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ACCESSION NBR:9005100236 DOC.DATE: 90/05/03 NOTARIZED: NO DOCKET #  
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MURLEY,T.E. Office of Nuclear Reactor Regulation, Director (Post 870411

SUBJECT: Forwards semiannual rept for "Plan for Integrated Scheduling  
of Plant Mods for DAEC."

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Iowa Electric Light and Power Company

May 3, 1990

NG-90-1073

Dr. Thomas E. Murley, Director  
Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Main Station P1-137  
Washington, DC 20555

Subject: Duane Arnold Energy Center  
Docket No: 50-331  
Op. License No: DPR-49  
Semi-annual Report for the "Plan for the  
Integrated Scheduling of Plant Modifications  
for the Duane Arnold Energy Center"  
Reference: D. Mineck letter to T. Murley dated November 3, 1989,  
NG-89-2786  
File: A-117, A-278

Dear Dr. Murley:

This letter and attachments provide the semi-annual report required by Section V.A. of the "Plan for the Integrated Scheduling of Plant Modifications for the Duane Arnold Energy Center" (the Plan). This report summarizes our progress in implementing Schedule A and B items, identifies the changes since the last report, summarizes the reasons for schedule changes, and provides updated schedules.

Attachment 1 is a summary of progress in implementing the items listed in Schedules A and B. It lists the one item which has been completed since the last update (referenced above).

Attachment 2 identifies the changes since the last report. These revisions include changes to the Item Descriptions of six items, the revision of six Schedule commitment dates and the addition of four new Schedule B items. One Schedule B item has been deleted since our last report. The reasons for the schedule changes are stated in Attachment 3.

Updated Schedules A and B are included as Attachment 4. For each item listed, the specific implementation date is stated and reference to the NRC correspondence supporting this date is identified. When available, references to NRC correspondence are cited for IELP-initiated items listed in Schedule B.

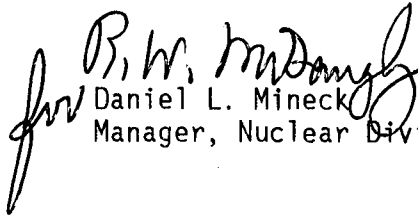
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Dr. Thomas Murley  
NG-90-1073  
May 3, 1990  
Page 2

Please inform us if you have any questions or comments concerning this submittal.

Very truly yours,

  
Daniel L. Mineck  
Manager, Nuclear Division

DLM/BHJ/pjv+

Attachments: 1. Summary of Progress in Implementing Schedule A and B Items  
2. Changes in Schedules  
3. Summary of Reasons for Schedule Changes  
4. Updated Schedules A and B

cc: B. Johnson

L. Liu

L. Root

R. McGaughy

J. R. Hall (NRC-NRR)

A. Bert Davis (Region III)

NRC Resident Office

Commitment Control: 880435, 890209, 890211, 890212, 890214,  
890215, 890407, 890409, 890417

Summary of Progress in Implementing Schedule A and B Items

The following items, as listed on the Schedules A and B transmitted with the November 3, 1989 semi-annual report, have been completed during this reporting period:

Schedule A

None

Schedule B

Breaker Coordination Study

## Changes in Schedules

Changes to the Schedules fall into four categories: revised descriptions of items, revised completion dates, addition of new items and deletion of items.

### I. Item Descriptions

<u>Current Item Description</u>	<u>Revised Item Description</u>
<u>Schedule A</u>	
None	
<u>Schedule B</u>	
Security System Upgrades <ul style="list-style-type: none"><li>• Perimeter Intrusion Detection System Upgrade</li></ul>	Security System Upgrades <ul style="list-style-type: none"><li>• Perimeter Intrusion Detection System Upgrade<ul style="list-style-type: none"><li>- Main Plant Perimeter Barrier</li><li>- Intake Structure Perimeter Barrier</li></ul></li></ul>
Station Blackout Rule Compliance <ul style="list-style-type: none"><li>• Schedule Submittal required by 10 CFR 50.63(c)(4)</li></ul>	Station Blackout Rule Compliance <ul style="list-style-type: none"><li>• Schedule submittal required by 10 CFR 50.63(c)(4)</li><li>• RCIC Turbine Insulation</li><li>• Control Room Lighting Improvements</li><li>• Procedure Changes (Non-EOP)</li></ul>
Drill/Exercise Utilization of Control Room Simulator <ul style="list-style-type: none"><li>• Initial Use of Simulator</li></ul>	Drill/Exercise Utilization of Control Room Simulator <ul style="list-style-type: none"><li>• Trial Use of Simulator</li></ul>
Hydrogen Water Chemistry for Vessel Internals	Shielding Study for Revised Hydrogen Water Chemistry Program
Technical Specifications Improvement	Technical Specifications Improvement <ul style="list-style-type: none"><li>• Short-term Enhancements</li><li>• Long-term Improvements</li></ul>
Design Basis Program	Design Basis Program <ul style="list-style-type: none"><li>• Phase I - ECCS and Selected Safety-Related Systems</li></ul>

## II. Schedule Changes

<u>Description</u>	<u>Current Completion Date</u>	<u>Revised Completion Date</u>
<u>Schedule A</u>		
None		
<u>Schedule B</u>		
Security System Upgrades		
• Perimeter Intrusion Detection System Upgrade	March 31, 1990	
- Main Plant Perimeter Barrier		May 31, 1990
- Intake Structure Perimeter Barrier		December 31, 1990
Station Blackout Rule Compliance		
• Schedule Submittal required 10 CFR 50.63(c)(4)	Schedule not yet certain	Schedule not yet certain
• RCIC Turbine Insulation		Prior to Cycle 12 Startup
• Control Room Lighting Improvements		Prior to Cycle 12 Startup
• Procedure Changes (Non-EOP)		June 30, 1991
Emergency Diesel Generator Reliability Program	August 31, 1990	December 31, 1990
Drill/Exercise Utilization of Control Room Simulator		
• Trial Use of Simulator	Full Scale Drill I	June 21, 1990 (Full Scale Drill I)
Recirc Pump Shaft Replacement (Both Pumps)	Prior to Cycle 12 Startup	Prior to Cycle 11 Startup
Technical Specifications Improvement	Schedule not yet certain	
• Short-term Enhancements		December 31, 1990
• Long-term Enhancements		Schedule not yet certain

III. New Items

Description

Completion Date

Schedule A

None

Schedule B

Inservice Testing Program  
Modifications (GL 89-04)

July 5, 1991

Implement Bill of Materials  
(BOM) Program

December 31, 1990

Reliability Centered  
Maintenance (RCM) Pilot Study

December 31, 1990

Ultrasonic Examination of  
Reactor Vessel Beltline Region  
Welds

- Dimensional Survey
- Feasibility Study,  
Position Paper and  
Drawing Development

Prior to Cycle 11 Startup  
June 30, 1991

IV. Items Deleted

Description

Schedule A

None

Schedule B

Safety System Functional Inspection



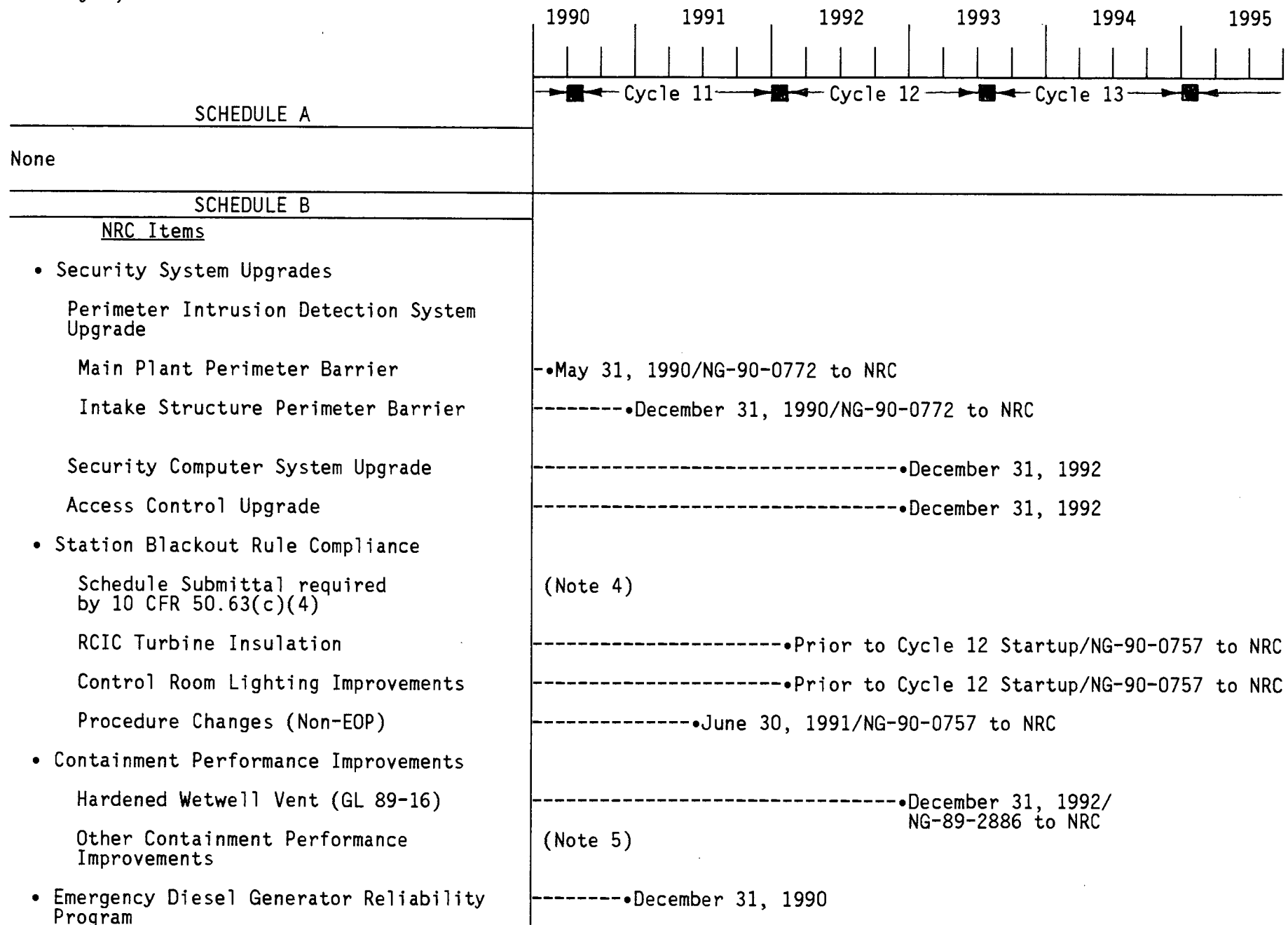
### Summary of Reasons for Schedule Changes

<u>Item Description</u>	<u>Change</u>	<u>Explanation</u>
<u>Schedule A</u>		
None		
<u>Schedule B</u>		
Security System Upgrades	Item Description/ Completion Date	Original schedule was overly optimistic. Refer to letter from D. Mineck (IELP) to T. Murley (NRC), dated March 29, 1990 (NG-90-0772).
• Perimeter Intrusion Detection System Upgrade		
- Main Plant Perimeter Barrier		
- Intake Structure Perimeter Barrier		
Station Blackout Rule Compliance	Item Description/ Completion Date	Enhancements identified in Rev. 1 to DAEC's Station Blackout Information Submittal (NG-90-0757) included as sub-items. Each sub-item is scheduled for completion prior to the required schedule submittal. BWROG recommendations regarding EOP changes will be considered separately.
• Schedule Submittal required by 10 CFR 50.63(c)(4)		
• RCIC Turbine Insulation		
• Control Room Lighting Improvements		
• Procedure Changes (Non-EOP)		
Drill/Exercise Utilization of Control Room Simulator	Item Description/ Completion Date	The description has been changed to more clearly convey the original intent of this item. Scheduled date for Full Scale Drill I added.
• Trial Use of Simulator		
Technical Specifications Improvement	Item Description/ Completion Date	The description has been divided into two sub-items. A completion date is provided for Short-Term Enhancements, e.g., GL 88-12, Instrument Table Upgrade, Eliminate Conditional Surveillances, Delete Rod Sequence Control System Requirements. Schedule for Long-Term Improvements is dependent on NRC requirements still to be determined.
• Short-Term Enhancements		
• Long-Term Improvements		

Summary of Reasons for Schedule Changes

<u>Item Description</u>	<u>Change</u>	<u>Explanation</u>
<u>Schedule B (Continued)</u>		
Design Basis Program •Phase I - ECCS and Selected Safety-Related Systems	Item Description	Item Description has been revised to more correctly indicate the intention of this item.
Shielding Study for Revised Hydrogen Water Chemistry Program	Item Description	Item description has been revised to more correctly indicate the intention of this item.
Emergency Diesel Generator Reliability Program	Completion Date	Date has been changed due to issuance of recent NUMARC and NRC guidance.
Recirc Pump Shaft Replacement (Both pumps)	Completion Date	Completion date has been revised to reflect our plans to complete this item during the Cycle 10/11 Refuel Outage.
Inservice Testing Program Modifications (GL 89-04)	New Item	Issuance of GL 89-04
Implement Bill of Materials (BOM) Program	New Item	IELP-initiated item to manage the procurement process more efficiently.
Reliability Centered Maintenance (RCM) Pilot Study	New Item	IELP-initiated item to study feasibility of an RCM program.
Ultrasonic Examination of Reactor Vessel Beltline Welds •Dimensional Survey •Feasibility Study, Position Paper and Drawing Development	New Item	IELP-initiated item to augment the current In-Service Inspection (ISI) Program.
Safety System Functional Inspection	Deleted Item	Redundant to NRC's SSFI of Safety-Related Service Water Systems performed during the 1st quarter of 1990.

May 3, 1990



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SCHEDULE B (Continued)

- Emergency Response Capabilities  
(Supplement 1 to NUREG-0737)

Detailed (Supplement 1) CRDR

Phase 3 Long Term Enhancements

Phase 4 Long Term Enhancements

Regulatory Guide 1.97 Enhancements

- Individual Plant Examination

Initial Level I PRA

Containment Performance Analysis

Report Submittal

- Inservice Testing Program Modifications  
(GL89-04)

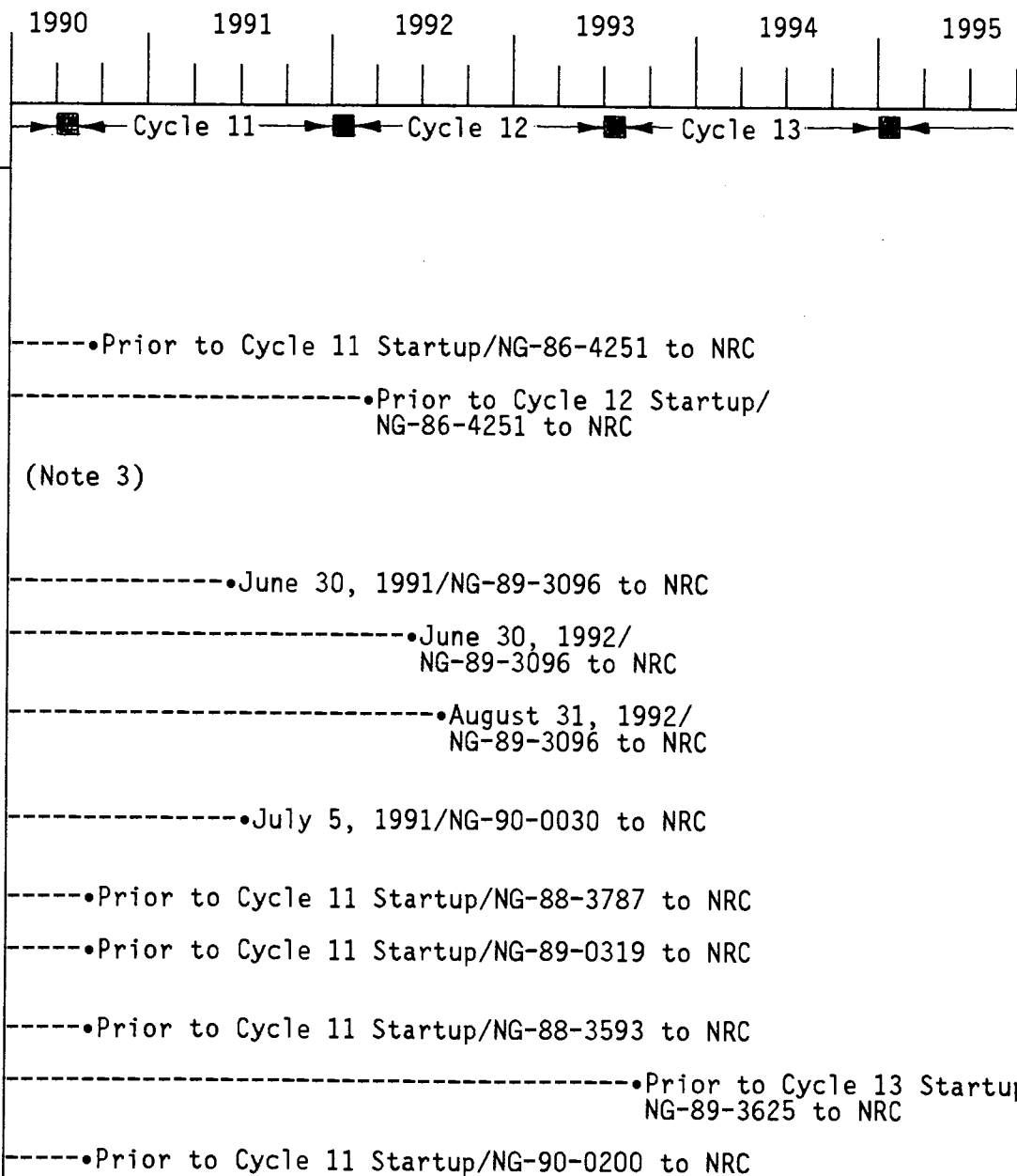
- LPCI Swing Bus Enhancements - Phase II

- Motor Operated Valve-Operator Upgrades  
(IEB 85-03 and Supplement 1 to IEB 85-03)

- RWCU Piping Replacement

- Safety-Related MOV Operability/Testing  
(GL 89-10)

- Safety-Related Service Water Program  
(GL 89-13)



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SCHEDULE B (Continued)

- Verification of Seismic Adequacy of Mechanical and Electrical Equipment (USI A-46, GL 87-02)

IELP Initiative Items

- Additional 161kV Service Breaker
- Implement Bill of Materials (BOM) Program
- Control Building HVAC and Chillers
- Design Basis Program  
Phase I - ECCS and Selected Safety-Related Systems
- Drill/Exercise Utilization of Control Room Simulator

Trial Use of Simulator

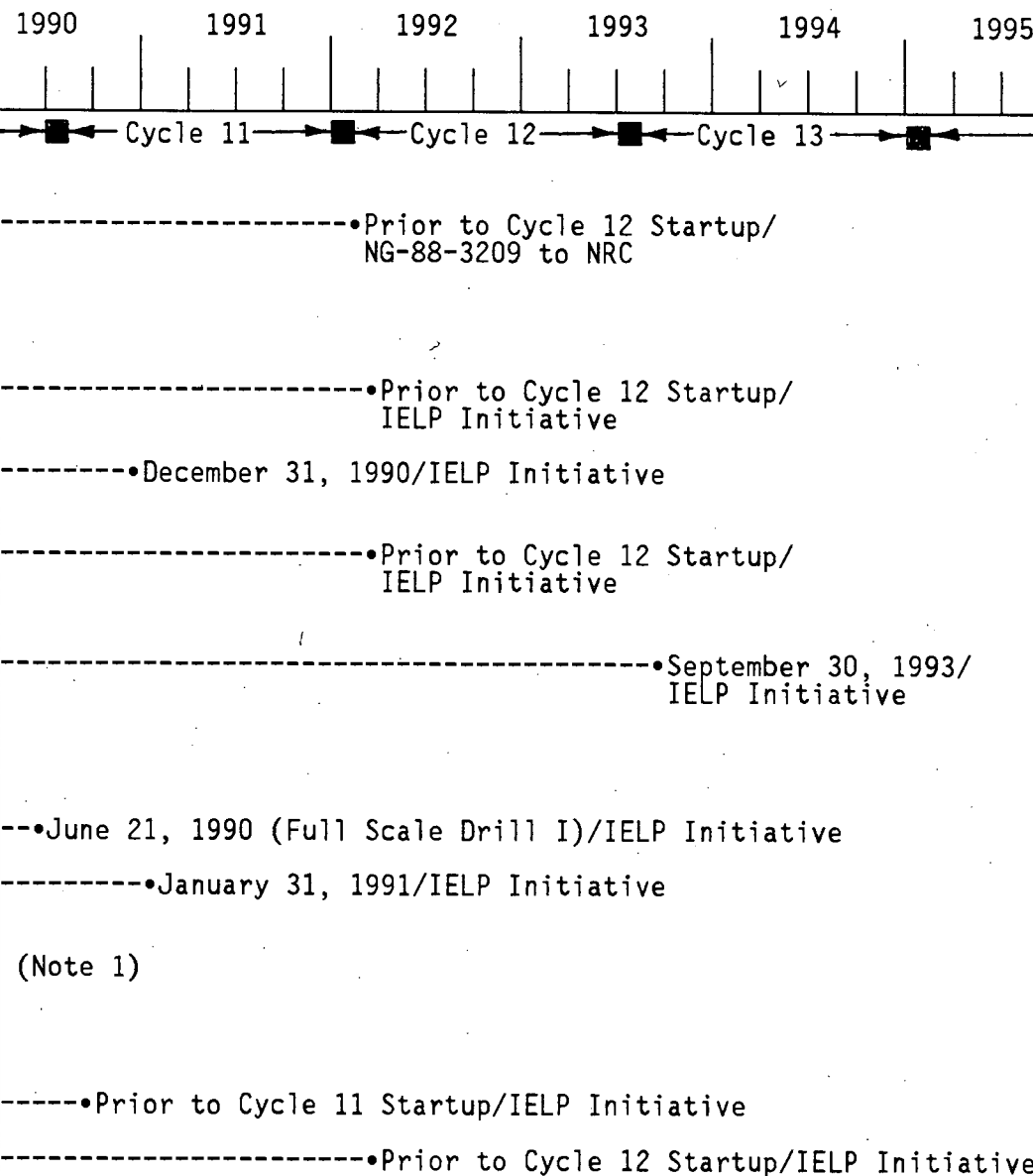
Permanent Use of Simulator

- Emergency Response Data System (GL 89-15)

- HPCI Availability Improvements

Component Modification/Upgrades

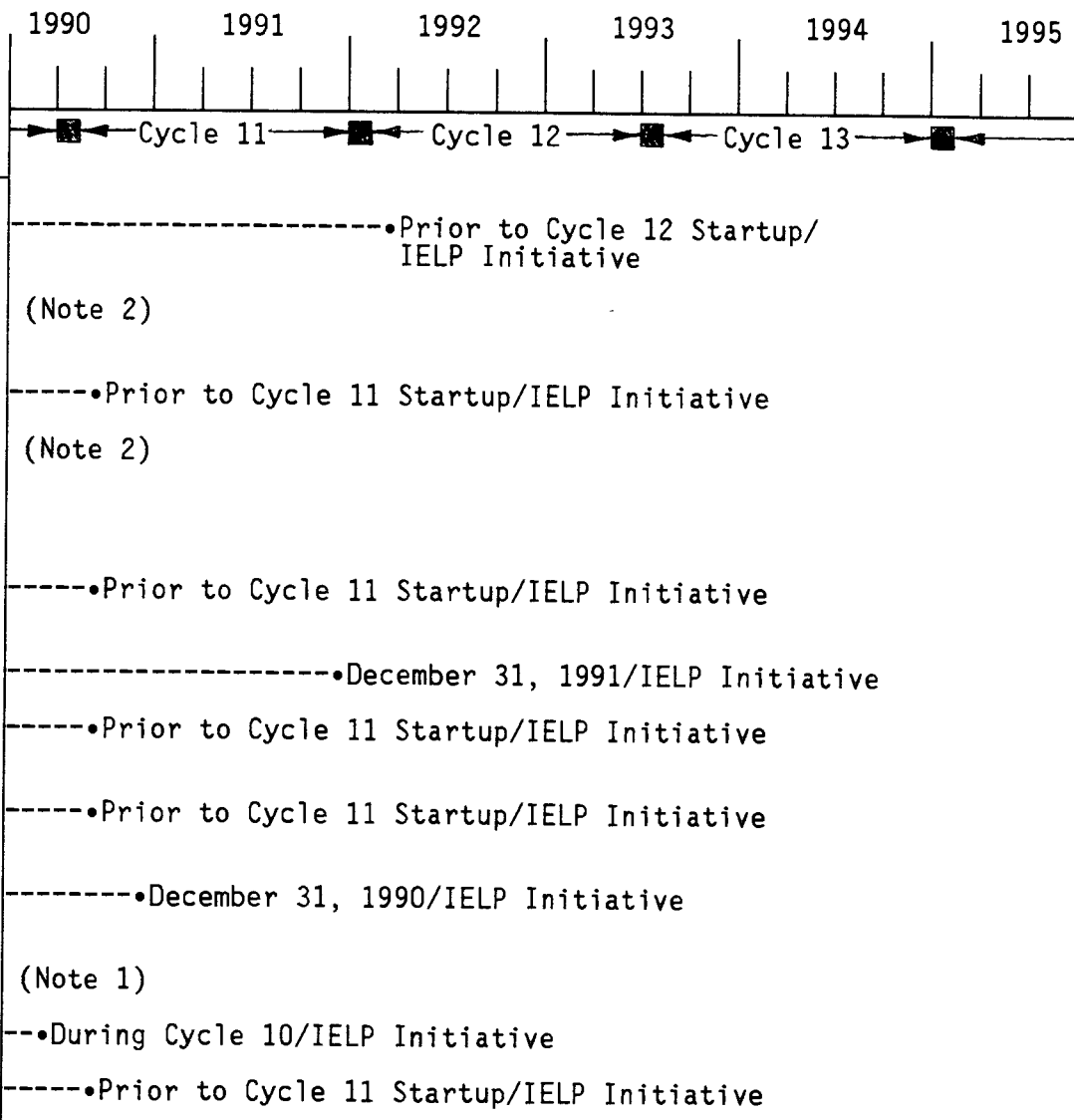
System/Component Assessment Study



May 3, 1990

SCHEDULE B (Continued)

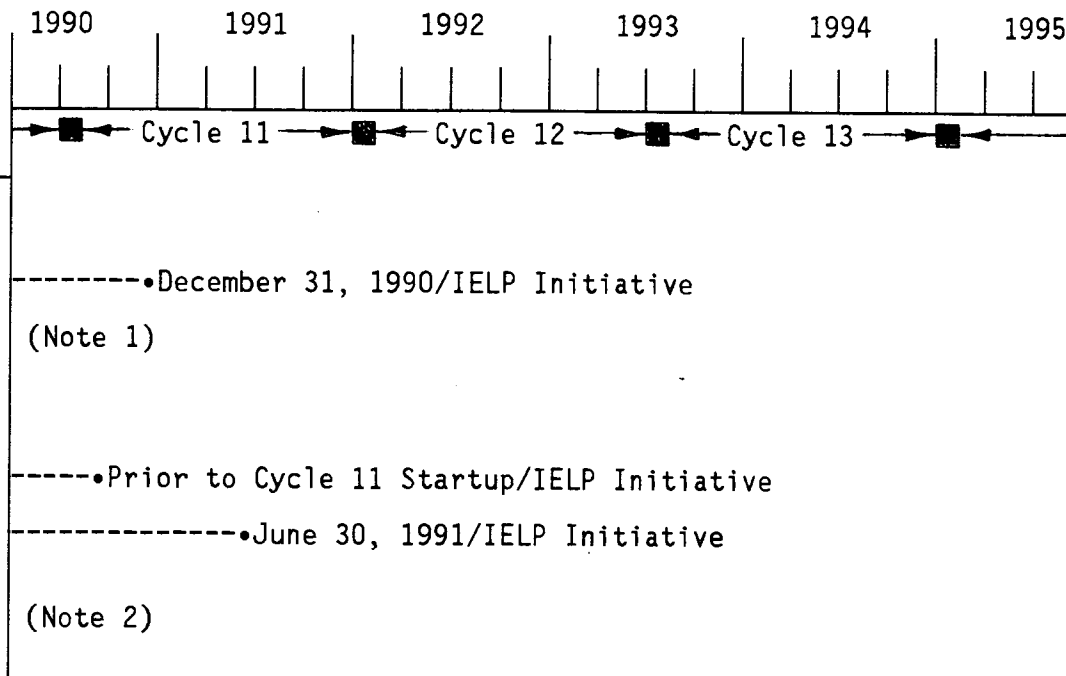
- Shielding Study for Revised Hydrogen Water Chemistry Program
- Hydrogen Water Chemistry Oxygen/Hydrogen Generator
- MSIV Internals Improvement
- Plant Life Extension
- Post Event Reconstruction (GL 83-28, Item 1.2)
- Verify Completion of Containment Isolation
- Power Systems Analysis
- Recirc Pump Shaft Replacement (Both Pumps)
- Replacement of Extraction Steam Pipe to 3A/3B Feedwater Heaters
- Reliability Centered Maintenance (RCM) Pilot Study
- Severe Accident Management
- SPDS Enhancements
- Steam Leak Detection System Upgrades



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SCHEDULE B (Continued)

- Technical Specifications Improvement
  - Short-term Enhancements
  - Long-term Improvements
- Ultrasonic Examination of Reactor Vessel Beltline Region Welds
  - Dimensional Survey
  - Feasibility Study, Position Paper and Drawing Development
- Zinc Injection



- Note 1: Schedule not yet certain, awaiting promulgation of NRC requirements/guidance.
- Note 2: Schedule not yet certain, potential IELP initiative item.
- Note 3: Schedule not yet certain, evaluation of scope in progress, (NG-89-0057).
- Note 4: Schedule not yet certain. Due within 30 days of the notification provided in accordance with 10 CFR 50.63(c)(3).
- Note 5: Schedule not yet certain. Potential improvements to be evaluated during Individual Plant Evaluation as requested by Generic Letter 89-16.