UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

OCT 28 1985

Docket No. 50-410

APPLICANT: Niagara Mohawk Power Corporation (NMPC)

FACILITY: Nine Mile Point 2

SUBJECT: SUMMARY OF CASELOAD FORECAST PANEL (CFP) MEETINGS AND FACILITY TOUR AT NINE MILE POINT 2 (OCTOBER 30 AND 31, 1984) AND FOLLOWUP MEETING (JUNE 13, 1985)

On October 30 and 31, 1984, the Caseload Forecast Panel (CFP), consisting of Albert Schwencer (Licensing Branch Chief and team leader), Richard Hartfield (Resource Management Branch Chief), Mary Haughey (Licensing Project Manager), Robert Gramm (Senior Resident Inspector at Nine Mile Point 2), and Antone Cerne (Senior Resident Inspector at Seabrook) met with the applicant and toured the Nine Mile Point 2 (NMP-2) facility and site. The purpose of these meetings and tour was to review construction progress and collect data for the purpose of assisting the NRC staff in estimating its resource needs for licensing activities for Nine Mile Point 2.

At the CFP visit in October 1984 it was noted that Mr. Dean Quamme had recently assumed the position of Project Director at the Nine Mile Point 2 site and schedules for completion of the project had subsequently been revised. During the close out meeting on October 31, 1984, the CFP requested NMPC to submit updated information on progress made against this new schedule for the next few months. In January 1985, NMPC submitted project reports through December 1984.

In May 1985 the NRC requested NMPC to make a presentation concerning their progress against the October 1984 schedule. Specific presentations were requested in the following areas:

(1) Pre-operational and acceptance procedures
(2) Pre-operational and acceptance testing
(3) Turnovers
(4) Cables & Terminations
(5) Design Verification Program

The update on construction progress was presented by NMPC at a meeting on June 13, 1985.

During the October 1984 site visit it was noted that the NMPC proposed schedule for NMP-2 pre-operational and startup testing was very optimistic. In addition the schedule did not allow for contingencies.

During the June 13, 1985 update meeting the applicant stated that as of June NMP-2 was about 89.5% complete against a projected 91.5%. Although a major milestone, the reactor pressure vessel (RPV) hydro and system flush, was completed in April 1985, the applicant has not been able to maintain its schedule for acceptance and pre-operational testing. Therefore, although preparations for testing have been ongoing, the CFP notes no substantial improvement in the actual construction and testing schedule relative to other plants to warrant the optimistic schedule at NMP-2. Consequently, the CFP believes a more probable construction completion date for NMP-2 is late 1986. The data upon which the CFP projection is based are given in the following sections of the meeting summary.

Meeting and Facility Tour Details

October 30, 1984

On the first day of the CFP site visit the applicant made a presentation on recent construction progress and the current status of the project as well as the projected schedule. This presentation followed the outline of the meeting agenda attached to the meeting notice of October 10, 1984. That attachment is included as Enclosure 1.

In the presentation made by the applicant, it was noted that Q.C. rejection was not reflected in the bulk commodity percentage but is reflected in the Q.A. percentage. The critical path item was identified as the integrated systems flush.

Following the applicant's presentation, the CFP toured the NMP-2 facility. It was noted that substantial work needed to be completed notably in the area of cable pulling and terminations.

October 31, 1984

A summary meeting was held with the applicant. Mr. Schwencer requested 6 copies of the following information be submitted on NMP-2 docket:

(1) Briefing book and copies of overhead projections
(2) Milestone schedule
(3) "Bible"
(4) Startup schedule
(5) Engineering schedule
(6) Project Reports (January through November 1984)
(7) Cost performance reports (August through November 1984)

As the schedule for construction and testing had recently been revised with the appointment of Mr. Dean Quamme to the position of Project Director, the NRC requested updates through November to help track NMPC's progress against the new schedule.

The requested information was provided by the applicant as enclosures to letters submitted on November 9, 1984 and January 17, 1985. A list of meeting attendees during the October 30 and 31 meetings is included as Enclosure 2.

June 13, 1985

In May 1985 the CFP requested the applicant to provide an update of their progress to date against the schedule discussed in October 1984. The applicant was requested to provide a project overview with specific emphasis in the following areas:

(1) pre-operational and acceptance procedures
(2) pre-operational and acceptance testing
(3) design verification
(4) turnovers
(5) cables and terminations

The applicant met with the CFP on June 13, 1985 to make that presentation. During that meeting Mr. Byron Siegel acted for the licensing branch chief (formerly Mr. A. Schwencer) and Mr. A. Cerne was not present.

The applicant provided the staff with information included as Enclosures 3 and 4.

Three paths were identified as critical to fuel load: (1) construction and testing of Fuel Handling Equipment, (2) completion and testing of both solid and liquid radwaste systems and (3) cold functional testing.

The applicant acknowledged that the February 1986 fuel load projection is based on an aggressive schedule.

However, as the aggressive schedule presented in October 1984 is presently not being met (see Enclosure 3), the CFP does not believe that the applicant's pre-operational and acceptance test schedule will be substantially better than an average program of about 18 months from hydrostatic testing of the RPV. Consequently, the CFP believes a fuel load date of late 1986 is more probable.

An attendance list for the June 13, 1985 meeting is included as Enclosure 5.

Mary F. Haughey

Mary F. Haughey, Project Manager
Licensing Branch No. 2
Division of Licensing

Enclosures: As stated

cc: See next page

Mr. B. G. Hooten
Niagara Mohawk Power Corporation

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Mr. Paul D. Eddy
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Commission
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Unit II
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Lycoming, New York 13093

NINE MILE POINT 2

CASELOAD FORECAST PANEL SITE VISIT

MEETING AGENDA

1. Overview of project construction and preoperational testing schedule, including progress and major milestones completed, current problems and any anticipated problem areas that may impact the current projected fuel load date.

2. Detailed review and current status of design and engineering effort (by major discipline), including any potential problems that may arise from necessary rework.

3. Detailed review and current status of procurement activities, including valves, pipe, instruments, cable, major components, spare parts, etc.

4. Actual and proposed craft work force (by major craft), craft availability, productivity, potential labor negotiations and problems.

5. Detailed review and current status of all large and small bore pipe hangers, restraints, snubbers, etc., including design, rework, procurement, fabrication, delivery and installation.

6. Detailed review of project schedule identifying critical path items, near critical items; amount of float for various activities, the current critical path to fuel loading, methods of implementation of corrective action for any activities with negative float, and provisions for contingencies. The estimated project percent complete as of September 30, 1984.

7. Detailed review and current status of bulk quantities, including current estimated quantities, quantities installed to date, quantities scheduled to date, current percent complete for each, actual versus forecast installation rates, in cubic yards/mo., linear feet/mo., or number/mo., and basis for figures. Also indicate what percentage has been QA inspected and accepted.

   (a) Concrete (CY)

   (b) Process Pipe (LF)

      - Large Bore Pipe (2 1/2" and larger)
      - Small Bore Pipe (2" and smaller)

   (c) Yard Pipe (LF)

   (d) Large Bore Pipe Hangers, Restraints, Snubbers (ea)

   (e) Small Bore Pipe Hangers, Restraints (ea)

   (f) Cable Tray (LF)

(g) Total Conduit (LF)

(h) Total Exposed Metal Conduit (LF)

(i) Cable (LF)

- Power
- Control
- Security
- Instrumentation
- Plant Lighting

(j) Terminations (ea)

- Power
- Control
- Security
- Instrumentation
- Plant Lighting

(k) Electrical Circuits (ea)

- Power
- Control
- Security

(l) Instrumentation (ea)

8. Detailed review and current status of preparation of preop and acceptance test procedures, integration of preop and acceptance test activities with construction schedule, system turnover schedule identifying each system and status, preop and acceptance tests schedule identifying each test and status, current and proposed preop and acceptance tests program manpower.

(a) Total number of procedures required for fuel load.

(b) Number of draft procedures not started.

(c) Number of draft procedures being written.

(d) Number of procedures approved.

(e) Number of procedures in review.

(f) Total number of preop and acceptance tests required for fuel load identifying each.

(g) Number of preop and acceptance tests completed identifying each.

(h) Number of preop and acceptance tests currently in progress identifying each and status.

(i) Number of systems and/or subsystems turned over to start-up identifying each.

(j) Number of systems turned over to operations group identifying each and outstanding open items for each system.

(k) Number of retests expected, if any, identifying each and cause for retest.

9. Detailed discussion of potential schedular influence due to changes attributed to NUREG-0737 and other recent licensing requirements.

10. Discussion of schedular impact, if any, regarding potential deficiencies reported in accordance with 10 CFR 50.55(e).

11. A detailed discussion of the recent management organization changes and impact on construction, pre-op testing and startup. Include discussion of how the management organization will be changed for the operational period and effect on startup. Discuss interfaces between MAC, NMPC and SWEC.

12. Overview of current construction and startup management organization showing interfaces between the two.

13. Detailed review and current status of design, engineering and construction effect including quantities, work-off rates, current status and schedule for completion for:

(a) ATWS-3A Design Changes
(b) Appendix R Design Implementation
(c) NSSS Loads Adequacy Evaluation
(d) High Energy Line Break (HELB)
(e) Moderate Energy Line Breaks (MELB)
(f) Control Rod Drive System
(g) Primary and Secondary Containment
(h) Control Room Panel Modifications (PGCC)
(i) Pipe Stress (as-build)
(j) N-Stamp Certification Program
(k) Updating Drawings and Specifications to as-Build Condition
(l) Environmental Qualification of Safety-Related Equipment
(m) Seismic Qualification of Safety-Related Equipment
(n) Hanger Reconciliation Program

14. Detailed review of room/area turnover schedule and status.

15. Projected requests for relief of incomplete items, systems, or test completions at the time of Unit 2 licensing, identifying each.

16. Review of open punch list items by category (hardward/paperwork) identifying each and work-off rate vs add on rate.

17. Status and schedule for Seismic II/I review. (IEB 79-14)

18. Detailed review and current status of power accession testing procedures and operational procedures.

    A. Power ascension test procedures including safety-related and nonsafety-related.

        1. Number required
        2. Number not started.
        3. Number in preparation and approval process
        4. Number approved

    B. Operating procedures required for fuel loading; including station administrative, station operational, surveillance (e.g., technical specification), maintenance and emergency procedures.

        1. Number required
        2. Number not started
        3. Number in preparation and approval process
        4. Number approved

19. Detailed review and current status of permanent station and support staffing, training and licensing.

    a. Staffing for Unit 2 operation, including presently employed, projected and authorized for each group reporting to the Vice President Nuclear

    b. Staffing of Nine Mile Point (Unit 2) station organization including presently employed or contracted, projected, and authorized for each organizational subgroup.

    c. Training program; outstanding training courses required prior to fuel load; identifying job titles, numbers of personnel, and projected completion.

    d. Operator and senior operator licenses presently onsite, contracted, projected, and required for fuel loading.

20. Detailed review and current status of work to be performed in response to the CAT audit concerns (include actions in response to ORDER)

21. Site tour and observation of construction activities.

Enclosure 2

ATTENDACE

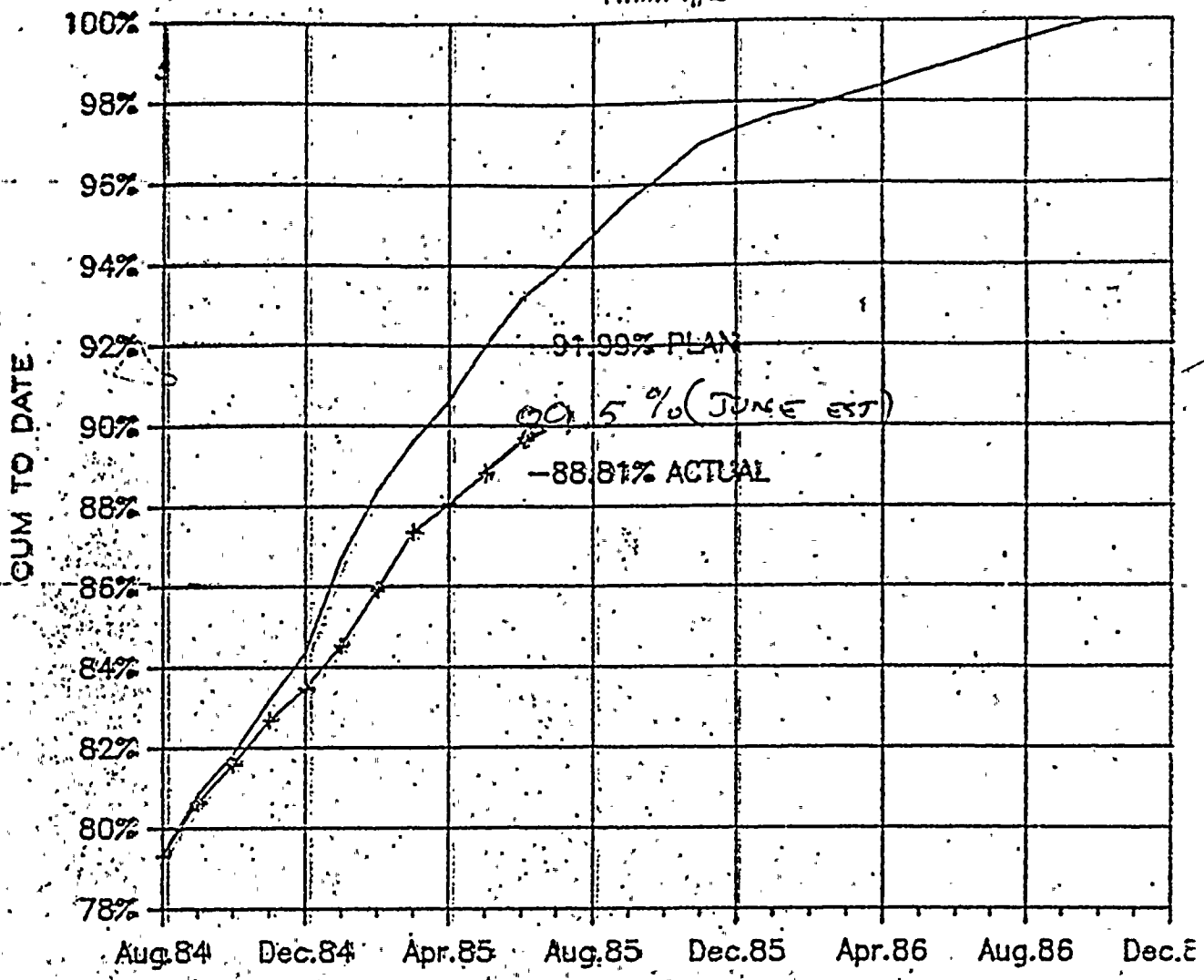
NINE MILE POINT 2 CASELOAD FORECASE PANEL MEETING 10/30/84 & 10/31/84

NAME	TITLE	ORGANIZATION
Mary F. Haughey	Project Manager	NRC
A. Schwencer	DL	NRC
R. A. Hartfield	RM	NRC
A. C. Cerne	SRI, Seabrook	NRC
R. A. Gramm	Resident Inspector	NRC
C. V. Mangan	VP	NMPC
A. F. Zallnick	Manager NMP2 Licensing	NMPC
C. G. Beckham	QA Manager - Projects	NMPC
D. L. Quamme	Project Director	NMPC
G. K. Afflerbach	S/U Manager	NMPC
R. T. Burke	Manager Spec. Projects	SWEC
W. H. Chamberlain	Asst Eng Manager	SWEC
C. Zappile	Project Engineer	SWEC
C. E. Brocker	Supt of Engr	SWEC
B. G. Hooten	Ex. Dir. - Nuclear Ops.	NMPC
Frank J. Giaccio	Consultant	PSC
P. D. Eddy	Sr. On-Site Rep.	NYS PSC
J. T. Niezabytowski	Mgr. Contracts & Mat'ls	NMPC
C. L. Stuart	Asst to Ex Dir - Nuc Ops	NMPC
R. B. Abbott	Station Supt.	NMPC
J. P. Ptak	Sr Mgr - Construction	NMPC
E. P. Eichen	Ass't Supt. constr.	SWEC
A. P. Baleno	Mgr Proj Serv/Admin	NMPC
W. R. Yaeger	Field Engineering Mgr.	NMPC

Enclosure 3

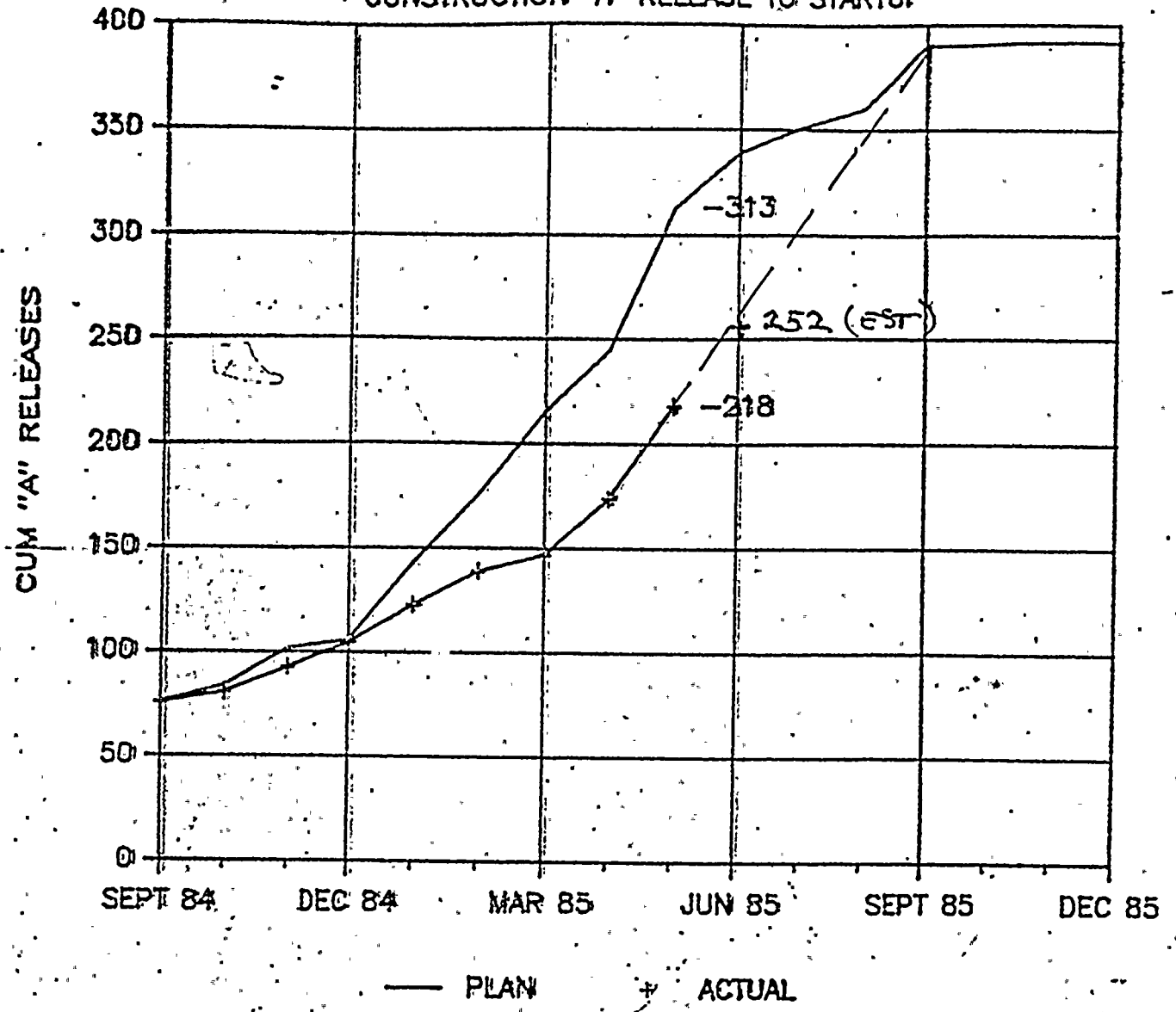
PROJECT PERCENT COMPLETE

N.M.P.#2



PLAN VS ACTUAL

CONSTRUCTION "A" RELEASE TO STARTUP

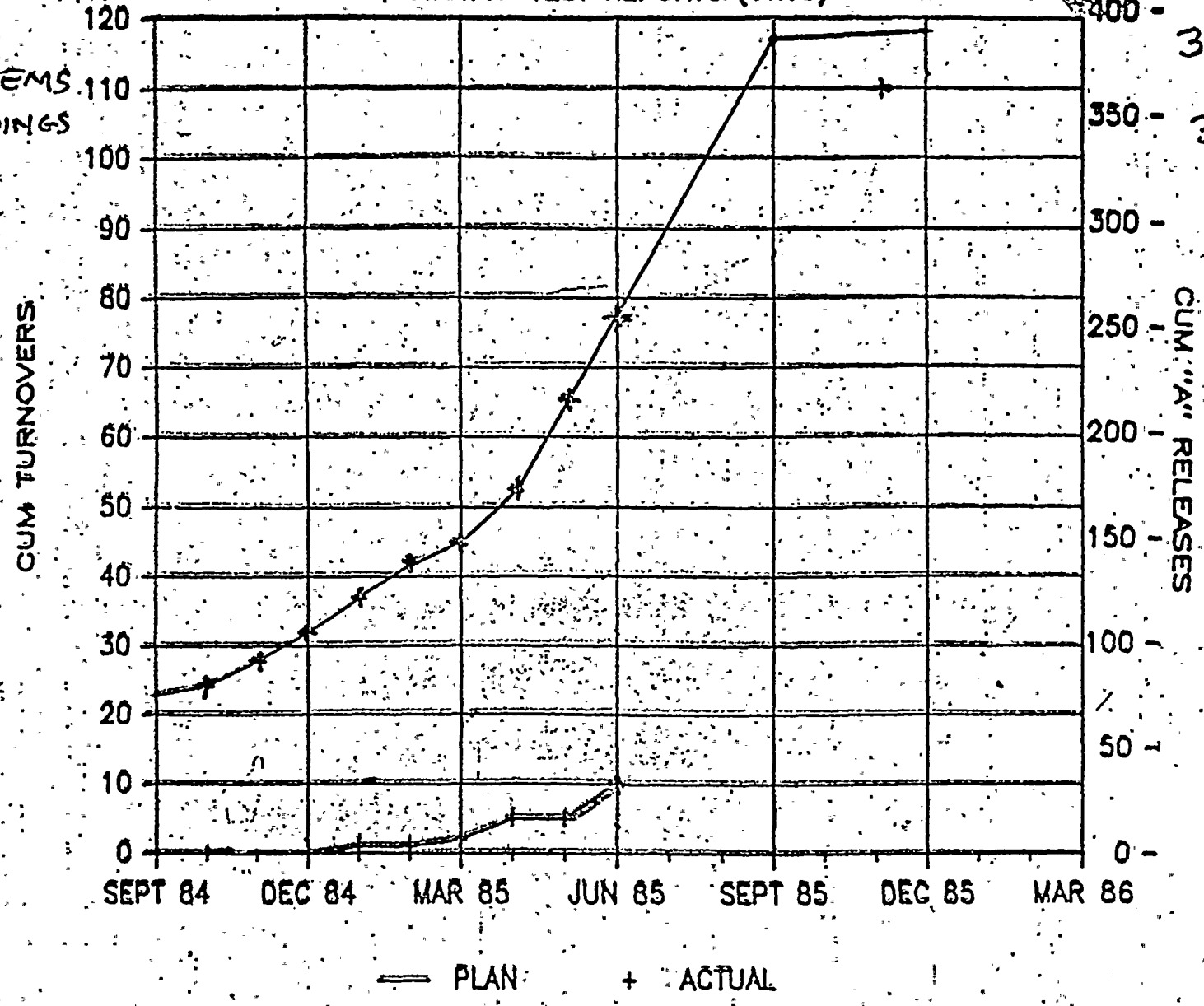


PLAN VS ACTUAL

STARTUP TEST REPORTS (STR'S)

113 STR'S
108 SYSTEMS
5 BUILDINGS

392 RELEASES
30 BUILDINGS
362 "A"



STARTUP AND TEST PROGRAM OUTLINE

CONSTRUCTION MANAGEMENT AREA OF RESPONSIBILITY

NMPC AREA OF RESPONSIBILITY

CONSTRUCTION MANAGER: PROVIDES OVERALL MANAGEMENT, COORDINATION OF CONSTRUCTION AND TECHNICAL DIRECTION OF CONSTRUCTION TESTING.

NMPC: CALIBRATES, RECHECKS, TESTS, VERIFIES, OPERATES AND MAINTAINS SYSTEMS

CONSTRUCTION PHASE | RELEASE FOR TEST PHASE | PREOPERATIONAL PHASE | STARTUP PHASE

CONTRACTORS: FINISH CONSTRUCTION; MAINTAIN EQUIPMENT. PERFORM CONSTRUCTION TESTING ACTIVITIES.

NMPC: PERSONNEL PERFORM LINEUP ACTIVITIES

CONSTRUCTION MANAGER: COORDINATES CONTRACTOR ACTIVITIES.

CONTRACTOR: COMPLETES HIS WORK RESPONSIBILITIES. ASSISTS PRELIMINARY TEST ACTIVITIES AS DIRECTED BY NMPC.

NMPC: PERSONNEL PERFORM TEST ACTIVITIES, MAINTAIN AND OPERATE PLANT.

COMERCIAL OPERATION

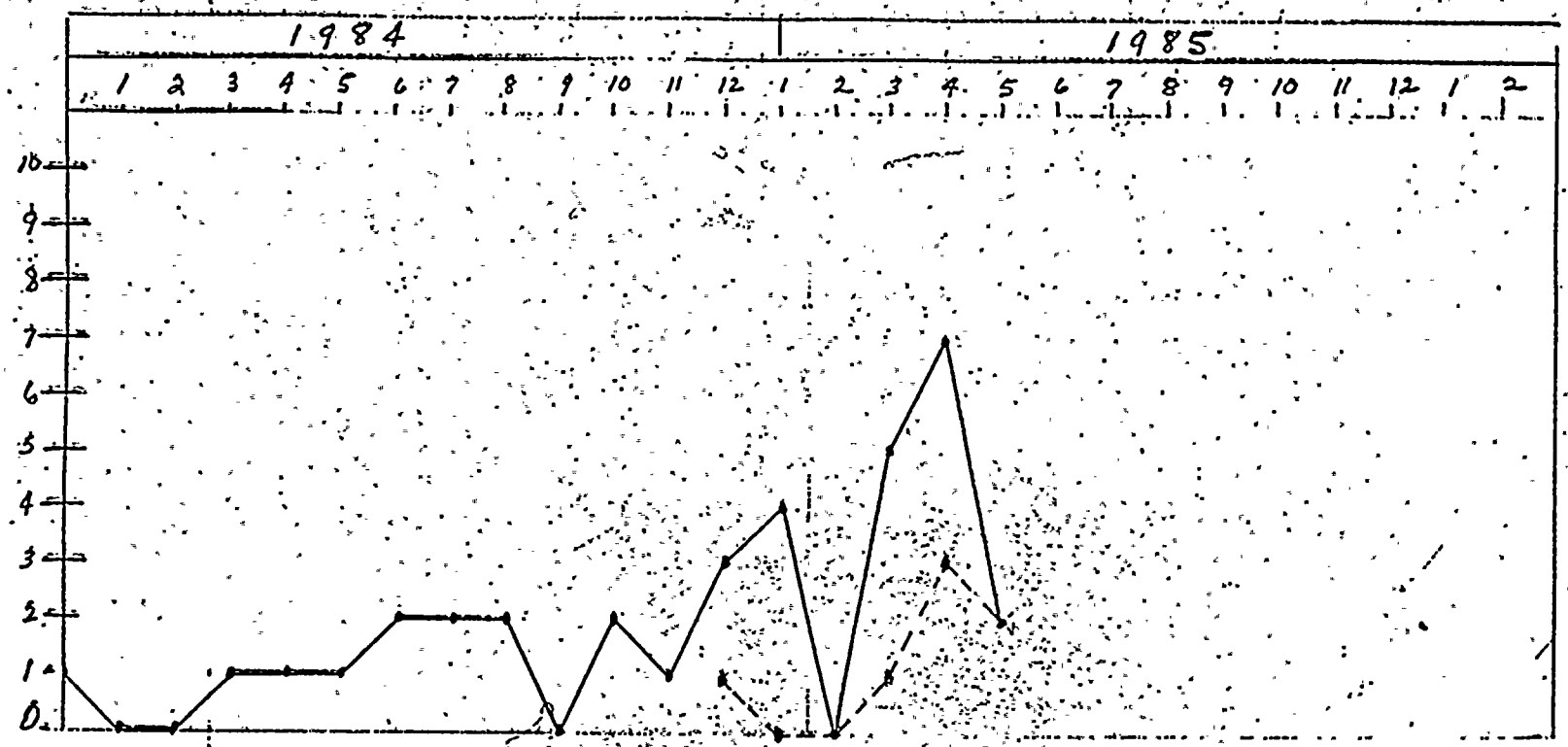
RELEASE FOR TEST | TURNOVER | LOAD FUEL

FINISH CONSTRUCTION | CONSTRUCTION TESTING | COMPONENT VERIFICATION SYSTEM PREPAREDNESS | SYSTEM VERIFICATION & INTEGRATED FUNCTIONAL TESTING | RISE TO POWER | WARRANTY DEMONSTRATION

STARTUP AND TEST PROGRAM

9 WEEKS AVERAGE | PREOP 6 WEEKS AVERAGE | REVIEW 7 WEEKS AVERAGE

SYSTEM RELEASES S. STR S



IM S EL 1 1 1 2 3 4 6 8 10 10 12 13 16 20 20 25 32 34

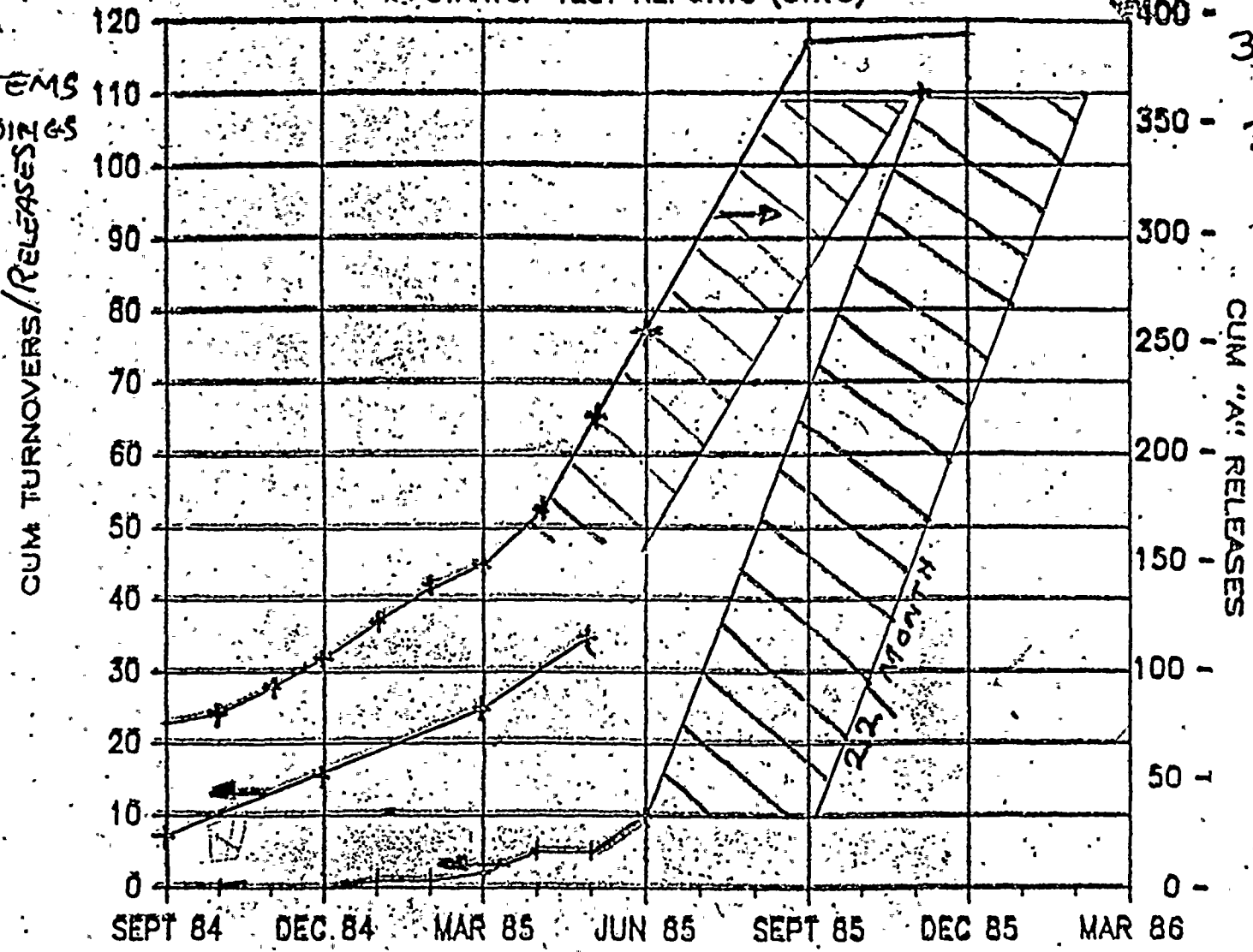
IM R 1 1 1 2 5 7

PLAN VS ACTUAL

STARTUP TEST REPORTS (STR'S)

113 STR'S
108 SYSTEMS
5 BUILDINGS

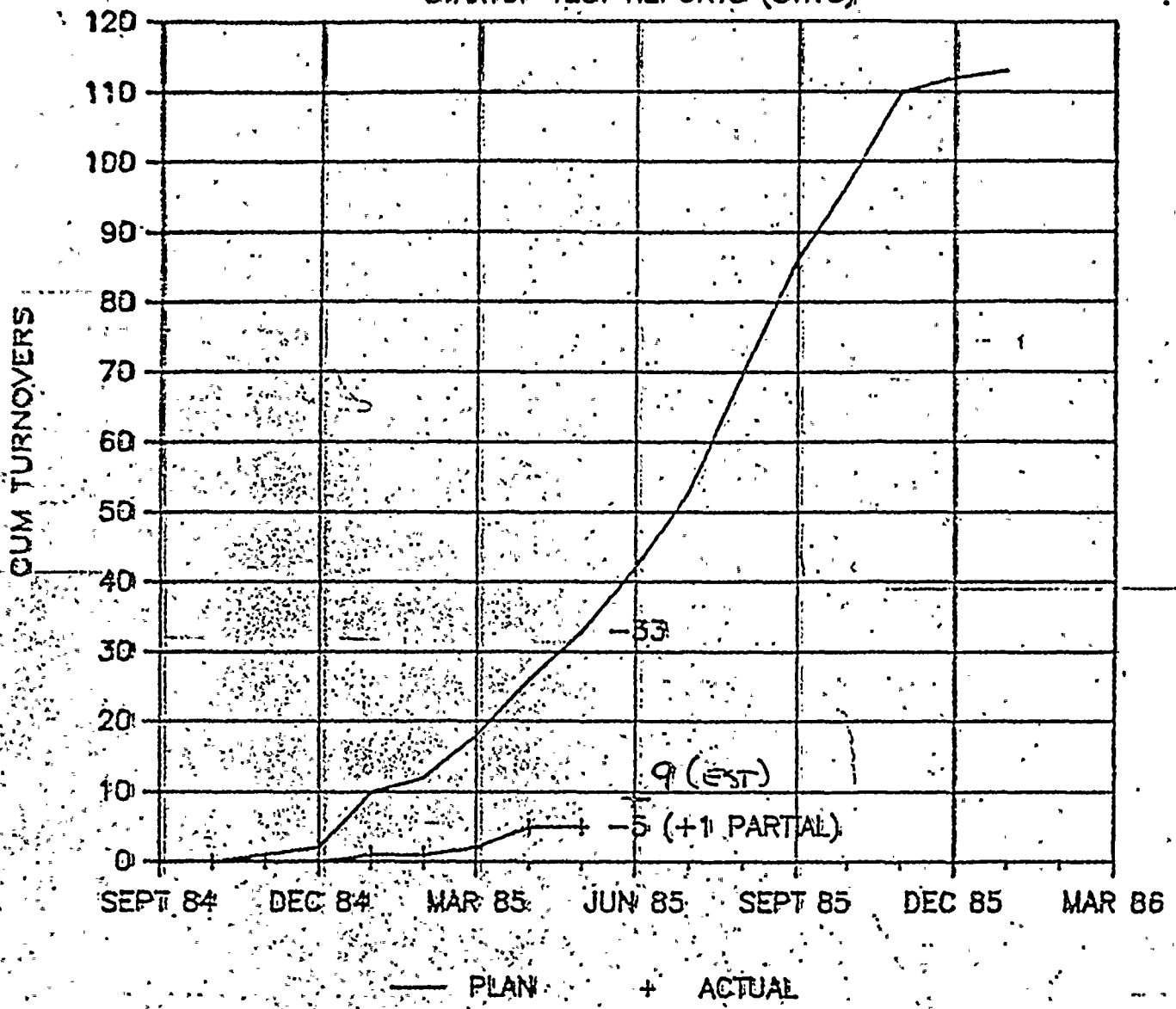
392 RELEASES
30 BUILDINGS
362 "A"



60 DAY PRELIM. TESTS — PLAN + ACTUAL 13 WEEKS PRE-OPS
(120 DAYS CURRENT EXPERIENCE)

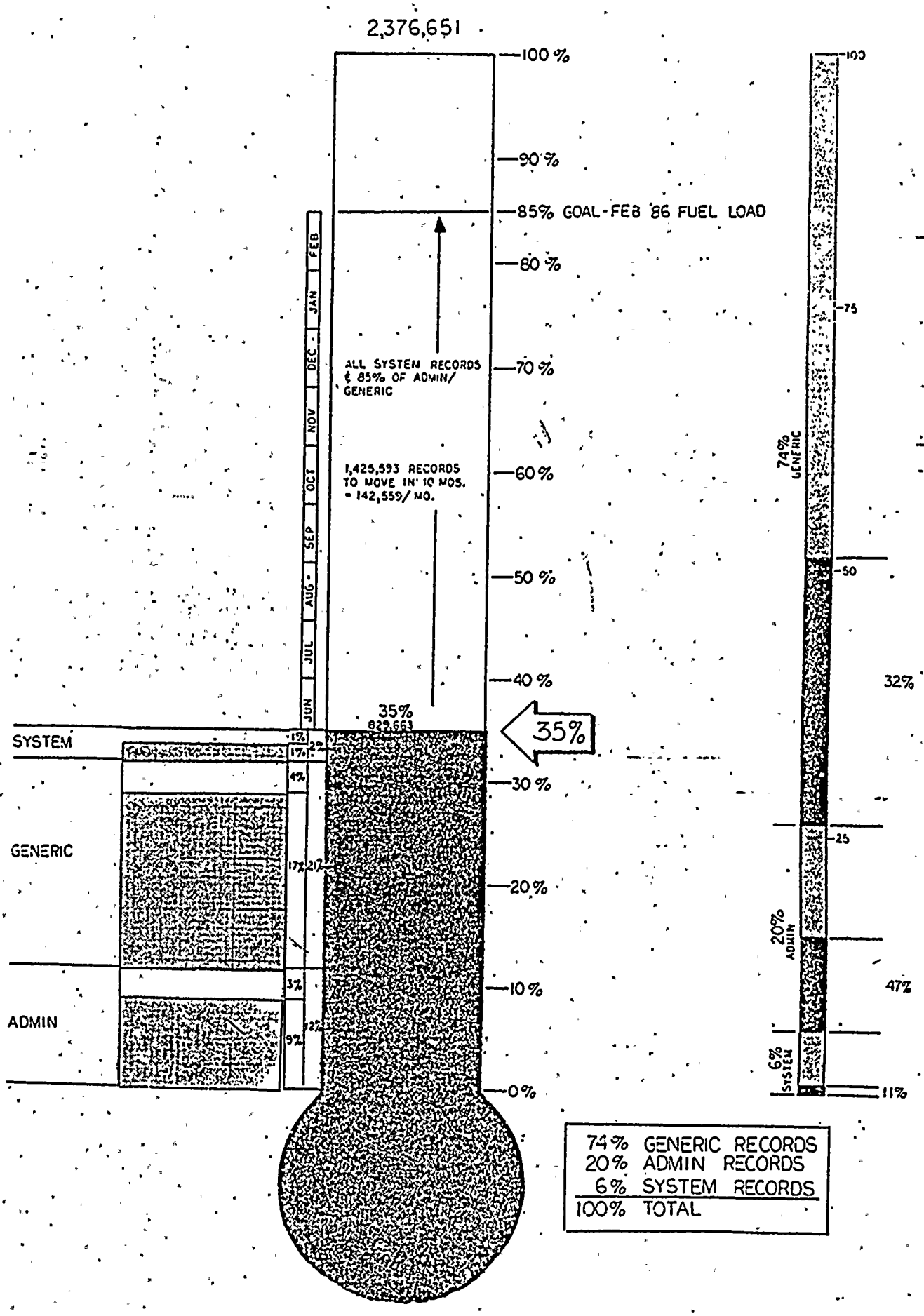
PLAN VS ACTUAL

STARTUP TEST REPORTS (STR'S)



OVERALL RECORDS TURNOVER PROGRESS

MAY 17, 1985



Enclsoure 4

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(0593C)

ITEM NUMBER 1

OVERVIEW OF PROJECT CONSTRUCTION AND PREOPERATIONAL TESTING SCHEDULE

PROJECT OVERVIEW

The project is 88.81 percent complete as of mid-May and is currently projecting a February 1986 date for initiating loading of fuel.

The February 1986 Fuel Load projection is based on the positive response of the Project over the past 6-8 months to an acknowledged aggressive schedule.

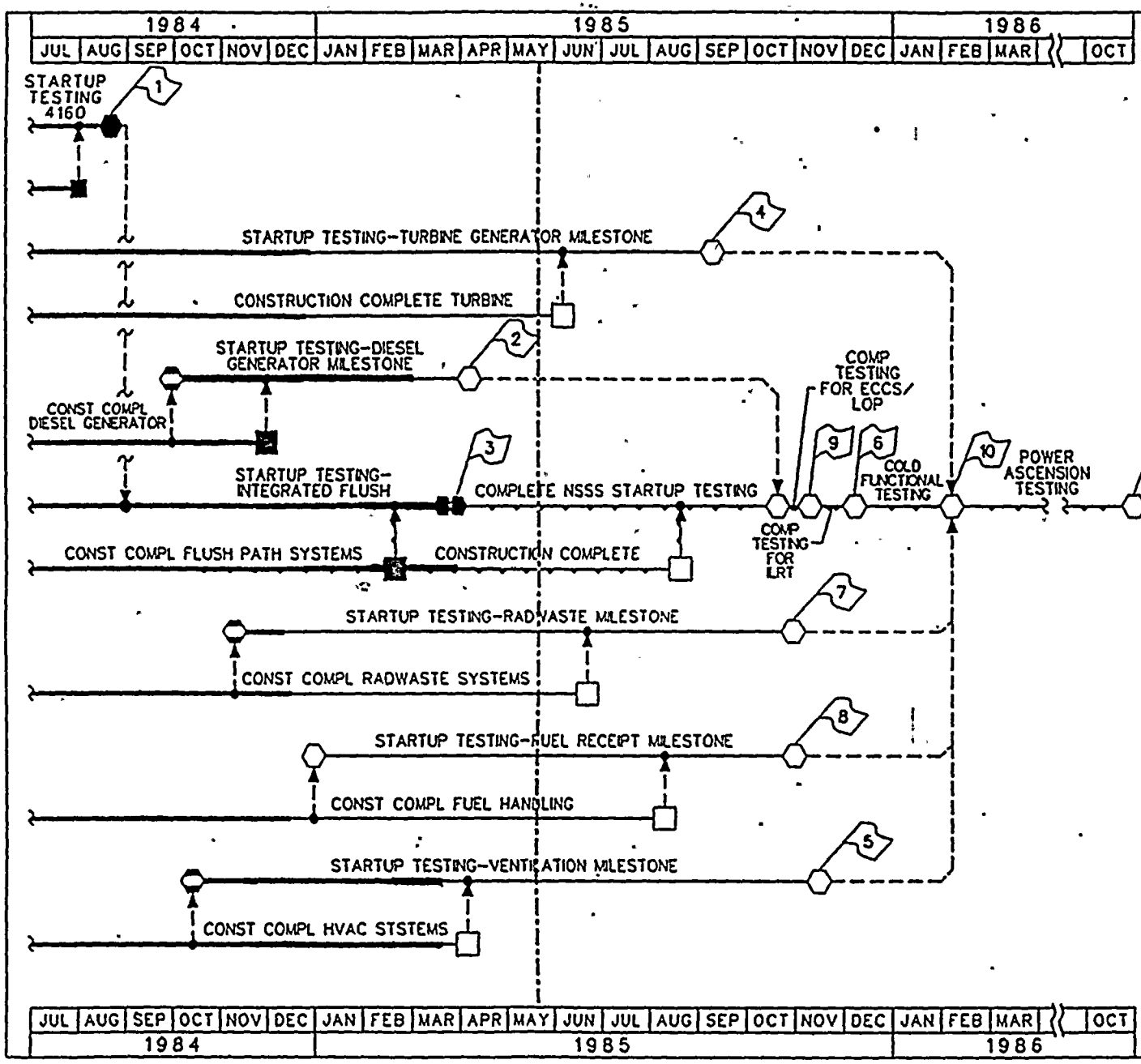
In March and April of this year the Project achieved two Major Milestones on schedule; Integrated Flush and RPV Hydro. The energization of the 4160V was completed in January and the first Diesel Generator was placed on the Power Grid in May. The diesel was completed five months ahead of the date of the first mandatory operational period. The remaining Diesel Generators are projected to be completed over the next two months, also well ahead of the mandatory operational period.

Current analysis of the to go work and schedule has identified three major paths critical to Fuel Load. The first is the construction completion and testing of Fuel Handling Equipment in preparation for Fuel Receipt; the second involves completion and testing of both Solid and Liquid Radwaste; the third being Cold Functional Testing which is pushed by completion of the Reactor Building HVAC and Nuclear Boiler Instrumentation. (Completion of the HVAC and Nuclear Boiler Instrumentation restrains the Loss of Power/Emergency Core Cooling System Test and subsequently the Reactor Building Integrated Leak Rate Test.) Attention has been directed to these paths and the respective restraints in Engineering, Construction, and Start-up Testing in order to minimize the pressure on Fuel Load.

The Project is aware of the aggressiveness of the System Release Schedule but believes that it is achievable through the use of equally aggressive, innovative Planning, and Operational Management Methods, Procedures and Techniques. Through the use of the capabilities of Project 2, Start-up Testing requirements and priorities are conveyed to all groups weekly. This provides for close integration allowing those responsible for completion of restraining work to be continuously aware of changing requirements.

The Planning & Scheduling of the integrated effort was evaluated and realigned with an emphasis on System Completion in support of Start-up Testing. In most cases bulk installation of commodities has been curtailed in favor of installation in support of system completion. The change in approach to scheduling work has provided for the close integration of the Construction and Start-up schedules. The identification of testable portions of subsystems has allowed the testing process to begin earlier in the construction phase than provided for in the previous project schedule.

Through management of this change, the Recovery Plan for release of systems for Preliminary Testing is being met and the rate of release continues to increase. Also, with emphasis on completion of testable systems, turnovers for Preoperational Testing are expected to support the overall testing schedule.



MILESTONE	SCHEDULED COMPLETION
1) 4160 V ENERGIZATION	(A) 14 JAN 85
2) DIESEL GENERATORS	06 APR 85
3) INTEGRATED FLUSH/RPV HYDRO	(A) 10 MAR 85 (A) 11 APR 85
4) TURBINE GENERATOR VACUUM PULL	12 SEP 85
5) VENTILATION	14 NOV 85
6) INTEGRATED LEAK RATE TEST	06 DE[illegible]5
7) RADWASTE SYSTEM	20 OCT 85
8) FUEL RECEIPT AND TRANSFER	07 NOV 85
9) LOSS OF POWER/ECCS	08 NOV 85
10) FUEL LOAD	24 FEB 86
11) FUEL LOAD TO C.O.	OCT 86

LEGEND

- ⬡ PRELIMINARY TESTING
- □ CONSTRUCTION
- CRITICAL PATH

STATUS AS OF 20 MAY [illegible]

MILESTONE SUMMARY SCHEDULE

NIAGARA MOHAWK POWER CORPORATION

STONE & WEBSTER ENGINEERING CORP.

J.O. 12187

REVISIONS		
2	1	ORIGINAL
		15 OCT 84

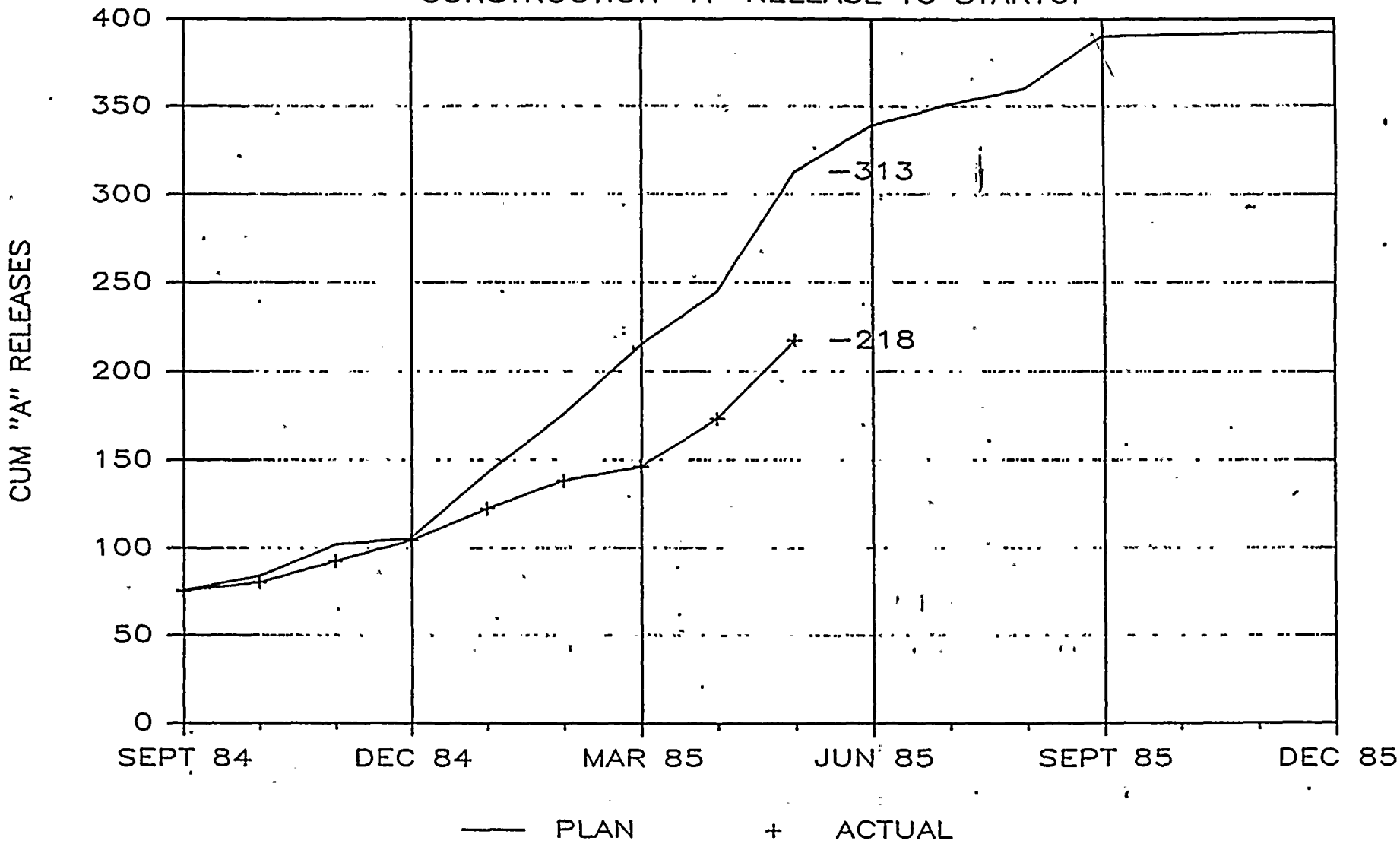
SECTION III - MAJOR MILESTONE STATUS

MILESTONE	COMPLETION DATE
Set upper Containment Cone	A 07 May 81
Complete Concrete, Primary Containment to EL. 326-10"	A 12 Oct 81
Set Fuel Pool Liner in place.	A 18 Aug 82
Set Main PGCC Console.	A 25 Mar 83
Ready to energize 115-KV switchyard	A 01 Aug 84
Reactor Building Polar Crane Operational	A 29 Apr 83
Makeup Demineralizer complete and ready for initial test.	A 19 Mar 84
Reactor Building Enclosed.	A 19 Dec 83
4160 V Energization	A 14 Jan 85
Diesel Generators	06 Apr 85
Integrated Flush/RPV Hydro	A 10 Mar 85/11 Apr85
Turbine Generator/Vacuum Pull	12 Sep 85
Ventilation	14 Nov 85
Integrated Leak Rate Test	06 Dec 85
Radwaste	20 Oct 85
Fuel Receipt and Transfer	07 Nov 85
Loss of Power/ECCS	08 Nov 85
Fuel Load	24 Feb 86
Fuel Load to C.O.	01 Oct 86

NOTES: A = Actual Completion Date

PLAN VS ACTUAL

CONSTRUCTION "A" RELEASE TO STARTUP

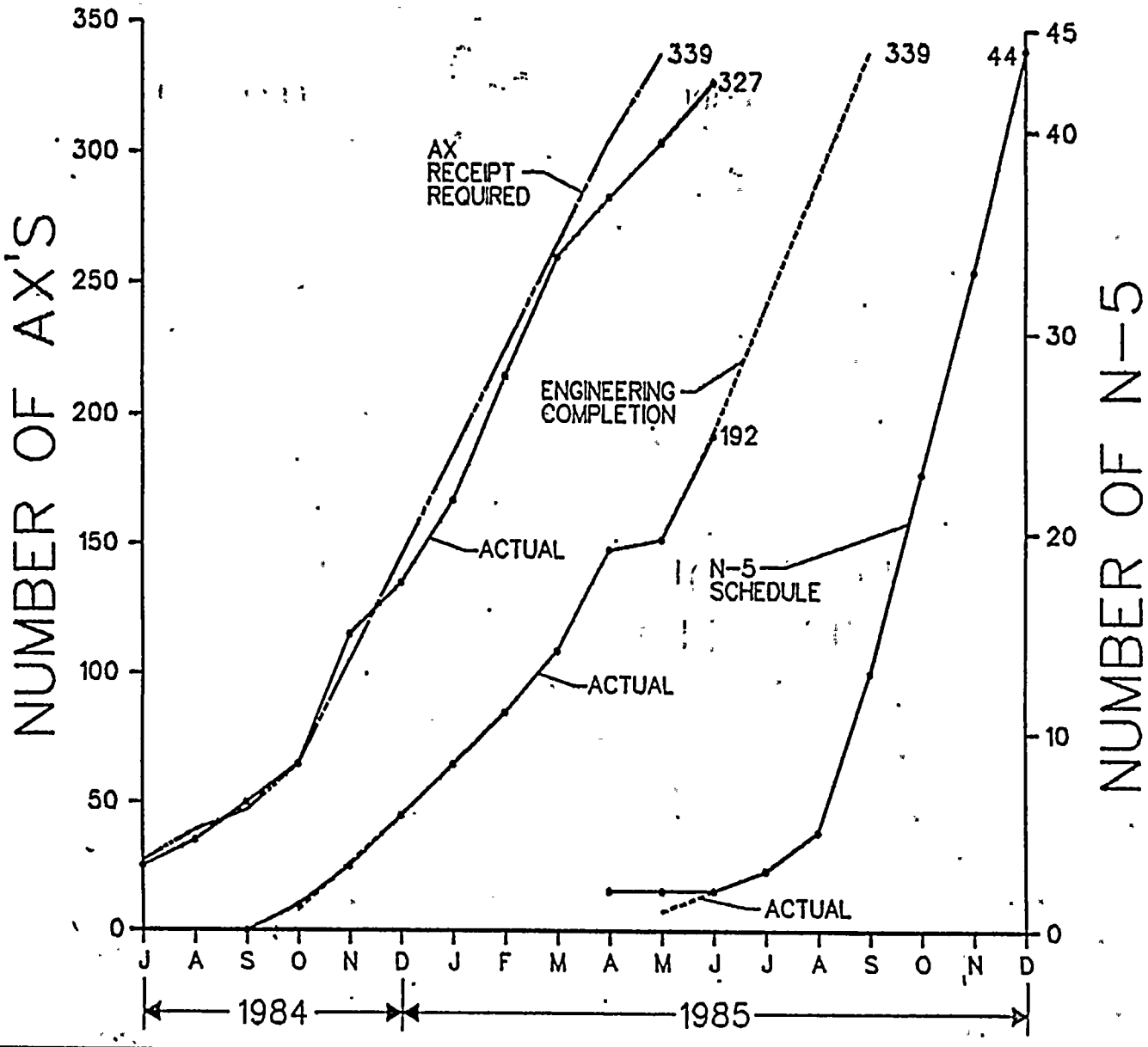


ITEM NUMBER 2

DESIGN VERIFICATION PROGRAM STATUS AND SCHEDULE

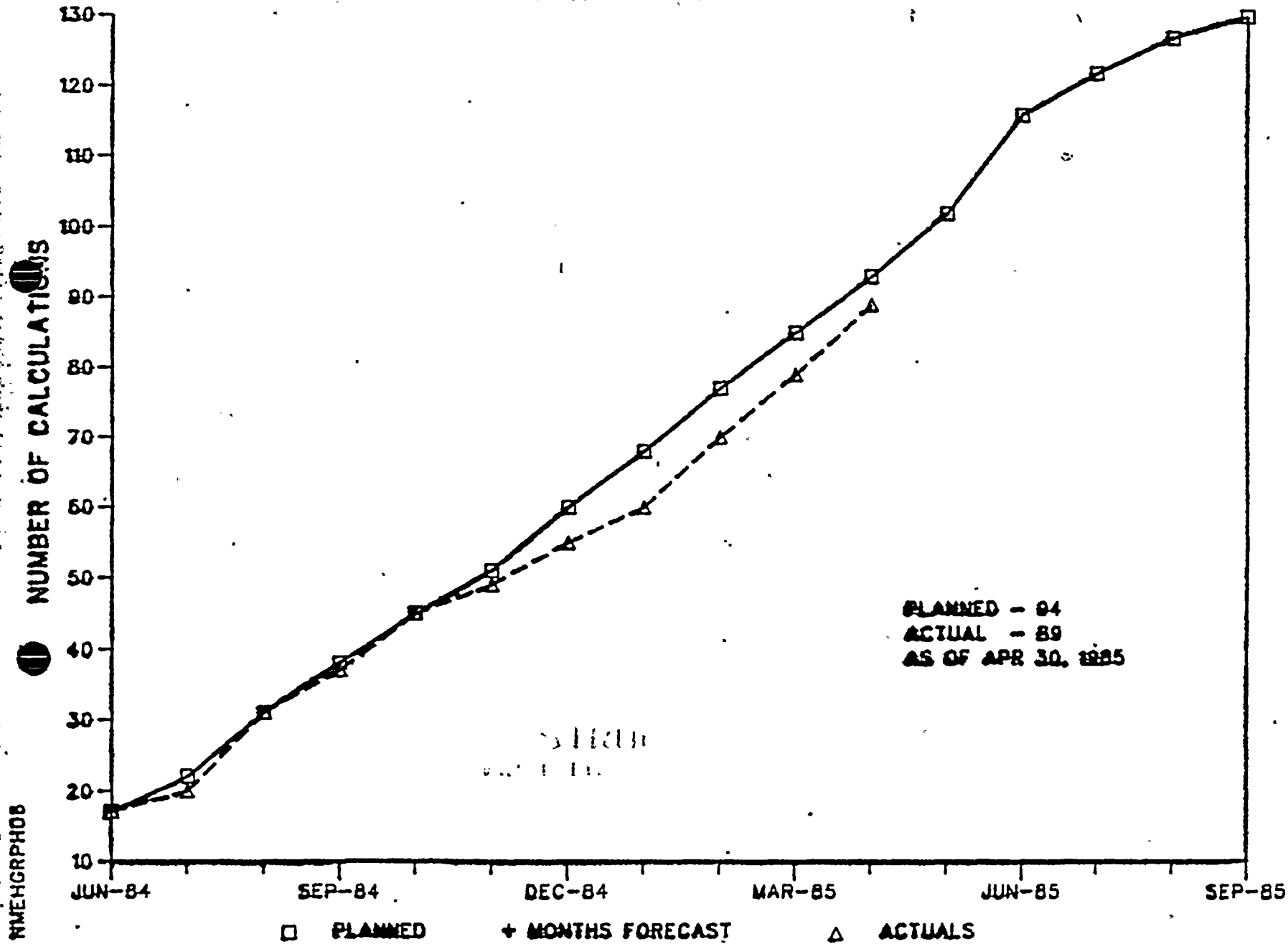
STRESS RECONCILIATION PROGRAM SCHEDULE

STATUS AS OF MAY 31,1985



ATTACHMENT 2

STRUCTURAL
FINAL LOAD VERIFICATION

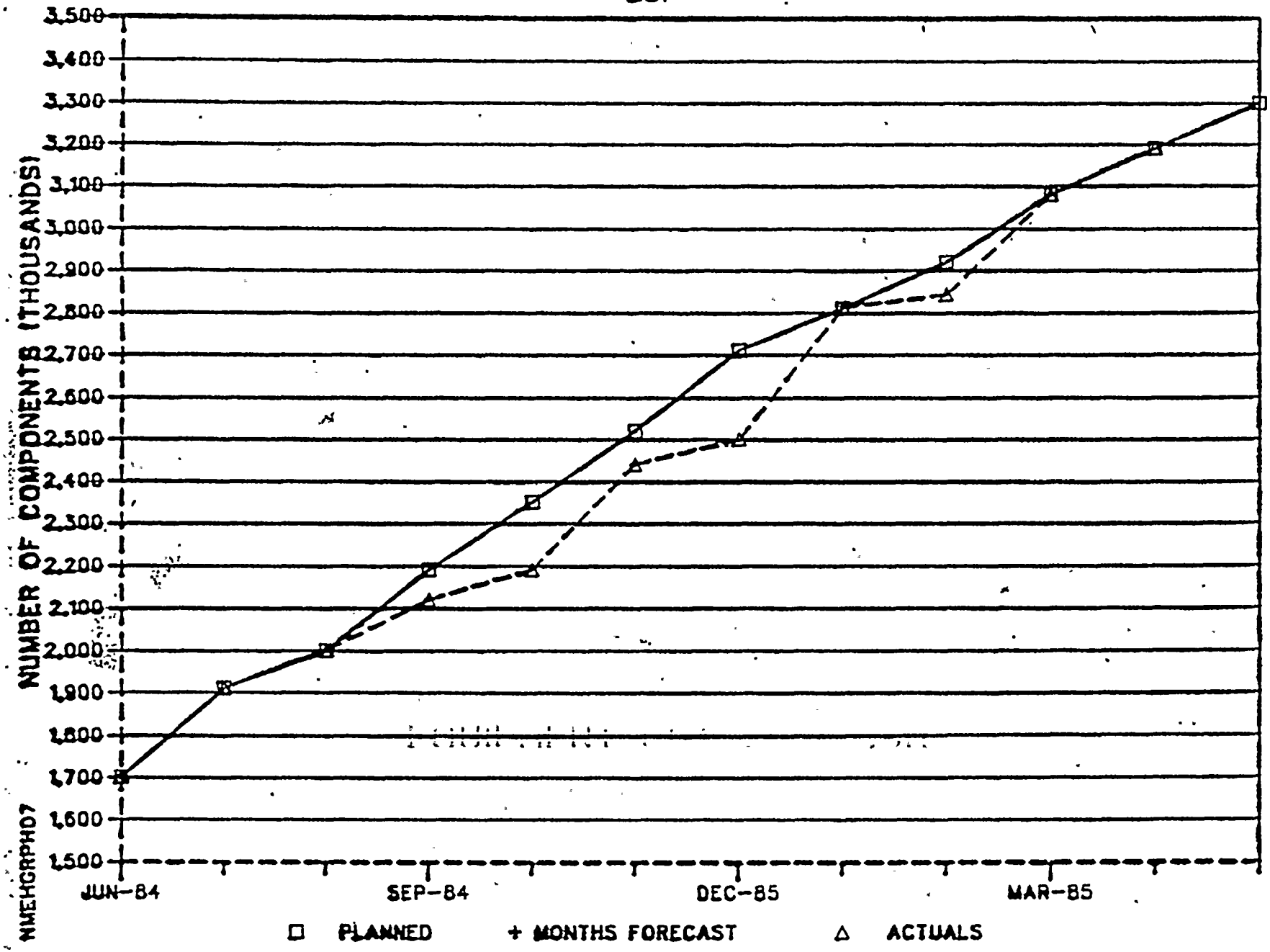


NMEHGRPHOB

ATTACHMENT 3

EQUIPMENT QUALIFICATION

BOP



NMEHGRPH07

ITEM NUMBER 3

REVIEW OF CRITICAL PATH ITEMS

(Separate Handout Provided)

ITEM NUMBER 4

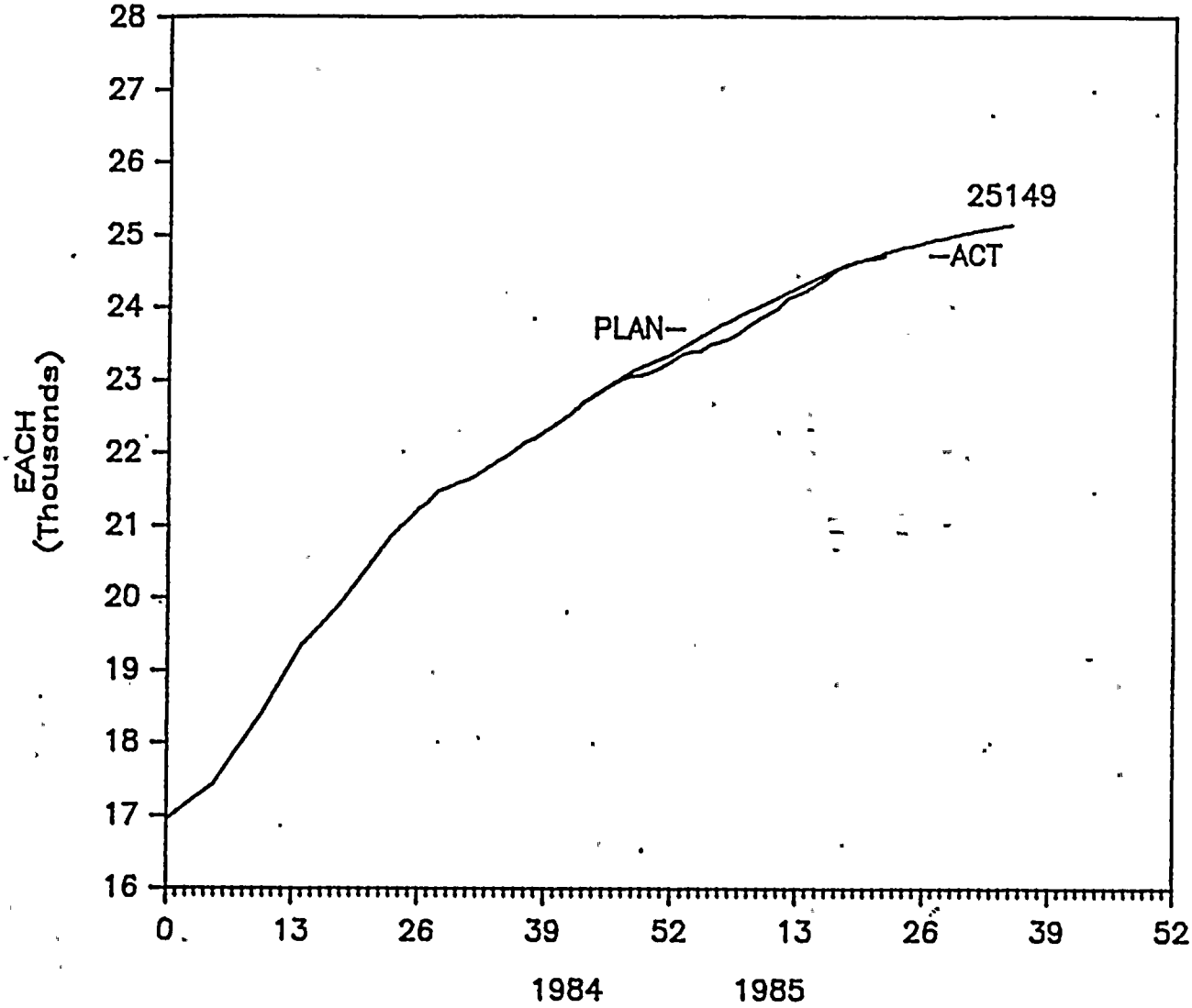
STATUS OF BULK QUANTITIES

Item 4

The following curves and the Production Report are based upon the Engineers Construction Management System (CMS) which is the system used to collect and tabulate installed quantities. Since NMP#2 is a subcontracted project not all project commodities are shown. Also, curves are provided to show complete visability as to the plan, however, the to go planned rate per month shown on the production is the average rate of planned installation from now until the commodity reaches 90% complete.

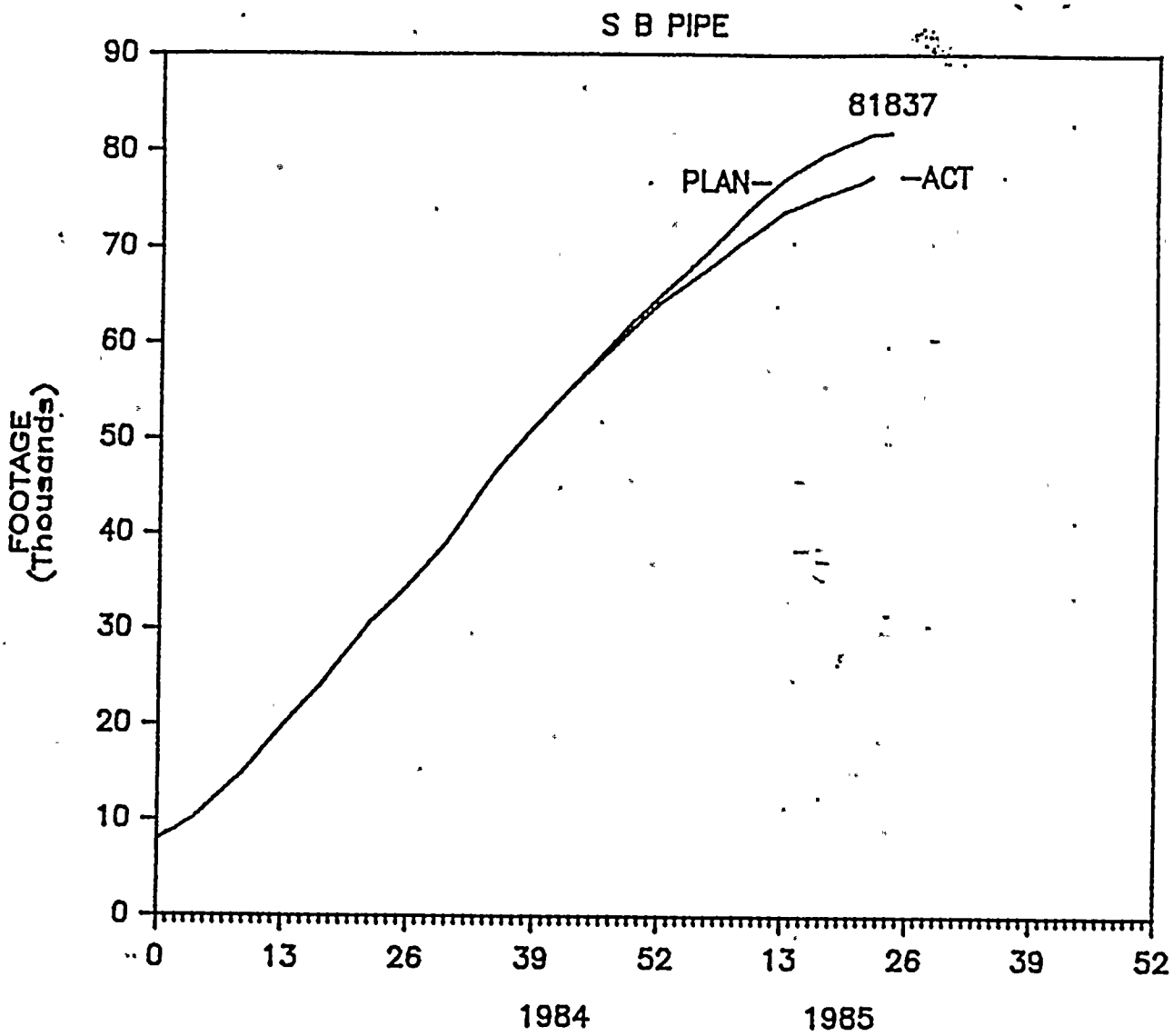
ITT PLAN VS ACT

L B WELDS



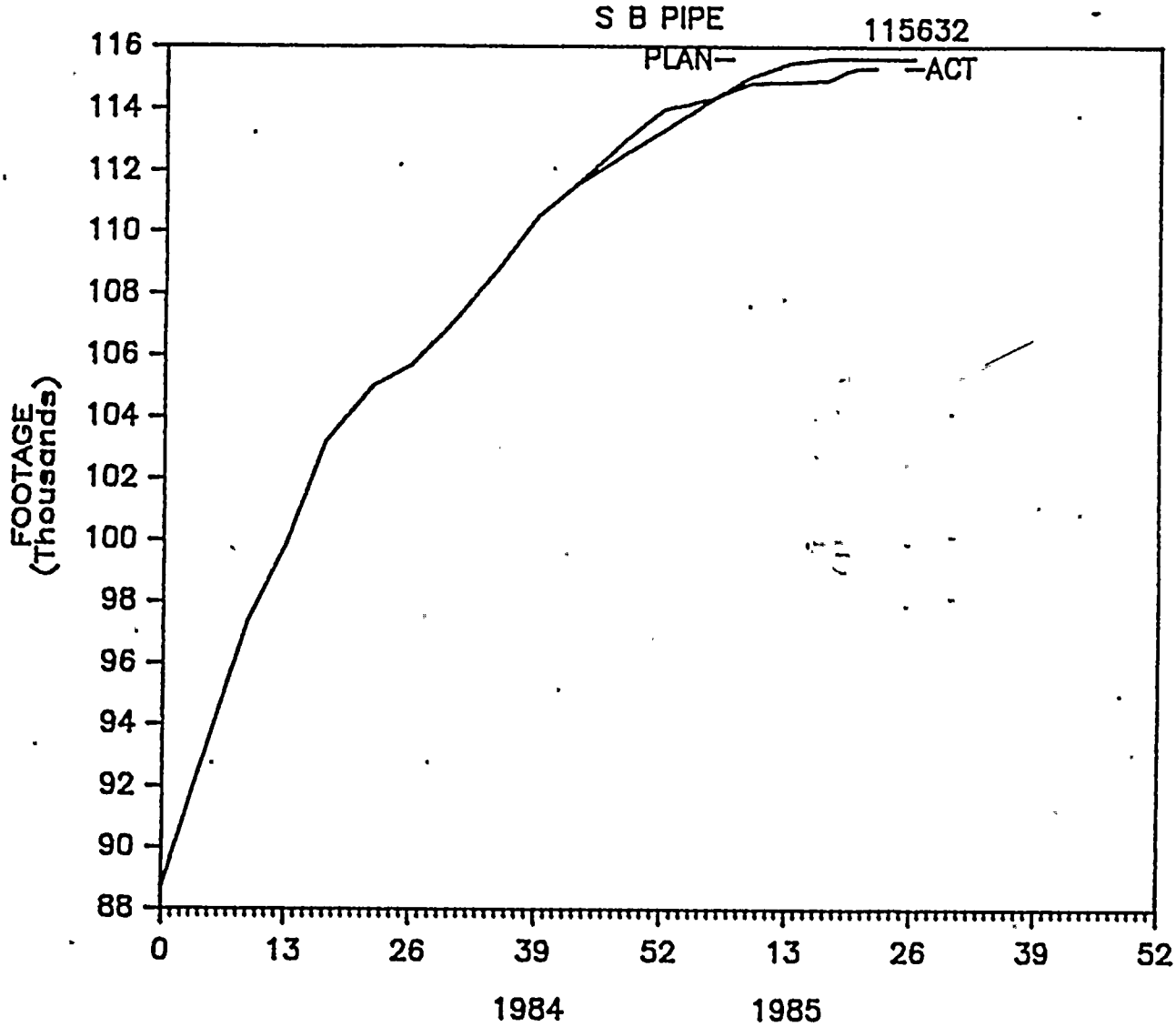
Quantities are reported as installed to CMS upon completion of the weld. Quantities are verified by comparing actual quantities reported vs. iso-metric drawing takeoffs. The L.B. Welds made by the NSSS erector, Turbine Generator erector and Fire Protection erector are <u>not</u> included. The estimated percent complete is 98%.

SWEC PLAN VS ACT



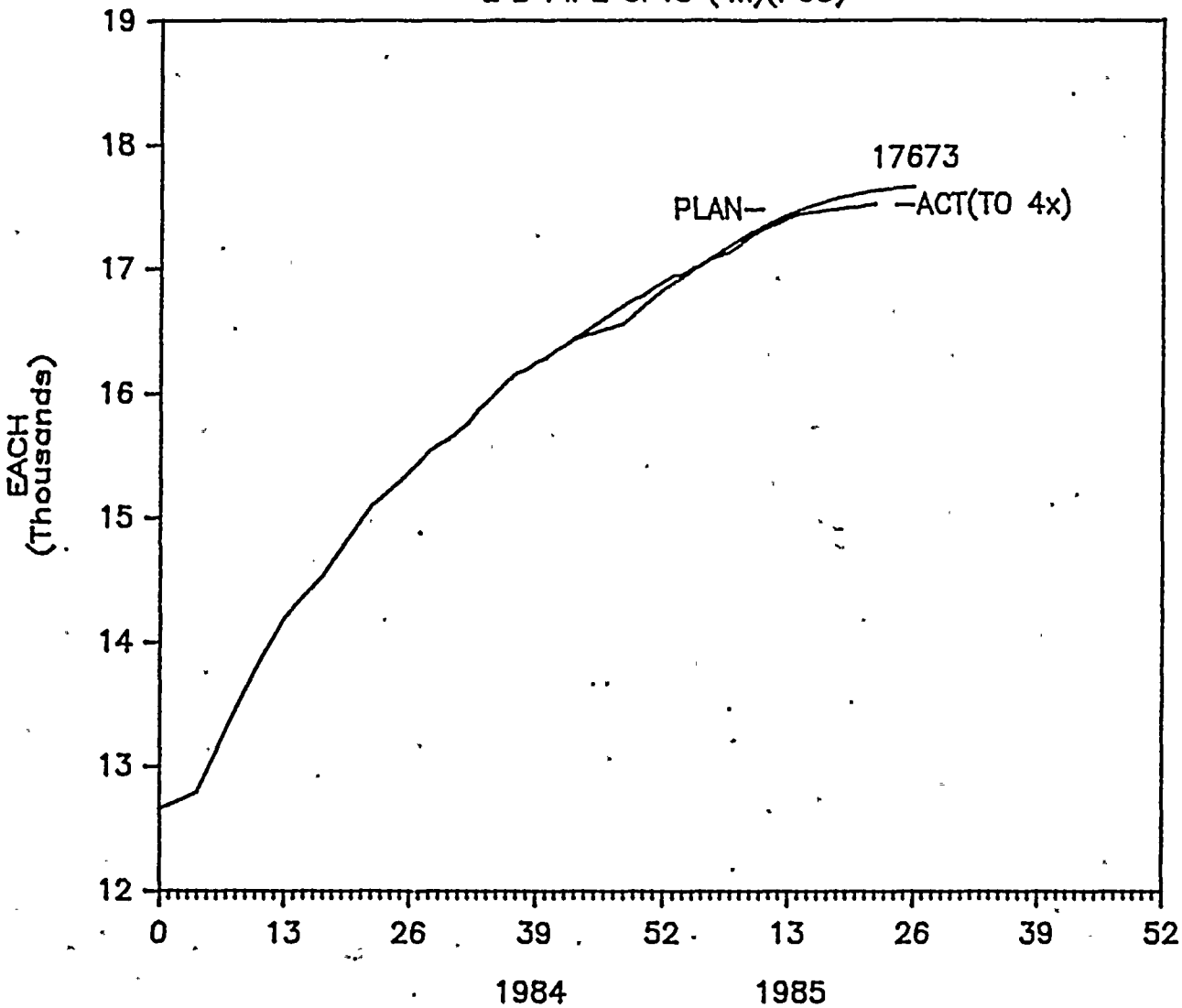
Quantities are reported installed to CMS when satisfactorily supported in place. Quantities are verified against iso-metric drawing takeoffs and physical field audits. The S.B. Pipe installed by the NSSS erector, Turbine Generator erector and Fire Protection erector are <u>not</u> included. The estimated percent complete is 97% for both graphs.

ITT PLAN VS ACT



ITT PLAN VS ACT

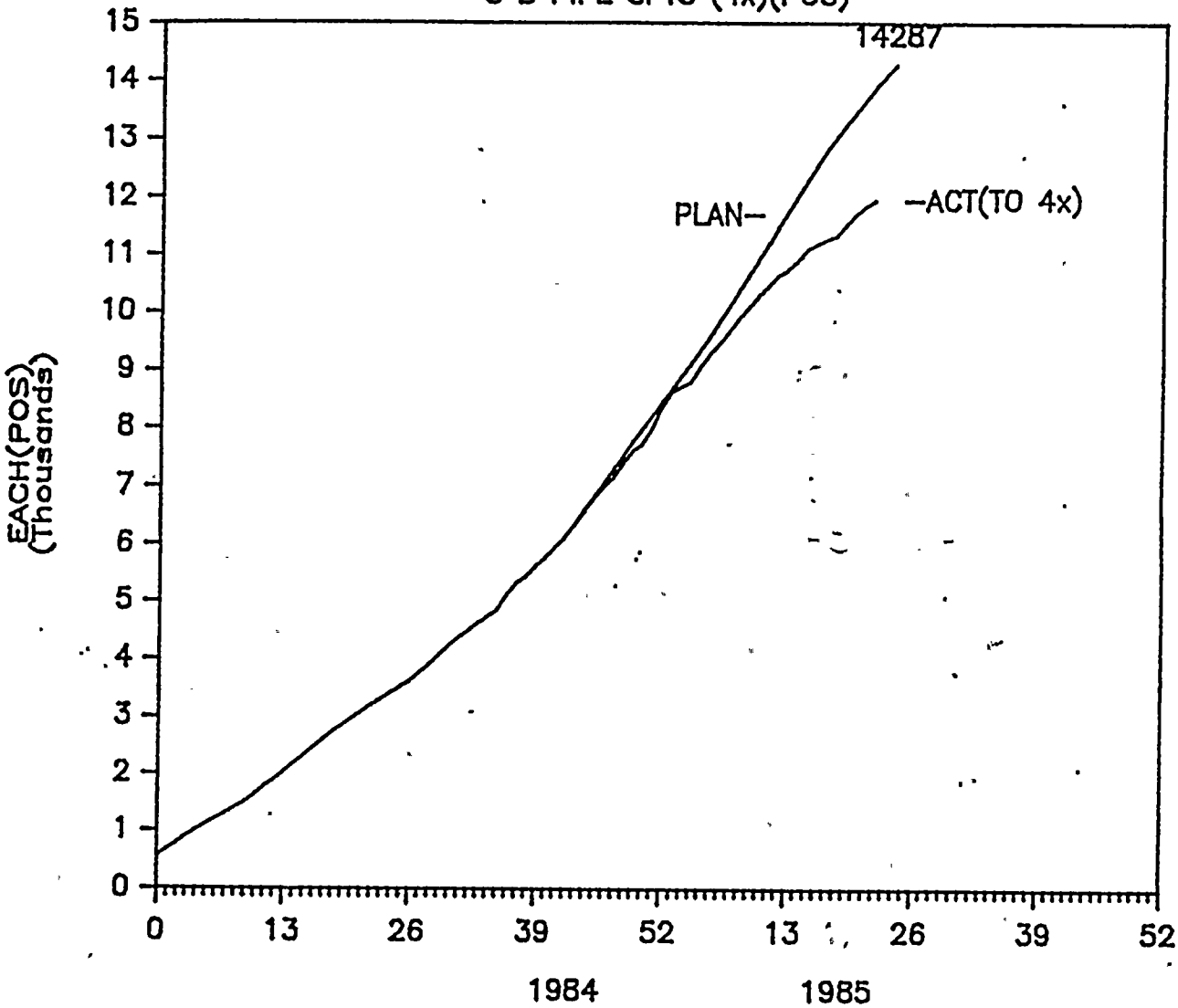
L B PIPE SPTS (4x)(POS)



Quantities are reported on a percent complete basis as each activity during installation is satisfactorily completed. Final Q.C. inspection and signoff is considered 100% complete. Quantities are verified by comparing actual reported quantities vs. iso-metric drawing takeoffs. S.B. Pipe Supports installed by the NSSS erector, Turbine erector, Fire Protection erector and Mechanical erector are <u>not</u> included. The estimated percent complete is 90% for both graphs.

SWEC PLAN VS ACT

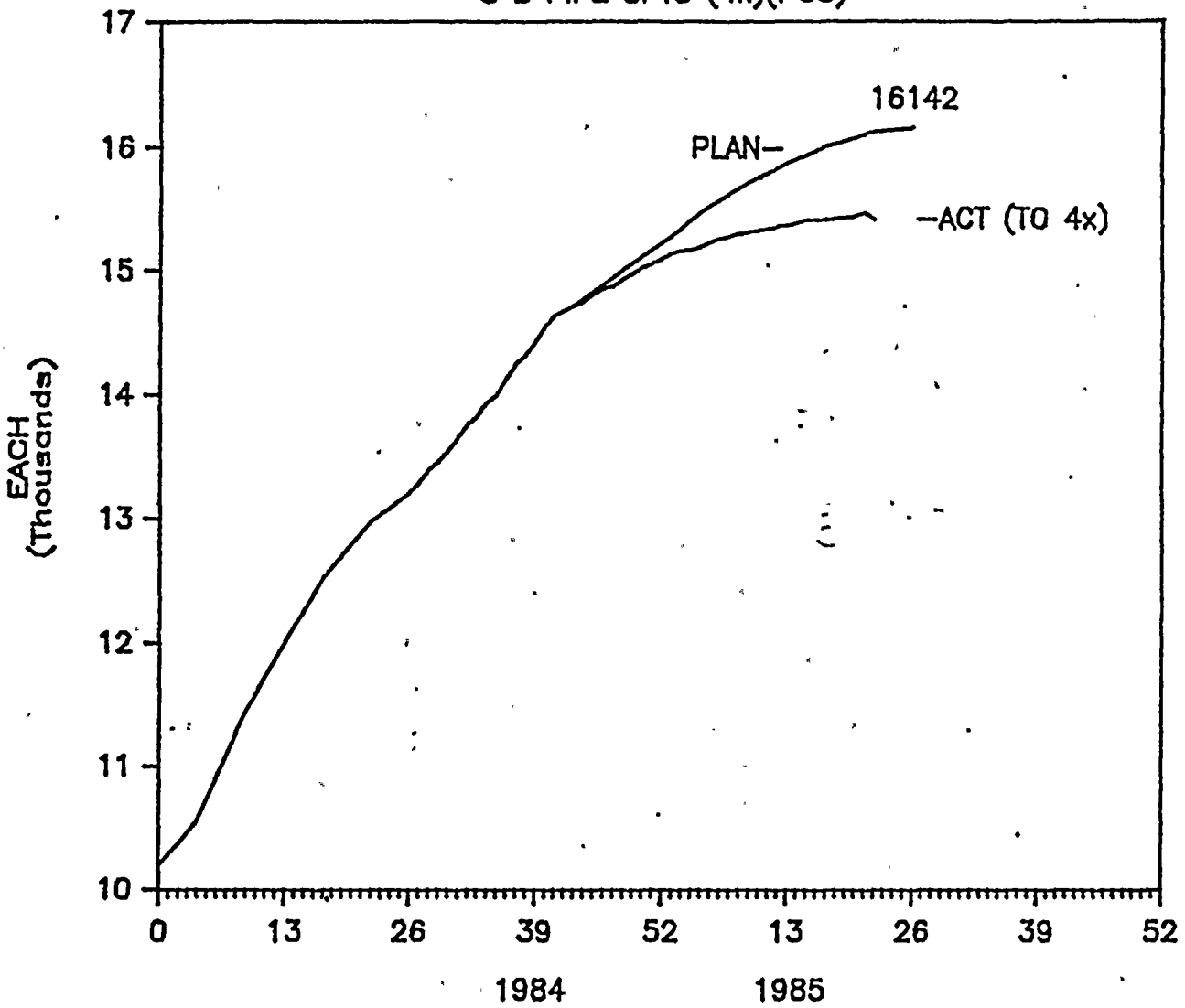
S B PIPE SPTS (4x)(POS)



Quantities are reported on a percent complete basis as each activity during installation is satisfactorily completed. Final Q.C. inspection and signoff is considered 100% complete. Quantities are verified by comparing actual reported quantities vs. iso-metric drawing takeoffs. S.B. Pipe Supports installed by the NSSS erector, Turbine erector, Fire Protection erector and Mechanical erector are <u>not</u> included. The estimated percent complete is 90% for both graphs.

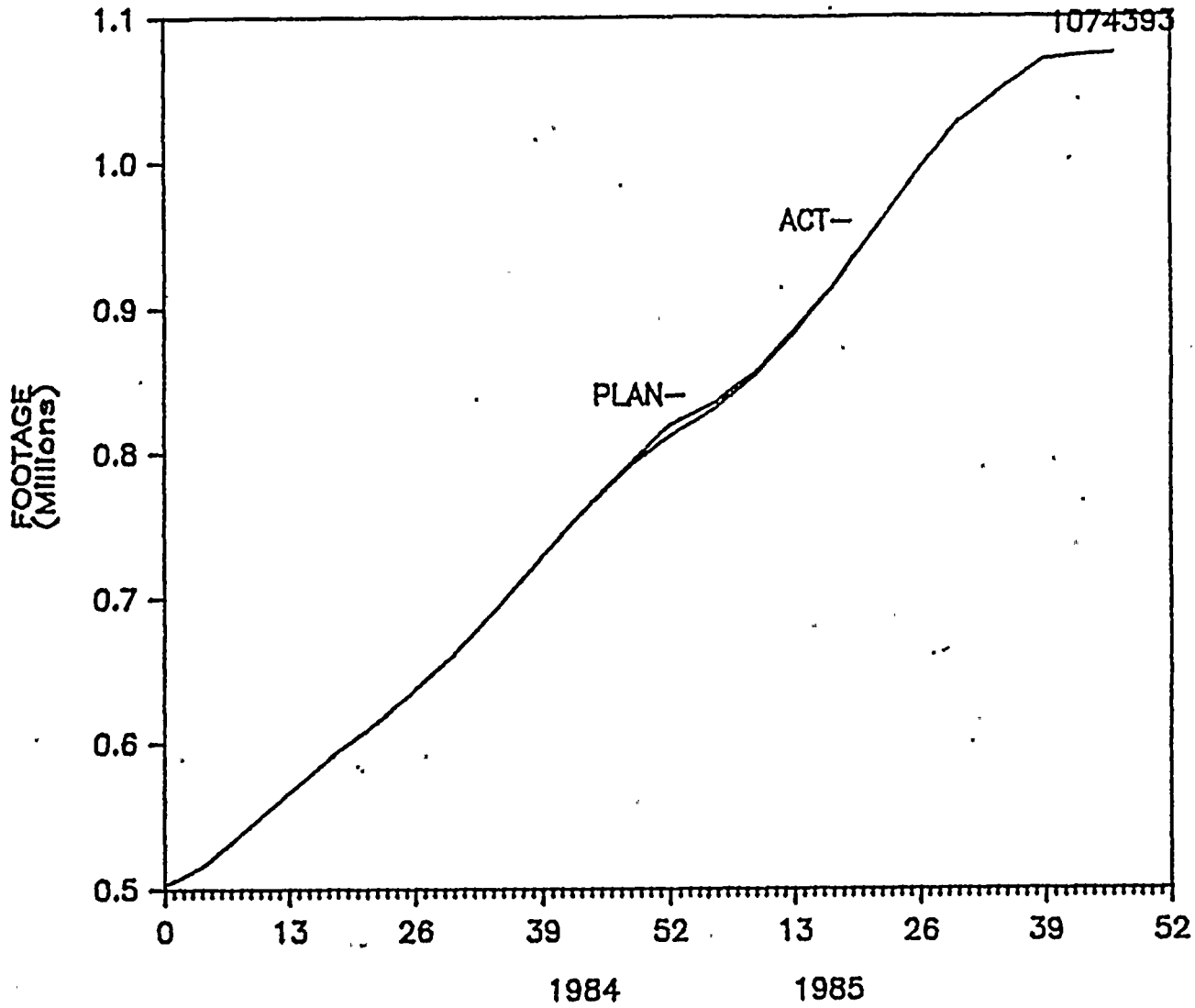
ITT PLAN VS ACT

S B PIPE SPTS (4x)(POS)



LKC PLAN VS ACT

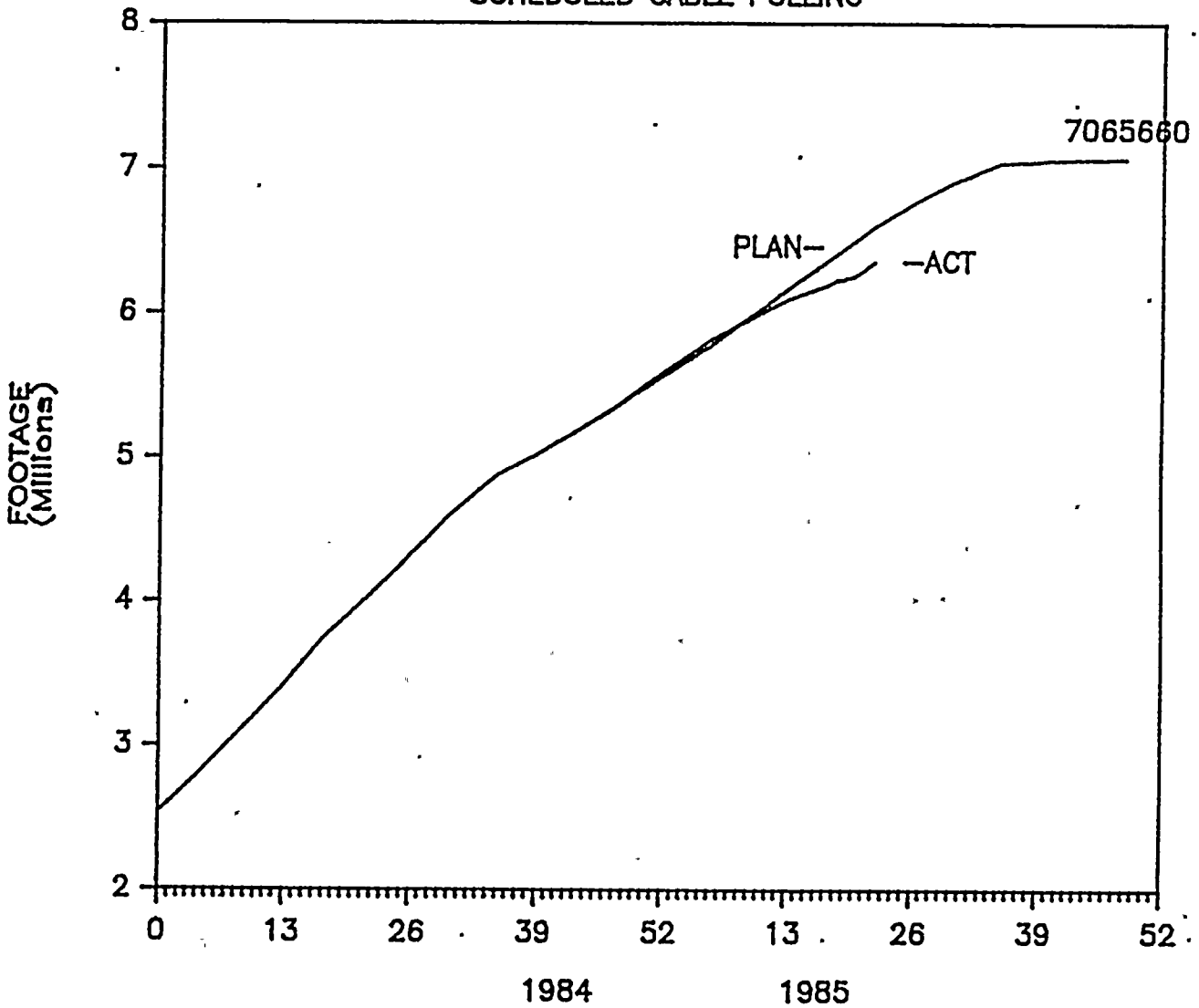
CONDUIT



The conduit included on this graph are segregated from total conduit in that it represents more than 90% of the total project conduit estimated manhours. Types of conduit included are power, control, instrument, lighting, security and some communications (RSC). Quantities are reported as installed to CMS when securely in place and verified through physical audits and through the engineers conduit identification system. The estimated percent complete is 89%.

LKC PLAN VS ACT

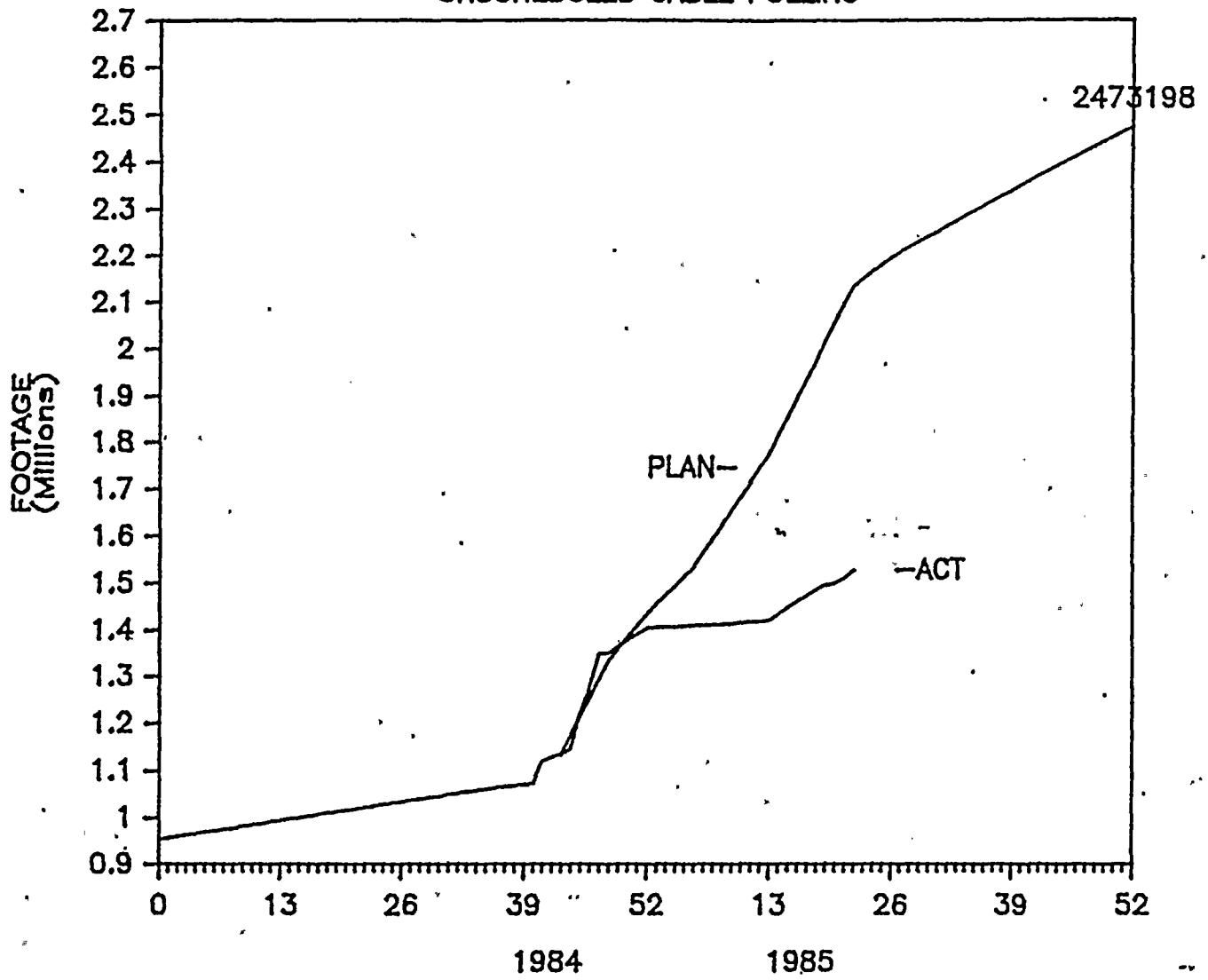
SCHEDULED CABLE PULLING



Included on this graph are power, control, instrument and signal cables which are specifically identified in the engineers cable tracking system. Quantities are reported as installed to CMS when initial installation is complete. Quantities are verified through the use of cable reel cards. Final verification is performed through the use of the engineers cable tracking system. The estimated percent complete 90%.

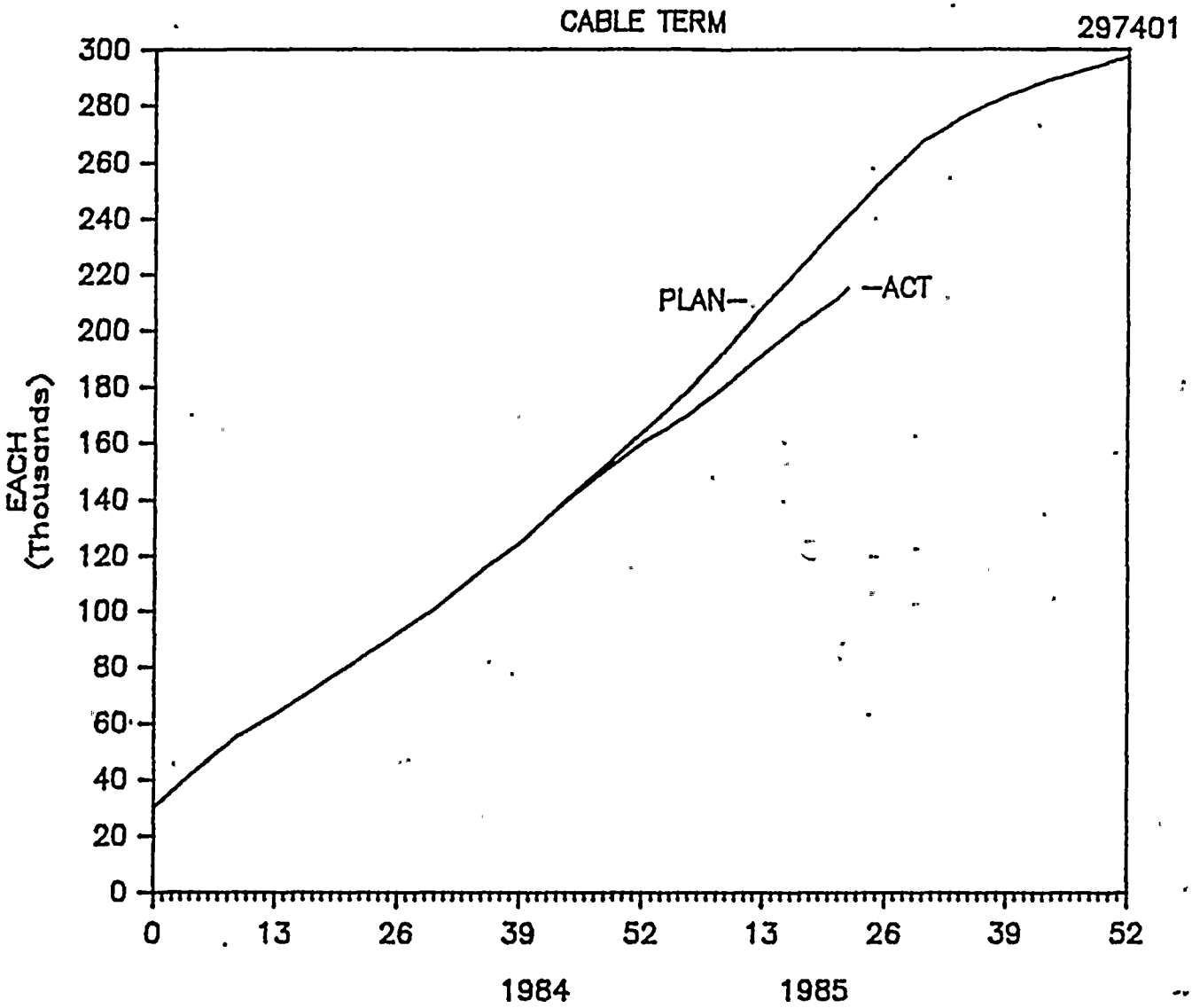
LKC PLAN VS ACT

UNSCHEDULED CABLE PULLING



Lighting wire, communications, security and misc. power cables are reported into CMS when installation from point of origin to its final destination has been completed. Quantities are verified through audits of the cable reel cards which indicate the quantity and use of each cable pulled from the reel. The estimated percent complete is 62%.

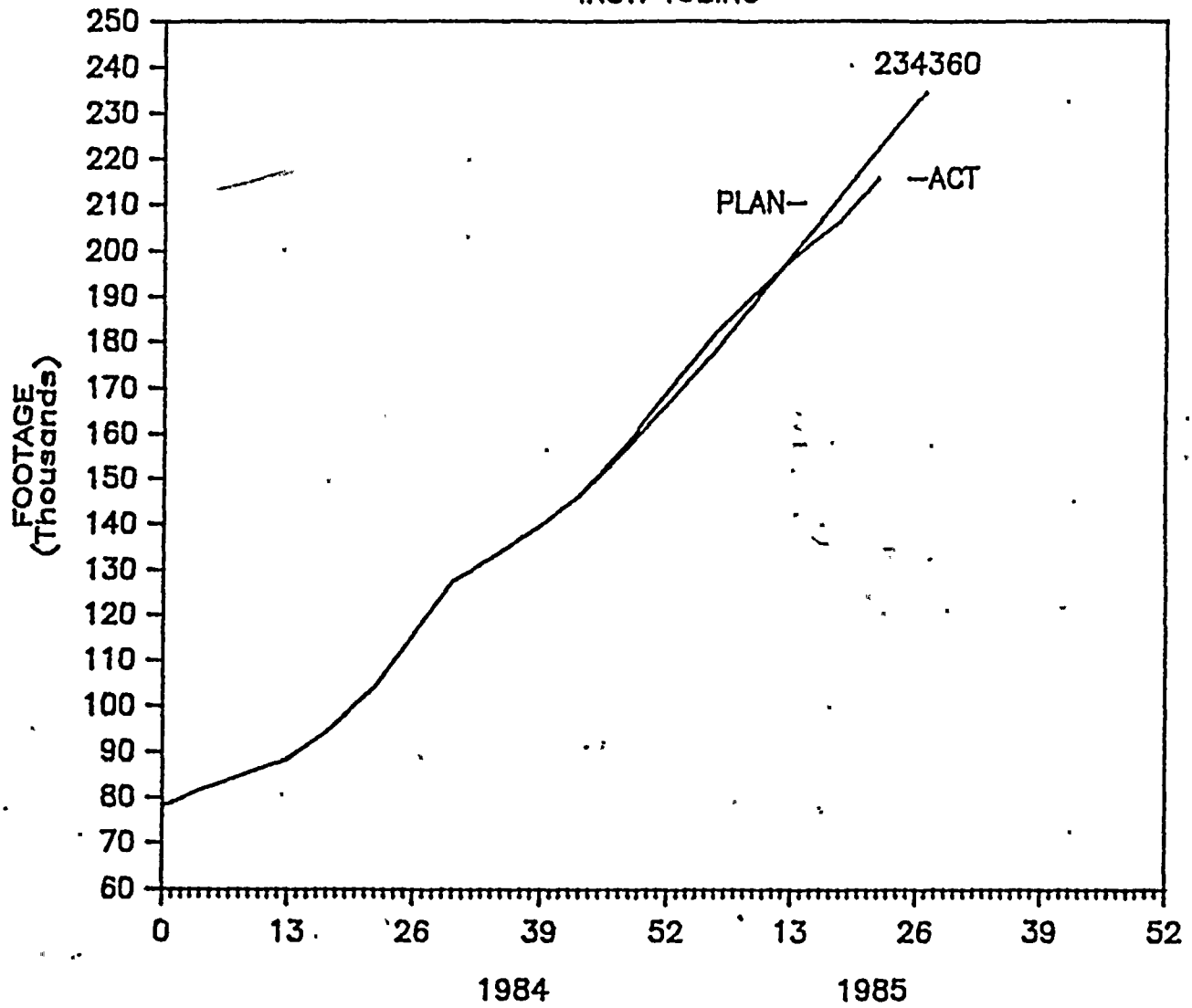
LKC PLAN VS ACT



Power, Control, Instrument, Communications and Security Terminations are reported as complete after initial landing of the terminal lugs and the proper paperwork has been completed and turned over to project quality control. Quantities are collected in the construction management system (CMS) and verified through the Engineers Termination Program. The estimated percent complete is 72%.

JCI PLAN VS ACT

INST. TUBING



Copper and Stainless Steel Tubing is reported installed to CMS when satisfactorily supported in place. Quantities are verified by physical walkdown audits. The estimated percent complete is 92%.

#2

MONTHLY PRODUCTION REPORT

Period End 5/17/85

COMMODITY	U/M	ESTIMATE	INSTALLED TO DATE	SCH TO DATE	PHYSICAL % COMPLETE	TO GO PLANNED RATE (TO 90% COM)	1985 TO DATE ACTUAL RATE	FINAL QA CAT 1 % ACCEPTED
1. Concrete	CY	269,236	269,236	N/A	100%	N/A	N/A	99%
2. Large Bore Pipe	LF	229,566	228,383	229,284	99.5%	N/A	N/A	N/A
3. S.B. Pipe	LF	197,469	192,626	197,332	97.0%	N/A	2830/MO	N/A
4. Pipe Whip Restraint	UN	17,333	13,540	N/A	78.1%	N/A	N/A	N/A
5. Large Bore Valves	EA	2,486	2,385	N/A	95.9%	N/A	N/A	N/A
6. L.B. Hangers	EA	17,673	17,539	17,649	99.2%	N/A	125/MO	68.2%
7. S.B. Hangers	EA	30,429	27,364	30,016	89.9%	N/A	765/MO	29.7%
8. Cable Tray	LF	119,286	118,251	N/A	99.1%	N/A	N/A	89.4%
9. Key Indicator Conduit	LF	1,074,393	959,080	958,832	89.3%	N/A	28,950/MO	69.7%
10. Total Conduit	LF	1,210,661	1,090,000	N/A	90.0%	N/A	30,000/MO	N/A
11. Scheduled Cable	LF	7,065,660	6,355,085	6,599,799	89.9%	N/A	142,100/MO	56.8%
12. Unscheduled Cable	LF	2,473,198	1,528,283	2,135,220	61.8%[1]	58,000	32,320/MO	N/A
13. Cable Terminations	EA	297,401	215,056	240,895	72.3%[1]	14,357	9,350/MO	57.3%
14. Instrument Tubing	LF	234,360	215,789	222,140	92.1%	N/A	9,200/MO	7.0%

ITEM NUMBER 5

STATUS OF PREOPERATIONAL AND

ACCEPTANCE PROCEDURES

STARTUP AND TEST PREOPERATIONAL AND ACCEPTANCE PROCEDURE STATUS

TEST NUMBER	TEST TITLE	REV NO.	RESPONSIBLE TEST ENGINEER	RESPONSIBLE GROUP SUPERVISOR	PROCEDURE STATUS	SOFTWARE JTG APPROVAL REQUIRED DATE	EXPECTED DATE YOU WILL HAVE THE PROCEDURE READY FOR JTG TECH REVIEW
N2-POT-1	MAIN & AUXILIARY STEAM	0	McDERMOTT, K.	KOEHL, D.	FIRST DRAFT COMPLETE	06/15/85	
N2-AT-2	MOISTURE SEPARATORS / RHTRS, VENTS DRAINS	0	KITTELSEN, R.	McCUTCHEON, D.	TECH REVIEW COMPLETE	01/17/85	
N2-POT-3	CONDENSATE SYSTEM	0	GILBERT, T.	HICKS, C.	APPROVED	05/23/85	
N2-POT-4	CONDENSATE STORAGE & TRANSFER	0	SAUNDERSON, B.	HICKS, C.	APPROVED	10/23/84	
N2-POT-5	CONDENSATE DEMIN & RESIN REGEN.	0	LEWIS, J.	McCULLOUGH, D.	APPROVED	05/03/85	
N2-POT-6	FEEDWATER SYSTEM	0	VAIL, J.	LENTZ, R.	FIRST DRAFT COMPLETE	06/12/85	
N2-POT-7	FEEDWATER CONTROL SYSTEM	0	MARKER, D.	LENTZ, R.	APPROVED	07/02/85	
N2-POT-8	FEEDWATER HEATERS & EXTRACTION STEAM	0	ROZGORIL, M.	LENTZ, R.	FIRST DRAFT COMPLETE	05/29/85	
N2-POT-9	CONDENSER AIR REMOVAL	0	SANTARO, J.	STOCKMAN, E.	FIRST DRAFT COMPLETE	02/05/85	
N2-POT-10A	CIRCULATING WATER SYSTEM.	0	SULLIVAN, T.	ANSINK, T.	FIRST DRAFT COMPLETE	02/12/85	
N2-AT-10B	ACID TREATMENT SYSTEM	0	SULLIVAN, T.	ANSINK, T.	TECH REVIEW COMPLETE	08/23/84	
N2-AT-10C	HYPOCHLORITE SYSTEM	0	SULLIVAN, T.	ANSINK, T.	TECH REVIEW COMPLETE	12/27/84	
N2-POT-11	SERVICE WATER	0	STECKER, B.	ANSINK, T.	TECH REVIEW IN PROGRESS	03/06/85	
N2-AT-12	TRAVELING WATER SCREENS & WASH DISPOSAL	1	BURNSWORTH, C.	ANSINK, T.	APPROVED	07/02/84	
N2-POT-13	REACTOR BLDG. CLOSED LOOP COOLING WATER	0	FLOOD, D.	ROMEO, F.	APPROVED	03/19/85	

STARTUP AND TEST PREOPERATIONAL AND ACCEPTANCE PROCEDURE STATUS

TEST NUMBER	TEST TITLE	REV NO.	RESPONSIBLE TEST ENGINEER	RESPONSIBLE GROUP SUPERVISOR	PROCEDURE STATUS	SOFTWARE JTG APPROVAL REQUIRED DATE	EXPECTED DATE YOU WILL HAVE THE PROCEDURE READY FOR JTG TECH REVIEW
N2-POT-14	TURBINE BLDG. CLOSED LOOP COOLING WATER	0	JONES, R.	ANSINK, T.	TECH REVIEW COMPLETE	03/29/85	
N2-AT-15	MAKEUP WATER TREATMENT	0	IRWIN, K.	McCUTCHEON, D.	APPROVED	03/19/84	
N2-POT-16	MAKEUP WATER STORAGE AND TRANSFER	0	IRWIN, K.	McCUTCHEON, D.	TECH REVIEW IN PROGRESS	09/25/84	
N2-POT-17-1	TURBINE PLANT SAMPLING	0	LEATHERS, D.	HICKS, C.	APPROVED	09/25/85	
N2-POT-17-2	REACTOR PLANT SAMPLING	0	LEATHERS, D.	HICKS, C.	APPROVED	09/25/85	
N2-POT-17-3	RADWASTE PLANT SAMPLING SYSTEM	0	LEATHERS, D.	HICKS, C.	APPROVED	09/25/85	
N2-POT-17-4	POST ACCIDENT SAMPLING SYSTEM	0	LEATHERS, D.	HICKS, C.	DRAFT NOT STARTED	09/25/85	
N2-POT-19-1	INSTRUMENT AND SERVICE AIR	0	SMACHLO, M.	ROMEO, F.	TECH REVIEW COMPLETE	02/13/85	
N2-POT-19-2	LOSS OF PLANT AIR / N2	0	SMACHLO, M.	ROMEO, F.	FIRST DRAFT COMPLETE	02/13/85	
N2-AT-20	BREATHING AIR	0	SMACHLO, M.	ROMEO, F.	FIRST DRAFT COMPLETE	05/16/85	
N2-AT-22A	GENERATOR SEAL OIL SYSTEM	0	SURI, D.	GRIMSBO, D.	TECH REVIEW COMPLETE	05/26/85	
N2-AT-22B	TURBINE LUBE OIL CONDITIONER AND WASTE OIL	0	SURI, D.	GRIMSBO, D.	APPROVED	01/19/85	
N2-POT-23	TURBINE E.H.C.	0	SYRELL, T.	GRIMSBO, D.	FIRST DRAFT COMPLETE	02/01/85	
N2-AT-24	GENERATOR ISOLATED PHASE BUS DUCT COOLING	0	IRWIN, K.	McCUTCHEON, D.	FIRST DRAFT COMPLETE	05/16/85	
N2-AT-25	CLEAN STEAM REBOILER & AUX. CONDENSATE	0	McMAHON, T.	GRIMSBO, D.	TECH REVIEW IN PROGRESS	07/05/85	

STARTUP AND TEST PREOPERATIONAL AND ACCEPTANCE PROCEDURE STATUS

TEST NUMBER	TEST TITLE	REV NO.	RESPONSIBLE TEST ENGINEER	RESPONSIBLE GROUP SUPERVISOR	PROCEDURE STATUS	SOFTWARE JIG APPROVAL REQUIRED DATE	EXPECTED DATE YOU WILL HAVE THE PROCEDURE READY FOR JIG TECH REVIEW
N2-AT-26	TURBINE GENERATOR STATOR COOLING WATER	0	SURI, D.	GRINSPO, D.	FIRST DRAFT COMPLETE	06/28/85	
N2-AT-27	GENERATOR H2 & CO2 GAS	0	McMAHON, T.	GRINSBO, D.	TECH REVIEW IN PROGRESS	06/06/85	
N2-POT-28	NUCLEAR BOILER INSTRUMENTATION	0	NORWAY, R.	McCUTCHEON, D.	FIRST DRAFT COMPLETE	04/16/85	
N2-POT-29-1	REACTOR RECIRCULATION SYSTEM	0	GIBBS, B.	HICKS, C.	TECH REVIEW IN PROGRESS	04/23/85	
N2-POT-29-2	REACTOR RECIRC FLOW CONTROL SYSTEM	0	WEEKS, M.	LENTZ, R.	APPROVED	04/23/85	
N2-POT-30	CONTROL ROD DRIVE HYDRAULICS	0	COURTNEY, R.	KOEHL, D.	FIRST DRAFT COMPLETE	05/11/85	
N2-POT-31	RESIDUAL HEAT REMOVAL SYSTEM	0	McCARTHY, J.	GATES, J.	FIRST DRAFT COMPLETE	05/07/85	
N2-POT-32	LOW PRESSURE CORE SPRAY	0	KUGELMAN, G.	GATES, J.	TECH REVIEW IN PROGRESS	03/21/85	
N2-POT-33	HIGH PRESSURE CORE SPRAY	0	MALUSIC, J.	GRINSBO, D.	FIRST DRAFT COMPLETE	04/16/85	
N2-POT-34	AUTOMATIC DEPRESSURIZATION SYSTEM	0	FLOOD, D.	ROMEO, F.	FIRST DRAFT COMPLETE	06/03/85	
N2-POT-35	REACTOR CORE ISOLATION COOLING SYSTEM	0	WILLIS, D.	GATES, J.	APPROVED	06/03/85	
N2-POT-36	STANDBY LIQUID CONTROL	0	WILLIS, D.	GATES, J.	APPROVED	03/12/85	
N2-POT-37	REACTOR WATER CLEANUP SYSTEM	0	KOLOD, C.	KOEHL, D.	FIRST DRAFT COMPLETE	07/16/85	
N2-POT-38	FUEL POOL COOLING AND CLEANUP	0	VALAES, M.	KOEHL, D.	FIRST DRAFT COMPLETE	02/26/85	

STARTUP AND TEST PREOPERATIONAL AND ACCEPTANCE PROCEDURE STATUS

TEST NUMBER	TEST TITLE	REV NO.	RESPONSIBLE TEST ENGINEER	RESPONSIBLE GROUP SUPERVISOR	PROCEDURE STATUS	SOFTWARE JTG APPROVAL REQUIRED DATE	EXPECTED DATE YOU WILL HAVE THE PROCEDURE READY FOR JTG TECH REVIEW
N2-POT-39	FUEL HANDLING AND REACTOR SERVICE EQUIPMENT	0	SCHNEIDER, K.	McCUTCHEON, D.	FIRST DRAFT COMPLETE	07/28/85	
N2-POT-40-1	LIQUID RADWASTE SYSTEM	0	BUCK, B.	McCULLOUGH, D.	DRAFT NOT STARTED	08/13/85	
N2-POT-40-2	RADWASTE PROCESS COMPUTER	0	BUCK, B.	McCULLOUGH, D.	DRAFT NOT STARTED	08/13/85	
N2-POT-41	SOLID RADWASTE	0	BUIVA, U.	McCULLOUGH, D.	DRAFT NOT STARTED	09/25/85	
N2-POT-42	OFF-GAS SYSTEM	0	SANTARD, J.	STOCKMAN, E.	DRAFT NOT STARTED	07/13/85	
N2-POT-43	FIRE WATER PROTECTION	0	VERMILYEA, T.	STOCKMAN, E.	FIRST DRAFT COMPLETE	02/13/85	
N2-POT-44	FIRE PROTECTION FOAM	0	VERMILYEA, T.	STOCKMAN, E.	FIRST DRAFT COMPLETE	03/23/85	
N2-POT-45	FIRE PROTECTION CO2	0	VERMILYEA, T.	STOCKMAN, E.	FIRST DRAFT COMPLETE	04/12/85	
N2-POT-46	FIRE PROTECTION HALON	0	VERMILYEA, T.	STOCKMAN, E.	DRAFT NOT STARTED	07/16/85	
N2-POT-47	SMOKE, FLAME AND TEMPERATURE DETECTION	0	VERMILYEA, T.	STOCKMAN, E.	DRAFT NOT STARTED	07/31/85	
N2-AT-48	AUXILIARY BOILER	0	HAUMPTON, T.	GEORGE, A.	TECH REVIEW IN PROGRESS	05/04/85	
N2-AT-49-1	HOT WATER & GLYCOL HEATING SYSTEM	0	CRUZ, D.	GEORGE, A.	APPROVED	02/14/85	
N2-AT-49-2	TURBINE BUILDING HOT WATER & GLYCOL	0	SHOEMAKER, T.	GEORGE, A.	APPROVED	02/14/85	
N2-AT-49-3	RADWASTE BUILDING HOT WATER & GLYCOL	0	SHOEMAKER, T.	GEORGE, A.	APPROVED	02/14/85	
N2-AT-49-4	REACTOR BUILDING HOT WATER & GLYCOL	0	CRUZ, D.	GEORGE, A.	APPROVED	02/14/85	
N2-AT-50	DOMESTIC WATER	0	ADAMS, W.	McCUTCHEON, D.	TECH REVIEW IN PROGRESS	02/14/85	

STARTUP AND TEST PREOPERATIONAL AND ACCEPTANCE PROCEDURE STATUS

TEST NUMBER	TEST TITLE	REV NO.	RESPONSIBLE TEST ENGINEER	RESPONSIBLE GROUP SUPERVISOR	PROCEDURE STATUS	SOFTWARE JTG APPROVAL REQUIRED DATE	EXPECTED DATE YOU WILL HAVE THE PROCEDURE READY FOR JTG TECH REVIEW
N2-POT-52	REACTOR BUILDING HVAC	8	CRUZ, D.	GEORGE, A.	FIRST DRAFT STARTED	05/11/85	
N2-POT-53-1	CONTROL BUILDING HVAC	8	GEORGE, A.	GEORGE, A.	TECH REVIEW IN PROGRESS	02/12/85	
N2-POT-53-2	CONTROL BUILDING CHILLED WATER	8	MARTIN, T.	GEORGE, A.	FIRST DRAFT STARTED	02/12/85	
N2-POT-53-3	CONTROL ROOM PRESSURE TEST	8	MARTIN, T.	GEORGE, A.	FIRST DRAFT STARTED	02/12/85	
N2-AT-54-1	NORMAL SWITCHGEAR BLDG. VENTILATION SYSTEM	8	BURWINKLE, P.	GEORGE, A.	APPROVED	01/25/85	
N2-AT-54-2	LITHIUM BROMIDE CHILLED WATER	8	BURWINKLE, P.	GEORGE, A.	APPROVED	01/25/85	
N2-POT-55	TURBINE BLDG. VENTILATION	8	SHOEMAKER, T.	GEORGE, A.	APPROVED	02/19/85	
N2-POT-56-1	RADWASTE BUILDING VENTILATION	8	SHOEMAKER, T.	GEORGE, A.	FIRST DRAFT STARTED	05/22/85	
N2-POT-56-2	RADWASTE BUILDING PRESSURE/FLOW TEST	8	SHOEMAKER, T.	GEORGE, A.	FIRST DRAFT STARTED	05/22/85	
N2-POT-57	DIESEL GENERATOR BUILDING VENTILATION	8	BURWINKLE, P.	GEORGE, A.	APPROVED	03/26/85	
N2-AT-58-1	SCREENWELL DIESEL FIREPUMP & MISC. VENTILATION	8	SHOEMAKER, T.	GEORGE, A.	APPROVED	12/03/84	
N2-AT-58-2	MISC. VENT AUXILIARY SERVICE BLDG. & SERVICE BLDG.	8	GEORGE, A.	GEORGE, A.	APPROVED	12/03/84	
N2-AT-58-3	AUXILIARY BOILER & CHILLER BUILDING VENTILATION	8	CRUZ, D.	GEORGE, A.	APPROVED	12/28/84	

STARTUP AND TEST PREOPERATIONAL AND ACCEPTANCE PROCEDURE STATUS

TEST NUMBER	TEST TITLE	REV NO.	RESPONSIBLE TEST ENGINEER	RESPONSIBLE GROUP SUPERVISOR	PROCEDURE STATUS	SOFTWARE JTG APPROVAL REQUIRED DATE	EXPECTED DATE YOU WILL HAVE THE PROCEDURE READY FOR JTG TECH REVIEW
N2-POT-59A	ELECTRIC TUNNELS VENTILATION SYSTEM	0	GEORGE, A.	GEORGE, A.	APPROVED	10/28/84	
N2-POT-60	DRYWELL COOLING	0	FLOOD, D.	ROMEO, F.	TECH REVIEW IN PROGRESS	09/23/85	
N2-POT-61-1	PRIMARY CONTAINMENT PURGE SYSTEM	0	BURWINKLE, P.	GEORGE, A.	APPROVED	04/02/85	
N2-POT-61-2	STANDBY GAS TREATMENT	0	BEERS, J.	GEORGE, A.	FIRST DRAFT COMPLETE	04/02/85	
N2-POT-62	DBA HYDROGEN RECOMBINER	0	SAUNDERSON, B.	HICKS, C.	FIRST DRAFT COMPLETE	09/03/85	
N2-POT-63-1	REACTOR BLDG. EQUIPMENT DRAINS	0	CATTELANE, J.	McCULLOUGH, D.	TECH REVIEW COMPLETE	04/16/85	
N2-POT-63-2	REACTOR BUILDING FLOOR DRAINS	0	CATTELANE, J.	McCULLOUGH, D.	TECH REVIEW COMPLETE	04/16/85	
N2-POT-64-1	TURBINE BUILDING EQUIPMENT DRAINS	0	BUCK, B.	McCULLOUGH, D.	APPROVED	05/28/85	
N2-POT-64-2	TURBINE BUILDING FLOOR DRAINS	0	CATTELANE, J.	McCULLOUGH, D.	FIRST DRAFT STARTED	06/28/85	
N2-POT-65	RADWASTE BUILDING DRAINS	0	BUCK, B.	McCULLOUGH, D.	APPROVED	06/18/85	
N2-AT-66-1	RESERVE TRANSFORMER AREA DRAINS	0	VIERLING, J.	McCULLOUGH, D.	TECH REVIEW COMPLETE	07/11/85	
N2-AT-66-2	MAIN TRANSFORMER AREA DRAINS	0	VIERLING, J.	McCULLOUGH, D.	FIRST DRAFT COMPLETE	07/11/85	
N2-POT-66-3	DIESEL GENERATOR BUILDING FLOOR DRAINS	0	VIERLING, J.	McCULLOUGH, D.	FIRST DRAFT COMPLETE	06/11/85	
N2-AT-66-4	SCREENWELL BUILDING DRAINS	0	VIERLING, J.	McCULLOUGH, D.	TECH REVIEW COMPLETE	07/11/85	
N2-AT-66-5	SERVICE BUILDING DRAINS	0	VIERLING, J.	McCULLOUGH, D.	FIRST DRAFT COMPLETE	06/11/85	

STARTUP AND TEST PREOPERATIONAL AND ACCEPTANCE PROCEDURE STATUS

TEST NUMBER	TEST TITLE	REV NO.	RESPONSIBLE TEST ENGINEER	RESPONSIBLE GROUP SUPERVISOR	PROCEDURE STATUS	SOFTWARE JTG APPROVAL REQUIRED DATE	EXPECTED DATE YOU WILL HAVE THE PROCEDURE READY FOR JTG TECH REVIEW
N2-AT-66-6	CONTROL BUILDING DRAINS	0	VIERLING, I.	McCULLOUGH, D.	TECH REVIEW COMPLETE	07/11/85	
N2-AT-66-7	AUXILIARY BOILER BUILDING DRAINS	1	BUCK, B.	McCULLOUGH, D.	APPROVED	07/11/85	
N2-POT-66-8	CONDENSATE STORAGE TANK BUILDING DRAINS	1	BUCK, B.	McCULLOUGH, D.	APPROVED	06/11/85	
N2-POT-66-9	MAIN STACK DRAINS	0	BUCK, B.	McCULLOUGH, D.	APPROVED	06/11/85	
N2-POT-66-10	REACTOR BUILDING MAT DRAINS	0	VIERLING, J.	McCULLOUGH, D.	FIRST DRAFT COMPLETE	06/11/85	
N2-POT-67	DRYWELL EQUIPMENT AND FLOOR DRAINS	0	CATTELANE, J.	McCULLOUGH, D.	FIRST DRAFT COMPLETE	04/23/85	
N2-POT-71	UPS 2YBB-UPS2A, B	0	CRANDALL, B.	CHANTRY, J.	FIRST DRAFT COMPLETE	08/03/85	
N2-AT-73-1	125V NORMAL DC DISTRIBUTION	1	MASHER, A.	CHANTRY, J.	TECH REVIEW IN PROGRESS	05/06/84	
N2-POT-73-2	24/48V DC DISTRIBUTION	1	MASHER, A.	CHANTRY, J.	FIRST DRAFT COMPLETE	04/06/85	
N2-POT-74-1	125V EMERGENCY DC DISTRIBUTION DIV 1	0	MASHER, A.	CHANTRY, J.	TECH REVIEW IN PROGRESS	05/29/84	
N2-POT-74-2	125V EMERGENCY DC DISTRIBUTION DIV 2	0	MASHER, A.	CHANTRY, J.	FIRST DRAFT COMPLETE	05/29/84	
N2-POT-74-3	DIVISION III EMERGENCY DC DISTRIBUTION	0	PATEL, M.	CHANTRY, J.	APPROVED	05/29/84	
N2-POT-75	STATION EMERGENCY LIGHTING	0	MAKKONOS, A.	HICKS, C.	APPROVED	08/03/85	
N2-POT-76	COMMUNICATIONS	0	BAKER, R.	PARRY, B.	FIRST DRAFT STARTED	03/19/85	
N2-POT-78	REMOTE SHUTDOWN SYSTEM	0	SIEDLE, J.	ANSINK, T.	DRAFT NOT STARTED	08/03/85	
N2-POT-82A-1	DIGITAL RADIATION MONITOR SYSTEM	0	JENSON, F.	PARRY, B.	FIRST DRAFT STARTED	03/19/85	

STARTUP AND TEST PREOPERATIONAL AND ACCEPTANCE PROCEDURE STATUS

TEST NUMBER	TEST TITLE	REV NO.	RESPONSIBLE TEST ENGINEER	RESPONSIBLE GROUP SUPERVISOR	PROCEDURE STATUS	SOFTWARE JTG APPROVAL REQUIRED DATE	EXPECTED DATE YOU WILL HAVE THE PROCEDURE READY FOR JTG TECH REVIEW
N2-POT-82A-2	GASEOUS EFFLUENT MONITOR SYSTEM	0	JENSON, F.	PARRY, B.	FIRST DRAFT STARTED	03/19/85	
N2-POT-82B	MAIN STEAM LINE MONITORING	0	JENSON, F.	PARRY, B.	FIRST DRAFT STARTED	03/19/85	
N2-POT-81	CONTAINMENT LEAKAGE MONITORING	0	BAKER, R.	PARRY, B.	FIRST DRAFT COMPLETE	07/16/85	
N2-POT-82	CONTAINMENT ATMOSPHERE MONITORING SYSTEM	0	PETERSON, K.	KOEHL, D.	FIRST DRAFT STARTED	09/03/85	
N2-POT-83	PRIMARY CONTAINMENT ISOLATION	0	RAO, B.	GRINSBO, D.	DRAFT NOT STARTED	07/05/85	
N2-POT-84	REACTOR BLDG POLAR CRANE	0	MARTIN, C.	ROMEO, F.	APPROVED	07/31/85	
N2-POT-85	REACTOR COOLANT AND ECCS LEAK DETECTION	0	EVANS, F.	STOCKMAN, E.	FIRST DRAFT STARTED	07/16/85	
N2-POT-86	LOOSE PARTS & VIBRATION MONITORING	0	THOMAS, M.	LARCOMBE, M.	FIRST DRAFT STARTED	06/11/85	
N2-POT-88-1	CONTAINMENT INERTING SYSTEM	0	GILBERT, T.	HICKS, C.	FIRST DRAFT COMPLETE	06/04/85	
N2-POT-88-2	CONTAINMENT INERTING	0	GILBERT, T.	HICKS, C.	FIRST DRAFT COMPLETE	06/04/85	
N2-POT-90	SIESMIC MONITORING	0	MARKER, D.	LENTZ, R.	FIRST DRAFT COMPLETE	05/31/85	
N2-POT-91	PROCESS COMPUTER	0	KENT, D.	PARRY, B.	FIRST DRAFT STARTED	07/16/85	
N2-POT-92-1	SOURCE RANGE MONITORING	0	REED, R.	RUTLEDGE, P.	TECH REVIEW IN PROGRESS	04/30/85	
N2-POT-92-2	INTERMEDIATE RANGE MONITORING	0	REED, R.	RUTLEDGE, P.	FIRST DRAFT COMPLETE	04/30/85	
N2-POT-92-3	AVERAGE POWER RANGE MONITORING	0	REED, R.	RUTLEDGE, P.	FIRST DRAFT STARTED	04/30/85	

STARTUP AND TEST PREOPERATIONAL AND ACCEPTANCE PROCEDURE STATUS

TEST NUMBER	TEST TITLE	REV NO.	RESPONSIBLE TEST ENGINEER	RESPONSIBLE GROUP SUPERVISOR	PROCEDURE STATUS	SOFTWARE JTG APPROVAL REQUIRED DATE	EXPECTED DATE YOU WILL HAVE THE PROCEDURE READY FOR JTG TECH REVIEW
N2-POT-93	ROD BLOCK MONITORING	0	REED, R.	RUTLEDGE, P.	FIRST DRAFT COMPLETE	05/02/85	
N2-POT-94	TRAVERSE INCORE PROBE	0	VANWYK, T.	RUTLEDGE, P.	FIRST DRAFT STARTED	05/14/85	
N2-POT-95A	RODWORTH MINIMIZER	0	LEVAN, M.	RUTLEDGE, P.	FIRST DRAFT COMPLETE	05/02/85	
N2-POT-95B	ROD SEQUENCE CONTROL	0	LEVAN, M.	RUTLEDGE, P.	DRAFT NOT COMPLETE	05/02/85	
N2-POT-96	REACTOR MANUAL CONTROL & ROD POSITION INDICATION	0	LEVAN, M.	RUTLEDGE, P.	FIRST DRAFT STARTED	05/02/85	
N2-POT-97	REACTOR PROTECTION	0	RAO, B.	GRIMSBO, D.	FIRST DRAFT STARTED	04/20/85	
N2-POT-102A-1	DIVISION I DIESEL GENERATOR	0	WILLMAN, S.	GRIMSBO, D.	FIRST DRAFT COMPLETE	03/26/85	
N2-POT-102A-2	DIVISION II DIESEL GENERATOR	0	WILLMAN, S.	GRIMSBO, D.	FIRST DRAFT STARTED	04/24/85	
N2-POT-102B	HPCS DIESEL GENERATOR	0	WILLMAN, S.	GRIMSBO, D.	TECH REVIEW IN PROGRESS	03/26/85	
N2-AT-101-1	TURBINE BUILDING CRANE	0	GERADINE, F.	ROMEO, F.	DRAFT NOT STARTED	08/15/85	
N2-AT-101-2	RADWASTE BUILDING CRANE	0	GERADINE, F.	ROMEO, F.	FIRST DRAFT STARTED	08/15/85	
N2-AT-124	SECURITY SYSTEM	0	BATKO, D.	ROMEO, F.	FIRST DRAFT STARTED	02/01/85	
N2-POT-106	REDUNDENT REACTIVITY CONTROL	0	WEEKS, M.	LENTZ, R.	FIRST DRAFT COMPLETE	04/16/85	
N2-POT-200	SECONDARY CONTAINMENT LEAK TEST	0	GEORGE, A.	GEORGE, A.	DRAFT NOT STARTED	04/02/85	
N2-POT-201	STRUCTURAL INTEGRITY & INTEGRATED LEAK RATE TEST	0	KEECH, R.	PRILL, L.	FIRST DRAFT STARTED	05/21/85	

STARTUP AND TEST PREOPERATIONAL AND ACCEPTANCE PROCEDURE STATUS

TEST NUMBER	TEST TITLE	REV NO.	RESPONSIBLE TEST ENGINEER	RESPONSIBLE GROUP SUPERVISOR	PROCEDURE STATUS	SOFTWARE JTG APPROVAL REQUIRED DATE	EXPECTED DATE YOU WILL HAVE THE PROCEDURE READY FOR JTG TECH REVIEW
N2-POT-330	LOSS OF OFFSITE POWER / ECCS FUNCTIONAL TEST	0	HOSMER, D.	HOSMER, D.	FIRST DRAFT COMPLETE	03/03/85	

ITEM NUMBER 6

STATUS OF PREOPERATIONAL TESTING

(Separate Handout Provided)

ITEM NUMBER 7

STATUS OF SYSTEM TURNOVER

(Separate Handout Provided)

ITEM NUMBER 8

REVIEW OF ROOM/AREA TURNOVER SCHEDULE

Building/Area Turnover

With the change in method of scheduling to one emphasizing system completion, systems relating to building completion, (ie-lighting, fire protection-etc.), have been included with the direct building work and shown on Building Completion Schedules.

The current schedules for building turnover shows the following:

Reactor Building (Primary & Secondary)	11-18-85
Auxilliary Bay	8-19-85
Auxilliary Service Bldg.	12-16-85
Standby Gas Treatment Bldg	8-19-85
Turbine Building	1-31-86
Heater Bays	1-31-86
Pipe Tunnels	12- 2-85
Service Building & Access Passageways	11-18-85
Cooling Tower	7-29-85
Intake & Discharge	6-28-85
Unit 1 to Unit 2 Radwaste Tunnel	6-28-85
Stack	10-28-85
Diesel Generator Building	10-21-85
Transformer Yard	9-30-85
Control Building	1-31-86
Electric Bay	11-24-85
Normal Switchgear	9-23-85
Aux Boiler Building	8-19-85
Screenwell	12- 1-85
Condensate Storage Building	10-28-85
Demineralizer Area	11-29-85
Water treatment Area	10-28-85
Radwaste Building	4- 1-86

Building related work is being scheduled to complement the System Completion and start-up work, with emphasis on completion of Building Systems critical to Fuel Load and Licensing Requirements.

ITEM NUMBER 9

PROJECTED REQUESTS FOR RELIEF FROM

INCOMPLETE ITEMS

We have analyzed systems which are deferrable; however we have not decided to request relief for any at this time.

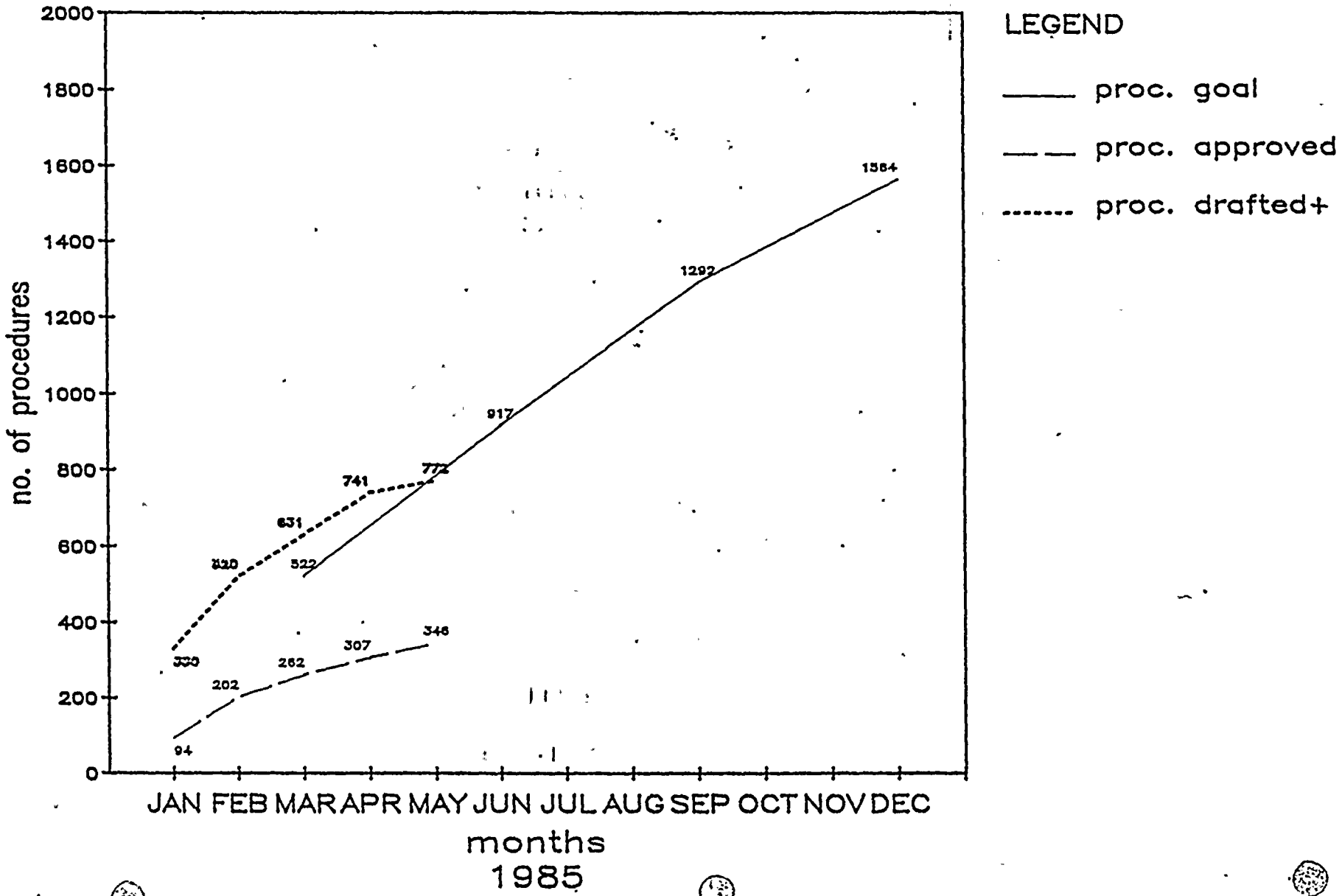
ITEM NUMBER 10

STATUS OF POWER ACCESSION TESTING
PROCEDURES AND OPERATING PROCEDURES

NINE MILE POINT UNIT II PROCEDURE STATUS

PROCEDURE TYPE	TOTAL REQUIRED	DRAFT INCOMPLETE	DRAFT COMPLETE	IN REVIEW PROCESS	APPROVED
Preoperational/ Acceptance Tests	135	12	63	25	35
Power Ascension Tests	152	86	66	--	--
Operations	134	0	--	1	133
Surveillance	469	352	105	--	12
Maintenance	278	232	--	34	12
Radiation Protection	77	17	--	28	32
Chemistry	54	2	--	36	16
Fire Protection	16	0	8	0	8
Reactor Analyst	29	15	8	6	---
Inservice Inspection	30	--	8	--	22
Computer	7	4	3	--	~~22~~
I&C	25	17	8	--	--
Administrative	70	24	0	2	44
Training	17	--	--	--	17
Document Control	21	14	--	--	7
Emergency Plan	14	2	6	6	--
Environmental	21	9	4	--	8
Waste Handling	15	6	6	3	--
TOTAL:	1564	792	285	141	346

A23. NINE MILE UNIT 2
PROCEDURE DEVELOPMENT STATUS



ITEM NUMBER 11

STATUS OF PERMANENT STATION AND

SUPPORT STAFFING

STAFFING PROGRESS UNIT II

SITE DEPARTMENTS

TECHNICAL DEPARTMENT	ACTUAL 5/1/85	AUTHORIZED 12/31/85	AUTHORIZED 12/31/86
*TECHNICAL SUPERINTENDENT	1	1	1
*ASST TECHNICAL SUPERINTENDENT	1	1	1
*PRINCIPAL GEN SPECIALIST			1
TOTAL	2	3	3
INSTRUMENT AND CONTROL GROUP			
*SUPERVISOR INST & CONT	1	1	1
UNIT SUPERVISOR I&C	1	1	1
ASST SUPERVISOR I&C	2	2	3
CHIEF TECHNICIANS I&C	6	6	6
TECHNICIANS I&C	50	51	51
TEMP TECHNICIANS	10	18	0
TOTAL	70	79	62
TECHNICAL SUPPORT			
*SUPERVISOR TECH SUPPORT	1	1	1
*ASST SUPVR TECH SUPPORT		1	1
GENERATION ENGINEERS	3	6	21
TOTAL	4	8	23
REACTOR ANALYST			
*SUPERVISOR REACTOR ANALYST	1	1	1
UNIT SUPVR REACTOR ANALYST	1	1	1
TECHNICIANS REACTOR ANALYST	2	3	4
TOTAL	4	5	6
COMPUTER OPER & MAINT			
*SUPERVISOR COMP. OPER & MAINT	1	1	1
*ASST SUPVR COMP. OPER & MAINT	1	1	1
GENERATION SPECIALIST		3	5
TECHNICIANS		3	5
TOTAL	2	8	12
ADMINISTRATIVE SERVICES			
*SITE SUPVR ADMIN SRVCS	1	1	1
*ASST SUPVR ADMIN SRVCS	2	2	3
CLERKS	22	25	45
TOTAL	25	28	49

*INDICATES A SITE POSITION WITH RESPONSIBILITIES AT UNIT I AND UNIT II.

STAFFING PROGRESS UNIT II

SITE DEPARTMENTS

	ACTUAL 5/1/85	AUTHORIZED 12/31/85	AUTHORIZED 12/31/86
PLANNING/SCHEDULED			
SUPERVISOR PLANNING/SCHEDULED	1	1	1
ASST SUPVR PLANNING/SCHEDULED	1	1	1
TECH ASST TESTING	3	3	3
TOTAL	5	5	5
INSERVICE INSPECTION			
*SUPT. INSERVICE INSPECTION	1	1	1
UNIT INSERVICE INSPECTION SPECIALIST			1
INSERVICE INSPEC. SPECIALIST	1	3	4
TOTAL	2	4	6
FIRE PROTECTION			
*SUPERVISOR FIRE PROTECTION	1	1	1
ASST SUPVR FIRE PROTECTION	1	1	1
FIRE FIGHTERS	27	27	30
TOTAL	29	29	32
RECORDS MANAGEMENT			
*SUPERINTENDENT RECORDS MGT.	1	1	1
UNIT SUPVR RECORDS MGT.	1	1	1
CLERKS	23	29	35
*RECORDS SPECIALIST		2	2
TOTAL	25	33	39
CHEMISTRY & RADIATION MGT			
*SUPERINTENDENT CHEM & RAD MGT	1	1	1
*SUPVR CHEM & RAD PROT	1	1	1
UNIT SUPVR CHEMICAL	1	1	1
GEN SPEC CHEMICAL		1	1
TECHNICIAN CHEMICAL	7	14	14
UNIT SUPVR RAD PROT	1	1	1
GEN SPEC RAD PROT		1	1
TECHNICIAN RAD PROT	14	28	28
*EMERGENCY GEN SPEC	1	1	1
*ASST EMER GEN SPEC	1	2	2
*ENVIR PROT GEN SPEC	1	1	1
*ASST ENVIR PROT GEN SPEC	1	1	1
*DOSIMETRY GEN SPEC	1	1	1
*ASST DOSIMETRY GEN SPEC	1	1	1
*RESPITORY PROT GEN SPEC	1	1	1
*ASST RESP PROT GEN SPEC		1	1
*ALARA COOR GEN SPEC	1	1	1
*ASST ALARA COOR GEN SPEC	1	2	2
*RADIOLOGICAL ENGR GEN SPEC	1	3	3
*SUPVR RAD INSTRU SUPPORT	1	1	1
*RAD INSTRU GEN SPEC		1	1
*SUPVR RAD SUPPORT	1	1	1
TOTAL	37	66	66

*INDICATES A SITE POSITION WITH RESPONSIBILITIES AT UNIT I AND UNIT II.

STAFFING PROGRESS UNIT II

SITE DEPARTMENTS

TRAINING	ACTUAL 5/1/85	AUTHORIZED 12/31/85	AUTHORIZED 12/31/86
*SUPERINTENDENT TRAINING	1	1	1
*ASST SUPT TRAINING	1	1	2
*SUPVR TRAINING	5	5	5
SUPVR TRAINING - UNIT II	1	1	1
*GENERATION SPEC TRAINING	14	17	20
GENERATION SPEC TRAINING	4	6	7
TOTAL	26	31	36
MAINTENANCE			
*SITE SUPERINTENDENT MAINT	1	1	1
*SUPERINTENDENT ELECTRICAL MAINT	1	1	1
SUPERVISOR ELECTRICAL MAINT	1	1	1
ASST SUPVR ELECT MAINT	2	2	2
*ELEC GEN ENGR	2	2	2
ELEC GEN ENGR			1
CHIEF ELECTRICIAN	5	5	6
ELECTRICIANS	11	25	29
*SUPERINTENDENT MECH MAINT	1	1	1
SUPVR MECH MAINT	1	1	1
ASST SUPVR MECH MAINT	3	3	3
*MECH GEN ENGR	2	2	2
CHIEF MECH S-G	4	4	5
MECHANIC S-G	32	40	51
CHIEF LABORER A		2	2
UTILITY MECHANICS A		7	14
*SUPVR BUILDING & GROUNDS		1	1
MAINT MECHANIC B		1	1
TOTAL	66	99	124

*INDICATES A SITE POSITION WITH RESPONSIBILITIES AT UNIT I AND UNIT II.

STAFFING PROGRESS UNIT II

UNIT II OPERATIONS

OPERATIONS	ACTUAL 5/1/85	AUTHORIZED 12/31/85	AUTHORIZED 12/31/86
STATION SUPERINTENDENT	1	1	1
SUPERVISOR OPERATIONS	1	1	1
ASST SUPERVISOR OPERATIONS	2	2	2
ASST TO SUPERVISOR OPERATIONS	1	1	1
SUPVR RADWASTE OPERATIONS	1	1	1
ASST SUPVR RADWASTE OPERATIONS	1	1	1
STATION SHIFT SUPERVISOR	9	9	9
ASST STATION SHIFT SUPERVISOR	9	9	9
CHIEF SHIFT OPERATOR	7	7	7
RELIEF OPERATOR R	1	1	1
NUC. AUX. OPERATOR E	14	14	14
RELIEF OPERATOR P	2	2	2
NUC. AUX. OPERATOR C	7	7	7
RELIEF OPERATOR K	1	1	1
AUX OPERATOR B	35	41	41
RELIEF OPERATOR E		4	4
AUX OPER D RADWASTE	5	5	5
RELIEF OPERATOR M RADWASTE	1	1	1
AUX OPER C RADWASTE	5	5	5
RELIEF OPERATOR G RADWASTE	1	1	1
AUX OPERATOR B RADWASTE	5	5	5
RELIEF OPERATOR E RADWASTE	1	1	1
SUPERVISOR TESTING	1	1	1
TEST COORDINATOR	1	1	1
TEST ENGINEER	31	33	33
SUPERVISOR PLANNING/SCHEDULING	1	1	1
ASST SUPVR PLANNING/SCHEDULING	1	1	1
TECHNICAL ASSISTANT TESTING	3	3	3
CONSTRUCTION ENGINEER			1
PLANNERS			2
TOTAL	148	160	163

Enclosure 5

Attendance

Nine Mile Point 2 Caseload Forecase Panel Meeting
June 13, 1985

Name	Organization
Mary Haughey	NRC - licensing project manager
C. V. Mangan	NMPC - VP-Nuclear Engineering
R. B. Abbott	NMPC - Station Supt.
G. L. Blackburn	NMPC - Startup
A. F. Zallnick	NMPC - Mgr Nuclear Licensing
R. G. Matlock	NMPC - Deputy Proj. Director
Byron L. Siegel	NRC NRR/DL/LB2
R. A. Hartfield	NRC - Resource Management
R. A. Gramm	NRC - Sr. Resident Inspector
P. D. Eddy	NYSPSC
F. J. Giaccio	NYSPSC consultant

The requested information was provided by the applicant as enclosures to letters submitted on November 9, 1984 and January 17, 1985. A list of meeting attendees during the October 30 and 31 meetings is included as Enclosure 2.

June 13, 1985

In May 1985 the CFP requested the applicant to provide an update of their progress to date against the schedule discussed in October 1984. The applicant was requested to provide a project overview with specific emphasis in the following areas:

(1) pre-operational and acceptance procedures
(2) pre-operational and acceptance testing
(3) design verification
(4) turnovers
(5) cables and terminations

The applicant met with the CFP on June 13, 1985 to make that presentation. During that meeting Mr. Byron Siegel acted for the licensing branch chief (formerly Mr. A. Schwencer) and Mr. A. Cerne was not present.

The applicant provided the staff with information included as Enclosures 3 and 4.

Three paths were identified as critical to fuel load: (1) construction and testing of Fuel Handling Equipment, (2) completion and testing of both solid and liquid radwaste systems and (3) cold functional testing.

The applicant acknowledged that the February 1986 fuel load projection is based on an aggressive schedule.

However, as the aggressive schedule presented in October 1984 is presently not being met (see Enclosure 3), the CFP does not believe that the applicant's pre-operational and acceptance test schedule will be substantially better than an average program of about 18 months from hydrostatic testing of the RPV. Consequently, the CFP believes a fuel load date of late 1986 is more probable.

An attendance list for the June 13, 1985 meeting is included as Enclosure 5.

Original Signed by

Mary F. Haughey, Project Manager
Licensing Branch No. 2
Division of Licensing

Enclosures: As stated

cc: See next page

DISTRIBUTION:	Docket File	NRC PDR	Local PDR	PRC System	NSIC
LB#2 Reading	Dewey, OELD	WButler	MHaughey	EHylton	

*Previously concurred:

LB#2/DL/PM	RM/BC	Sr. RI	LB#2/DL/BC	AD/DL
*MHaughey:lb	*RHartfield	*RGramm	*WButler	TMNovak
10/15/85	10/16/85	10/21/85	10/22/85	10/22/85