

Georgia Power Company
Post Office Box 442
Baxley, Georgia 31513
Telephone 912 367-6686
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Edwin I. Hatch Nuclear Plant



July 10, 1981
PM-81-583

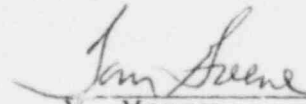
PLANT E. I. HATCH
NRC Monthly Operating Report

Director
Office of Inspection and Enforcement
United States Nuclear Regulatory Commission
Washington, D. C. 20555



Dear Sir:

Per Tech Specs section 6.9.1.6 please find attached the NRC Monthly Operating Report for Hatch Unit 1, Docket #50-321.


M. Manry
Plant Manager

CLC/pebc

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Georgia Power

OPERATING DATA REPORT

DOCKET NO. 50-321

DATE 07-14-81

COMPLETED BY DENVER ATWOOD

TELEPHONE (912) 367-7781 x 203

OPERATING STATUS

1. Unit Name: E.I. Hatch Nuclear Plant Unit 1
2. Reporting Period: 06-81
3. Licensed Thermal Power (MWt): 2436
4. Noneplate Rating (Gross MWe): 809.3
5. Design Electrical Rating (Net MWe): 777.3
6. Maximum Dependable Capacity (Gross MWe): 796.3
7. Maximum Dependable Capacity (Net MWe): 756.8

* Notes

8. If Changes Occur in Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons:

9. Power Level To Which Restricted, If Any (Net MWe):

10. Reasons For Restrictions, If Any:

	This Month	Yr.-to-Date	Cumulative
11. Hours In Reporting Period	720	4343	48191
12. Number Of Hours Reactor Was Critical	568.1	1784.5	35296.5
13. Reactor Reserve Shutdown Hours	0.0	0.0	0.0
14. Hours Generator On-Line	281.8	1440.0	32885.4
15. Unit Reserve Shutdown Hours	0.0	0.0	0.0
16. Gross Thermal Energy Generated (MWH)	511713	2668027	68470909
17. Gross Electrical Energy Generated (MWH)	158590	868270	22167920
18. Net Electrical Energy Generated (MWH)	144217	802985	21055463
19. Unit Service Factor	39.1	33.2	68.2
20. Unit Availability Factor	39.1	33.2	68.2
21. Unit Capacity Factor (Using MDC Net)	26.5	24.4	57.7
22. Unit Capacity Factor (Using DER Net)	25.8	23.8	56.2
23. Unit Forced Outage Rate	60.9	31.9	20.8
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each):			

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

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

Forecast

Achieved

INITIAL CRITICALITY
INITIAL ELECTRICITY
COMMERCIAL OPERATION

(9/77)

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-321
DATE 07-10-81
COMPLETED BY DENVER ATWOOD
TELEPHONE (912) 367-7781 x 203

MONTH 06-81

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	-10	17	-0
2	-12	18	190
3	-12	19	-8
4	-12	20	327
5	-12	21	521
6	-14	22	608
7	-18	23	415
8	-17	24	325
9	-14	25	606
10	-13	26	463
11	-14	27	595
12	-15	28	686
13	-16	29	754
14	-15	30	752
15	-15	31	
16	-15		

(9/77)

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH June 1981

DOCKET NO. 50-321
 UNIT NAME Hatch 1
 DATE 7-10-81
 COMPLETED BY D. G. Atwood
 TELEPHONE 912-367-7851

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
81-41	810617	S	.5	B	1	NA	HA	ZZZZZZ	Turbine overspeed trip speed
81-42	810617	F	26.8	B	5	NA	HA	ZZZZZZ	Startup from #81-41
81-43	810619	F	20.7	B	1	NA	IA	INSTRU	Power reduction to inspect for tip tube damage
81-44	810619	F	41.3	B	5	NA	IA	INSTRU	Startup from #81-43
81-45	810623	F	13.7	A	3	NA	HA	ZZZZZZ	Scram from reactor pressure hi due to generator runback
81-46	810624	F	23.9	A	5	NA	HA	ZZZZZZ	Startup from scram #41-45
81-47	810625	F	32.5	A	5	NA	HC	HTEXCH	Power reduction due to loss of conden- ser vacuum

¹
 F: Forced
 S: Scheduled

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

³
 Method:
 1-Manual
 2-Manual Scram.
 3-Automatic Scram.
 4-Continuations
 5-Load Reduction
 9-Other (Explain)

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

⁵
 Exhibit I - Same Source

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No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
81-34	810601	S	162.4	C	1	NA	ZZ	ZZZZZZ	Scheduled refueling outage
81-35	810507	F	47.3	A	2	NA	HA	ZZZZZZ	Reactor scrambled to allow fast shutdown of turbine
81-36	810609	S	26.6	B	2	NA	ZZ	CONROD	Reactor shutdown to test scram time
81-37	810610	F	64.3	A	3	NA	IA	INSTRU	Reactor auto scrambled due to AERM and IRM spikes
81-38	810613	F	37.1	A	3	NA	IA	INSTRU	Reactor scrambled due to high IRM
81-39	810615	F	65.7	A	2	NA	IA	INSTRU	IRMs spiked causing rods to be moved from targeted positions
81-40	810617	F	2.3	A	5	NA	IA	INSTRU	Startup from shutdown, 81-38, 81-39

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H-Other (Explain)

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5-Load Reduction
9-Other (Explain)

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

⁵ Exhibit I - Same Source

(9/77)

UNIT SHUTDOWNS AND POWER REDUCTIONS

REPORT MONTH June 1981

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 TELEPHONE 912-367-7851

No.	Date	Type ¹	Duration (Hours)	Reason ²	Method of Shutting Down Reactor ³	Licensee Event Report #	System Code ⁴	Component Code ⁵	Cause & Corrective Action to Prevent Recurrence
81-48	810627	F	7.5	A	5	NA	CH	TURBINE	Load reduction to repair overspeed test switch on reactor feed pump turbine

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 F: Forced
 S: Scheduled

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

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 Method:
 1-Manual
 2-Manual Scram.
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(9/77)

NARRATIVE REPORT
UNIT 1

June 1st	Unit in force refueling outage
June 4th	1248 reactor critical
June 7th	1825 reactor scram to allow fast shutdown of turbine; Rx critical at 0258 on 810608
June 9th	1745 reactor shutdown in order to perform scram time test; 1940 reactor critical
June 10th	2019 Rx scram due to APRMs, B IRM spiked
June 11th	Rx critical at 0300 hrs
June 12th	1237 Rx mode switch to run; 1731 rolling turbine; 1900 overspeed trip test complete; 1930 rerolling turbine; 1954 tripped main turbine at 1200 rpm due to main thrust bearing; 2022 reduced power to inspect thrust bearing; 2118 Rx mode switch to start and hot standby
June 13th	1228 Rx scram due to high IRM
June 14th	1329 Rx critical
June 15th	0138 Rx manual scram due to 'B' and 'D' IRMs spiked causing rods to be moved from targeted positions; 2148 Rx critical
June 17th	At 1233 mode switch to run; 1814 main turb rolling; 1920 main turb ti to line; 2139 unit off line for turbine overspeed trip test; at 2208 unit tied to line
June 18th	At 2230 shutdown in progress to enter drywell to inspect for trip tube damage
June 19th	At 0055 main turb tripped; 0150 Rx mode switch to start and hot standby; 1918 Rx mode switch to run; 2023 main turbine rolling; 2140 unit tied to line
June 21st	Decreased Rx power to run OD-1 at 1920; 1935 stopped decreasing Rx power: 2308 increasing Rx power
June 23rd	At 1454 Rx scram due to Rx press high due to gen. runback; 2040 Rx critical

June 24th Unit tied to line at 0435

June 25th Decreasing load at 2300 due to loss of vacuum due to SJAE flooded; 2340 stopped decreasing load

June 26th 0330 increasing load

June 27th At 0130 reducing load to perform weekly turbine test; 1413 load was reduced for repair of overspeed test switch on 1A-RFPT; 1780 increasing load

HATCH 1 SAFETY-RELATED MAINTENANCE REQUESTS
TO BE REPORTED FOR JUNE 1981

<u>NUMBER</u>	<u>DATE COMPLETED</u>	<u>DESCRIPTION</u>
81-1933	5-21-81	Replaced nonqualified with qualified drywell sump valve reset switches A71-53 /9
81-974	5-27-81	Removed RPV head piping and ductwork B11-G001 on 3-5-81, and reinstalled piping and ductwork as per HNP-1-6710
81-1164	5-26-81	Performed P/M as per HNP-1-6280 on B21-F28A-D and changed oil on B21-F022A-D per MR 1-80-4180
81-3166	5-20-81	Performed leakdown test on SRV air supply check valves B21-F036A-J
81-3429	5-26-81	Work completed per CBI drawing 101 contract 04391 on SRV discharge lines ramsheads supports B21
81-964	5-24-81	Removed and replaced indicated control rod drives
81-1651	5-15-81	Replaced 25 C52-K605 LPRM detector strings and verified they were latched
81-1797	5-23-81	Pulled cables on RPT breaker logic C71-CB3A&B/4A&B per DCRs 77-271 and 80-226
81-1800	5-28-81	Terminated RPT breaker logic cables C21-CB3A&B/4A&B per DCRs 77-271 and 80-226
81-2190	5-23-81	Pulled cable for primary containment high pressure switch C71-N004 per DCR 79-432
81-2213	5-23-81	Terminated cable H11-P630-A8043 for primary containment high pressure switch C71-N004 per DCR 79-432

81-1521	5-23-81	Pulled cable to remote shut-down panels (sound powered phone system) C82-P001&2 to complete sound powered portion of DCR 78-201
81-1525	5-28-81	Pulled cable to remote shut-down panels (sound powered phone system) C82-P001&2 to complete sound powered portion of DCR 78-201
81-1565	5-28-81	Replaced magnetic switch; also replaced ASCO solenoid valve on LLRT test boundary E11-F050A
81-1567	5-21-81	Hooked up MOV, motor and cable, set up and operated MOV in open and close direction on LLRT test boundary valve E11-F015A
81-2536	5-28-81	RHR LPCI injection valve seal-in logic E11-F015A(B) circuitry removed per DCR 80-257
81-2799	5-26-81	Rotated and reinstalled operator on RHR pump suction valve E11-F065B
81-3595	5-24-81	Modified RHR valve snubber assy. E11-RHR-184 by extending strut
81-3528	5-26-81	Disassembled LLRT test boundary valve E21-F010A, lapped seat, machined stem, and reassembled valve with new packing and gasket
81-3609	5-24-81	Increased strut length and modified core spray snubber assy. E11-CSH-43
81-3610	5-24-81	Increased strut length and modified core spray snubber assy. E11-CSH-44
81-1832	5-26-81	Handlapped disc and seat on LLRT test boundary valve E41-F046, F012 to obtain 100% contact

81-2828	5-28-81	Changed control switch 527 on suppression pool isol. valve E41-F051 to a double pole switch and wired it as per DCR 80-451.
81-3122	5-8-81	Removed bonnet and installed new gasket on CST suction check valve E41-F019 and replaced bonnet
81-3183	5-8-81	Installed blank under pump suction relief valve E41-F020 on 4-28-81, and removed blank and installed new gasket on 5-7-81
81-3250	5-26-81	Installed conduit and supports on HPCI pump discharge valve E41-F006 for ESS-II-3044 and 3074, per DCR 81-16
81-4122	5-25-81	Reinstalled E41 support for HPCI turbine exh. drain that was removed during outage
81-2079	5-29-81	Installed conduit hangers and conduits 3306A thru 3308A, IMC 3300A and IMC-3305A on RCIC E51
81-2564	5-24-81	Removed starter and bkr. assemblies and placed in proper frames as directed on RCIC turbine trip and throttle valve E51-C002. Control and motor leads were not reconnected to power source
81-2670	5-24-81	Disconnected cables from section 11, 11A and reconnected cables in section 2, 2C in MCC R24-S021 for turbine trip and throttle valve (RCIC) E51-C002
81-2827	5-28-81	Changed control switch S25 on the HP11-P602 panel in control room for suppression pool isolation valve E51-F002 from a single pole to a double pole switch and wired as per DCR 80-452

81-3082	5-24-81	Performed necessary wiring changes and relined internal wiring of frame 2C also redlined cable listed for RCIC turbine trip throttle valve E51-C002
81-1961	5-23-81	Installed new seal-in relays, replaced valve control switches and performed all internal wiring per DCR 80-13 for PCIS valve logic G11-F003,4,19,20; B31-F019,20; T48-F118A,B, 307,309,318,319,339,341,103,104,308,320,324,326, 338, 340; P70-F002&3
81-1962	5-27-81	Terminated cable per DCR 80-13 for PCIs valve logic G11-F003,4,19,20; T48-F307,308,309,318,319,320,324, and 326
81-1963	5-23-814	Terminated cable per DCR 80-13 for PCIs valve logic G11-F003,4,19,20; T48-F307,308,309,318,319,320,324, and 326
81-1982	5-26-81	Disassembled knocker valve drive shaft G31-F056A, disassembled roto hammer operates, tightened internal bolts to reduce loose play in operator, reassembled operator, reconnected drive shaft and set
81-2609	5-24-81	Installed internal wiring, pilot lights, control switch and misc. name plates and labeled terminal board for DC switchgear local control panel H21-P248
81-4299	6-16-81	Replaced RHR minimum flow motor E11-F007A as per DCR 81-151
81-4332	6-10-81	Found overloads tripped, removed heads and meggered RHR min. flow motor E11-F007A, found to be open and grounded, removed and

replaced motor, megerred motor, checked operator on MOV, bumped motor for rotation, operated MOV for correct operation and checked running amps

81-4430	6-17-81	Installed new motor on RHR Hx to torus valve E11-F011A and checked valve operation
81-4501	6-10-81	Replaced RHR E11-F028B MOV E11-F028B motor with new motor with brake
81-1564	5-26-81	Replaced gates and seat, repacked and tongued down LLRT test boundary E21-F031A
81-2569	6-1-81	Disconnected circuit, moved conduit to E21-F019B, reinstalled conduit and reterminated cable
81-3338	5-29-81	Performed hydro test on core spray piping E11-A loop
81-4217	6-1-81	Installed new motor on core spray "B" suction valve E21-F001B; checked operation of limit and torque switches and run valve by motor
81-2509	5-19-81	Performed hydro as per HNP-6607-1 on HPCI pump suction piping E41-C001
81-3698	6-5-81	Replaced HPCI booster pump discharge press. indic. E41-C001 with new calibrated one
81-4292	6-17-81	Removed HPCI steam turbine drive shaft cooling E41-C001 for overspeed trip test and replaced
81-4322	5-29-81	Removed old O rings on oil filter selector handle E41-C002 and replaced with new ones

81-14	6-4-81	Installed new flange gasket set, verified RCIC steam inlet drain pot valve E51-F054 repaired with replacement parts listed on IMR 01864
81-577	6-15-81	Installed support bracket on RCIC aux oil sump E51-C002 as per DCR 79-141
81-1239	6-1-81	Revised wiring as per DCR 80-360 on turbine trip and throttle valve E51-C002
81-2508	-6-1-81	Performed hydro as per HNP-6907 on RCIC pump suction piping E51-C001
81-3126	5-30-81	Removed bonnet and wire on CST suction check valve E51-F011 and replaced with gasket
81-3187	5-30-81	Removed pump suction relief valve E51-Ff017 and installed blind flange on pipe, later removed blind flange and replaced relief valve with new gasket
81-3765	6-15-81	Installed new Nyloc set screws in speed sensing gears on RCIC turbine E51-C007; also cleaned and reinstalled bearing covers
81-4181	6-17-81	Removed spool piece and installed disconnect on RCIC turbine drive shaft coupling E51-C001 and reinstalled spool piece
81-4230	6-1-81	Found motor to be burned out on core spray min. flow valve E21-F031A and replaced motor meggered and operated valve
81-4289	6-3-81	Removed installed blank and reinstalled old RCIC turbine exhaust rupture disc E51-D001 after performance of hydro
81-4318	6-2-81	Performed hydro on RCIC turbine steam supply piping E51-C002

81-4333	6-3-81	Performed hydro on RCIC turbine exhaust piping E51-C002
81-4447	6-9-81	Changes made on RCIC steam supply valve E51-F007 as per Bechtel telecopy and DCR 78-201
81-4499	6-3-81	Removed blank from RCIC turbine steam exhaust line nozzle E51-C001 and installed new Flexitallic gasket
81-4574	6-5-81	Corrected relay binding on RCIC turb exh vac bkr E51-F105
81-3722	5-28-81	Hydroed G51-F001-4, F014-16 piping and valves
81-4193	6-1-81	Removed existing cable on D/W/torus temp recorder alarm cable H21-F237-AD051; also pulled new cable and reterminated same per DCR 80-439
81-1524	4-1-81	Replaced mechanical snubber B21-X29-1F17-H1 per DCR 80-15
81-2394	5-30-81	Rerouted conduit to seismic accelerometers L51-N002 and N105 and installed hangers per DCR 81-23
80-2110	6-1-81	Replaced cage, seat, and plug on offgas cooler cond S04 drain valve N62-F030B and lapped
81-464	5-26-81	Fabricated and installed hangers per DCR 80-380 for Unit 1 air compressors P51
81-545	6-1-81	Disconnected torus temporary fan R24 from R24-S011 bkr #28
81-2889	5-28-81	Removed local starter R27-F035 from the torus E1-133' relocated on el 130 react bldg per DCR 81-16
81-2123	5-28-81	All work complete per CBI dwgs contract 95371 on torus vent headers and downcomers T23

81-2281	6-2-81	Disconnected and reconnected wires and conduit for torus floor drain level switch T45-N002C&D; replaced float on (C) and redlined cables and FT
81-2392	5-30-81	Rerouted conduit to sump level switch T45-N002A; repulled cables and reterminated cables
81-952	6-3-81	Removed, then reinstalled reactor cavity shield plugs (B11-shielding)
80-4180	5-26-81	Cleaned MSIV hydraulic cylinder (B21-F022D) and replaced fluid
81-1267	5-27-81	Performed preventive maintenance on main steam relief valves (V21-F013A-H, J-L)
81-1431	5-26-81	Hooked up temporary dry reference leg on low side of reactor vessel wide range level indicator transmitter to achieve accurate level indication with RPV head removed
81-1447	-81	Repaired leaking LLRT pressure boundary valves (B21-F022A, F028A)
81-1452	5-27-81	Repaired leaking LLRT pressure boundary valves (B21-F022C)
81-1453	5-23-81	Repaired leaking LLRT pressure boundary valve (B21-F022B)
81-2483	5-21-81	Removed SRV ramshead tee support straps and T-beam
81-2543	5-27-81	Repaired leaking LLRT test boundary valve (B21-F032A)
81-3034	5-29-81	Replaced snubbers B21-FDH-11A, B with new snubbers

81-3191	5-27-81	Installed temporary reactor water level indicators (B21-N031A)
81-3231	6-4-81	Removed support B21-113-H801 on SRV discharge line (B21-F013K); replaced section of SRV discharge line
81-3519	5-24-81	Braced ramsheads' support structure (girder-to-girder WF beam) in bay 6; replaced and braced girder-to-girder WF beam in Bay 8 (B21)
81-1897	5-28-81	Repaired hydraulic snubber (B31 SS-B12)
31-2189	5-24-81	Installed a vent connection between B31-F019 and B31-F059 (B31-G001, recirc system)
81-3260	6-4-81	Repaired reactor recirc B suction low point drain valves (B31-F052B, F051B)
81-4591	6-10-81	Repaired recirc drive temp recorder
81-2502	5-23-81	Performed hydro test on standby fluid control (C41)
81-2834	6-2-81	Mounted area process radiation monitors D11-N003A and B
81-2835	6-2-81	Fabricated and installed conduit supports and conduit for D11-N003A/B
81-2836	6-2-81	Pulled cables for area radiation monitors (D11-N003A/B)
81-342	5-31-81	Replaced RHR inboard isolation valve motor with original motor
81-1450	5-29-81	Repaired valve E11-F024A in LLRT pressure boundary
81-2008	5-31-81	Repaired RHR service water pump seal leak (E11-C001A)

81-2544	6-1-81	Repaired leaking LLRT test boundary valve (E11-F029)
81-2800	6-1-81	Disconnected cable and conduit associated with RHR torus suction valve E11-F065B
81-3161	5-30-81	Removed RHR SRV and placed a flange on the RHR pipe to allow hydro test of RCIC; replaced SRV upon completion of hydro
81-3255	5-27-81	Installed modified RHR line snubber support assembly for support E11-RHR-H184
81-3328	5-27-81	Repaired RHR pump suction valve E11-F004B)
81-3346	5-29-81	Closed RHR relief valve (E11-F025A) for performance of RHR hydro, opened after successful completion of hydro
81-3453	5-31-81	Repaired sea water leak on RHR service water pump (E11-C001C)
81-3454	5-31-81	Repaired seal water leak on RHR service water pump (E11-C001A)
81-3479	5-27-81	Repaired RHR relief valve (E11-F055B)
81-3608	5-27-81	Modified RHR snubber support assembly (E11-RHR-H322)
81-3720	5-28-81	Repaired conduit on limit switches and solenoid valve (E11-F050B)
81-4047	5-27-81	Repaired leaking LLRT test boundary valve (E11-F027A)
81-4056	5-27-81	Repaired leaking LLRT test boundary valve (E11-F011A)
81-3176	5-30-81	Replaced 25% safety related snubbers with new or rebuilt numbers (L31)

81-1590	5-25-81	Replaced the existing WSCo. mechanical snubbers and accessories with new equipment (L35)
81-1592	5-25-81	Replaced the existing WSCo. mechanical snubbers and accessories with new equipment (L35)
81-1594	5-21-81	Replaced mechanical snubber G31-SM-6 and clamps per DCR 80-15 (G31)
81-4271	5-30-81	Installed new pipe clamp on Yarway column of mechanical snubber (B21-X29-1F17-H6,7)
81-1858	5-27-81	Repaired leaking and dry snubbers (N11-MSH-14)
81-2026	5-27-81	Installed hangers on MSR high level trip switch piping (N38-B001A, B, C, D)
81-5792	4-2-81	Routed piping from sprinkler valve for mechanical air supervision of sprinkler system in RPS rooms and vertical cableway (P52)
81-3030	5-27-81	Relocated circuit breakers in R22-S016 (125/250 VDC switchgear)
81-2611	5-27-81	Relocated frames in R24-S021 (250 VDC essential MCC)
81-2749	5-27-81	Installed conduits and conduit supports to R24-S021A (MCC)
81-3278	5-28-81	Pulled and terminated cables to R24-S021A (250 VDC essential MCC)
81-2898	5-21-81	Disconnected and removed cables R24-S022-E58-C07, C07C, E56-M07, M07A, M07B, and R24-S022-C24
81-2901	5-26-81	Pulled and terminated cables to local starter (R27-S035)

81-2912	5-28-81	Installed new conduit to local starter (R27-S035)
81-2790	5-27-81	Replaced damaged cable tray supports on tray R33-TAD7-07
81-3468	5-27-81	Removed existing type vital AC batteries and rack and installed new batteries and rack (R42-S008)
81-3827	5-28-81	Removed diesel generator 1C batteries and replaced with new batteries (R42-S001)
81-3412	5-28-81	Installed support on beam in NE diagonal (T21-B2)
81-519	5-26-81	Opened doors on sacrificial shield and removed insulation from nozzles 1N1B, 1N2B, 1N2E, 1N2H, 1N2K (T23)
81-2524	5-26-81	Rerouted floor drain which interferes with torus brace location
81-1410	5-21-81	Removed conduit supports and installed temporary supports in torus room
81-1704	5-21-81	Fabricated and installed conduit and conduit supports for drywell torus vent exhaust valve logic/RPT logic
81-2102	5-27-81	Pulled cable for drywell/torus isolation valves and purge fan
81-2103	5-22-81	Performed internal wiring for drywell/torus isolation valves and purge fan
81-2104	5-27-81	Terminated cables for drywell/torus isolation valves and purge fan
81-2396	5-26-81	Rerouted conduit to torus water temperature element
81-2477	5-28-81	Mounted and labeled relays, switches and terminal strips for dw/torus vent exhaust valves

81-2505	5-27-81	Installed internal wiring for DW/torus vent exhaust valves
81-2584	5-28-81	Pulled cables for DW/torus vent exhaust valve
81-3264	5-28-81	Terminated external wiring for DW/torus vent exhaust valve
81-3351	5-27-81	Replaced existing 3/4" seal-tite with 1 1/2" seal-tite within panel enclosures for DW/torus exhaust vent
81-3352	5-27-81	Installed "tee" conduit at lower limit switch on valves T48-F334A(B) and T48-F335A(B)
81-3600	5-28-81	Repaired valve leaking causing vacuum break from torus to reactor building (T48-F311)
81-4151	5-27-81	Replaced broken flex-conduit on solenoid and both limit switches on primary containment isolation valve
81-4270	5-28-81	Replaced lower units and installed more sensitive circuit boards on main control room chlorine monitors
81-378	4-7-81	Fabricated and installed hanger H69 for fire protection
81-802	4-7-81	Fabricated and installed hanger H34 in cable spread Unit 2 (Z43)
81-468	4-7-81	Fabricated and installed hanger H96 for fire protection
81-434	4-7-81	Fabricated and installed hangers for fire protection in Unit 1 cable spread
81-435	4-7-81	Fabricated and installed hangers for fire protection in Unit 1 cable spread
81-329	4-7-81	Fabricated and installed hangers for fire protection in Unit 1 cable spread

81-299	4-7-81	Fabricated and installed hangers for fire protection in Unit 1 cable spread
81-2393	6-1-81	Repulled cable and reterminated cable on conduit to sump level switch T45-N002D per DCR 81-23
81-3194	6-3-81	Disconnected cables and removed conduit straps to move conduit, repaired damaged conduit and cable; replaced cables and conduit to sump level switch T45-N002B after torus work
81-1275	5-29-81	Installed new L&N recorder and calibrated to 0-300°F for drywell and torus temperature recorder T47-R611
81-580	5-21-81	Removed permanent and temporary torus level lines' supports T48; lines will be rerouted per DCR 77-238
81-1835	5-31-81	Disconnected wiring and conduit to torus water temperature RTDs T48-N009A&B and reconnected wiring and conduit after torus modifications complete
81-1929	5-27-81	Torus to drywell vacuum breakers removed and reinstalled attend of outage
81-2395	5-30-81	Rerouted ESS-I-3617 conduit to torus water temp element T48-N072, repulled cable and reterminated cable
81-2523	6-1-81	Installed conduits and supports on DW/torus vent exhaust valves per DCR 79-149, R1
81-2525	6-2-81	Disconnected cable, rerouted conduit to vac. bkr. air supply T48 and pulled new cable T48-P001-C005 and terminated same

81-4232	6-3-81	Installed old supports for torus level lines T48 which feed T48-N121A&B and E41-N015A&B
81-4233	5-30-81	Rerouted conduit to torus temp TRD T48-N009B and installed supports and repulled new cable
81-4304	6-2-81	Disassembled LLRT vacuum breaker T48-F310 valve, cleaned seat, replaced T-ring and O-rings and reassembled valve
81-4320	5-28-81	Removed old magnets and hydraulic cylinders and replaced with new ones on torus vac. breaker T48-F328A&B
81-4334	6-1-81	Reinstalled shield plug on drywell penetration X41-Unit 1 T48
81-147	4-7-81	Repaired hangers for five protection in Unit 1 and Unit 2 cable spread
81-881	4-7-81	Fabricated and installed hangers for fire protection in Units 1 and 2 cable spread