 9853	DN023 9999	DN042 10484	DN220 10605	DN602 10652
9	0 0	0 0	CY0689 8231	CY0658 11436	DN473 9151	DN228 9472	DN269 9835	DN596 9967	DN483 9823	DN392 9916	DN445 10378	DN191 10427	DN427 10112	DN336 10072	DN332 10111
10	0 0	CY0468 7814	CY0654 10696	DN253 9903	DN477 9409	DN371 9557	DN415 9837	DN488 9973	DN046 9965	DN142 10098	DN053 10567	DN033 10553	DN710 10047	DN709 9913	DN294 9897
11	CY0640 6583	CY0187 9671	CY0472 10280	DN354 9969	DN324 9618	DN579 9691	DN608 9732	DN076 9901	DN586 10458	DN048 10646	DN485 10825	DN573 10720	DN401 10097	DN475 9869	DN642 9613
12	CY0649 6649	CY0610 10707	CY0469 10857	DN256 10135	DN463 9799	DN230 9864	DN478 9876	DN067 10012	DN032 10524	DN469 10468	DN481 10798	DN486 10663	DN466 10017	DN298 9784	DN647 9538
13	CY0616 7148	CY0686 11049	DN323 9339	DN577 9869	DN474 10013	DN219 10186	DN112 10397	DN120 10430	DN210 10190	DN226 10190	DN439 10367	DN457 10258	DN404 9675	DN407 9533	DN492 9646
14	CY0613 7360	CY0605 11229	DN343 9366	DN610 9891	DN075 10170	DN129 10389	DN091 10603	DN078 10579	DN361 10155	DN422 10072	DN396 10198	DN375 10119	DN403 9717	DN461 9655	DN408 9791
15	CY0656 7437	CY0509 11361	CY0528 10603	DN273 9840	DN595 10514	DN211 10787	DN092 10871	DN452 10772	DN575 10235	DN358 10054	DN674 9853	DN651 9864	DN299 10318	DN088 10373	DN677 10343

Figure 8 Assumed Bundle Ave.age Exposure Distribution at End of Cycle 3

FUEL DESCRIPTION

	Replacement Type 1	Initial Type 2
Fuel Assembly		
Number of Fuel Assemblies/ Batch	8	560
Fuel Rod Array	7x7	7x7
Fuel Rod Pitch (in.)	0.738	0.738
Bundle Average Enrichment	2.12	2.12
Control Augmentation		
Type	Fuel rods containing Gd_2O_3	Fuel rods containing Gd_2O_3
Number	3 rods/bundle	2 rods/bundle
Control Length (in.)	138 (2 rods) 60 (1 rod)	138
Control Material	3.0 wt% Gd_2O_3 (2 rods) 0.5 wt% Gd_2O_3 (1 rod)	3.0 wt% Gd_2O_3
Weight of U per Fuel Assembly		
(lb)	423.8	423.9
(kg)	192.2	192.3
Channel		
Thickness (in.)	0.080	0.080
Water/UO_2 Volume Ratio (cold)	2.47	2.47
Fuel Rod, Cold		
Fuel Material	UO_2 and UO_2 + Gd_2O_3	UO_2 and UO_2 + Gd_2O_3
Pellet Diameter (in.)	0.487	0.487
Cladding Thickness (in.)	0.032	0.032
Cladding Material	Zr-2	Zr-2

	Replacement Type 1	Initial Type 2
Cladding Outside Diameter (in.)	0.563	0.563
Active Fuel Length (in.)	144	144
Length of Gas Plenum (in.)	11.24	11.24

BOC-3 RELATIVE BUNDLE POWERS (PBUN/PAVG)
2521 MWt

	1	2	3	4	5	6	7	8	9
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	0.4351	0.[illegible]387	0.633
4	0.0	0.0	0.0	0.0	0.0	0.5109	0.8116	0.8944	0.925
5	0.0	0.0	0.0	0.0	0.5319	0.8758	0.9919	1.0062	0.759
6	0.0	0.0	0.0	0.5087	0.8733	1.0315	1.1073	1.1000	0.820
7	0.0	0.0	0.4312	0.8053	0.9856	1.1031	1.1369	1.1491	1.147
8	0.0	0.0	0.5326	0.6841	0.9939	1.0893	1.1438	1.1690	1.167
9	0.0	0.0	0.6248	0.9107	0.7294	0.7904	1.1362	1.1628	0.851
10	0.0	0.5195	0.8894	0.9861	0.7631	0.8007	1.1310	1.1566	0.896
11	0.4338	0.8237	0.9950	1.0777	1.0950	1.1154	1.0982	1.1211	1.181
12	0.5245	0.9241	1.0672	1.1259	1.1263	1.1356	1.1107	1.1255	1.176
13	0.5736	0.9752	1.1125	1.1274	0.8603	0.8645	1.1648	1.1671	0.830
14	0.5920	0.9905	1.1124	1.1234	0.8567	0.8778	1.1904	1.1894	0.835
15	0.5947	0.9811	1.0203	1.0650	1.1449	1.1840	1.2213	1.2251	1.195
16	0.5947	0.9810	1.0204	1.0649	1.1449	1.1840	1.2213	1.2251	1.195
17	0.5920	0.9905	1.1123	1.1234	0.8566	0.8778	1.1904	1.1894	0.835
18	0.5737	0.9752	1.1124	1.1274	0.8600	0.8645	1.1648	1.167	0.83

7	8	9	10	11	12	13	14	15
0.0	0.0	0.0	0.0	0.4371	0.5277	0.5766	0.5747	0.5972
0.0	0.0	0.0	0.5254	0.8302	0.9300	0.9803	0.9910	0.9852
0.4351	0.5387	0.6332	0.8997	1.0046	1.0753	1.1190	1.1180	1.0258
0.8116	0.8944	0.9252	1.0013	1.0901	1.1355	1.1349	1.1297	1.0709
0.9[illegible]	1.0062	0.7599	0.7922	1.1102	1.1370	0.8565	0.8627	1.1507
1.1073	1.1000	0.8205	0.8328	1.1301	1.1459	0.8718	0.8836	1.1895
1.1369	1.1491	1.1470	1.1436	1.1089	1.1191	1.1715	1.19[illegible]	1.2263
1.1438	1.1690	1.1671	1.1632	1.1278	1.1314	1.1770	1.1937	1.2292
1.1362	1.1628	0.8914	0.8887	1.1843	1.1799	0.8329	0.8331	1.1980
1.1310	1.1566	0.8863	0.9030	1.2157	1.2113	0.8476	0.8414	1.1870
1.0982	1.1211	1.1813	1.2144	1.2554	1.2604	1.2281	1.2075	1.1537
1.1107	1.1255	1.1764	1.2095	1.2501	1.2759	1.25[illegible]	1.23[illegible]1	1.1[illegible]13
1.1648	1.1672	0.8504	0.8462	1.2272	1.2546	0.9759	0.9840	1.2833
1.1904	1.1894	0.8358	0.8400	1.2003	1.2375	0.9[illegible]	1.0019	1.2900
1.2213	1.2251	1.1951	1.1850	1.1524	1.1806	1.2630	1.2993	1.3370
1.2213	1.2251	1.1951	1.1850	1.1525	1.1806	1.2630	1.2990	1.3370
1.1904	1.1894	0.8508	0.8400	1.20[illegible]3	1.2375	0.9838	1.0019	1.3[illegible]0[illegible]
1.1648	1.167[illegible]	[illegible]	0.8[illegible]	1.2272	1.2546	0.97[illegible]	0.[illegible]	1.2834

16	17	18	19	20	21	22	23	24	
0.5971	0.5942	0.5757	0.5266	0.4359	0.0	0.0	0.0	0.0	0.0
0.9850	0.9942	0.9787	0.9275	0.8282	0.5236	0.0	0.0	0.0	0.0
1.0255	1.1171	1.1170	1.0737	1.0023	0.8961	0.6325	0.5383	0.4549	0.0
1.0707	1.1289	1.1335	1.1335	1.0394	1.0052	0.9245	0.8939	0.8113	0.511
1.1506	0.8624	0.8578	1.1359	1.1092	0.7916	0.7595	1.0059	0.9917	0.87
1.1894	0.8834	0.8714	1.1453	1.1295	0.8325	0.8203	1.0997	1.1072	1.03
1.2262	1.1955	1.1711	1.1189	1.1086	1.1433	1.1468	1.1490	1.1368	1.10
1.2291	1.1936	1.1719	1.1313	1.1277	1.1630	1.1670	1.1689	1.1437	1.03
1.1980	0.8380	0.8328	1.1798	1.1847	0.8686	0.8813	1.1627	1.1362	0.79
1.1869	0.8414	0.8475	1.2112	1.2156	0.9029	0.8862	1.1566	1.1310	0.80
1.1537	1.2074	1.2231	1.2606	1.2553	1.2143	1.1813	1.1211	1.0981	1.11
1.1813	1.2331	1.2550	1.2759	1.2601	1.2095	1.1764	1.1254	1.1106	1.13
1.2633	0.9840	0.9799	1.2546	1.2271	0.8461	0.8304	1.1671	1.1648	0.85
1.2999	1.0019	0.9838	1.2374	1.2063	0.8399	0.8358	1.1894	1.1904	0.87
1.3370	1.2958	1.2630	1.1806	1.1524	1.1850	1.1951	1.2251	1.2213	1.18
1.3370	1.2958	1.2630	1.1806	1.1524	1.1850	1.1951	1.2251	1.2213	1.18
1.3000	1.0019	0.9838	1.2375	1.2063	0.8400	0.8358	1.1894	1.1904	0.877
1.2634	0.9840	0.9799	1.2546	1.2272	0.8462	0.8304	1.1672	1.1648	0.364
1.1814	1.2381	1.2550	1.2760	1.2601	1.2095	1.1764	1.1255	1.1107	1.13

2 23 24 25 26 27 28 29 30

0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.5383	0.4349	0.0	0.0	0.0	0.0	0.0	0.0
0.8939	0.8113	0.5112	0.0	0.0	0.0	0.0	0.0
1.0059	0.9917	0.8756	0.5318	0.0	0.0	0.0	0.0
1.0997	1.1072	1.0314	0.8733	0.5032	0.0	0.0	0.0
1.1490	1.1368	1.1030	0.9856	0.8063	0.4312	0.0	0.0
1.1689	1.1437	1.0892	0.9939	0.8842	0.5326	0.0	0.0
1.1627	1.1362	0.7903	0.7294	0.9108	0.6249	0.0	0.0
1.1566	1.1310	0.6007	0.7602	0.9862	0.8[illegible]97	0.5204	0.0
1.1211	1.0981	1.1154	1.0951	1.0779	0.9955	0.8240	0.4342
1.1254	1.1106	1.1356	1.1263	1.1259	1.0676	0.9243	0.5245
1.1671	1.1648	0.8645	0.8508	1.1274	1.1125	0.9752	0.57[illegible]
1.1894	1.1904	0.8778	0.8566	1.1234	1.1124	0.9905	0.5920
1.2251	1.2213	1.1840	1.1449	1.0649	[illegible]	0.9610	0.5947
1.2251	1.2213	1.1840	1.1446	1.0650	1.0204	0.9611	0.5947
1.1894	1.1904	0.8778	0.8566	1.1234	1.1124	0.9905	0.5920
1.1672	1.1648	0.8645	0.8508	1.1273	1.1125	0.9751	0.5786
1.1255	1.1107	1.1356	1.1263	1.1259	1.0671	0.9241	0.5245

Figure 10
Page 5

20	0.4342	0.8241	0.9655	1.0779	1.0951	1.1155	1.0952	1.1211	[illegible]
21	0.0	0.5705	0.8897	0.9863	0.7602	0.8007	1.1310	1.1567	[illegible]
22	0.0	0.0	0.6250	0.9108	0.7296	0.7904	1.1363	[illegible]	[illegible]
23	0.0	0.0	0.5327	[illegible]	0.9939	1.0893	1.1438	1.1691	[illegible]
24	0.0	0.0	0.4313	[illegible]	[illegible]	1.1031	1.1270	1.1492	[illegible]
25	0.0	0.0	0.0	0.5083	0.8734	1.0315	1.1073	1.1000	[illegible]
26	0.0	0.0	0.0	0.0	0.5319	0.8758	[illegible]	1.0062	[illegible]
27	0.0	0.0	0.0	0.0	0.0	0.5114	0.8115	0.8944	[illegible]
28	0.0	0.0	0.0	0.0	0.0	0.0	0.4351	0.5387	[illegible]
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1.0982	1.1211	1.1813	1.2144	1.2534	1.2608	1.2282	1.2075	1.1[illegible]37
1.1310	1.1567	0.8863	0.9030	1.2157	1.2114	0.8476	0.8414	1.1670
1.1363	1.1623	0.8814	0.8388	1.1849	1.1800	0.8330	0.8352	1.1481
1.1438	1.1691	1.1672	1.1532	1.1279	1.1315	1.1722	1.1938	1.2243
1.1370	1.1492	1.1471	1.1437	1.1090	1.1193	1.1715	1.1[illegible]59	1.2265
1.1073	1.1000	0.8206	0.8329	1.1302	1.1460	0.8719	0.8858	1.1598
0.9919	1.0062	0.7599	0.7922	1.1103	1.1371	0.8588	0.8629	1.1511
0.8115	0.8944	0.9252	1.0013	1.0901	1.1356	1.1351	1.1300	1.0713
0.4351	0.5387	0.6331	0.8994	1.0043	1.0750	1.1192	1.1184	1.0262
0.0	0.0	0.0	0.5250	0.8299	0.9300	0.9804	0.9953	0.9857
0.0	0.0	0.0	0.0	0.4364	0.5277	0.5767	0.5949	0.5975

NOTE: LAST 2 PAGES (LAST ¼ CORE) ARE MISSING BUT POWER DISTRIBUTION IS SYMMETRIC SO USE NO'S FROM ANY OTHER QUADRANT.

Figure 11 Page 1 EOC-3 RELATIVE BUNDLE POWERS (PBUN/PAVG)
2052 MWt

1	3	5	7	9	11	13	15	17	19	21	23	25	27	29
										0.393	0.519	0.561	0.580	0.590
									0.529	0.657	0.755	0.812	0.836	0.341
						0.213	0.286	0.530	0.730	0.805	0.938	1.002	0.991	0.985
					0.390	0.341	0.465	0.751	0.936	1.022	1.051	1.070	1.216	1.241
				0.406	0.609	0.647	0.810	0.943	1.063	1.129	1.117	1.054	1.191	1.279
			0.533	0.598	0.824	0.910	1.000	1.070	1.09-	1.128	1.220	1.155	1.071	1.140
		0.446	0.692	0.808	0.943	1.039	1.094	1.134	1.126	1.162	1.259	1.243	1.153	1.132
		0.555	0.858	0.974	1.031	1.152	1.110	1.100	1.140	1.200	1.180	1.139	1.170	1.170
		0.646	0.950	1.084	1.165	1.204	1.127	1.007	1.037	1.183	1.151	0.953	0.985	1.177
	0.623	0.860	1.043	1.153	1.216	1.233	1.169	1.045	1.043	1.163	1.210	1.019	0.934	1.208
157	0.748	0.918	1.113	1.199	1.236	1.247	1.207	1.173	1.145	1.145	1.231	1.245	1.204	1.276
551	0.870	1.030	1.101	1.166	1.209	1.245	1.160	1.108	1.174	1.206	1.112	1.126	1.300	1.321
582	0.592	1.059	1.107	1.094	1.111	1.214	1.115	0.920	0.992	1.211	1.129	1.027	1.194	1.298
527	0.841	1.022	1.056	1.023	1.081	1.150	1.127	0.946	0.979	1.198	1.253	1.175	1.061	1.186
514	0.652	1.025	1.060	1.085	1.171	1.149	1.122	1.130	1.207	1.276	1.303	1.274	1.192	1.205
590	0.842	0.936	1.241	1.270	1.134	1.134	1.175	1.176	1.206	1.277	1.320	1.247	1.177	1.205
580	0.837	0.996	1.220	1.191	1.073	1.162	1.181	0.991	0.989	1.209	1.303	1.193	1.061	1.191
560	0.813	1.006	1.075	1.056	1.158	1.253	1.149	0.957	1.012	1.248	1.129	1.026	1.176	1.284
509	0.765	0.939	1.052	1.113	1.216	1.252	1.181	1.144	1.202	1.230	1.112	1.125	1.240	1.304
593	0.657	0.805	1.021	1.124	1.124	1.162	1.199	1.173	1.154	1.145	1.207	1.207	1.193	1.275
	0.529	0.729	0.935	1.061	1.079	1.130	1.144	1.036	1.043	1.153	1.182	0.939	0.974	1.209
		0.529	0.743	0.939	1.066	1.136	1.104	1.007	1.046	1.182	1.114	0.916	0.940	1.130
		0.285	0.462	0.801	0.990	1.092	1.110	1.123	1.165	1.208	1.159	1.107	1.116	1.118
		0.212	0.340	0.541	0.903	1.039	1.154	1.200	1.229	1.247	1.243	1.203	1.141	1.146
			0.389	0.607	0.824	0.950	1.102	1.168	1.217	1.240	1.212	1.108	1.079	1.177
				0.496	0.700	0.816	0.985	1.089	1.155	1.204	1.170	1.022	1.023	1.092
					0.534	0.695	0.863	0.953	1.044	1.114	1.194	1.102	1.052	1.061
						0.446	0.556	0.646	0.860	0.918	1.029	1.054	1.018	1.024
									0.625	0.747	0.569	0.890	0.841	0.851
										0.456	0.551	0.582	0.627	0.613

POOR ORIGINAL

Figure 11 Page . RELATIVE BUNDLE POWERS

0.613	0.627	0.591	0.551	0.457										
0.851	0.840	0.890	0.869	0.747	0.623									
1.024	1.018	1.054	1.045	0.917	0.860	0.646	0.556	0.446						
1.060	1.052	1.102	1.104	1.113	1.044	0.953	0.863	0.695	0.534					
1.092	1.023	1.082	1.169	1.204	1.155	1.089	0.985	0.816	0.700	0.406				
1.177	1.079	1.108	1.212	1.240	1.217	1.168	1.102	0.950	0.824	0.607	0.389			
1.146	1.141	1.203	1.242	1.247	1.229	1.200	1.154	1.039	0.903	0.641	0.340	0.212		
1.118	1.116	1.107	1.159	1.208	1.165	1.123	1.110	1.092	0.990	0.802	0.462	0.285		
1.130	0.940	0.916	1.114	1.182	1.046	1.007	1.104	1.136	1.066	0.939	0.748	0.529		
1.209	0.974	0.982	1.182	1.153	1.043	1.036	1.145	1.131	1.080	1.061	0.935	0.729	0.529	
1.275	1.193	1.207	1.207	1.145	1.154	1.173	1.200	1.163	1.124	1.125	1.021	0.805	0.657	0.393
1.304	1.280	1.125	1.112	1.230	1.202	1.144	1.182	1.253	1.217	1.114	1.052	0.939	0.765	0.509
1.284	1.176	1.027	1.122	1.248	1.013	0.957	1.149	1.253	1.158	1.056	1.075	1.006	0.813	0.560
1.191	1.061	1.193	1.303	1.210	0.989	0.992	1.181	1.163	1.073	1.191	1.220	0.996	0.837	0.580
1.205	1.177	1.297	1.320	1.277	1.206	1.176	1.175	1.134	1.134	1.270	1.241	0.986	0.842	0.590
1.205	1.182	1.274	1.303	1.276	1.207	1.130	1.122	1.149	1.171	1.085	1.060	1.025	0.852	0.614
1.186	1.061	1.175	1.283	1.198	0.979	0.946	1.127	1.150	1.081	1.023	1.056	1.022	0.841	0.627
1.228	1.194	1.026	1.123	1.211	0.992	0.920	1.115	1.214	1.111	1.034	1.107	1.059	0.892	0.582
1.321	1.300	1.126	1.112	1.206	1.174	1.108	1.160	1.245	1.209	1.166	1.104	1.030	0.870	0.551
1.276	1.204	1.245	1.231	1.145	1.145	1.173	1.207	1.247	1.236	1.199	1.113	0.918	0.748	0.457
1.208	0.924	1.002	1.210	1.163	1.043	1.045	1.169	1.233	1.216	1.153	1.043	0.860	0.623	
1.177	0.985	0.952	1.151	1.183	1.037	1.007	1.127	1.204	1.165	1.084	0.950	0.646		
1.170	1.170	1.139	1.180	1.200	1.140	1.100	1.110	1.152	1.091	0.974	0.858	0.555		
1.132	1.153	1.243	1.250	1.162	1.126	1.134	1.094	1.039	0.943	0.808	0.692	0.446		
1.140	1.071	1.155	1.220	1.128	1.081	1.070	1.000	0.910	0.824	0.698	0.532			
1.280	1.190	1.053	1.119	1.129	1.063	0.943	0.810	0.647	0.609	0.406				
1.241	1.207	1.06	1.051	1.022	0.936	0.751	0.465	0.341	0.390					
0.964	0.982	0.992	0.938	0.806	0.730	0.530	0.286	0.213						
0.843	0.835	0.812	0.766	0.657	0.522									
0.590	0.580	0.560	0.509	0.393										
31	33	35	37	39	41	43	45	47	49	51	53	55	57	59

DISCHARGED ELEMENT

Figure 12
Page 1

ELEMENT NUMBER	CORE LOCATION CYCLE 2	CORE LOCATION CYCLE 3	OUT-OF-CORE SIPPED CYCLE 2	OUT-OF-CORE SIPPED CYCLE 3
DN-822		23-10		Yes
CY-475	36-56	41-58	Yes	Yes
DN-1145		33-50		Yes
DN-784		15-50		Yes
CY-620	23-58	23-58	Yes	Yes
DN-1105		33-42		Yes
DN-1020		25-42		Yes
DN-1071		15-40		Yes
DN-959		31-18		Yes
DN-1014		33-18		Yes
DN-756		39-42		Yes
DN-1082		47-42		Yes
DN-1140		17-18		Yes
CY-493	19-58	31-56	Yes	Yes
DN-758		53-42		Yes
DN-1189		19-52		Yes
DN-1201		15-48		Yes
DN-1203		31-38		Yes
DN-1080		15-38		Yes
CY-187	03-40	03-40	Yes	Yes
DN-1101		47-40		Yes
DN-1204		31-40		Yes
DN-1226		23-38		Yes
DN-924		43-40		Yes
DN-1190		37-32		Yes
DN-1177		39-32		Yes
DN-1161		17-34		Yes
DN-1192		23-32		Yes
DN-1221		55-36		Yes
DN-875		47-26		Yes
DN-912		19-30		Yes
DN-753		29-20		Yes
DN-1191		11-20		Yes
DN-1180		25-18		Yes
DN-868		21-20		Yes
DN-1219		47-14		Yes
DN-1179		13-14		Yes
DN-799		43-16		Yes
DN-1196		45-32		Yes
DN-1118		45-30		No
DN-1047		15-32		No
DN-1210		39-40		No
DN-1045		15-30		No
DN-1114		21-40		No
DN-973		21-22		No
DN-1151		39-22		No
DN-859		43-38		No
DN-759		17-38		No
DN-922		43-24		No
DN-882		17-24		No
DN-831		43-40		No

DISCHARGED ELEMENT

ELEMENT NUMBER	CORE LOCATION CYCLE 2	CORE LOCATION CYCLE 3	OUT-OF-CORE SIPPED CYCLE 2	OUT-OF-CORE SIPPED CYCLE 3
DN-822		23-10		Yes
CY-475	36-56	41-58	Yes	Yes
DN-1145		33-50		Yes
DN-784		15-50		Yes
CY-620	23-58	23-58	Yes	Yes
DN-1105		33-42		Yes
DN-1020		25-42		Yes
DN-1071		15-40		Yes
DN-959		31-18		Yes
DN-1014		33-18		Yes
DN-756		39-42		Yes
DN-1082		47-42		Yes
DN-1140		17-18		Yes
CY-493	19-58	31-56	Yes	Yes
DN-758		53-42		Yes
DN-1189		19-52		Yes
DN-1201		15-48		Yes
DN-1203		31-38		Yes
DN-1080		15-38		Yes
CY-187	03-40	03-40	Yes	Yes
DN-1101		47-40		Yes
DN-1204		31-40		Yes
DN-1226		23-38		Yes
DN-924		43-40		Yes
DN-1190		37-32		Yes
DN-1177		39-32		Yes
DN-1161		17-34		Yes
DN-1192		23-32		Yes
DN-1221		55-36		Yes
DN-875		47-26		Yes
DN-912		19-30		Yes
DN-753		29-20		Yes
DN-1191		11-20		Yes
DN-1180		25-18		Yes
DN-868		21-20		Yes
DN-1219		47-14		Yes
DN-1179		13-14		Yes
DN-799		43-16		Yes
DN-1196		45-32		Yes
DN-1118		45-30		No
DN-1047		15-32		No
DN-1210		39-40		No
DN-1045		15-30		No
DN-1114		21-40		No
DN-973		21-22		No
DN-1151		39-22		No
DN-859		43-38		No
DN-759		17-38		No
DN-922		43-24		No
DN-882		17-24		No
DN-831		43-40		No

DISCHARGED ELEMENT

Figure 12
Page 2

ELEMENT NUMBER	CORE LOCATION CYCLE 2	CORE LOCATION CYCLE 3	OUT-OF-CORE SIPPED CYCLE 2	OUT-OF-CORE SIPPED CYCLE 3
DN-742		17-40		No
DN-929		43-22		No
DN-926		17-22		No
DN-1232		51-30		No
DN-752		9-32		No
DN-850		51-32		No
DN-972		9-30		No
DN-764		25-14		No
DN-971		35-48		No
DN-940		35-14		No
DN-930		25-16		No
DN-782		25-48		No
DN-967		35-46		No
DN-841		41-38		No
DN-750		25-46		No
DN-956		35-16		No
DN-818		19-38		No
DN-910		41-24		No
DN-923		19-24		No
DN-1077		47-30		No
DN-1018		47-32		No
DN-1050		13-32		No
DN-1058		13-30		No
DN-1181		29-16		No
DN-1053		31-46		No
DN-1046		31-16		No
DN-858		41-40		No
DN-997		29-46		No
DN-839		19-40		No
DN-852		41-22		No
DN-928		19-22		No
DN-1174		29-14		No
DN-1056		31-48		No
DN-1049		31-14		No
DN-1026		29-48		No
DN-775		27-16		No
DN-951		33-46		No
DN-957		33-16		No
DN-816		27-46		No
DN-768		27-14		No
DN-931		33-48		No
DN-879		33-14		No
DN-795		27-48		No
DN-1060		49-30		No
DN-911		11-32		No
DN-927		49-32		No
DN-913		11-30		No
CY-456	17-08	17-8	Yes	No
CY-700	57-36	57-36	Yes	Yes
CY-461	49-54	55-38	Yes	Yes
CY-641	43-54	43-54	Yes	Yes

DISCHARGED ELEMENT

ELEMENT NUMBER	CORE LOCATION CYCLE 2	CORE LOCATION CYCLE 3	OUT-OF-CORE SIPPED CYCLE 2	OUT-OF-CORE SIPPED CYCLE 3
CY-650	11-08	5-24	Yes	Yes
CY-530	03-26	3-26	Yes	Yes
CY-661	53-12	37-6	Yes	No
CY-614	11-54	23-56	Yes	No
CY-486	25-04	25-4	Yes	No
CY-709	25-58	25-58	Yes	No
CY-556	35-58	35-58	Yes	No
CY-670	35-04	35-4	Yes	No
CY-522	57-28	57-28	Yes	No
CY-605	03-34	3-34	Yes	No
CY-658	07-44	7-44	Yes	No
CY-594	53-18	53-18	Yes	No
CY-555	57-34	57-34	Yes	No
CY-655	03-28	3-28	Yes	No
CY-529	27-04	27-4	Yes	No
CY-513	27-58	27-58	Yes	No
CY-510	33-58	33-58	Yes	No
CY-645	33-04	33-4	Yes	No
CY-699	57-30	57-30	Yes	No
CY-509	03-32	3-32	Yes	No
CY-694	57-32	57-32	Yes	No
CY-653	03-30	3-30	Yes	No
CY-631	15-10	15-10	Yes	No
CY-604	45-52	45-52	Yes	No
CY-564	29-04	29-4	Yes	No
CY-688	31-58	31-58	Yes	No
CY-646	29-58	29-58	Yes	No
CY-628	31-04	31-4	Yes	No
CY-524	17-54	17-54	Yes	No
CY-668	43-08	43-8	Yes	No
CY-687	15-52	15-52	Yes	No
CY-597	45-10	45-10	Yes	No
CY-685	09-48	9-48	Yes	No
CY-589	51-14	51-14	Yes	No
CY-579	51-48	51-48	Yes	No
CY-634	09-14	9-14	Yes	No
CY-624	53-34	53-44	Yes	No
CY-660	07-18	7-18	Yes	No
CY-182	11-50	11-50	Yes	No
CY-155	49-50	49-50	Yes	No
CY-165	40-12	49-12	Yes	No
CY-148	11-12	11-12	Yes	No
CY-618	47-50	47-50	Yes	No
CY-617	17-56	17-56	Yes	No
CY-611	13-50	13-50	Yes	No
CY-588	47-12	47-12	Yes	No
CY-480	09-46	9-46	Yes	No
CY-449	51-16	51-16	Yes	No
CY-606	51-46	51-46	Yes	No
CY-471	09-16	9-16	Yes	No
CY-578	11-48	11-48	Yes	No
CY-450	49-14	49-14	Yes	No
CY-596	49-48	49-48	Yes	No
CY-638	11-14	11-14	Yes	No

D2 BOC 3

Figure 13
Page 1
AVERAGE EXPOSURE
(GWD/T)

	1	2	3	4	5	6	7	8
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0	1.169	1.452
4	0.0	0.0	0.0	0.0	0.0	2.510	2.114	2.300
5	0.0	0.0	0.0	0.0	1.277	2.234	2.485	2.299
6	0.0	0.0	0.0	2.279	2.235	2.506	2.435	0.0
7	0.0	0.0	1.169	2.114	2.485	2.436	0.0	0.0
8	0.0	0.0	1.451	2.299	2.299	0.0	0.0	0.0
9	0.0	0.0	1.632	2.163	0.0	0.0	0.0	0.0
10	0.0	2.511	2.085	0.0	0.0	0.0	0.0	0.0
11	2.279	2.126	1.211	0.0	0.0	0.0	0.0	0.0
12	1.440	2.433	1.389	0.0	0.0	0.0	0.0	0.0
13	1.565	2.314	0.0	0.0	0.0	0.0	0.0	0.0
14	1.612	2.409	0.0	0.0	0.0	0.0	0.0	0.0
15	1.643	2.636	1.591	0.0	0.0	0.0	0.0	0.0
16	1.649	2.638	1.181	0.0	0.0	0.0	0.0	0.0
17	1.615	2.414	0.0	0.0	0.0	0.0	0.0	0.0

FL EXPOSURE

	7	8	9	10	11	12	13	14	15
[illegible]	0.0	0.0	0.0	0.0	2.448	1.439	1.553	1.609	1.644
0	0.0	0.0	0.0	2.447	2.125	2.431	2.352	2.405	2.629
0	1.169	1.452	1.633	2.084	1.341	1.341	0.0	0.0	1.211
510	2.114	2.300	2.165	0.0	0.0	0.0	0.0	0.0	0.0
.234	2.485	2.299	0.0	0.0	0.0	0.0	0.0	0.0	0.0
.606	2.435	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
.436	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

18	1.562	2.361	0.0	0.0	0.0	0.0	0.0	0.0	0.
19	1.4[illegible]4	2.441	1.3[illegible]	0.0	0.0	0.0	0.0	0.0	0.
20	2.4[illegible]	2.12[illegible]	1.[illegible]	0.0	0.0	0.0	0.0	0.0	0.
21	0.0	2.457	2.[illegible]	0.0	0.0	0.0	0.0	0.0	0.
22	0.0	0.0	1.[illegible]	2.176	0.0	0.0	0.0	0.0	0.
23	0.0	0.0	1.45[illegible]	2.312	2.314	0.0	0.0	0.0	0.
24	0.0	0.0	1.175	2.126	2.500	2.454	0.0	0.0	0.
25	0.0	0.0	0.0	2.521	2.240	2.523	2.455	0.0	0.
26	0.0	0.0	0.0	0.0	1.395	2.243	2.500	2.315	0.
27	0.0	[illegible]	0.0	0.0	0.0	2.287	2.125	2.310	2.
28	0.0	0.0	0.0	0.0	0.0	0.0	1.174	1.457	1.
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.

0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.455	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.500	2.315	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.125	2.310	2.172	0.0	0.0	0.0	0.0	0.0	0.0
1.174	1.457	1.638	2.038	1.212	1.391	0.0	0.0	1.388
0.0	0.0	0.0	2.281	2.127	2.433	2.352	2.405	2.630
0.0	0.0	0.0	0.0	2.511	1.440	1.553	1.609	1.644

Figure 13
Page 6

16	17	18	19	20	21	22	23	24	
1.645	1.612	1.741	1.466	2.207	0.0	0.0	0.0	0.0	0.0
2.630	2.405	2.341	2.457	2.184	2.522	0.0	0.0	0.0	0.0
1.389	0.0	0.0	0.0	1.234	2.135	1.654	1.462	1.174	0.0
0.0	0.0	0.0	0.0	0.0	0.0	2.179	2.310	2.121	2.23
0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.305	2.491	2.23
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.441	2.51
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.44
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	[illegible]	[illegible]	[illegible]	0.0	0.0	0.0	0.0	0.0

23	24	25	26	27	28	29	30
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1.462	1.174	0.0	0.0	0.0	0.0	0.0	0.0
2.310	2.121	2.284	0.0	0.0	0.0	0.0	0.0
2.305	2.491	2.239	1.380	0.0	0.0	0.0	0.0
0.0	2.441	2.511	2.239	2.516	0.0	0.0	0.0
0.0	0.0	2.442	2.490	2.118	1.171	0.0	0.0
0.0	0.0	0.0	2.305	2.304	1.454	0.0	0.0
0.0	0.0	0.0	0.0	2.169	1.636	0.0	0.0
0.0	0.0	0.0	0.0	0.0	2.080	2.459	0.0
0.0	0.0	0.0	0.0	0.0	1.344	2.130	2.460
0.0	0.0	0.0	0.0	0.0	1.345	2.437	1.442
0.0	0.0	0.0	0.0	0.0	0.0	2.357	1.557
0.0	0.0	0.0	0.0	0.0	0.0	2.412	1.613
0.0	0.0	0.0	0.0	0.0	1.213	2.637	1.648
0.0	0.0	0.0	0.0	0.0	1.392	2.637	1.648
0.0	0.0	0.0	0.0	0.0	0.0	2.411	1.613
0.0	0.0	0.0	0.0	0.0	0.0	2.356	1.556

0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.433
0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.296	2.483
0.0	0.0	0.0	0.0	0.0	0.0	2.162	2.298	2.112
1.210	0.0	0.0	1.341	1.340	2.082	1.631	1.456	1.166
2.630	2.405	2.361	2.430	2.124	2.460	0.0	0.0	0.0
1.644	1.009	1.553	1.659	2.451	0.0	0.0	0.0	0.0

	0.0	0.0	0.0	0.0	0.0	1.385	2.434	1.450
	0.0	0.0	0.0	0.0	0.0	1.177	2.116	2.277
	0.0	0.0	0.0	0.0	0.0	2.082	2.511	0.0
	0.0	0.0	0.0	0.0	2.164	1.632	0.0	0.0
	0.0	0.0	0.0	2.299	2.300	1.451	0.0	0.0
	0.0	0.0	2.435	2.485	2.114	1.169	0.0	0.0
	0.0	2.433	2.504	2.234	2.277	0.0	0.0	0.0
	2.296	2.483	2.233	1.376	0.0	0.0	0.0	0.0
62	2.298	2.112	2.508	0.0	0.0	0.0	0.0	0.0
31	1.450	1.168	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Figure 14 Page 1 EOC-3 EXPOSURE (MWD/T)

										6984.	7007.	7569.	7806.	7334.
									8108.	9902.	11022.	11459.	11685.	11301.
						5814.	7335.	8648.	10989.	10957.	11415.	10106.	10175.	10967.
					7676.	9784.	11045.	11520.	10363.	10423.	10687.	10758.	10832.	10524.
				7086.	10418.	11317.	11965.	9865.	10215.	10235.	10452.	10913.	11060.	10983.
			7630.	10575.	12134.	12327.	10106.	10273.	10486.	10390.	10592.	11166.	11304.	11259.
		5927.	10046.	11966.	12923.	10135.	10347.	10666.	10780.	10514.	10718.	11514.	11696.	11642.
		7388.	11224.	12512.	10782.	10432.	10545.	10839.	10916.	10615.	10751.	11495.	11659.	11569.
		8415.	11572.	9951.	10372.	10325.	10462.	10750.	10855.	10810.	10859.	11042.	11074.	10868.
	8957.	10666.	10003.	10227.	10503.	10401.	10534.	10507.	11010.	10952.	10939.	10944.	10867.	10589.
6806.	9848.	10507.	10378.	10512.	10689.	10506.	10655.	11418.	11554.	11350.	11249.	10967.	10764.	10166.
6960.	10972.	11108.	10628.	10735.	10864.	10627.	10765.	11391.	11498.	11293.	11159.	10851.	10665.	10060.
7499.	11363.	9765.	10439.	10875.	11064.	10956.	10888.	10644.	10629.	10781.	10721.	10544.	10439.	10163.
7748.	11557.	9819.	10481.	11029.	11257.	11126.	11003.	10501.	10473.	10562.	10535.	10509.	10432.	10181.
7937.	11714.	11117.	10496.	11446.	11738.	11537.	11352.	10898.	10685.	10146.	10146.	10810.	10820.	10438.
7834.	11735.	10905.	10550.	11501.	11745.	11548.	11358.	10905.	10682.	10140.	10169.	10830.	10816.	10439.
7755.	11600.	9852.	10556.	11100.	11283.	11152.	11018.	10592.	10475.	10561.	10555.	10525.	10433.	10193.
7533.	11395.	9808.	10493.	10920.	11115.	10991.	10905.	10654.	10635.	10790.	10721.	10545.	10426.	10153.
7001.	11027.	11378.	10713.	10909.	10929.	10660.	10721.	11493.	11504.	11297.	11159.	10351.	10647.	10040.
7090.	9956.	11002.	10536.	10628.	10755.	10526.	10666.	11422.	11558.	11350.	11245.	10957.	10765.	10173.
	9160.	11122.	10510.	10406.	10595.	10439.	10548.	10906.	11009.	10947.	10933.	10938.	10865.	10593.
		8805.	12053.	10140.	10455.	10354.	10477.	10759.	10854.	10804.	10846.	11032.	11062.	10860.
		7521.	11363.	12635.	10830.	10434.	10543.	10822.	10900.	10602.	10734.	11476.	11642.	11560.
		5989.	10090.	12017.	12965.	10132.	10340.	10633.	10733.	10492.	10684.	11476.	11667.	11629.
			7923.	10596.	12138.	12298.	10051.	10185.	10391.	10324.	10526.	11112.	11275.	11248.
				7087.	10403.	11276.	11758.	9670.	10031.	10117.	10377.	10865.	10986.	10924.
					7545.	9747.	10919.	11358.	9848.	10260.	10598.	10698.	10751.	10464.
						5757.	7212.	8274.	10569.	10458.	11222.	10057.	10127.	11191.
									7825.	9833.	11005.	11455.	11660.	11787.
										7000.	6987.	7552.	7809.	7891.
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29

Figure 14 Page 2 [illegible]-3 EXPOSURE

7894.	7[illegible].	7571.	7016.	6847.										
11789.	11672.	11482.	11054.	9899.	8057.									
11174.	10142.	10082.	9937.	10503.	10624.	8299.	7223.	5762.						
10472.	10763.	10716.	10622.	10277.	9157.	11376.	10929.	9750.	7539.					
10929.	10994.	10876.	10368.	10126.	10039.	9675.	11761.	11276.	10401.	7085.				
11253.	11281.	11119.	10532.	10329.	10396.	10188.	10051.	12294.	12133.	10590.	7915.			
11632.	11674.	11480.	10688.	10495.	10740.	10633.	10338.	10129.	12956.	12009.	10083.	5984.		
11562.	11644.	11479.	10736.	10603.	10899.	10819.	10537.	10428.	10827.	12625.	11354.	7514.		
10861.	11063.	11034.	10846.	10803.	10854.	10758.	10467.	10344.	10453.	10140.	12042.	8797.		
10592.	10866.	10934.	10931.	10944.	11008.	10901.	10529.	10420.	10590.	10404.	10595.	11112.	8155.	
10173.	10764.	10256.	11242.	11345.	11550.	11406.	10617.	10477.	10737.	10619.	10539.	10994.	9948.	6994.
10038.	10645.	10849.	11156.	11292.	11145.	11386.	10671.	10610.	10911.	10799.	10707.	11375.	11019.	6996.
10144.	10424.	10544.	10718.	10786.	10652.	10648.	10886.	10972.	11108.	10916.	10498.	9805.	11388.	7528.
10185.	10432.	10524.	10553.	10558.	10473.	10590.	11009.	11142.	11290.	11098.	10553.	9857.	11595.	7752.
10436.	10815.	10628.	10166.	10137.	10630.	10902.	11352.	11543.	11742.	11499.	10548.	10901.	11731.	7831.
10439.	10821.	10819.	10145.	10144.	10623.	10826.	11348.	11534.	11736.	11445.	10495.	11112.	11711.	7836.
10188.	10434.	10510.	10535.	10561.	10473.	10591.	11002.	11125.	11257.	11031.	10481.	9820.	11555.	7747.
10172.	10442.	10546.	10721.	10781.	10630.	10645.	10839.	10955.	11665.	10876.	10440.	9767.	11363.	7498.
10062.	10667.	10851.	11159.	11293.	11499.	11392.	10706.	10627.	10364.	10737.	10629.	11193.	10972.	6960.
10167.	10764.	10963.	11249.	11351.	11554.	11412.	10655.	10505.	10691.	10513.	10379.	10506.	9647.	6804.
10589.	10867.	10945.	10939.	10952.	11011.	10908.	10535.	10412.	10504.	10229.	10003.	10665.	8055.	
10867.	11074.	11043.	10859.	10510.	10856.	10761.	10453.	10326.	10373.	9952.	11573.	8415.		
11566.	11658.	11494.	10759.	10615.	10217.	10840.	10544.	10432.	10782.	12514.	11224.	7337.		
11640.	11694.	11513.	10718.	10514.	10780.	10666.	10346.	10134.	12924.	11966.	10044.	5926.		
11256.	11302.	11164.	10591.	10390.	10487.	10273.	10105.	12330.	12134.	10576.	7782.			
10981.	11058.	10911.	10451.	10234.	10215.	9864.	11871.	11321.	10416.	7085.				
10519.	10826.	10752.	10684.	10420.	10760.	11836.	11054.	9787.	7750.					
10982.	10167.	10099.	11414.	10953.	11022.	8664.	7343.	5817.						
11809.	11700.	11483.	11058.	9939.	8114.									
7888.	7815.	7594.	7027.	6996.										
31	33	35	37	39	41	43	45	47	49	51	53	55	57	59

Figure 15

DRESDEN UNIT 2

EOC-3

LOCATION OF LEAKERS