

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

June 2, 1983

Director of Nuclear Reactor Regulation
Attention: Ms. E. Adensam, Chief
Licensing Branch No. 4
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Ms. Adensam:

In the Matter of
Tennessee Valley Authority

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Docket No. 50-327
328

Please refer to my April 14, 1983 letter to you concerning our integrated modification concept for the Sequoyah Nuclear Plant unit 2. The letter provided information on the unit 2 integrated modification schedule which included the deferral of modifications associated with the completion of several unit 2 operating license conditions.

During a telecon held on April 26, 1983 concerning the proposed unit 2 modification schedule, you requested additional information which is necessary to provide adequate justification for the license condition items for which we plan to defer modifications. Enclosed is additional information.

Enclosure 1 shows the net effect on the length of the unit 2, cycle 1 and the unit 1, cycle 2 outages and the financial impact because of lost generation if TVA is required to complete all of the operating conditions before unit 2 is allowed to restart. Enclosure 2 discusses past efforts to complete each requested deferral item and what our completion problems have been. Enclosure 3A lists the majority of the NRC-related modifications identified since the unit 1 operating license issuance. Enclosure 3B shows the man-hours expended to date, the percent of completion, and the completion or projected completion date for each modification. The information in Enclosure 3B has been updated through May 9, 1983. Some items are currently unscheduled because of incomplete scope. To date, TVA has expended approximately 1,133,000 man-hours with an estimated 4,120,000 man-hours remaining before all of the items listed in Enclosure 3 are completed. Enclosure 4 shows the current TVA projections to complete the remaining modifications scheduled in Enclosure 3 through the end of the unit 2, cycle 2 outage. Enclosure 5 shows the current TVA integrated schedule for Sequoyah Nuclear Plant commitments. It should be noted that all the schedule dates assume that the requested commitment deferrals are approved by NRC; otherwise, all of the dates will be affected.

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U.S. Nuclear Regulatory Commission

June 2, 1983

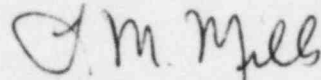
It is evident from looking at TVA's previous commitments on the NUREG 0737 modifications that problems have occurred on major modification scheduling. However, we prepared these schedules with the best design and material delivery information available at the time. We have been unable to meet these schedules because many of the designs and materials needed for those schedules were not available on the originally projected dates. During the development of our integrated outage schedule, we identified items for which material and design would be available. From this listing, we identified and prioritized those items with the most safety benefit. Through this process, the items listed in Enclosure 2 were identified for deferral. Material or design difficulties affect three items and the fourth item will have no safety benefit in the near future.

We would like the opportunity to meet with your staff at your earliest convenience to discuss our integrated modification schedule for unit 2, the modification deferrals proposed, and the justifications provided. We believe that we will be able to respond to any unanswered questions at that time.

If there are any further questions preceding this meeting, please call R. H. Shell at FTS 858-2676.

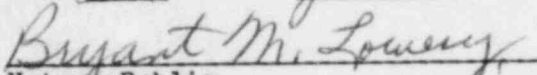
Very truly yours,

TENNESSEE VALLEY AUTHORITY



L. M. Mills, Manager
Nuclear Licensing

Sworn to and subscribed before me
this 2nd day of June 1983



Notary Public

My Commission Expires 4/8/86

Enclosures

cc: U.S. Nuclear Regulatory Commission (Enclosures)
Region II
Attn: Mr. James P. O'Reilly Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30303

ENCLOSURE 1

SEQUOYAH NUCLEAR PLANT SCHEDULE IMPACT FROM COMPLETING EXISTING NRC COMMITMENTS BY THE END OF THE UNIT 2, CYCLE 1 AND UNIT 1, CYCLE 2 OUTAGES

The purpose of this enclosure is to show how TVA's outage schedules are impacted if all licensed NRC commitments for unit 2 are required to be completed by the end of the unit 2, cycle 1 outage and all licensed NRC commitments for unit 1 are required to be complete by the end of the unit 1, cycle 2 outage. Also shown is the effect on the subsequent cycle for each unit as well as the estimated cost in lost generation.

There are several restrictions which are imposed during an outage for the purpose of maintaining a high degree of quality and safety. Each trades and labor employee is limited to working eight hours overtime per week and no more than twelve workdays in fourteen calendar days. All critical work is scheduled on three eight-hour shifts whenever possible. Also, a maximum trades and labor personnel limit of 750 has been established to perform modifications and major maintenance during the outage. The information below has been derived based on these restrictions.

Unit 2 is currently scheduled to shut down August 5, 1983, for a 91-day outage. Seventy-four days will be available for work on modifications and the remaining 17 days will be taken up by shutdown, testing, and startup. In addition, we have experienced a historical outage overrun of 25 percent. Thus, if overrun is included, the estimated outage duration would be 114 days.

There are 25,900 man-days (350 men) of modification work and 24,050 man-days (325 men) of maintenance work currently scheduled during the unit 2, cycle 1 outage. Out of the 25,900 man-days presently scheduled for modification work, 2,508 man-days of work have been directed towards completing the Postaccident Sampling Facility (PASF) and the Technical Support Center (TSC) modifications. With TVA's current manpower restriction of 750 trades and labor personnel onsite during an outage, this leaves 75 men available for emergent work. Thus, a total of 49,950 man-days of work, excluding emergent work, are presently scheduled for the unit 2, cycle 1 outage.

An additional 20,580 man-days of unit 2, cycle 1 modification work would be required if the PASF, TSC, vessel level, and high-range monitoring modifications were required to be completed by the end of the outage. This would bring the total to 46,480 man-days of modification work. By shifting 75 men from maintenance work to modification work (425 men total), the 46,480 man-days of work would take 109 days to complete. An additional 8 days would be required because of the logistical impact of increased QA work and "C" zone work. Also, 2 days would be required for shutdown to mode 5, 10 days for systems training and secondary water cleanup before mode 4, and 8 days to go from mode 4 to generator synchronization. Thus, the total estimated outage length would be 137 days. By including a historical overrun of 25 percent, the estimated duration would be increased by 35 days to a total of 172 days. This amounts to a unit 2, cycle 1 outage extension of 58 days (including overruns) of which 28 days are overlapping with the unit 1, cycle 2 outage.

The unit 1, cycle 2 outage is currently scheduled to begin on December 27, 1983, and is estimated to be 79 days in length. Including a historical estimated outage overrun of 25 percent, the estimated unit 1, cycle 2 outage length would be 99 days.

There are 27,600 man-days (400 men) of modification work and 18,500 man-days (275 men) of maintenance work currently scheduled during the unit 1, cycle 2 outage. This leaves 75 men available for emergent work. The current schedule allows 15,300 man-days of nonoutage modification work to be completed between the unit 2, cycle 1 and the unit 1, cycle 2 outages. If the unit 2, cycle 1 outage extends to 172 days, this 15,300 man-days of work will have to be completed during the unit 1, cycle 2 outage. Thus, there will be a total of 42,900 man-days of modification work to be performed during this outage. By shifting 25 men from maintenance work to modification work (425 men total), the 42,900 days of work would take 101 days to complete. In addition, 6 days would be required because of the logistical impact of increased QA work and "C" zone work. Also, 2 days would be required for shutdown to mode 5, 5 days required for systems training and secondary water cleanup before mode 4, and 6 days required to go from mode 4 to generator synchronization. Thus, the total estimated outage length, excluding outage overlap and overrun considerations, would be 120 days.

Twenty out of the 28 days of outage overlap will directly impact the unit 1, cycle 2 outage length day-for-day because of all available manpower being required to support the unit 2, cycle 1 outage. The other 8 days which are required for unit 2 start-up will not impact the unit 1, cycle 2 outage length. This 20-day extension, coupled with a 25 percent historical overrun (30 days), results in a total estimated outage duration for the unit 1, cycle 2 outage of 170 days. This amounts to a total extension of 71 days (including overrun) for the unit 1, cycle 2 outage.

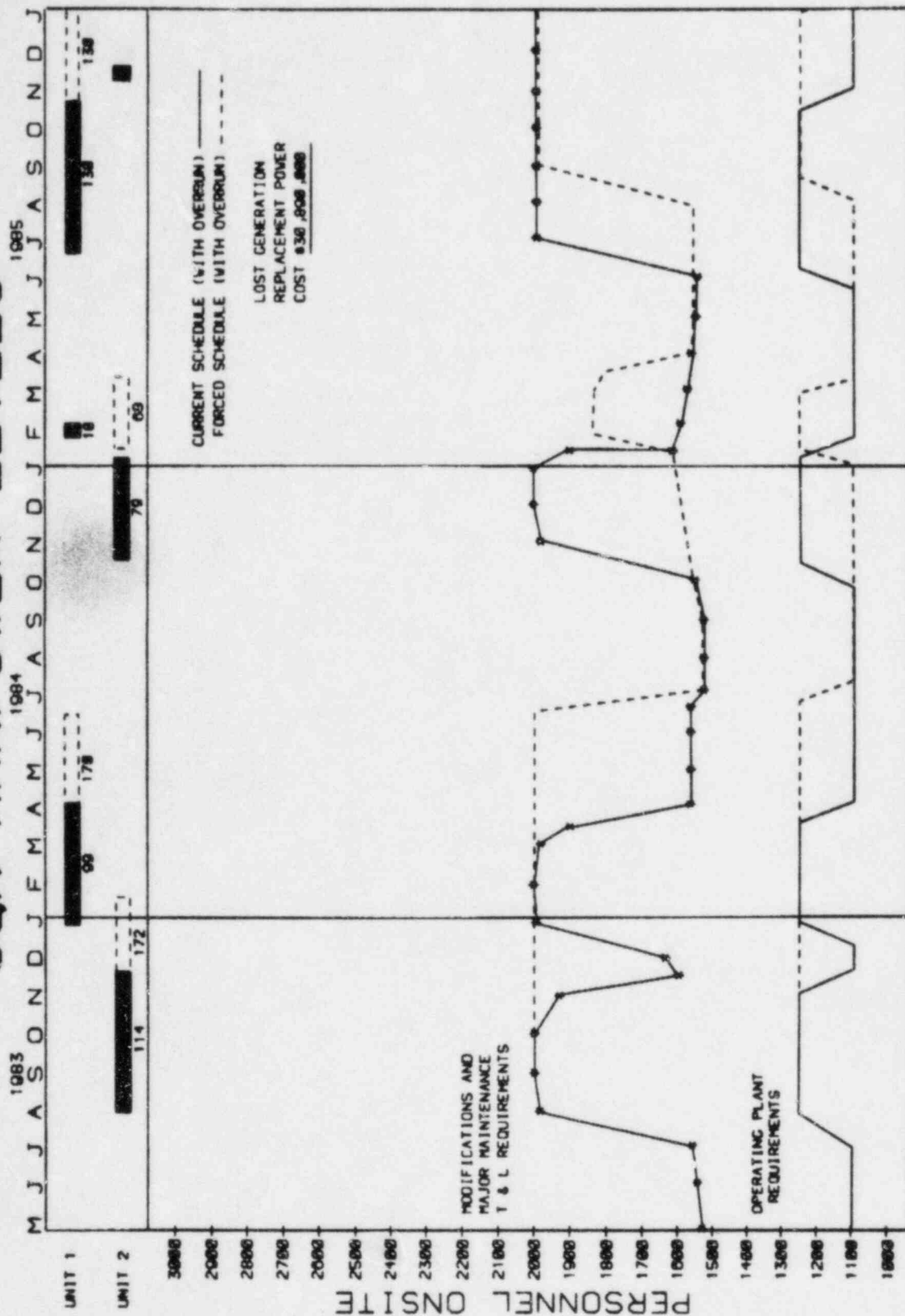
The graph included in this attachment depicts the manpower requirements and outage durations for the existing outage schedules and the forced schedules (complete all commitments as licensed) for the next two outages on both units.

Power replacement cost for TVA's nuclear plants varies between \$200,000 and \$280,000 per day depending on the time of year the unit is shut down and the amount of system generation that is out of service. The power replacement cost for the 58-day extension on the unit 2, cycle 1 outage is approximately \$15,340,000. The power replacement cost for the 71-day extension on the unit 1, cycle 2 outage is \$17,750,000. Because of less work having to be performed during the unit 2, cycle 2 outage, the duration would be expected to decrease from 79 days to 68 days. This 11-day decrease in outage duration would equate to a cost savings of \$2,200,000. Thus, the total lost generation cost to TVA would be \$30,890,000.

The overlapping unit outages at Sequoyah as described above would coincide with a probable generator rewind outage on TVA's Paradise Steam Plant unit 3 and a scheduled modification outage on TVA's Browns Ferry Nuclear Plant unit 3. This would result in a total of 4,379 MW being scheduled out of service during the peak period in the winter of 1983 through 1984. These scheduled outages, if required, coupled with a normal forced outage rate on other units could result in the lack of sufficient operating reserve to meet system demands.

5000H/5000H
5/12/83

SQN MANPOWER LEVELS



ENCLOSURE 2

DEFERRED LICENSE COMMITMENTS ITEMS

TVA has previously prepared tentative schedules to meet the operating license commitment dates for both units. The following four items will not meet the unit 2 operating license commitment dates because of the following problems.

1. Reactor Vessel Level Indicating System - 2.C.16.m.2

The reactor vessel level system has been scheduled for installation during the second refueling outage because of its severe impact on work activities and because the system cannot be operational until emergency procedures utilizing the level system are developed, approved by NRC, and subsequent operator training completed. Sequoyah Nuclear Plant procedure guidelines are being developed as a generic effort by the Westinghouse Electric Corporation Owners' Group. Based on the present Owners' Group schedule, the procedures cannot be in place and operator training completed before the fall of 1985. The level system, if installed during this outage, could not be used until approximately two years after installation. Westinghouse has indicated that additional analyses will be necessary for plants utilizing ice condensers and/or upper head injection. The magnitude of this work and the schedule for completion have yet to be determined.

In addition, with present manpower limits, this modification cannot be completed as presently required without significantly affecting the unit 2, cycle 1 outage length. Because of the large amount of containment work which is already scheduled to be performed during the unit 2 outage, deferral of this modification is required.

2. Postaccident Sampling - 2.C.16.g

Material delivery for this modification is estimated to be complete by the fall of 1983. Any vendor delivery problems could delay this date by several months. The remaining nonoutage portion of this modification will take more than 25 weeks to complete. Because of this remaining nonoutage work and the current scheduled start for the unit 2, cycle 1 refueling outage, TVA cannot complete this modification without significantly affecting the unit 2, cycle 1 outage length, until the end of the unit 2, cycle 2 outage.

In the interim, as indicated in our response to NUREG 0578 and NUREG 0737, procedures have been established to evaluate the primary coolant system activity depending on the accessibility of the sampling stations for particular degraded conditions. TVA's response to NUREG 0578 contained a copy of Sequoyah Nuclear Plant Technical Instruction 66, Postaccident Sampling and Analysis Methods.

3. Technical Support Center - 2.C.16.q.1

In the response to NUREG 0694, TVA committed to installing the permanent Technical Support Center (TSC) by June 30, 1983. Subsequent license conditions were included in the unit 2 operating license to require installation by the first refueling outage or the first scheduled five-week outage after May 1, 1982. Since these license conditions were established, equipment deliveries and design work have not kept pace with the expected schedule and will not be available to allow completion during the first refueling.

The software program for the TSC computer system was supplied by Westinghouse. Westinghouse's original delivery date for the TSC computer software was January 1, 1981. Westinghouse's delivery did not meet the originally scheduled date. Portions of the software were delivered over two years late to TVA. Modifications to this software package by TVA are expected to be complete by the summer of 1984. The nonoutage portion of this modification will take 29 weeks to install. As currently scheduled, this nonoutage portion will not be completed before the unit 2, cycle 1 outage work begins. The magnitude of this work will not allow completion of the TSC until the end of the unit 2, cycle 2 outage unless the unit 2, cycle 1 outage length is significantly increased.

The TSC, which is located adjacent to the main control room, is being used at Sequoyah. The TSC meets the same habitability requirements as the main control room. The TSC communications include PAX telephones and Bell telephones. Reference materials, including the Radiological Emergency Plan (REP), implementing procedures, plant drawings, Final Safety Analysis Report (FSAR), and selected plant procedures are present. Therefore the TSC is presently operational with the exception of the appropriate data systems.

4. High Radiation and Iodine Monitors - 2.C.16.1.2a

NUREG 0737 gave little guidance on the instrumentation specifications required to meet NUREG 0737, II.F.1. Because of the lack of guidance, TVA created their own specifications for the required radiation monitors. After several months of trying to procure radiation monitors, TVA discovered that they were not available using TVA's current procurement specifications. The time it took for TVA to find an approved vendor utilizing the specifications delayed the purchase of the radiation monitors until September 1982. This resulted in delaying completion of the design until August 1983.

The present schedule for completion of this modification is before startup after the unit 2, cycle 2 refueling outage.

By the end of the unit 2, cycle 1 outage, Sequoyah will have installed high-range noble gas effluent monitors as follows:

- A. Monitors will be placed on the shield building vent and the condenser vacuum pump exhaust.
- B. Each monitor will consist of two General Atomic Company monitors as follows:
 - 1. Model RD-1 with a range of 10^{-1} to 10^{+4} MR/hr
 - 2. Model RD-23 with a range of 10^3 to 10^7 MR/hr

Note: The model RD-1 and RD-23 monitors each utilize an ionization chamber for the detector.

- C. The instrument readouts with continuous display and recording will be located in the main control room.
- D. The source of power for monitors will be preferred power (vital instrument bus).

ENCLOSURE 3A

NRC-RELATED MODIFICATIONS

<u>ECN</u>	<u>DCR</u>	<u>DESCRIPTION</u>	<u>DOCUMENT</u>
5207		Change ductwork on ABGTS for 1/4-inch negative pressure in ESF pump rooms (completed).	IE Inspection 81-36
5050	231	Gas effluent radiation monitor (complete).	IER 327/79-48, IE Inspection 79-48, Item 3
5033R1	262	RHR loss of flow alarm in main control room (complete).	FSAR Question 5.57
5045	322	Reactor overpressurization instrumentation.	U1-OL2.C.20, U2-OL2.C.7
5047	351	Under/over voltage alarms on 6.9kV shutdown boards.	U1-OL2.C.18.c
5588	388	Modify RP-30 ratemeters (completed on TACF 82-220).	U1-OL2.C.18.a, U2-OL2.C.11.a
5384	575	Penetration X-5 ^k and X-118 (complete).	Browns Ferry LER 50-259/79-38, 10 CFR 50 Appendix J
5330 5426	593	Revise door locking system.	Physical Security Plan, Appendix E 4.0
5321	595	Intrusion detection aids - PERIM-Alert II.	IE Inspection 80-27, Section 02
5249	654	Provide automatic backup system for blowdown valve actuation (complete).	LER 80138
5253	675	Correct errors in seismic supports in CCW system because of inaccurate valve weights (complete).	LER 80173
5106 2768	689	Reactor water level indicator.	U1-OL2.C.23.1 NUREG 0737 II.F.2
5119	706	Install radiation monitor cable in conduit.	LER 82068
5555	715	79-14 alternate analysis - inspection unit 1 piping hangers.	IE Bulletin 79-14
5277	715	Review deviations from as-built drawings for piping hangers.	IE Bulletin 79-14 LERs 81023, 81010

<u>ECN</u>	<u>DCR</u>	<u>DESCRIPTION</u>	<u>DOCUMENT</u>
5286	716	Add grills to ventilation ducts.	IE Inspection 81-18
5312	721	Install card reader system on door A-183.	10 CFR 50.54(f)
5118	722	Remove STATIC Corp. Inverters 2-I, -III, and -IV and replace with solid state controls (complete).	LER 80166
5298	737	Reroute ERCW train B fire cables to obtain 20 ft. separation (complete).	10 CFR 50.48
5297 5725	740	Upgrade spent fuel pit gates (complete).	Reg. Guide 1.13, LER 80045
5712	741	Evacuation alarm system audibility.	IE Inspection 82-11 8.C
5235R1	741	Revise piping to HVAC equipment for electrical board rooms and main control room A/C.	Preoperational Test Deficiencies 176, 320, 329, 367.
5196 2776	751	Wide-range containment pressure monitors.	TMILL-2.1.10, NUREG 0578 U1-OL2.C.23.d, NUREG 0737
5197 2777	752	Reactor vessel ventilation system (unit 1 partial complete).	TMILL-2.1.13, NUREG 0578 U1-OL2.C.23.e, NUREG 0737
5352	753	Add additional phone lines for TSCs (complete).	U2-OL2C.16.r.3 NUREG 0737 Letter 82-33
5001 2911	771	Coat surfaces with Flamemastic 77 (complete).	Revision 4 Fire Protection Submittal
5109	774	Control room openings in walls.	IE Inspection 80-20 Section 01
5200 2780	779	Postaccident Sampling Facility (units 1 and 2 partially complete).	U1-OL2.C.23.f, SER II.B.3
5193 2773	780	High-range effluent monitors	TMILL-2.1.8.B, NUREG 0578 U1-OL2.C.23.f, NUREG 0737
5194	781	Iodine radiation monitors.	TMILL-2.1.8.B, NUREG 0578 U1-OL2.C.23.d, NUREG 0737
5770	781	Iodine radiation monitors.	TMILL2.1.8.B, NUREG 0578 U1-OL2.C.23.d, NUREG 0737
5195 2775	782	Containment radiation monitors (unit 1 complete).	TMILL-2.1.8.B, NUREG 0578 U1-OL2.C.23.d, NUREG 0737

<u>ECN</u>	<u>DCR</u>	<u>DESCRIPTION</u>	<u>DOCUMENT</u>
5110 5311 5331 5478	785	Interim H2 mitigation system (complete).	U1-OL2.C.22.d
5199 2779	787	Containment isolation radiation monitor (unit 1 complete).	U1-OL2.C.22.f SER1 11.K.1 NPR IV.A.6.1
5317 2923	790	High-range area radiation monitors (unit 1 complete).	NPR-IV.A.6, U1-OL2.C.22.f
--	814	Redesign vendor seismic valve brackets for 1-LCV-3-148 (EN DES DCR approved).	LER 80125
5030	820	Containment isolation valves (complete).	SER 6.2.6
5591	837	W-2 switches (units 1 & 2 partially complete).	IE Bulletin 80-20
5375	852	120V vital power to NRC dedicated phone circuit (complete).	IE Bulletin 80-02
5023	855	Temperature monitoring system for some class IE equipment.	SER1 7.8.2
5364	879	Install relay 86LOR indicating light and warning sign "Do not reset 86LOR if light is on" (complete).	LER 80140
5334	895	Install new PRT level transmitter and sense lines with sealed legs (1-LT-68-312C) (complete).	LERs 80155, 80161, 82103
5333	897	Change AC and DC power sources for level control instruments (complete).	U1-OL2.C.17, SER 15.2
5328	897	Reroute cables for auxiliary feedwater system (complete).	U1-OL2.C.17, SER 15.2
5451	934	Diesel generator lube oil pump (partially complete).	NCR EEB 8111 IE Circular 79-12
--	936P	Program to resolve ATWS problems.	Draft NUREG
-	945	New heavy duty diesel turbo chargers (complete).	U1&U2-OL2.C.15.a
5417	946	Diesel generator air dryer (complete).	U1-OL2.C.15.a, U2-OL2.C.12

<u>ECN</u>	<u>DCR</u>	<u>DESCRIPTION</u>	<u>DOCUMENT</u>
5357	949	Perform evaluation/install structural restraints on masonry walls whose failure would jeopardize safety-related equipment. (complete).	LER 80180
5479	954	Replace vent flow element 0-FE-30-174 and 0-FE-30-200.	Tech Spec 3.3.3.10
5444	959	Reagent air flow to hydrogen analyzers (completed on a TACF).	LERs 81063 and 80182
--	972	Balance of work for NUREG 0588.	NUREG 0588
5637	972	ERCW traveling screen motor modification.	NUREG 0588
5443	972	Replace flow switches FS-30-200 and 207.	U1-OL2.C.12.c NUREG 0588
5420	972	Replace relays on auxiliary air compressor.	NUREG 0588
5457	972	Replace solenoid valves.	NUREG 0588
5365	972	Replace various systems 30 and 32 solenoid valves.	U1-OL2.C.12.a NUREG 0588
5606	994	Provide physical barriers to ventilation system to auxiliary and control buildings.	IE Inspection 81-18
5467	1001	Tamper indication on key card system multiplex junction boxes.	10 CFR 73.55 E-Z
5465	1002	Install alarms with capability of being monitored in CAS and SAS.	10 CFR 73.55.C.8
5466	1037	Alarm roof hatches to 480V board rooms to terminate in CAS and SAS.	10 CFR 50.54(f)
5731	1038	Disconnect and remove electrodyne valve operated heaters.	NCR NEB 8112 SQRD 328/81-19
5408	1057	Ceiling tile in control room (complete).	10 CFR 50, Appendix A, Criteria 3
5510	1058	Replace cables and conduit on air lock doors (complete).	LER 81026

<u>ECN</u>	<u>DCR</u>	<u>DESCRIPTION</u>	<u>DOCUMENT</u>
5464	1067	Electrically controlled vehicle gate and public address system.	10 CFR 50.54(f) 10 CFR 73.55.D.1
5411	1090	ERCW pumps thermal spot fire detectors.	IE Inspection 81-14 Section 03
5522	1120	Make modifications to SQN unit 1 pressurizer condensate reservoirs to ensure proper operation of pressurizer instrumentation.	LER 82003
5429	1123	H ₂ mitigation system (unit 1 partially complete).	U1-OL2.C.22.d.2
5369 2873	1126	Revise FCV-67-152 control logic (unit 2 complete).	IE Bulletin 80-06
5198	1152	Technical Support Center (units 1 and 2 partially complete).	U1&U2-OL2.C.23.1 IE Inspection 82-13 sections 03, 04, and 05 U1&U2-OL2.C.11.b
5449	1154	Degraded voltage relaying.	U1-OL2.C.18.c, SER 7.3.2
-	1156P	Postaccident monitoring instrumentation.	U2 OL 2.C.16.g SER II.B.3
5769	1165	Install isolation valves on 1-inch chemical feedlines (unit 1 complete).	U2-OL2.C.9
5664	1226	Provide Wells Fargo system with tamper indication.	10 CFR 73.55e(2) Physical Security Plan Appendix E 2.0
5327 2938	1263	Modify RWST vent to prevent freezing.	FSAR question 6.52
5605	1281	Replace 1/2-inch fire protection sprinkler drops with 1-inch drops.	10 CFR 50 Appendix A Appendix R comparison
-	1304P	Containment airlock door air leakage.	LERs 82138, 82064, 81108
5536 5537	1308	Relocate class IE electrical equipment (reference ECN 5537 and 5478) (complete both units).	LER 81120

<u>ECN</u>	<u>DCR</u>	<u>DESCRIPTION</u>	<u>DOCUMENT</u>
5304	1326P	Modifications to ensure main control room habitability.	NUREG 0737 Section III.D.3.4
5684	1370	RCP oil shield (complete unit 1).	Response to FS'R, U2-OL-2.C.13.c
5899	1384	Change drawing to reflect contact change from N.C. to N.O. 45N1699-33. Fire protection panel 0-L-631 28 relay.	LER 81134
5604	1389	Ionization smoke detectors in decon room (complete).	FSAR fire protection 10-79
5653	1399	Refueling water storage tank freeze protection (complete).	Verbal to NRC 2/26/82 LERs 82010, 81004
5709	1467	Provide redundancy of RUSCO system.	10 CFR 73.55
5685	1474	Relay room emergency lighting (complete).	Response to FSAR
5674	1482	Protection from tornado generated missiles (complete).	U2-OL2.C.5, SER 5 3.5
5410	1518	Add one fire protection sprinkler in unit 1 Rx building annulus.	Branch Technical Position 9.5-1 Paragraph C.7.A Fire Hazard Analysis
5726	1534	Feedwater sense lines freeze protection (complete).	Verbal to NRC 2/26/82 LERs 80202, 81003, and 82013
5700	1584	Valve room freeze protection (complete).	Verbal to NRC 2/26/82 LER 82010
5844	1585	Move isolation valves to accessible location. Install return line to B purge air exhaust for 1 and 2 RE-90-130, 131.	LER 82044
5773	1645	PORV changeout.	NUREG 0737 Section II.B.1.2
5790	1650	To prevent dampers from vibrating closed during control room emergency vent (complete).	LER 82071
5831	1662	Review waste gas instrumentation for dependability.	LER 82089

<u>ECN</u>	<u>DCR</u>	<u>DESCRIPTION</u>	<u>DOCUMENT</u>
	1691P	Separate pressurizer circuits to maintain 20 feet separation.	Appendix R Submittal
	1698	Revise plant protected area to reflect the power block concept.	Physical Security Plan Appendix E 5.0
	1713P	Change logic of valves to phase B on containment vent isolation valves.	LER 82051
	1730P	Provide a watch tower for new protected area barrier revision.	Physical Security Plan Appendix E 5.0(2)
	1739L	Vital access system interface with RUSCO MAC 540 card access control system.	10 CFR 73.55
	1806L	Install ice condenser temperature recorder (unit 1 only) (complete).	LER 81098
5856	1808	Pressurizer safety valve loop seal drain lines.	NUREG 0737 Section II.D.1
5847	1835	Modify or replace vertical type fire dampers.	Special Report 83-02
5871	1856	Relocate ERCW radiation monitors from above turbine-driven auxiliary feedpumps.	LER 83003
	1877	Fuse identification.	SER 6.2.0, U1-OL2.C.22.d.1 (AD 24)
	1882P	Install four permanent hydrogen ignitors in the upper containment. ,unit 1 cnly)	SER 6.2.0 U1-OL2.C.22.d.1 (AD 24)

ENCLOSURE 3B

HISTORY AND PROJECTIONS FOR NRC-RELATED MODIFICATIONS

ECN/DCR	DIVISION OF ENGINEERING DESIGN					DIVISION OF NUCLEAR POWER				COMMENTS
	START DATE	MAN-HOURS TO DATE	COMP DATE	% COMP	SCH MATRL DEL DATE	START DATE	MAN-HOURS TO DATE	COMP DATE	% COMP	
5207/---	02/05/80	103	03/21/80	100	Material onsite	08/15/80	975 ⁽²⁾	08/19/80	100	
5050/231	08/22/79	1648	09/29/82	100	Material onsite	08/02/82	34079	11/04/83	99	Commitment portion is complete.
5033R1/262	08/22/79	425	05/14/80	100	Material onsite	05/14/80	3328	08/29/80	100	
5045/322	08/22/79	471	03/26/82	100	Material onsite	08/05/83	400 ⁽¹⁾	03/16/84	0	
5047/351	08/22/79	1646	01/27/81	100	N/A	N/A	N/A	N/A	N/A	Superseded by ECN L5449.
5588/388	01/04/82	205	06/30/83 ⁽³⁾	100	Material onsite	02/24/82	130	03/15/82	100	
5384/575	01/13/81	40	06/10/81	100	Material onsite	10/07/82	572	12/05/82	100	
5330/593	11/19/80	106	03/31/81	100	Material onsite	06/01/81	100	06/10/81	100	
5426/593	07/06/81	106	09/22/81	100	Material onsite	07/01/82	167	08/01/82	100	
5321/595	09/24/80	241	01/09/81	100	Material onsite	03/22/81	250 ⁽²⁾	04/15/81	100	

(1)

Estimated man-hours to complete the work for this ECN/DCR.

(2)

These man-hours expended are estimates because of costs being accumulated by system rather than by ECN.

(3)

Vendor drawings require approval.

ECN/DCR	DIVISION OF ENGINEERING DESIGN					DIVISION OF NUCLEAR POWER				COMMENTS
	START DATE	MAN-HOURS TO DATE	COMP DATE	% COMP	SCH MATRL DEL DATE	START DATE	MAN-HOURS TO DATE	COMP DATE	% COMP	
5249/654	03/12/80	218	06/18/80	100	Material onsite	01/12/81	700	10/15/81	100	
5253/675	03/14/80	165	04/16/80	100	Material onsite	05/13/80	300	06/01/80	100	
5106/689	01/17/80	3286	03/31/83	100	04/83	01/20/82	10293	03/16/84	25	W RVLIS R-148; W to resolve connections
2768/689	01/17/80	3286	03/31/83	100	04/83	06/08/81	1023	01/13/85	2	W RVLIS R-148; W to resolve connections
5119/706	08/11/80	205	02/27/81	100	Material onsite	03/15/83	471	See commnts	See comments	This modification will be used as needed for an indefinite period of time.
5555/715	11/13/81	4867	04/10/83	100	Material onsite	10/14/82	55004	03/29/83	100	
5277/715	05/13/80	1730	06/30/82	100	Material onsite	06/21/80	33109	02/09/83	100	
5286/716	05/29/80	153	06/24/80	100	Material onsite	07/25/80	250	12/01/81	100	
5312/721	09/09/80	233	05/28/81	100	Material onsite	09/22/81	281	10/09/81	100	
5118/722	09/12/80	203	10/30/80	100	Material onsite	01/23/81	30	02/18/81	100	
5298/737	06/30/80	260	05/04/81	100	Material onsite	03/18/81	27789	06/26/81	100	
5297/740	06/25/80	410	08/12/82	100	Material onsite	08/02/82	3646	09/15/82	100	
5725/740	07/21/82	20	10/01/82	100	Material onsite	N/A	N/A	N/A	N/A	Documentation only. Field work was done under ECN L5297.

ECN/DCR	DIVISION OF ENGINEERING DESIGN					DIVISION OF NUCLEAR POWER				COMMENTS
	START DATE	MAN-HOURS TO DATE	COMP DATE	% COMP	SCH MATRL DEL DATE	START DATE	MAN-HOURS TO DATE	COMP DATE	% COMP	
5712/741	06/30/82	286	12/30/83	20	07/29/83	Unscheduled	12830 ⁽¹⁾	Unscheduled	0	
5235R1/741	03/02/80	2355	03/01/83	100	Material onsite	12/23/80	23006 ⁽¹⁾	On hold	95	
5196/751	01/28/80	296	05/30/83	89	11/80	12/27/83	9651	03/16/84	0	Equipment qualification to meet IEEE 323-1974 in order
2776/751	01/28/80	296	11/22/82	89	11/80	04/01/83	483	11/04/83	5	Equipment qualification to meet IEEE 323-1974 in order
5197/752	01/28/80	2050	11/22/82	100	11/82	09/10/81	26578	03/16/84	86	W leaky valves, will reroute instrument lines.
2777/752	01/28/80	2050	05/30/83	100	11/82	07/01/83	12355 ⁽¹⁾	11/04/83	0	
5352/753	11/03/80	38	04/01/81	100	Material onsite	10/01/80	200	11/01/81	100	Completed on TACFs.
5001/771	06/26/80	8	08/08/80	100	Material onsite	10/20/81	6643	05/03/82	100	
2911/771	06/26/80	8	08/08/80	100	Material onsite	10/30/81	6643	11/02/81	100	
5109/774	07/11/80	20	07/24/80	100	Material onsite	08/12/80	480 ⁽²⁾	09/10/80	100	
5200/779	01/28/80	6875	05/30/83	85	12/83	01/15/81	48597	03/16/84	57	
2780/779	01/28/80	6875	05/30/83	85	05/30/83	11/18/80	20540	01/13/85	23	
5193/780	01/28/80	729	03/05/82	100	11/81	12/30/81	10501	01/31/83	100	

(1)

Estimated man-hours to complete the work for this ECN/DCR.

(2)

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ECN/CCR	DIVISION OF ENGINEERING DESIGN					DIVISION OF NUCLEAR POWER				COMMENTS
	START DATE	MAN-HOURS TO DATE	COMP DATE	% COMP	SCH MATRL DEL DATE	START DATE	MAN-HOURS TO DATE	COMP DATE	% COMP	
2773/780	01/28/80	729	03/05/82	100	11/81	12/07/82	958	11/04/83	27	
5194/781	01/28/80	4400	05/06/83	100	07/83	05/01/83	721	01/13/85	10	Recorder moved from M-30 to M-31 equipment specs.
5770/781	05/13/83	1600	06/15/83	0	07/83	Unscheduled	0	Unscheduled	0	LECN package is in preparation.
5195/782	01/28/80	696	03/02/82	100	11/81	09/20/81	8845	04/07/83	100	
2775/782	01/28/80	696	03/02/82	100	06/81	04/04/83	2190	11/04/83	15	
5110/785	08/11/80	100	02/27/81	100	Material onsite	N/A	N/A	N/A	100	Field work done under ECN L5311.
5311/785	09/08/80	50	09/10/80	100	Material onsite	09/15/80	605	10/23/81	100	
5331/785	12/01/80	40	01/19/81	100	Material onsite	03/02/81	4	03/04/81	100	
5478/785	10/21/81	170	10/26/81	100	Material onsite	10/20/81	242	04/22/82	100	
5199/787	01/28/80	776	05/24/82	100	Material onsite	02/12/82	38135	03/21/83	100	
2779/787	01/28/80	776	05/24/82	100	Material onsite	12/07/82	15901	11/04/83	42	
5317/790	09/20/80	273	10/30/81	100	Material onsite	01/19/82	13628	01/31/83	100	
2923/790	09/20/80	273	10/30/81	100	Material onsite	03/30/83	724	11/04/83	42	

ECN/DCR	DIVISION OF ENGINEERING DESIGN					DIVISION OF NUCLEAR POWER				COMMENTS
	START DATE	MAN-HOURS TO DATE	COMP DATE	% COMP	SCH MATRL DEL DATE	START DATE	MAN-HOURS TO DATE	COMP DATE	% COMP	
-- /814	10/10/80	95	01/04/83	100	Material onsite	10/08/80	832	11/22/80	100	Design completion delayed for vendor drawings.
5030/820	08/22/79	1634	04/22/83	100	12/30/83	07/16/82	6786	04/27/83	100	
5591/837	01/11/82	592	03/17/83	100	Unknown	10/27/82	461	03/16/84	43	
5375/852	01/09/81	135	03/17/81	100	Material onsite	04/02/81	36	04/20/81	100	
5023/855	08/22/79	1567	04/08/81	100	Material onsite	07/06/81	4159	12/31/81	100	This modification was only partially completed and the remainder was canceled.
5364/879	03/02/81	20	03/30/81	100	Material onsite	06/10/81	832	10/26/81	100	
5334/895	10/13/80	90	02/05/81	100	Material onsite	02/19/81	(2) 200	03/31/81	100	
5333/897	10/10/80	127	02/17/82	100	Material onsite	09/15/80	900	03/31/81	100	
5328/897	10/07/80	41	01/25/83	100	Material onsite	09/01/80	900	05/18/81	100	
5451/934	06/26/81	518	12/22/82	100	Material onsite	10/13/82	14599	12/31/85	88	Commitment portion of modifi- cation is complete.
-- /936P	03/20/81	3369	Unknown	93	Unknown	Unscheduled	(1) 87646	Unscheduled	0	EN DES is reevaluating ATWS due to Salem incident.
-- /945	01/23/81	350	08/27/82	100	Material onsite	09/04/82	1664	01/19/83	100	

(1)

Estimated man-hours required to complete this ECN/DCR.

(2)

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ECN/DCR	DIVISION OF ENGINEERING DESIGN					DIVISION OF NUCLEAR POWER				COMMENTS
	START DATE	MAN-HOURS TO DATE	COMP DATE	% COMP	SCH MATRL DEL DATE	START DATE	MAN-HOURS TO DATE	COMP DATE	% COMP	
5417/946	04/20/81	466	07/12/82	100	Material onsite	08/27/82	6850	04/26/83	100	
5357/949	09/14/81	105	12/30/81	100	Material onsite	04/25/81	499	05/13/81	100	
5479/954	07/23/81	313	02/02/82	100	Material onsite	N/A	N/A	N/A	N/A	Superceded by ECN L5050.
5444/959	06/08/81	136	04/06/82	100	Material onsite	06/22/81	(2) 150	06/02/82	100	
-- /972	12/01/80	51350	Unknown	70	Unknown	Unscheduled	(1) 85000	Unscheduled	0	Remaining modifications to satisfy NUREG 0588.
5637/972	03/31/82	281	06/18/82	100	Material onsite	04/15/83	67	04/25/83	100	
5443/972	06/08/81	14	07/29/81	100	Material onsite	08/01/81	368	10/02/81	100	
5420/972	04/28/81	148	05/19/81	100	09/81	Unscheduled	(1) 300	Unscheduled	0	
5457/972	06/29/81	355	09/11/81	100	03/82	07/21/81	6135	03/16/84	60	
5365/972	12/11/80	30	01/14/81	100	Material onsite	12/12/80	400	06/21/81	100	
5606/994	03/15/82	394	04/30/82	100	Material onsite	03/22/82	3698	04/05/83	100	
5467/1001	07/17/81	116	02/08/82	100	Material onsite	05/14/82	1179	04/05/83	100	

(1) Estimated man-hours to complete the work for this ECN/DCR.

(2) These man-hours expended are estimates because of costs being accumulated by system rather than by ECN.

ECN/DCR	DIVISION OF ENGINEERING DESIGN					DIVISION OF NUCLEAR POWER				COMMENTS
	START DATE	MAN-HOURS TO DATE	COMP DATE	% COMP	SCH MATRL DEL DATE	START DATE	MAN-HOURS TO DATE	COMP DATE	% COMP	
5465/1002	07/17/81	321	02/08/82	100	Material onsite	01/10/82	6519	07/16/82	100	
5466/1037	07/17/81	91	04/08/82	100	Material onsite	06/10/82	1857	08/04/82	100	
5731/1038	08/02/82	80	12/03/82	100	Material onsite	09/01/81	700	11/05/81	100	Completed on TACFs.
5408/1057	03/21/81	238	08/27/81	100	Material onsite	08/24/81	1348 ⁽¹⁾	04/06/83	100	
5510/1058	08/26/81	146	03/22/82	100	Material onsite	04/22/82	2684	05/04/83	100	
5464/1067	07/17/81	321	04/22/82	100	Material onsite	05/10/82	1846	07/31/82	100	
5411/1090	03/27/81	325	05/11/81	100	N/A	05/20/81	300	06/12/81	100	
5522/1120	09/09/81	16	03/15/82	100	Material onsite	09/04/82	3394	01/19/83	100	
5429/1123	04/17/81	3001	07/14/83	98	Material onsite	09/10/82	70968	03/16/84	54	Unit 1 to be completed on DCR 1882.
5369/1126	12/18/80	170	04/06/82	100	Material onsite	09/20/82	858	11/04/83	81	
2873/1126	09/12/80	170	12/15/80	100	Material onsite	09/05/81	1059	11/05/81	100	Modification completed before unit 2 initial criticality.
5198/1152	10/26/81	20999	08/10/83	84	08/27/83	04/26/82	32684	01/13/85	22	

(1)
Estimated man-hours to complete the work for this ECN/DCR.

ECN/DCR	DIVISION OF ENGINEERING DESIGN					DIVISION OF NUCLEAR POWER				COMMENTS
	START DATE	MAN-HOURS TO DATE	COMP DATE	% COMP	SCH MATRL DEL DATE	START DATE	MAN-HOURS TO DATE	COMP DATE	% COMP	
5449/1154	06/22/81	2237	05/31/83	94	06/30/83	04/11/83	443	See Comments	9	To be completed by the end of unit 2, cycle 1 outage.
-- /1156P	03/22/82	4900	Unknown	34	Unknown	Unscheduled	375000	(1) Unscheduled	0	
5769/1165	10/19/82	442	03/01/83	100	Material onsite	12/11/82	2309	11/04/83	28	
5664/1226	04/28/82	626	02/04/83	100	Material onsite	05/09/83	3994	(1) 12/27/83	0	
5327/1263	10/03/80	8	03/24/82	100	Material onsite	03/17/84	6000	(1) 09/17/84	0	
2938/1263	10/03/80	8	03/24/82	100	Material onsite	03/17/84	6000	(1) 01/13/85	0	
5605/1281	02/03/82	29	01/01/83	100	08/01/83	07/01/83	955	(1) 12/27/83	0	
-- /1304P	Unknown	(1) 50	Unknown	0	Unknown	Unscheduled	500	(1) Unscheduled	0	
5536/1308	10/31/81	103	10/16/81	100	Material onsite	10/01/81	860	10/19/81	100	
5537/1308	10/15/81	103	10/16/81	100	Material onsite	10/12/81	860	10/19/81	100	
5304/1326P	08/25/80	800	Unknown	60	Unknown	Unscheduled	11220	(1) Unscheduled	0	
5584/1370	06/24/82	418	05/06/83	100	Material onsite	10/20/82	7601	11/04/83	52	Unit 1 is complete.

(1)

Estimated man-hours to complete the work for this ECN/DCR.

ECN/DCR	DIVISION OF ENGINEERING DESIGN					DIVISION OF NUCLEAR POWER				COMMENTS
	START DATE	MAN-HOURS TO DATE	COMP DATE	% COMP	SCH MATRL DEL DATE	STAR DATE	MAN-HOURS TO DATE	COMP DATE	% COMP	
5899/1384	03/03/82	20	07/31/83	25	Material onsite	01/20/83	See comment	03/01/83	100	This was a documentation change only. Field man-hours are included under ECN L5604/DCR 1389.
5604/1389	02/02/82	35	05/24/82	100	Material onsite	01/21/83	711	03/01/83	100	
5653/1399	04/15/82	307	04/28/83	100	Material onsite	11/01/82	3043	12/31/82	100	
5709/1467	06/28/82	79	11/30/82	100	Unknown	03/17/84	(1) 800	10/26/84	0	
5685/1474	05/26/82	30	07/19/82	100	Material onsite	12/22/82	152	01/05/83	100	
5674/1482	07/08/82	604	04/14/83	100	Material onsite	05/11/82	18602	03/08/83	100	
5410/1518	04/28/81	50	07/19/82	100	Material onsite	03/17/84	(1) 244	10/26/84	0	
5726/1534	07/22/82	4	10/14/82	100	Material onsite	12/08/82	11531	04/12/83	100	Commitment portion completed by 12/21/82.
5700/1584	06/16/82	61	03/17/83	100	Material onsite	10/29/82	1842	03/08/83	100	Commitment portion completed by 12/21/82.
L5894/1585	08/26/82	20	Unscheduled	5	Unknown	Unscheduled	(1) 1500	Unscheduled	0	
5773/1645	10/20/82	76	06/30/83	9	02/28/82	08/05/83	(1) 4000	03/16/84	0	Analysis schedule is slipping. See DCR 1808.
5790/1650	11/10/82	66	04/21/83	100	Material onsite	12/03/82	106	12/14/82	100	

(1)
Estimated man-hours required to complete this ECN/DCR.

ECN/DCR	DIVISION OF ENGINEERING DESIGN					DIVISION OF NUCLEAR POWER				COMMENTS
	START DATE	MAN-HOURS TO DATE	COMP DATE	% COMP	SCH MATRL DEL DATE	START DATE	MAN-HOURS TO DATE	COMP DATE	% COMP	
5831/1662	01/20/83	(1) 100	08/15/83	0	09/83	03/17/84	(1) 3000	10/26/84	0	
---/1691P	Unscheduled	(1) 100	Unscheduled	0	Unknown	Unscheduled	(1) 5500	Unscheduled	0	
----/1698	06/01/83	(1) 32000	Unscheduled	0	Unknown	Unscheduled	(1) 175000	Unscheduled	0	
---/1713P	Unscheduled	0	Unscheduled	0	Unknown	Unscheduled	6000	Unscheduled	0	
---/1730P	07/01/83	(1) 8000	Unscheduled	0	Unknown	Unscheduled	See Comment	Unscheduled	0	Man-hours are included in DCR 1698.
(4) ---/1739L	Unscheduled	(1) 50	Unscheduled	0	Material onsite	02/14/83	254	03/01/83	100	
(4) ---/1806L	Unscheduled	(1) 50	Unscheduled	0	Material onsite	02/17/83	5	02/09/83	100	
5856/1808	03/21/83	60	07/01/83	12	Unknown	08/05/83	(1) 4500	03/16/84	0	EDS analysis commitments continue to slip. See ECN 15773. Schedule excludes seat replacement.
5847/1835	02/23/83	350	04/01/83	100	05/06/83	05/02/83	400	10/26/84	10	
5871/1856	05/14/83	(1) 250	07/01/83	0	06/30/83	07/01/83	(1) 2500	11/04/83	0	
---/1877	04/18/83	100	04/18/84	5	Material onsite	05/14/83	(1) 15000	07/01/84	0	
---/1882P	07/01/83	(1) 600	10/15/83	0	Unknown	12/27/83	(1) 4000	03/16/84	0	Unit 1 only

(1) Estimated man-hours to complete the work for this ECN/DCR.

(4) The L after the DCR signifies that formal design work will follow shortly after the field completes implementation. Design start and completion dates are not needed to ensure that the commitment is met.

<u>Description</u>	<u>Man-hours</u>
Turbine Teardown and Inspection 1980	26240
Turbine Teardown and Inspection 1982	82308
Upper Internals Modification	14607
Small Break LOCA Analysis	24900
Quality Pressure Relief Valves	9450
Leakage Reduction Makeup/Letdown System	11600
Probabilistic Risk Assessment	28750
Degraded Task Force	150100
IE Bulletin 79-02	3500
NUREG 0577 Study	5250
NUREG 0612 Study	4200
Environmental Qualification of Mechanical Equipment	2750000 (1)

(1)
Estimated man-hours to complete the work for this ECN/DCR.

ENCLOSURE 4

PROGRESS PROJECTIONS FOR SCHEDULED NRC-RELATED MODIFICATIONS

ECN/DCR	DESCRIPTION	UNIT	PRE	PRE	PRE	PRE	PRE	PRE
			U2, C1 (PERCENT COMPLETE)	U2, C1 (PERCENT COMPLETE)	U1, C2 (PERCENT COMPLETE)	U1, C2 (PERCENT COMPLETE)	U2, C2 (PERCENT COMPLETE)	U2, C2 (PERCENT COMPLETE)
5045/D0322	Reactor Overpress Instrumentation	1	0	0	0	100		
		2	0	100				
5106/689	Reactor Water Level Indicator	1	35	35	40	100		
2768/689	Reactor Water Level Indicator	2	2	5	5	5	45	100
5119/706	Install Radiation Monitor Cable in Conduit	1	Modification will be used as needed for an indefinite period of time.					
5196/751	Wide-Range Containment Pressure Monitors	1	0	0	50	100		
2776/751	Wide-Range Containment Pressure Monitors	2	50	100				
5197/752	Reactor Vessel Head Vent System	1	86	86	86	100		
2777/752	Reactor Vessel Head Vent System	2	30	100				
5200/779	Postaccident Sampling Facility	1	70	70	90	100		
2780/779	Postaccident Sampling Facility	2	25	40	40	40	95	100
2773/780	High-Range Effluent Monitors	2	75	100				
5194/781	Iodine Radiation Monitors	1	10	15	30	100		
		2	10	10	10	10	90	100
2775/782	Containment Radiation Monitors	2	60	100				
2779/787	Containment Isolation Radiation Monitor	2	80	100				
2923/790	High-Range Area Radiation Monitor	2	95	100				
5591/837	W-2 Switches	1	50	50	80	100		
		2	80*	100				
5457/972	Replace Solenoid Valves	1	50	50	80	100		
		2	80	100				
5429/1123	H ₂ Mitigation System (Unit 1 is complete except for remainder of work under DCR 1882)	2	25	100				

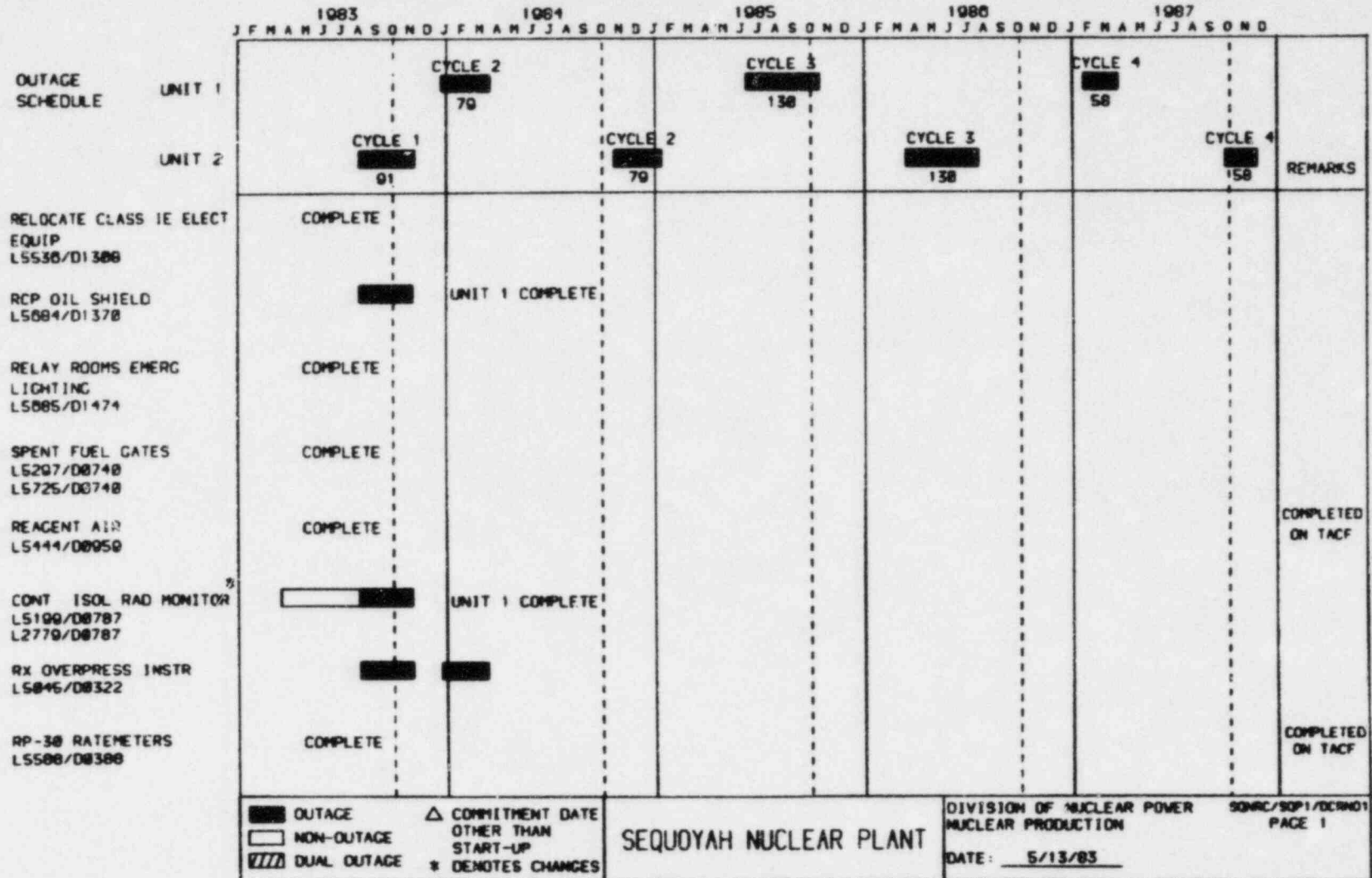
ENCLOSURE 4 (Continued)

ECN/DCR	DESCRIPTION	UNIT	PRE	U2, C1	PRE	U1, C2	PRE	U2, C2	U2, C2
			U2, C1	(PERCENT COMPLETE)	U2, C1	(PERCENT COMPLETE)	U1, C2	(PERCENT COMPLETE)	(PERCENT COMPLETE)
5369/1126	Revise FCV-67-152 Control Logic	0	85	85	85	100			
5198/1152	Technical Support Center	1	45	65	80	100			
		2	30	30	30	30	90	100	
5449/1154	Modify Present Degraded Voltage Relay Design to Comply With the Time Delay Selected Guidelines. Reference: ECN L5047.	1	10	100					
		2	10	100					
5769/1165	Reroute Chemical Feedlines to APW (Unit 1 Complete)	2	65	100					
5664/1226	Provide Wells Fargo System With Tamper Indicator	0	20	20	100				
5327/1263	Modify RWST Screen and Insulation	1	0	0	0	0	100		
2938/1263	Modify RWST Screen and Insulation	2	0	0	0	0	50	100	
5605/1281	Replace 1/2-inch Fire Protection Drops With 1-inch Drops	1	20	20	100				
		2	20	20	100				
5684/1370	RCP Oil Shield (Unit 1 Complete)	2	0	100					
5709/1467	Install Switch in Communication Cable for Redundancy of RUSCO SAL500 Printers	0	0	0	0	0	100		
5410/1518	Add 1 Fire Protection Sprinkler in Unit 1 Reactor Building Annulus	1	0	0	0	0	100		
5773/1645	Replace PORVs	1	0	0	10	100			
		2	0	100					
5831/1662	Re-evaluation of the Design of the Waste Gas Analyzers Supplied by Westinghouse	0	0	0	0	0	100		

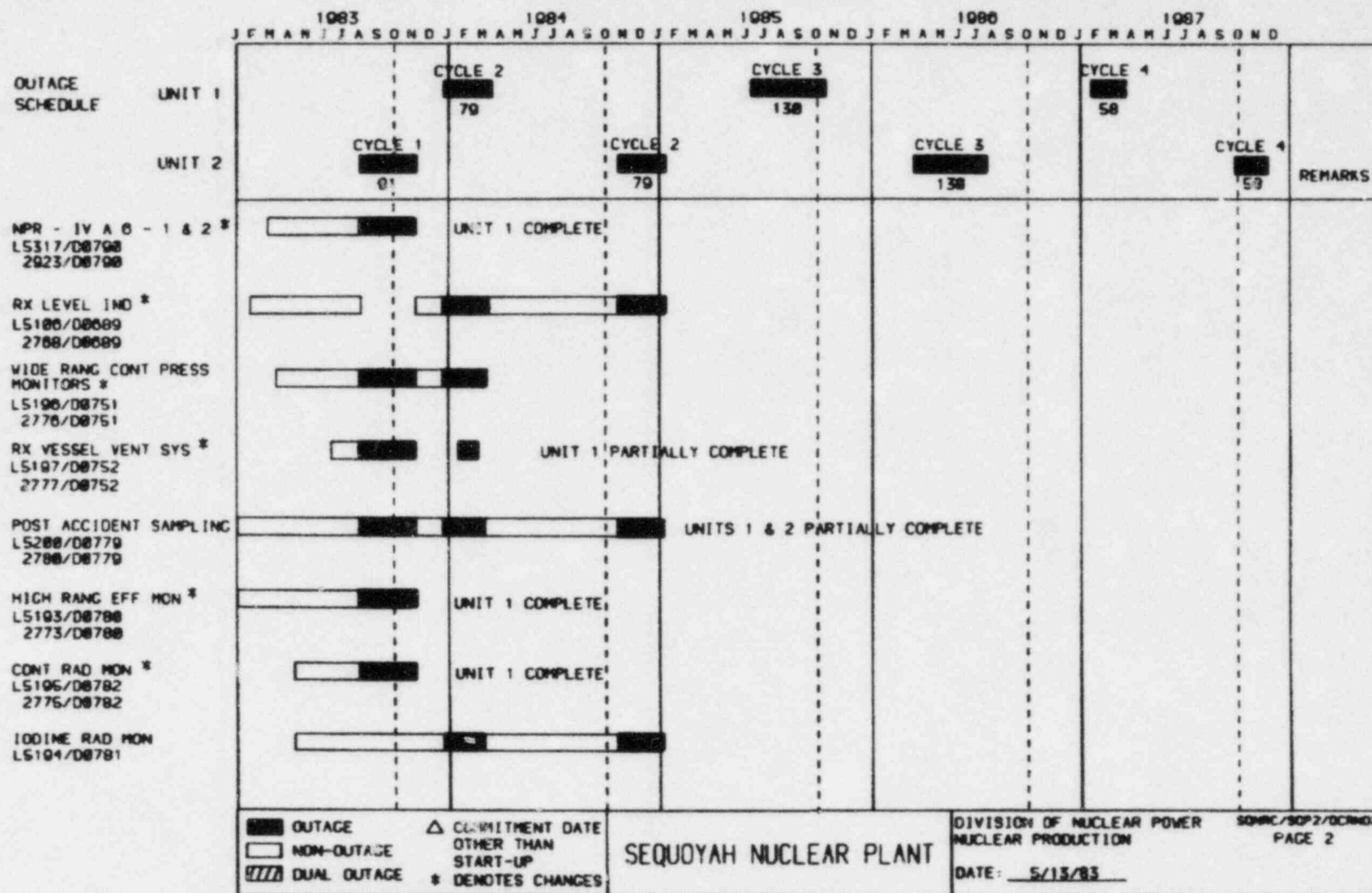
ENCLOSURE 4(Continued)

ECN/DCR	DESCRIPTION	UNIT	PRE U2, C1 (PERCENT COMPLETE)	U2, C1 (PERCENT COMPLETE)	PRE U1, C2 (PERCENT COMPLETE)	U1, C2 (PERCENT COMPLETE)	PRE U2, C2 (PERCENT COMPLETE)	U2, C2 (PERCENT COMPLETE)
5856/1808	Pressurizer Safety Valve Loop Seal Drain Lines (This schedule does not include replacing valve seats)	1	0	0	10	100		
		2	0	100				
5847/1835	Modify the Vertical Curtain-Type Gravity Operated Fire Dampers by Adding the Negator Closure Springs and Positive Blades Latching	0	25	25	30	50	100	
5871/1856	Relocate ERCW Radiation Monitor	0	30	100				
/1877	Fuse Identification	1	20	50	65	80	100	
		2	20	50	65	80	100	
/1882P	Install Four Additional Ignitors in Upper Containment (Unit 1 only)	1	0	0	10	100		

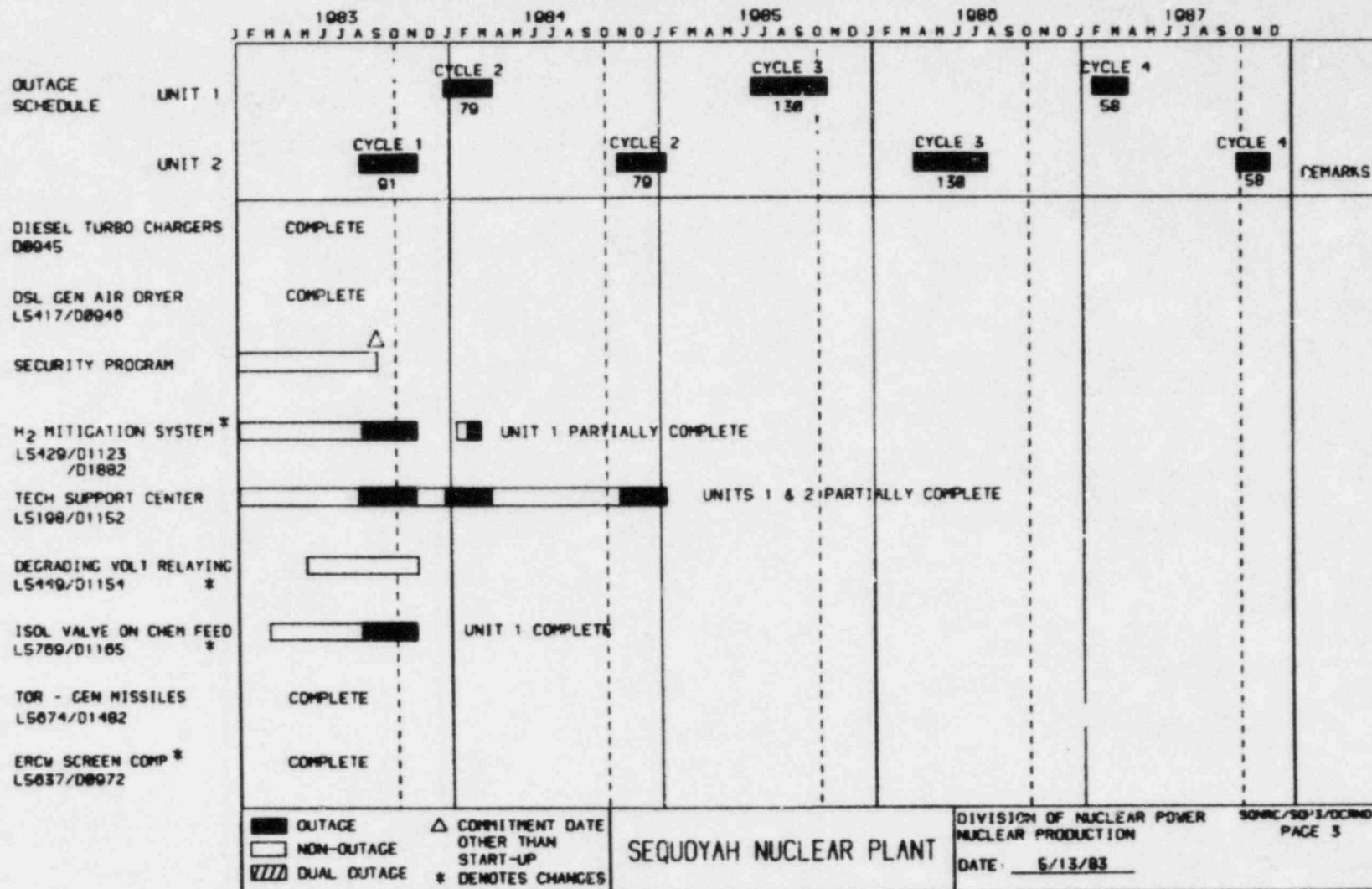
SQN NRC COMMITMENT SCHEDULE



SQN NRC COMMITMENT SCHEDULE



SQN NRC COMMITMENT SCHEDULE



SEQUOYAH NUCLEAR PLANT

DIVISION OF NUCLEAR POWER
NUCLEAR PRODUCTION
DATE: 5/13/83

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SQN NRC COMMITMENT SCHEDULE

		1983				1984				1985				1986				1987																				
		J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
OUTAGE SCHEDULE	UNIT 1																																					
	UNIT 2																																					
GAS EFF RAD MON LS050/D0231		COMPLETE																																				
CONT ISO VALVES LS030/D0820		COMPLETE																																				
W-2 SWITCHES LS591/D0837		PARTIALLY COMPLETE UNITS 1 & 2																																				
DSL LUBE PUMP * LS451/D0934		COMMITMENT PORTION COMPLETE																																				
PENE X-54 & X-118 LS384/D0575		COMPLETE																																				
IND SMOKE DETECTORS LS004/D1309		COMPLETE																																				
VALVE RM FREEZE PROTECT D1584		COMPLETE																																				
RFWST FREEZE PROTECT LS053/D1309		COMPLETE																																				
FEEDWATER FREEZE PROTECT D1534		COMPLETE																																				

OUTAGE

NON-OUTAGE

DUAL OUTAGE

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COMMITMENT DATE
OTHER THAN
START-UP

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DENOTES CHANGES

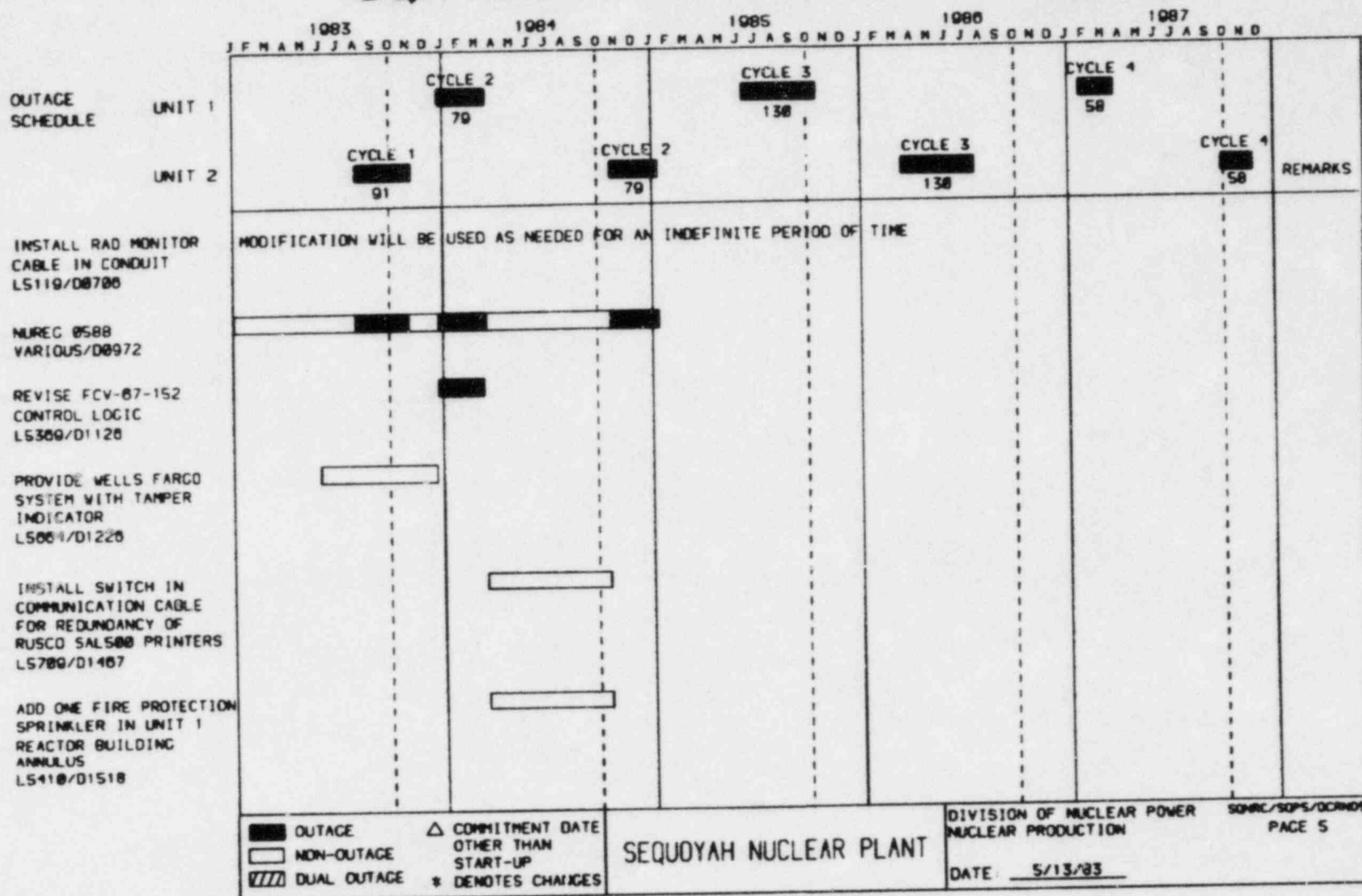
SEQUOYAH NUCLEAR PLANT

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SQN NRC COMMITMENT SCHEDULE



SQN NRC COMMITMENT SCHEDULE

