TENNESSEE VALLEY AUTHORITY

DIVISION OF NUCLEAR POWER

SEQUOYAH NUCLEAR PLANT

MONTHLY OPERATING REPORT

TO THE

NUCLEAR REGULATORY COMMISSION

NOVEMBER 1, 1984 - NOVEMBER 30, 1984

UNIT 1

DOCKET NUMBER 50-327

LICENSE NUMBER DPR-77

UNIT 2

DOCKET NUMBER 50-328

LICENSE NUMBER DPR-79

Submitted by: L. M. Nobles
for P. R. Wallace, Plant Manager

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Operations Summary

November 1984

The following summary describes the significant operational activities for the month of November. In support of this summary, a chronological log of significant events is included in this report.

Unit 1

Unit 1 was critical for 720.0 hours, produced 831,830 MWH (gross), resulting in an average hourly gross load of 1,155,319 kW during the month. There are 201.7 full power days estimated remaining until the end of cycle 3 fuel. With a capacity factor of 85 percent, the target EOC exposure would be reached July 24, 1985. The capacity factor for the month was 97.7 percent.

There were no reactor scrams, manual shutdowns, or power reductions during the month.

Unit 2

The unit 2 cycle 2 refueling/modification outage continues. The estimated return-to-service date is December 18, 1984.

Significant Operational Events

Unit 1

Date	Time	Event
11/01/84 11/30/84	0001 2359	The reactor maintained 100% reactor power the entire month. The average hourly load was 1155 MWe.

Unit 2

11/01/84 11/30/84	0001 2359	Cycle 2 refueling/modification outage continues. The unit return-to-service date is December 18, 1984.

PORVs and Safety Valves Summary

No PORVs or safety valves were challenged during the month.

Licensee Events and Special Reports

The following licensee event reports (LER) were sent during November 1984 to the Nuclear Regulatory Commission.

LER	DESCRIPTION OF EVENT
1-84063	Inspections at Sequoyah Nuclear Plant have identified the following items of noncompliance with Appendix R of 10 CFR 50. These inspections are part of an ongoing project to ensure compliance with Appendix R.

1. The listed train 'A' cables interact with unit 2 2B 480 volt transformer room (train 'B').

   Train 'A' cables: 2V2233, 2V2232A (2-FCV-62-98), 2V2070A, 2V2071A (2-LCV-62-135), 2V2326A, 2V2327A (2-FCV-63-7), 2V2680A, 2V2681A (2-FCV-63-26), 2V2695A, 2V2696A (2-FCV-63-39), 2V2292A, 2V2993A (2-FCV-70-143).

2. The listed train 'A' cables interact with unit 2 train 'B' MOV board room.

   Train 'A' cables: 2PL3002A (CCP Room Cooler A-A), 2PL4729A (CCS Pump 2A-A), 2PL6145A, 2PL6148A, 2PL6149A (CCP 2A-A Auxiliary Oil Pump), 2V2235A (2-FCV-62-98), 2V2073A (2-LCV-62-135), 2V2329 (2-FCV-63-7), 2V2683A (2-FCV-63-26), 2V2698A (2-FCV-63-39), 2V2787A (2-FCV-74-1), 2V2295A (2-FCV-70-143), 2V2423A, 2V2424A, 2V2425A (2-FCV-67-146).

3. The listed train 'B' cables interact with train 'A' 2A 480 volt transformer room.

   Train 'B' cables: 2V2240B, 2V2241B (2-FCV-62-99), 2V2100B, 2V2101B (2-LCV-62-136), 2V2320B (2-FCV-63-6), 2V4934B (2-FCV-63-24), 2V2840B, 2V2842B (2-FCV-74-2), 2V4371B (2-FCV-62-55), 2PM-132 (2-FCV-62-56).

4. Interactions exist for each channel such that all four RCS temperature indicators could be made inoperable due to one fire. Cables involved are:

   Channel I: 2PM591I (T-68-1), 2PM778I (T-68-18), 2PM686I (T-68-24), 2PM871I (T-68-41).

   Channel II: 2PM595II (T-68-43), 2PM784II (T-68-60), 2PM691II (T-68-65), 2PM876II (T-68-63).

LER	DESCRIPTION OF EVENT
1-84063 (continued)	5. Unit 1 RCS pressure instrumentation loop P-68-66 (cables 1PM481II, 1PV135II) interacts with pressure instrumentation loop P-68-69 (cables 1PM480I, 1PV320J) at three locations in auxiliary building (elevation 690 U-W/A3-A4, elevation 714 Q-W/A2-A4, elevation 714 Q-R/A4-A11). In addition to cables, the pressure transmitting equipment is located less than 20 feet from each other at elevation 690 at A3-A4/V line.
	6. Secondary side pressure control cables for all three channels of pressure indication for each steam generator interact with less than 20-foot separation. Also, cables for 2-L-381 pressure indicator are involved. Cables involved are:
	SG-1: 2PM1335I (PI-1-2A), 2PM1347II (PI-1-2B), 2PM1360IV (PI-1-5).
	SG-2: 2PM1474I (PI-1-9A), 2PM1480II (PI-1-9B), 2PM1490III (PI-1-12).
	SG-3: 2PM1595I (PI-1-20A), 2PM1607II (PI-1-20B), 2PM1613III (PI-1-23).
	SG-4: 2PM1715I (PI-1-27A), 2PM1723II (PI-1-27B), 2PM1729IV (PI-1-30).
	2-L-381: 2PM1340J, 2PM1475J, 2PM1601J, 2PM1717J.
	7. Interaction exists in the 480 volt reactor MOV board rooms between 1A-A and 2A-A 480 volt reactor MOV board room air handling units (cables 1PL2958A and 2PL2958A) and numerous cables for the 1B-B and 2B-B 480 volt reactor MOV board room air handling units and compressors.
	8. The following interactions exist for 480 volt reactor MOV board rooms at elevation 734 in the auxiliary building.
	a. Cable 1PL2958A (AHU 1A-A) with numerous cables for 1B-B AHU/compressor.
	b. Cable 1PL2947V (1B-B compressor) crosses R line wall and interacts with 'A' train 6.9 kV shutdown boards.
	c. Cable 2PL4947B (2B-B compressor) interacts with numerous cables for the 2A-A air handling unit/ compressors. Also, cable 2PL2958A crosses R line into 'B' train 6.9 kV shutdown board room.

LER	DESCRIPTION OF EVENT
1-84063 (continued)	9. At elevation 749 in the 2B 480 volt MOV board room in the auxiliary building, cables 2PL2945A, 2960A, 2961A, 3503A, 3504A, 3505A (2A board room AHU/compressors) interact with cable 2PL2947B (2B compressor). 10. At elevation 749 in the auxiliary building (2A 480 volt transformer room, 2A 480 volt HVAC equipment room) cables 2PL2966B, 2PL3514B, 2PL3516B pass through two rooms listed above and interact with transformers/HVAC equipment on train 2A. 11. A fire in auxiliary building at elevation 690 A11-A15/Q-S would result in the loss of automatic level control for the turbine-driven auxiliary feedwater pump and the wide range level indication cables (2PM1233K, 2PM1244K, 2PM1226K) required for manual operation of level control valve. 12. At elevation 669 in auxiliary building at A11-A12/S-T DC control power for the turbine-driven auxiliary feedwater pump, cable 2SG220A interacts with the 'A' and 'B' motor-driven auxiliary pump on elevation above, due to stairway opening. The action statement for technical specification 3.7.12 was satisfied by utilizing fire watches in the affected areas that were established by other Appendix R commitments. This action included the establishment of a roving fire watch in areas with fire detection and a dedicated fire watch in areas without fire detection.
1-84064	While in mode 5 on September 24, 1984, at 2148 EST with reactor trip breakers closed, the unit experienced a trip on low-low steam generator level on loop 1. The main steam isolation valve was cycled for testing, releasing pressure on the steam generator, resulting in a swell, then a shrinkage, of level on the secondary side. This effect had not been anticipated before the test.
1-84065	Two separate auxiliary building isolation (ABI) events occurred on October 9, 1984, with unit 1 in mode 1 at 100 percent reactor power and unit 2 in mode 5. Both events occurred as a result of personnel carrying mops and buckets used for cleaning of the transfer canal too close to the spent fuel pool radiation monitors. The first event occurred at

LER	DESCRIPTION OF EVENT
1-84065 (continued)	0307 CST when the material was taken near radiation monitor O-RM-90-103, causing a 10 mR/hr spike of the monitor. The second event occurred at 0340 CST when the material was taken near radiation monitor O-RM-90-102, causing a 55 mR/hr spike of the monitor.
1-84066	During performance of surveillance instruction (SI) 258.2, "Inspection of Molded Case and Lower Voltage Circuit Breakers," personnel manually opened a breaker without an alternate power source to supply its loads. This action caused diesel generator (D/G) 2A-A to start on loss of power to its emergency start circuit. The other three D/Gs started due to the common emergency start circuitry. The breaker was closed and the D/Gs were stopped and reset fifteen minutes after the incident. There was no effect on public health or safety.
1-84067	Inspections at Sequoyah Nuclear Plant have identified the following additional items of noncompliance with Appendix R of 10 CFR 50. These inspections are part of an ongoing project to ensure compliance with Appendix R.

1. A fire in the corridor near the number six (6) stairway on elevation 669 could interact with controlling cables for the component cooling system (CCS) pumps that maintain reactor coolant pump seal integrity. Affected equipment - CCS pump A-A, cables 1PL4727A, 1PL4731A, 1PL4732A; CCS pump B-B, cables 1PL4742B, 1PL4743B, 1PL4744B, 1PL4748B, 1PL4749B; instrument loop 70-63A, cables 1PV288 and 1PM2236. The listed cables are located on elevation 714, 45 feet above the lower elevation.

2. In the common area on elevation 714, an interaction exists between two paths of cables for reactor coolant system (RCS) inventory control.

   Path I

   Centrifugal charging pump (CCP) A-A, cables 1PP550A, 1PP552A, 1PP554A, 1PP556A.

   CCP A-A cooler fan and FCV-67-168, cables 1PL3001A, 1PL3003A.

   CCP A-A auxiliary lube oil pump, cables 1PL6145A, 1PL6148A.

   Instrument loop 70-63A, cables 1PM2236, 1PV288.

   CCS pump A-A, cables 1PL4727A, 1PL4731A, 1PL4732A.

   CCS pump B-B, cables 1PL4742B, 1PL4743B, 1PL4744B, 1PL4748B, 1PL4749B.

LER 1-84067 (continued)

DESCRIPTION OF EVENT

Path II

CCP B-B, calbes 1PP562B, 1PP564B, 1PP566B, 1PP568B.

CCP B-B cooler fan and FCV-67-170, cables 1PL3011B, 1PL3013B.

CCP B-B auxiliary lube oil pump, cables 1PL6155B, 1PL6156B, 1PL6152B.

Instrument loop 70-99A, cables 1PV 386, 1PM2435.

CCS pump C-S, cables 1PL4735S, 1PL4736S.

Pressurizer level loops 68-339 (cable 1PV16I), 68-335 (cable 1PV135II) and 63-320 (cable 1PV255III).

3. In the common area on elevation 714, the auxiliary control room, and the auxiliary instrument room, interactions exist between all three paths of letdown (RCS inventory control).

Cables:	Common Area	Aux Control Rm	Aux Inst Rm
Valve			
FCV-62-54	1V4414	1V4413	1V4411, 1V4412, 1V4413, 1V4415
FCV-62-55	1V4320	1V4367	1V4369
FCV-62-56	1PV56	1PM133	1PM132, 1PM133, 1PM134

4. A fire in the corridor near the number six (6) stairway on elevation 690 could damage cables for the RCS makeup. Valves FCV-63-41 (cable 1V4798B) and FCV-63-42 (cable 1V4830A).

5. In the common area on elevation 690, column A2-A5/T-U, and in the pipe gallery on elevation 690, column A3-A4/U-W, both level control valves (LCV) for the volume control tank (VCT) interact. LCV-62-133 (cable 1V2770B) and LCV-62-132 (cables 1V2764A and 1V2760A).

6. In 6900V shutdown board room 'A', all three paths that accomplish normal letdown isolation interact (RCS inventory control).

Path I

FCV-62-69, cables 1V4420A, 1V4421A, 1V4425A.

Path II

FCV-62-70, cables 1V4432A, 1V4433A, 1V4437A.

LER	DESCRIPTION OF EVENT
1-84067 (continued)	Path III FCV-62-72, cables 1V4470A, 1V4471A, 1V4477A FCV-62-73, cables 1V4485A, 1V4486A, 1V4492A FCV-62-74, cables 1V4500A, 1V4501A, 1V4507A 7. In 480V shutdown board room 1B2, interaction exists between both paths of centrifugal charging pumps (CCP). Path I CCP A-A: cables 1PP550A, 1PP552A, 1PP556A. CCP A-A auxiliary lube oil pump: cables 1PL6145A, 1PL6148A. CCP A-A cooler fan and 1-FCV-67-168, and instrument loop 30-83: cable 1PL3003A. Instrument loop 70-63A: cable 1PM2236. Path II CCP B-B: cable 1PP564B. CCP B-B auxiliary lube oil pump: cables 1PL6152B, 1PL6155B, 1PL6156B. CCP B-B cooler fan and 1-FCV-67-170, and instrument loop 3-182: cables 1PL3012B, 1PL3013B. Instrument loop 70-99: cable 1PM2435. 8. In battery board room I, an interaction exists between all three paths of cables for RCS inventory control. Path I FCV-62-79: cables 1V4420A, 1V4421A Path II FCV-62-70: cables 1V4433A, 1V4432A Path III FCV-62-72: cables 1V4470A, 1V4471A FCV-62-73: cables 1V4485A, 1V4486A FCV-72-74: cables 1V4500A, 1V4501A

LER	DESCRIPTION OF EVENT
1-84067 (continued)	9. In 6900V shutdown board room A, an interaction exists for both paths of CCPs.

Path I

CCP A-A: cables 1PP550A, 1PP552A, 1PP553A, 1PP554A, 1PP556A, 1PP557A, 1PP555A

CCP A-A auxiliary lube oil pump: cables 1PL6145A, 1PL6146A, 1PL6147A, 1PL6148A

CCP A-A cooler fan and FCV-67-168: cables 1PL3002A and 1PL3003A

CCP pump A-A: cable 1PL4725A

Instrument loop 70-63A: cable 1PM2236

Path II

CCP B-B: cable 1PP564B

CCP B-B auxiliary lube oil pump: cables 1PL6152B, 1PL6155B, 1PL6156B

CCP B-B cooler fan and FCV-67-170: cable 1PL3013B

CCS pump C-S: cables 2PL4733B, 2PL4734B, 2PL4737B

Instrument loop 70-99A: cable 1PM2435

10. In 480V transformer room 1A, an interaction exists between both CCPs.

CCP A-A auxiliary lube oil pump: cable 1PL6149A
CCP B-B auxiliary lube oil pump: cable 1PL6152B

11. In the common area and corridor of elevation 669, column A1-A14/S-T, an interaction exists between both paths of CCP.

Path I

CCP A-A: cables 1PP550A, 1PP552A

CCP A-A auxiliary lube oil pump: cables 1PL6145A, 1PL6149A

CCP A-A cooler fan: cables 1PL3001A, 1PL3003A, 1PL3004A

FCV-67-168: cables 1PL3001A, 1PL3003A, 1PL3004A

Path II

CCP B-B: cables 1PP562B, 1PP564B

CCP B-B auxiliary lube oil pump: cables 1PL6152B, 1PL6156B

CCP B-B cooler fan and FCV-67-170: cables 1PL3011B, 1PL3013B, 1PL3014B

LER	DESCRIPTION OF EVENT
1-84067 (continued)	12. In 480V shutdown board room 2A, interactions exist between the following equipment for RCS inventory: CCP B (cables 1PP568B, 1PP566B, 1PP562B), thermal barrier booster pump B (cables 1PL6134B, 1PL6133B, 1PL6131B, 1PL6132B), CCP B auxiliary lube oil pump (cables 1PL6153B, 1PL6154B), 1-FCV-63-5 (cable 1V2335B control). 13. On elevations 714, 734, and 749, unit 2 initial reactivity control (reactor trip) cables interact with each other. Elevation 714 - cables 2PS181B and 2PS184B interact with 2PS161A and 2PS164A. Elevation 734 - cables 2PS181B, 2PS184B, 2B37B interact with 2PS161A, 2PS164A, 2B23A, and 2B36A. Elevation 749 - cables 2PS181B, 2PS184B, 2B37B interact with 2PS161A, 2PS164A, 2B23B, and 2B36A. 14. On elevations 714, 734, and 749, unit 1 initial reactivity control (reactor trip) cables interact with each other. Elevation 714 - cables 1PS181B and 1PS184B interact with 1PS161A and 1PS164A. Elevation 734 - cables 1PS181B, 1PS184B, 1B24B and 1B37B interact with 1PS161A, 1PS164A, 1B23A, and 1B36A. Elevation 749 - cables 1PS181B, 1PS184B, 1B24B, and 1B37B interact with 1PS161A, 1PS164A, 1B23A, and 1B36A. 15. In the 6900V shutdown board room 2B-B, cables for all the auxiliary feedwater pumps, the level control valves, and the steam supply valves interact with each other. Wide range indication cables for unit 2 also pass through this area. This equipment is for steam generator inventory control. 16. On elevation 734 in the emergency gas treatment room, the following list of 'A' and 'B' train cables interact. These are valves providing reactor coolant system inventory control. Train 'A' - 2-FSV-68-394: cable 2V5681A and 2-FSV-68-397: cable 2V5685A. Train 'B' - 2-FCV-63-24: cable 2V4934, 2-FCV-63-174: cable 2V5131, 2-FCV-74-2: cable 2V2840B and 2V2842B, 2-FSV-68-395: cable 2V5661B, 2-FCV-62-56: cable 2PM132, 2-FCV-62-55: cable 2V4371, 2-FCV-62-85: cable 2V4461.

LER	DESCRIPTION OF EVENT
1-84067 (continued)	17. In 6900V shutdown board room 'B' train, the following list of train 'A' cables interact with 'B' train. This equipment is associated with reactor coolant system inventory control.

Train 'A'

CCP A-A room cooler: cable 2PL3003A

CCP A-A auxiliary lube oil pump: cables 2PL6145A, 2PL6148A, 2PL6149A

2-FCV-62-98: cable 2V2235A

2-FCV-67-146: cables 2V2422A, 2V2423A, 2V2425A

2-LCV-62-135: cable 2V2073A

2-FCV-63-7: cable 2V2329A

2-FCV-74-1: cable 2V2787A

2-FSV-68-394: cable 2V5681A

2-FSV-68-397: cable 2V5685A

Thermal barrier booster pump A-A: cable 2PL6123A

2-FCV-70-143: cable 2V2295A

18. Less than 20-foot separation exists between the 2A2-A 480V shutdown board room (train 'A') and the listed train 'B' cables.

2PI2435 (LI-80-99A), 2PL3013B (CCP B-B room cooler), 2PL6152B, 2PL6155B (CCP B-B auxiliary lube oil pump), 2PP562B, 2PP563, 2PP564B, 2PP566B, 2PP568B (CCP B-B), 2V2243B (2-FCV-62-99), 2PM108, 2PM110 (2-FCV-62-93), 2V2103B (2-LCV-62-136), 2V2323B (2-LCV-62-6), 2V2690B (2-FCV-63-25), 2V2706B (2-FCV-63-40), 2V4793B, 2V4794B (2-FCV-63-41), 2V4930B, 2V4931B, 2V4934B (2-FCV-63-24), 2V2847B (2-FCV-74-2), 2V5661B (2-FSV-68-395), 2PM134 (2-FCV-62-56), 2V4411 (2-FCV-62-54), 2V4412 (2-FCV-62-54), 2V4367, 2V4368 (2-FCV-62-55), 2PL6131B, 2PL6133B, 2PL6134B (RCP TBBP B-B), 2V4457B, 2V4458B (2-FCV-62-85).

19. The following train 'A' equipment interacts with train 'B' equipment in the 480V shutdown board 1B2-B at elevation 734 in auxiliary building.

Train 'A' cables: 2PL612A, 2PP550A, 2PP552A, 2PP554A, 2PP556A.

Train 'B' cables: 2PL4737B, 2V2321B.

LER	DESCRIPTION OF EVENT
1-84067 (continued)	20. Interactions exist between the following 'A' train cables such that a fire could prevent isolation of normal letdown path. Cables involved are: 2V4423A, 2V4425A (2-FCV-62-69), 2V4435A, 2V4437A (2-FCV-62-70), 2V4473A, 2V4477A (2-FCV-62-72), 2V4488A, 2V4492A (2-FCV-62-73), and 2V4503A, 2V4509A (2-FCV-62-74).
	21. Interactions exist between shutdown logic panels 1A-A and 2A-A and the 'B' train cables listed below. Cables involved: 1B25II, 1B30II, B34II, B16II, 2B26II, 2B31II, 2B32II, 1B26II, 1B31IV, 1PP765B, 1PP753B, 1PP762B.
	22. Interactions exist between 'A' and 'B' train cables located in the auxiliary building on elevation 734 in the 480V shutdown board room 2A2-A. A fire at this location could take out all 480V 'A' train shutdown boards and all 480V 'B' train shutdown boards. Cables involved are: Train 'A' - 2PP756A, 2PP750A, 2B11III, 2B16IV, 2B12I, 2B17I, 2PL4978A, 2PL4913A, 2PL4925A, 2PL4958A, 2PL5055A, 2PL5056A, 2PL5057A, 2PL5058A, 2PP759A, 2PL4935A, 2PL4938A. Train 'B' - 2PP483B, 2PP480B, PP377B, PP477B, 2PP460B, PP738, 2PL4914B, 2B25IV, 2B30IV, 2B26II, 2B31II.
	23. Interactions exist such that a fire could cause the loss of both normal and alternate control power for 480V shutdown boards 1A1-A, 1A2-A, 1B1-B, 1B2-B. Cables involved: 1B12III, 1B17III, 1B11I, 1B16I interface with B13IV, 1PL4901B, 1B26IV, 1B31IV, 1PL5075B, 1PL5076B, 1PL5078B, 1PL4982B, 1PL4985B, 1PL4965B, 1PL4926B, 1B25II, 1B30II, 1PP762B, 1PP753B, 1PL4942B, 1PL5067B, 1PL5068B, 1PL5069B, 1PL5070B, 1PL5063B, 1PL5064B, 1PL5065B, 1PL5066B, and 480V shutdown board 1B1-B.
	24. Interactions exist such that a fire could cause the loss of 'A' and 'B' train 480V shutdown boards. These interactions are located in auxiliary building on elevation 734 in 480V shutdown board room 1B2-B. Cables involved are: Train 'A' - B30I, PP373A, PP374A, PP468A, PP469A, 2PP478A, 1PL4900A, PP378A, 1PP475A, 1PP478A, 1PP454A, 2PP498A, 2PP454A, 1B11I, 1B16I,1B12III, 1B17III, 1PP493, 1PP496, 1PP498, 2PP493, 2PP496, 2PP498.

LER	DESCRIPTION OF EVENT
1-84067 (continued)	Train 'B' - 1PL4901B, 1PL4914B, 1PL4945B, 1PP765B, 1PL4966B, 1PP753B, 1PP762B, 1PL5071B, 1PL5072B, 1PL5073B, 1PL5074B, 1PL4965B, 1B25II, 1B30II, B131V, 1PL5067B, 1PL5068B, 1PL5069B, 1PL5070B, 1PL5075B, 1PL5076B, 1PL4985, 1PL5077B, 1PL5078B; equipment: C-A vent board 1B1-B, 480V shutdown board 1B2-B.

25. Interactions between 'A' and 'B' train cables exist in auxiliary building on elevation 714 at A8-Q. A fire at this location could cause the loss of breaker control to breakers 1922, 1914, 1924, and loss of operation for ACB 1912. (This could prevent the diesel generators from being put on line.) Cables involved: 1PP475A, 2PP454A, 2PP475A, 1PP460B, 1PP480B, 2PP480B.

26. Interactions exist between 'A' and 'B' train cables and a fire could render both 'A' and 'B' train 480V shutdown boards inoperable. Cables involved are:

    Train 'A' - 2PL4975A, 2PP750A, 2PL4957A, 2B11III, 2B12I, 2PL5051A, 2PL5052A, 2PL5053A, 2PL5054A, 2PL5059A, 2PL5060A, 2PL5061A, 2PL5062A, 2PP756A, 2PL5047A, 2PL5048A, 2PL5049A, 2PL5050A, 2B17I, 2B16III.

    Train 'B' - 2B25IV, 2B30IV, 2B26II, 2B31II.

27. Interactions exist between 'A' train 6.9 kV shutdown board and 'B' train component cables. Cables involved: 2PL4733B, 2PL4734B, 2PL4737B (CCS pump C-S), and 2V2321B (2-FCV-63-6).

28. Interactions exist between 'A' and 'B' train cables which could prevent isolation of excess letdown line. Cables involved: 2V4411, 2V4412, 2V4414 (2-FCV-62-54), 2V4367, 2V4368, 2V4370 (2-FCV-62-55), and 2PM133, 2PM134 (2-FCV-62-56).

29. Interactions exist between control cables, 'A' and 'B' train, for operating auxiliary feedwater terry turbine. Cables involved are 1SG220A and 1SG221B.

LER	DESCRIPTION OF EVENT
1-84067 (continued)	30. Interactions exist in auxiliary building at elevation 714 between 'A' and 'B' train cables. Cables involved are: Train 'A' - 2PL4725A, 2PL4726A, 2PL4727A, 2PL4731A, 2PL4732A, 2V5685A, 2V5690A, 2V5691A, 2V4595A, 2V5696A. Train 'B' - 2PL4738B, 2PL4739B, 2PL4742B, 2PL4734B, 2PL4744B, 2PL4748B, 2PL4749B, 2V5676B, 2V5670A, 2V5671B, 2V5675B. 31. Interactions exist between 'A' and 'B' train cables in the auxiliary building at elevation 741. These cables are part of the RCS inventory control safety function. Cables involved are: Train 'A' - 2PL3001A, 2PL3003A, 2PL4725A, 2PL4726A, 2PL4727A, 2PL4731A, 2PL4732A, 2PL6145A, 2PL6148A, 2PL6149A, 2PM1041I, 2PM1046, 2PM1053, 2PM1086III, 2PP550A, 2PP551, 2PP552A, 2PP554A, 2PP555A, 2PP556A, 2V16I, 2V25[illegible]III, 2V2235A, 2V2422A, 2V2423A, 2V2424A, 2V2425A, 2V2073A, 2V2329A, 2V4828A, 2V4830A, 2PV43A, 2V2787A, 2V4423A, 2V4435A, 2V4473A, 2V4488A, 2V4503A, 2V5680A, 2V5681A, 2V5685A, 2V5690A, 2V5691A, 2V5695A, 2V5696A, 2PL6120A, 2PL6122A, 2PL6123A, 2V2295A, 2V4448A, 2V4596. Train 'B' - 2PL3011B, 2PL3013B, 2PL4738B, 2PL4739B, 2PL4742B, 2PL4743B, 2PL4744B, 2PL4748B, 2PL4749B, 2PL6152B, 2PL6155B, 2PL6156B, 2PM1070II, 2PM1076K, 2PV135II, 2PV386, 2PP562B, 2PP563, 2PP564B, 2PP566B, 2PP568B, 2V2243, 2PM108, 2PM110, 2PM111, 2PM112, 2PM115, 2PV50, 2V2103B, 2V2321B, 2V2323B, 2V2690B, 2V2706B, 2V4796B, 2V4798B, 2V4933, 2V5130, 2V5131, 2PV163B, 2V2847B, 2V5660B, 2V5661B, 2V5670B, 2V5671B, 2V5675B, 2V5676B, 2PM134, 2PV56, 2V4370, 2V4414, 2PL6131B, 2PL6134B, 2PL6133B, 2V5743B, 2V5745B, 2PV56. 32. An interaction exists between nuclear source range detector NC-31 (cables 2PV11I, 13I, 2NM21I, 23I, 26I, 27I, 28I, 29I, 30I) and source range detector NC-32 (cables 2PV131II, 2PV133II, 207II, 208II, 209II, 210II). This interaction is located at A8-812/Q-X in the auxiliary building on elevation 714. 33. At various locations in the auxiliary building on elevations 669, 690, 714, and 734, the floors have not been sealed to provide a fire barrier between elevations (ventilation duct penetrations, conduit/pipe penetrations/stairways).

LER	DESCRIPTION OF EVENT
1-84067 (continued)	34. An interaction exists between nuclear source range detector NC-310 and NC-320. Cables involved are: 1PV11I, 1PV13I, 1NM26I, 27I, 28I, 29I, 30I, and 1NM201II, 203II, 206II, 207II, 208II, 209II, 210II, 1PV131II, and 1PV133II. These cables are located on elevation 714 of the auxiliary building.
	35. Interactions exist between 'A' and 'B' train cables and components in the auxiliary building on elevation 690. Cables involved are: Train 'A' - 2PL3001A, 3003A, 4725A, 4726A, 2731A, 4739A, 6145A, 6149A, 2PM1041I, 1046, 1053, 1086III, 2PP550A, 2PP552A, 2V2232A, 2233A, 2070A, 2071A, 2326A, 2327A, 2680A, 2681A, 2695A, 2696A, 4830A, 2292A, 2293A. Train 'B' - 2PL3011B, 3013B, 4739B, 4742B, 4743B, 4748B, 6152B, 6156B, 2PM1070II, 1076K, 2PP562B, 2PP564B, 2V2240B, 2PM108, 111, 112, 115, 2V2100B, 2101B, 2320B, 2321B, 2687B, 2688B, 2703B, 2704B, 4798B, 5745B. Common (train 'A' and 'B'): 1PL4735S, 4736S.
	36. Interactions exist between 'A' and 'B' train cables in the auxiliary building on elevation 669. Cables involved are: Train 'A' - 2PL3001A, 3003A, 3004A, 3006A, 6145A, 6149A, 2PM1053, 2PP550A and 552A. Train 'B' - 2PL3011B, 3013B, 3014B, 3016B, 6152B, 6156B, 2PM108, 111, 112, 115, 1076K, 2PP562B, 564B, 2V2321B.
	37. Interactions exist between 'A' train and 'B' train cables in the auxiliary building on elevation 690 in the unit 2 penetration room. Cables involved are: Train 'A' - 2V2292A, 2326A, 2680A, 2695A, 2232A, 2293A, 2681A, 2696A, 2233A, 4830A, 2327A, 2070A, 2071A. Train 'B' - 2V2100B, 2101B.
	38. Interactions exist between 'A' train and 'B' train cables in the auxiliary building on elevation 690 in the unit 2 pipe chase. Cables involved are: Train 'A' - 2V2327A, 2326A, 4830A, 2293A, 2681A, 2696A, 2233A, 2292A, 2680A, 2695A, 2232A. Train 'B' - 2V2320B, 2688B, 2704B, 2687B, 2703B, 2240B, 4798B, 5745B, 2242B, 2241B.

LER	DESCRIPTION OF EVENT
1-84067 (continued)	39. An interaction exists between cables for diesel generators 1B and 2A from the 480V shutdown boards to the 480V diesel auxiliary board. Cables 1PL4982B and 4985B interact with cables 2PL4975A and 4978A. These cables are separated by greater than thirty-one (31) feet; however, no suppression exists in the large area of concern. These cables are located in the auxiliary building on elevation 749, column A8 near the ceiling of the refuel floor.
	40. Interactions exist between cables for diesel generators 1A and 2A (cables 1PP477A and 2PP477A) and for diesel generators 1B and 2B (cables 1PP482B and 2PP482B) in the auxiliary control room on elevation 734 of the auxiliary building. These cables provide indication (red and green light) of breaker position.
	41. Cables contained in cable trays PO-A, PN-A, and PM-A pass through the auxiliary control room and interact with cables in cable tray PA-B. These cables are involved with the normal to auxiliary transfer of control from the main control room to the auxiliary control room of both redundant divisions and cables associated with vital battery board II and III loads. The cables and cable trays are located in the auxiliary control room on elevation 734 of the auxiliary building.
	42. General interactions exist between onsite electrical supply cables 1PP478, 2PP478A, 373A, 374A, 378A, 468A, 469A, 498A, 1PP475A, 2PP454A, 475A, 1PP454A, and most of the 'A' train and 'B' train reactor coolant system inventory control cables. These cables are located on elevation 714 in the auxiliary building at A36A8 and Q to R.
	43. Potential interactions exist in the auxiliary building on elevations 669, 690, and 714 in a twenty-foot area around the elevator, stairwell, and hatch between 'A' and 'B' train reactor coolant system inventory control cables. Cables involved are: Train 'A' - 2PL6120A, 6122A, 2V5691A, 5696A. Train 'B' - 2PM115, 2V2321B, 2V2240B, 2241B, 2320B, 2687B, 2688B, 2703B, 2704B, 4798B, 2P26131B, 2PL6133B, 2V5671B, 5676B.

LER	DESCRIPTION OF EVENT
1-84067 (continued)	44. Potential interactions exist in the auxiliary building on elevations 669, 690, 714, and the unit 2 stairwell between 'A' and 'B' train reactor coolant system inventory control cables due to open areas between the floors. Cables involved are: Train 'A' - (Elevation 669) 2PL3001A, 6145A, 2PM1053, 2PP550A, 552A, (Elevation 690) 2PL4731A, 2PM1041I, 2PM1046, 2PM1053, (Elevation 714) 2PL4725A, 4726A, 4732A, 2PM1041I, 1086III, 2V2422A, 2423A, 2424A, 4830A, 2PV43A, 2V5690A, 5691A, 5695A, 5696A. 45. Interactions exist within the onsite electrical supply in the vital battery board room I on elevation 734 of the auxiliary building. The following EQUIPMENT: 125 volt vital BBI, 120 volt vital instrument panel I; CABLES: B15I, 2B12I, 2B17I, 2PV1I, B10I, 1PV1I, 1B11I, 1B16I, B55I, B56I, B57I, B30I, B57I, 1B12III, 1B17III; and CONDUIT: 2B15I, 1B2, 1B15III interact with the following CABLES: 1B26IV, 1B31IV, 1B25II, 1B30II, and CONDUIT: 1B29II, 1B34IV. This interaction could cause the loss of both unit 1 'A' and 'B' train 480V shutdown boards and cable 1PL4914B associated with the normal feed to battery charger II. 46. An interaction exists in the common area on elevation 690 of the auxiliary building between 'B' train ERCW cables and 'A' train CCP cables. Cables involved are: ERCW 'B' Train - 1PP700B, 712B, 2PP700B, 712B. CCP 'A' Train - 1PP550A, 1PP552A, 1PL6145A, 6149A, 3001A, 3003A, 4725A, 4726A, 4731A. An interaction also exists between path 1 and path 2 for the CCPs in this same area. Cables involved are: Path 1 - 1PL6149A. Path 2 - 1PP564B, 1PL6152B, 6156B, 3011B, 3013B, 4739A, 4735S, 4736S, 2PL4739B. The action statement for technical specification 3.7.12 was satisfied by utilizing fire watches in the affected areas that were established by other Appendix R commitments. This action included the establishment of a roving fire watch in areas with fire detection and a dedicated fire watch in areas without fire detection.

LER	DESCRIPTION OF EVENT
1-84068	An inadvertent relay actuation caused an auxiliary building ventilation isolation (ABI) to occur at 1228 CST on November 4, 1984, while unit 1 was in mode 1 and unit 2 was in mode 6. Investigation revealed that a relay was jarred while personnel were working inside a cabinet in the main control room. The relay was found to be not fully seated in its terminal block. This relay gives a high radiation signal for the spent fuel pool radiation monitor, which causes an ABI. Radiation monitors were checked and no abnormal levels or spikes were found. The ABI was reset and the system returned to normal. Radiation levels were not above normal during this time.
1-84069	During performance of surveillance instruction (SI) 9, "Actuation of Automatic Valves via SI Signal for Non-testable Boric Acid and ECCS Flow Path Valves," essential raw cooling water (ERCW) valve FCV-67-66 to diesel generator (D/G) 2A-A was found in its normally closed position, but its thermal overload was not reset. This ERCW valve ('A' train) supplies cooling water for D/G 2A-A and would not have opened if required. The thermal overload was found 'not reset' from a previous SI (251.2). The thermal overload was reset, and the valve operated correctly. SI-251.2 was revised to check the thermal overloads before the actual performance of the SI, but the revised SI had not yet been issued to personnel to use. All other overloads that had been tested per SI-251.2 before it was revised were verified to have reset properly.
2-84019	Surveillance instruction (SI) 260.2, "BIT Cold Leg Injection Flow Balance, Pump Performance and Check Valve Test," is performed to satisfy technical specification surveillance requirement 4.5.2.h.2.a for the centrifugal charging pumps (CCP). The requirement basically states that with one charging pump running, the sum of the injection line flow rates, excluding the highest flow rate, must be greater than or equal to 346 gpm. 2A-A CCP was tested on October 17, 1984, with the "as found" flow rate found to be 336 gpm. The system throttle valves were repositioned in order to obtain the proper flow rate of 346 gpm. The new throttle positions for the valves were documented and the valves then returned to their "as found" position to allow for testing the 2B-B CCP in its "as found" condition. With the valves returned to their original positions, the 2B-B CCP was tested on October 18, 1984, and found to have a simulated "as found" flow rate of 331 gpm. The system valves were repositioned to obtain the required 346 gpm flow rate for the 2B-B CCP, and the 2A-A CCP was retested to ensure the required flow rate was still met.

Diesel Generator Failure Reports

There were no diesel generator failure reports transmitted during the month.

Special Reports

The following special report was transmitted during the month.

SPECIAL REPORT NUMBER	DESCRIPTION
84-07	Mechanical penetration door A75 in the auxiliary building (elevation 690) was breached for a period greater than seven (7) days. The penetration was breached by Public Safety at 1945 CST on October 4, 1984, and was not closed out until 1225 CST on October 12, 1984.

Offsite Dose Calculation Manual Changes

Changes in the Sequoyah Nuclear Plant Offsite Dose Calculation Manual (ODCM) are described in Appendix A in accordance with Sequoyah technical specification 6.14.2.

OPERATING DATA REPORT

DOCKET NO. 50-327
DATE DECEMBER 6, 1984
COMPLETED BY M. G. EDDINGS
TELEPHONE (615) 870-6248

OPERATING STATUS

1. UNIT NAME: SEQUOYAH NUCLEAR PLANT, UNIT 1 NOTES:
2. REPORT PERIOD: NOVEMBER 1984
3. LICENSED THERMAL POWER(MWT): 3411.0
4. NAMEPLATE RATING (GROSS MWE): 1220.6
5. DESIGN ELECTRICAL RATING (NET MWE): 1148.0
6. MAXIMUM DEPENDABLE CAPACITY (GROSS MWE): 1183.0
7. MAXIMUM DEPENDABLE CAPACITY (NET MWE): 1148.0
8. IF CHANGES OCCUR IN CAPACITY RATINGS(ITEMS NUMBERS 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	720.00	8040.00	29977.00
12. NUMBER OF HOURS REACTOR WAS CRITICAL	720.00	5462.10	19903.66
13. REACTOR RESERVE SHUTDOWN HOURS	0.00	0.00	0.00
14. HOURS GENERATOR ON-LINE	720.00	5251.80	19364.95
15. UNIT RESERVE SHUTDOWN HOURS	0.00	0.00	0.00
16. GROSS THERMAL ENERGY GENERATED (MWH)	2447365.21	16660552.28	62152402.58
17. GROSS ELECTRICAL ENERGY GEN. (MWH)	831830.00	5494770.00	20873906.00
18. NET ELECTRICAL ENERGY GENERATED (MWH)	804641.00	5276711.00	20053639.00
19. UNIT SERVICE FACTOR	100.00	65.32	64.60
20. UNIT AVAILABILITY FACTOR	100.00	65.32	64.60
21. UNIT CAPACITY FACTOR(USING MDC NET)	97.35	57.17	58.27
22. UNIT CAPACITY FACTOR(USING DER NET)	97.35	57.17	58.27
23. UNIT FORCED OUTAGE RATE	0.00	21.36	18.91

24. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH):
25. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP:

NOTE THAT THE THE YR.-TO-DATE AND
CUMULATIVE VALUES HAVE BEEN UPDATED.

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-327
UNIT NAME Sequoyah One
DATE December 7, 1984
COMPLETED BY M. G. Eddings
TELEPHONE (615) 870-6248

REPORT MONTH NOVEMBER 1984

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
-20-									No shutdown or power reductions during the month.

1
F: Forced
S: Scheduled

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

3
Method:
1-Manual
2-Manual Scram.
3-Automatic Scram.
4-Cont. of Existing Outage
5-Reduction
9-Other

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)

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-327
UNIT Sequoyah One
DATE December 7, 1984
COMPLETED BY M. G. Eddings
TELEPHONE (615) 870-6248

MONTH NOVEMBER 1984

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	1096.3	17	1126.9
2	1090.6	18	1124.4
3	1092.5	19	1124.5
4	1092.0	20	1125.8
5	1096.6	21	1125.0
6	1085.8	22	1125.0
7	1108.2	23	1128.8
8	1106.0	24	1129.7
9	1106.8	25	1128.8
10	1111.3	26	1122.5
11	1116.3	27	1127.3
12	1118.6	28	1128.2
13	1121.5	29	1121.7
14	1121.0	30	1119.3
15	1120.9	31	------
16	1124.6		

INSTRUCTIONS

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

(9/77)

OPERATING DATA REPORT

DOCKET NO. 50-328
DATE DECEMBER 7,1984
COMPLETED BY D.C.DUPREE
TELEPHONE (615)870-6248

OPERATING STATUS

1. UNIT NAME: SEQUOYAH NUCLEAR PLANT, UNIT 2 NOTES:
2. REPORT PERIOD: NOVEMBER 1-30,1984
3. LICENSED THERMAL POWER(MWT): 3411.0
4. NAMEPLATE RATING (GROSS MWE): 1220.6
5. DESIGN ELECTRICAL RATING (NET MWE): 1148.0
6. MAXIMUM DEPENDABLE CAPACITY (GROSS MWE): 1183.0
7. MAXIMUM DEPENDABLE CAPACITY (NET MWE): 1148.0
8. IF CHANGES OCCUR IN CAPACITY RATINGS(ITEMS NUMBERS 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	720.00	8040.00	21937.00
12. NUMBER OF HOURS REACTOR WAS CRITICAL	0.00	6124.75	16485.82
13. REACTOR RESERVE SHUTDOWN HOURS	0.00	0.00	0.00
14. HOURS GENERATOR ON-LINE	0.00	5987.99	16142.31
15. UNIT RESERVE SHUTDOWN HOURS	0.00	0.00	0.00
16. GROSS THERMAL ENERGY GENERATED (MWH)	0.00	19449577.30	51867645.11
17. GROSS ELECTRICAL ENERGY GEN. (MWH)	0.00	6620740.00	17652680.00
18. NET ELECTRICAL ENERGY GENERATED (MWH)	0.00	6373689.00	16991426.60
19. UNIT SERVICE FACTOR	0.00	74.48	73.58
20. UNIT AVAILABILITY FACTOR	0.00	74.48	73.58
21. UNIT CAPACITY FACTOR(USING MDC NET)	0.00	69.05	67.47
22. UNIT CAPACITY FACTOR(USING DER NET)	0.00	69.05	67.47
23. UNIT FORCED OUTAGE RATE	0.00	7.42	8.59

24. SHUTDOWNS SCHEDULED OVER NEXT 6 MONTHS (TYPE, DATE, AND DURATION OF EACH):

25. IF SHUTDOWN AT END OF REPORT PERIOD, ESTIMATED DATE OF STARTUP:
December 18, 1984

NOTE THAT THE THE YR.-TO-DATE AND
CUMULATIVE VALUES HAVE BEEN UPDATED.

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO. 50-328
UNIT NAME Sequoyah Two
DATE December 7, 1984
COMPLETED BY D. C. Dupree
TELEPHONE (615) 870-6248

REPORT MONTH NOVEMBER 1984

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
13	84/09/28	S	720.0	C	4				Cycle 2 refueling outage continues.

-23-

1
F: Forced
S: Scheduled

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

3
Method:
1-Manual
2-Manual Scram.
3-Automatic Scram.
4-Cont. of Existing Outage
5-Reduction
9-Other

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)

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-328
UNIT Sequoyah Two
DATE December 7, 1984
COMPLETED BY D. C. Dupree
TELEPHONE (615) 870-6248

MONTH NOVEMBER 1984

DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)	DAY	AVERAGE DAILY POWER LEVEL (MWe-Net)
1	0	17	0
2	0	18	0
3	0	19	0
4	0	20	0
5	0	21	0
6	0	22	0
7	0	23	0
8	0	24	0
9	0	25	0
10	0	26	0
11	0	27	0
12	0	28	0
13	0	29	0
14	0	30	0
15	0	31	---
16	0		

INSTRUCTIONS

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

(9/77)

Plant Maintenance Summary

The plant maintenance summary for significant maintenance items completed during the month of November 1984 are listed in the following order:

Construction Activities

Electrical Maintenance Section

Electrical Modification Section

Instrument Maintenance Section

Mechanical Maintenance Section

Mechanical Modification Section

Construction Activities

November 1984

ECN L5503, 5111 - Office and Power Stores Facility

The project is approximately 92 percent completed. During the month, work continued on pulling cable, insulating ductwork and piping, architectural painting, and drywall installation. Work was completed on the east entranceway, all fans were installed, hydrostatic testing of fire protection piping was completed, and permanent power cable was pulled to the building. The installation of toilet fixtures, toilet tile work, and electrical connection of heat pumps and air handling units was started. Also, installation of the drop ceiling has begun. Top floor (elevation 745) will be available for occupancy by December 31, 1984.

ECN L5609, 5610 - Makeup Water Treatment Building

The project is approximately 68 percent completed. During this month, work continued on installing TVA-supplied piping, cable trays, protective coating application, and yard piping. Work was completed on the replacement of damaged instrumentation tubing on vendor-supplied equipment. Heat traced process piping was started in order to expedite as-built drawing preparation which is necessary prior to ordering heat trace cables.

ECN L6241 - Raise Yard Drainage Pond Skimmer Five Feet

This modification is required to comply with EPA requirements and shall be completed by December 31, 1985. Preparations are being made to complete the work by December 31, 1985.

ECN L5599 - Fifth Vital Battery

The project is approximately 65 percent completed. The fifth vital battery board has been moved into the battery room through a hole cut in the concrete roof of the battery room. The hole has been closed. New batteries have been installed in the room and are on charger. Installation of fire protection piping and HVAC fans continued. Electrical tie-ins to existing battery boards I and IV have been completed. This modification is scheduled to be completed by January 28, 1985.

ECN L5841 - Hot Machine Shop

The project is 99 percent completed. The Health Physics laboratory deconning machines, electric shop, snubber shop, and hot machine shop are in use during the unit 2 cycle 2 outage. Work continued on communication and fire detection cable pulling and equipment installation. Monorail and hoist over electropolishing equipment in the decon room will be done later when material and design drawings will be available.

ECN L6182 - Cooling Tower Repair

Custodis Ecodyne - The contractor finished ice damage related work on both cooling towers and left the site. They will come back the latter part of November to complete remaining two punchlist items (concrete louvers and nozzles).

08:17:51 12-11-84 ELECTRICAL MAINTENANCE MONTHLY REPORT FOR NOVEMBER

DATE....	COMPONENT.....	FAILURE DESCRIPTION.....	CAUSE OF FAILURE.....	CORRECTIVE ACTION.....	MR.NO..
11-05-84	2-CRN-303-JP/9 E1	INSPECT MANIPULATOR CRANE PER MI 9.3	NO FAILURE PREVENTIVE MAINTANCE	GREASED AND INSPECTED MANIPULATOR CRANE AS REQUESTED	A250089
11-05-84	0-FCV-067-0152 -B	REPLACE THE MISSING CAP SCREWS ON THE WIRING COVER OF THE ELECTRODYNE OPERATOR	NO FAILURE	VALVE HAS BEEN REPLACED WITH A LIMITORGUE. ALL CAP SCREWS ARE IN PLACE	A236521
11-05-84	0-CHR-031-0338 -A	SHUT DOWN BOARD ROOM CHILLER PACKAGE B-B WILL NOT START FROM UNIT CONTROL ROOM AS DESIGNED C-1,C-2,C-3,C-4 RELAYS STAY ENGERIZED. ANTI CYCLE TIMER LIGHT STAYS ON EVEN WHEN COMPRESSOR PACKAGE IS RUNNING	ANTI-CYCLE TIMER BAD	REPLACED ANTI-CYCLE TIMER, CHECKED FOR PROPER OPERATION AND RETURNED TO SERVICE	A294298
11-05-84	2-CON-363-2RM3 84-A	FLEX CONDUIT 2A-2RM-384A ON RAD MONITOR 2-RE-90-106 IS LOOSE AND PULLED OUT OF THE SEAL TIGHT FITTING	NO FAILURE	REPAIRED SEAL TIGHT FITTING BY TIGHTNING CONDUIT INSIDE OF FITTING	A290801
11-08-84	2-BCCTB-030-01 04	AUXILIARY BUILDING GEN.SUPPLY FAN 24 WILL NOT OPERATE	CIRCUIT BREAKER FAILED SI 275.2 ON AUXILIARY BUILDING GEN. SUPPLY FAN 24	REPLACED AMPTECIOR MODEL L1 RECHECKED AND RETURNED TO SERVICE	A121953
11-08-84	1-XFD-313-0903	FIRE DAMPER WILL NOT OPEN SO NO AIR FLOW WAS GETTING THROUGH TO 125 VOLT VITAL BATTERY BOARD ROOM 1	BAD FUSE LINK IN FIRE DAMPER	REMOVED OLD FUSE LINK FROM FIRE DAMPER AND INSTALLED NEW ONE CHECKED FOR PROPER OPERATION AND RETURNED TO SERVICE	A296278
11-08-84	2-FCV-090-0116	VALVE WILL NOT OPEN WITH HAND SWITCH OPERATION IN MAIN CONTROL ROOM	IMPROPER AIR PRESSURE	OPENED AIR REGULATOR TO PROPER POSITION	A294481
11-08-84	0-RM-090-0225	LOOSE JUMPER WIRE WAS CAUSING RAD MONITOR NOT	LOOSE JUMPER WIRE	TIGHTENED LOOSE WIRE ON JUMPER BOTTOM SIDE OF	A293568

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DATE....	COMPONENT.....	FAILURE DESCRIPTION.....	CAUSE OF FAILURE.....	CORRECTIVE ACTION.....	MR.NO..
		TO ISOLATE VALVE 0-FCV-14-360 OR ANNUL. HI RAD WHEN RADIATION MONITOR TRIPS		SWITCH OF CON DEMINERLIZER EFFLUENT RAD MONITOR PERFORMED SI 281 AND RETURNED TO SERVICE	
11-08-84	0-CMP-311-0156	AIR CONDITIONER IN COMPUTER CONTROL ROOM WILL NOT KEEP ROOM TEMPERTURE AT 70 DEGREES	LOAD CONTROL OUT OF ADJUSTMENT	ADJUSTED LOAD CONTROL	A294759
11-08-84	0-CHR-311-0126	CONTROL BUILDING CHILLER A-A IS NOT WORKING TRIPS WHEN STARTED	NO PROBLEM FOUND AT THIS TIME	FUNCTIONALLY CHECKED FOUND NO PROBLEM RETURNED TO SERVICE	A121520
11-14-84	2-MTRB-067-012 B-B	WHILE TIMING AUXILIARY BUILDING AIR SUPPLY HEADER ISOLATION VALVE FOR SI 166.4 LOCAL TIME 59 SEC. REMOTE TIME WAS 53 SEC. MUST BE WITHIN 1 SEC. TO PASS SI	VALVE WAS OUT OF TIME	RETIMED VALVE AND WAS LESS THAN .02 SEC	A294369
11-14-84	0-CON-363	CONDUIT ON DOOR A56 IS RIPPED OFF	NO FAILURE PREVENTIVE MAINTANCE	REPLACED PIPE SUPPORT	A291467
11-14-84	1-ZS-061-0193	OPEN (RED) LIMIT NOT GOING OUT WHEN GLYCOL RETURN ISOLATION VALVE POSITION SWITCH IS CLOSED	NOT KNOWN AT THIS TIME	NO PROBLEM FOUND	A286875
11-15-84	0-CHR-311-0141	CONTROL ROOM CHILLER PACKAGE B-B TRIPS ON LOW SUMP OIL LEVEL	NO PROBLEM FOUND	CHECKED CHILLER PACKAGE NO WORK PERFORMED	A295175
11-15-84	2-FSV-030-0056 -A	LIMIT SWITCH IS NOT INDICATING A GREEN LIGHT ON LOWER CONTAINMENT EXHAUST ISOLATION VALVE	DIRTY CONTACTS	CLEANED DIRTY CONTACTS WORKING PROPERLY AT THIS TIME	A247213
11-15-84	2-FCV-062-0022	ACTUATOR ARM ON LOWER CONTAINMENT EXHAUST ISOLATION VALVE LIMIT	ACTUATOR ARM BENT	ADJUSTED LIMIT ACTUATOR ARM	A285838

DATE....	COMPONENT.....	FAILURE DESCRIPTION.....	CAUSE OF FAILURE.....	CORRECTIVE ACTION.....	MR.NO..
		SWITCH WAS BENT CAUSING SWITCH NOT TO RELEASE			
11-15-84	2-FCV-067-0095 -A	INSTALL "T" DRAIN IN THE ELECTRIC MOTOR END BELLAT THE LOWEST POINT TO REPLACE THE EXISTING SOLID PIPE PLUG IN LOWER CONTAINMENT 2C COOLER DISCHARGE ISOLATION VALVE INSIDE CONTAINMENT	NO FAILURE PREVENTIVE MAINTANCE	INSTALLED "T" DRAIN AS REQUESTED	A297854
11-15-84	2-FCV-074-0002 -B	INSTALL GREASE RELIF VALVE IN THE ELECTRIC MOTOR OPERATOR HOUSING AND INSTALL "T" DRAIN IN THE ELECTRIC MOTOR END BELL AT THE LOWEST POINT OF THE RHR SYSTEM ISOLATION VALVE	NO FAILURE PREVENTIVE MAINTANCE	INSTALLED "T" DRAIN AND GREASE RELIEF AS REQUESTED	A297862
11-15-84	2-FCV-067-0111 -B	INSTALL "T" DRAIN IN THE ELECTRIC MOTOR END BELL AT THE LOWEST POINT TO REPLACE THE EXISTING SOLID PIPE PLUG IN LOWER CONTAINMENT D COOLER DISCHARGE VALVE INSIDE CONTAINMENT	NO FAILURE PREVENTIVE MAINTANCE	INSTALLED "T" DRAIN AS REQUESTED	A297856
11-15-84	2-FCV-067-0103 -B	INSTALL "T" DRAIN IN THE ELECTRIC MOTOR END BELL AT THE LOWEST POINT TO REPLACE THE EXISTING SOLID PIPE PLUG IN LOWER CONTAINMENT B COOLER DISCHARGE VALVE	NO FAILURE PREVENTIVE MAINTANCE	INSTALLED "T" DRAIN AS REQUESTED	A297855
11-15-84	2-FCV-067-0298 -B	INSTALL "T" DRAIN IN THE ELECTRIC MOTOR END BELL AT THE LOWEST POINT TO REPLACE THE SOLID PIPE	NO FAILURE PREVENTIVE MAINTANCE	INSTALLED "T" DRAIN AS REQUESTED	A297860

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DATE....	COMPONENT.....	FAILURE DESCRIPTION.....	CAUSE OF FAILURE.....	CORRECTIVE ACTION.....	MR.NO..
		PLUG IN UPPER CONTAINMENT VENT COOLER D DISCHARGE ISOLATION VALVE			
11-15-84	2-FCV-067-0087 -A	INSTALL "T" DRAIN IN THE ELECTRIC MOTOR END BELL AT THE LOWEST POINT TO REPLACE THE EXISTING SOLID PIPE PLUG IN LOWER CONTAINMENT 2A COOLER ISOLATION VALVE	NO FAILURE PREVENTIVE MAINTANCE	INSTALLED "T" DRAIN AS REQUESTED	A297853
11-15-84	2-FCV-062-0061 -B	INSTALL GREASE RELIEF VALVE IN THE ELECTRIC MOTOR OPERATOR HOUSING OF THE SEAL FLOW ISOLATION VALVE	NO FAILURE PREVENTIVE MAINTANCE	INSTALLED "T" DRAIN AND GREASE RELIEF VALVE	A297852
11-15-84	2-FCV-067-0295 -A	INSTALL "T" DRAIN IN THE ELECTRIC MOTOR END BELL AT THE LOWEST POINT TO REPLACE THE EXISTING SOLID PIPE PLUG IN THE UPPER CONTAINMENT COOLER A DISCHARGE ISOLATION VALVE	NO FAILURE PREVENTIVE MAINTANCE	INSTALLED "T" DRAIN IN MOTOR AS REQUESTED	A297857
11-15-84	2-FCV-067-0296 -A	INSTALL "T" DRAIN IN THE ELECTRIC MOTOR END BELL AT THE LOWEST POINT TO REPLACE THE EXISTING SOLID PIPE PLUG IN UPPER CONTAINMENT COOLER C DISCHARGE ISOLATION VALVE	NO FAILURE PREVENTIVE MAINTANCE	INSTALLED "T" DRAIN IN MOTOR AS REQUESTED	A297858
11-15-84	2-FCV-067-0297 -B	INSTALL "T" DRAIN IN THE ELECTRIC MOTOR END BELL AT THE LOWEST POINT TO REPLACE THE EXISTING SOLID PIPE PLUG ON UPPER CONTAINMENT COOLER B DISCHARGE ISOLATION VALVE	NO FAILURE PREVENTIVE MAINTANCE	NO FAILURE PREVENTIVE MAINTANCE	A297859

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DATE....	COMPONENT.....	FAILURE DESCRIPTION.....	CAUSE OF FAILURE.....	CORRECTIVE ACTION.....	MR.NO..
11-15-84	2-FCV-074-0001 -A	INSTALL GREASE RELIEF VALVE IN THE ELECTRIC MOTOR OPERATOR HOUSING AND INSTALL "T" DRAIN IN THE ELECTRIC MOTOR END BELL AT THE LOWEST POINT OF RHR SYSTEM ISOLATION VALVE	NO FAILURE PREVENTIVE MAINTANCE	INSTALLED "T" PLUG DRAIN AND GREASE RELIEF VALVE AS REQUESTED	A297861
11-15-84	2-IGN-268-251& 252	HYDROGEN IGNITERS ON B TRAIN WILL NOT ENERGIZE	CIRCUIT BREAKER TURNED OFF	TURNED CIRCUIT BREAKER ON #18 CHECKED AMPS ON BREAKER LEFT ON	A297868
11-15-84	2-IGN-268-235& 236	HYDROGEN IGNITERS ON TRAIN "A" WILL NOT ENERGIZE	CIRCUIT BREAKER TURNED OFF	TURNED CIRCUIT BREAKER 9A CHECKED AMPS ON BREAKER LEFT ON	A297869
11-15-84	0-PS-39-0057	PRESSURE SWITCH SHOWING CO2 HEADER IS CHARGED TO LUBE OIL PURIFIER ROOM (BUT IT ISN'T)	PRESSURE SWITCH NOT SET	RESET PRESSURE SWITCHES NO WIRES LIFTED	A294488
11-15-84	2-MTRB-068	DISASSEMBLE THE UPPER BEARING ON RCP MOTOR #3 FOR INSPECTION AND REPAIR OF THE OIL LIFT SYSTEM	NO FAILURE PREVENTIVE MAINTANCE	DISASSEMBLED UPPER BEARING, MADE REPAIRS TO BROKE OIL LINES REASSEMBLED UPPER BEARING CHECKED FOR OIL LEAKS, REFILLED UPPER OIL POT WITH SHO-824 OIL AND RETURNED TO SERVICE	A297864
11-15-84	2-HTCK-234-012 6-S	GREEN LIGHT ON CONTROLLER OF THE HEAT TRACE CIRCUIT THERMOSTAT WILL NOT COME ON	BAD CONTROLLER	REPLACED CONTROLLER AND CHECKED OPERATION OF HEAT TRACE PLUG IN TYPE CONTROLLER	A245476
11-15-84	0-PMP-074	PAINT SUPPORT ASSEMBLY OF SPACE RHR PUMP AND MOTOR IN MAINTANCE SHOP WITH PROTECTIVE COATING (LEVEL II)	NO FAILURE PREVENTIVE MAINTANCE	SAND BLASTED AND PAINTED AS REQUESTED	A230632

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DATE....	COMPONENT.....	FAILURE DESCRIPTION.....	CAUSE OF FAILURE.....	CORRECTIVE ACTION.....	MR.NO..
11-19-84	1-BDE-250-0001	120VOLT VITAL INVERTER #1 FREQUENCY METER WILL NOT CALIBERATE	FREQUENCY METER DEFECTIVE	REPLACED METER	A232902
11-19-84	1-BDE-250	120 VOLT VITAL INVERTER III FREQUENCY METER WILL NOT CALIBERATE	FREQUENCY METER DEFECTIVE	REPLACED METER	A232916
11-19-84	2-ZS-061-0192-1-B	RED LIGHT WILL NOT GO OUT WHEN GLYCOL ISOLATION VALVE IS CLOSED	LIMITS OUT OF ADJUSTMENT	ADJUSTED LIMITS HAD OPERATIONS STROKE VALVE. RUN SI 166.6 AND SI 158. RETURNED TO SERVICE	A243979
11-19-84	2-ZS-061-0194-2-B	UPPER SHAFT MOUNTED LIMIT SWITCH ACTUATING COLLAR IS LOOSE ON GLYCOL ISOLATION VALVE	SET SCREW IN ACTUATOR COLLAR LOOSE	TIGHTENED SET SCREW IN ACTUATOR COLLAR	A296210
11-19-84	0-FCV-26-151	WHEN DILUGE VALVE OPENS CHARGING FIRE HEADER THE PYROTRONICS PANEL DOES NOT ALARM	DILUGE VALVE OUT OF ADJUSTMENT	RESET VALVE AND FIRE PUMP CHECKED ANNUNICATOR CIRCUITS NO PROBLEM FOUND RETURNED SYSTEM TO NORMAL OPERATIONS	A293570
11-19-84	2-CON-363-2-PM 1840	WIRES ARE SLIPPED BACK AND EXPOSED FROM CONTAINMENT PRESSURE DELTA P. CONDUIT DISCONNECTED	NO FAILUR SAFETY HAZARD	REPAIRED FLEX CONDUIT #2PM-1840 AND TAGGED CABEL	A296158
11-19-84	0-GENB-82	OIL IMMERISON HEATER CONTACTOR NOT MAKING CONTACT ON 2B-2 DIESEL GENERATOR	CONTACTS DIRTY AND CORRODED	CLEANED CONTACTS AS REQUESTED	A290736
11-19-84	0-GENB-082	OIL IMMERISON HEATER CONTACTOR NOT MAKING CONTACT ON 2B-1 DIESEL GENERATOR	CONTACTS DIRTY AND CORRODED	CLEANED CONTACTS AS REQUESTED	A290735
11-19-84	1-H2C-083-0002	RECOMBINER WILL NOT	A PHASE HS-2 SCR WAS	REPLACED A PHASE HS-2 SCR	A296270

DATE....	COMPONENT.....	FAILURE DESCRIPTION.....	CAUSE OF FAILURE.....	CORRECTIVE ACTION.....	MR.NO..
		EXCEED 84 KW	FAULTY FILTER CARD WAS BAD ON "B" H2 RECOMBINER	REPAIRED FILTER CARD CHECKED AND RETURNED TO SERVICE	
11-19-84	0-BCTD-313-045 0	PLACE JUMPER BETWEEN TERMINALS 7DX AND 7D3 TO PREVENT BATTERY ROOM II EXHAUST FAN FROM STOPPING WHEN PRESSURIZING FAN IS STOPPED USED FOR PERFORMANCE OF TI-71 AFTER TEST REMOVE JUMPER ON THIS MR	NO FAILURE PERFORM TI-71	PLACED JUMPER FOR TEST AFTER TEST JUMPER WAS REMOVED	A102361
11-21-84	2-BD8-201-DO-A	480 VOLT SHUTDOWN BOARD 2A2-A VOLTMETER SELECTION SWITCH DOES NOT INDICATE VOLTAGE BETWEEN B AND C PHASES	BLOWN FUSES PROBABLE CAUSE FROM SURGE IN POWER	REPLACED FUSES ON METERING TRANSFORMER TESTED FOR OPERATION AND IRRECTIVE ACTION REPLACED FUSES ON METERING TRANSFORMER TESTED FOR OPERATION AND RETURNED TO SERVICE	A294396
11-21-84	1-MTRA-072-001 0	OIL LEVEL LOW IN INBOARD BEARING OF CONTAINMENT SPRAY PUMP MOTOR	NO FAILURE	ADDED OIL TO PROPER LEVEL USING STO-1 APPROX 4 OZ	A293531
11-21-84	2-FCV-043-0001	CANNOT GET GAS SAMPLE FROM PRESSURIZER GAS ISOLATION VALVE IN HOT SAMPLE ROOM	PRESSURIZER GAS ISOLATION VALVE WILL NOT OPEN	STROKED VALVE SEVERAL TIMES NO PROBLEM FOUND	A088003
11-21-84	2-FCV-063-0071	1" FLEX CONDUIT BROKEN ON BOTH ENDS OF SIS CHECK VALVE ISOLATION HEADER FLOW ISOLATION VALVE	NO FAILURE SAFETY HAZARD	REPAIRED ON A PREVIOUS MR	A287705
11-21-84	2-BKRC-099-KH/ 319-T	INSPECT BYPASS BREAKER "B" MANUAL CLOSING MECHANISM FOR POSSIBLE BEARING DAMAGE OR BUSHING	NO FAILURE (PER INCIDENT AT TURKEY POINT)	VISUALLY INSPECTED BY TRUMAN SMITH NO PROBLEM FOUND AT THIS TIME	A249937

DATE....	COMPONENT.....	FAILURE DESCRIPTION.....	CAUSE OF FAILURE.....	CORRECTIVE ACTION.....	MR.NO..
		SUPPORT BRACKET FAILURE			
11-21-84	2-AHU-061	SET THE DEFROST TIMERS TO THEIR REQUIRED POSITION AS LISTED IN SI 156 APPENDIX E FOR THE CONTAINMENT INTEGRATED LEAK RATE TEST	NO FAILURE LEAK RATE TEST	RESET DEFROST TIMERS AS REQUESTED	A296157
11-21-84	1-HTCK-234-90/87	REPAIR HEAT TRACE ON BA TRANSFER PUMP 1A-A AND 1B-B HEAT TRACE CIRCUIT 90 AND 87 RESPECTIVEL.	NO FAILURE PREVENT FREEZING	CLEANED PUMP HOUSING AND REINSTALLED HEAT TRACE ON PUMPS 1AA AND 1BB CIRCUITS 87P,87S,90P,90S	A291464
11-21-84	1-LT-063-0053	CHECK HEAT TRACE ON RWST LEVEL TRANSMITTER SENSE LINES TO SEE IF ITS PULLING PROPER AMPS	NO FAILURE PREVENT FREEZING	HEAT TRACE WAS CHECKED AND IS PULLING PROPER AMPS	A279383
11-21-84	1-LT-063-0050	CHECK HEAT TRACE ON RWST LEVEL TRANSMITTER SENSE LINES TO SEE IF ITS PULLING PROPER AMPS	NO FAILURE PREVENT FREEZING	HEAT TRACE WAS CHECKED AND IS PULLING PROPER AMPS	A279361
11-21-84	1-LT-063-0046	CHECK HEAT TRACE ON RWST LEVEL TRANSMITTER SENSE LINES TO SEE IF ITS PULLING PROPER AMPS	NO FAILURE PREVENT FREEZING	HEAT TRACE CHECKED AND IS PULLING PROPER AMPS	A279359
11-21-84	1-LT-063-0049	CHECK HEAT TRACE ON RWST LEVEL TRANSMITTER SENSE LINES TO SEE IF ITS PULLING PROPER AMPS	NO FAILURE PREVENT FREEZING	HEAT TRACE WAS CHECKED AND IS PULLING PROPER AMPS	A279360
11-21-84	1-LT-063-0051	CHECK HEAT TRACE ON RWST LEVEL TRANSMITTER SENSE LINES TO SEE IF ITS PULLING PROPER AMPS	NO FAILURE PREVENT FREEZING	HEAT TRACE WAS CHECKED AND IS PULLING PROPER AMPS	A279381
11-21-84	1-LT-063-0052	CHECK HEAT TRACE ON RWST LEVEL TRANSMITTER SENSE LINES TO SEE IF ITS	NO FAILURE PREVENT FREEZING	HEAT TRACE WAS CHECKED AND IS PULLING PROPER AMPS	A279382

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DATE....	COMPONENT.....	FAILURE DESCRIPTION.....	CAUSE OF FAILURE.....	CORRECTIVE ACTION.....	MR.NO..
		PULLING PROPER AMPS			
11-21-84	2-HTCK-234-012 1-P	DEFECTIVE RED LIGHT IN CONTROLLER OF HEAT TRACE THERMOSTAT IN PN1 CVCS-A1 A12 AND W	NO FAILURE	REPLACED CONTROLLER	A245473
11-21-84	2-MTRB-047-018 1	VALVE IS ALL THE WAY CLOSED, LIMIT SWITCH INDICATE IT IS THROTTLED	LIMITS OUT OF ADJUSTMENT, CONTACTS DIRTY ON HIGH PRESSURE STEAM SEAL BYPASS VALVE PCV-47-181	CLEANED CONTACTS, ADJUSTED LIMIT SWITCH, FUNCTION VALVE AND WORKING PROPERLY AT THIS TIME	A248956
11-21-84	2-HTCK-234-223 PA	CIRCUIT 223PA READING 0.0 AMPS WHEN THERMOSTAT IS CALLING FOR HEAT	BLOWN FUSES IN CONTROLLER OF THERMOSTAT ON HEAT TRACE ICE CONDENSER MAIN DRAIN LINE CIRCUIT 223PA	REPLACED FUSES IN CONTROLLER	A232750
11-21-84	0-TC-234-066P	CVC ELECTRICAL HEAT TRACE TEMPERTURE CONTROLLER ON PANEL A4-1 INDICATES 150 DEGREES F. RECORDER INDICATES GREATER THAN 200 DEGREES F.	CONTROLLER OUT OF ADJUSTMENT	RESET CONTROLLER 66S TO 170 DEGREES F. SECONDARY CONTROLS SET AT 200 DEGREES F.	A282147
11-21-84	0-HGR-162	PAINT HYDRAULIC SNUBBERS IN SNUBBER SHOPOF SERVICE BUILDING	NO FAILURE PREVENTIVE MAINTANCE	PAINTED AS REQUESTED	A285139
11-26-84	2-HTCK-234	INSTALL HEAT TRACE CIRCUITS 405, 406, 408, 409, 410, 412 ON THE FEED WATER SENSE LINES	NO FAILURE PREVENTIVE MAINTANCE	RETAPED HEAT TRACE TAPE AS PER INSTRUCTED ON FRESH WATER LINES	A297879
11-26-84	2-XS-013	REMOVE FIRE AND SMOKE DETECTOR CONDUITS AND DISCONNECT CABLES FROM ABOUVE RCP MOTOR #3 IN REACTOR BUILDING UNIT 2	NO FAILURE	REMOVED SMOKE DETECTOR XX-13-199A, XX-13-199B AND TS-13-199A REINSTALLED SMOKE DETECTOR AND PERFORMED SI 234.7	A249947
11-26-84	0-TC-234-0035-S	CONTROLLER RESETS AT 20 DEGREES F. ON CVC EHT PNL	THERMOCUPLE WIRES CROSSED IN "T" CONDOLET	REVERSED LEADS TO PROPER POLARITY. CONTROLLER	A231826

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DATE....	COMPONENT.....	FAILURE DESCRIPTION.....	CAUSE OF FAILURE.....	CORRECTIVE ACTION.....	MR.NO..
		B3-1 WITH SET POINT 165 DEGREES		WORKING PROPERLY AT THIS TIME	
11-26-84	0-TC-234-0404	RECORDER DRIFTING ON EHT TEMPERTURE CONTROLLER	LUG ON CONTROLLER BAD	REPLACED LUG ON CONTROLLER	A239843
11-27-84	0-CHR-311-0126	INSPECT RELAYS AND CONTACTORS FOR BURNED OR PITTED CONTACTS AND LOOSE CONNECTIONS ON CONTROL BUILDING CHILLER "A"	NO FAILURE	CLEANED CONTACTS ON MAIN CONTACTOR AND INSPECTED RELAYS	A284833
11-27-84	2-HTCK-234-040 7	HEAT TRACE CABLE APPEARED TO BE DAMAGED BY OTHER CRAFT WORKING IN AREA	NO FAILURE	REPAIRED SEVERED HEAT TRACE CABLE	A287727
11-27-84	1-TC-083	T/C CABLE 1PL1070 ON 1A-A H2 RECOMBINER WAS BAD	BAD CABLE IN PENERATION 33	CABLE WAS REPAIRED ON ANOTHER MR	A232626
11-28-84	1-HTRA-083-000 1	HYDROGEN RECOMBINERS THERMOCUPLES CHANNELS 1 AND 3 ARE GREATER THAN 50 DEGREES APART	FAILED SI 151	THIS WORK WILL BE COMPLETED ON MRA249908	A247188
11-28-84	1-MTRB-067-013 4	AUXILIARY CONTACTS ON ARROW HART CONTACTOR WAS BAD CAUSING UPPER CONTAINMENT VENT DISCHARGE ISOLATION VALVE NOT TO CLOSE FROM HAND SWITCH IN MAIN CONTROL ROOM	BAD INTERLOCK CONTACTS	REPLACED BAD INTERLOCK CONTACTS PER MI 6.20 CHECKED FOR PROPER OPERATION AND SI 166.6	A297452
11-28-84	1-GENB-082-001 A-A	RELAYS 62X AND G52834 IN 1A-A DIESEL GENERATOR CONTROL CIRCUIT LOADS AND UNLOADS ERRATTICALLY	BAD RELAYS	REPLACED BOTH RELAYS	A121921

71 records listed.

Electrical Modification Section

November 1984

DCR 1739 - VAACS

Panel wiring has continued during this period.

DCR 2072 - Local DCR to Improve Reliability of Stud Tensioner Hoists

Connectors did not arrive this period. Hoists were removed upon completion of refueling.

ECN 2768 - RVLIS

All work was completed during this period.

ECN 2780 - Postaccident Sampling Facility

All work was completed during this period.

ECN 5194 - Iodine Monitors

Work remaining consists of installation of door locks and new door frames.

ECN 5198 - Technical Support Center

All scheduled work was completed during this period.

ECN 5640 - Deletion of PDIS 1-17 and 1-18

All unit 2 work was completed this period.

ECN 5645 - Steam Generator Blowdown

All work was completed this period.

ECN 5712 - Evacuation Alarms

Major cable pulls to valve rooms and unit 2 annulus were accomplished this period.

ECN 5770 - High Range Radiation Monitor

All work was completed this period.

ECN 5823 - Pressure Switch Replacement

All work was completed this period.

ECN 5824 - Replacement of Valve Operators

All required unit 2 and unit 0 motor operator valves were replaced this period.

ECN 5842 - Removal of PCV-3-122 and PCV-3-132

All unit 2 work was completed this period.

ECN 5865 - Relocation of LA-77-129

All unit 2 work was completed this period.

ECN 5881 - Limit Switch Replacement

All unit 2 work was completed this period.

ECN 5882 - Temperature Switch Replacement

All work was completed this period.

ECN 5883 - Replacement of Various Instruments

All unit 2 work was completed this period.

ECN 5884 - Replacement of Flow Transmitters

All work was completed this period.

ECN 5898 - Deletion of Seal-in Limit Switches

All unit 2 work was completed this period.

ECN 5970 - Replacement of Valve Operators

All unit 2 work was completed this period.

ECN 5971 - Replacement of Valve Operators

All unit 2 work was completed this period.

ECN 6018- Installation of Space Heaters, Auxiliary Feedwater Pump Motors

All unit 2 work was completed this period.

ECN 6032 - Relocation of Hydrogen Analyzers

All unit 2 work was completed this period.

ECN 6053 - Replacement of Acoustic Monitor Charge Converters

All work was completed this period.

ECN 6055 - Fourth Wide Range Pressure Transmitter

All outage work was completed this period. Nonoutage work continues.

ECN 6200 - Relocation of Pressure Transmitters

All unit 2 work was completed this period.

ECN 6204 - Installation of Fuses

All unit 2 work was completed this period.

ECN 6207 - Conax Connectors

All unit 2 work was completed this period.

Appendix R

Work continues on the first five interactions.

Instrument Maintenance Section

November 1984

Unit 1

1. During the month, several problems were encountered with pressurizer level channel 1-LT-68-320. The channel was declared inoperable on November 3, 1984, because it was reading higher than the other two channels. It was determined that the reference leg condensate pot was not operating properly. During the investigation, a ferrule type fitting on the sense line was found to be leaking. The pressurizer enclosure was entered, the root valve closed, and the fitting replaced. This repaired the leak, and the channel was declared operable on November 10. The channel went high again on November 12 and was declared inoperable. The condensate pot was backfilled and the channel declared operable on November 14. The channel drifted high again the next day. The pressurizer enclosure was entered on November 19, and insulation was added to the sense line to the condensate pot. Lines were inspected for leaks, but none were found. The channel was declared operable and remained so until November 27 when it drifted high. The channel was recorded for stability with the condensate pot dry and no perturbation was found. The condensate pot was backfilled and declared operable on November 30. The channel has been continuously recorded since, and no perturbation has occurred. Modifications to increase the line size are planned to enhance performance of the reference leg.

2. Pipe break detection switches for unit 1 auxiliary feedwater turbine-driven pump were disabled by Temporary Alteration 1-84-713-3 on November 1, 1984. This was the result of a Justification for Continued Operation Evaluation performed by the Office of Engineering. The unit 2 switches were replaced with environmentally qualified switches and relocated to the auxiliary building from the valve rooms during this current refueling outage on unit 2. The unit 1 switches will remain out of service until a similar modification can be performed.

3. During the monthly calibration of the UHI level switches, all switches were found within technical specification tolerance.

4. The P-250 process computer was declared inoperable three times during the month on November 6, November 14, and November 29, 1984. Common problems are parity errors and power supply glitches. The computer was restarted and returned to service without appreciable down time.

Unit 2

1. Response time testing and refueling calibrations were completed. Modification for installation of the Technical Support Center, RVLIS, new postaccident radiation monitors, and harsh environment instruments to meet 10 CFR 50.49 requirements have been completed. Other work completed during the refueling outage was to replace source and intermediate range detectors for the NIS system. The remote shutdown monitoring source range detector was also replaced. Two of the four containment sump level transmitters, 2-LT-63-176 and 2-LT-63-178, were upgraded to a double O ring model to improve reliability.

2. During the monthly calibration of the UHI level switches, 2-LS-87-22 was found outside technical specification tolerance. Valve 2-LCV-87-24 was found out of tolerance during the refueling outage response time surveillance testing. Maintenance was performed, and the valve retested successfully.

Other work is shown on the attached list.

INSTRUMENT MAINTENANCE MONTHLY SUMMARY 12-06-84 PLANT MAINTENANCE SUMMARY

MR.COMP	U	FUNC	SYS	ADDRESS.	COMP DATE....	DESCRIPTION.....	CORRECTIVE ACTION.....
A118790	0	PS	032	62	11/19/84	0-PS-032-62, CALIBRATE SET POINT FOR "A" TRAIN COMPRESSOR START.	SWITCH OUT OF CALIB. RECALIB. SWITCH
A230536	2	FT	001	3A	11/02/84	2-FT-001-3A, RECALIBRATE TRANSMITTER	THE TRANSMITTER WAS OUT OF CALIB. THE TRANSMITTER WAS RECALIB.
A230537	2	FT	001	3B	11/05/84	2-FT-001-3B, RECALIBRATE TRANSMITTER	THE TRANSMITTER WAS OUT OF CALIB. THE TRANSMITTER WAS RECALIB.
A230538	2	FT	001	10A	11/02/84	2-FT-001-10A, RECALIBRATE TRANSMITTER	THE TRANSMITTER WAS OUT OF CALIB. THE TRANSMITTER WAS RECALIB.
A230539	2	FT	001	10B	11/05/84	2-FT-001-10B, RECALIBRATE TRANSMITTER	THE TRANSMITTER WAS OUT OF CALIB. THE TRANSMITTER WAS RECALIB.
A230540	2	FT	001	21A	11/02/84	2-FT-001-21A, RECALIBRATE TRANSMITTER	THE TRANSMITTER WAS OUT OF CALIB. THE TRANSMITTER WAS RECALIB.
A230541	2	FT	001	21B	11/05/84	2-FT-001-21B, RECALIBRATE TRANSMITTER	THE TRANSMITTER WAS OUT OF CALIB. THE TRANSMITTER WAS RECALIB.
A230542	2	FT	001	28A	11/02/84	2-FT-001-28A, RECALIBRATE TRANSMITTER	THE TRANSMITTER WAS OUT OF CALIB. THE TRANSMITTER WAS OUT OF CAL..J.
A230544	2	FT	001	28B	11/05/84	2-FT-001-28B, RECALIBRATE TRANSMITTER	THE TRANSMITTER WAS OUT OF CALIB. THE TRANSMITTER WAS OUT OF CALIB.
A233454	2	FT	003	155A	11/12/84	2-FT-003-155A, DUE TO ERRATIC MEASUREMENTS DURING CAV. VENTURI TEST, PMT-53 WP11243 CALIB. OF THIS ENTIRE LOOP IS REQUIRED INCLUDING ALL COMPONENTS(FT, FM, I TO I, ETC)	THE TRANSMITTER WAS OUT OF TOLERANCE. RECALIB. PER SI-97
A282245	2	PDS	065	80C/D	11/07/84	2-PDS-065-80C/D, SWITCH C LED DOES NOT LIGHT WHEN BISTABLE TRIPS	THE DIODE WAS DAMAGED. A NEW LIGHT EMITTING DIODE WAS INSTALLED
A282246	2	FIC	046	57	11/13/84	2-FIC-046-57, OUTPUT INDICATOR IS NOT OPERATING PROPERLY	THE SERVO MOTOR WAS DEFECTIVE. MOTOR WAS REPLACED.
A283348	2	PS	003	138A	11/08/84	2-PS-003-138A, SENSING LINE FOR 2-PS-3-138A IS LEAKING AT FITTING BELOW THE PS	THE ASSOCIATED FITTINGS WERE FOUND LOOSE. THE FITTINGS WERE TIGHTENED AND THE DRAIN VLV WAS CHECKED FOR PROPER OPERATION.
A283633	1	PS	003	165A/B	11/02/84	1-PS-003-165A/B, INHIBIT FUNCTION OF 1-PS-3-165A/B BY LIFTING WIRE 4SF3 IN 1-L-11A, TB112, T8	NONE. LIFTED WIRES PER TACF
A283635	1	PS	003	160A/B	11/02/84	1-PS-003-160A/B, INHIBIT FUNCTION OF 1-PS-3-160A/B BY LIFTING WIRE 1SF3 IN 1-L-11B, TB112, T8	NO FAILURE. LIFTED WIRE PER TACF
A285798	2	LM	003	156A	11/05/84	2-LM-003-156A, I/P WILL NOT CALIBRATE OR REPEAT	THE CONVERTER WAS DAMAGED. THE CONVERTER WAS REPLACED.
A286812	2	TCV	061	71	11/21/84	2-TCV-061-71, DOES NOT CONTROL TEMP. PROPERLY	ICE WAS COLLECTING ON VLV. ICE WAS CLEANED OFF THE VLV.
A286963	2	LT	003	173	11/06/84	2-LT-003-173, OUTPUT FLUCTUATING	THE TRANSMITTER WAS DETERMINED TO BE

MR.COMP	U	FUNC	SYS	ADDRESS.	COMP DATE....	DESCRIPTION.....	CORRECTIVE ACTION.....
A294763	2	XE	092	5001	11/15/84	2-XE-092-5001,REPLACE SOURCE RANGE DETECTOR	FAULTY.THE TRANSMITTER WAS REPLACED
A294764	2	XE	092	5002	11/15/84	2-XE-092-5002,REPLACE INTERMEDIATE RANGE DETECTOR	INTERMEDIATE RANGE DETECTOR INOPERABLE. REPLACED & CALIB. DETECTOR & DRAWERS INTERMEDIATE RANGE DETECTOR INOPERABLE.REPLACED & CALIB. DETECTOR & DRAWER
A294770	2	FM	072	13A	11/13/84	2-FM-072-13A,CHECK FOR PROPER OPERATION OF MODIFIER; APPEARS TO HAVE NO OUTPUT.	MODIFIER WAS OUT OF CALIB. MODIFIER WAS RECALIB.
A294773	2	XM	092	5008D	11/15/84	2-XM-092-5008D,ZERO ADJUST WILL NOT MEET CALIB. TOLERANCE ORANGE BALL ATTACHED.	ZERO POT FAULTY.REPLACED POT RECALIB. PER 94.3
A294957	2	LCV	062	118	11/14/84	2-LCV-062-118,INVESTIGATE AND RESOLVE PROBLEMS WITH VLV OPERATION	SOLENOID FAULTY.REPLACED SOLENOID
A294962	2	LS	077	411B/D,D	11/01/84	2-LS-077-411B/D,D,D,D,D,D-,CHECK CALIBRATION OF BOTH SIDES OF DUAL BISTABLE PER INST. CAL. CARDS	BISTABLES OUT OF CAL. RECALIB. BISTABLES

24 records listed.

MR2....	U	FUNC	SYS	ADDRESS.	COMP DATE....	DESCRIPTION.....	CORRECTIVE ACTION.....
A285285	2	FM	068	396A	11/27/84	2-FM-068-396A, CHECK LOOP CAL. PER IMI-68	POWER TRANSISTORS & THE TRANSISTOR HEAT SINK WERE FAULTY. TRANSISTORS & THE HEAT SINK WERE REPLACED
A294858	2	FT	063	91C	11/28/84	2-FT-063-91C, REPAIR POWER SUPPLY & CALIB. TRANSMITTER-RHR PMP A-A	THERE WAS A FAULTY CIRCUIT BOARD ON THE POWER SUPPLY & THE TRANSMITTER WAS OUT OF CALIB. THE CIRCUIT BOARD WAS REPLACED & THE TRANSMITTER WAS RECALIB.

2 records listed.

MR.COMP	U	FUNC	SYS	ADDRESS.	COMP DATE....	DESCRIPTION.....	CORRECTIVE ACTION.....
A293585	1	FE	063	75	11/15/84	1-FE-063-75, "I" FLOW ELEMENT IN PIPE CHASE NOT SHOWING FLOW WHEN PERFORMING SI-128. THIS IS FOR SI-129&128.	SQUARE ROOT MODULE OUT OF CALIB. RECALIB. MODULE.
A294285	2	FS	030	95	11/01/84	2-FS-030-95, ALARM COMES IN ON "LO FLOW" WHEN ALL UPPER COMPARTMENT COOLERS ARE RUNNING	BLOCKED PITOT TUBE. REPLACED TUBE.
A298738	2	FM	070	170	11/11/84	2-FM-070-170, CALIB. SQ ROOT MODULE FOUND OUT OF TOLERANCE WHILE PERFORMING WP11220.	SQUARE ROOT MODULE OUT OF CALIB. RECALIB. MODULE.

3 records listed.

Mechanical Maintenance Section

November 1984

Common

1. In order to eliminate cutting each time it became clogged, a spool piece was installed on the CDWE drain line.

2. Monthly inspections on the 1A-A and 2B-B diesel generator buildings were completed.

3. Pressurizer safety valves were sent to Wylie Laboratories on November 1, 1984. Steam testing was completed by November 22, and all valves passed.

Unit 1

1. There were several steam leaks involving 1-PIPE-5, 1-PIPE-6, 1-FSV-5-94 and 1-FCV-1-98. All leaks were fixed by November 5 by installing a new box on system 6 and by reinjecting Furmanite into two other boxes.

2. Assisted Instrumentation in stopping a leak in instrument line 1-LT-68-320 to avoid shutting down the unit by repairing leaks and installing insulation. The line was backfilled on November 30 and was shown to be operable.

Unit 2

1. Set the head on the reactor on November 1, 1984.

2. Completed sleeving on CCS heat exchanger.

3. Completed sleeving on moisture separator reheaters.

4. Stud machining on the number four steam generator was completed by November 5.

5. Sludge lancing on the steam generators was completed by November 12.

6. Dog bone seals completed on all three condensers on November 5.

7. Cleaning and neolubing of the seal table thimble tubes were completed after questionable fittings were proven functional.

8. Ice weighing was completed.

9. The air compressor for the containment integrated leak rate testing (CILRT) was repaired by replacing a gasket and the blower shaft.

10. Problems filling for the sweep and vent on November 23 due to a galled-up BIT bypass isolation valve (63-647). The 1-inch valve was replaced with a 3/4-inch valve.

11. Check valve 6-324 had binding inside. Removal of the operator did not solve the problem. Vendor modifications were completed, followed by a functional test which revealed no more binding.

12. The Gorman Rupp auxiliary diesel sump pump in the turbine building has a cracked block and was sent out on November 30 for repair or replacement.

13. During maintenance on the reactor coolant pumps, a pin on the number four pump was found to be sliding out. The pin was removed for inspection, at which time it was discovered that the retaining clip was missing. On pumps two, three, and four, the number two seal housing was removed and machined due to wear. The lower motor bearing on pump number four was found not to be centered in the housing. The pumps were completed by November 30.

ECN 2768 - RVLIS

All work is completed, except the postmodification tests which will be done during startup.

SI-112, ECN 5773, Pressurizer Work, ECN 6196

All hangers are completed that are required for the single lift of the relief valves.

NUREG 0588 RELATED WORK

ECN 6231 - Pipe Reroutes

All work is completed except minor painting touchup and insulation.

ECN 6200 - Main Steam Pressure Switches

The relocation was completed for unit 2.

ECN 5883 - Auxiliary Feedwater Pressure Switches

The auxiliary feedwater pressure switch relocation was completed for unit 2.

ECN 5457 - Solenoid Replacement

Solenoid replacement was completed for unit 2.

ECN 5895 - Solenoid Replacement

Solenoid replacement was completed for unit 2.

ECN 5024 - Steam Generator Wet Layup

All mechanical work and postmodification tests were completed. Some insulation and paint work remains.

ECN 2780 - Postaccident Sampling

All work except painting was completed. Postmodification tests are to be performed during startup.

ECN 5842 - Cavitating Venturi

All work except painting was completed. The final postmodification tests will be performed during startup.

ECN 5939 - MFWPT Condenser Retubing

MFWPT retubing was completed except for some minor insulation work.

ECN 5713 - Paul Monroe Snubber Monorail

The Paul Monroe snubber monorail was completed.

ECN 5743 - Steam Generator Platforms and Ladders

The steam generator access platforms were completed.

DCR 1729 - MSR Doghouse HVAC

The top-mounted return fans were installed. Some wall-mounted dampers remain to be installed. Work will continue after the outage.

ECN 6243 - Penetration X87

The work was completed during this period.

ECN 6206 - CST B

Painting CST B was completed, and the tank was returned to service.

ECN 5009 - ERCW to CCP 2B Crossover

The supply/return piping to both the oil cooler and room cooler was changed out from carbon steel piping to stainless steel piping.

ECN 6256, 6257, 6262 - Turbine Building Side Performance Improvement Modifications

The turbine building secondary performance improvement modifications were completed.

ECN 6263 - Feedwater Hangers

These hangers were modified to address anchorage problems to the concrete.

DCR 1822, 1847 - Turbine Building Chemical Modification

The turbine building chemical modification was completed.

ECN 5787 - Extraction Steam Line Supports

Extraction steam line supports were installed to address vibration problems.

ECN 6001 - Fire Protection Isolation Valves

Fire protection isolation valves were installed along with related hangers.

ECN 6004

Stiffeners for various embedded plates were installed to address overloading problems.

ECN 5657

Isolation valves for the MSR sightglasses were installed.

ECN 5889

Platforms for access in the valve room were installed.

APPENDIX A

Sequoyah Nuclear Plant
ODCM Changes

Change 1

DESCRIPTION OF CHANGE

The isotope list for monthly liquid dose calculations is expanded from 11 to 23 isotopes. Changes appear on pages 21, 22, and 23.

ANALYSIS OR EVALUATION JUSTIFYING CHANGE

The list was expanded when the monthly dose calculation was put on an IBM PC, replacing the previously used program on the HP 97 calculator. This lowers the need to change isotopes periodically to ensure the conservativeness of the dose.

EVALUATION OF ACCURACY OF DOSE CALCULATION OR SETPOINT DETERMINATION

This change will have no effect on calculated quarterly doses or setpoint determinations. It will raise the calculated monthly dose.

Change 2

DESCRIPTION OF CHANGE

The thyroid was added as a critical organ considered for the fish ingestion pathway. The change is reflected on pages 21 and 22.

ANALYSIS OR EVALUATION JUSTIFYING CHANGE

The list of critical organs was expanded due to the expanded capability of the IBM PC ODCM over the HP 97 ODCM program. This eliminates the need to periodically change the organs considered.

EVALUATION OF ACCURACY OF DOSE CALCULATION OR SETPOINT DETERMINATION

This change will have no effect on calculated quarterly doses or setpoint determinations. It will raise the calculated monthly dose.

SEQUOYAH NUCLEAR PLANT
OFFSITE DOSE CALCULATION MANUAL
EFFECTIVE PAGE LISTING
REVISION 11

Page	Revision
TOC 1 through TOC 2	Revision 11
1 through 2	Revision 6
3	Revision 9
4	Original
5	Revision 3
6	Revision 4
7	Revision 8
8 through 9	Revision 5
10	Original
11	Revision 5
12 throuth 13	Revision 9
14	Revision 7
15	Revision 9
15a	Revision 9
16	Revision 9
16a	Revision 8
Table 1.1 (2 pages)	Revision 4
Table 1.2 (2 pages)	Original
Table 1.3 (8 pages)	Revision 4
Table 1.4	Revision 9
Table 1.4A (removed from document)	Revision 9
Table 1.5	Revision 4
Tables 1.6 and 1.7	Revision 5
Table 1.8	Original
Figures 1.1 and 1.2	Original
Figure 1.3	Revision 3
17	Original
18	Revision 2
19	Revision 7
20	Revision 6
21	Revision 11
22	Revision 11
23	Revision 11
24 through 25	Revision 10
26 through 29	Revision 8
Table 2.1 (3 pages)	Revision 7
Table 2.2	Revision 5
Table 2.3 (3 pages)	Revision 10
Table 2.4 a-c	Revision 5
30	Revision 8
Table 3.1-1 (4 pages)	Revision 4
Table 3.1-2	Revision 8
Table 3.1-3	Revision 4
Table 3.2-1 (3 pages)	Revision 4
Figure 3.1-1 through 3.1-2	Revision 4
Figure 3.1-3	Revision 8
Figure 3.1-4 through 3.1-5	Revision 4
Figure 3.1-6 through 3.1-7	Revision 8

Sequoyah Nuclear Plant
Offsite Dose Calculation Manual
Dates of Revisions

Original ODCM	2/29/80*
Revision 1	4/15/80**
Revision 2	9/7/80**
Revision 3	3/80, 2/10/81 4/8/81 and 6/4/81**
Revision 4	11/22/82 (10/22/81, 11/28/81 and 4/29/82*
Revision 5	10/21/82**
Revision 6	1/20/83**
Revision 7	3/23/83**
Revision 8	12/16/83**
Revision 9	3/7/84**
Revision 10	4/24/84**
Revision 11	8/21/84**

*Low Power license for Sequoyah unit 1
**RARC Meeting date

b During any calendar year to ≤ 3 mrem to the total body and to ≤ 10 mrem to any organ.

To ensure compliance, cumulative dose calculations will be performed at least once per month according to the following methodology.

2.3.2 Monthly Analysis

Principal radionuclides will be used to conservatively estimate the monthly contribution to the cumulative dose. If the projected dose exceeds the above limits, the methodology in Section 2.3.3 will be implemented.

The 23 nuclides (listed below) contribute more than 95 percent of the dose to the total body and the most critical organs for each pathway. The critical organs considered for fish ingestion are the gastrointestinal tract (GIT), bone, thyroid and liver. The critical organs for water ingestion are the GIT, bone, and thyroid. 11

H-3	Fe-55	Sr-89	Tc-99m	Cs-134
Na-24	Fe-59	Sr-90	Ag-110m	Cs-136
P-32	Co-58	Zr-95	Sb-124	Cs-137
Cr-51	Co-60	Nb-95	I-131	
Mn-54	Zn-65	Mo-99	I-133	

A conservative calculation of the monthly dose will be done according to the following procedure. First, the monthly operating report containing the release data will be obtained and the activities released of each of the above 23 radionuclides will be noted. This information will then be used in the following calculations. 11

2.3.2.1 Water Ingestion

The dose to an individual from ingestion of water is described by the following equation. 11

$$D_j = \frac{1}{.95} \sum_{i=1}^{23} (DCF)_{ij} \cdot I_{ij}, \text{ rem} \qquad (2.11)$$

where:

D_j = dose for the j^{th} organ from eleven radionuclides, rem

j = the organ of interest (bone, GI tract, thyroid and total body).

.95 = conservative correction factor, considering only 23 radionuclides.

DCF_{ij} = critical ingestion dose commitment factor for the j^{th} organ of adult or child from the i^{th} radionuclide rem/μCi, see attached as Table 2.1.

I_{ij} = monthly activity ingested of the i^{th} radionuclide by the critical age group for the j^{th} organ, μCi.

I_{ij} is described by

$$I_{ij} = \frac{A_i V_{ij} (30)}{Fd (7.34 \times 10^{10})} \quad ,\mu Ci \qquad (2.12)$$

where:

A_i = activity released of i^{th} radionuclide during the month, μCi.

V_{ij} = maximum individual's water consumption rate corresponding to the age group selected for the critical DCF_{ij} above (Adult: 2000 mL/d, Child: 1400 mL/d; Regulatory Guide 1.109)

30 = days per month

F = average river flow at Chickamauga Dam for the month (cubic feet per second)

d = fraction of river flow available for dilution (1/5)

7.34×10^{10} = conversion from cubic feet per second to milliliters per month.

Considering the conversion factor from rem to mrem ($\times 10^3$), the dose equation then becomes:

$$D_j = \frac{2.15 \times 10^{-6}}{F} \sum_{i=1}^{23} (V \times DCF)_{ij} \times A_i, \text{ mrem} \qquad (2.13)$$

11

SNP REV 09 NOV 1984

2.3.2.2 Fish Ingestion

The dose to an individual from the consumption of fish is described by Equation 2.11. In this case the activity ingested of the i^{th} radionuclide (I_{ij}) is described by

$$I_{ij} = \frac{A_i \, B_i \, M_{ij}}{Fd \, (7.34 \times 10^{10})}, \ \mu Ci \qquad (2.14)$$

where:

A_i = activity released of i^{th} radionuclide during the month, μCi

B_i = effective fish concentration factor for the i^{th} radionuclide $\frac{\mu Ci/g_f}{\mu Ci/mL}$ see attached as Table 2.2.

M_{ij} = amount of fish eaten monthly by maximum individual corresponding to age group selected for the critical DCF_{ij} above (Adult: 1750g, Child: 575g; Regulatory Guide 1.109).

F = average river flow at Chickamauga Dam for month (cubic feet per second)

d = fraction of river flow available for dilution (1/5)

7.34×10^{10} = conversion from cubic feet per second to milliliters per month.

The dose equation then becomes

$$D_j = \frac{7.17 \times 10^{-8}}{F} \sum_{i=1}^{23} A_i \, B_i \, (M \cdot DCF)_{ij}, \ mrem \qquad (2.15)$$

11

Considering the conversion factor from rem to mrem.

2.3.2.3 Recreation

The total body dose to an individual via the shoreline recreation pathway is described by the following equation. For this calculation, the total dose is estimated based on a calculation for Co-58, Co-60, Cs-134, and Cs-137. These four nuclides are expected to contribute over 95 percent of the recreation dose.

$$D = \frac{1}{0.95} \sum_{i=1}^{4} \frac{[(RDCF)_i \cdot \xi_i \cdot 67]}{8760}, \ mrem \qquad (2.16)$$

D

TENNESSEE VALLEY AUTHORITY
Sequoyah Nuclear Plant
Post Office Box 2000
Soddy Daisy, Tennessee 37379

DEC 1 4 1984

Nuclear Regulatory Commission
Office of Management Information
and Program Control
Washington, DC 20555

Gentlemen:

SEQUOYAH NUCLEAR PLANT - MONTHLY OPERATING REPORT - NOVEMBER 1984

Enclosed is the November 1984 Monthly Operating Report to NRC for Sequoyah Nuclear Plant.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

P.R. Wallace

P. R. Wallace
Plant Manager

Enclosure
cc (Enclosure):
Director, Region II
Nuclear Regulatory Commission
Office of Inspection and Enforcement
101 Marietta Street
Suite 3100
Atlanta, GA 30323 (1 copy)

Director, Office of Inspection
and Enforcement
Nuclear Regulatory Commission
Washington, DC 20555 (10 copies)

Mr. A. Rubio
Electric Power Research Institute
P.O. Box 10412
Palo Alto, CA 94304 (1 copy)

Mr. R. C. Goodspeed
MNC 461
Westinghouse Electric Corporation
P.O. Box 355
Pittsburgh, PA 15230 (1 copy)

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