

Plan for the Integrated Scheduling of Plant
Modifications for the Duane Arnold Energy Center

I. Introduction

Iowa Electric Light and Power Company (IELP) has developed a comprehensive program which will enable the Company to effectively manage implementation of certain modifications which have been required, or proposed by, the NRC, as well as other measures to enhance plant safety and reliability which have been identified by the Company. A description of the program, identified as "Integrated Program for Modification of the Duane Arnold Energy Center (DAEC)," was submitted to the NRC on May 28, 1982, by Iowa Electric letter LDR-82-0140.

This program was developed to coordinate and schedule all necessary work at the DAEC, whether mandated by NRC or identified by IELP and others. The program objectives are to (1) conform to regulatory requirements; (2) provide sufficient lead times for modifications; (3) minimize changes for operators; (4) assure training requirements are fulfilled; (5) effectively manage financial and human resources; and (6) specify the framework for changes to developed schedules.

This program reflects that fiscal and manpower resources are finite and that a limit on the on-site manpower is necessary. The program integrates all presently planned work at DAEC over a nominal five year period to ensure that individual tasks are effectively scheduled and coordinated. It provides a means for new requirements to be accommodated taking into account schedule and resource constraints.

The purpose of this document is to describe the plan used to implement the program (the "Plan"). It describes how the program functions, mechanisms for changing the Plan and updating it, and the interactions of NRC and licensee staffs under the Plan, and its associated schedules.

II. Summary of Program Development

The program is based on a computer generated listing of over 600 items of prioritized work. The listing takes into account projections for budgets and site manpower and engineering support requirements for five years, on an item-by-item basis covering all plant modification activities. It represents a total DAEC work list and commitment list which is regularly modified and updated to meet changing conditions, including new NRC regulatory requirements. The final product of this program is the development of schedules as discussed below.

III. Scheduling

Upon completion of the complete work listing, Iowa Electric determined that detailed and integrated schedules were required for the major work items. Upon completing the comprehensive listing of major work items, the tasks were organized into Schedule C (discussed below) using critical path methodology (CPM) for selected work items. CPM schedules identify critical paths in the work effort for each task, which in turn, enables prompt adaptation of schedules to meet contingencies such as strikes,

delays in procurement or installation or modification of fuel cycle schedules. Schedules A and B are derived from Schedule C. All Schedules are briefly described below:

- Schedule A - All facility modifications which have implementation dates mandated by NRC rules, orders, or license conditions.
- Schedule B - Facility modifications intended to satisfy significant prospective NRC requirements as perceived by the licensee which are sufficiently definitive that they can be included for planning purposes, and other requirements which have no mandated completion dates such as certain SECY 82-111 and NUREG-0737 items.
- Schedule C - Integrates Schedules A and B, plus all other major DAEC tasks resulting from mandates of agencies other than NRC and IELP-initiated system upgrades for availability improvement.

Schedule A dates may be modified only with the prior approval of NRC, in accordance with existing NRC procedures. Changes in Schedule B dates require written notification of NRC after adoption by IELP, but do not require NRC approval. Schedule C is submitted for information only; it provides a basis for assessing the effects of changes to Schedules A and B and a departure point for discussion between NRC and the licensee regarding such changes, as discussed below.

IV. Schedule Modifications

An important aspect of Iowa Electric's planning effort is the recognition that the attached schedules will need to be modified at times to reflect changes in regulatory requirements, to accommodate those activities that Iowa Electric finds necessary to improve plant efficiency and reliability, and to take into account delays resulting from events beyond IELP's control. It is important that the procedure used by Iowa Electric for changing the schedules be documented.* In addition, the NRC must play a role in the oversight of the scheduling process (and must, in fact, judge the acceptability of proposed date changes in Schedule A). Accordingly, it is important that the NRC's role, and the interaction between the NRC and IELP, be clearly defined, as discussed below.

* Schedules A and B will contain sufficient detail to identify those items with completion dates keyed to fuel cycle outages. In such cases, a change in outage period shall not be considered a schedule change.

V. IELP Responsibilities

The integrated schedule requires that IELP monitor the progress of all work undertaken, manage its activities to maintain the schedule, and act promptly to take necessary actions when a schedule change is needed.

A. Periodic Updating

IELP will update Schedules A and B semi-annually, including those changes which do not require prior NRC approval. Schedule C will also be updated semi-annually, since it provides the overall framework within which all scheduled activities will take place. All three revised schedules will be submitted to NRC, beginning six months following NRC concurrence in the Plan. In addition to updating the schedules, IELP will:

- ° Summarize progress in implementing NRC requirements concerning plant modifications
- ° Identify changes since the last report
- ° Summarize the reasons for schedule changes associated with regulatory requirements.

B. Changes to Schedules

Changes to the schedules may arise from a variety of reasons, such as new work activities; modifications in the scope of scheduled work; problems in delivery, procurement, etc.; changes in NRC rules and regulations; or other NRC or IELP actions.

As noted above, no changes will be made in Schedule A without prior NRC approval. Should a change become necessary, it will only be proposed after Iowa Electric has determined that rescheduling of non-NRC required work items either will not significantly assist in maintaining Schedule A without change; or that the safety, cost, or schedule penalties from rescheduling non-NRC required work significantly outweigh the change in a Schedule A completion date.

Iowa Electric will inform the NRC Project Manager when serious consideration is given to requesting a change in Schedule A. When IELP determines that a change in Schedule A is necessary, it will submit a written request for NRC approval in accordance with applicable procedures.

Work items in Schedule B may be rescheduled or work items may be added to Schedule B by Iowa Electric without NRC approval; however, IELP will inform the NRC Project Manager when serious consideration is given to changing the schedule for or adding an item in Schedule B, and within 20 days after IELP adopts a change for or adds an item in Schedule B, it will provide the NRC written notification thereof, including the reasons therefore.

Where it is necessary to add a new work item to the Schedule C program or to change the schedule for an item which is not on Schedule A or B, the following general guidance will be utilized to the extent appropriate:

- ° Assess the priority of the work item and its safety significance
- ° Schedule the new or changed item to avoid rescheduling a Schedule A or B item, if it can be reasonably achieved
- ° Alter Schedule B items before Schedule A items
- ° Select a schedule for the new or changed item which will help in maintaining an optimum integrated program of work.

VI NRC Review

As pointed out in Section V.B above, changes to the schedules are inevitable. Action required by NRC is discussed below:

A. Iowa Electric Originated Changes

1. Upon receipt from IELP of a request for modification of Schedule A, NRC will act promptly (consistent with resource availability) to consider and decide on the request in accordance with applicable procedures.
2. If the request for a modification of Schedule A is denied, NRC shall promptly inform Iowa Electric and provide the reasons for denial.
3. No NRC action is required for IELP changes in non-Schedule A items.

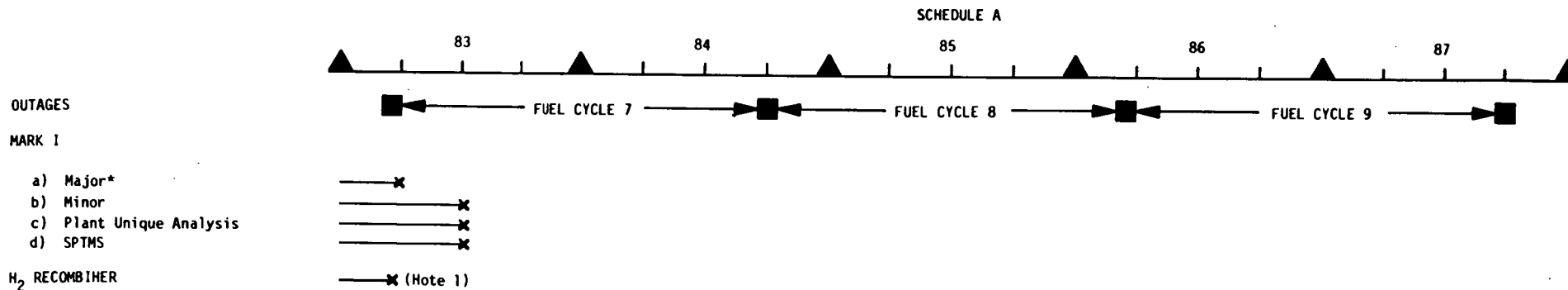
B. NRC Originated Changes

It is recognized that formal NRC regulatory actions may: (1) impose a new regulatory requirement with a fixed date or (2) establish a firm date for a previously identified regulatory requirement. In taking any such action the NRC, to the extent consistent with its overall regulatory responsibilities, will take into account the impact of such action on IELP's ability to complete effectively the items on Schedules A and B, and, in consultation with IELP, will try to minimize such impact. Although any formal regulatory action taken by the NRC will be effective in accordance with its terms without inclusion in Schedule A, the NRC and IELP recognize the desirability of incorporating such action into Schedule A, particularly in order to incorporate at the same time any other appropriate changes in the total integrated schedule program. Accordingly, once such formal

regulatory action is taken (or earlier, if practicable), the NRC will provide IELP a reasonable opportunity to propose overall changes in the total integrated schedule program which would most effectively accommodate such requirements. Any resulting changes in items in Schedule A will be approved by NRC in accordance with established procedures, and will thereupon be reflected in a revised Schedule A submitted by IELP. IELP will inform the NRC of any resulting changes in Schedules B and C in accordance with Section V, above.

VII. Modifications to the Plan

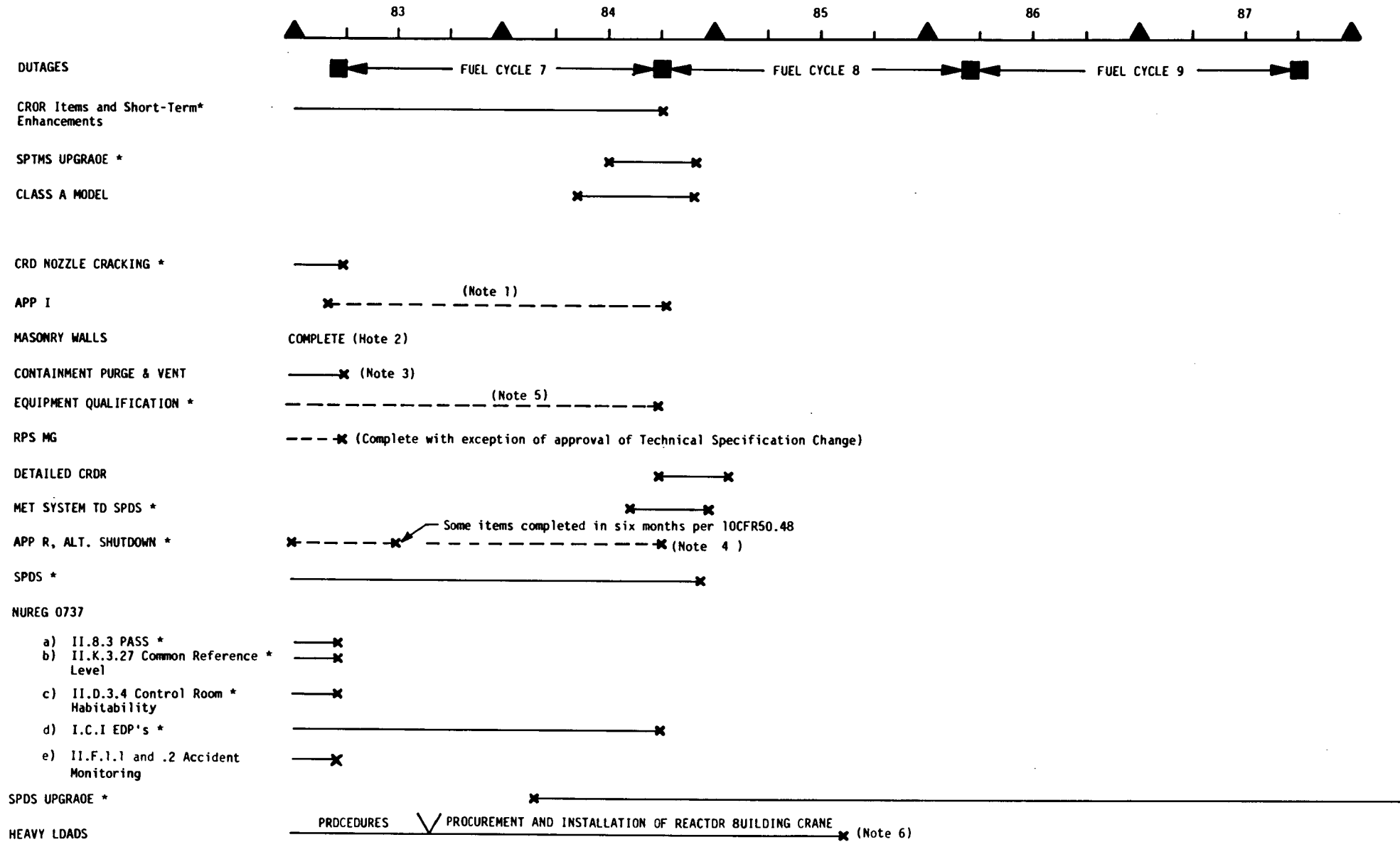
The licensee and the NRC recognize that the Plan itself may require future modifications. Accordingly, IELP will draft proposed modifications and submit them to the NRC for review. Once agreement is reached between IELP and the NRC on the acceptability of the modifications, they will be made effective by letter of concurrence from the Director, Nuclear Reactor Regulation.

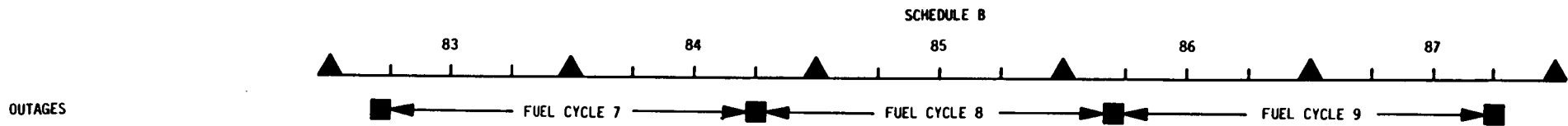


Note 1. IELP letter, LDR-82-056, Dated March 18, 1982 requests exemption from this date.

* Completion date linked with end of refueling outage.

SCHEDULE B





Note 1. Estimated schedule assumes March 1983 issuance of DAEC license amendment (Application submitted August 29, 1979 with later revisions). Final implementation to be 18 months following NRC approval of Technical Specification change.

Note 2. Schedule based upon IELP submittal. Final schedule is dependent upon NRC review and approval of submittal.

Note 3. Schedule shows only those modifications resolved for DAEC. Final schedule dependent upon NRC/IELP resolution of outstanding issues.

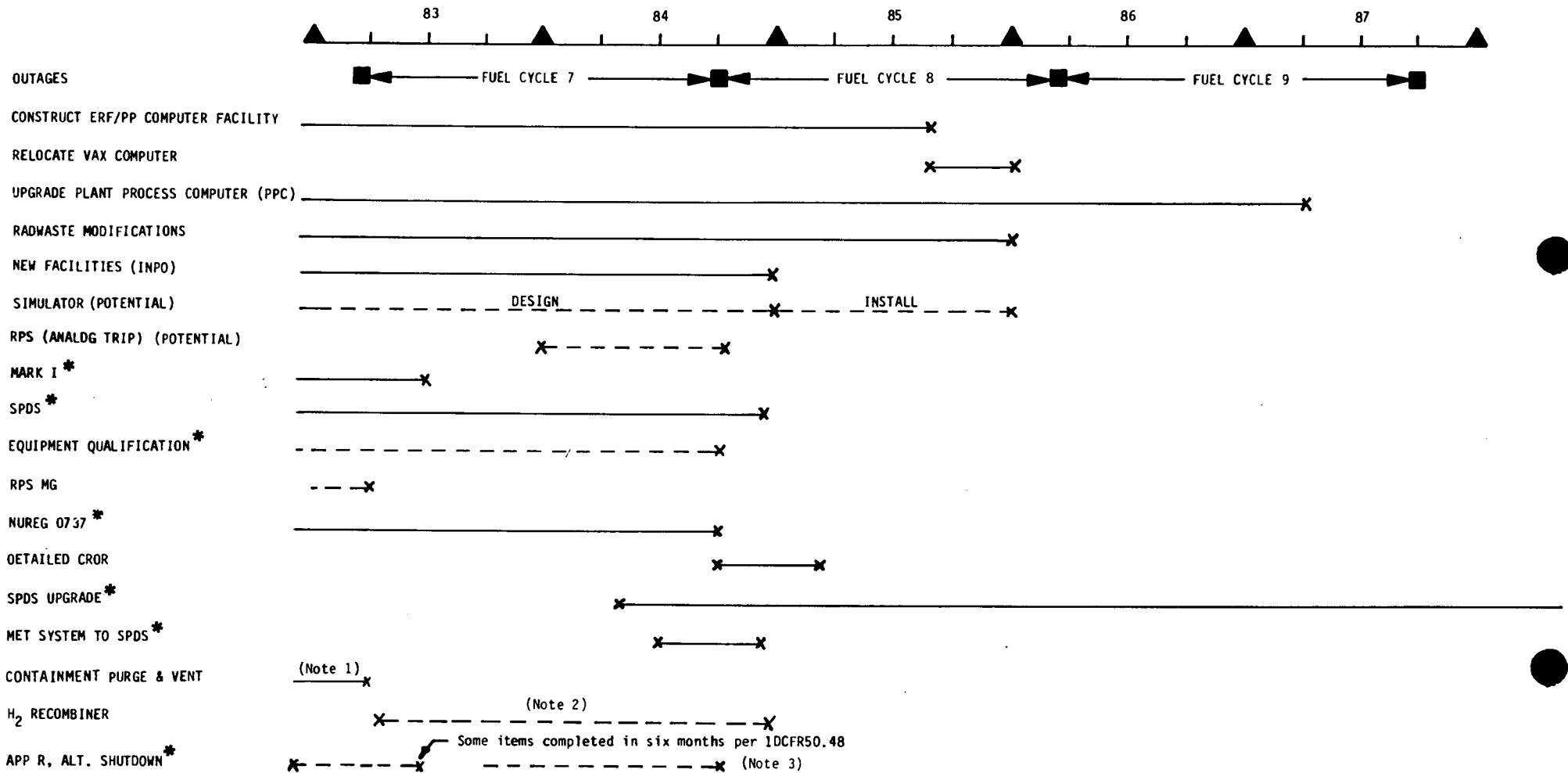
Note 4. Estimated schedule assumes NRC approval January 1, 1983 of IELP submittal. Completion of items per 10CFR50.48. Moves to Schedule A upon resolution.

Note 5. Moves to Schedule A upon adoption of final rule.

Note 6. All work completed except procurement and installation of Reactor Building Crane (Reactor Building Crane Design Completed)

* Completion date linked with end of refueling outage.

SCHEDULE C



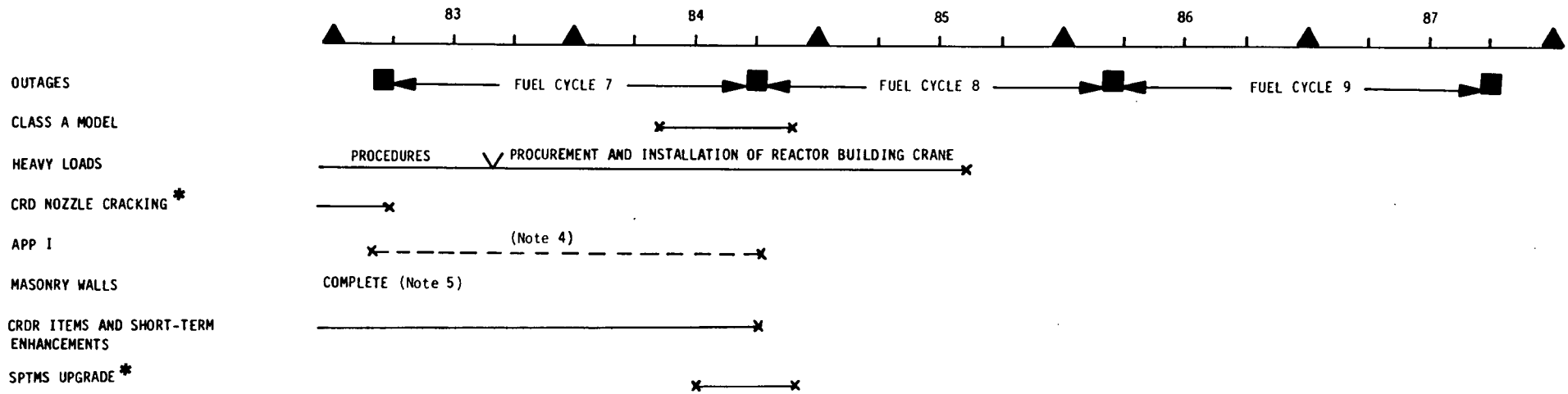
Note 1. Schedule shows only those modifications resolved for DAEC. Final schedule dependent upon NRC/IELP resolution of outstanding issues.

Note 2. Estimated schedule assumes installation of H₂ recombiner capability. Final schedule is dependent upon BWR0G/NRC resolution of inerted containment issue.

Note 3. Estimated schedule assumes NRC approval January 1, 1983 of IELP submittal. Completion of items per 10CFR50.48.

*Completion date linked with end of refueling outage.

SCHEDULE C



Note 4. Estimated schedule assumes March 1983 issuance of DAEC license amendment (Application submitted August 29, 1979 with later revisions). Final implementation to be 18 months following NRC approval of Technical Specification change.

Note 5. Schedule based upon IELP submittal. Final schedule is dependent upon NRC review and approval of submittal.

✓ All Work Completed Except Procurement and Installation of Reactor Building Crane (Reactor Building Crane Design Completed)

*Completion date linked with end of refueling outage.

11/01/82

IOWA ELECTRIC LIGHT AND POWER COMPANY
CENTRAL IOWA POWER COOPERATIVE
CORN BELT POWER COOPERATIVE

DOCKET 50-331

AMENDMENT TO FACILITY OPERATING LICENSE

AMENDMENT No. _____
License No. DPR-49

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The filings (which are being handled by the Commission as an application) by Iowa Electric Light and Power Company, et al, dated November 12, 1982, comply with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, Facility Operating License No. DPR-49 is hereby amended by adding thereto the following:
 - 2.C(6) The "Plan for the Integrated Scheduling of Plant Modifications for the Duane Arnold Energy Center" ("the Plan") submitted on November 12, 1982, shall be followed by the licensee from and after the effective date of this amendment. The Plan and associated schedules may be modified from time to time in accordance with the terms and conditions of the Plan.

2. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Domenic B. Vassallo, Chief
Operating Reactors Branch #2
Division of Licensing

Date of Issuance: _____