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RECORD OF CORRECTIONS

<u>Advance Change Notice</u>	<u>Date</u>	<u>Affected Pages</u>	<u>Entered (Initials)</u>	<u>Date Entered</u>
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<u>Change</u>	<u>Date</u>	<u>Affected Pages</u>	<u>Entered (Initials)</u>	<u>Date Entered</u>
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LIST OF EFFECTIVE PAGES

<u>Title</u>	<u>Page No.</u>	<u>Change</u>
Letter of Promulgation	i	0
Table of Contents	ii, iia	0
Record of Corrections	iii	0
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Section 1	1-1 through 1-3	0
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Section 7	7-1 through 7-4	0

Section 1

Introduction and Policy

1.0 Introduction

Clinton Nuclear Power Station is a 985 MWe BWR-6 Boiling Water Reactor plant with a Mark III containment under construction in a joint effort by Illinois Power Company, Soyland Power Cooperative, Inc., and Western Illinois Power Cooperative, Inc.

The nuclear steam supply system was designed by General Electric Company and the balance of the plant was designed by Sargent and Lundy. The constructor is Baldwin Associates (BA). As of October 31, 1982 the plant was about 85% complete with fuel load scheduled for January, 1984 and commercial operation in August, 1984. Construction costs are estimated to be \$2,170,086,000. Cost and schedule estimates are being revised at this time.

This Manual represents the management control system that will be used in accomplishing the Illinois Power Company Nuclear Power Program.

The Nuclear Power Program Management Manual contains goals, commitments and schedules supporting achievement of nuclear program objectives. Departments shall formulate plans for achieving nuclear program objectives and report status against these commitments.

1.1 Tasks

The Illinois Power Company Nuclear Power Program has the following tasks assigned in support of Company goals.

- 1.1.1 Complete Clinton Nuclear Power Station at the earliest possible time.
- 1.1.2 Complete the nuclear regulatory licensing process in appropriate sequence with construction completion.
- 1.1.3 Enter Clinton Nuclear Power Station into commercial operation at the earliest possible time.

1.2 Goals

To accomplish these tasks the following Nuclear Power Program goals are established.

- 1.2.1 Continue efforts to ensure that the Clinton plant is completed with the highest possible assurance level of quality construction.
- 1.2.2 Demonstrate in day to day events that top level management and all levels of supervision support fully a strong, effective quality assurance program which will ensure quality construction, testing and operation.
- 1.2.3 Encourage hiring and retention of high quality personnel.
- 1.2.4 Prepare and implement a schedule supporting early completion of Clinton Nuclear Power Station.

1.3 Strategy

Accomplishing these goals is most easily achieved with a program separated into a short and long range strategy. Further separation of the short and long range strategy elements into discrete parts which lead to well coordinated construction, test and operational programs is essential. The following short and long range strategy programs are established.

- 1.3.1 Complete the Illinois Power Company Improvement Program. (Section 4)
 - 1.3.1.1 Complete the Quality Recovery Program
 - a. Institute an interim planning and scheduling system which includes construction work and correction of problems. The schedule should identify resources to support the established schedule.
 - b. Establish and implement a corrective action system.
 - c. Complete an evaluation of both BA and IPC quality assurance staffs to ensure adequacy of the resources to support the established schedule.

- d. Establish and implement a QA audit and surveillance program to verify the Quality Recovery Program.
 - e. Implement a work control system (Traveler Tracking System).
 - f. Define and clear the inspection backlog, including corrective action program items.
 - g. Disposition and complete appropriate action for all currently outstanding NCRs/DRs.
 - h. Clear Stop Work Orders
- 1.3.1.2 Complete the Verification Program to assure the quality of construction work already complete.
- 1.3.1.3 Complete the Nuclear Program Management Plan comparing regulatory requirements and best industry practices to present practice.
- 1.3.1.4 Complete the Training Recovery Plan to assure qualified personnel are available to continue construction.
- 1.3.2 Complete the following long term efforts in support of Illinois Power Company Goals.
- 1.3.2.1 Implement the findings of the Nuclear Program Management Plan. Adjust organization and management systems to ensure optimum operation within Illinois Power Company. (Section 6)
- 1.3.2.2 Establish a schedule and management system to support the earliest possible achievement of commercial operation.
- a. Update the construction schedule. (Section 5)
 - b. Update department schedules to support system turnover, the licensing process and commercial operation. (Section 6)

Section 2

Organization and Responsibility

2.0 Organization and Responsibility

The organization and responsibilities for executing the IPC Nuclear Power Program have been established as follows.

- 2.0.1 W. C. Gerstner, Executive Vice President, is responsible for all nuclear power program activities.
- 2.0.2 D. P. Hall, Vice President, is responsible for Quality Assurance, Nuclear Station Engineering, Clinton Nuclear Power Station operation, start-up activities and implementation of the IPC Nuclear Power Program defined in this Manual. Mr. Hall reports to W. C. Gerstner, Executive Vice President.
- 2.0.3 J. H. MacKinnon, Project Manager, is responsible for Clinton site construction. In this capacity, he directs IPC and Baldwin Associates contractor and sub-contractor activities associated with all phases of construction work. He is responsible for construction planning and scheduling. Mr. MacKinnon reports to W. C. Gerstner, Executive Vice President.
- 2.0.4 J. D. Geier, Manager, Nuclear Station Engineering Department, is responsible for Clinton Nuclear Power Station Engineering activities. Mr. Geier reports to D. P. Hall, Vice President.
- 2.0.5 T. F. Plunkett, Manager, Clinton Nuclear Power Station, is responsible for the station operation and start-up. Mr. Plunkett reports to D. P. Hall, Vice President.

- 2.0.6 W. Connell, Manager, Quality Assurance, is responsible for Illinois Power Company Quality Assurance activities. He reports to D. P. Hall, Vice President.
- 2.0.7 J. E. Findley, Manager, Quality and Technical Services, is responsible for Quality Assurance and Technical Services for Baldwin Associates. He reports to D. P. Hall, Vice President.
- 2.0.8 L. S. Brodsky, Director, Nuclear Programs, is responsible for direction of the Nuclear Program Management Plan. He reports to D. P. Hall, Vice President.
- 2.0.9 A. J. Budnick, Director, Evaluation and Improvement, is responsible for direction of assigned Clinton site improvement programs. He reports to D. P. Hall, Vice President.
- 2.0.10 The organization chart reflecting these responsibilities is on page 2-3.

2.1 Specific Responsibilities

Specific responsibilities for the program elements of the IPC Nuclear Power Program are as follows:

2.1.1 Quality Recovery Program

2.1.1.1 Work Control

B. F. Gallagher
reporting to
J. H. MacKinnon

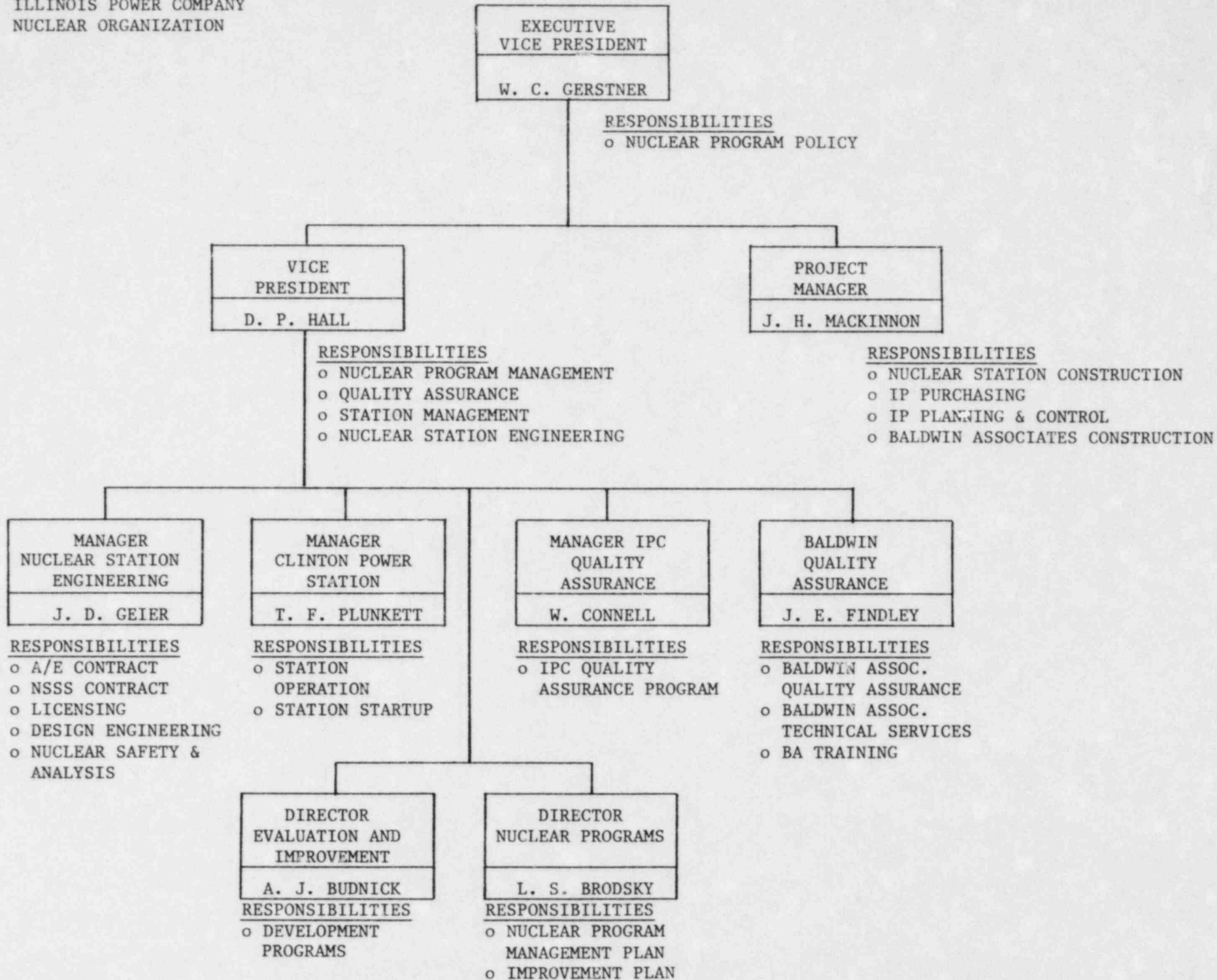
Clear Inspection
Backlog

SWO 007 Electrical
Cable Tray and
Attachments

SWO 010 Drywell and
Refueling Bellows

SWO 014 Safety Related
HVAC

ILLINOIS POWER COMPANY
NUCLEAR ORGANIZATION



2-3

Rev. 0

SWO 015 Attachment of
Seismic HVAC Hangers
to Safety Structures

SWO 016 Electrical
Conduit

SWO 017 Electrical
Equipment

SWO 018 Electrical
Instrumentation

SWO 019 Containment
Structural Steel

SWO 020 All HVAC
Work in Category I
Buildings

SWO 021 Test of
Containment Gas
Control Boundary
(Complete)

- | | | |
|---------|-----------------------------------|--|
| 2.1.1.2 | <u>Procurement</u> | H. E. Daniels
reporting to
J. H. MacKinnon |
| 2.1.1.3 | <u>Corrective Action
Plan</u> | C. A. Smioldo
reporting to
W. Connell |
| 2.1.1.4 | <u>QA Effectiveness
Plan</u> | G. W. Bell
reporting to
W. Connell |
| 2.1.2 | <u>Training Recovery Plan</u> | A. J. Budnick
reporting to
D. P. Hall |
| 2.1.3 | <u>Verification Program</u> | |
| 2.1.3.1 | <u>Overinspection
Program</u> | R. L. Baldwin
reporting to
W. Connell |
| 2.1.3.2 | <u>Records</u> | R. A. Derbort
reporting to
D. P. Hall |

2.1.4 Nuclear Program Management Plan L. S. Brodsky
reporting to
D. P. Hall

2.1.5 Departmental Plans As described
in 2.0

2.2 Nuclear Power Program Management Manual

The following procedures are effective to assure standard methods are used to administer this Manual.

2.2.1 Definitions

2.2.1.1 Advanced Change Notice (ACN) -
a correction that does not
change the intent, that is limited
in scope, and that may have
limited distribution.

2.2.1.2 Change - a correction of general
interest but limited to updating
specific sections of the Manual.

2.2.1.3 Revision - a major correction
involving programmatic changes.
A revision shall reissue the
entire Manual.

2.2.2 Advanced Change Notices

2.2.2.1 ACNs shall be numbered sequential-
ly "ACN n/m": where n is the
sequence number of the ACN and m
is the number of the change that
will incorporate the ACN. For
example, the first ACN subsequent
to a revision is ACN 1/1 this
indicates that it is the first ACN
and will be incorporated in Change
1.

2.2.2.2 Departments may initiate ACNs in any convenient manner when urgency dictates. ACN numbers are under the control of the Nuclear Programs Department. The Vice President shall approve ACNs and new pages shall be prepared with "ACN n/m" in the outer margin adjacent to the corrections. Formal changes shall incorporate all ACNs with the appropriate numerical subscript (m).

2.2.3 Changes

2.2.3.1 Changes shall be numbered sequentially and the numbers are under the control of the Nuclear Programs Department. Departments shall initiate changes for the approval of the Vice President.

2.2.3.2 New pages shall be issued for each affected page with CH# in the outer margin adjacent to corrections.

2.2.4 Revisions

Revisions shall be numbered sequentially, shall reissue the entire Manual, and shall be approved by the Vice President. Revisions should incorporate all outstanding changes and ACNs; at this point changes and ACN numbering start over again.

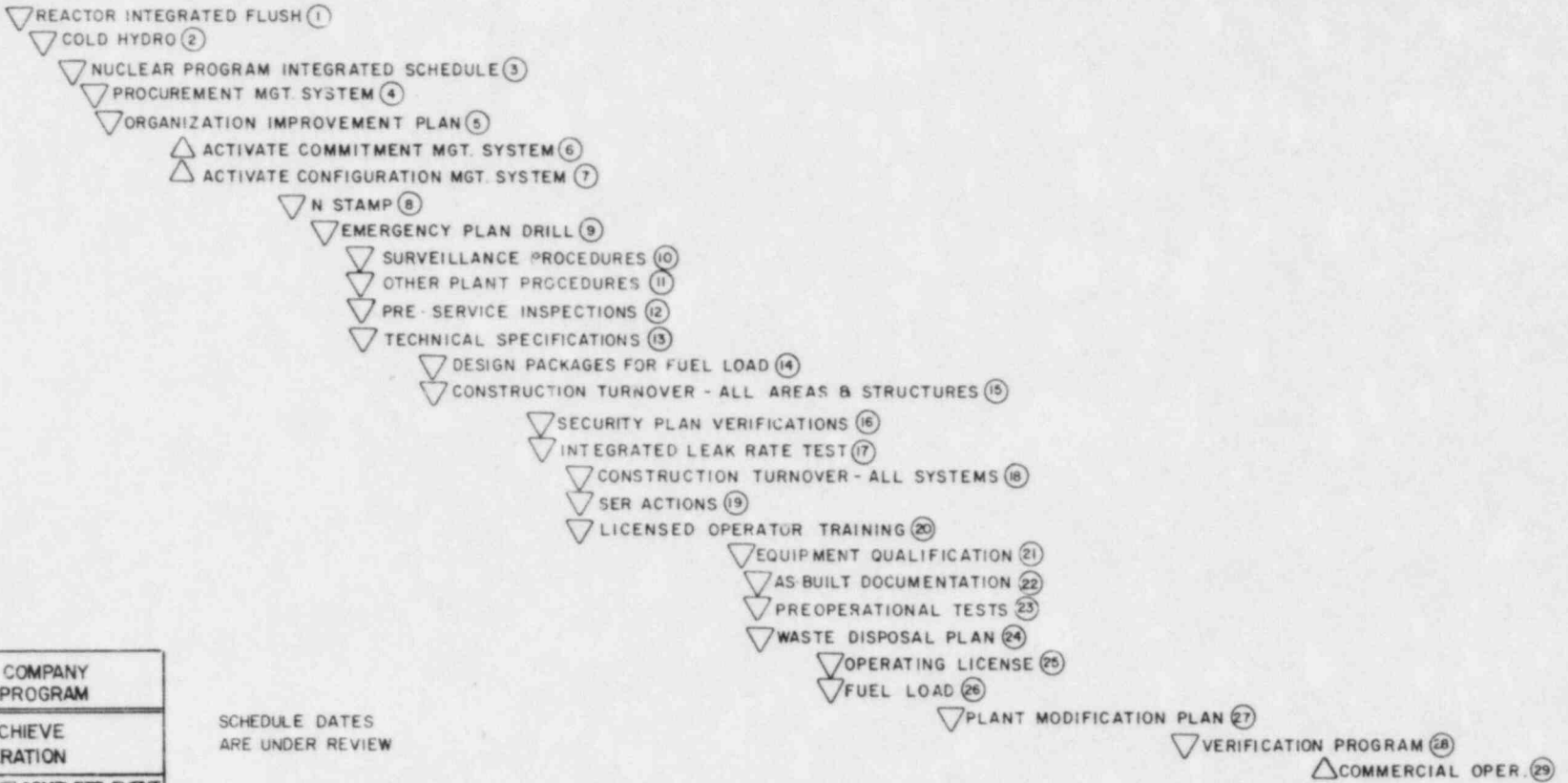
Section 3

Nuclear Power Program Milestones

3.0 Milestones to Achieve Commercial Operation

The major Nuclear Program milestones necessary to achieve Commercial Operation are presented in Figure 3-1. Subsequent sections develop in more detail the schedule needed to support completion of these events. The dates to achieve these milestones are under review and will be revised in accordance with the schedules in Sections 5 and 6.

1982		1983											1984												
NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.
-14	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+10	+11



3 2

ILLINOIS POWER COMPANY NUCLEAR POWER PROGRAM			
MILESTONES TO ACHIEVE COMMERCIAL OPERATION			
LEGEND: Δ START EVENT ∇ COMPLETE EVENT \diamond DECISION EVENT \circ MILESTONE NUMBER			
REV. 0	DATE: 1/13/83	SHT. 1 OF 1	APPROVED BY: [Signature]

SCHEDULE DATES
ARE UNDER REVIEW

FIGURE 3-1

Section 4

Illinois Power Company Improvement Program

4.0 Background

This section contains the Illinois Power Company Improvement Program which is a short term effort prepared to improve specific areas.

Since January, 1982, a number of fundamental issues have been identified in the Illinois Power Company Nuclear Power Program. These fundamental issues are summarized as follows:

- 4.0.1 Audits have identified concerns related to the quality of completed work.
- 4.0.2 Work control requires improvement so that inspection is completed at the same rate as construction.
- 4.0.3 Corrective action systems need to be well-defined, centrally managed and implemented in a timely fashion.
- 4.0.4 Improvements in program activity coordination and management systems are necessary to enhance organizational performance.
- 4.0.5 The transition from construction to start-up and operation requires additional definition to enhance effectiveness.

4.1 Objectives

Illinois Power Company's program to resolve these issues has been prepared to provide assurance that all requirements are met to manage, construct, operate and maintain a nuclear power plant properly. This in turn requires ensuring that an organization is in place which will function within a defined system of responsibility and accountability. Implicit in this effort is a system of coordinated management functioning to control an integrated system of organizational elements, e.g., construction, engineering, start-up, operations, quality assurance, etc.

- 4.1.1 The quality of completed work and documentation will be verified.
- 4.1.2 Work controls will be implemented (and monitored) that will allow the inspection backlog to be reduced and a controlled return to full construction will be accomplished.
- 4.1.3 Deficiency correction systems will be improved, better defined and centrally managed.
- 4.1.4 An integrated program schedule will be developed (based on the construction schedule) and management direction will assure an orderly transition from construction to start-up and operation. Management systems and organizational structure will be evaluated, integrated and improved where necessary.

4.2 Elements

The Illinois Power Company Improvement Program will be implemented through three primary program elements: the Quality Recovery Program, Verification Program and the Nuclear Program Management Plan.

4.2.1 Quality Recovery Program

- 4.2.1.1 The work control section of this program will develop a traveler control system, define and reduce the inspection backlog and ensure timely inspection of completed work. The backlog of nonconformance reports and deviation reports will be reduced. Figure 4-1 contains the major milestones for these programs.

4.2.1.2 The Quality Recovery Program will assure corrective action is complete for lifting the following Stop Work Orders.

- SWO 007 Electrical Cable Tray and Attachments
- SWO 010 Drywell Refueling Bellows
- SWO 014 Safety Related HVAC
- SWO 015 Attachment of Seismic HVAC Hangers to Safety Structures
- SWO 016 Electrical Conduit
- SWO 017 Electrical Equipment
- SWO 018 Electrical Instrumentation
- SWO 019 Containment Structural Steel
- SWO 020 All HVAC Work in Category I Buildings

Figure 4-2 contains the major milestones for these programs.

4.2.1.3 The effectiveness of these actions will be evaluated by a revised corrective action plan and the quality assurance effectiveness plan. The milestones for these program elements and for the training recovery plan are included in Figure 4-3. The milestones for the Procurement Recovery Program are included also.

4.2.2 Verification Program

The Verification Program verifies the quality of completed safety related construction work and the documentation of this work. The Overinspection Program and the Record Verification Program milestones are included in Figure 4-4.

4.2.2.1 Overinspection Program

The quality of construction work completed prior to July, 1982 will be verified by the procedures established in the overinspection program. Completion of overinspection program events is scheduled in the construction schedule to ensure resource balancing.

4.2.2.2 Record Verification Program

The records of construction work completed prior to July, 1982 will be verified (100%) during completion of this program.

4.2.3 Nuclear Program Management Plan

This Plan will develop an integrated program schedule, an organizational transition plan and coordinate preparation of corporate nuclear procedures. A summary schedule for the Nuclear Program Management Plan is included in Figure 4-5.

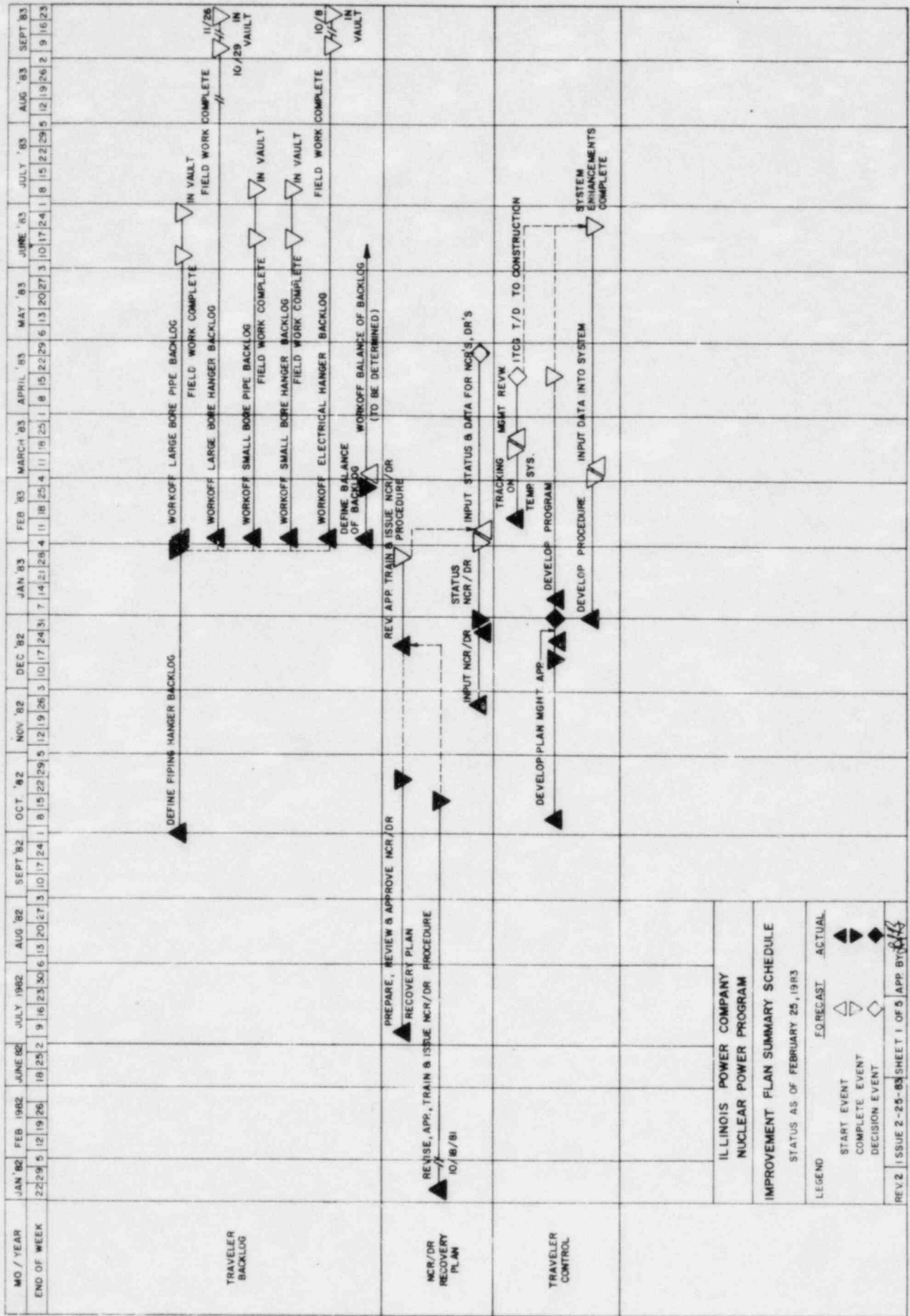


FIGURE 4-1

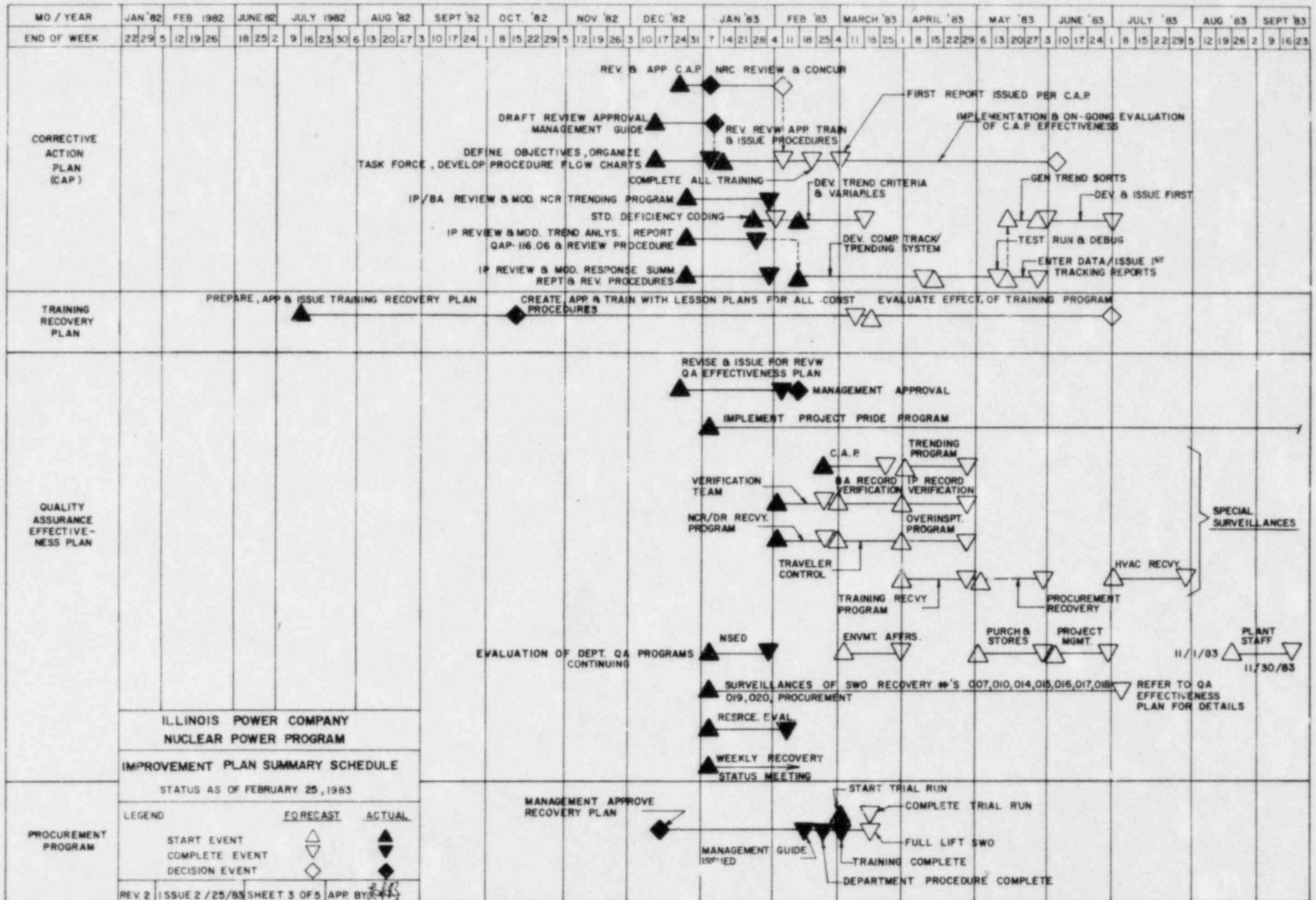


FIGURE 4-3

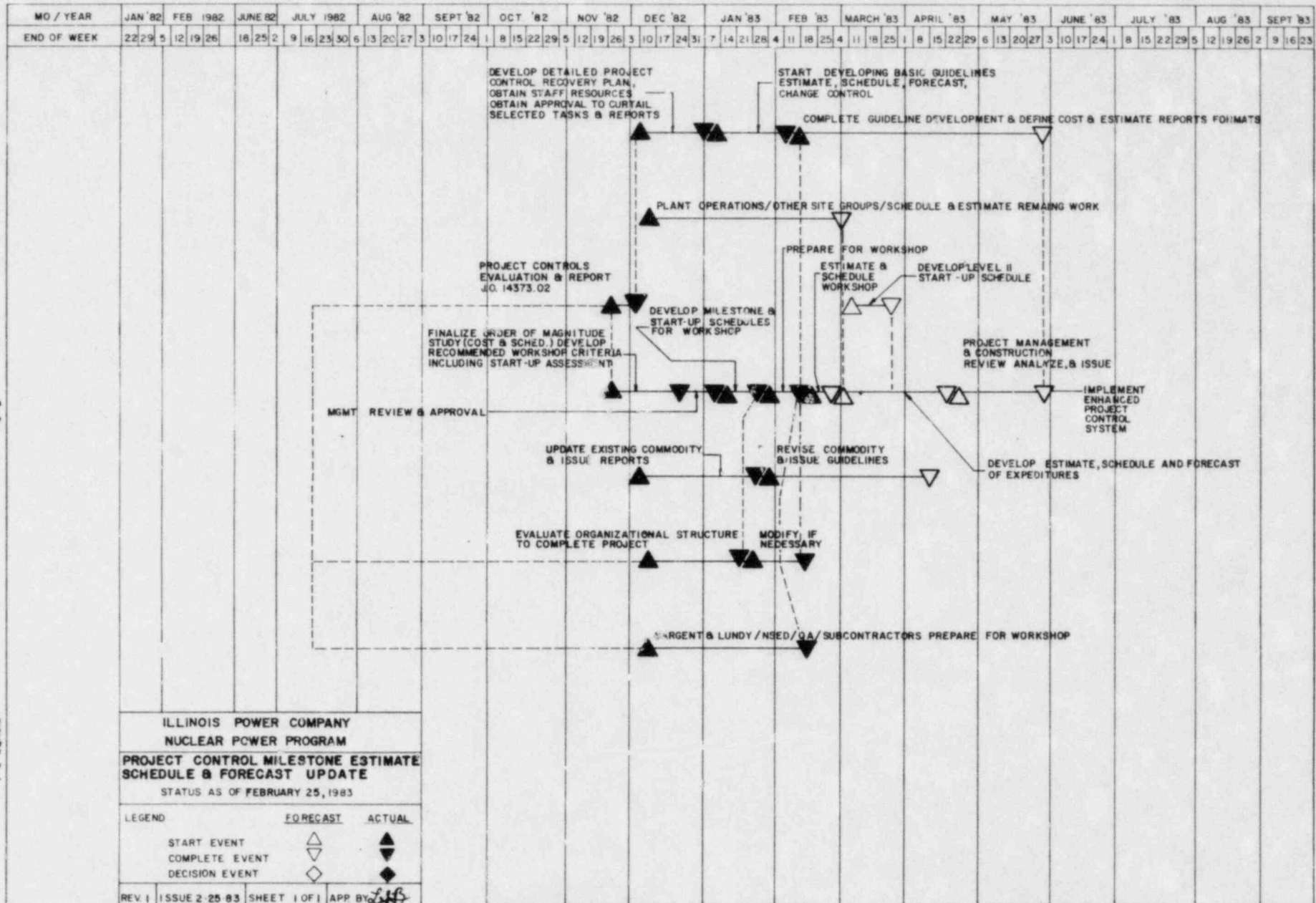
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Section 5

Construction Schedule Update

5.0 Construction Schedule Update

- 5.0.1 The construction schedule must be updated to establish a clear path to completion for the Clinton Nuclear Station. This effort is presented in the milestones of Figure 5-1.



8-2

FIGURE 8-1

Section 6

Update Department Schedules

- 6.0 Department schedules supporting the licensing process must be updated to establish current integrated milestones which will lead to a smooth transition from construction to commercial operation. The schedule for completing this effort is indicated in Figure 6-1.
- 6.1 Clinton Station Management
 - 6.1.1 Plant Operations
 - 6.1.2 Technical
 - 6.1.3 Security
 - 6.1.4 Emergency Preparedness
 - 6.1.5 Radiation Protection
 - 6.1.6 Chemistry
 - 6.1.7 Radwaste
 - 6.1.8 Maintenance
 - 6.1.9 Support
- 6.2 Engineering/Licensing
 - 6.2.1 Licensing
 - 6.2.2 Design Engineering
 - 6.2.3 Nuclear Safety & Engineering Analysis
 - 6.2.4 Support

6.3 Quality Assurance

6.3.1 Programs and Procedures

6.3.2 Audits and Surveillance

6.3.3 Quality Engineering

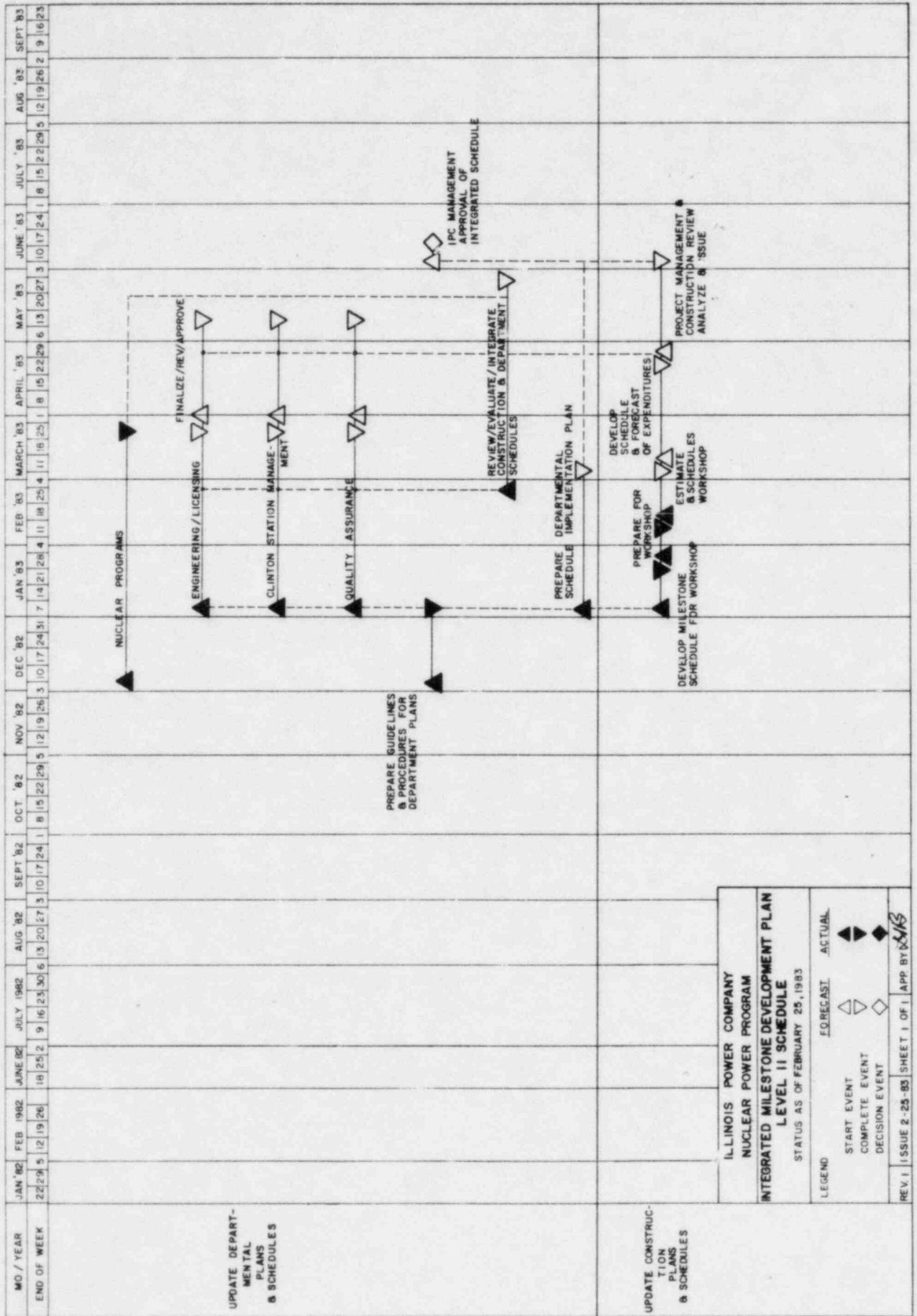
6.3.4 Quality Control

6.3.5 Support

6.4 Corporate Organization

6.4.1 Nuclear Programs

6.4.2 Support



Section 7
Chronology/History

7.0 Project Schedule Events

7.0.1	<u>Unit 1</u>	<u>Scheduled</u>	<u>Actual</u>
	Authorized	2/10/72	-
	Award NSSS		12/28/72
	Submit PSAR & ER	6/73	7/23/73
	Construction Permit	Late 1975	2/24/76 (LWA 10/3/75)
	Construction Start	10/03/75	10/03/75
	File FSAR & FER	6/78	12/79
	FSAR & FER Docketed		9/08/80
	ASLB Hearings	To Be Scheduled	
	Operating License	1/84*	
	Fuel Load	1/84*	
	Commercial Operation	8/31/84*	

*Schedule currently in review.

7.0.2 Unit 2
Deferred

7.1 Licensing Schedule (as of 1/28/83)

FSAR Submitted to NRC	December 1, 1979
FSAR Docketed	September 8, 1980
Amendment 1 Filed - Chapter 7	November 14, 1980
Amendment 2 Filed - CPS Acceptance Questions	December 30, 1980
Amendment 3 Filed - Grand Gulf 1st Round Questions (FSAR Changes)	April 30, 1981
Grand Gulf 1st Round Questions and Responses Filed	May 26, 1981
Amendment 4 Filed - Mechanical Engineering Branch Draft Safety Evaluation Report	May 29, 1981
Amendment 5 Filed - Grand Gulf 1st Round Questions (FSAR Changes)	July 20, 1981
Amendment 6 Filed - Voluntary Update of FSAR	August 27, 1981
Amendment 7 Filed - Responses to NRC Questions; Emergency Plan; TMI Appendix	September 30, 1981
Amendment 8 Filed - Responses to NRC Questions	October 30, 1981
Amendment 9 Filed - Responses to NRC Questions	November 17, 1981
Amendment 10 Filed - Responses to NRC Questions	November 30, 1981
Meetings to Resolve Open Issues with NRC	November 30 -- December 4, 1981
Amendment 11 Filed - Voluntary Update of FSAR	December 30, 1981
Amendment 12 Filed - Environmental Qualification Data	January 29, 1982
ACRS Meeting (Subcommittee)	February 25, 26, 1982
Amendment 13 Filed - Chapter 14 Revision	February 26, 1982
SER Issued	February 1982
ACRS Meeting (Full Committee)	March 5, 1982

Amendment 14 Filed - Voluntary Update of FSAR	March 31, 1982
Amendment 15 Filed - Voluntary Update of FSAR	April 30, 1982
Amendment 16 Filed - Information on Emergency Pre- paredness	May 28, 1982
Supplemental SER Issued	June 30, 1982
Amendment 17 Filed - Section 17.2 Revision (Quality Assurance)	July 20, 1982
Amendment 18 Filed - SER Issues Update of FSAR	September 30, 1982
Amendment 19 Filed - Section 3.11 Revision (Environmental Qualification)	October 27, 1982
Amendment 20 Filed - New Loads Information	October 29, 1982
Amendment 21 Filed - Update FSAR P&ID's	December 29, 1982
Operating License - Fuel Load Date	January 1, 1984
Commercial Operating Date	August 31, 1984

7.2 Outstanding Issues (as of 1/28/83) (Safety Evaluation
Report numbers cited)

- Transportation Accidents (2.2)
- Seismic Analysis (2.5.2, 3.7.1, 3.7.2)
- Postulated Piping Failures in Fluid Systems Outside
Containment (3.6.1, 3.6.2)
- Steady-state Vibration Acceptance Criteria for BOP
Piping (3.9.2)**
- Environmental and Seismic Qualification Test Programs
(3.9.3.2, 3.10, 3.11)
- Pool Dynamic Loads (6.2.1.8)
- Containment Purge, Isolation, Bypass Leakage, and
Leakage Testing (6.2.4, 6.2.6, 6.4, 15.3.1, 6.2.2)
- Engineering Safety Feature Reset Controls (I&E
Bulletin 80-06) (7.3.3.5)

Remote Shutdown System (7.4.3.1, 9.5.5)
Capability for Safety Shutdown Following Loss of Bus
Supplying Power to Instruments and Controls
(I&E Bulletin 79-27) (7.4.3.2)
Control System Failures Resulting from High Energy
Line Breaks or Common Power Source or Sensor
Malfunctions (7.7.3.1)
Organization & Staffing (13.1.2.2, 13.6.3)
Emergency Plan (13.3)
QA Program (17)

** Believed Closed

7.3 License Conditions (as of 1/28/83)

There are several issues for which a condition will be included in the Operating License to ensure that NRC requirements are met during plant operation. Other license conditions will be defined at a later time.

Staffing DeWitt Pumping Station (2.2)*
New Stability Analysis Before Second Cycle of
Operation (4.4)
Postaccident Monitoring (7.5.3.1)
Vacuum Relief Valve Position Indication (7.3.2.3)
Hydrogen Management - 5% Power (6.2.7)
Postaccident Sampling - II.B.3 (9.3.4)
Diesel Generator Reliability (9.6.3.1)
Kuosheng 1 Test Program (3.9.2, 6.2.1.8.2)
Visual Examination of Discharged Fuel (4.2.3.9)
Measurement of Groundwater Level (2.4.6)
Security (13.7)

* Believed Closed

7.4 Environmental Report (as of 1/28/83)

Site Visit	April 27, 28, 1981
NRC Questions Received	May 28, 1981
IP Responds	June 22, 1981
DES Issued	December 1981
Federal Register Announcement	February 8, 1982
End of Comment Period	February 22, 1982
IP Responds	March 24, 1982
FES Issued	May 1982
Public Hearing	April 1983