

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

April 14, 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)	Docket No. 50-327
Tennessee Valley Authority)	50-328

In my August 6, 1982 letter to H. R. Denton and my November 22, 1982 letter to you, we provided our integrated schedule concept for unit 1 of our Sequoyah Nuclear Plant, as well as projected schedule and manpower levels for unit 2. The following enclosures provide the information for the integrated modification schedule for unit 2.

Enclosure 1 - List of License Conditions to be Deferred.

Enclosure 2 - Justification for Deferral of License Conditions.

Enclosure 3 - Updated Integrated Modification Schedule for Major Commitment Items.

Enclosure 4 - Assessment of Impact of Completing Additional Major Modifications

We will continue to make every possible effort to meet the schedules outlined in the enclosures. However, many things can happen that may impact these schedules. Equipment procurement, undefined or changing design scopes, and unit outages could positively or negatively affect our future schedules. We will keep you informed of any such problems, and if necessary, request schedule adjustments on a case-by-case basis.

NRC's response to this integrated schedule is needed as soon as possible to prevent a possible impact on the refueling outage and subsequent startup operations.

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Director of Nuclear Reactor Regulation

April 14, 1983

If you have any questions concerning this matter, please get in touch with Jerry Wills at FTS 858-2683.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills

L. M. Mills, Manager
Nuclear Licensing

Sworn to and subscribed before me
this 14th day of April 1983

Paulette L. White

Notary Public

My Commission Expires 9-5-84

Enclosure

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

ENCLOSURE 1

LICENSE CONDITIONS TO BE DEFERRED
SEQUOYAH UNIT 2

1. Reactor Vessel Level Indicating System - Required by unit 2 operating license condition 2.C.16.m.2.
2. Additional Accident Monitoring Instrumentation - Required by unit 2 operating license condition 2.C.16.1.2a.
3. Post Accident Sampling - Required by unit 2 operating license condition 2.C.16.g.
4. Upgrade Emergency Support Facilities - Required by unit 2 operating license condition 2.C.16.q.1 and by letter from L. M. Mills to H. R. Denton dated June 2, 1981.
5. Environmental Qualification - Required by unit 2 license condition 2.C.10. A license amendment was submitted requesting a revision to this requirement (reference letter from L. M. Mills to E. Adensam dated May 25, 1982).
6. Reactor Vessel Vent - Required in unit 2 operating license 2.C.16.F.

ENCLOSURE 2

JUSTIFICATION FOR DEFERRAL OF LICENSE CONDITIONS

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 due to its severe impact on work activities and because it is our understanding that the system cannot be turned on until emergency procedures utilizing the level system are developed, approved by NRC, and subsequent operator training completed. The Sequoyah Nuclear Plant procedure guidelines are being developed as a generic effort through the Westinghouse Electric Corporation Owners' Group. Based on the present owners' group schedule, we estimate the procedures cannot be in place and operator training completed before the fall of 1984. The level system therefore, if installed during this outage, could not be used until very late into cycle 2 assuming an optimistic schedule. Delays in procedure development or NRC approval could easily prevent use of the level system until cycle 3. 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 has yet to be determined.

In addition, with present manpower limits, this modification cannot be completed as presently required without significantly affecting the unit 2 outage. The large amount of inside containment work on this modification requires a deferral for completion because of the large amount of inside containment work required by other NRC commitment items. The outside containment work consisting of approximately 29,800 man-hours of the overall 49,500 man-hours will continue between the unit outages.

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

TVA has not completed the final drawing revisions. These revisions are scheduled for completion May 31, 1983. Estimates indicate 22,000 man-hours, not including the civil building work, will be required to finish this modification with present manpower limits; therefore, this modification cannot be completed as presently required without significantly affecting the unit 2 outage.

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

In the interim, 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:

ENCLOSURE 2 (cont.)

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,

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).

3. Postaccident Sampling 2.C.16.g

The current probable material delivery date for all required material for this modification is fall 1983. Any vendor delivery problems could delay this date by several months. Implementation of this modification for unit 2 will require an additional 62,565 man-hours. Because of the current schedule for the unit 2 cycle 1 refueling outage, this will not allow TVA to complete this modification, without significantly affecting the unit 2 outage, until each unit's respective cycle 2 outages.

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 Technical Instruction 66, Postaccident Sampling and Analysis Methods.

4. 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 put 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. Modifications to this software package by TVA are expected by summer 1984. Implementation of this modification requires approximately 52,100 man-hours. The nonoutage implementation duration is approximately 29 weeks. As currently scheduled, this will not be completed before unit 2 cycle 1 outage work begins. The magnitude of this work will not allow completion of the TSC, without significantly affecting the unit 2 outage, before startup after the unit 2/cycle 2 outage.

ENCLOSURE 2 (cont.)

The relay room, which is adjacent to the main control room, is being used as the temporary Sequoyah TSC. The TSC meets the same habitability requirements as the main control room and is large enough to accommodate up to 25 people. The TSC communications include PAX telephones and Bell telephones. The Bell telephones are administratively controlled, and system services can be reallocated during an emergency. Reference materials, including the REP, implementing procedures, plant drawing, FSARs, and selected plant procedures are present. Respiratory protective devices are available, if needed.

5. Environmental Qualification

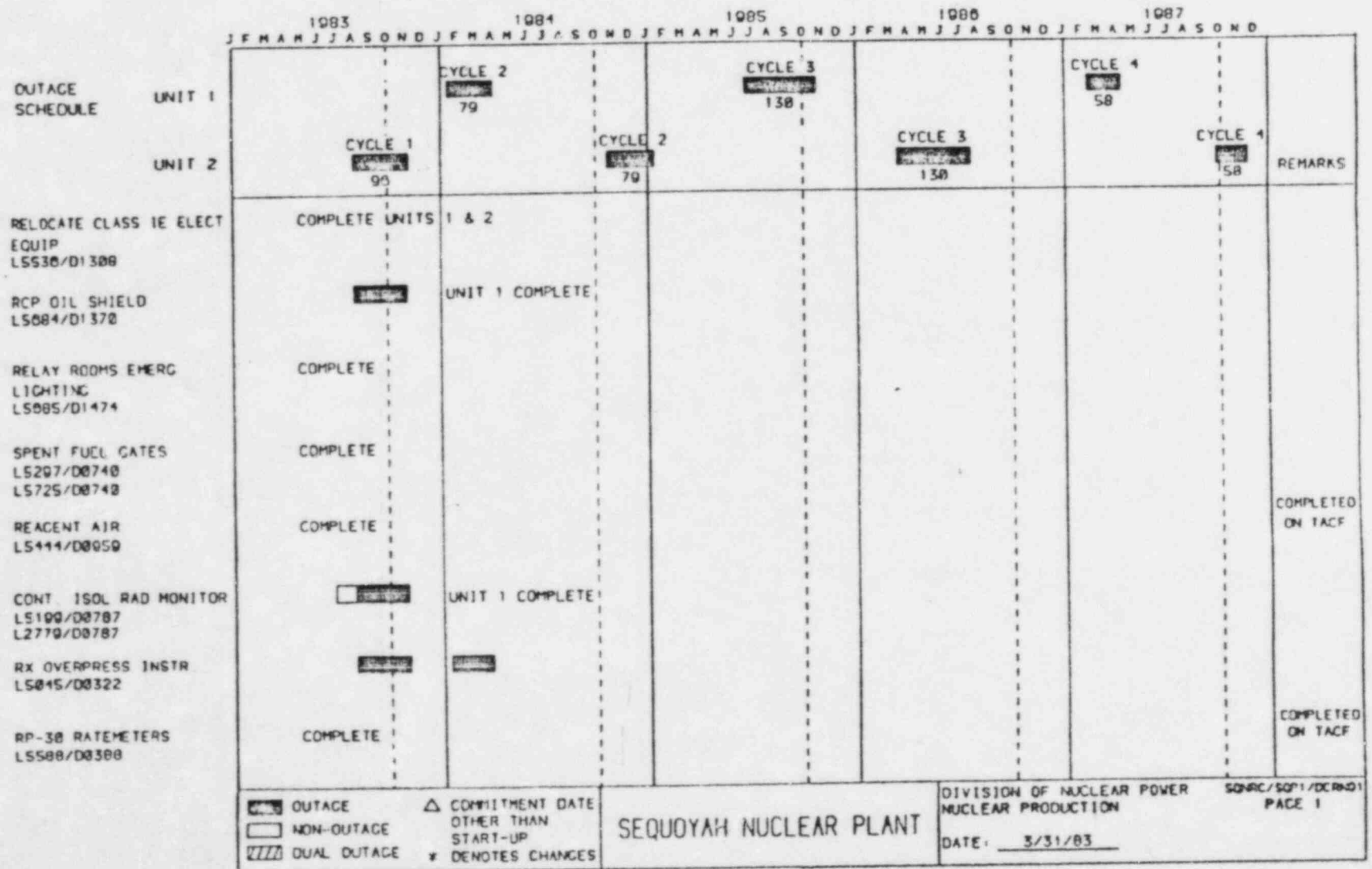
The justification for deferral of this item was provided in the request for a license amendment submitted to the NRC by the May 25, 1982 letter to E. Adensam from L. M. Mills.

6. Reactor Coolant System High Point Vent - 2.C.16.F

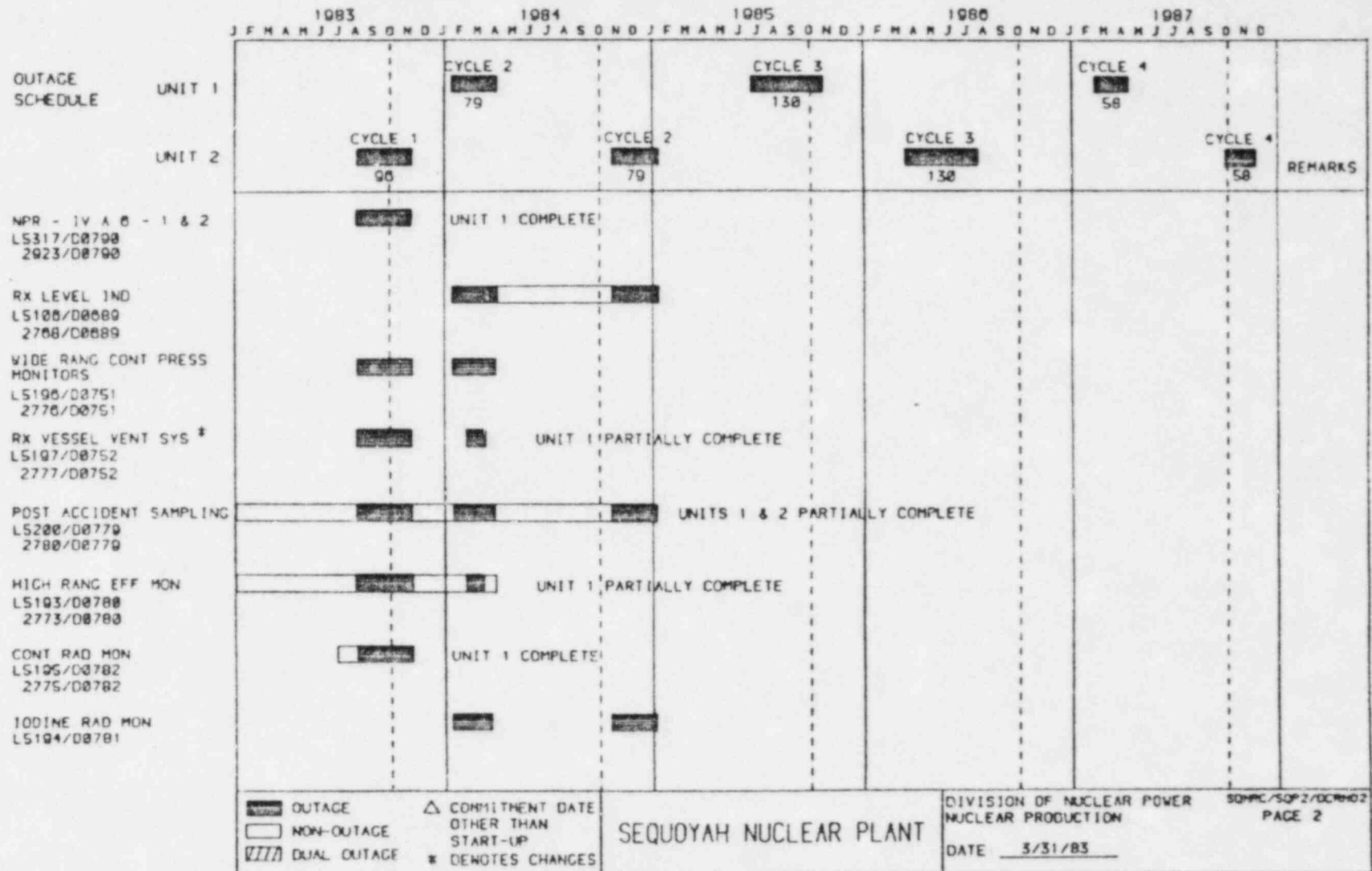
In response to NUREG-0737, TVA committed to installing reactor vessel head vents and reactor coolant high point vents by the first refueling outage. TVA will install environmentally qualified power operated relief valves that will be used as reactor coolant system high point vents. TVA had originally planned to install reactor vessel head high point vents, but after installing the system on unit 1, it was discovered the remote manual isolation valves leaked; therefore, until TVA resolves the leaking valve problem with Westinghouse, the system cannot be installed and considered operable. Our present schedule will defer the completion of this modification to the first outage of sufficient duration after the valve leaking problems are resolved but no later than startup following the second refueling outage.

UPDATED INTEGRATED MODIFICATION SCHEDULE FOR MAJOR COMMITMENT

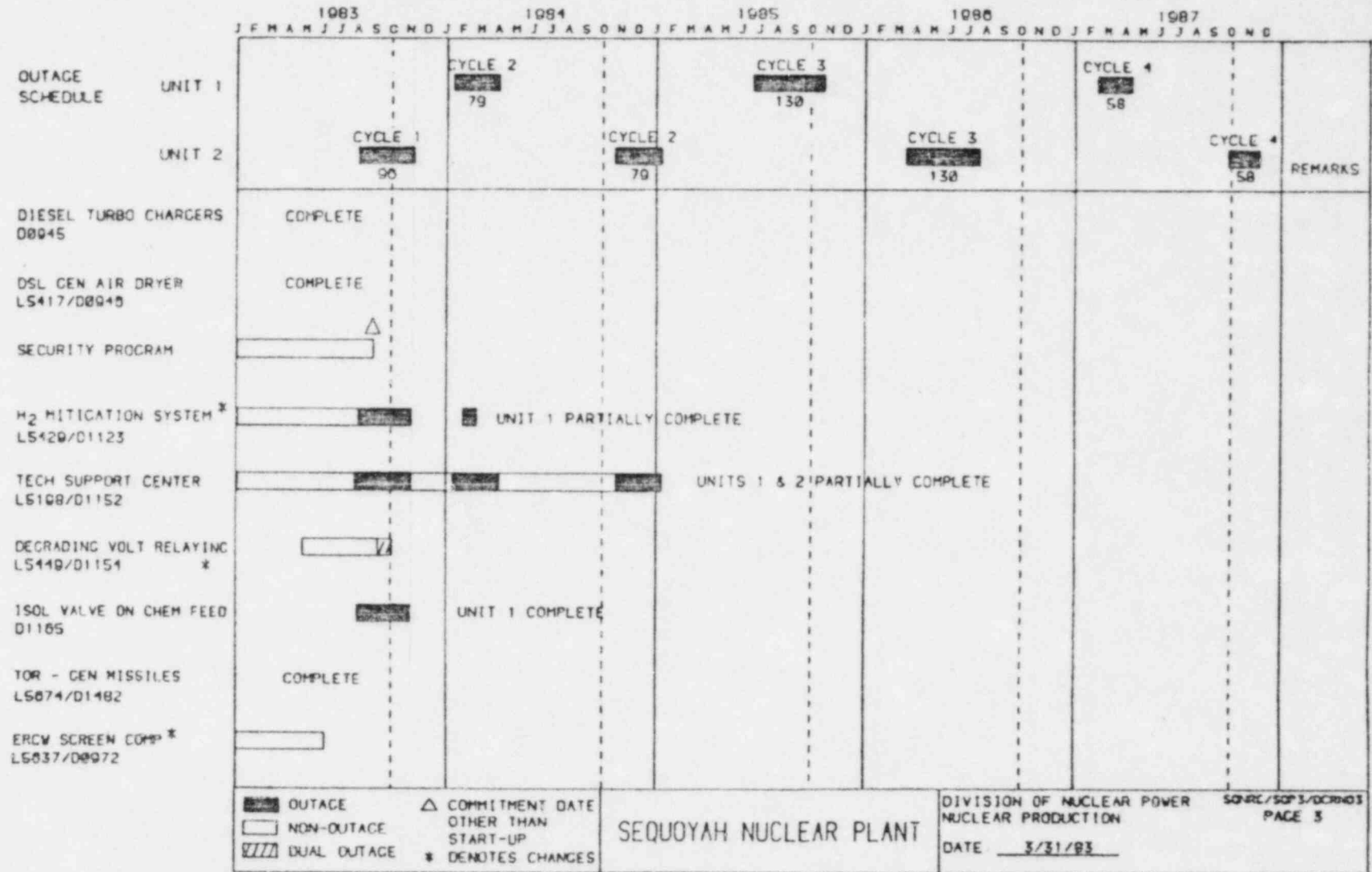
SQN NRC COMMITMENT SCHEDULE










SQN NRC COMMITMENT SCHEDULE



SQN NRC COMMITMENT SCHEDULE



SQN NRC COMMITMENT SCHEDULE

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ENCLOSURE 4

ASSESSMENT OF IMPACT OF COMPLETING ADDITIONAL MAJOR MODIFICATIONS

As requested, an analysis of the impact of completing one of four major modifications for unit 2 was conducted. The four major modifications in question were technical support center, postaccident sampling facility, reactor vessel level, and high-range effluent monitor. To date, all work has been concentrated on the unit 1 portion of these modifications. The manpower required to complete the unit 2 portion is as follows:

Technical Support Center: 52,100 man-hours
Postaccident Sampling Facility: 62,565 man-hours
Reactor Vessel Level: 49,500 man-hours
High-Range Effluent Monitor: 22,000 man-hours

The effect of adding any one of these modifications would be an increased outage duration for both unit 2 cycle 1 and unit 1 cycle 2. Presently, the unit 2 outage is scheduled for 95 days or 13.5 weeks. Adding only the postaccident sampling facility would extend this outage to 19 weeks. Adding only the technical support center or reactor vessel level would extend this outage to 18 weeks. Adding only the high-range effluent monitor would extend this outage to 16 weeks.

On November 22, 1982 TVA submitted the revised integrated modification schedule for unit 1 which included the projected manpower levels and schedule for unit. Because NRC has not provided any indication to the submittal for unit 2, either positive or negative, TVA has proceeded on the assumption that the deferrals would be acceptable. Therefore TVA has not included any significant portions of this work in the unit 2 cycle 1 preoutage schedule. In all four of these specific modifications, at least 60 percent of the work can be performed in a nonoutage period. Should these items be required to be included into the schedule, the increased duration of the unit 2 outage would decrease the nonoutage period between the unit 2 cycle 1 outage and the unit 1 cycle 2 outage resulting in nonoutage work being forced into the unit 1 cycle 2 outage. If unit 1 continues to perform as well as it has to date, the unit 1 cycle 2 outage will move up to a start date of early December 1983. The overall effect of these factors would result in a total outage extension for the upcoming unit 1 and 2 outages of between 6-1/2 to 9-1/2 weeks for the addition of any of the subject modifications.