U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-461/84-33(DRP

Permit No. CPPR-137

Docket No. 50-461

Licensee: Illinois Power Company
500 South 27th Street
Decatur, IL 62525

Facility Name: Clinton Power Station, Unit 1

Meeting At: Clinton Power Station Visitor Center
Clinton, IL

Meeting Conducted: October 16, 1984

Report Prepared By: T. P. Gwynn
Senior Resident Inspector

Approved By: C. E. Norelius, Director
Division of Reactor Projects

C E Norelius 11/7/84
Date

Meeting Summary

Meeting on October 16, 1984 (Report No. 50-461/84-33(DRP))
Subjects Discussed: This second corporate management meeting was held with corporate officers and staff of the Illinois Power Company and its contractor at the Clinton Power Station Visitor Center in Clinton, Illinois. The purpose of the meeting was to review the status of construction of the facility; to identify the change in emphasis of the NRC's inspection program toward the startup test and operating organization; to obtain an understanding of the licensee's programs for staffing, startup, and operation of the facility, and of the status of startup preparation; to advise the licensee of programmatic requirements to support the inspection program; and to obtain assurance that the licensee's management has fully recognized the applicability of quality assurance requirements for the preoperational and operational phases of the Clinton Power Station. The meeting involved a total of 25 staff hours for 8 NRC personnel.

DETAILS

1. Meeting Attendees

NRC

A. B. Davis, Deputy Regional Administrator
R. C. Knop, Chief, Projects Section 1C
M. A. Ring, Acting Chief, Test Programs Section
H. H. Livermore, Senior Resident Inspector - Construction
T. P. Gwynn, Senior Resident Inspector - Operations
P. H. Hiland, Resident Inspector
R. A. Martin, Resident Inspector
G. L. Pirtle, Safeguards Inspector

Illinois Power Company (Principals)

W. Kelley, Chairman and President
W. Connell, Manager - Quality Assurance
J. Cook, Acting Power Plant Manager
W. Gerstner, Executive Vice President
J. Greene, Manager - Startup
D. Hall, Vice President
J. Loomis, Manager - Construction
J. Miller, Director - Startup Programs
J. Patten, Director - Nuclear Training
L. Tucker, Director - Startup Testing
J. Williams, Sr. Construction Manager
R. Wyatt, Director - Planning, Programming, and Scheduling

Baldwin Associates

A. King, Project Manager
L. Osborne, Manager - Quality and Technical Services

Newman and Holtzinger

S. Frantz, IP Counsel

Western Illinois Power Cooperative

T. Biggs, Assistant Manager - Systems Engineer

2. Meeting Details

This report is provided to document the second corporate management meeting held between the NRC Region III staff and corporate officers and representatives of the Illinois Power Company and its contractor, Baldwin Associates, on October 16, 1984.

The meeting was conducted according to an agenda (attachment 1) provided at the beginning of the meeting. Mr. A. B. Davis provided opening remarks and introduced the members of the Regional staff attending the meeting.

Mr. R. C. Knop provided an overview of the Region III organization with special emphasis on the offices and assigned individuals involved in the NRC's preoperational testing and operational readiness inspection program.

Mr. M. A. Ring then presented a brief overview of the inspection program to be applied by Region III with regard to the Clinton preoperational test program; discussed the philosophical approach to the inspection utilized during the conduct of that program; and discussed recent problems experienced at other sites during conduct of the preoperational test program.

Mr. T. P. Gwynn briefly discussed the role of the NRC resident inspector during the preoperational test and operational preparedness phase; briefly presented the programmatic areas to be inspected by the resident inspectors; and emphasized the importance the NRC places on correct performance of safety-related activities.

Mr. R. C. Knop then discussed several matters related to the licensee's organizational readiness to operate the Clinton Power Station.

Mr. D. P. Hall of Illinois Power Company presented information requested by Region III (attachment 2).

Mr. A. B. Davis presented closing remarks.

2ND CORPORATE MANAGEMENT MEETING

CLINTON AGENDA

OCTOBER 16, 1984

1. Opening Remarks . . . . . .A. B. Davis
2. RIII Organization . . . . . .R. C. Knop
3. Test Program Section Review . . . . . .M. A. Ring
4. Rold of Resident Inspector During Startup Phase . . . . .T. Gwynn
5. Operational Readiness . . . . . .R. C. Knop
6. Licensee Presentation . . . . . .Illinois Power
7. Closing Remarks . . . . . .A. B. Davis

Attachment 1

ILLINOIS POWER COMPANY

NUCLEAR POWER OPERATIONAL

QUALITY ASSURANCE PROGRAM

OCTOBER 16, 1984

ATTACHMENT 2

SECOND CORPORATE MANAGEMENT MEETING

- QA PROGRAM FOR PLANNING AND IMPLEMENTATION OF THE PREOPERATIONAL TESTING PROGRAM, FUEL LOADING, STARTUP AND POWER ASCENSION TESTING, ROUTINE OPERATIONS, INSERVICE INSPECTION, MAINTENANCE, AND REPAIR, AS OUTLINED IN THE ADMINISTRATIVE SECTION OF THE PROPOSED TECHNICAL SPECIFICATIONS AND IN THE FSAR.

- ORAL INSTRUCTIONS

  - PHILOSOPHICAL APPROACH TO PREOPERATIONAL TESTING PROCEDURE DEVELOPMENT AND REVIEW FOR TECHNICAL ADEQUACY.

  - QA PROGRAM PROCESS BY WHICH THE VALIDITY OF THE TEST RESULTS IS ESTABLISHED.

  - VENDOR INVOLVEMENT IN THE PREOPERATIONAL TEST PROGRAM - ESPECIALLY GE.

OUTLINE

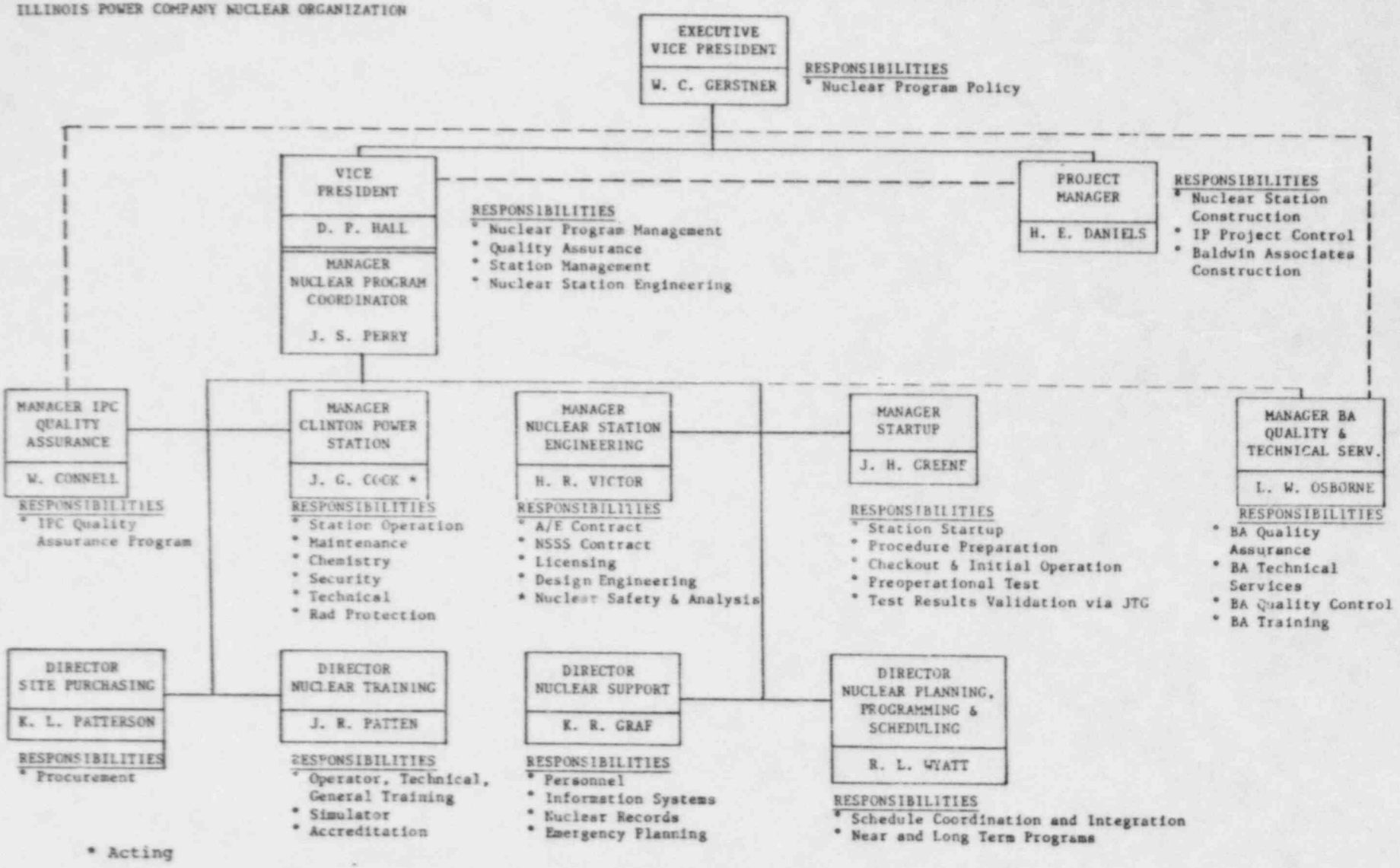
I. INTRODUCTION
- ORGANIZATION
- STAFFING

II. PROJECT STATUS
- CONSTRUCTION COMPLETE
- TURNOVER STATUS
- TESTING STATUS
- FUTURE MILESTONES

III. QUALITY ASSURANCE PROGRAM
- PREOPERATIONAL TESTING
- FUEL LOADING
- STARTUP
- POWER ASCENSION TESTING
- OPERATIONS
- INSERVICE INSPECTION
- MAINTENANCE
- REPAIR

IV. PROCEDURES
- TEST PROCEDURE STATUS
- PROCEDURE MATRIX

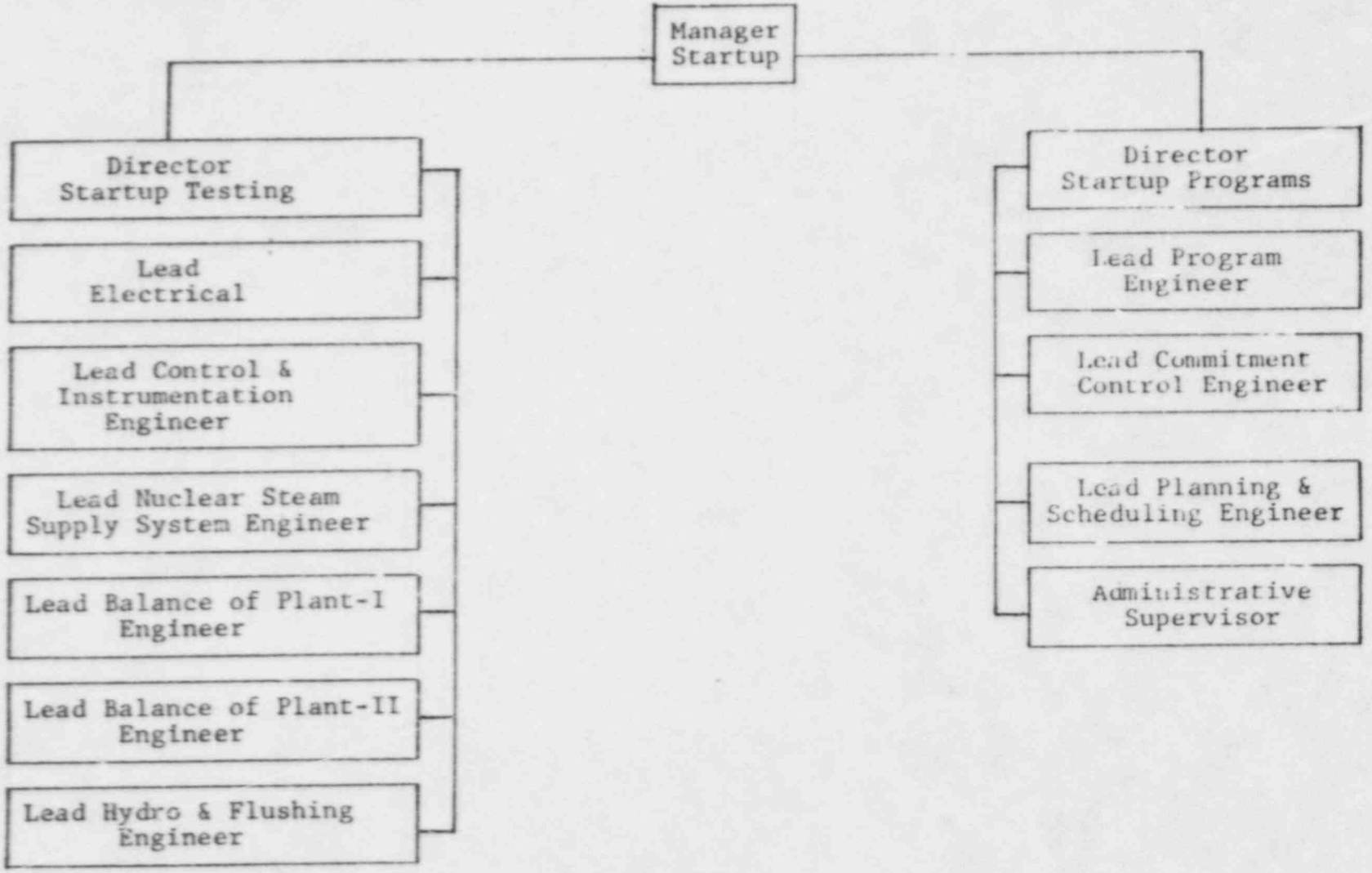
ILLINOIS POWER COMPANY NUCLEAR ORGANIZATION



* Acting

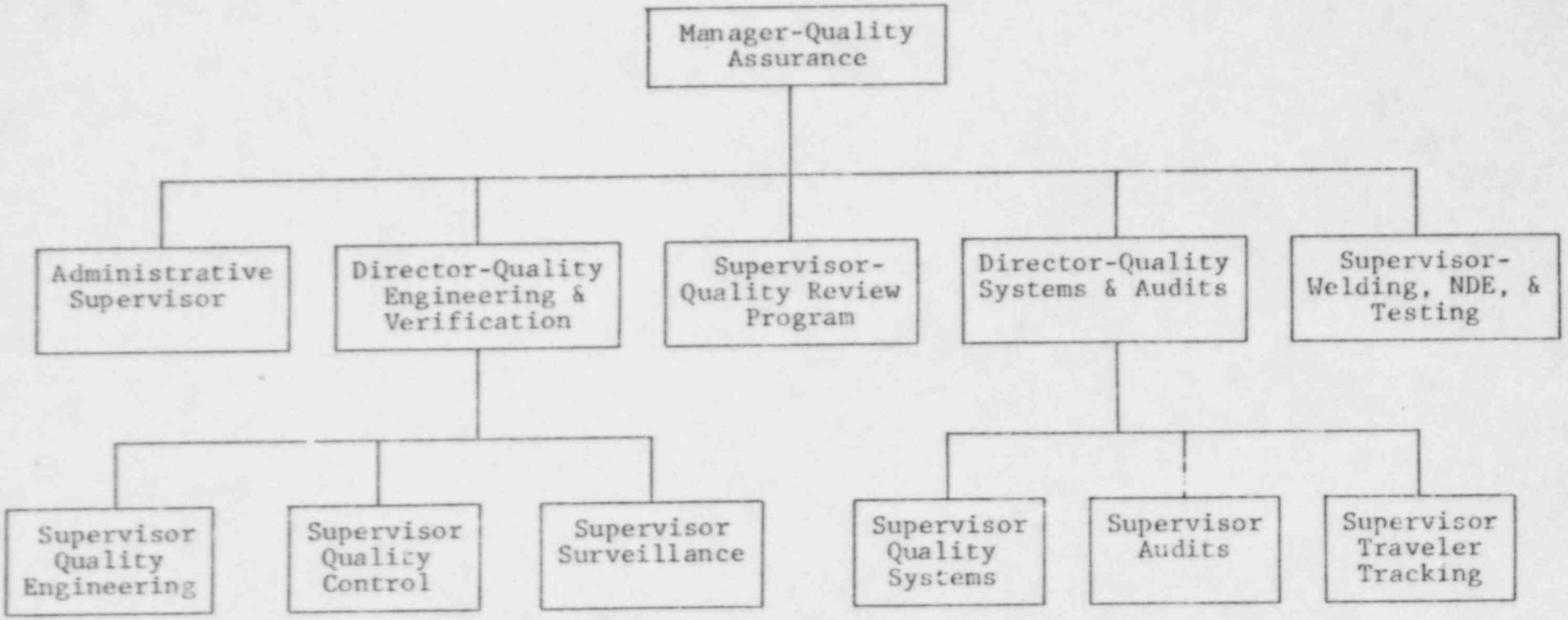
10/16/84

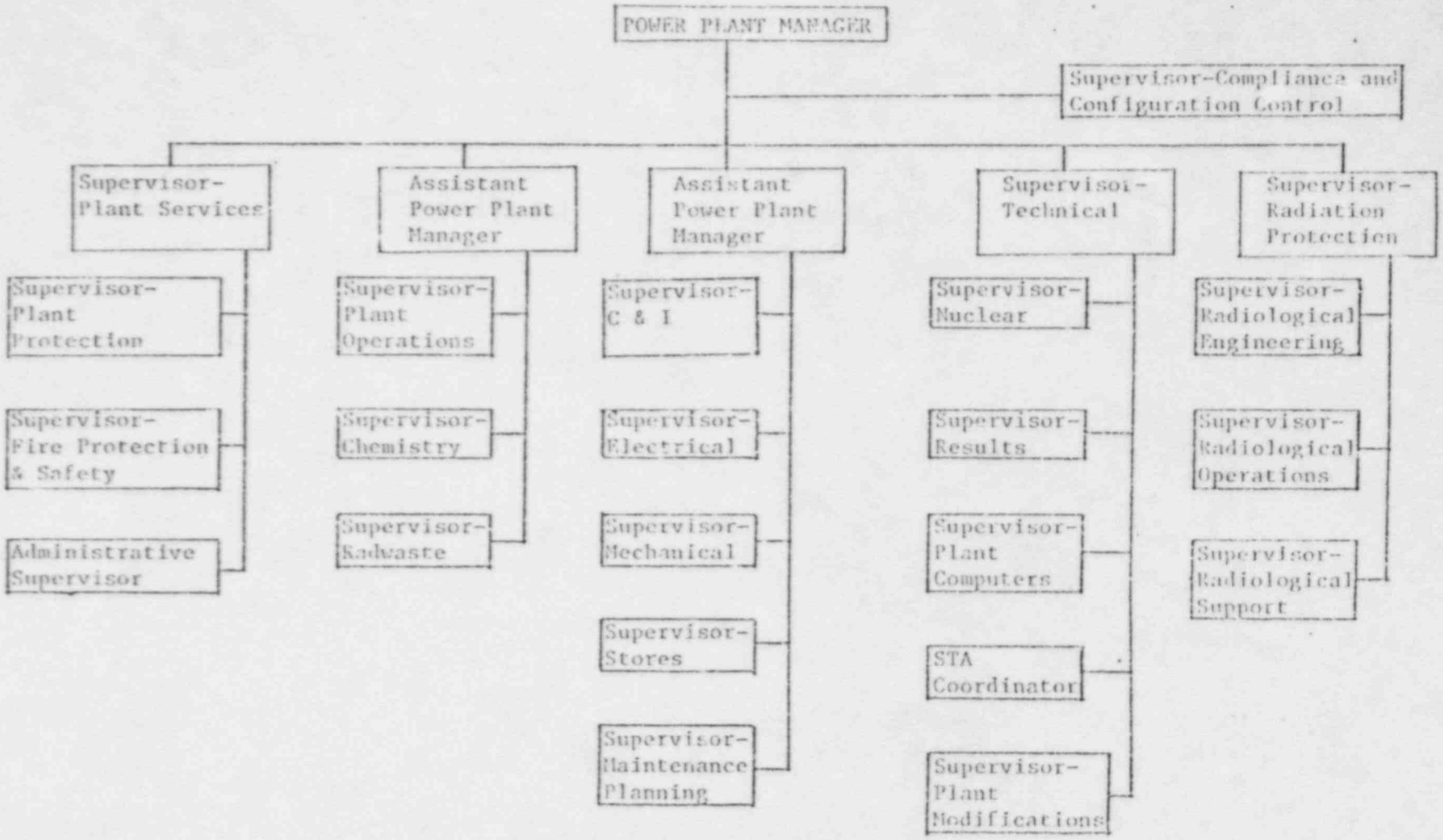
CLINTON POWER STATION STARTUP GROUP ORGANIZATION



ILLINOIS POWER COMPANY

QUALITY ASSURANCE ORGANIZATION




POWER PLANT MANAGER
Supervisor-Compliance and Configuration Control
Supervisor-Plant Services
Assistant Power Plant Manager
Assistant Power Plant Manager
Supervisor-Technical
Supervisor-Radiation Protection
Supervisor-Plant Protection
Supervisor-Fire Protection & Safety
Administrative Supervisor
Supervisor-Plant Operations
Supervisor-Chemistry
Supervisor-Radwaste
Supervisor-C & I
Supervisor-Electrical
Supervisor-Mechanical
Supervisor-Stores
Supervisor-Maintenance Planning
Supervisor-Nuclear
Supervisor-Results
Supervisor-Plant Computers
STA Coordinator
Supervisor-Plant Modifications
Supervisor-Radiological Engineering
Supervisor-Radiological Operations
Supervisor-Radiological Support

CLINTON POWER STATION

STARTUP STAFFING (OCTOBER 1, 1984)

IP PERSONNEL		
SUPERVISORY	9	
STARTUP ENGINEERS	27	
PROGRAM SUPPORT	45	
SUBTOTAL		81
IP PERSONNEL ON LOAN FROM CPS TO STARTUP		
STARTUP ENGINEERS	11	
PROGRAM SUPPORT	6	
SUBTOTAL		17
TOTAL IP		98
CONTRACTOR PERSONNEL		
TEST ENGINEERS	69	
C & I TECHNICIANS	33	
TECHNICAL SPECIALISTS	32	
SCHEDULERS	13	
TOTAL CONTRACTORS		147
TOTAL PERSONNEL		245

EXPECTED STAFFING PEAK: 280

QUALITY ASSURANCE STAFFING (OCTOBER 1, 1984)

IP PERSONNEL		
SUPERVISORY	11	
ADMINISTRATIVE	23	
TECHNICAL	65	
SUBTOTAL		99
BA PERSONNEL ON LOAN		
AUDITORS	9	
SURVEILLANCE	16	
SUBTOTAL		25
CONTRACTORS		
LAB	45	
OVERINSPECTION	72	
RECORDS REVIEW	38	
TECHNICAL	56	
SUBTOTAL		211
TOTAL		335

EXPECTED STAFFING PEAK: 335

C L I N T O N P O W E R S T A T I O N

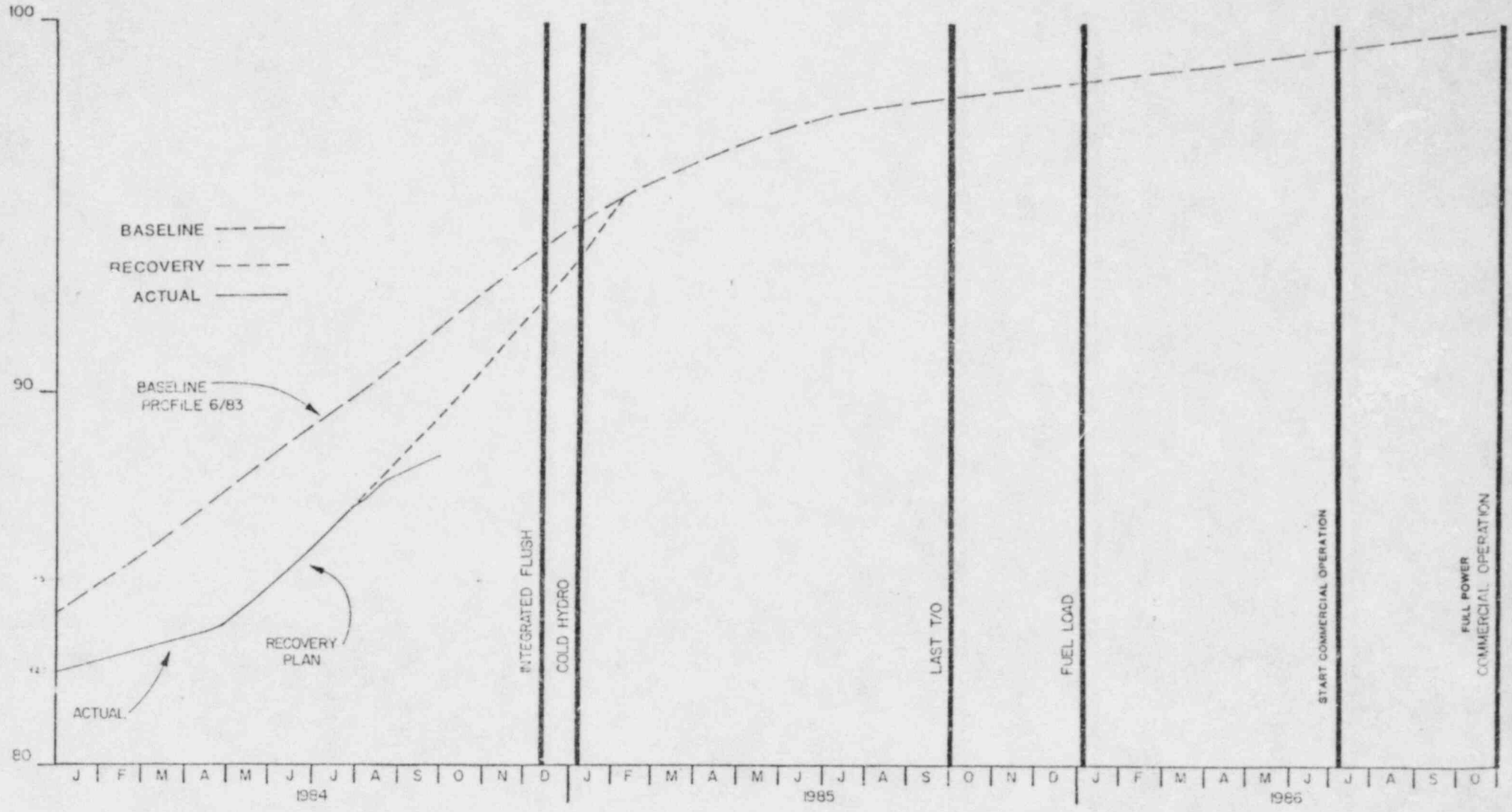
PERMANENT PLANT STAFFING (October 1, 1984)

	AUTHORIZED (1984)	ACTUAL	ON LOAN TO STARTUP
MANAGER'S STAFF	6	5	
OPERATIONS	71	69	
MAINTENANCE	116	111	1
TECHNICAL STAFF	33	20	10
STORES	12	12	
RAD PROTECTION	43	25	5
CHEMISTRY	19	19	
PLANT SERVICES	37	31	
RAD WASTE	17	15	1
COMPLIANCE & CONFIGURATION	13	13	
	367	320	17

EXPECTED STAFFING PEAK: 390

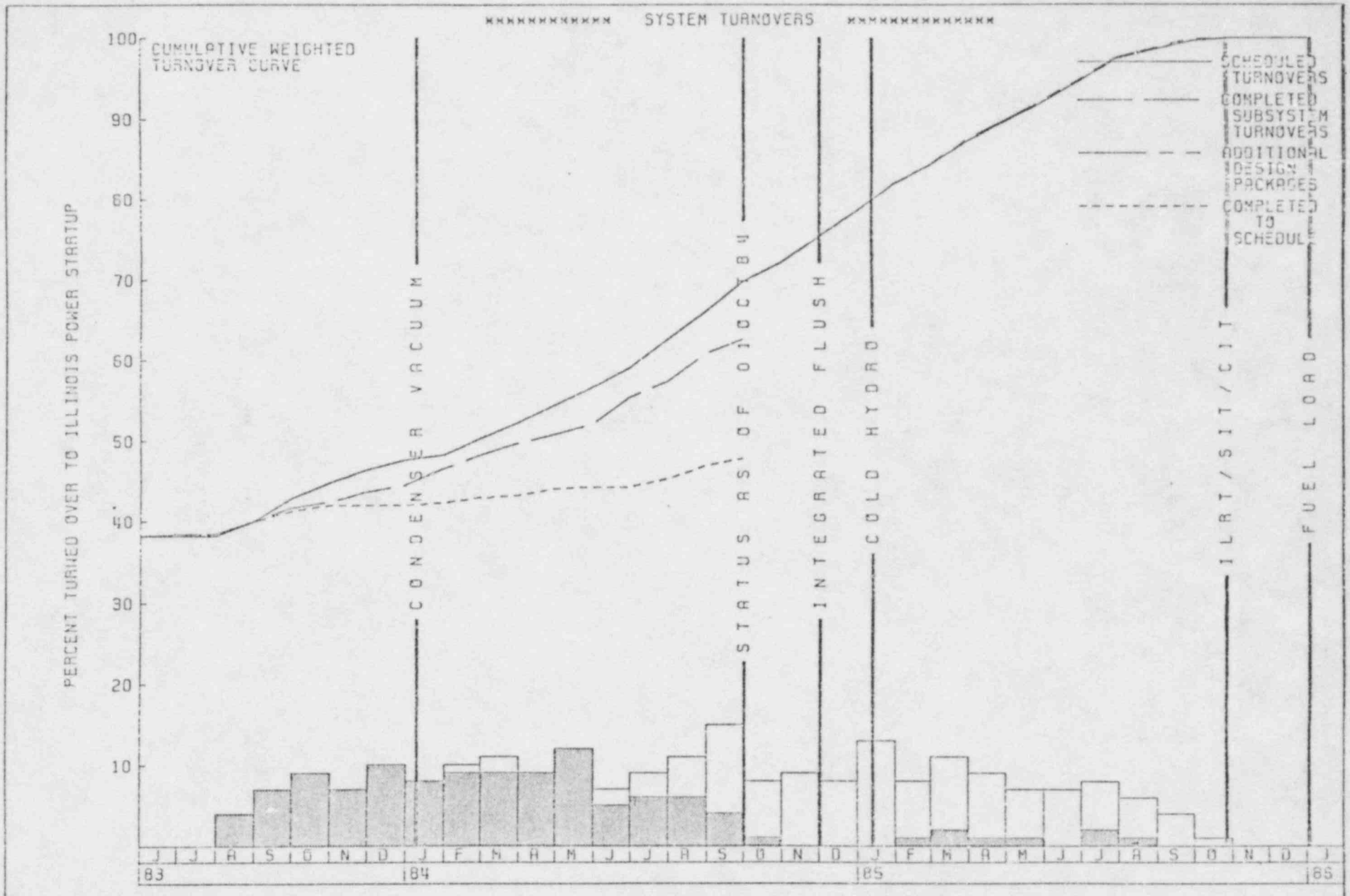
PERCENT COMPLETE PROFILE

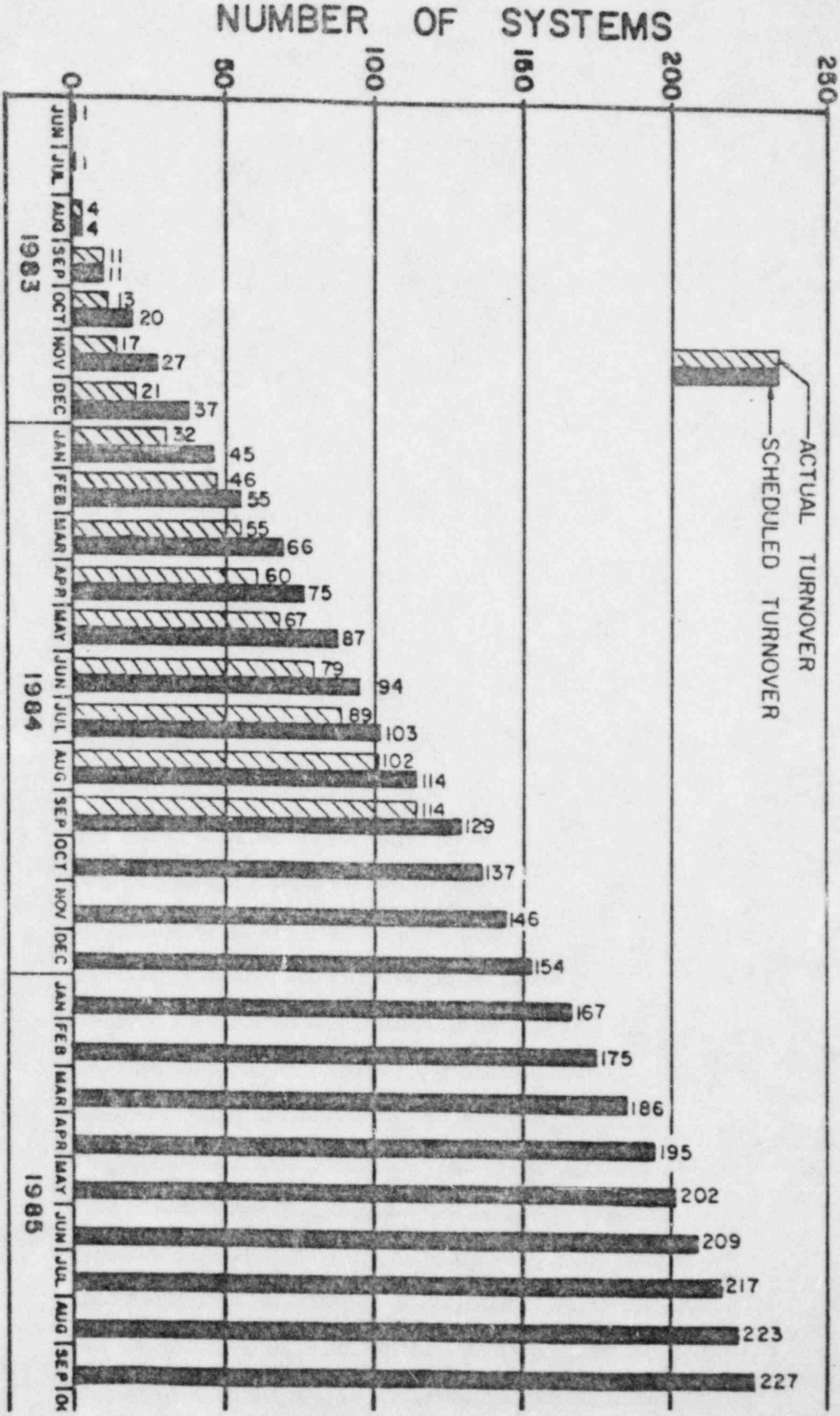
STATUS AS OF SEP 30,'84



BASELINE	4[illegible]	[illegible]	[illegible]	672	831	[illegible]	899	908	917	[illegible]	[illegible]	[illegible]	[illegible]	957	962	967	97	973	975	977	979	93	981	[illegible]									
RECOVERY					847	858	87	883	896	909	922	935	947																					
ACTUAL	32.9	43.1	55.4	837	847	85.7	869	876	88.2																								

10/16/84

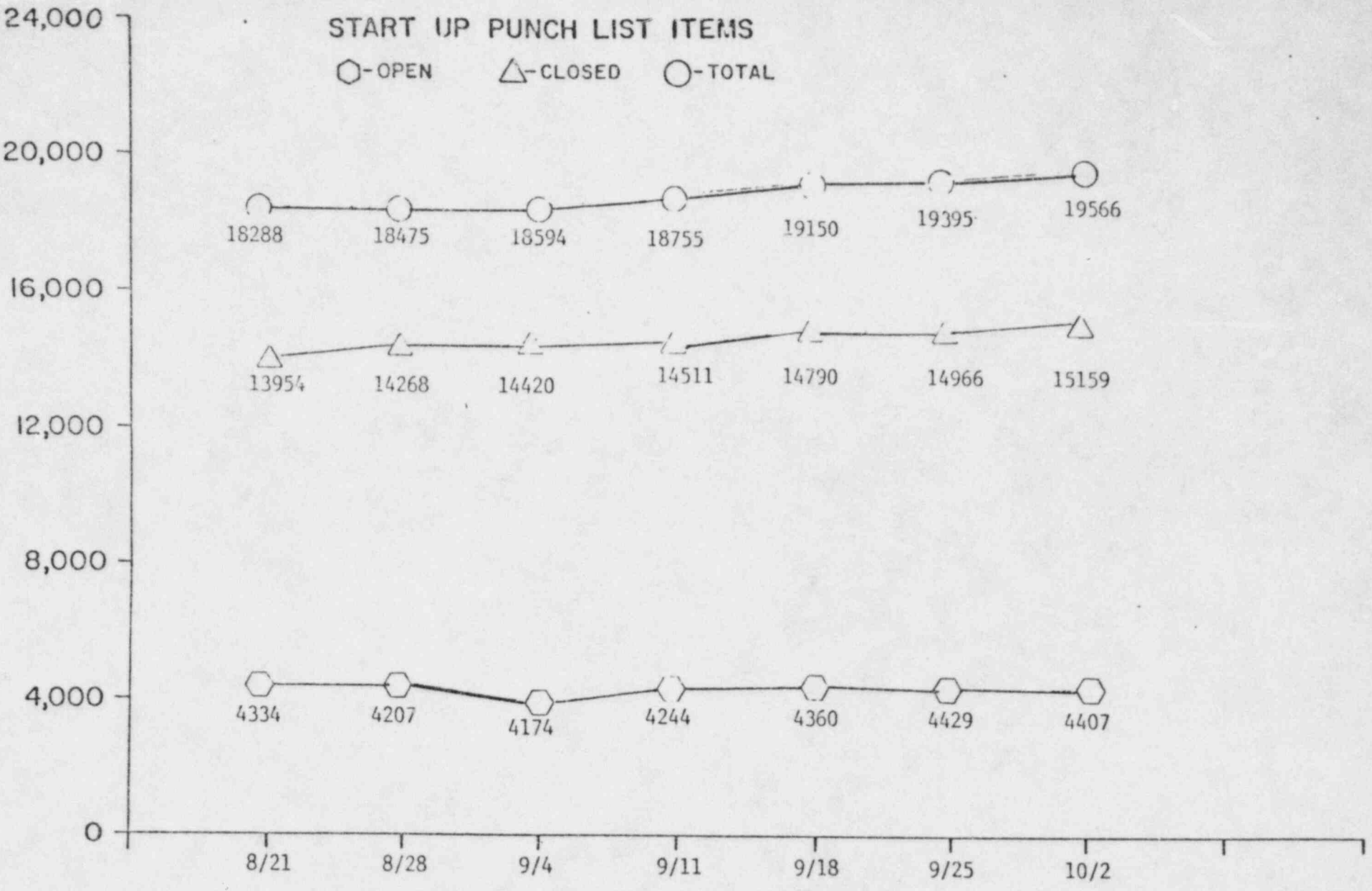

SYSTEM TURNOVERS
CUMULATIVE WEIGHTED TURNOVER CURVE
PERCENT TURNED OVER TO ILLINOIS POWER STARTUP
100
90
80
70
60
50
40
30
20
10
CONDENSER VACUUM
STATUS AS OF OCT 84
INTEGRATED FLUSH
COLD HYDRO
ILRT/SIT/CIT
FUEL LOAD
SCHEDULED TURNOVERS
COMPLETED SUBSYSTEM TURNOVERS
ADDITIONAL DESIGN PACKAGES COMPLETED TO SCHEDULE
J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J
83
84
85
86



SYSTEM TURNOVER SCHEDULE

(CUMULATIVE)

10/16/84


START UP PUNCH LIST ITEMS
○-OPEN
△-CLOSED
◯-TOTAL
24,000
20,000
16,000
12,000
8,000
4,000
0
18288
18475
18594
18755
19150
19395
19566
13954
14268
14420
14511
14790
14966
15159
4334
4207
4174
4244
4360
4429
4407
8/21
8/28
9/4
9/11
9/18
9/25
10/2

6 week trend

JURISDICTIONAL TRANSFER OF SYSTEMS/SUBSYSTEMS TO PLANT STAFF - TWO PHASE PROCESS

- PHASE I RELEASE ALLOWS OPERATIONAL CONTROL OF SPECIFIED SYSTEMS/SUBSYSTEMS EQUIPMENT TO PLANT STAFF
  - TESTING SUFFICIENT TO ALLOW SAFE USE OF EQUIPMENT
  - UTILIZES STATION OPERATING INSTRUCTIONS OR WRITTEN INSTRUCTIONS FROM STARTUP
  - OUTSTANDING DESIGN CHANGE RESPONSIBILITY REMAINS WITH STARTUP

- PHASE II RELEASE TRANSFERS FULL CONTROL OF SYSTEMS/SUBSYSTEMS TO PLANT STAFF
  - NORMALLY AFTER TESTING IS COMPLETE AND RESULTS APPROVED
  - INITIATE FULL USE OF PLANT OPERATING PROCEDURES
  - JURISDICTIONAL BOUNDARIES IDENTIFIED BY TAGGING, MARKERS, ETC.
  - ALL DESIGN CHANGE RESPONSIBILITY TRANSFERS TO PLANT STAFF

- PROVISIONS ARE MADE FOR TURNBACK TO STARTUP

- ENTIRE PROCESS OVERVIEW BY IP QUALITY ORGANIZATION

STARTUP TESTING

PROGRESS AS OF OCTOBER 1, 1984

CHECKOUT AND INITIAL OPERATION (C&IO) TESTS ARE 53.9% COMPLETE

- INITIAL INSTRUMENT CALIBRATIONS
- MOTOR AND PUMP RUNS
- MOTOR OPERATED VALVE CHECKOUT
- WIRING CHECKS
- FLUSHES AND HYDROSTATIC TESTS

SYSTEM LEVEL ACCEPTANCE AND PREOPERATIONAL TESTS (ATP & PTP'S) ARE 8.3% COMPLETE

OVERVIEW OF PLANT TEST STATUS

- SWITCHYARD, 4160V, MOST OF 480V - AVAILABLE
- SERVICE WATER, CIRCULATING WATER, COMPONENT COOLING - AVAILABLE
- INSTRUMENT AND SERVICE AIR - AVAILABLE
- CONDENSATE/FEEDWATER FLUSH - COMPLETE
- CONDENSATE POLISHERS OPERATIONAL

OVERVIEW OF PLANT TEST STATUS (CONT)

- TURBINE HAS BEEN PLACED ON TURNING GEAR
- FEEDWATER TURBINES SUCCESSFULLY RUN
- ABOUT 50% OF THE RADWASTE SYSTEMS ARE IN SERVICE TO ASSIST IN WATER MANAGEMENT
- ASME HYDROSTATIC TESTING OF ECCS SYSTEMS IS IN PROGRESS
- CONTROL ROOM MANNED IN 1980

STARTUP

NEAR TERM TESTING

NEAR TERM TESTING OBJECTIVES

- INITIAL RUN OF THE HPCS DIESEL
- COMPLETE HYDROSTATIC TESTS REQUIRED FOR INTEGRATED FLUSH
- COMPLETE FLUSH OF ECCS SYSTEMS
- INTEGRATED FLUSH/COLD HYDRO

FUTURE MILESTONES

MILESTONE NUMBER	SUBJECT	SCHEDULED DATE	CRITICAL PATH* ANALYSIS FORECAST DATE	ESTIMATED DATE
3	FUEL POOL COOLING AND CLEANUP SYSTEMS	10/08/84	01/14/85	01/14/85
4	REACTOR RECIRCULATION AND REACTOR WATER CLEANUP SYSTEM	10/23/84	01/21/85	01/21/85
5	REACTOR PLANT COMPONENT COOLING WATER SYSTEM	11/26/84	11/09/84	11/30/84
6	INTEGRATED FLUSH	12/02/84	03/07/85**	12/84
7	REACTOR COLD HYDRO PRESSURE TEST	01/06/85	04/11/85**	01/85
8	CONTROL ROD DRIVE SYSTEM	04/03/85	04/03/85	04/03/85
9	INTEGRATED LEAK RATE TEST	10/27/85	01/30/86	10/27/85
10	FUEL LOAD	01/03/86	04/08/86	01/03/86
11	COMMERCIAL OPERATION	07/10/86	10/13/86	07/10/86
12	FULL POWER COMMERCIAL OPERATION	11/01/86	02/04/87	11/01/86

* BASED ON CRITICAL PATH ANALYSIS FORECAST OF POTENTIAL 66 DAY DELAY IN TURN OVER OF REACTOR WATER CLEAN-UP SYSTEM. WORK-AROUNDS BEING IMPLEMENTED TO ALLOW START OF INTEGRATED FLUSH IN DECEMBER, 1984, AND MEET MILESTONES 8 THROUGH 12 ON SCHEDULE.

** UNCORRECTED FOR MANAGEMENT ACTION

MILESTONES 3 AND 4

° FUEL POOL COOLING AND CLEANUP SYSTEMS (MILESTONES 3 & 4)

- ONLY PART SUPPORT INTEGRATED FLUSH

- UPPER POOLS/DRAIN LINES SUPPORT INTEGRATED FLUSH

- BALANCE OF SYSTEMS RESCHEDULED FOR TURNOVER AND TESTING AFTER INTEGRATED FLUSH

° REACTOR RECIRCULATION AND REACTOR WATER CLEANUP SYSTEMS (MILESTONE 4)

- ONLY PARTS SUPPORT INTEGRATED FLUSH

- REACTOR RECIRCULATION PIPING (PUMP INTERNALS REMOVED) SUPPORT INTEGRATED FLUSH

- REACTOR WATER CLEANUP PIPING AND PUMPS SUPPORT INTEGRATED FLUSH

- BALANCE OF SYSTEMS RESCHEDULED FOR AFTER INTEGRATED FLUSH

INTEGRATED FLUSH/COLD HYDRO

° CRITICAL PATH ANALYSIS PROJECTS ABOUT 13 WEEKS BEHIND IN ACHIEVING INTEGRATED FLUSH/COLD HYDRO

° WORK-AROUNDS BEING IMPLEMENTED TO START INTEGRATED FLUSH IN DECEMBER, 1984

- CONSTRUCTION AND TESTING FOCUS ON PREREQUISITES TO INTEGRATED FLUSH/COLD HYDRO
- MAINTAINS CONTROL OF THE TURNOVER/TESTING PROCESS
- RESCHEDULE OF WORK NOT REQUIRED FOR INTEGRATED FLUSH/COLD HYDRO WILL NOT ADVERSELY IMPACT PROJECT COMPLETION

° NATURE OF WORK-AROUNDS

- DEFER TURNOVER OF PORTIONS OF SYSTEMS NOT REQUIRED
- CONTROLLED PARALLEL CONSTRUCTION AND TESTING
- AROUND-THE-CLOCK TESTING AS NECESSARY
- ADDITIONAL CONSTRUCTION AND ENGINEERING MANPOWER ON MOST LIMITING AREAS

CURRENT PROBLEM AREAS

° NUCLEAR BOILER

- INSTRUMENT PIPING INSTALLATION
- ADDITIONAL CONSTRUCTION/ENGINEERING PERSONNEL ASSIGNED
- DAILY MONITORING PROGRAM ESTABLISHED

° RESIDUAL HEAT REMOVAL

- CONSTRUCTION PRIORITIES ESTABLISHED TO RELEASE TESTABLE SECTIONS TO STARTUP
- SIGNIFICANT AMOUNT OF TESTING INVOLVED

QUALITY ASSURANCE PROGRAM

A. PROGRAM

1. NUCLEAR POLICY STATEMENTS

AUTHORITATIVE MANAGEMENT DIRECTIVES DEFINING POLICY WITHIN THE IP NUCLEAR POWER PROGRAM.

2. A. CORPORATE NUCLEAR PROCEDURES (CNPs)

SPECIFIES THE MANAGEMENT POLICIES FOR IMPLEMENTING THE IP NUCLEAR POWER PROGRAM IN ACCORDANCE WITH REGULATORY REQUIREMENTS AND COMMITMENTS TO REGULATORY AGENCIES.

B. OPERATIONS QUALITY ASSURANCE MANUAL (OQAM)

ESTABLISHES IPC COMMITMENTS TO 10CFR50, APPENDIX "B" CRITERIA AND ASSIGNS RESPONSIBILITY FOR IMPLEMENTATION.

3. PROCEDURES AND STARTUP MANUAL

DEPARTMENTAL LEVEL IMPLEMENTATION OF THE OQAM AND CNPs.

4. INSTRUCTIONS

DETAILED DIRECTIONS FOR ACCOMPLISHING REQUIREMENTS OF THE PROGRAM AND/OR PROCEDURES.

B. ORGANIZATION

1. DEPARTMENTS

PLANT STAFF
NUCLEAR STATION ENGINEERING
STARTUP
QUALITY ASSURANCE
NUCLEAR SUPPORT
NUCLEAR TRAINING
PROCUREMENT
ENVIRONMENTAL AFFAIRS

2. A. JOINT TEST GROUP (JTG)

RESPONSIBLE FOR REVIEW OF TEST PROCEDURES AND TEST RESULTS.

B. FACILITY REVIEW GROUP (FRG)

RESPONSIBLE FOR REVIEW OF PLANT STAFF PROCEDURES, LERs, NONCONFORMANCE REPORTS, TECHNICAL SPECIFICATIONS, 10CFR50.59 AND THE REFERAL OF ITEMS TO THE NRAG (FUNCTION AS ON-SITE REVIEW COMMITTEE).

C. NUCLEAR REVIEW AND AUDIT GROUP (NRAG)

PERFORM MANAGEMENT OVERVIEW FUNCTIONS (FUNCTION AS AN INDEPENDENT ASSESSMENT COMMITTEE).

3. A. INDEPENDENT SAFETY ENGINEERING GROUP (ISEG)

RESPONSIBLE FOR REVIEW OF ITEMS FOR SAFETY SIGNIFICANCE AS IT RELATES TO PLANT OPERATIONS.

B. SHIFT TECHNICAL ADVISORS (STA)

PROVIDES ON-SHIFT TECHNICAL SUPPORT TO THE SHIFT SUPERVISOR.

4. PERSONNEL QUALIFICATION

A. PLANT STAFF AND SUPPORT ORGANIZATIONS

REG. GUIDE 1.8 AND ANS 3.1

B. QC INSPECTORS AND STARTUP ENGINEERS

REG. GUIDE 1.58 AND ANSI 45.2.6/SNT-TC-1A

C. AUDITORS AND LEAD AUDITORS

ANSI 45.2.23

5. QUALITY ASSURANCE ORGANIZATION

PROGRAM REVIEWS
INSPECTIONS
SURVEILLANCES
AUDITS
TRENDING

PROCEDURE DEVELOPMENT AND TECHNICAL ADEQUACY

° PREPARATION OF PROCEDURES ARE CONTROLLED BY STARTUP ADMINISTRATIVE PROCEDURES

- BASED ON DESIGN DOCUMENTS (DRAWINGS, SPECIFICATIONS, VENDOR INFORMATION, ETC.)
- WRITTEN BY A SYSTEM ENGINEER
- REVIEWED BY LEAD ENGINEER

° PROCEDURES ARE REVIEWED BY EACH OF THE FOLLOWING JOINT TEST GROUP (JTG) ORGANIZATION MEMBERS:

- STARTUP

  1 ELECTRICAL REPRESENTATIVE

  1 MECHANICAL REPRESENTATIVE
- PLANT STAFF
- NUCLEAR STATION ENGINEERING DEPARTMENT
- QUALITY ASSURANCE
- SARGENT AND LUNDY
- GENERAL ELECTRIC (AS APPROPRIATE)

VALIDATION OF TEST RESULTS

° TEST RESULTS ARE REVIEWED BY THE JTG TO ASSURE THE FOLLOWING:

- RESULTS VALIDATE DESIGN REQUIREMENTS
- RESULTS MEET FSAR COMMITMENTS
- PROCEDURE REQUIREMENTS WERE MET
- SYSTEM DESIGN CHANGES ARE INDICATED OR EVALUATED FOR IMPACT
- DISCREPANCIES DO NOT AFFECT TEST CONCLUSIONS

VENDOR INVOLVEMENT IN PREOPERATIONAL TEST PROGRAM

- GENERAL ELECTRIC COMPANY ASSISTS IN VALIDATING THE PREOPERATIONAL PROGRAM
  - GE TEST ENGINEERS MONITOR THE PERFORMANCE OF TESTS ON NSSS EQUIPMENT
  - GE IS A MEMBER OF THE JTG TO LEND THEIR ASSISTANCE FOR NSSS TEST PROCEDURES AND RESULTS
- SARGENT AND LUNDY ASSISTS IN VALIDATING THE PREOPERATIONAL PROGRAM
  - S&L REVIEWS PREOPERATIONAL TEST PROCEDURES AND RESULTS TO PROVIDE ASSURANCE THAT THE TESTS CORRESPOND TO THE DESIGN

CURRENT STATUS OF PROCEDURES TO SUPPORT PREOPERATIONAL, ACCEPTANCE AND STARTUP TESTING

	APPROVED	IN REVIEW	BEING WRITTEN	NOT STARTED	TOTAL
ATP	40	10	0	2	52
FTP	93	10	0	6	109
GTP	69	1	1	3	74
HTP	175	15	0	0	190
PTP	60	19	8	4	91
STP	19	15	0	2	36
VTP	4	0	0	0	4
XTP	89	21	0	4	114
TOTAL	549	91	9	21	670

ATP - ACCEPTANCE TEST PROCEDURE
FTP - FLUSH TEST PROCEDURE
GTP - GENERIC TEST PROCEDURE
HTP - HYDROSTATIC TEST PROCEDURE
PTP - PREOPERATIONAL TEST PROCEDURE
STP - STARTUP TEST PROCEDURE
VTP - VENDOR TEST PROCEDURE
XTP - SPECIAL TEST PROCEDURE

CURRENT STATUS OF PROCEDURES TO SUPPORT OPERATIONS

SUBJECT	APPROVED	IN REVIEW	BEING WRITTEN	TOTAL
Services	110	15	2	127
Technical	80	7	0	87
Operations	327	19	0	346
Chemistry	150	11	4	165
Radwaste	43	0	0	43
CCCD	28	2	0	30
Maintenance	563	2	11	576
Rad Protection	112	5	8	125
Annunciators	2449	20	0	2469
TOTAL	3862	81	25	3968

QUALITY ASSURANCE PROGRAM PROCEDURE MATRIX

CRITERIA	QUALITY ASSURANCE		STARTUP		OPERATIONS
I. ORGANIZATION	QAP-101.01 QAI-201.01 QAI-301.01	QAI-401.01 QAI-501.01 QAI-701.01	SUM-4	SAN-5	1001.01 1001.03
II. QUALITY ASSURANCE PROGRAM	QAP-102.02	QAP-102.03	Operational QA Manual Startup Manual		1002.01 1017.02 1018.01
III. DESIGN CONTROL	QAP-110.02 QAP-115.02 QAI-405.01	QAP-118.01 QAP-118.05	SAP-3 SAP-8 SAN-1	SAN-7 SAP-17 SAP-18	1003.01 1003.05 1003.07 1014.03
IV. PROCUREMENT DOCUMENT CONTROL	QAP-104.01 QAP-110.02 QAI-404.04	QAP-118.01 QAP-118.05	SAP-17	SAN-16	1004.01 1004.02 1004.03
V. INSTRUCTIONS PROCEDURES AND DRAWINGS	QAP-105.01 QAP-105.03 QAP-110.02	QAI-405.01 QAP-118.01 QAP-118.05	SUM-5 SAP-12 SAP-13	SAN-22 SAP-14 SAP-16	1005.01 1005.05 1005.07 1005.08
VI. DOCUMENT CONTROL	QAP-102.02 QAP-102.10 QAP-106.01 QAP-106.02 QAP-110.02 QAI-506.01	QAP-117.01 QAP-117.02 QAP-117.04 QAP-118.01 QAP-118.05	SUM-5 SAP-12 SAP-13 SAN-3 SAI-2	SUM-8 SAP-14 SAP-16 SAI-4 SAI-9	1005.01 1006.01
VII. CONTROL OF PURCHASED MATERIAL, EQUIPMENT AND SERVICES	QAP-107.01 QAP-107.02 QAP-110.02 QAI-407.01	QAI-407.07 QAP-118.01 QAP-118.05	SAP-17	SAN-16	1007.01 1007.02
VIII. IDENTIFICATION AND CONTROL OF MATERIALS, PARTS AND COMPONENTS	QAP-107.01 QAP-110.02 QAP-116.05 QAI-407.01	QAI-514.01 QAP-118.01 QAP-118.05	SUM-5 SAP-2 SAP-9	SAP-20 SAP-21	1008.01
IX. CONTROL OF SPECIAL PROCESSES	QAP-110.02 QAP-118.01 QAI-509.01 QAI-509.02 QAI-509.03	QAP-118.05 QAI-509.07 QAI-509.11 QAI-510.04 QAI-512.01	SUM-5 SAP-2	SAP-9 SAP-21	1009.01

CRITERIA	QUALITY ASSURANCE		STARTUP		OPERATIONS
X. INSPECTION	QAP-102.03 QAP-107.01 QAP-107.02 QAI-510.01 QAI-510.02 QAI-510.04	QAP-110.02 QAP-118.01 QAP-118.05 QAI-511.01 QAI-710.01	SUM-5 SAP-11	SAP-14 SAP-16	1005.01 1029.01
XI. TEST CONTROL	QAP-110.02 QAP-111.01 QAI-405.01	QAP-118.01 QAP-118.05	Operational QA Manual Startup Manual		1011.01 1011.02
XII. CONTROL OF MEASURING AND TEST EQUIPMENT	QAP-102.03 QAP-110.02 QAI-512.01	QAP-118.01 QAP-118.05	SAP-11 SAN-5-80	SAN-13-83	1012.01
XIII. HANDLING, STORAGE AND SHIPPING	QAP-102.03 QAP-107.01 QAP-110.02	QAI-513.01 QAP-118.01 QAP-118.05	SUM-5 SAP-17	SAP-20	1013.01
XIV. INSPECTION, TEST AND OPERATING STATUS	QAP-102.03 QAP-107.01 QAP-107.02 QAI-510.04	QAP-110.02 QAP-118.01 QAP-118.05	SUM-5 SAP-1 SAP-6 SAI-6 SAN-1	SAN-4-81 SAP-8 SAP-11 SAI-12 SAN-5-82	1014.01 1014.02 1040.01
XV. NONCONFORMING MATERIALS, PARTS OR COMPONENTS	QAP-109.01 QAP-110.02 QAP-115.02 QAP-116.06 QAI-405.01	QAI-415.01 QAP-116.07 QAP-118.01 QAP-118.05 QAI-514.01	SUM-5 SAI-7	SAN-16 SAN-23	1015.01 1015.02 1016.02
XVI. CORRECTIVE ACTION	QAP-115.02 QAP-116.04 QAP-116.05 QAI-405.01	QAI-415.01 QAP-116.06 QAP-116.07 QAP-116.08	SUM-5 SAI-7	SAN-16 SAN-23	1016.01
XVII. QUALITY ASSURANCE RECORDS	QAP-106.01 QAP-110.02 QAP-117.01 QAP-117.02	QAP-117.04 QAP-118.01 QAP-118.05	SUM-5 SAI-2	SAI-4 SAI-9	1017.01 1017.02
XVIII. AUDITS	QAP-118.01 QAP-118.07	QAP-118.08	SUM-5		1018.02