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May 7, 1985

ØCANØ585Ø4

Mr. Hugh L. Thompson, Jr.
Director, Division of Licensing
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, DC 20555

SUBJECT: Arkansas Nuclear One - Units 1 & 2
Docket Nos. 50-313 and 50-368
License Nos. DPR-51 and NPF-6
NUREG-0737 Supplement 1 Update

Gentlemen:

On April 15, 1983 in our letter ØCANØ48312, AP&L submitted to the NRC our response to NUREG-0737 Supplement 1 (Generic Letter 82-33). Subsequent to that letter, updates were provided regarding our progress on October 20, 1983 (ØCAN1Ø83Ø5), April 30, 1984 (ØCAN9484Ø6) and November 9, 1984 (ØCAN1184Ø3). This letter is provided to update you regarding our present status and to briefly describe the tasks performed over the previous six months. The attached figure is a revised version of the Integrated Implementation Plan (Figure 2-2), of our April 15, 1983 response. The shaded boxes indicate tasks which have been completed. A brief summary of our progress in each of the topic areas is presented below.

Control Room Design Review

AP&L submitted the Control Room Design Review (CRDR) program plan for Arkansas Nuclear One, Units 1 and 2, on November 25, 1983 in our letter ØCAN11831Ø. The actual review effort began in February, 1984. In response to a request by the NRC in a letter dated March 6, 1984 (ØCNAØ38415), AP&L provided additional details regarding the schedule, scope and preliminary results of the CRDR program during a meeting with the NRC staff in Bethesda, Maryland on May 2, 1984. A summary of this meeting was documented in Mr. Guy Vissing's letter to AP&L dated June 7, 1984 (ØCNAØ68426). Subsequent to that meeting, the NRC issued confirmatory orders on June 14, 1984 (ØCNAØ68421) which confirmed the previously committed schedules to submit the ANO-1 Final Summary Report to the NRC by August 14, 1985 and the ANO-2 Final Summary Report by May 5, 1986.

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The review and assessment phases of the ANO-1 CRDR program have been completed. Approximately 450 human engineering discrepancies (HEDs) were identified and assessed. The assessment phase identified the significance of the HEDs, which HEDs deserved further attention and what type of attention that should be. The status of all the HEDs will be provided in the Final Summary Report which will describe the phased approach planned by AP&L to resolve the HEDs that still require corrective action. This phased approach is based on achieving a consistent, coherent and effective interface between the plant operators and the control room through an iterative process of the selection and verification of corrective actions. This phased approach also provides an integrated use of utility resources (e.g., engineering, plant operations) recognizing the commitments already identified regarding design changes associated with Regulatory Guide 1.97, Inadequate Core Cooling and other issues. This integration is being coordinated through the AP&L NUREG-0737 Steering Committee which has management representatives involved in oversight of all the NUREG-0737 activities and other aspects of plant design and operation.

This phased approach to resolving the ANO-1 HEDs can be summarized as follows:

1. First Phase Document the corrective actions already taken. These corrective actions include design changes implemented during the sixth refueling outage (1R6) that correct HEDs identified prior to 1R6. These corrective actions were part of AP&L's continuing commitment to the practical application of human factors principles that was in effect prior to the CRDR program and will continue in effect after completion of the CRDR program, through a formal process of human factors review of control room-related design change packages.
2. Second Phase Document the corrective actions already committed and planned due to regulatory (e.g., Regulatory Guide 1.97) and non-regulatory issues that correct HEDs. These design changes are being evaluated to assure that new HEDs are not created. All new design changes in the control room are being evaluated to assure that their implementation will not only not create new HEDs, but will also correct already identified HEDs to the extent practical. The resources have already been committed to complete these design change activities on an integrated implementation schedule.
3. Third Phase Provide proposed corrective actions and schedules for control room labeling, demarcation and background shading. This will be implemented as part of an integrated overall control room panel relabeling effort, on a relatively short schedule. The changes associated with this effort will resolve a significant number of HEDs and provide at least an interim and possibly a permanent solution to many more HEDs that are to be the subject of a more extended and iterative design evaluation process.

Furthermore, this phase will provide proposed corrective actions and schedules for control room changes that will resolve HEDs by design changes that do not require substantial interaction with other proposed design evaluations. These HED resolutions do not involve many HEDs since most resolutions require interaction with other proposed design evaluations.

4. Fourth Phase Provide a description of the remaining HEDs and the corrective action evaluations planned as part of an extended, comprehensive design evaluation effort. These HEDs will not have corrective actions identified since they are part of an extended evaluation effort based on integrated use of utility resources. Many of these HEDs will be evaluated by an iterative process of identifying proposed changes, verifying the proposed changes, integrated review of interacting changes and re-verification of proposed changes. This process may result in several HED resolution options being evaluated in parallel and/or in series until an acceptable resolution is agreed upon.

Since the HED resolutions in this phase cannot be identified by August 14, 1985, AP&L plans to provide six-month status reports to the NRC. These status reports will identify the corrective actions and schedules as they are finalized. This approach will provide the NRC with HED resolution details as they evolve from the iterative evaluation process, rather than waiting for all resolutions to be identified before submitting a report. This evaluation process will require an extended evaluation period (months) which cannot be defined precisely due to the iterative nature of the process.

Another factor that will be integrated into the fourth phase will be the ANO-2 HED resolution. The ANO-2 HED assessments may necessitate a reevaluation of engineering priorities to support needed design changes for ANO-2. This factor can not be fully evaluated until after completion of the ANO-2 HED assessments later this year. Therefore, the most practical approach to keep the NRC informed of HED resolution status during this fourth phase is through the six-month status reports.

The ANO-2 CRDR program is well underway with activities completed on the operating experience review, control room inventory, checklist survey and task analysis. Activities currently taking place include the validation and verification efforts. The ANO-2 effort is on schedule for submittal of the Final Summary Report to the NRC by May 5, 1986. A similar phased approach to that described above for ANO-1 to resolve the identified HEDs will be utilized for ANO-2.

Regulatory Guide 1.97

On June 25, 1984 AP&L submitted the ANO-1 Regulatory Guide 1.97 position document in our letter 1CAN068402. The ANO-2 position document was submitted on April 13, 1984 in our letter 2CAN948404. The planned modification schedules for each unit were provided in these submittals. The NRC's response to the ANO-1 position document, dated March 20, 1985 (1CNA038505) was received in our offices on April 1, 1985. The NRC's response to the ANO-2 position document, contained in NRC letter dated April 30, 1985 (2CNA048506), was received on May 3, 1985. AP&L plans to respond to each of these documents within the requested 60 days from receipt. Modifications planned for the 1R6 refueling outage were implemented during the outage, which took place during the last quarter of 1984. Modifications planned for the 2R4 refueling outage (currently in progress) are presently being closed out. Future modifications for both units as planned for the 1R7, 2R5 and 2R6 refueling outages are currently on schedule.

Emergency Operating ProceduresANO-1

A comparison between the ANO-1 EOP Technical Guideline and the NRC-approved Babcock & Wilcox guideline as requested in the NRC's letter of July 26, 1984 (1CNA078401) is currently underway. We anticipate having this comparison available for your review by July 15, 1985.

ANO-2

The ANO-2 Emergency Operating Procedure (EOP) upgrade is complete. The new Emergency Operating Procedure and related changes to other plant operating procedures were implemented on April 11, 1985. Prior to implementation verification and validation as well as operator training was conducted.

The ANO-2 EOP Technical Guideline was submitted to the NRC by our letter 2CAN128403 dated December 5, 1984. On February 27, 1985 the EOP Technical Guideline and overall EOP upgrade program were presented to representatives of the Procedures and Test Review Branch, Reactor Systems Branch and Project Management Branch of the NRC to facilitate their review.

Safety Parameter Display System / Emergency Response Facility

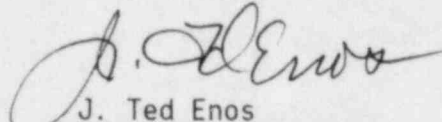
As discussed in the last update, 0CAN118403, both the ANO-1 and 2 SPDS were declared operational with existing parameters. Since that update additional plant parameter inputs were added to the ANO-1 SPDS database during the 1R6 refueling outage. As a result of these modifications we are pleased to announce that both the ANO-1 and 2 SPDS now meet the requirements specified in their respective Safety Analysis Reports and therefore, both systems have been declared fully operational. The completion of the ANO-1 and 2 SPDS comes approximately 18 and 12 months in advance of our original scheduled completion date respectively. No changes to the ANO-2 SPDS parameter list were found to be necessary after completion of the ANO-2 EOPs. The schedule blocks in the attached figure related to revising the Safety Analysis Report have been shaded in as complete since no revision was necessary. Although both SPDS currently meet the requirements of their respective Safety Analysis Reports, further enhancements will continue to be made to the systems based on subsequent operational experience and input from plant operations. General operator comments concerning the SPDS thus far have been extremely favorable.

Since the full operability of the Primary and Secondary Technical Support Centers (PTSC and STSC) were contingent upon the availability of the SPDS in those facilities, with the declaration of the SPDS's operability, those facilities have also been declared fully operational.

May 7, 1985

This concludes our update. Another update is scheduled for submittal in October, 1985.

Very truly yours,



J. Ted Enos
Manager, Licensing

JTE:RBT

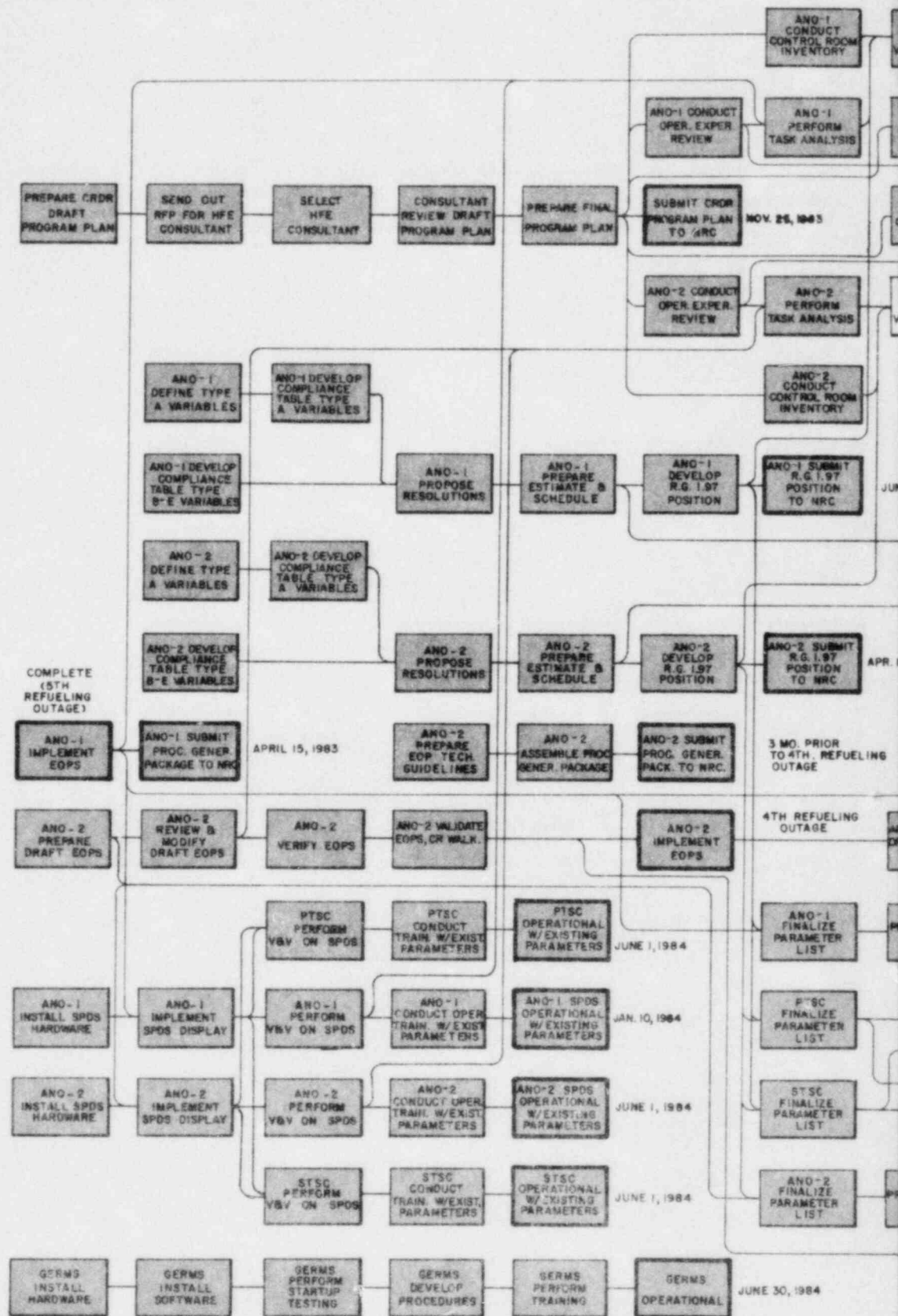
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CRDR

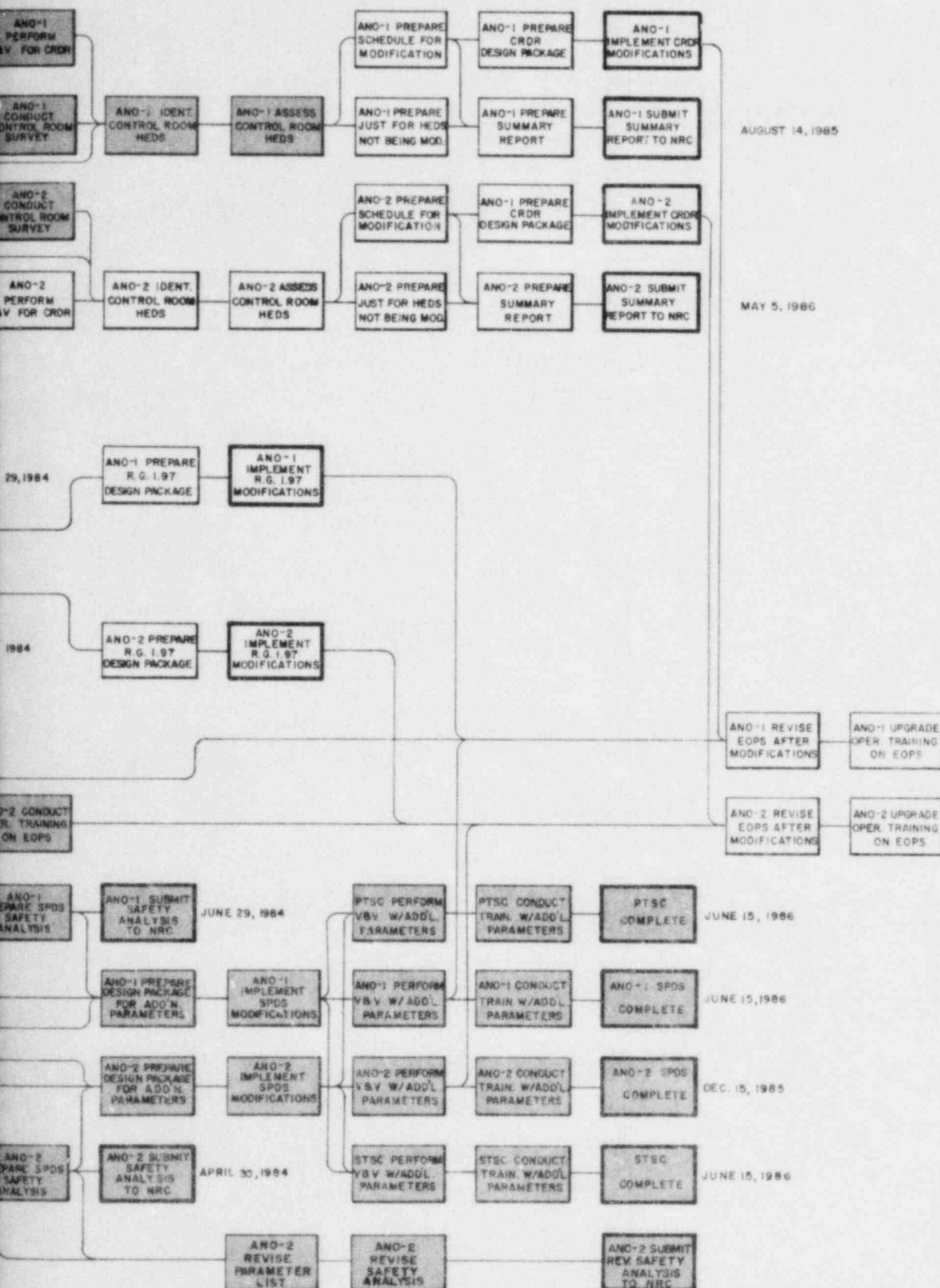
R.G. I.97

EOPS

SPDS/ERFS



INTEGRATED IMPLEMENTATION PLAN



TI
APERTURE
CARD

Also Available On
Aperture Card

FIGURE 1
NUREG 0737 SUPPLEMENT I
INTEGRATED IMPLEMENTATION PLAN
REVISED 5-7-85

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