UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555
January 8, 1985

Docket Nos: 50-424
50-425

APPLICANT: Georgia Power Company

FACILITY: Vogtle, Units 1 and 2

SUBJECT: SUMMARY OF CASELOAD FORECAST PANEL SITE VISIT TO VOGTLE NOVEMBER 15-16, 1984

On November 15 and 16, 1984, the NRC Caseload Forecast Panel (CFP) met with the applicant and its representatives and toured Vogtle, Unit 1. The purpose of the meeting and tour was to review the construction progress to assess the applicant's projected fuel load date so that the NRC licensing review may be appropriately scheduled.

On November 15, the applicant presented information illustrating construction progress in areas such as procurement and bulk commodities. The CFP began an extensive site tour on November 15 and completed it on November 16. A list of attendees is included as Enclosure 1.

The applicant's presentation, based on its "NRC Caseload Forecast" notebook (Enclosure 2), was divided into 12 sections as shown on the agenda included in the meeting notice. Opening remarks dealt with an organizational overview of Southern Company and Georgia Power Company (GPC). Also presented was a Vogtle overview and history in addition to Vogtle project organization.

Beginning with a construction overview, the applicant presented a list of construction milestones completed and a list of scheduled future milestones. Unit 1 and Common major milestones completed since the last CFP visit in May 1983, include completing dome concrete energizing the 230 kv switchyard, and the first mechanical system turnover. Unit 1 and Common major milestones scheduled for completion in 1985 include starting the containment building post tensioning, completing control room HVAC, and completing the fuel handling transfer equipment. As of the end of October, Unit 1 and Common project work is approximately 72% complete.

The engineering percent completion as of October 19, 1984, is 80%. In mid-1984 a new schedule, the 84-0 Construction Schedule, was devised by the applicant to support the September 1986 fuel load date. The Zero Defects Program was recently initiated to resolve installation problems through advance engineering of the installation. The applicant anticipates construction of commodities to move more smoothly and more efficiently than previously through this program.

In the section on procurement. the applicant indicated that presently about 97% of the Unit 1 major engineered equipment and systems have been purchased with the

majority on site or in storage. Approximately 91% of the nuclear valves and 97% of the non-nuclear valves for both units have been delivered.

The work force on site peaked in August 1984 at 10,892. Presently, on site staffing consists of 6,619 major contractor craft personnel, 1,261 contractor non-manual personnel, 1,476 Georgia Power Company personnel, and 1,206 other specialty contractor personnel, totaling 10,562.

In the area of pipe hangers, the applicant indicated that design of Unit 1 large pipe hangers is 96% complete, procurement is 96% complete and installation is 49% complete. Unit 1 pipe whip restraint design is 100% complete with installation and final accepted 6% complete. The applicant indicated that approximately one year ago it began computing installations of pipe hangers based on final quality control inspections rather than construction completion.

The scheduling of the project consists of 5 schedule levels. The various levels encompass a range of schedules from major milestones to daily work schedules. The levels also contain schedules which interrelate engineering, construction, and turnover.

In the area of bulk commodities, the applicant indicated that Unit 1 and Common concrete placement is 93% complete. Other largely completed commodities include large pipe (93%), cable tray (91%), and small pipe (76%). Areas showing the least amount of progress for Unit 1 and Common include terminations (9%), small pipe hangers (47%) and wire and cable (49%).

Preoperational and startup activities were also discussed. The first electrical system turnover, the 230 kv switchyard, was completed in April.

In the area of licensing requirements, the applicant stated that there has been an ongoing program to identify and solve licensing changes early to minimize any schedular impact. Specific actions have been performed to address such significant licensing issues as TMI Items, Fire Protection and ATWS.

The CFP toured the Vogtle site to observe the status of construction. Among the areas observed were the containment building, the turbine building, the control and fuel handling building, the auxiliary building and the intake structure.

Enclosure 3 contains additional supporting information provided at the meeting. Enclosure 4 is information which the applicant indicated would be provided subsequent to the CFP visit comparing the 84-0 Construction Schedule with the previous 82-0 Construction Schedule.

Melanie A. Miller

Melanie A. Miller, Project Manager
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Enclosures: As stated

cc: See next page

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Enclosure 1

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VOGTLE ELECTRIC GENERATING PLANT
NUCLEAR REGULATORY COMMISSION
CASELOAD FORECAST PANEL
NOVEMBER 15-16, 1984

AGENDA

OPENING REMARKS

Overview of Southern Company and Georgia Power Company Organization	R. E. Conway (Dick) Senior Vice President, Nuclear Power
Vogtle Overview and History	R. E. Conway (Dick)
Vogtle Project Organization	D. O. Foster (Dave) Vice President and Project General Manager, Vogtle Project

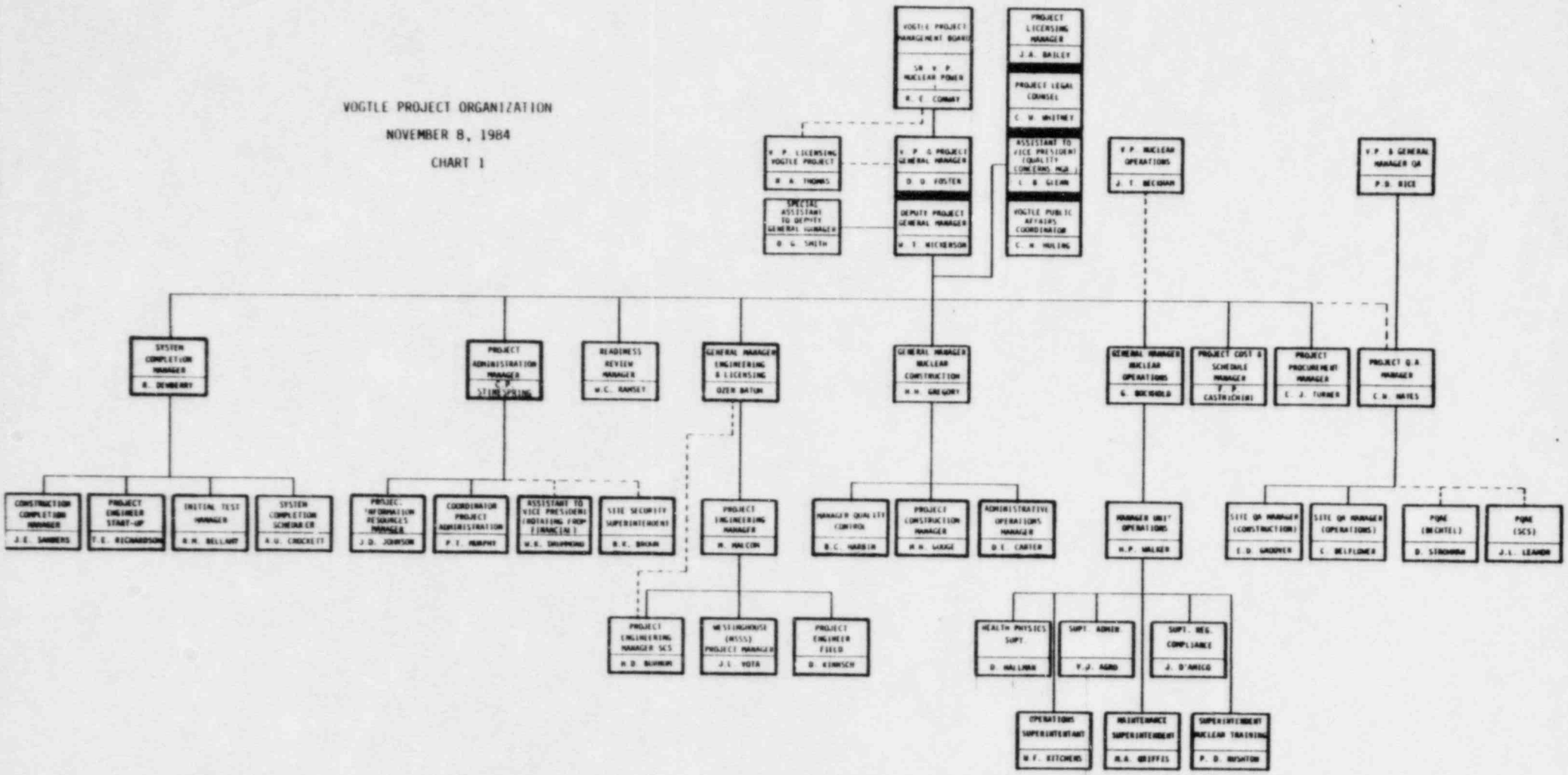
DETAILED PRESENTATION

1.	Construction Overview	H. H. Gregory, III (Harry) General Manager, Nuclear Construction
2.	Engineering Status	O. Batum (Ozen) General Manager, Engineering and Licensing
3.	Procurement Status	E. J. Turner (Ed) Project Procurement Manager
4.	Craft Work Force	H. H. Gregory, III (Harry)
5.	Pipe Hangers	H. H. Gregory, III (Harry) and O. Batum (Ozen)
6.	Project Schedule	F. P. Castrichini (Frank) Project Cost and Schedule Manager
7.	Bulk Commodities	H. H. Gregory, III (Harry) and F. P. Castrichini (Frank)
8.	Startup	G. Bockhold, Jr. (George) General Manager, Nuclear Operations
9.	Licensing Requirements	J. A. Bailey (Jim) Project Licensing Manager
10.	10 CFR 50.55	J. A. Bailey (Jim)
11.	Construction/Startup	W. T. Nickerson (Bill) Deputy Project General Manager, Vogtle Project
12.	Site Tour	H. H. Gregory, III (Harry) and J. A. Bailey (Jim)

VOGTLE PROJECT ORGANIZATION

NOVEMBER 8, 1984

CHART 1



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PLANT VOGTLE UNIT 1

NRC CASELOAD FORECAST

1. Construction Overview

Question: Overview of project contruction schedule including progress and major milestones completed, current problems and any anticipated problem areas that may impact current projected fuel load date.

A. Introduction: Plant Vogtle Unit 1 and Common construction is currently in transition between bulk commodity installation and system completion and turnovers. Bulk commodity installations are being prioritized to support the turnover program.

Based on actual installed quantities through October, 1984, Unit 1 and Common project construction is approximately 72% complete in support of the September 1, 1986, fuel load.

Little concrete work remains. Therefore, this work will continue to approach completion with no affect on schedule.

Large pipe installation is over 90% complete and most remaining work is in the area of clean-up in preparation for flushes and hydros. Small pipe has now surpassed 70% complete and will continue in the bulk mode for several months.

Electrical commodity installations of cable tray and conduit are nearing completion with the exception of conduit in the site perimeter duct runs. Efforts continue in the clean-up of installed tray and conduit to prepare for cable pulling in support of system turnovers.

The following is a summary status against the 84-0 Construction Plan through October, 1984, for Unit 1 and Common:

	Schedule % Complete	Actual % Complete
Concrete	93%	93%
Large Pipe	94%	93%
Large Pipe Hangers	54%	53%
Small Pipe	79%	76%
Small Pipe Hangers	49%	47%
HVAC	72%	72%
Cable Tray	94%	91%
Conduit	65%	62%
Pull Wire & Cable	50%	49%

1. Construction Overview (Cont'd)

B. Major milestones completed for Unit 1 and Common in chronological order:

Start Auxiliary Building Concrete	08/01/78
Start Large Piping	09/01/80
Start Cable Tray	09/22/80
Start Small Piping	07/01/81
Start Cooling Tower Ring Beam	09/17/82
Containment Building Operating Deck	11/24/82
Start Wire and Cable	01/15/83
Start NSSS Equipment (Reactor Vessel, Steam Generators, RCPS and Pressurizer)	01/17/83
Start Reactor Coolant Piping	02/28/83
Set Polar Crane	03/23/83
Set Main Control Panel	04/83
Set Dome	04/22/83
Complete Auxiliary Building Concrete	08/01/83
Start Terminations	09/30/83
Complete Reactor Coolant Piping Weld Out	11/07/83
Complete Cooling Tower Veil	12/13/83
Start Turbine Generator Erection	01/09/84
Start Diesel Generator Building	01/22/84
First Electrical System Turnover	04/13/84
Complete Auxiliary Building Large Pipe (95%)	05/84
Complete Dome Concrete	09/21/84
Energize 230 KV Switchyard	10/07/84
First Mechanical System Turnover	10/26/84
Complete Diesel Generator Grouting	10/30/84

C. Major milestones completed for Unit 2 in chronological order:

Start Structural Concrete	08/01/78
Start Large Piping	09/01/80
Start Cable Tray	09/22/80
Start Small Piping	02/06/83
Start Cooling Tower Ring Beam	03/14/84
Complete Containment Building Operating Deck	05/24/84
Start Cooling Tower Veil	07/27/84
Start NSSS Equipment (Reactor Vessel, Steam Generators, RCP, and Pressurizer)	08/27/84
Set Polar Crane	10/11/84
Set Dome	10/13/84

1. Construction Overview (Cont'd)

D. The following are future major milestones for Unit 1 and Common:

Containment Building	Scheduled
Start Post Tensioning	02/85
Complete Bottom Mounted Instrumentation	04/85
Install Reactor Coolant Pump Internals	05/85
Integrated Leak Test	03/86
Auxiliary Building	
Complete Cable Tray	01/85
Complete HVAC Duct Installation	06/85
Complete Small Pipe	09/85
Control Building	
Energize 13.8 KV Switchgear	11/84
Complete Control Room HVAC	04/85
Fuel Handling Building	
Complete Fuel Handling Transfer Equipment	04/85
Complete Fuel Handling Bridge Crane	08/85
Turbine Building	
Turbine Lube Oil Flush	08/85
Condenser Hydro	05/85
Condenser Vacuum Test	12/15/85
Start-Up	
Complete Energization	02/85
Reactor Vessel Available For Flush	05/85
Initial Diesel Generator Run	06/85
Secondary Hydro	11/85
Primary Hydro	12/85
Hot Functional Test	01/86
Fuel Load	09/86

1. Construction Overview (Cont'd)

E. Status

Plant Vogtle construction work is on schedule and work is progressing in support of system turnover and area completion schedules. Commodity production rates are currently supporting schedule requirements. Commodity areas being monitored closely are large and small bore pipe supports and HVAC duct. Total pipe supports installed per month for the last six months have ranged between 1900 and 2900 per month. Implementation of a "Zero Defect" program, which involves engineering resolution of support installation problems in advance of support installation, is a prime reason for successful production rates. HVAC duct installation has improved from 60,000 to 80,000 pounds per month to a sustained average rate for the last five months of 160,000 pounds per month. Detailed installation schedules, which address duct installation sequence integrated with installation of other commodities, is a major contributor to increased production.

This type of performance is supporting startup system turnover. To date, thirteen of fourteen scheduled startup system turnovers have occurred. A turnover group has been organized and is functioning to coordinate the turnover effort and expedite physical system completion and resolution of system related problems. System construction completion schedules provide visibility for remaining system work, and a computerized exception tracking program assists in focusing on remaining system work.

The Unit 1 and Common area completion schedules are system turnover sensitive and direct work to support startup system turnovers.

VOGTLE ELECTRIC GENERATING PLANT
NRC CASELOAD FORECAST
UNIT 1 & COMMON
AS OF 10/21/84

COMMODITY		TOTAL ESTIMATED	TO DATE SCHEDULED	TO DATE ACTUAL	VARIANCE	% CPT
Concrete	(CY)	526,938	489,268	490,957	+ 1,689	93
Large Pipe	(LF)	343,920	324,253	318,446	- 4,118	93
Large Pipe Hangers	(EA)	20,297	10,908	10,798	- 110	53
Small Pipe	(LF)	265,691	209,103	201,498	- 7,605	76
Small Pipe Hangers	(EA)	27,289	13,310	12,785	- 525	47
HVAC	(LBS)	3,352,200	2,428,894	2,426,794	- 2,100	72
Cable Tray	(LF)	151,912	142,973	138,420	- 4,553	91
Conduit	(LF)	1,014,357	663,554	627,489	- 36,065	62
Wire & Cable	(LF)	7,484,200	3,725,456	3,629,931	- 95,525	49%
Terminations	(EA)	260,000	37,206	24,002	- 13,204	9

VOGTLE ELECTRIC GENERATING PLANT
NRC CASELOAD FORECAST
UNITS 1 & 2
AS OF 10/21/84

COMMODITY		TOTAL ESTIMATED	TO DATE SCHEDULED	TO DATE ACTUAL	VARIANCE	% CPT
Concrete	(CY)	656,753	576,473	575,663	- 810	88
Large Pipe	(LF)	553,769	382,005	373,020	- 8,985	67
Large Pipe Hangers	(EA)	33,936	11,590	11,325	- 265	33
Small Pipe	(LF)	427,670	219,274	212,150	- 7,124	50
Small Pipe Hangers	(EA)	44,676	13,434	13,123	- 311	29
HVAC	(LBS)	4,977,900	2,661,751	2,648,430	- 13,321	53
Cable Tray	(LF)	248,623	162,883	153,650	- 9,233	62
Conduit	(LF)	1,328,917	712,932	670,787	- 42,145	50
Wire & Cable	(LF)	12,646,300	3,725,456	3,629,931	-95,525	29
Terminations	(EA)	467,364	37,206	24,002	- 13,204	5

2. ENGINEERING

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

A. INTRODUCTION:

The discussion to follow in this section is intended to demonstrate that:

a. Engineering supports the 84-0 Construction Schedule in all areas.

b. Engineering has the organization, staffing, and tools in place to support the balance of construction and licensing of the plant.

B. ENGINEERING STATUS:

The engineering percent complete as of October 19, 1984, is 80%. A major portion of the remaining 20% consists of engineering field (construction and startup) support and licensing support. The remaining portion of the work to go consists of completion of the production of major project design documents (drawings, specifications, calculations, etc.), which is 88% complete. The bulk status summary, (see page 2.4) reflects the engineering percent complete for the major design commodities.

In recognizing that completion of the engineering design involves meeting specific commitments to construction, as well as working off the design to increase percentage complete, enginering prepares a weekly commitment status support to address the timely release of design documents to construction. In addition, since the effort has shifted from the construction phase to the startup phase, engineering has initiated the Program for Completion of Work (PCW) for the prime purpose of tracking the completion of all open engineering action on a system basis. This has led to the development of a detailed, computerized open action item list for each system, along with associated completion schedules.

It should be noted that the engineering schedules were developed using construction "standard lead times". A comparison of average lead times between the design release-for-construction curves,

and the fuel load date with other major Bechtel projects (see page 2.3) demonstrates that the VEGP bulk design supports the project schedule. Home office engineering has been using the commitment status report and the PCW operation list to track and close out open items.

Periodic engineering/construction/startup interface meetings are being held to review areas where engineering, construction and/or startup can make improvements to remove or minimize restraints to construction.

B. ENGINEERING STATUS, Cont'd

Engineering Lead Time to Fuel Load Comparison (in months)(1)

Commodity***	Engineering % Complete	VEGP Engineering To Fuel Load	(2)Historical Engineering To Fuel Load(3)
Large Pipe	50A	74	45
	90A	42	33
Large Pipe Hangers	50A	57	54
	90A	36	31
Small Pipe	50A	44	51
	90A	26	30
Cable Tray	50A	66	49
	90A	60	32
Conduit	50A	60	40
	90A	27	24
Wire and Cable	50A	43	32
	90F	24(4)	22
Terminations	50A	42	42
	90F	22(5)	26

1. Includes both SCS and Bechtel Scope
2. Based on a survey of recent Bechtel projects for a single unit
3. Unit 1 and Common
4. Based on circuits issued
5. Scope of fire protection, HVAC and heat tracing systems was expanded.

C. DESIGN RELEASES FOR COMMODITIES

	Total		Released To Date		Percent Complete	
	Unit 1 & Common	Unit 2	Unit 1 & Common	Unit 2	Unit 1 & Common	Unit 2
Large Pipe (LF)	343,920	209,849	343,920	154,922	100%	73%
Large Pipe Hangers (EA)	20,297	13,639	19,509	11,594	96%	85%
Small Pipe (LF)	265,691	161,979	258,733	51,431	97%	32%
*Cable Tray (LF)	151,912	96,711	151,642	96,711	99%*	100%
Conduit (LF)	1,014,357	314,560	1,004,224	271,840	99%	86%
Wire & Cable (Circuits EA)	34,738	24,949	24,977	3,161	72%	13%
Terminations (EA)	260,000	207,364	216,940	25,534	83%	12%
HAVC Drawings (EA)	259	125	259	124	100%	99%
*Instrument Drawings (EA)	3,751	1,830	3,521	1,525	94%*	83%
Cable Tray Supports (EA)	13,275	5,464	13,275	5,094	100%	93%
HVAC Duct Supports (EA)	10,242	2,614	10,242	2,459	100%	94%
Pipe Whip Restraints (EA)	124	124	124	40	100%	32%

Notes:

1. - All quantities shown on this page have been updated to reflect the latest information.

2. - *There has been a reduction in the percent complete due to an increase in total quantities.

2. ENGINEERING, Cont'd

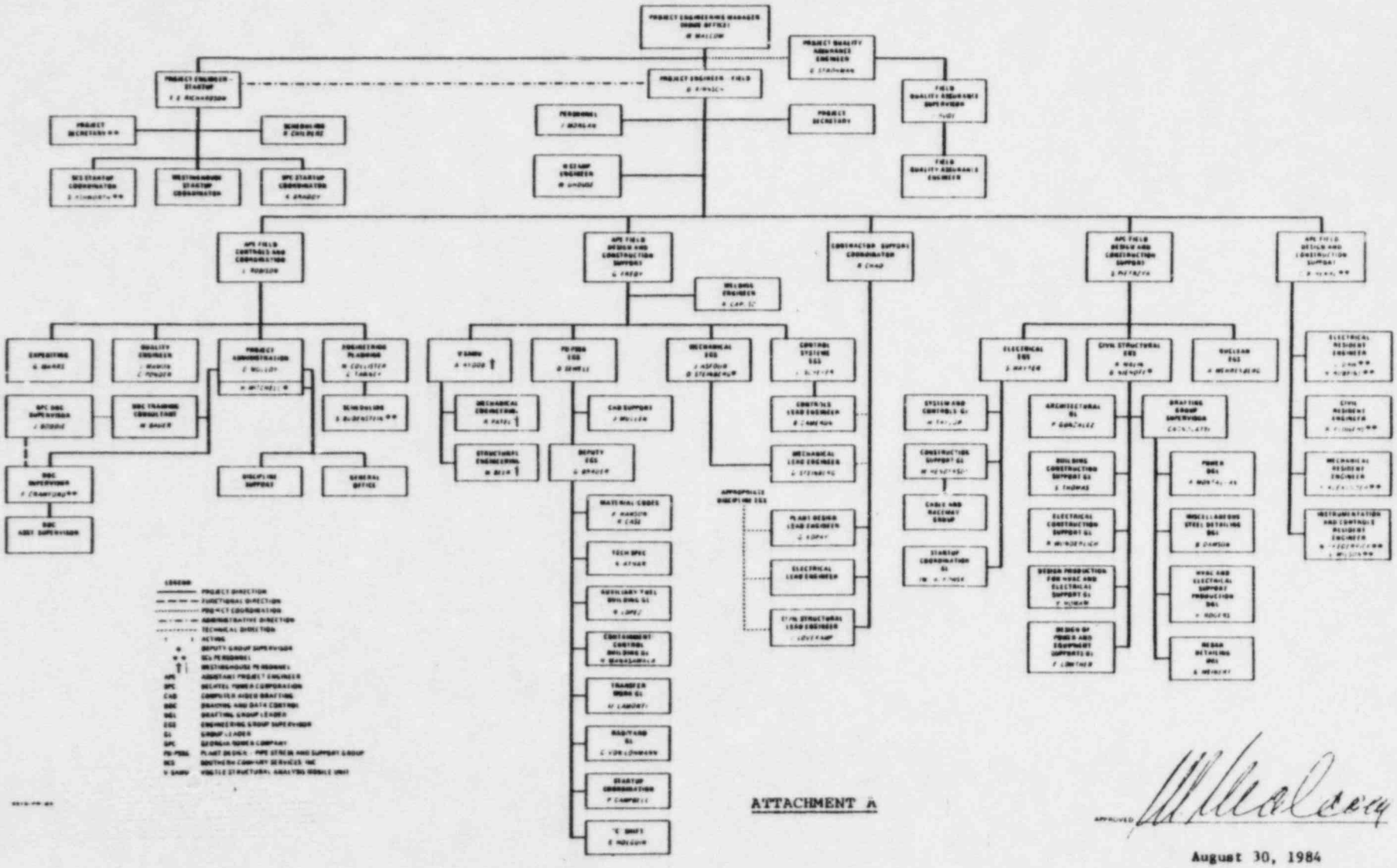
D. DESIGN ENHANCEMENTS

1. TRANSFER OF HOME OFFICE ENGINEERING WORK TO THE PROJECT FIELD ENGINEERING ORGANIZATION

A plan for the transfer of home office engineering work to the Bechtel Project field engineering organization, commencing in November 1983, has now been completed. The objective was to identify the maximum scope that could be transferred to the field consistent with current project status and existing constraints. As construction and startup activities increase, and the fuel loading date approaches, it is important to provide closer coordination and support to the field. The transfer plan provides engineering support capability at the jobsite which functions independently of home office engineering for the defined scope of work, and, therefore, improves engineering responsiveness to GPC Construction and Power Generation, and subcontractors. Selected engineering production work has been included in the transfer plan for work that can be completed more effectively by having access to the plant, as-built information, and subcontractors. Included in this plan are drawing and data control facilities and computer capabilities required to support the transfer of this work.

For structure of the project field organization, see Attachment-A.

VEGP
PROJECT FIELD ENGINEERING ORGANIZATION



ATTACHMENT A

August 30, 1984

SCOPE - GENERAL

- The work to be transferred is primarily maintenance of home office engineering drawings and construction and startup support activities.

- The production work to be transferred are tasks where engineering productivity should be enhanced by having access to the plant, as-built information, or subcontractors. For example, final design for pipe whip restraints, instrument air piping location drawings and the heat tracing system design.

- The design drawings to be transferred for maintenance are penetration seals, tray layouts, duct layouts, tray and duct supports, rebar detailing, miscellaneous steel detailing, concrete forming, structural steel, piping orthographics, pipe racks, lighting, grounding, communication, fire detection, and wiring diagrams. Additional drawing and data control facilities will be provided for these documents, with Bechtel providing supervisory personnel.

- Computer facilities required to support this effort have been established at the site to provide CAD, CAE, BSAP, ME101, and other computer program capabilities. The computer software and equipment will be controlled by Bechtel personnel.

SCOPE BY DISCIPLINE

DISCIPLINE	SCOPE
Architectural	Maintain penetration seal drawings and construction support
Control Systems	Prepare instrument air header instrument drawings, construction support, and startup support.
Electrical	Maintain design drawings, design heat tracing system, construction support, and startup support.
Mechanical	Maintain HVAC orthographic drawings, maintain four specifications requiring field labor, construction support, and startup support.
Nuclear	ALARA review, shielding review, licensing support, support of W interface, construction support, and startup support.
Civil-Structural	Maintain pipe whip restraint drawings and support final design effort, maintain tray and duct supports, maintain rebar and miscellaneous steel detailing drawings, construction support, and startup support.
Plant Design	Prepare instrument air piping location drawings, prepare reach rod data sheets, maintain piping orthographics, and construction support.
Pipe Stress & Support	Maintain pipe rack drawings and calculations and revise pipe support drawings and calculations.
Project Management	PE/APE

2. ENGINEERING, Cont'd

D. DESIGN ENHANCEMENTS

2. PROGRAM FOR COMPLETION OF WORK

Recognizing the need to provide a systematic procedure to ensure that all remaining engineering activities are identified, and tracked, the project implemented the Program for Completion of Work (PCW) procedure in April 1984. The PCW procedure establishes a systematic process that identifies, on a startup system basis, the engineering and procurement work remaining to be completed, and methods to monitor and document status of remaining work for the system until turnover to Georgia Power Company (GPC) Nuclear Operations for startup. Based on the turnover-to-startup schedule, each startup system or subsystem undergoes a thorough review to identify open items or pending changes that need to be completed prior to startup and operations of the plant. The vehicle for tracking open items is the PCW Action Item List, which is statused weekly. This procedure is independent of other existing design control programs, and is intended to monitor remaining work and to establish a freeze-on design documents such as piping and instrument diagrams (P&IDs), logic and loop diagrams, electric one-line-drawings, and elementary diagrams.

Engineering proposed changes, identified after the system freeze, will require project management approval prior to implementation. Those proposed engineering changes with significant construction, startup, or operating impact must be reviewed and approved by the Review Board. The Review Board is made up of senior personnel from GPC constructions, Nuclear Operations, and Engineering who have the authority to approve the proposed change and to determine when the change is to be implemented. The total program for completion of work is described in the Project Reference Manual Volume 2, Part C, Section 38.

2. ENGINEERING, Cont'd

D. DESIGN ENHANCEMENTS

3. CONTRACTOR SUPPORT

In order to facilitate resolutions to contractor related problems, project field engineering (PFE) assigned personnel from the civil, electrical, controls and piping disciplines to provide support to the various contractors that are working on the project. This group is physically located within the power block in their own field office(s). Their work basically falls into three categories:

Preinstallation Walkdowns

This includes preinstallation walkdowns of congested areas to identify and resolve interferences and facilitate the erection of bracing for tray and duct support systems, and preinstallation walkdowns of pipe support systems to identify and resolve interference problems.

Non-FCR Work

This includes work presented to the PFE engineers by the contractors that does not result in generating an FCR. Typically this involves drawing interpretation and clarifications, the use of existing project tolerances, generic solutions to problems would also be included in this category.

FCR Work

This work is the primary function of the group and includes the following:

- Identification of the problem.
- Review of related documents.
- Generation of the FCR document.
- Solution of the problem.
- Project field engineering reviews and approves or disapproves the FCR.

The contractor support operation is enabling us to reduce the FCR turnaround time and, thus, be more responsive to the contractors in their effort to support the construction schedule.

2. ENGINEERING, Cont'd

D. DESIGN ENHANCEMENTS

4. DESIGN REVIEWS

The following series of design reviews evolving from the Institute of Nuclear Power Operations (INFO) criteria, "Performance Objectives and Criteria for Construction Project Evaluations," has been conducted during the period from February 1982, through May 1984. These provide enhancement relative to control of the design process, particularly calculations and change controls:

- The initial INPO pilot evaluation.
- An Engineering Design Control Review conducted by a joint task force of personnel from GPC, SCS and Bechtel.
- A self-Initiated Evaluation providing a more in-depth review by a similar task force.
- An Independent Design Review conducted by off-project personnel from Bechtel offices, other than Los Angeles.
- An Engineering Self-Evaluation conducted by off-project personnel from Bechtel's Los Angeles office.
- An INPO Construction Project Evaluation. Responses have been prepared and corrective action implemented for all findings identified in these evaluations.

2. ENGINEERING, Cont'd

D. DESIGN ENHANCEMENTS

5. ELIMINATION OF ARBITRARY INTERMEDIATE PIPE BREAKS

The NRC approved the elimination at the arbitrary breaks which resulted in the deletion of approximately 70 pipe whip restraints and a number of jet impingement barriers from each unit. The proposal to eliminate RCS main loop pipe breaks is under consideration by the NRC.

E. GENERIC ISSUES

During the course of the project, a number of issues have arisen and have been dispositioned.

1. Past issues related to design/engineering requirements. These items discussed in this section are:

    1. ALARA

    2. Seismic 2/1

    3. Hazards Review

    4. Equipment Qualification

    5. Solid Radwaste System

    6. Cold Shutdown

2. Major licensing issues that are found in Section 9 have been addressed by engineering.

2. ENGINEERING

E. GENERIC ISSUES

DESCRIPTION OF ISSUES	RESPONSE	CURRENT STATUS
1. (ALARA) As Low as is Reasonably Achievable (Regulatory Guide 8.8) Maintain the annual integrated dose to station personnel and to individuals working at the station ALARA.	Establish a formal ALARA design review program, which evaluates each building housing radioactive systems and components to verify that the design of each system and radiation area maintains radiation exposure ALARA.	The ALARA review program for Unit 1 is complete and Unit 2 has been rescheduled for completion by third-quarter 1985 (from third quarter 1984). As-built verification of the ALARA features will be conducted by field walkdown prior to fuel load for each unit.

2. ENGINEERING

E. GENERIC ISSUES

DESCRIPTION OF ISSUES	RESPONSE	CURRENT STATUS
2. Seismic 2 over 1 Regulatory Guide 1.29 requires that those portions of structures, systems or components whose continued function is not required but whose failure could reduce the functioning of any plant feature, which has been designated as seismic 1, to an unacceptable safety level should be designed and constructed so that the safe shutdown earthquake (SSE) would not cause such failure.	The VEGP has implemented project Design Criteria to ensure that Seismic 2 over 1 requirements are met.	Seismic 2/1 considerations were implemented for pipe systems, HVAC duct systems, and electrical cable trays by designing all nonseismic 1 system supports to maintain their structural integrity under the postulated earthquake conditions. Exceptions to this requirement are evaluated to ensure that their failure will not adversely affect adjacent safety related equipment or systems. Also, supports for exposed plumbing lines and lighting layout were upgraded to seismic 1. An as-built review is currently in progress, to be followed by plant walkdown to ensure that field routed components will not be impacted by seismically induced component failures. The walkdown is scheduled to be complete 6 months prior to fuel load.

2. **ENGINEERING**

E. GENERIC ISSUES

DESCRIPTION OF ISSUES	RESPONSE	CURRENT STATUS
3. Hazards Review		
A. Flooding 10 CFR 50 Appendix Design Criterion 4 and "Environmental and Missle Design Bases" requires, in part, the assessment of the consequences of flooding from fluids discharging from postulated pipe breaks.	The VEGP has issued and implemented project Design Criteria to ensure that flooding is adequately addressed.	A formal separation review program addressed the flooding issue and is completed for Unit 1. Results of this review revealed that effects of the flooding hazard would not impact the safe operation of the plant or degrade the ability of the plant to achieve and maintain safe shutdown. As built review of all flooding calculations is currently in progress. This review is scheduled to be complete by February 1, 1985.

2. ENGINEERING

E. GENERIC ISSUES

DESCRIPTION OF ISSUES	RESPONSE	CURRENT STATUS
3. Hazards Review (Continued) B. High-Energy Line Break Analysis (HELBA) 10 CFR 50 Appendix A General Design Criterion 4, "Environmental and Missle Design Bases" requires, in part, that components required to place the plant to a safe shutdown and mitigate the consequences of the accident be protected against the dynamic effects of a high-energy break.	The VEGP issued and implemented project Design Criteria DC-1018, to ensure that the effects of high-energy line break are adequately addressed. A formal separation review and analysis was begun in August 1980 to ensure that safety-related equipment that is essential to place the plant in a safe cold shutdown condition and to mitigate the consequences of the particular pipe break in question would not be subjected to pipe whip and protected from the effects of jet impingement.	The pipe whip restraint analysis for Unit 1 is considered to be complete, i.e., the total required number of restraints and the locations are completed. This effort was completed in April 1983. The final jet impingement effort which was started in November 1982 is estimated to be 90% complete and has been rescheduled to be complete by March 1985 (from October 1983).

2. ENGINEERING

E. GENERIC ISSUES

DESCRIPTION OF ISSUES	RESPONSE	CURRENT STATUS
4. Equipment Qualification Guide 1.89, Rule 10 NUREG-0588, Regulation	VEGP organized an Equipment Qualification Task Force to address seismic and environmental qualification on the project. A seismic appendix (QG) and an environmental appendix (EA) were written to attach to specifications used to procure BOP safety related equipment.	VEGP purchase specifications include seismic and environmental qualification requirements for safety-related electrical and mechanical equipment. The review program is in progress. VEGP will qualify all safety-related mechanical equipment. Equipment qualification documentation will be available for NRC review approximately 9 months prior to fuel load. Any field changes required because of NRC review will be evaluated and scheduled for implementation. The program as outlined above, supports the project schedule.

2. ENGINEERING

E. GENERIC ISSUES

DESCRIPTION OF ISSUES	RESPONSE	CURRENT STATUS
5. **Solid Radwaste System** System procurement delayed to allow for use of the latest available technology, that would include volume reduction (VR).	Procured state-of-the-art radwaste volume reduction and solidification system (RVRSS). The system includes a fluid bed dryer, dry waste processor, cement and DOW polymer solidification equipment.	Solid radwaste design proceeding according to accelerated schedule. Specification to Bid 7/17/80 Award Stock 2/18/81 Aerojet 2/18/81 Design Freeze August, 1982. Equipment delivery started September 1982. Approximately 95% of the RVRSS equipment has been delivered to the jobsite. Turnover of the radwaste facility is scheduled as follows: Volume Reduction System 1/2/86 Cement Solidification System 1/22/86 Polymer Solidification System 12/22/85 This schedule will allow sufficient time for complete functional and performance testing of the integrated system. With the schedule outlined above, resolution of this issue will support the project schedule.

2. ENGINEERING

E. GENERIC ISSUES

DESCRIPTION OF ISSUES	RESPONSE	CURRENT STATUS
6. Remote Shutdown Capability 10 CFR 50, Appendix A, General Design Criteria 19, "Control Room" requires that the operator be able to place the plant in a safe shutdown condition from either the control room or locations outside the control room.	Implement hardware and software modifications developed by Bechtel and Westinghouse that are required to allow reaching and maintaining safe shutdown utilizing safety-grade equipment from either the control room or the remote shutdown panels.	Bechtel and Westinghouse have identified several safe shutdown control and indication functions which could be disabled by a control room fire. Modifications to the control room and Train B remote shutdown panel hardware and software have been developed which assure that these functions will be available after a control room fire. This hardware and associated software is being fabricated by Westinghouse. The delivery and installation schedules have been finalized. Since delivery of the hardware extends beyond the system turnover date, a plan has been developed to ensure that the overall schedule will be unaffected. The balance of the safe shutdown functions, appearing on both of the remote shutdown panels and which can be isolated from the control room by means of transfer switches is unaffected by this modification.

3. PROCUREMENT

Question: Detailed review and current status of procurement activities including valves, pipe, instruments, cable, major components, etc.

A. PROCUREMENT ORGANIZATION

Procurement of equipment, materials and services for Vogtle Electric Generating Plant is performed by the Project Procurement Services Department - Vogtle. This department is located at the jobsite and has no other procurement responsibilities within Georgia Power. Project Procurement is managed and directed by the Project Procurement Manager - Vogtle and reports to the Vice President and General Manager Vogtle Project for functional direction and to the Manager, Procurement and Traffic, for technical direction. Included in this procurement team are Southern Company Services Procurement and Bechtel Power Corporation, Los Angeles Power Division - Vogtle Project Procurement.

Project Procurement Services directs all procurement activity for Plant Vogtle. This involves approving bid lists, reviewing bid evaluations and purchase recommendations, making awards to vendors, and expediting both "hardware" and "software". It is also Project Procurement's responsibility to resolve or coordinate the resolution of all commercial issues on all orders and contracts. Approximately thirty-five people are assigned to Vogtle Project Procurement either at the jobsite or the engineering offices.

B. COMMODITY STATUS

Presented below is a recap of the major bulk items required for the construction of Plant Vogtle, and compares that required quantity with the quantities already purchased and delivered:

COMMODITY	REQUIRED	ORDERED	DELIVERED
Engineered Valves			
Nuclear	11,861	11,861	10,789
Non-Nuclear	19,475	19,475	18,933
Control Valves	2,460(EST)	2,430	2,135
Local Field Mounted Instruments	13,255	9,587	7,404
HVAC Dampers (All)	1,844	1,840	1,767
(Unit 1/Common)	1,312	1,311	1,311
Pipe			
Large (ft)	553,769	522,460	472,859
Small (ft)	427,670	299,728	278,687
Engineered Cable (ft)	12,646,300	(approx.) 11,600,000	11,215,645
Conduit (Rigid and PVC)	1,328,917	1,276,064	1,276,064
Cable Tray	248,623	248,623	248,623

The engineered valves shown above do not include either valves furnished by suppliers as components on equipment or systems, or spares and surplus valves. Approximately 91% of the nuclear valves, and 97% of the non-nuclear valves required for construction have been delivered.

The "total required" quantity of control valves is an estimated based upon both historical data for similar plants, and engineering's judgement of the actual number required for Plant Vogtle. This estimated quantity is subject to change as revised requirements are identified.

The quantities indicated for instruments include only local field mounted units. Instruments which are already mounted in panels or skids furnished as assemblies, or as part of an assembly, are not included in this forecast. Approximately 56% of the required quantity has been delivered, and is available for construction.

The total quantity of control and power cable already delivered exceeds the quantities required for bulk cable pulling.

Large pipe, 2½ inch and larger, has been purchased from Pullman Power Products on a time and material purchase order. Pipe spools are released for fabrication on drawings from Bechtel's Engineering office as required to meet construction requirements.

Small pipe, 2½ inch and smaller, is purchased directly by Georgia Power Company as a material supplier (MS) to Bechtel under the provisions of Bechtel's "N" Stamp. Suppliers of small pipe are selected from either the Bechtel or the ASME Evaluated Suppliers Lists. Fabrication of small pipe is completed by Georgia Power Company at their site fabrication shop as necessary to support construction. Sufficient inventory of pipe is maintained to support lead times.

Cable tray is a multiple release purchase order placed with one vendor. Releases are by construction from drawing take offs.

Conduit is purchased on one of three orders established with qualified suppliers. Sufficient inventory is maintained to support construction needs.

C. MAJOR EQUIPMENT/CONTRACT STATUS:

Presented below is a recap of orders for both contracts, and major equipment and systems purchased for Plant Vogtle, and the current delivery status of those orders:

EQUIPMENT	DELIVERY STATUS
Main Power Transformers	Due 3/85
Auto Transformers	Due 5/85
Turbine Generators	Complete
242 KV Power Circuit Breakers	Due 3/85
Switchyard Bus	Complete
500 KV Power Circuit Breakers	Due 7/85
Control Panels	Complete
480 V Motor Control Centers	Complete
Safety Related Fans (Purge Units)	Complete
Back-Flushable Filter System	Complete
Hydrogen Monitoring System	Complete
Elevators	Complete
HVAC Gas Analysis System	Complete
Nuclear Service Cooling Water Pumps	Complete
Component Cooling Water Heat Exchangers	Complete
Nuclear Service Cooling Water Towers	Complete
HVAC Ducts	85% Complete
HVAC Instrumentation	Complete
HVAC Fans	Complete
Radwaste Volume Reduction System	Complete
Radwaste Solidification System	95% Complete - Balance Due 1/85
Plant Security System	80% Complete - Balance Due 2/85
HVAC Acoustic Silencers	2/85 - 4/85
Glass Shielding Windows	Complete
Stainless Steel Liner Plate for Large Concrete Backed Atmospheric Tanks	Complete
500 KV Substation Indication Panel	Complete
Post Accident Sampling System	1/85
Seal Water Pressurizer Units	Complete
Evaporative Coolers	11/84
Non-Nuclear Services Valves 2" and Smaller	5/85
Start-up Pond Liner	Complete
Miscellaneous Cranes	11/84
Miscellaneous Hoists	11-12/84
Switchyard and Transformer Yard Reactors	12/84
500 KV Switchyard Steel	Complete
500 KV Disconnect and Circuit Switches	3/85
Thermally Shielded Pipe Supports	12/84

TURBINE GENERATOR INSTALLATION

The turbine generator installation contract was awarded to General Electric Company in September, 1983. The construction schedule calls for Unit 1 to be placed on turning gear in December, 1985, with Unit 2 in June, 1987.

PLANT ENTRY AND SECURITY BUILDING

This construction contract was awarded to Barge and Company in January, 1984. Construction is scheduled to be completed in February, 1985.

NUCLEAR STEAM SUPPLY SYSTEM

The NSSS was purchased from Westinghouse Electric Corporation in September, 1971. All items in the Westinghouse NSSS scope of supply have been delivered with the exception of the following equipment:

EQUIPMENT	FORECAST DELIVERY
Unit 2 Reactor Coolant Pump Internals	1/85
Unit 2 Pressurizer Safety and Relief Valve Assembly	4/85
Unit 2 Radiation Monitoring System	12/84
Unit 2 Plant Safety Monitoring System	6/85
Unit 1 & 2 BOP Process Cabinets	12/84

NSSS INSTALLATION

The contract for installation of the NSSS System was awarded to Nuclear Installation Services Company in April of 1982. The majority of the major equipment has been set for both units and work is proceeding smoothly toward completion.

MECHANICAL SNUBBERS

Snubbers have been purchased from both Pacific Scientific and Anchor/Darling. Units were released in initial quantities at the time of Purchase Order award, with subsequent releases made on drawings from Bechtel engineering.

	ORDERED	DELIVERED
Pacific Scientific	1042	1040
Anchor/Darling	940	870

MISCELLANEOUS CONTROL PANELS

This is a time and materials purchase order with Reliance Electric covering all miscellaneous control panels on a number of separate specifications. The panels are released by Engineering on drawings.

ORDERED	DELIVERED
93	85

D. MAJOR PURCHASE ORDERS AND CONTRACTS TO BE AWARDED

Permanent Plant Equipment to be Ordered

EQUIPMENT	FORECAST AWARD	SITE NEED DATE
Filter Handling System	7/85	3/86
Radwaste Compactor	9/85	3/86
ISI Pump Monitoring Equipment	2/85	9/85
High Energy Line Restraints Assembly	4/85	4/86
Pipe Whip Restraints Assembly - UBA	1/85	6-8/85
Pipe Whip Restraints Assembly - EAM	1/85	6-8/85

Major Construction Contracts to be Awarded

EQUIPMENT	FORECAST AWARD	SITE NEED DATE
Penetration Sealing	11/84	3/85

E. DOCUMENTATION ISSUE

The NRC has identified documentation problems relating to bolting materials supplied by Cardinal Industrial Products. The Vogtle Project has used these products in the past. Use of this manufacturers product has been suspended until the problems are resolved. Currently, the Vogtle Project Procurement and Engineering groups are working to secure the needed documentation and to determine the proper course of action.

F. SUMMARY

Procurement for the Vogtle Project is the sole responsibility of the Georgia Power Company and is managed at the jobsite by the Project Procurement Manager, including field procurred items, engineered products and contracts.

Procurement is generally supporting construction schedules and appropriate procurement personnel are closely involved with construction, engineering and operations personnel to facilitate expeditious response to site needs. Procurement of spare parts has begun and material is being received and stored on site. Approximately 97% of all major engineered equipment and materials has been purchased for Unit 1 and the majority is either on site or in storage at vendor facilities. Approximately 96% of the major engineered equipment and materials has been purchased for Unit 2.

4. Craft Work Force

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

Introduction: The total project manpower at the end of the September period was 10,562. Total Georgia Power personnel was 1,476, with 830 construction department employees. Manpower for the major contractors consisted of 6,619 craft employees and 1,261 staff members. Other staffing includes specialty contractors, Bechtel, Southern Company Services, Westinghouse, Oglethorpe Power Corp., and temporary service employees, totaling 1,206. Total project manpower peaked in August, 1984, at 10,892.

The Vogtle Project will continue to work on the four shift construction schedule in 1985. It is believed that this schedule is still the most effective in managing the work force.

The majority of the current staff is drawn from the local area, including 63% from Georgia and 11% from South Carolina. Crafts with special skills, such as pipefitter welders and electricians, are recruited from a much larger area. To date, the project has been able to maintain its position in the labor market and has experienced no difficulty in hiring the needed craftsmen to support the construction schedule.

There are no anticipated problems in attracting craftsmen needed to complete the project on schedule. An evaluation of labor demand in the surrounding area indicates that the only project of considerable size will not peak until late 1986 with good craftsmen.

Productivity improvement is still of paramount importance to senior management. The Multi-Activity Construction Performance Program (M-ACPP) initiated in 1981 is still a viable part of performance improvement. Through the use of participative management techniques there has been an enhancement of team building between all levels of personnel employed at Plant Vogtle.

The Quality Circle Program began in June, 1982, with five circles. Today there are 15 active Quality Circles with 108 members. The Problem Solving Team Program which began in March, 1982,

has had 23 teams making recommendations to management for improving work methods and improvements in the quality of the work life.

No site wide Activity Sampling was performed in 1984. However, specific target areas studied through the means of Activity Sampling were Containment, Control and Auxiliary Buildings.

Communicating is vital to all organizations and programs. Since its establishment, "The Blazer", our site newspaper, has grown as a major vehicle of communicating with the Vogtle employees. Circulation has grown from 8,500 to 10,800 being mailed to the employees' homes.

Our comprehensive training program is a key element in our efforts to improve performance. This program is geared to all shifts and entities on site. To date, 366 employees have completed our 60-hour Foreman and General Foreman Training Course; 184 have completed Advanced Foreman Training. The 80-hour Superintendent Development Program has had 184 graduates.

Training has recently taken a new direction under the guidance of a Training Manager. The revised training program is designed for performance improvement efforts directed toward short term/ early payoff activities that will produce tangible results and contribute directly toward the completion, licensing and start-up of the facility.

The new approach to First Line Supervisor Training will be geared toward foreman accountabilities. Concentration will be on specific activities that comprise the daily duties of the foreman and general foreman.

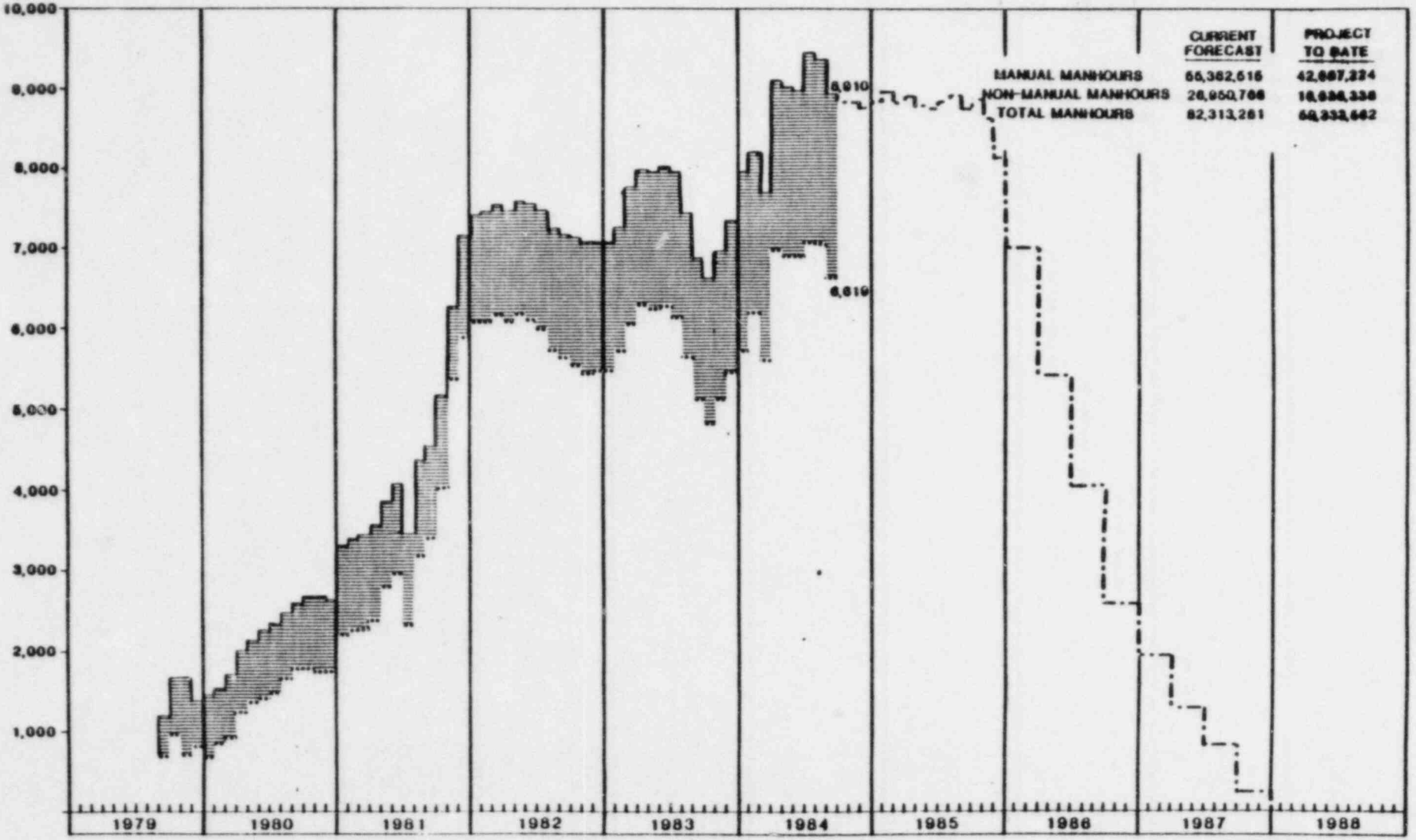
Performance improvement has been further enhanced by the implementation of the Zero Defects Program. This program has become a vital part of the daily activities in the Mechanical, HVAC and Electrical disciplines. The Zero Defects Program is designed to expend extra engineering time on the front end in order to reduce craftsmen delays during installation. Prior to work packages being turned over to the craftsman, an engineering walk down is made. Interferences, scaffold and tool needs are identified and corrected prior to work beginning. Since the Zero Defects Program has begun, there have been substantial recognizable improvements in productivity. In the HVAC discipline, a 50% improvement has been recognized in production. The Electrical discipline now has 80% of their work packages that can be worked from start to finish versus 20% prior to Zero Defects.

The largest gain in the Mechanical area is the reduction of craft downtime. The Zero Defects Program has provided intangible benefits. There is an increase of open communications between all levels of employees. There is a higher visibility of supervision and improved morale and enthusiasm.

In 1985, 11 trade unions will negotiate new labor contracts affecting 15 crafts. Of the most critical crafts, the electricians will negotiate a new agreement in 1985. A work stoppage by the electricians is not anticipated due to the no strike clause in the local agreement. The pipefitters negotiated a new agreement in October, 1984, without a work stoppage. At this time, there is no means to determine if there will be any work stoppages resulting from contract negotiations in 1985. Every effort will be made to minimize the interruption of work due to negotiations.

The Georgia Power Company has had an ongoing construction labor relations program at Plant Vogtle since 1977. This program is designed to establish and maintain open lines of communications between the company, contractors and trade unions. As a regular part of the program, joint labor/management meetings are held quarterly and stewards meetings are held monthly. These meetings have proven to be beneficial in eliminating problems that would have an impact on the project.

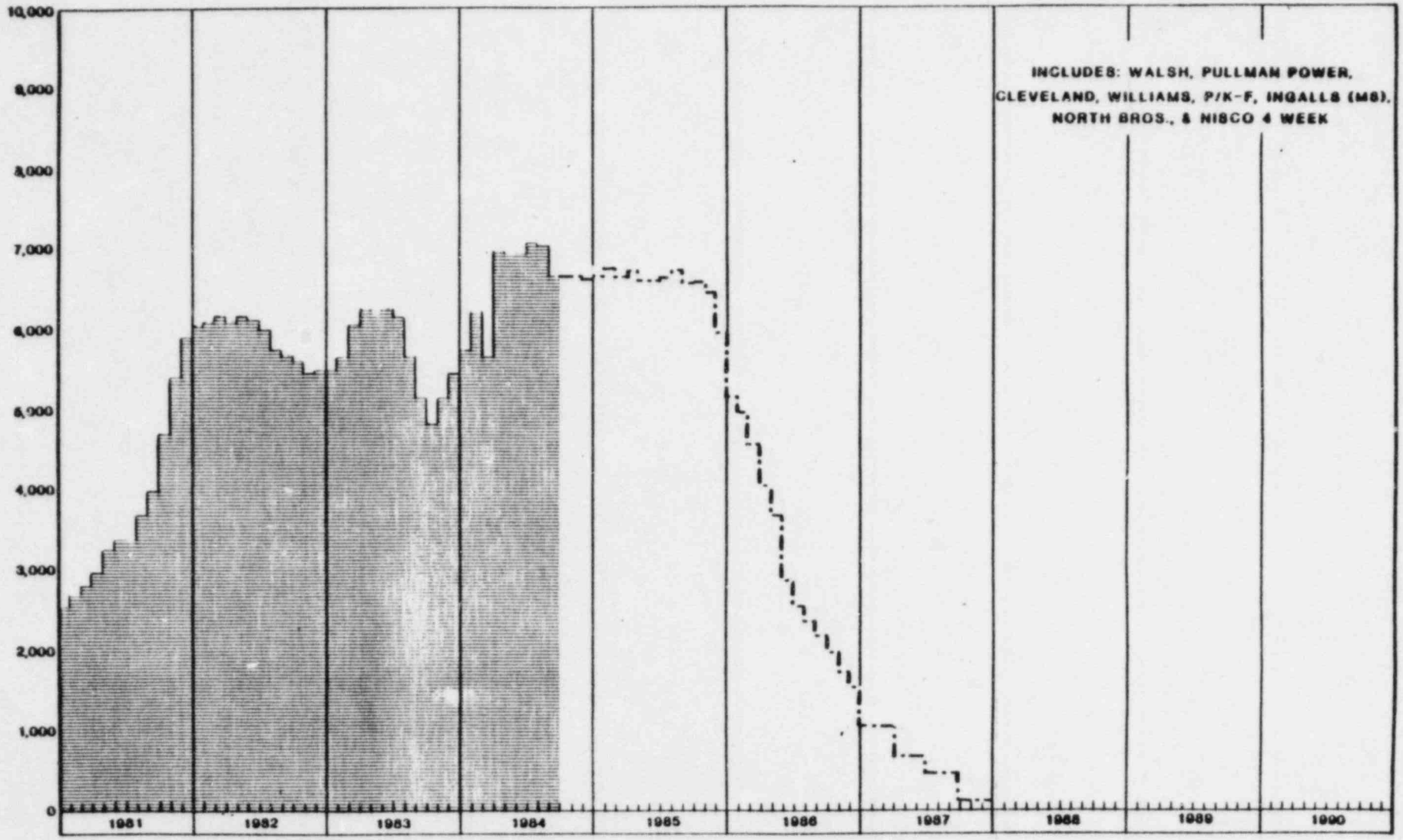
The Georgia Power Company, its contractors and the local trade unions are committed to the integrity of the Project Agreement and its intent: "to provide close cooperation between management and labor for the expressed purpose of completing the construction of this project without delays and work stoppages".



PERIOD ENDING 9/23/84

VOGTLE ELECTRIC GENERATING PLAN
CONSTRUCTION MANPOWER

NOTE: INCLUDES ALL MAJOR COST PLUS CONTRACTORS AND GPC CONSTRUCTION



LEGEND

- PLANNED INCREMENT
- ACTUAL INCREMENT

VOGTLE ELECTRICAL GENERATING PLANT
MAJOR CONTRACTOR - CRAFT MANPOWER
JULY '84 REFORECAST

PERIOD ENDING 9-23-84	
PLANNED INCREMENTAL	6,811
ACTUAL INCREMENTAL	6,619

MANUAL LABOR CRAFT REQUIREMENTS
84-0 CONSTRUCTION SCHEDULE
(10-12-84 MAP)

	07/84	08/84	09/84	10/84	11/84	12/84	01/85	02/85	03/85	04/85	05/85	06/85
Insulators	63	76	85	88	67	78	89	87	63	107	113	157
Boilermakers	100	105	111	111	97	107	169	151	148	174	159	184
Carpenters	778	928	1,030	827	839	861	793	978	896	940	868	645
Cement Finishers	53	80	103	66	68	73	60	93	80	88	76	34
Electricians	1,217	1,271	1,131	1,224	1,165	1,131	1,136	1,059	1,126	1,078	1,099	1,133
Ironworkers	460	459	469	424	411	454	438	463	428	464	405	389
Laborers	712	827	909	743	748	767	721	865	803	845	784	614
Millwrights	28	32	35	38	29	34	68	62	56	70	62	78
Operating Engrs.	354	360	355	335	336	337	338	352	341	349	336	323
Painters	237	202	183	191	182	210	205	186	175	190	158	189
Pipe Fitters	2,606	2,204	1,938	2,089	2,160	2,041	2,064	1,922	2,070	2,061	2,147	2,501
Teamsters	137	141	141	131	131	131	129	137	132	135	131	125
Sheetmetal Wrk.	340	398	321	378	412	402	446	412	305	246	273	231
TOTALS	7,085	7,083	6,811	6,645	6,645	6,626	6,656	6,777	6,643	6,747	6,611	6,603

MANUAL LABOR CRAFT REQUIREMENTS
84-0 CONSTRUCTION SCHEDULE
(10-12-84 MAP)

	07/85	08/85	09/85	10/85	11/85	12/85	01/86	02/86	03/86	04/86	05/86	06/86
Insulators	157	130	142	146	91	95	73	75	60	47	41	32
Boilermakers	184	205	177	167	119	121	90	88	73	61	54	43
Carpenters	631	630	621	593	609	578	498	477	414	477	317	258
Cement Finishers	31	29	31	23	27	29	24	23	16	35	9	8
Electricians	1,084	1,088	993	982	970	817	690	735	738	664	658	535
Ironworkers	372	330	335	314	263	245	196	191	163	173	126	109
Laborers	605	603	597	575	576	547	470	449	389	432	296	239
Millwrights	78	87	73	67	42	44	30	31	18	14	13	13
Operating Engrs.	324	329	322	323	314	291	251	240	218	199	172	137
Painters	178	145	152	141	103	90	69	69	60	53	49	44
Pipe Fitters	2,619	2,766	2,767	2,986	3,006	2,785	2,472	2,324	2,130	1,635	1,678	1,273
Teamsters	126	126	126	127	124	116	100	96	86	79	67	53
Sheetmetal Wrk.	253	275	246	247	234	211	195	176	181	149	161	131
TOTALS	6,642	6,743	6,582	6,691	6,478	5,969	5,158	4,974	4,546	4,018	3,641	2,875

MANUAL LABOR CRAFT REQUIREMENTS
84-0 CONSTRUCTION SCHEDULE
(10-12-84 MAP)

	07/86	08/86	09/86	10/86	11/86	12/86	01/87	02/87	03/87	04/87	05/87	06/87
Insulators	33	30	32	30	27	30	20	20	17	8	7	7
Boilermakers	42	38	38	41	39	39	29	28	24	20	20	20
Carpenters	192	176	165	151	130	119	97	79	62	56	45	42
Cement Finishers	1	1	1	1	1	1	1	1	-	-	-	-
Electricians	462	448	443	417	385	401	336	305	200	191	155	133
Ironworkers	88	81	82	73	65	66	51	47	37	27	25	24
Laborers	182	169	157	144	124	113	92	77	60	56	47	44
Millwrights	15	12	16	15	13	17	11	11	10	9	9	9
Operating Engrs.	118	109	101	92	79	72	58	48	38	36	30	29
Painters	40	37	39	34	30	33	24	24	19	12	11	11
Pipe Fitters	1,181	1,138	1,002	903	730	592	530	389	336	326	260	254
Teamsters	46	42	38	35	29	26	21	17	14	13	11	11
Sheetmetal Wrk.	128	66	59	52	49	41	12	11	9	6	5	5
TOTALS	2,528	2,347	2,173	1,988	1,701	1,550	1,282	1,057	826	760	625	589

MANUAL LABOR CRAFT REQUIREMENTS
84-0 CONSTRUCTION SCHEDULE
(10-12-84 NAP)

	07/87	08/87	09/87	10/87	11/87	12/87
Insulators	-	-	-	-	-	-
Boilermakers	6	5	5	1	1	-
Carpenters	38	29	26	11	5	4
Cement Finishers	-	-	-	-	-	-
Electricians	124	76	61	44	2	2
Ironworkers	11	8	7	3	1	1
Laborers	38	29	26	10	5	4
Millwrights	1	1	1	-	-	-
Operating Engrs.	25	19	17	7	4	3
Painters	3	2	2	-	-	-
Pipe Fitters	269	228	208	66	51	38
Teamsters	9	8	7	2	2	1
Sheetmetal Wrk.	2	2	1	1	-	-
TOTALS	526	407	361	145	71	53

PLANT VOGTLE PROJECT MANPOWER

JOBSITE STAFFING	SHIFT	06-24-84	07-22-84	08-26-84	09-23-84
Nuclear Construction					
GPC	A	722	712	715	694
	B	39	40	39	40
	C	87	90	89	94
	D	1	1	1	1
	SUB TOTAL	849	843	844	829
GPC Sub-Contractors	A	143	160	175	192
	B	1	3	4	1
	C	6	5	5	8
	D	-			
	SUB TOTAL	150	168	184	201
GPC Construction Support (BPC)	A	26	26	29	29
Contractors Staff	A	932	958	942	952
	B	106	91	91	84
	C	208	236	231	224
	D	2	5	2	1
	SUB TOTAL	1,248	1,290	1,266	1,261
Contractors Craft	A	4,345	4,378	4,316	4,123
	B	852	815	820	705
	C	1,711	1,839	1,858	1,753
	D	19	48	51	38
	SUB TOTAL	6,927	7,080	7,045	6,619
PFE Temps (GPC Constr.)	A	-	19	16	20
PFE Support (Power Block)	A	12	24	39	41
SUB TOTAL CONSTR.		**9,212**	**9,450**	**9,423**	**9,000**

PLANT VOGTLE PROJECT MANPOWER

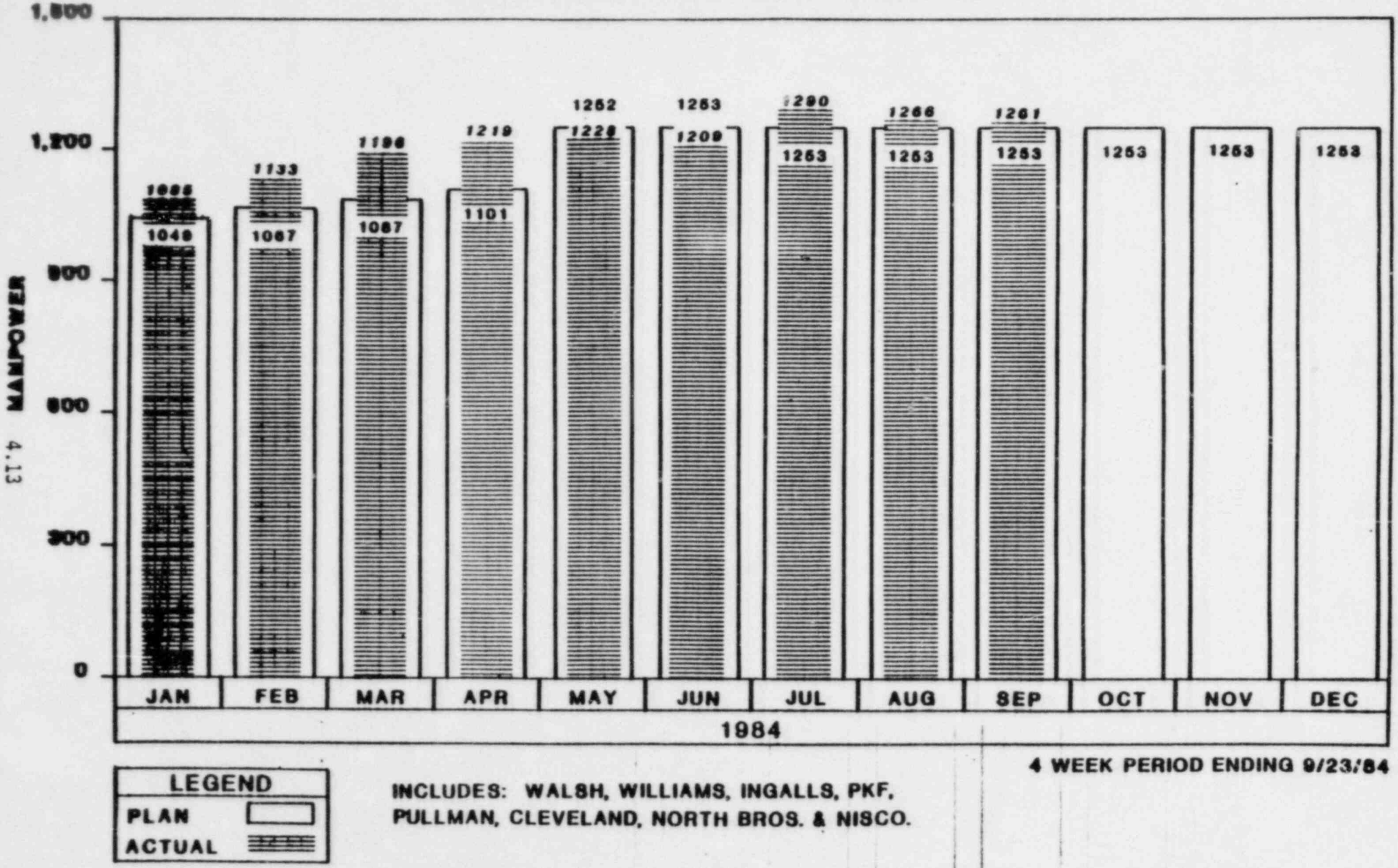
JOBSITE STAFFING	SHIFT	06-24-84	07-22-84	08-26-84	09-23-84
Other Nuclear Construction					
GPC Constr. Summer Students	A	13	13	11	1
Other GPC Constr. Sub Contr.	A	8	8	8	8
Specialty Contractors Staff	A	30	32	33	31
	C	1	1	2	1
	SUB TOTAL	31	33	35	32
Specialty Contractors Craft	A	318	281	279	288
	C	5	5	5	5
	SUB TOTAL	323	286	284	293
PFE - Bechtel	A	133	123	125	134
- Westinghouse	A	108	107	107	123
- SCS	A	46	52	44	44
- Subcontractors	A	71	85	94	97
	SUB TOTAL	358	367	370	398
SUB TOTAL OTHER NUCLEAR CONSTR.		**733**	**707**	**708**	**732**
TOTAL CONSTR./CONSTR. SUPPORT		**9,945**	**10,157**	**10,131**	**9,732**
Nuclear Operations					
Nuclear Operations	A	446	451	465	499
Nuclear Operations Support (Bechtel and Westinghouse)	A	57	52	57	60
Nuclear Operations Sub-Contractors	A	51	56	70	100
SUB TOTAL NUCLEAR OPERATIONS		**554**	**559**	**592**	**659**

PLANT VOGTLE PROJECT MANPOWER

JOBSITE STAFFING	SHIFT	06-24-84	07-22-84	08-26-84	09-23-84
Other Staffing					
Project Management Staff	A	22	23	22	27
BPC/SCS Support	A	11	11	12	12
GPC Security	A	33	33	37	44
	B	23	23	25	20
	C	19	19	19	15
	D	3	3	3	3
	SUB TOTAL	78	78	84	82
GPC Other (Procurement, Training, Invoice Accounting, Q.A.)	A	49	49	46	46
Oglethorpe Power	A	4	4	5	4
SUB TOTAL OTHER STAFFING	**A**	**164**	**165**	**169**	171
TOTAL PROJECT MANPOWER		**10,663**	**10,881**	**10,892**	10,562

VOGTLE ELECTRIC GENERATING PLANT

CONTRACTORS NON-MANUAL



4 WEEK PERIOD ENDING 9/23/84

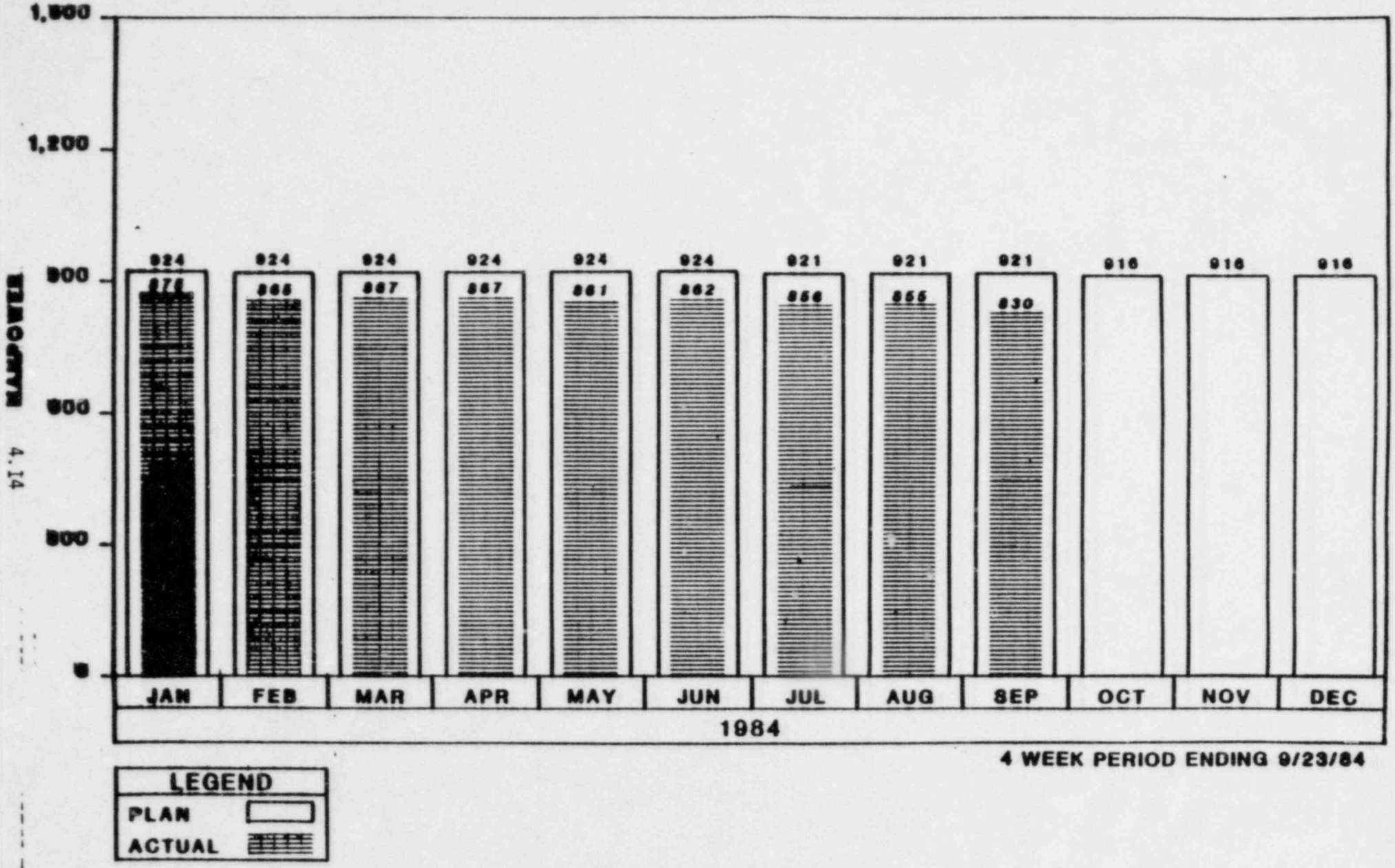
LEGEND

PLAN

ACTUAL

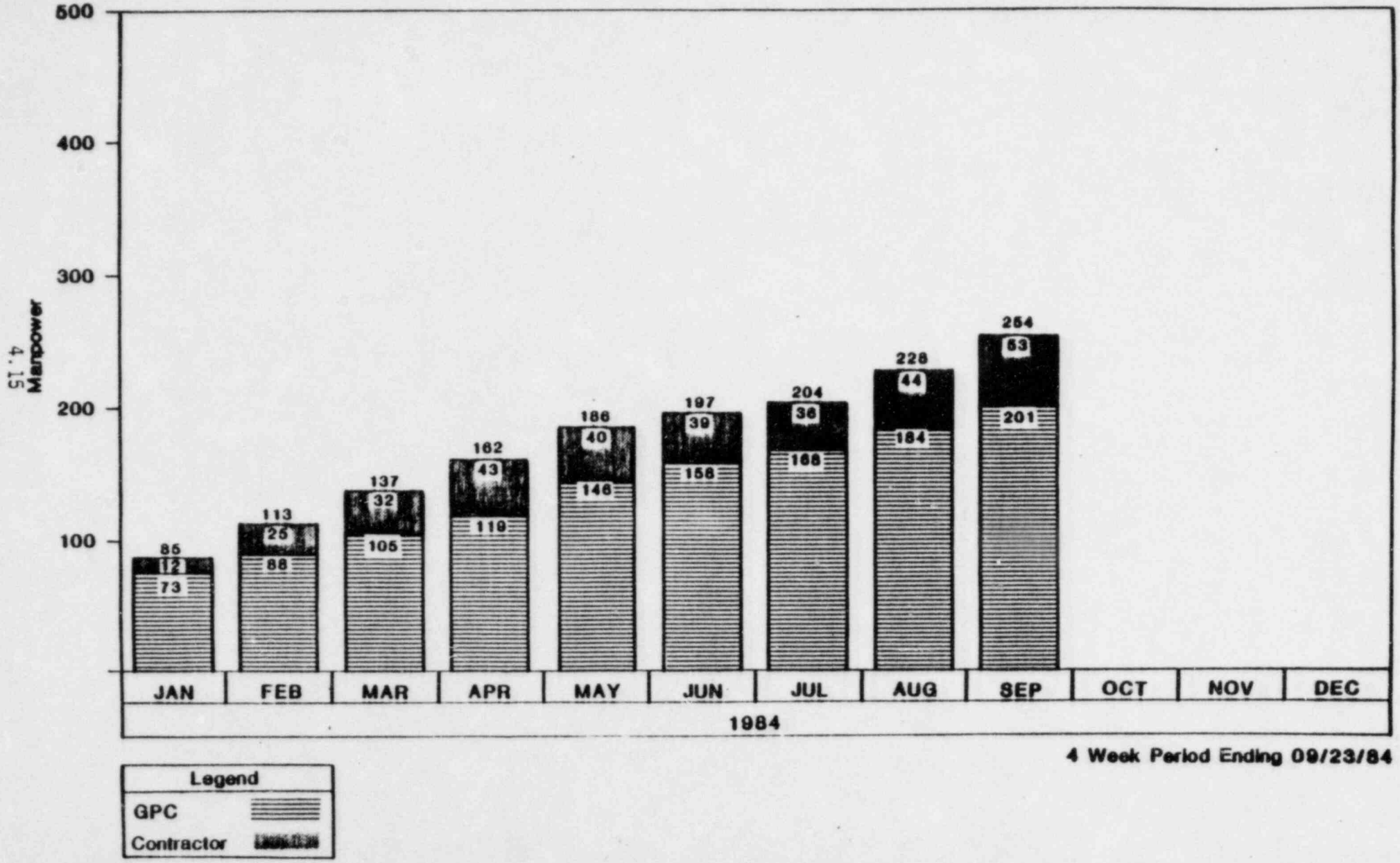
INCLUDES: WALSH, WILLIAMS, INGALLS, PKF, PULLMAN, CLEVELAND, NORTH BROS. & NISCO.

VOGTLE ELECTRIC GENERATING PLANT
GPC CONSTRUCTION NON-MANUAL



Vogtle Electric Generating Plant

Temporary Non-Manual Construction Support



VOGTLE ELECTRIC GENERATING PLANT
NRC CASELOAD FORECAST

5. PIPE HANGERS

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

A. INTRODUCTION

The current status of large pipe hangers at VEGP is as follows:

		Percent Complete	
		Unit 1	Unit 2
Design	-	96%	92%
Procurement	-	96%	92%
Material Receipt	-	94%	83%
Installation	-	49%	3%
Final Acceptance	-	49%	3%

The current status of pipe whip restraints is as follows:

		Percent Complete for Primary Restraint Structures	
		Unit 1	Unit 2
Design	-	100%	32%
Procurement	-	100%	32%
Jobsite Delivery	-	100%	25%
Installed and Final Accepted	-	6%	0%

B. LARGE PIPE HANGER AND SNUBBER STATUS

	FORECAST	DESIGN ISSUED	MAT'L ORD	MAT'L REC'D	INSTALL	FINAL ACCEPT
Unit 1 & Common	20,297	19,471	19,471	19,167	9,883	9,883
Unit 2	13,639	11,458	11,458	11,280	398	398

C. SMALL PIPE HANGER STATUS

	FORECAST	DESIGN ISSUED	MAT'L ORD	MAT'L REC'D	INSTALL	FINAL ACCEPT
Unit 1 & Common	27,289	16,983	16,983	16,870	11,740	11,740
Unit 2	17,387	4,240	4,240	4,212	290	290

D. RESTRAINT STATUS

FACILITY	FORECAST (EA)		REVIEW DESIGN ISSUED		MAT'L REC'D		INSTALLED & INSPECTED	
	UNIT 1	UNIT 2	U1	U2	U1	U2	U1	U2
Turbine Bldg.	1	1	1	1	1	1	1	1
Auxiliary Bldg.	3	3	3	3	3	2	0	0
Control Bldg.	8	8	8	8	8	6	0	0
Main Steam Tunnel	3	3	3	3	3	2	0	0
Primary Containment	109	109	109	25	109	20	6	6
Total (EA)	124	124	124	40	124	31	7	0

E. HANGER AND RESTRAINT ENHANCEMENTS

Since the beginning of the design effort, the following actions have been and continue to be taken to assure pipe hanger and restraint installation meets schedule:

- Interference program using overlays is applied to powerblock areas.
- Embed control drawings are being utilized to identify and reserve embeds for pipe supports to ensure that loading on individual embeds is not exceeded beyond allowable loads.
- Specifications have been reviewed for constructibility.

5. PIPE HANGERS

E. HANGER AND RESTRAINT ENHANCEMENTS (Continued)

- The hanger purchase orders are field administered through four separate vendors for maximum responsiveness and flexibility. Inventories of surplus materials are maintained to provide an additional material source.

- Due to the need for close coordination of piping systems (piping, hangers, supports, restraints, etc.) installation with the design, the Project Field Engineering Organization has been expanded (Ref. Sec. 2D) and strengthened to handle and coordinate the design of all piping system field changes at the jobsite. In addition, the design of the balance of small bore piping system shall be performed by engineering in the field. This organization includes the elements of Bechtel, Westinghouse, and SCS piping system design personnel and will also perform and document the as-built verification of these systems. They will closely work with construction and contractors in an attempt to resolve field problems ahead of installation, thereby minimizing their impact to the construction schedules.

F. SUMMARY

Project engineering, working with contractors is taking necessary steps to address early identification and resolution of hanger installation difficulties to minimize rework.

PLANT VOGTLE UNIT 1

NRC CASELOAD FORECAST

6. Project Schedule

Question: Detailed review of project schedule identifying critical path items, near critical items, amount of float for various activities, the current critical path to operation, methods of implementation of corrective action for any activities with negative float, and provisions for contingencies. The estimated project percent complete as of October 21, 1984.

A. Introduction: The Vogtle Project maintains five (5) distinct levels of schedules. These consist of:

1) Milestone Summary Schedule

2) Engineering, construction and start-up summary schedules

3) Engineering intermediate, construction Level II and start-up Level II schedules

4) Engineering drawing control (CEBUS), detailed construction schedules, turnover completion schedules and start-up fragnets (CATS & PREOPS)

5) Engineering action items list, hydro punchlists, system turnover punchlists and start-up system punchlist.

The milestone summary schedule includes engineering, construction and start-up activities. This is a management level schedule used to measure progress against the project milestones.

The engineering, construction and start-up summary schedules are the control schedules used for monitoring the interface between these disciplines. The construction summary schedule, with the activity package index, is used to identify the engineering - construction interface. The start-up summary schedule, at the system turnover milestone, is used to identify the construction - start-up interface.

The engineering intermediate schedule and the construction level II schedule are used to develop drawing release dates for CEBUS, the engineering document control system. The construction level II schedule and the start-up level II network, both computerized in Project/2, are merged monthly to evaluate the interface and analyze the critical paths to fuel load.

6. Project Schedule (Cont'd.)

The engineering CEBUS is the detailed schedule for design and engineering drawing issue. CEBUS also provides specification and drawing control. The detailed construction schedule (DCS) is the day-to-day direction for craftsmen in the field. The DCS is developed utilizing the contractor schedulers and integrating their input into a comprehensive working document. The construction system completion schedules are developed six (6) months before turnover in the form of a bar chart indicating progress by commodity. Three (3) months prior to turnover, detail construction close-out schedules are developed on an as needed basis. Detail start up fragnets have been developed on all systems indicating the timing and interface requirements for all CATS, Flushes and PREOPS.

The engineering action items list is the engineering close-out punchlist prior to turnover. The hydro and construction system punchlists are the construction close-out documents and formulate the back-up to the turnover completion fragnets. At turnover, these punchlists are controlled by Nuclear Operations to insure tracking and scheduling of turnover exceptions in support of the initial test program.

B. Status

The project is presently on schedule, reporting Unit 1 and Common at 72 percent complete, physically, Unit 2 and Common at 45 percent complete and the combined total for both units at 61 percent complete.

Identified project critical schedule items are:

- Chemical Volume Control System Pipe and Support Design, Installation and System Testing
- Nuclear Service Water System Support Design, Installation and System Testing
- Control Building HVAC Installation and Testing

These systems and their relationship to major project milestones and fuel load are presented in the Primary Plant Milestone Schedule (Figure 1) provided in this section. Because Plant Vogtle test program is twenty-two (22) months from switchyard energization to fuel load, most nuclear process and electrical systems are near critical path items. The three systems mentioned typify the project problem areas that are closely tracked through the schedule program described in Subsection A.

Concerning the Chemical Volume Control System, pipe and support engineering work is scheduled for January 18, 1985 completion. Completion of this engineering work is critical to final completion of construction work in support of a March 22, 1985 system turnover for testing date. Chemical Volume Control System testing must occur on schedule to insure system availability for major milestone performance.

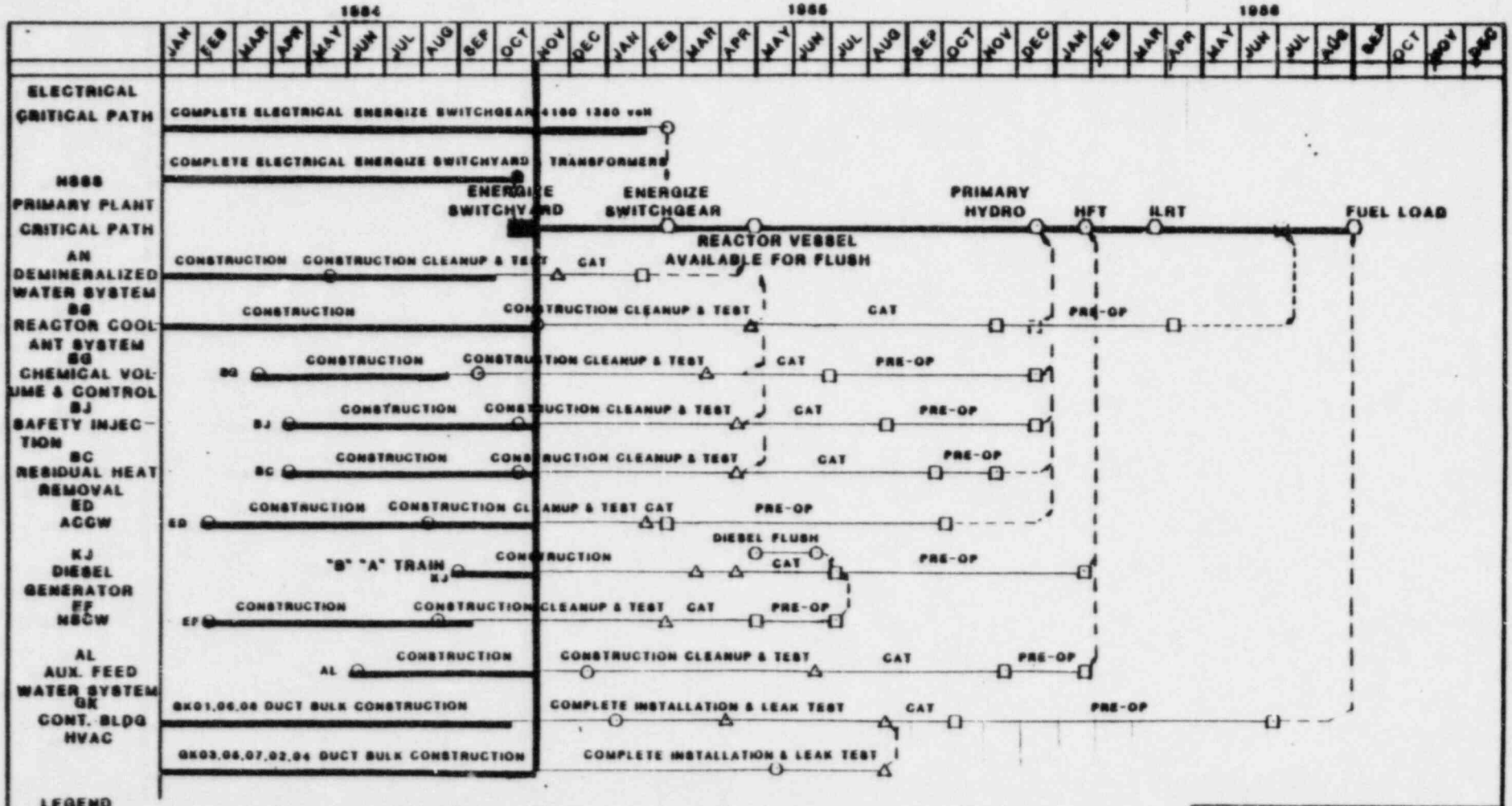
Nuclear Service Water System pipe supports have recently been redesigned to address thermal loads and building differential settlement. Completion of the remaining pipe support work is critical to accomplishing a February 18, 1985 turnover for testing. Completion of NSCW testing is essential to the Diesel Generator testing program which is a Hot Functional Test prerequisite.

The Control Building HVAC provides cooling for the Control Room, cable spreading areas and the Emergency Response Facility. Duct and instrumentation installation is critical to achieving on April 15, 1985 system turnover to support occupancy of above areas. Occupancy of the Control Room is essential for system test execution efforts.

Plant Vogtle adopted during early project planning a very conservative approach to project work execution. Total startup system completion was specified at time of system turnover. It was understood that in many instances only portions of a system were required at turnover and the remainder later in the program. The intention

was to drive construction to complete work as early as possible. It was also understood rescheduling of portions of systems would be necessary. This effort is now occurring on an "as needed" basis only. The conservatism of the original plan created schedule contingency which is now being committed only after detailed evaluation rules out all other courses of action.

To date, thirteen (13) testable startup systems have been turned over. The turnover plan is presented in the Unit 1 Turnover System histogram, (Figure 2) provided in this section. Also provided is a simple logic diagram (Figure 3), which presents the key turnover program components, and their status. The basic program structure includes engineering design freeze at eight (8) months prior to system turnover and culminates in system preoperational testing. The testing program is addressed in detail by a startup execution schedule which dictates when each system initial test effort occurs. The duration from system turnover to preoperational test completion varies for each system.



LEGEND

- CONSTRUCTION ACTIVITY
- △ TURNOVER
- □ PRE-OP TEST
- STATUS
- MILESTONE

"NOTE" CAT TEST CONTAINS FLUSH ACTIVITIES IF APPLICABLE

"NOTE" CONSTRUCTION CLEANUP & TEST CONSISTS OF ::::

1- MTS:PROCUREMENT
ENGINERING RESTRAINTS
QC ITEMS

2- COMPLETE CONSTRUCTION

3- PERFORM HYDRO'S

PREPARED BY :: G.D. GOODWIN
CHECKED BY :::: R.W. MEUSELBACH
APPROVED BY ::: S.R. FOSTER

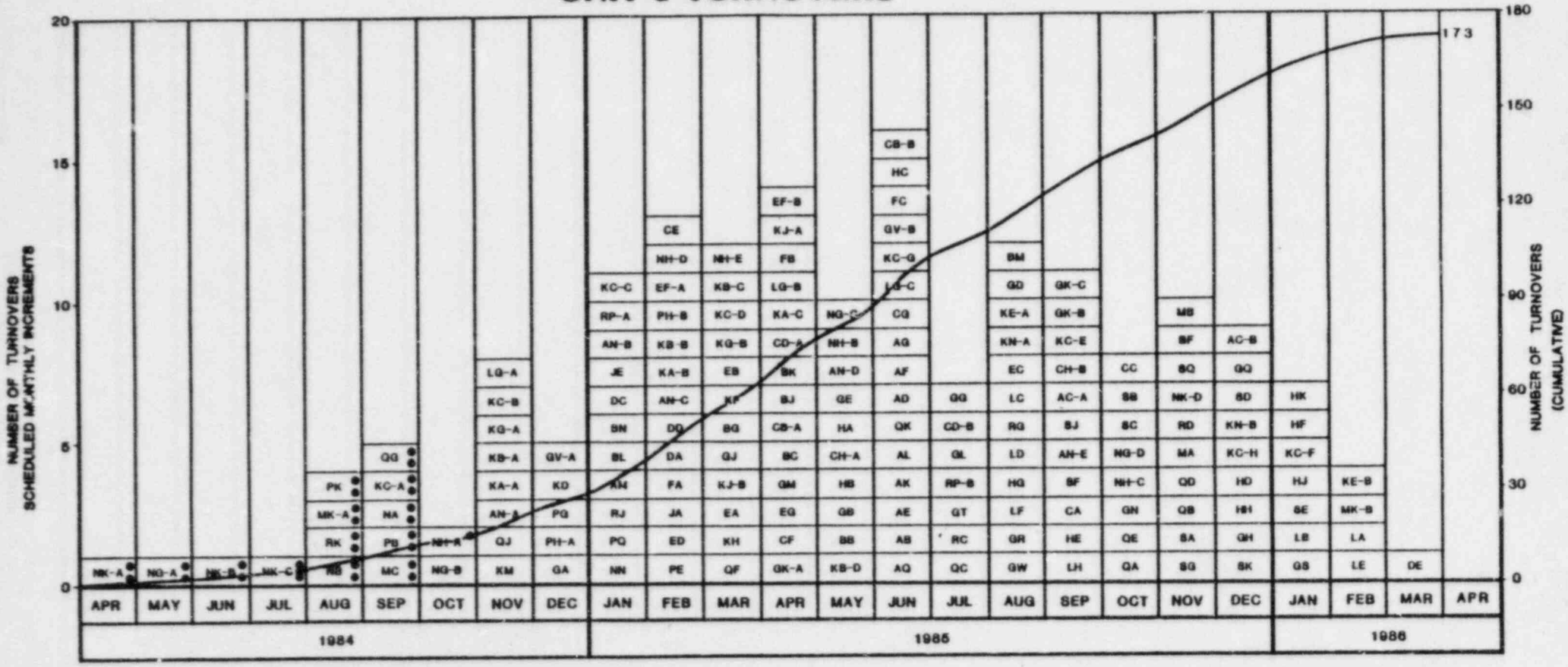
GEORGIA POWER COMPANY
PLANT VOGTLE

SYSTEM COMPLETION SCHEDULE
PRIMARY PLANT
MILESTONE
CRITICAL PATH ANALYSIS

Prog Date	Rev	Rev Date	Status Date
11/8/84	2	11/8/84	10/31/84

Figure 1

VOGTLE ELECTRIC GENERATING PLANT
UNIT 1 TURNOVERS



	PLAN	ACTUAL	
		SUBMITTED	ACCEPTED
NO. OF TURNOVERS	15	14	13

Figure 2

SYSTEM COMPLETION TURNOVER PACKAGE STATUS

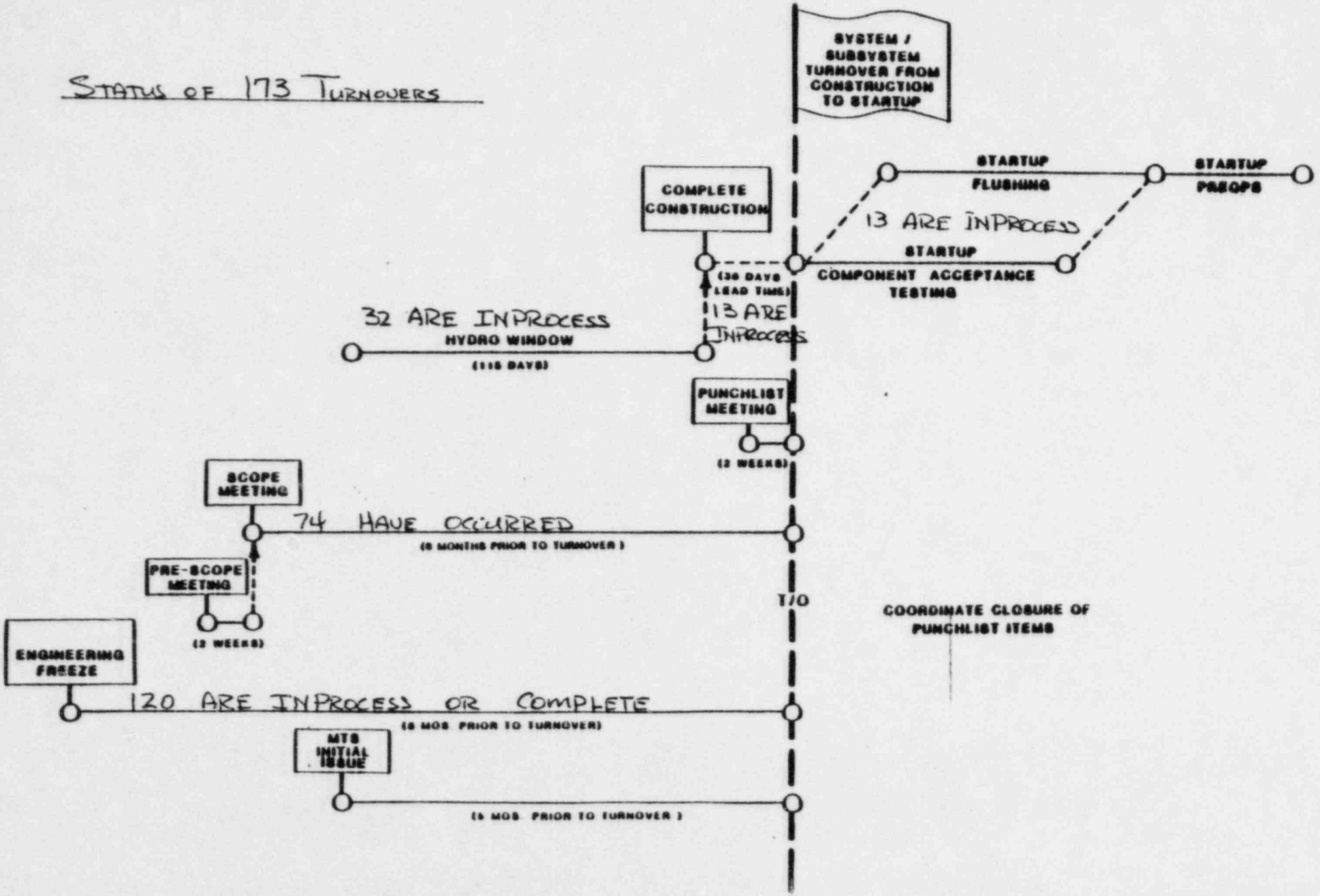


Figure 3

7. Bulk Commodities

Questions: 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.

Introduction: Construction progress has continued to remain on or close to schedule in all areas based on bulk commodity installation. Plant Vogtle is now in the delicate transition stage from bulk installation to system completion.

Little concrete or civil work remains. Therefore, this work will continue to approach completion with no affect on schedule.

Installation of piping and mechanical commodities is proceeding as planned with no major obstacles. The major production issue in the past has been the installation of large hangers, but with extensive management attention to solve contructability problems prior to release to the field, the potential impact has been reduced.

Electrical commodity installations in the area of cable tray and conduit are nearing completion with the exception of the site perimeter duct runs. (These duct runs include large runs scheduled for installation between January and August, 1985, thereby causing the sustained rate to go for conduit of 39,700 LF/Month compared to 20,900 LF/Month experienced to date. See sustained rate section.) Efforts are continuing in the clean-up of installed tray and conduit to support cable pulling. Wire and cable pulling continues to surpass all industry standards and termination work is now building in manpower to attain the rates necessary to support the project schedule. No major obstacles exist in this area.

The following pages present tabular and graphical representations of the history, current status and future projections of bulk quantity installation. For each bulk quantity two graphs are submitted depicting Unit 1 and Common facilities, and Units 1 & 2. A table summarizing all the graph information is provided, along with a table displaying Plant Vogtle sustained installation rates as compared to those experienced in nuclear power plant construction over the last decade.

VOGTLE ELECTRIC GENERATING PLANT
NRC CASELOAD FORECAST
UNIT 1 & COMMON
AS OF 10/21/84

COMMODITY		TOTAL ESTIMATED	TO DATE SCHEDULED	TO DATE ACTUAL	SUSTAINED RATE TO DATE	SUSTAINED RATE TO GO	% CPT
Concrete	(CY)	526,938	489,268	490,957	8,100	*N/A	93
Large Pipe	(LF)	343,920	324,253	318,446	6,200	*N/A	93
Large Pipe Hangers	(EA)	20,297	10,908	10,798	900	800	53
Small Pipe	(LF)	265,691	209,103	201,498	8,500	8,600	76
Small Pipe Hangers	(EA)	27,289	13,310	12,785	1,400	1,200	47
HVAC	(LBS)	3,352,200	2,428,894	2,426,794	77,600[1]	123,600	72
Cable Tray	(LF)	151,912	142,973	138,420	3,900	*N/A	91
Total Conduit	(LF)	1,014,357	663,554	627,489	19,600	37,600	62
Power Block Conduit (Included Above)	(LF)	324,918	276,788	208,730	9,100	7,800	83
Wire & Cable	(LF)	7,484,200	3,725,456	3,629,931	338,400	345,000	49
Terminations	(EA)	260,000	37,206	24,002	**N/A	16,700	9

Sustained rate is calculated from 10-90%.

*Actual exceeds 90% complete.

**Actual less than 10% complete.

Note 1: Last five month average 160,500 LB/Mo.

VOGTLE ELECTRIC GENERATING PLANT
NRC CASELOAD FORECAST
UNITS 1 & 2
AS OF 10/21/84

COMMODITY		TOTAL ESTIMATED	TO DATE SCHEDULED	TO DATE ACTUAL	SUSTAINED RATE TO DATE	SUSTAINED RATE TO GO	% CPT
Concrete	(CY)	656,753	576,473	575,663	9,200	6,800	88
Large Pipe	(LF)	553,769	382,005	373,020	8,000	8,700	67
Large Pipe Hangers	(EA)	33,936	11,590	11,325	1,000	1,000	33
Small Pipe	(LF)	427,670	219,274	212,150	9,200	9,800	50
Small Pipe Hangers	(EA)	44,676	13,434	13,123	1,400	1,200	29
HVAC	(LBS)	4,977,900	2,661,751	2,648,430	86,900 [1]	116,700	53
Cable Tray	(LF)	248,623	162,883	153,650	4,200	5,500	62
Conduit	(LF)	1,328,917	712,932	670,787	20,900	39,700	50
Power Block Conduit (Included Above)	(LF)	625,739	323,312	311,183	10,800	11,400	50
Wire & Cable	(LF)	12,646,300	3,725,456	3,629,931	338,800	279,100	29
Terminations	(EA)	467,364	37,206	24,002	**N/A	12,500	5

Sustained rate is calculated from 10-90%.

**Actual less than 10% complete.

NOTE 1: Last five month average 161,800 LB/Mo.

VOGTLE ELECTRIC GENERATING PLANT

NRC CASELOAD FORECAST

Shown below are the average, high, and low sustained installation rates for nuclear power plants over the last decade and Plant Vogtle performance to date since 10%.

SUSTAINED INSTALLATION RATES PER MONTH

ITEM	UNIT	LOW	AVERAGE	HIGH	PLANT VOGTLE AS OF 10/21/84 UNIT 1 & COMMON	PLANT VOGTLE AS OF 10/21/84 UNITS 1 & 2
+ Concrete	CY	3,400	6,400	9,400	8,100	9,200
Conduit	LF	7,200	12,440	19,500	19,600	20,900
Cable Tray	LF	1,795	2,900	5,300	3,900	4,200
Cable	LF	100,000	168,100	292,600	338,400	338,800
Terminations	EA	4,610	6,680	10,670	*N/A	*N/A
Piping - Large	LF	2,640	3,960	6,160	**6,200	8,000
Piping - Small	LF	3,200	4,795	6,950	**8,500	9,200

*Sustained rate is calculated from 10-90%. Actual has not yet reached 10%.

**Yard and building pipe are included in these figures.

NOTE: Industry information was taken from article in August, 1982, issue of Power Engineering, Power Plant scheduling, construction, and costs:

10-Year Analysis

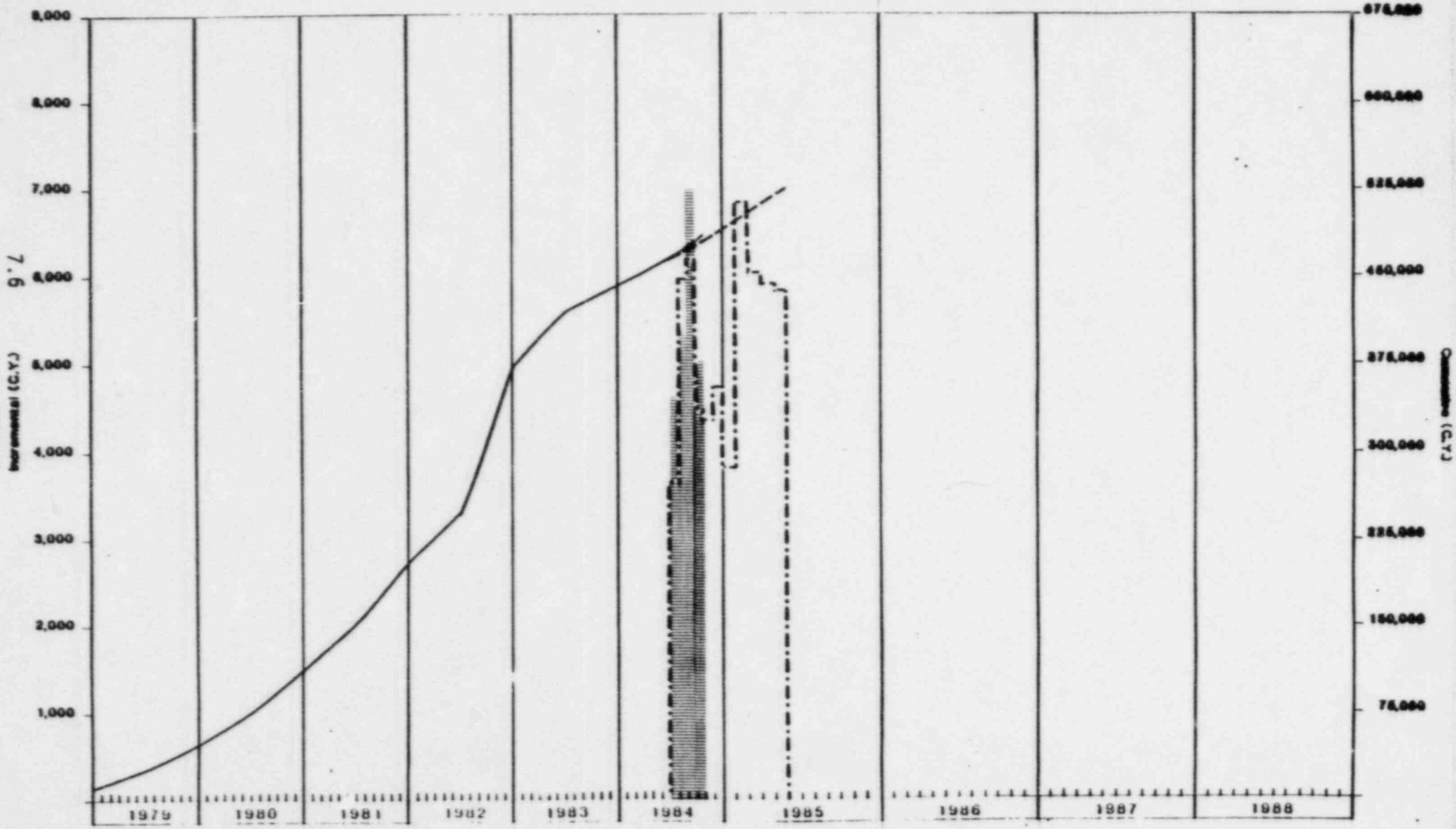
by Ramesh N. Budwani, Burns & Rowe, Inc.

+ Unit 1 & Common 10% thru April, 1983 - 9,240 CY

Unit 1 & 2 10% thru April, 1983 - 10,552 CY

VOGTLE ELECTRIC GENERATING PLANT - UNITS 1 & 2
REV. 84-0 CONSTRUCTION SCHEDULE
CONCRETE QC'd THROUGH 10/21/84
IN CUBIC YARDS

BUILDING/UNIT	TOTAL ESTIMATED QUANTITY	84-0 CUMULATIVE PLAN	84-0 CUMULATIVE ACTUAL
Auxiliary	128,790	127,512	127,022
Containment - U1	38,435	38,435	39,023
Control	81,620	78,787	79,121
Fuel Handling	24,139	24,139	24,139
Turbine - U1	33,909	33,909	33,909
Yard Nuclear - U1	57,685	53,956	54,292
Yard Non-Nuclear	119,200	97,833	98,843
Radwaste	43,160	34,691	34,608
Containment - U2	38,435	32,120	31,316
Turbine - U2	33,695	33,515	33,517
Yard Nuclear - U2	57,685	21,570	19,873
TOTAL	**656,753**	**576,473**	**575,663**
UNIT 1 & COMMON	**526,938**	**489,268**	**490,957**
Unit 2	129,815	87,205	84,706



Legend

Scheduled

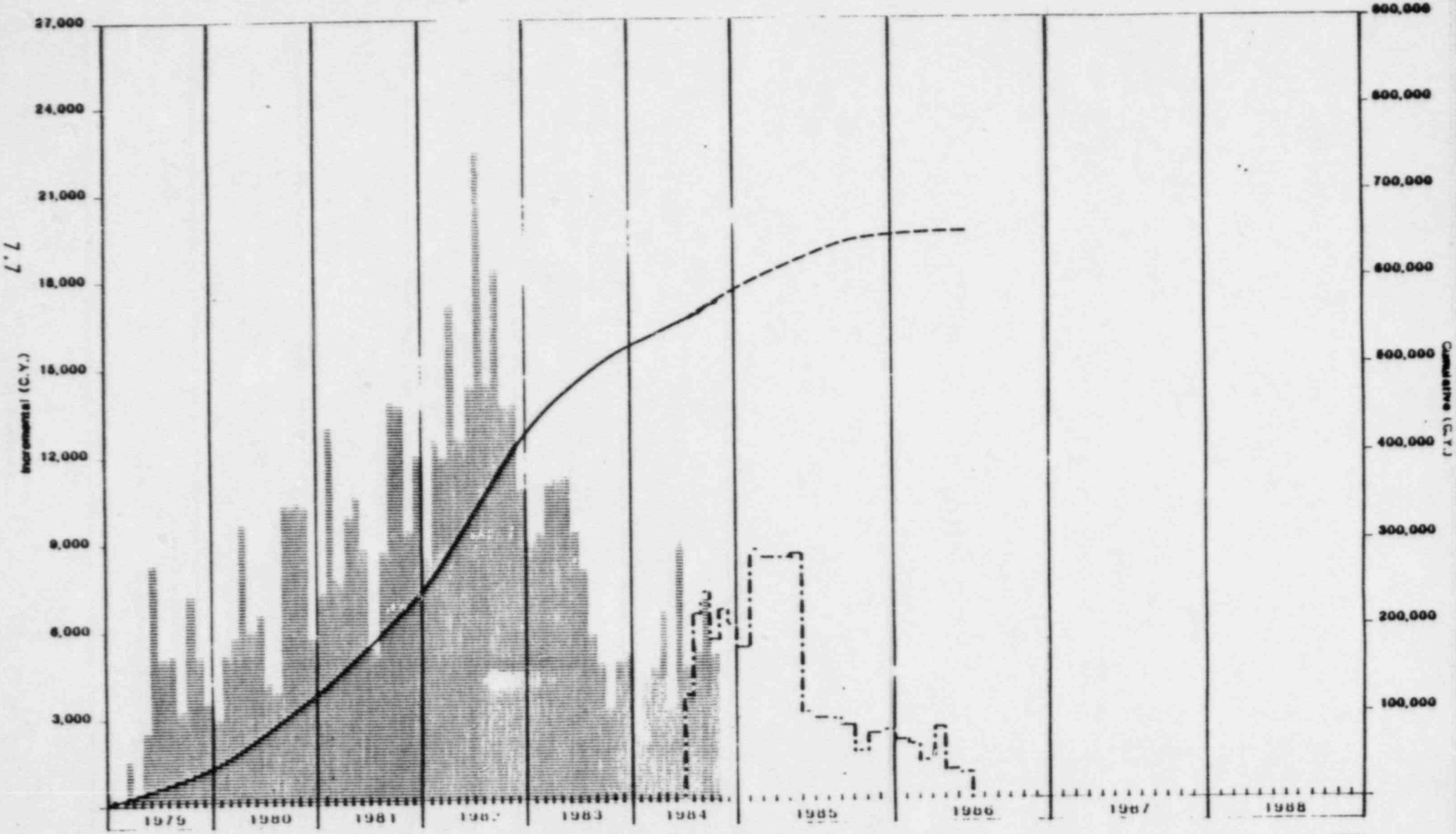
Actual

Planned Increment

Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Concrete - Unit 1 & Common

4 Week Period Ending:	10/21/84
Total Planned:	526,938 C.Y.
Planned To Date:	488,268 C.Y.
Actual To Date:	490,857 C.Y.



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Legend

Scheduled

Actual

Planned Increment

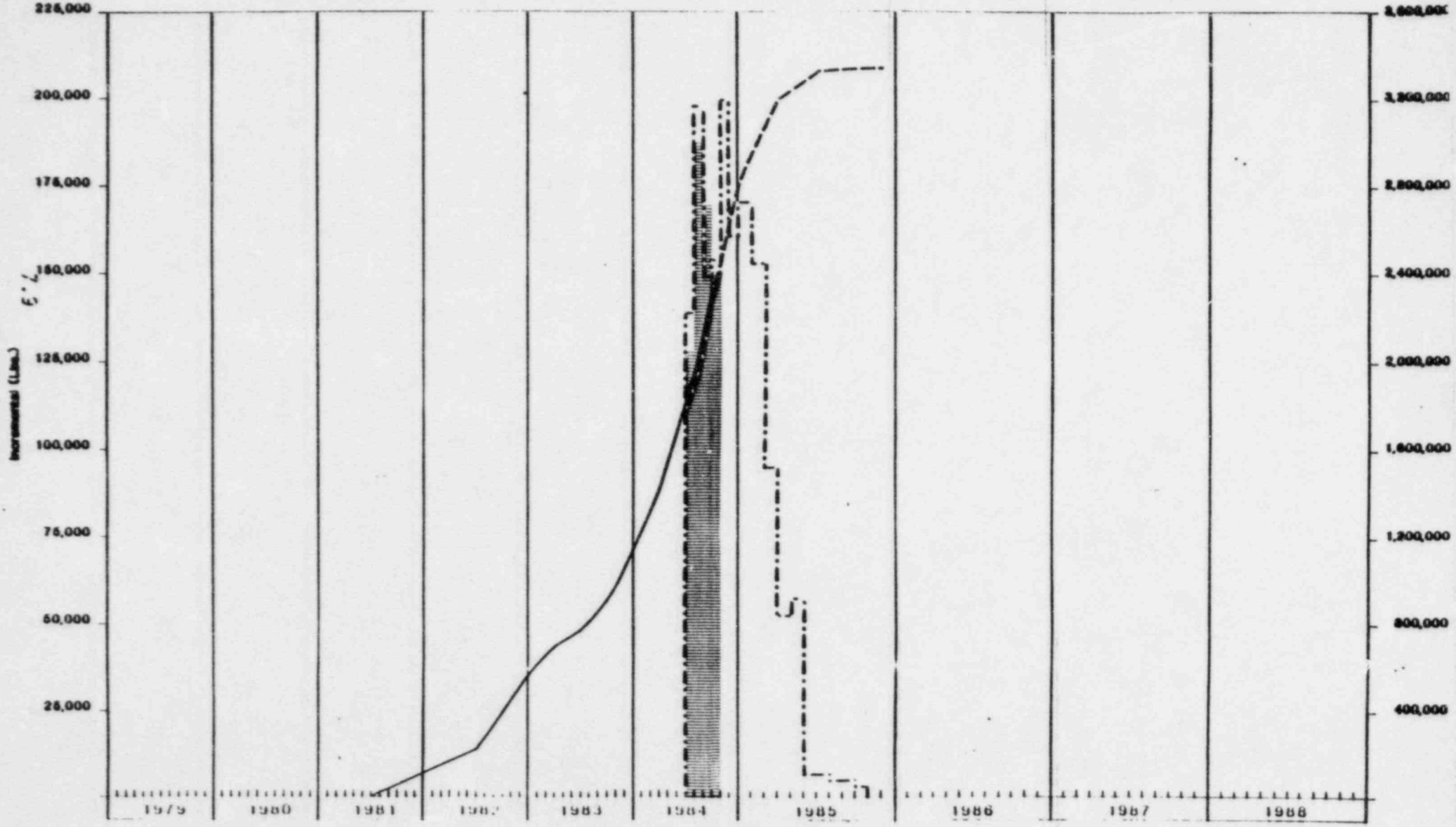
Actual Increment

Vogtle Electric Generating Plant
Rev. 84 0 Construction Schedule
Concrete - Units 1 & 2

4 Week Period Ending	10/21/84
Total Planned	656,753 C.Y.
Planned To Date	576,473 C.Y.
Actual To Date	575,663 C.Y.

VOGTLE ELECTRIC GENERATING PLANT - UNITS 1 & 2
REV. 84-0 CONSTRUCTION SCHEDULE
HVAC DUCTING INSTALLATION STATUS THROUGH 10/21/84
IN POUNDS

BUILDING/UNIT	TOTAL ESTIMATED QUANTITY	84-0 CUMULATIVE PLAN	84-0 CUMULATIVE ACTUAL
Auxiliary - U1	715,200	630,293	647,314
Control - U1	1,727,000	1,281,890	1,253,298
Fuel Handling - U1	304,800	250,375	272,893
Containment - U1	198,700	154,144	165,683
Turbine - U1	46,000	42,320	43,627
Yard - Nuclear - U1	215,100	637	1,026
Yard - Non-Nuclear - U1	11,000	9,100	4,972
Radwaste - U1	134,400	60,135	37,981
UNIT 1 TOTAL	3,352,200	2,428,894	2,426,794
Auxiliary - U2	602,600	135,036	133,036
Control - U2	471,500	78,595	71,695
Fuel Handling - U2	93,800	14,607	7,982
Containment - U2	198,700	4,619	4,619
Turbine - U2	44,000	0	4,304
Yard - Nuclear - U2	215,100	0	0
UNIT 2 TOTAL	1,625,700	232,857	221,636
UNITS 1 & 2 TOTAL	4,977,900	2,661,751	2,648,430



Legend

Scheduled

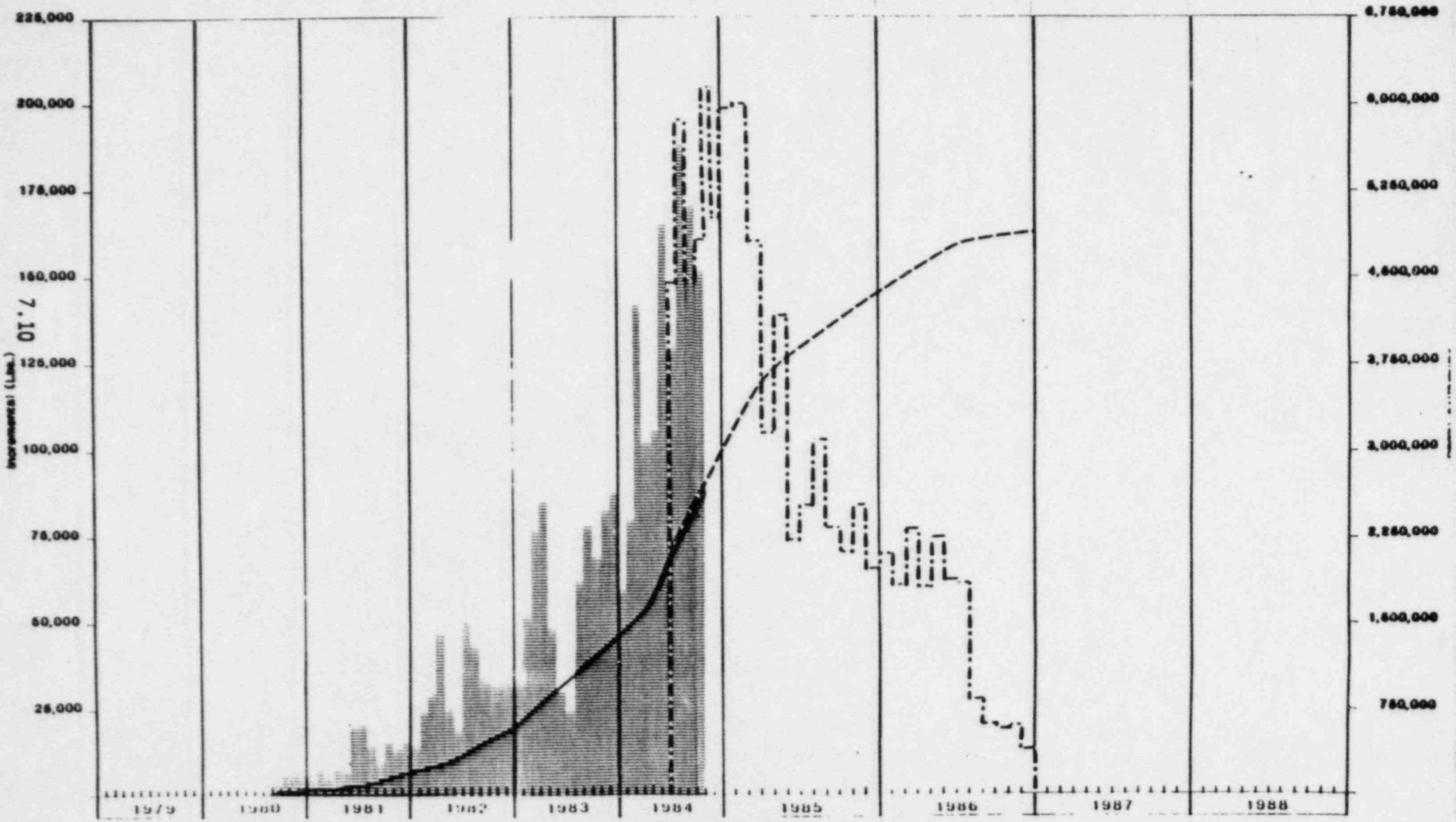
Actual

Planned Increment

Actual Increment

Vogtle Electric Generating Plant
Rev 84 0 Construction Schedule
HVAC – Unit 1 & Common

4 Week Period Ending	10/21/84
Total Planned	3,352,200 Lbs.
Planned To Date	2,428,894 Lbs.
Actual To Date	2,428,784 Lbs.



7.10

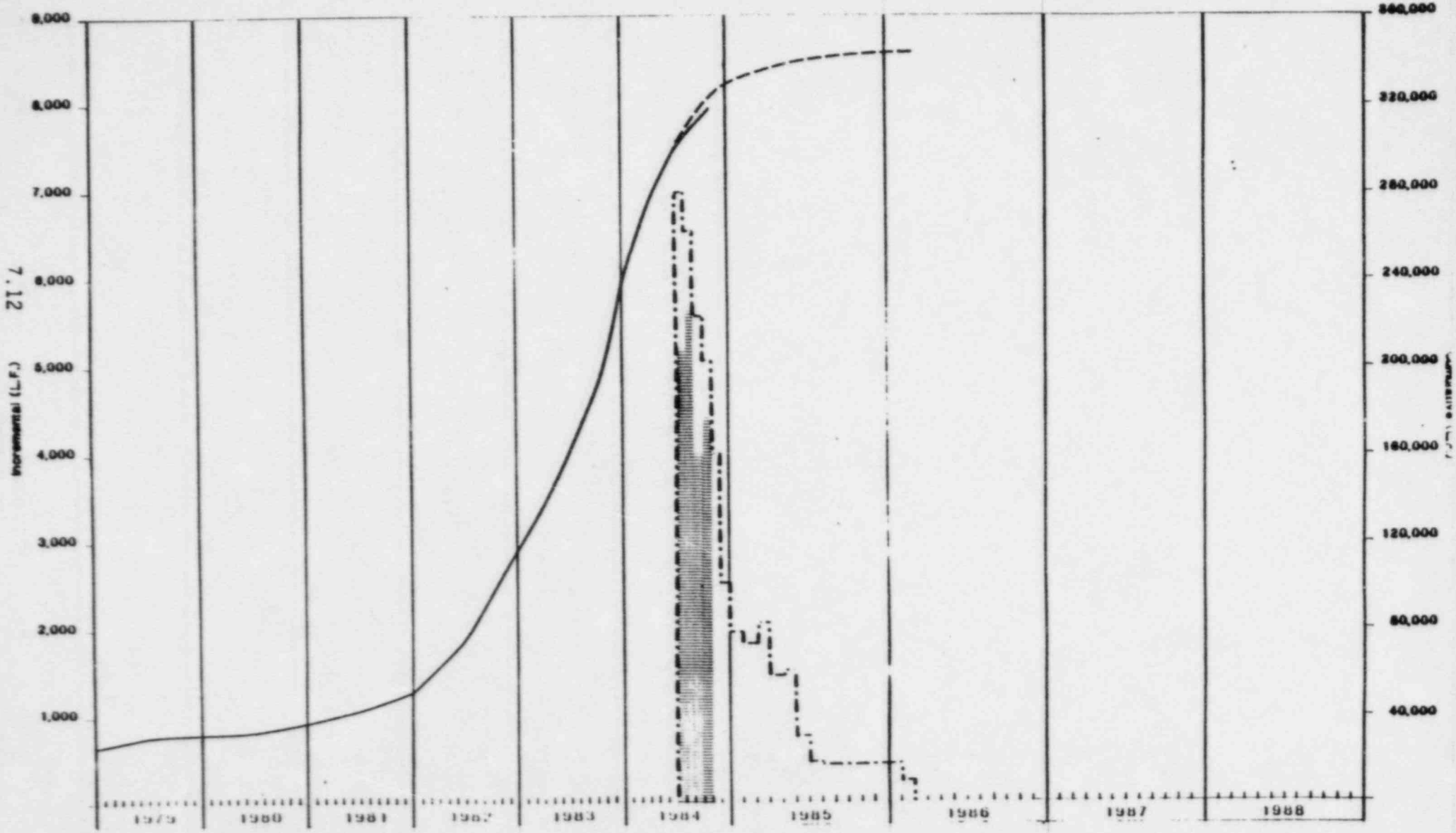
Legend
Scheduled
Actual
Planned Increment
Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
HVAC - Units 1 & 2

4 Week Period Ending	10/21/84
Total Planned	4,977,800 Lbs.
Planned To Date	2,661,751 Lbs.
Actual To Date	2,648,430 Lbs.

VOGTLE ELECTRIC GENERATING PLANT - UNITS 1 & 2
REV. 84-0 CONSTRUCTION SCHEDULE
LARGE PIPE QC'd THROUGH 10/21/84
IN LINEAL FEET

BUILDING/UNIT	TOTAL ESTIMATED QUANTITY	84-0 CUMULATIVE PLAN	84-0 CUMULATIVE ACTUAL
Auxiliary	78,318	76,685	77,241
Containment - U1	20,985	20,481	20,068
Control - U1	40,716	40,177	40,275
Fuel Handling - U1	10,077	9,630	9,726
Turbine - U1	52,247	51,868	50,078
Turbine (GE) - U1	4,352	1,145	0
Nuc yard - U1	28,380	26,037	23,127
Radwaste - U1	13,437	10,330	9,828
Non-Nuc Yard - U1	95,408	87,900	88,103
UNIT 1 TOTAL	343,920	324,253	318,446
Auxiliary - U2	57,445	31,291	28,887
Containment - U2	20,867	3,986	3,316
Control - U2	16,533	8,906	8,991
Fuel Handling - U2	4,550	1,857	1,789
Turbine - U2	51,475	7,991	5,564
Turbine (GE) - U2	5,124	0	0
Nuc Yard - U2	21,919	710	4
Non-Nuc Yard - U2	31,936	3,011	6,023
UNIT 2 TOTAL	209,849	57,752	54,574
UNITS 1 & 2 TOTAL	553,769	382,005	373,020

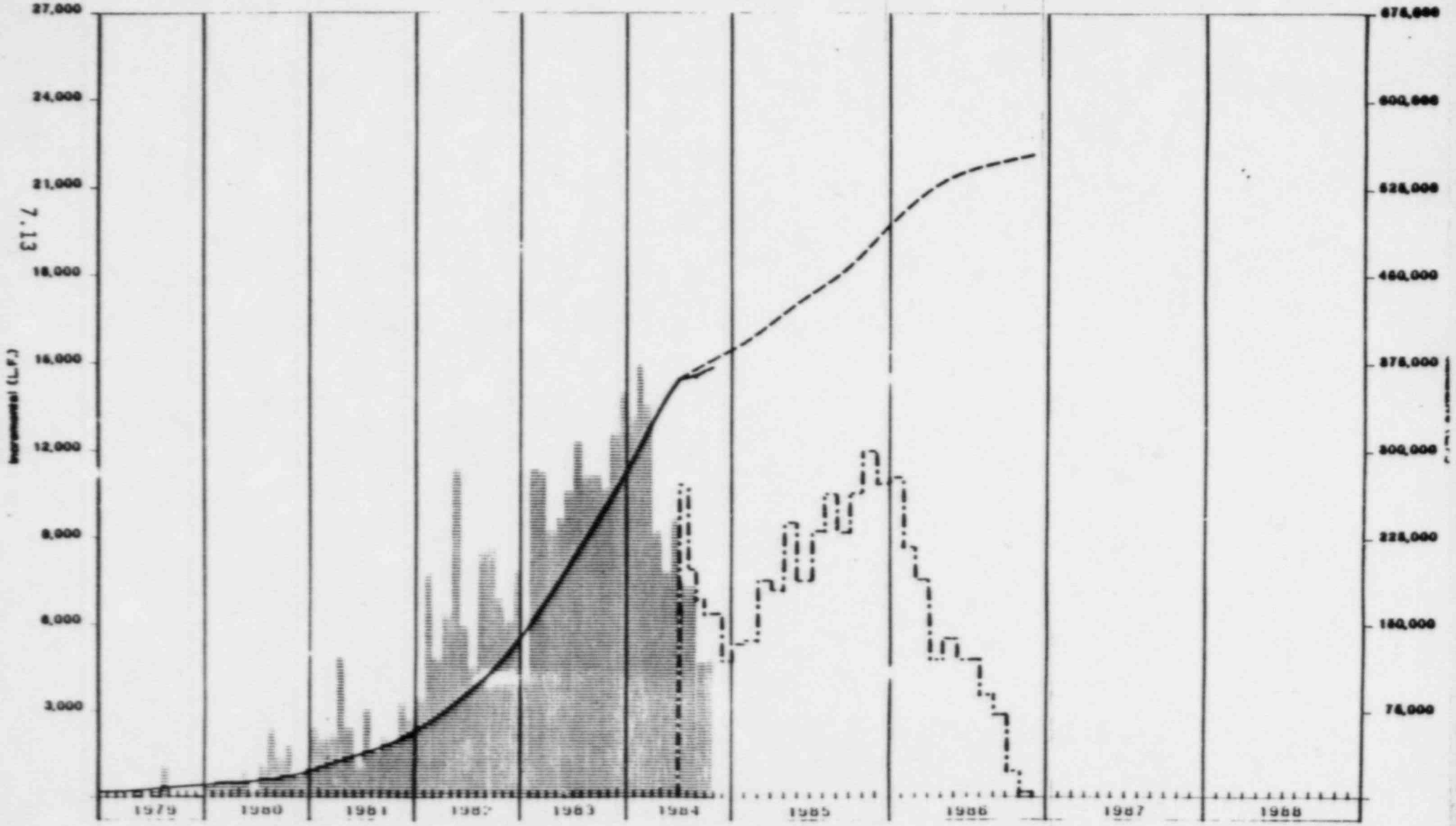


7.12

Legend
Scheduled
Actual
Planned Increment
Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Large Pipe - Unit 1 & Common

4 Week Period Ending	10/21/84
Total Planned	343,920 L.F.
Planned To Date	324,252 L.F.
Actual To Date	318,446 L.F.



7.13

Legend

Scheduled

Actual

Planned Incremental

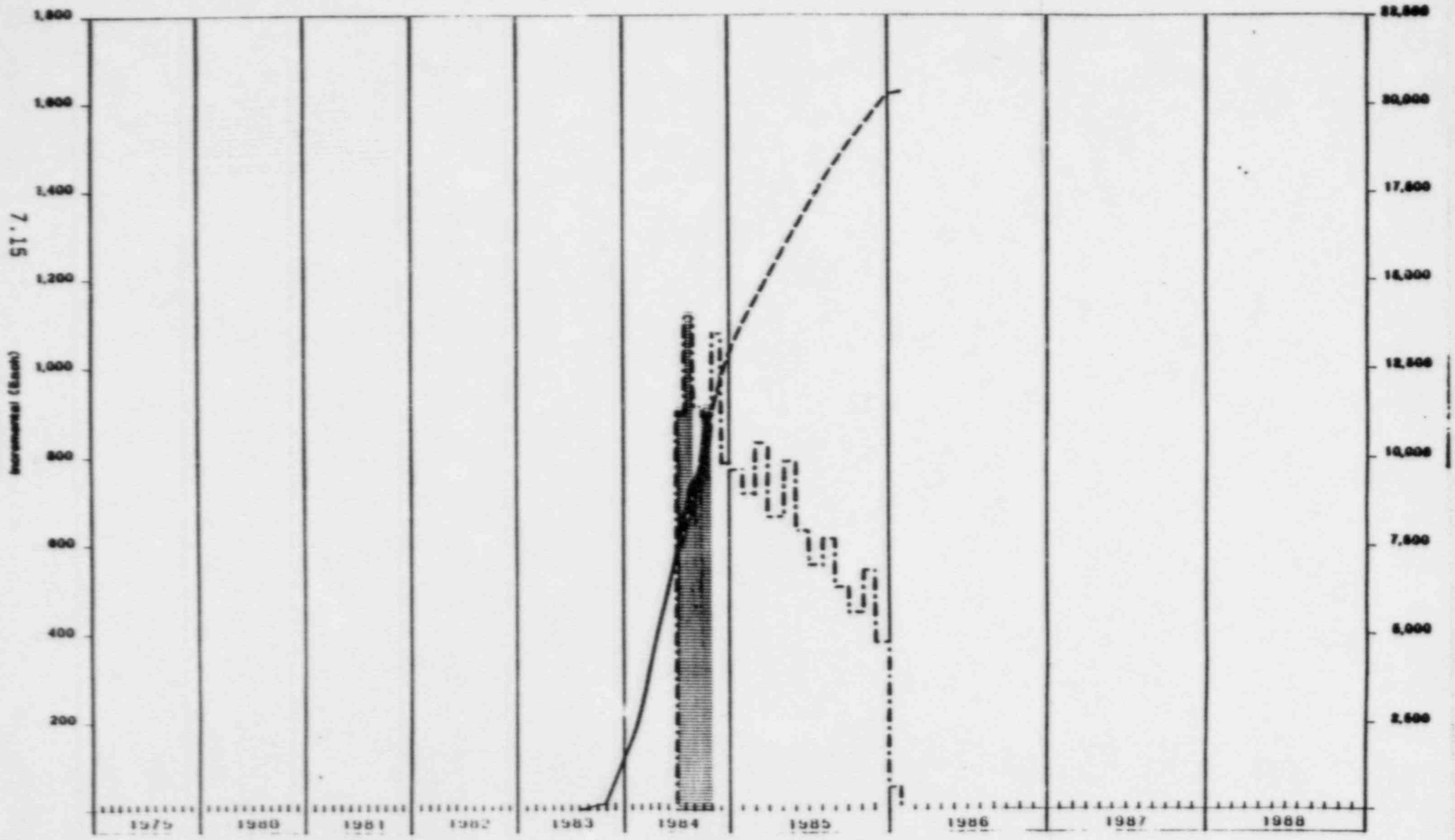
Actual Incremental

Vogtle Electric Generating Plant
Rev. 84 0 Construction Schedule
Large Pipe – Units 1 & 2

4 Week Period Ending	10/21/84
Total Planned	553,768 L.F.
Planned To Date	382,006 L.F.
Actual To Date	373,020 L.F.

VOGTLE ELECTRIC GENERATING PLANT - UNITS 1 & 2
REV. 84-0 CONSTRUCTION SCHEDULE
LARGE PIPE HANGERS QC'd THROUGH 10/21/84
IN EACH
100% INSTALLED STATUS

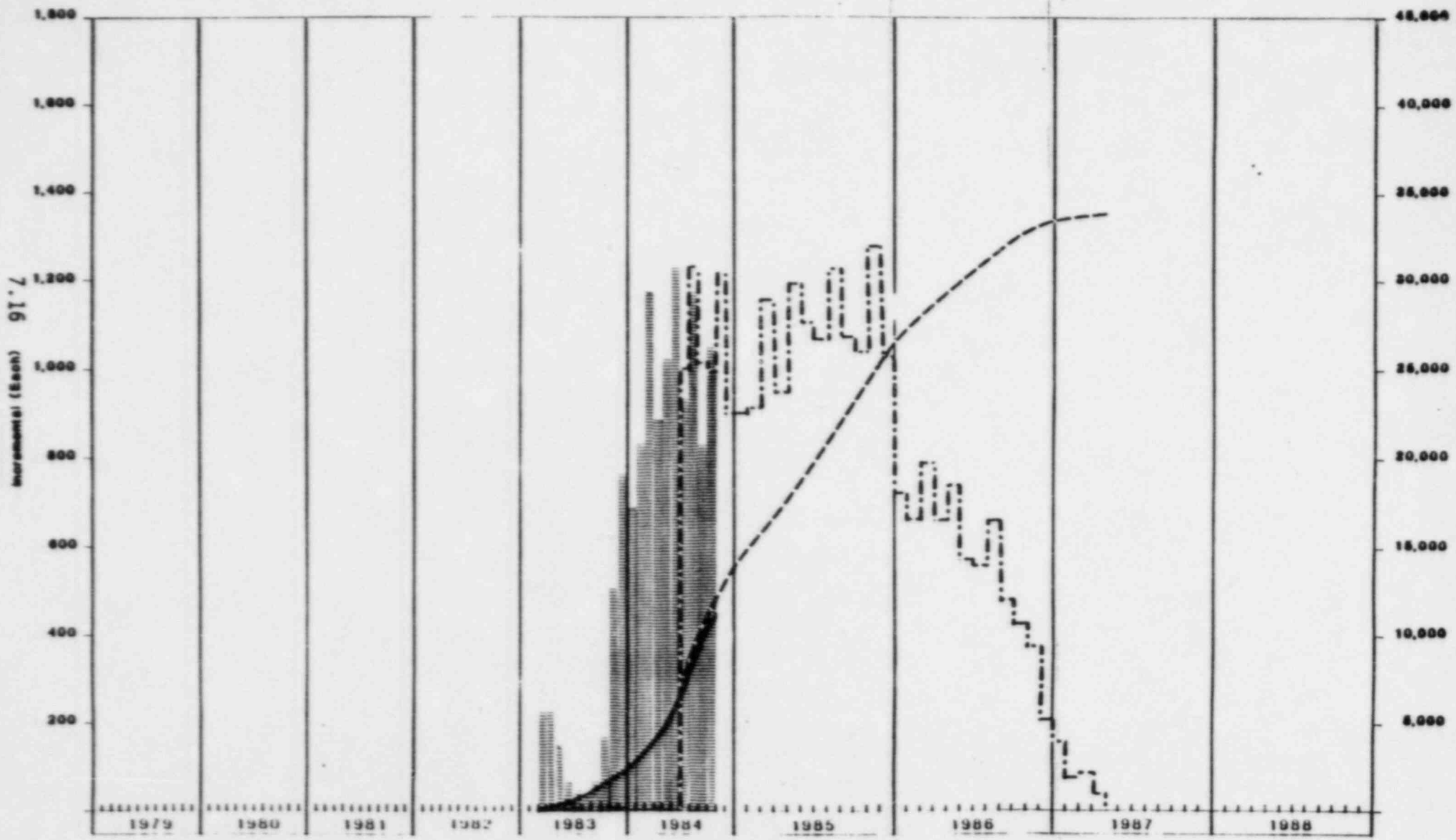
BUILDING/UNIT	TOTAL ESTIMATED QUANTITY	84-0 CUMULATIVE PLAN	84-0 CUMULATIVE ACTUAL
Auxiliary - U1	7,079	3,711	3,800
Containment - U1	2,583	1,118	1,245
Control - U1	3,003	1,356	1,335
Fuel Handling - U1	671	328	327
Turbine - U1	2,789	1,806	1,857
Turbine (GE) - U1	225	50	0
Nuc Yard - U1	2,174	1,245	1,200
Radwaste - U1	973	548	423
Non-Nuc Yard - U1	800	746	611
UNIT 1 TOTAL	20,297	10,908	10,798
Auxiliary - U2	4,770	511	290
Containment - U2	2,583	87	132
Control - U2	1,557	3	3
Fuel Handling - U2	361	0	21
Turbine - U2	2,789	80	80
Turbine (GE) - U2	225	0	0
Nuc Yard - U2	1,170	0	0
Non-Nuc Yard - U2	184	1	1
UNIT 2 TOTAL	13,639	682	527
UNITS 1 & 2 TOTAL	33,936	11,590	11,325



Legend
Scheduled
Actual
Planned Increment
Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Large Pipe Hangers - Unit 1 & Common

4 Week Period Ending:	10/21/84
Total Planned	20,287 Each
Planned To Date	10,806 Each
Actual To Date	10,798 Each



Legend

Scheduled

Actual

Planned Increment

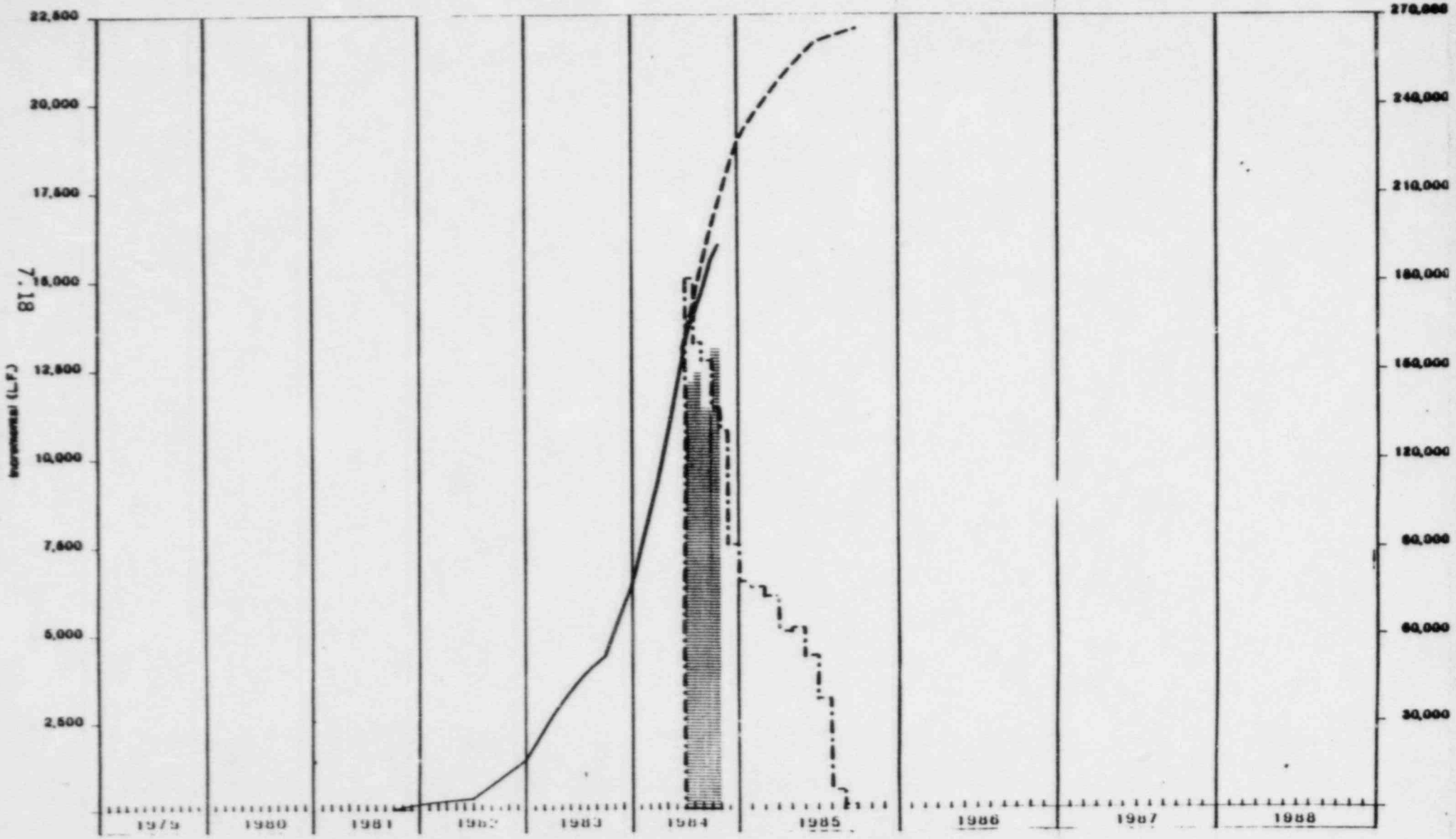
Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Large Pipe Hangers - Units 1 & 2

4 Week Period Ending	10/21/84
Total Planned	33,036 Each
Planned To Date	11,580 Each
Actual To Date	11,328 Each

VOGTLE ELECTRIC GENERATING PLANT - UNITS 1 & 2
REV. 84-0 CONSTRUCTION SCHEDULE
SMALL PIPE QC'd THROUGH 10/21/84

BUILDING/UNIT	TOTAL ESTIMATED QUANTITY	84-0 CUMULATIVE PLAN	84-0 CUMULATIVE ACTUAL
Auxiliary - U1	69,921	58,131	56,744
Containment - U1	18,014	15,888	14,826
Control - U1	24,073	20,177	18,988
Fuel Handling - U1	12,643	8,231	8,885
Turbine - U1	56,682	48,504	49,153
Turbine (GE) - U1	4,200	225	0
Nuc Yard - U1	22,653	20,120	15,661
Radwaste - U1	26,000	13,935	12,903
Non-Nuc Yard - U1	31,505	23,856	24,338
UNIT 1 TOTAL	265,691	209,103	201,498
Auxiliary - U2	49,380	6,425	6,044
Containment - U2	18,014	1,137	1,137
Control - U2	6,914	1,139	2,288
Fuel Handling - U2	3,707	1,367	700
Turbine - U2	55,593	0	0
Turbine (GE) - U2	5,289	0	0
Nuc Yard - U2	21,900	0	0
Non-Nuc Yard - U2	1,182	103	483
UNIT 2 TOTAL	161,979	10,171	10,652
UNITS 1 & 2 TOTAL	427,670	219,274	212,150

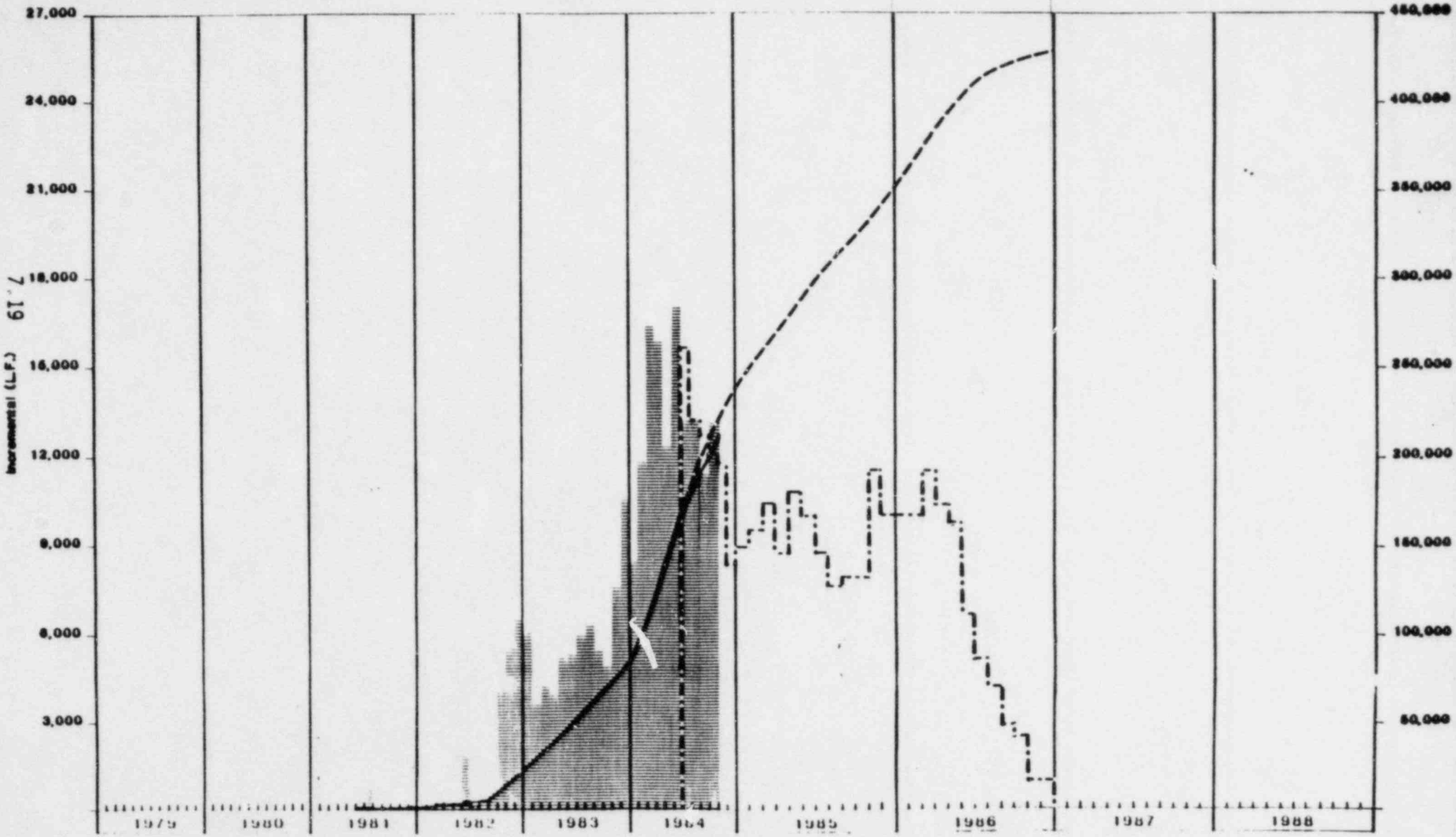


7.18

Legend
Scheduled
Actual
Planned to remain

Vogtle Electric Generating Plant
Rev. 84 0 Construction Schedule
Small Pipe - Unit 1 & Common

4 Week Period Ending	10/21/84
Total Planned	265,691 L.F.
Planned To Date	209,103 L.F.
Actual To Date	201,498 L.F.



7.19

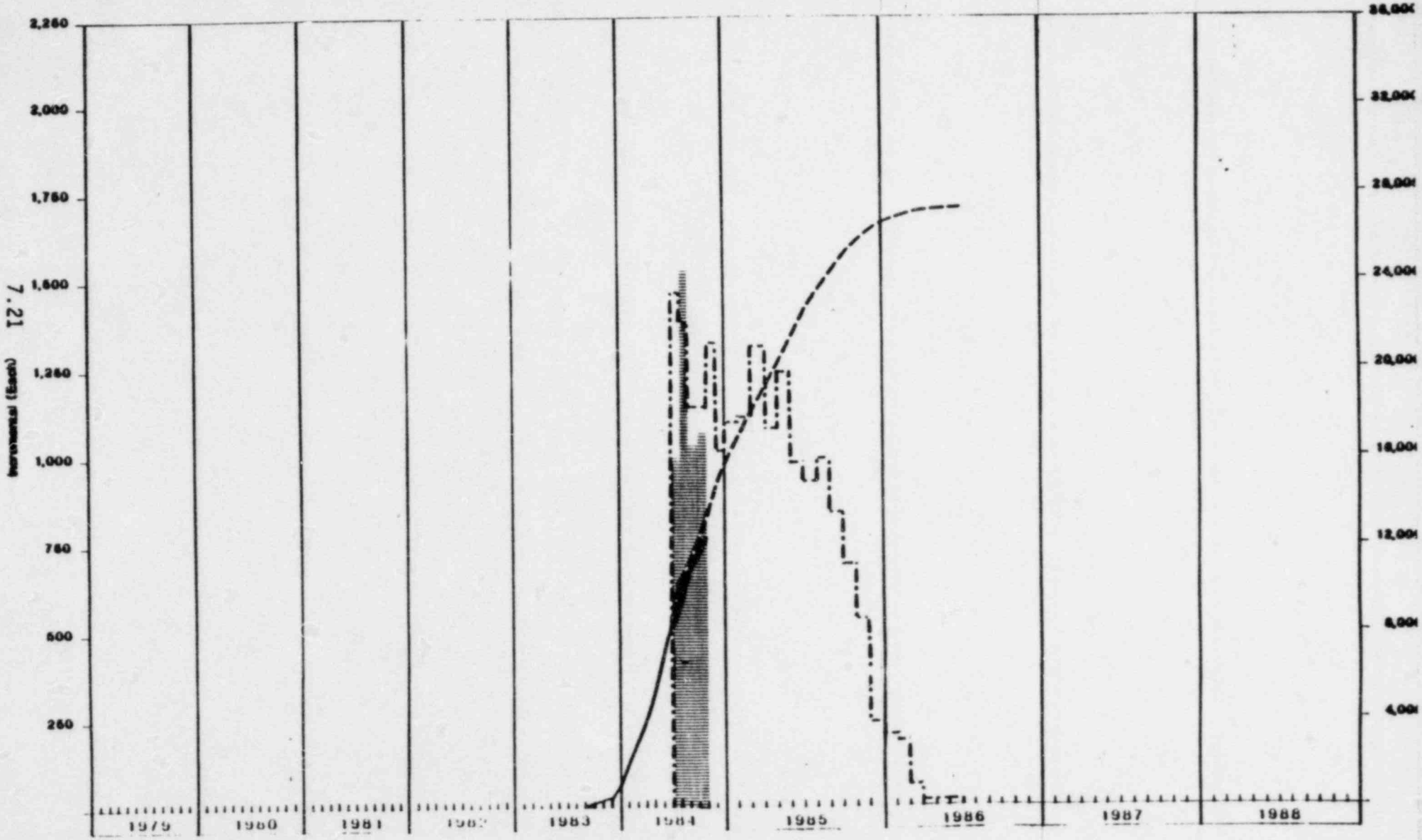
Legend
Scheduled
Actual
Planned Increment
Actual Increment

Vogtle Electric Generating Plant
Rev. 84-6 Construction Schedule
Small Pipe - Units 1 & 2

4 Week Period Ending	10/21/84
Total Planned	427,810 L.F.
Planned To Date	219,274 L.F.
Actual To Date	212,150 L.F.

VOGTLE ELECTRIC GENERATING PLANT - UNITS 1 & 2
REV. 84-0 CONSTRUCTION SCHEDULE
SMALL PIPE HANGERS QC'd THROUGH 10/21/84
IN EACH
100% INSTALLED STATUS

BUILDING/UNIT	TOTAL ESTIMATED QUANTITY	84-0 CUMULATIVE PLAN	84-0 CUMULATIVE ACTUAL
Auxiliary - U1	8,741	4,479	4,528
Containment - U1	2,252	1,225	1,285
Control - U1	3,008	1,439	1,517
Fuel Handling - U1	1,581	464	359
Turbine - U1	5,668	2,803	2,750
Turbine (GE) - U1	420	0	0
Nuc Yard - U1	1,332	606	724
Radwaste - U1	3,250	1,346	888
Non-Nuc Yard - U1	1,037	948	734
UNIT 1 TOTAL	27,289	13,310	12,785
Auxiliary - U2	6,172	91	241
Containment - U2	2,252	5	5
Control - U2	864	3	5
Fuel Handling - U2	464	1	63
Turbine - U2	5,668	24	24
Turbine (GE) - U2	420	0	0
Nuc Yard - U2	1,388	0	0
Non-Nuc Yard - U2	159	0	0
UNIT 2 TOTAL	17,387	124	338
UNITS 1 & 2 TOTAL	44,676	13,434	13,123

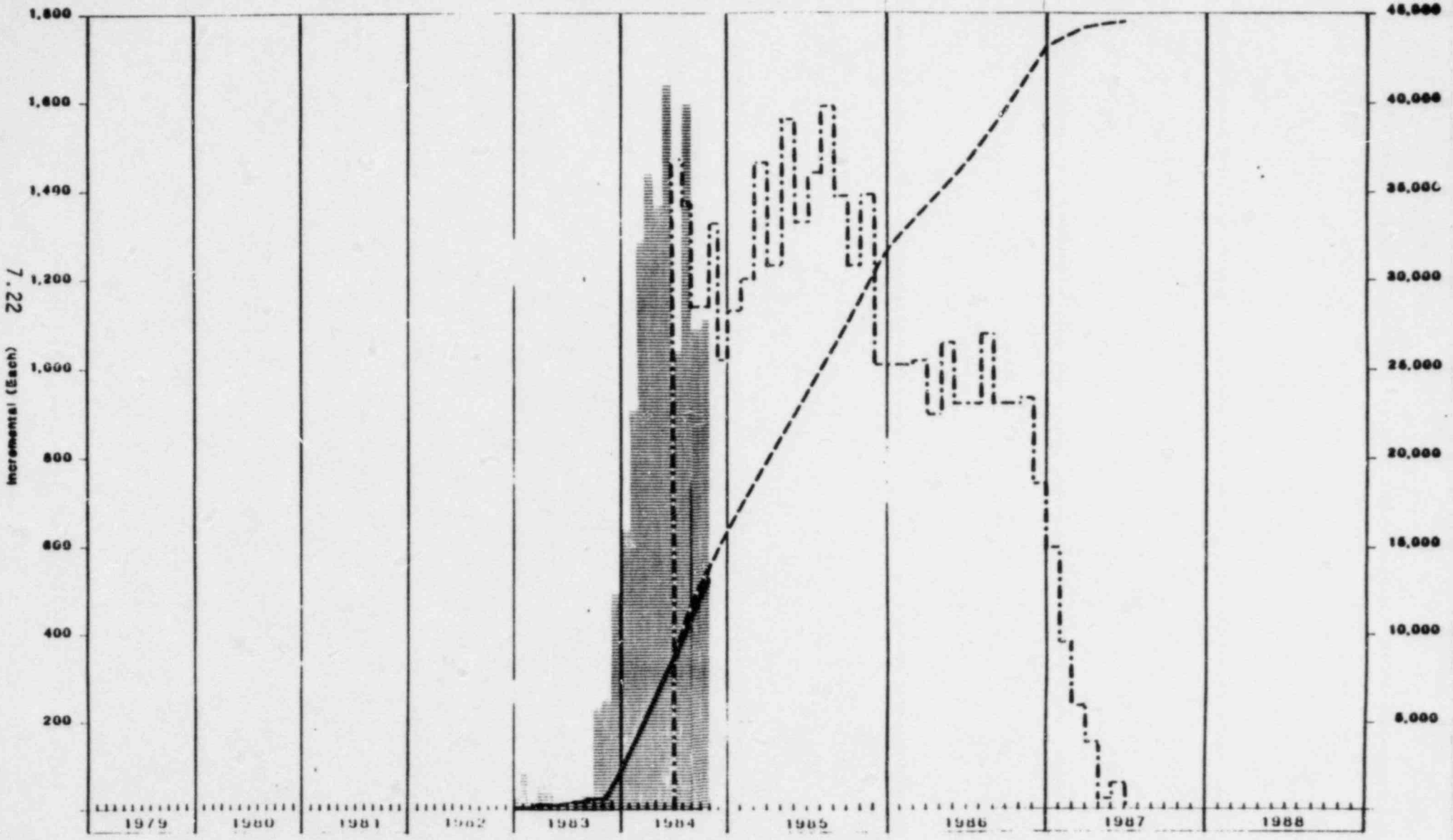


7.21

Legend
Scheduled
Actual
Planned Increment
Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Small Pipe Hangers - Unit 1 & Common

4 Week Period Ending	10/21/84
Total Planned	27,289 Each
Planned To Date	13,310 Each
Actual To Date	12,785 Each



7.22

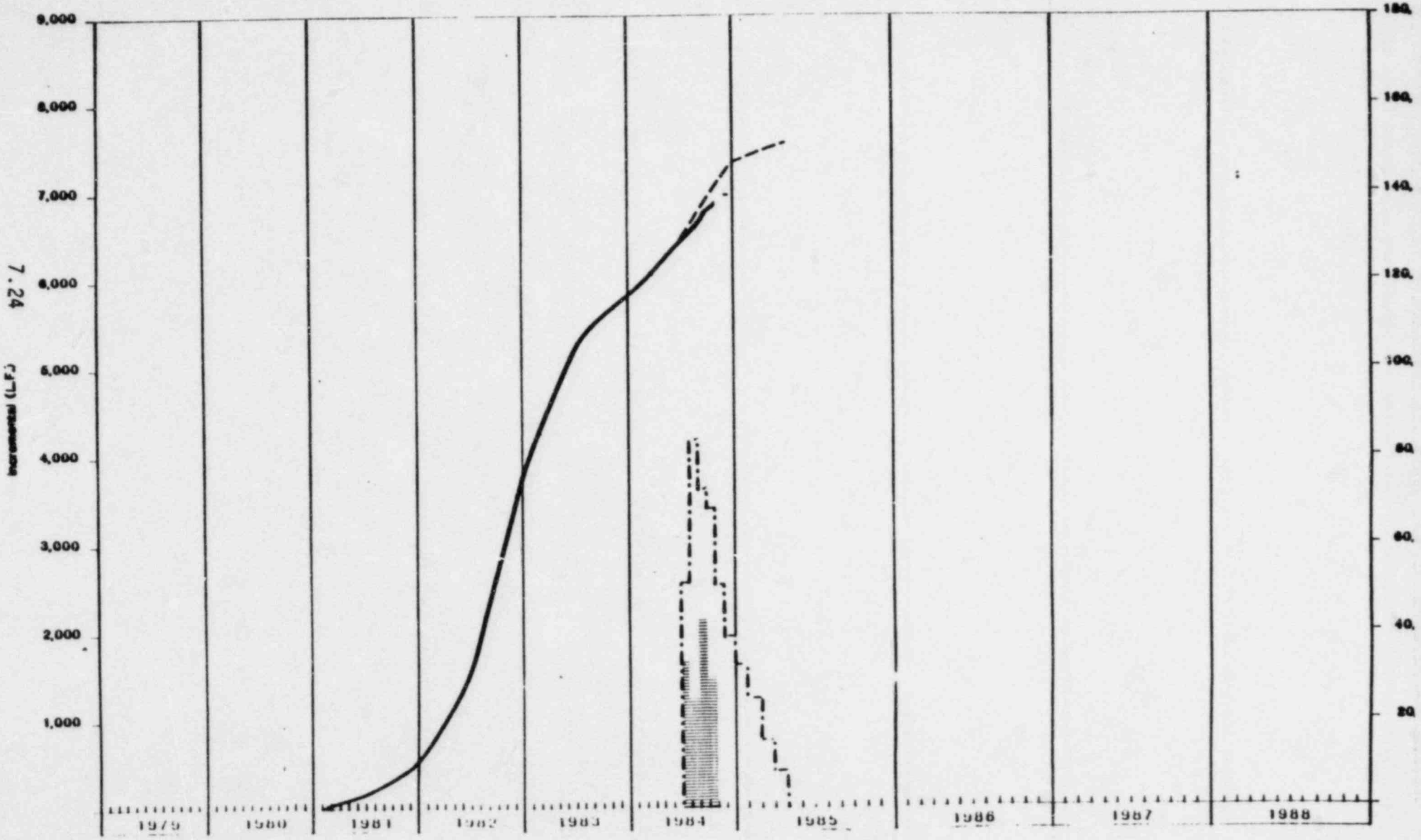
Legend
Scheduled
Actual
Planned Increment
Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Small Pipe Hangers - Units 1 & 2

4 Week Period Ending	10/21/84
Total Planned	44,670 Each
Planned To Date	13,434 Each
Actual To Date	13,123 Each

VOGTLE ELECTRIC GENERATING PLANT - UNITS 1 & 2
REV. 84-0 CONSTRUCTION SCHEDULE
CABLE TRAY INSTALLATION STATUS THROUGH 10/21/84
IN LINEAL FEET

BUILDING/UNIT	TOTAL ESTIMATED QUANTITY	84-0 CUMULATIVE PLAN	84-0 CUMULATIVE ACTUAL
Auxiliary - U1	29,914	28,497	28,488
Containment -U1	6,939	6,499	5,789
Control - U1	57,396	50,979	50,020
Fuel Handling - U1	3,505	4,180	4,195
Turbine - U1	31,577	34,340	34,402
Yard Structures - U1	17,138	16,749	14,578
Radwaste - U1	5,443	1,729	948
UNIT 1 TOTAL	151,912	142,973	138,420
Auxilairy - U2	19,291	11,894	11,203
Containment - U2	6,500	0	0
Control - U2	33,120	4,414	3,914
Fuel Handling - U2	1,660	39	39
Turbine - U2	29,465	3,563	74
Yard Structures - U2	6,675	0	0
UNIT 2 TOTAL	96,711	19,910	15,230
UNITS 1 & 2 TOTAL	248,623	162,883	153,650

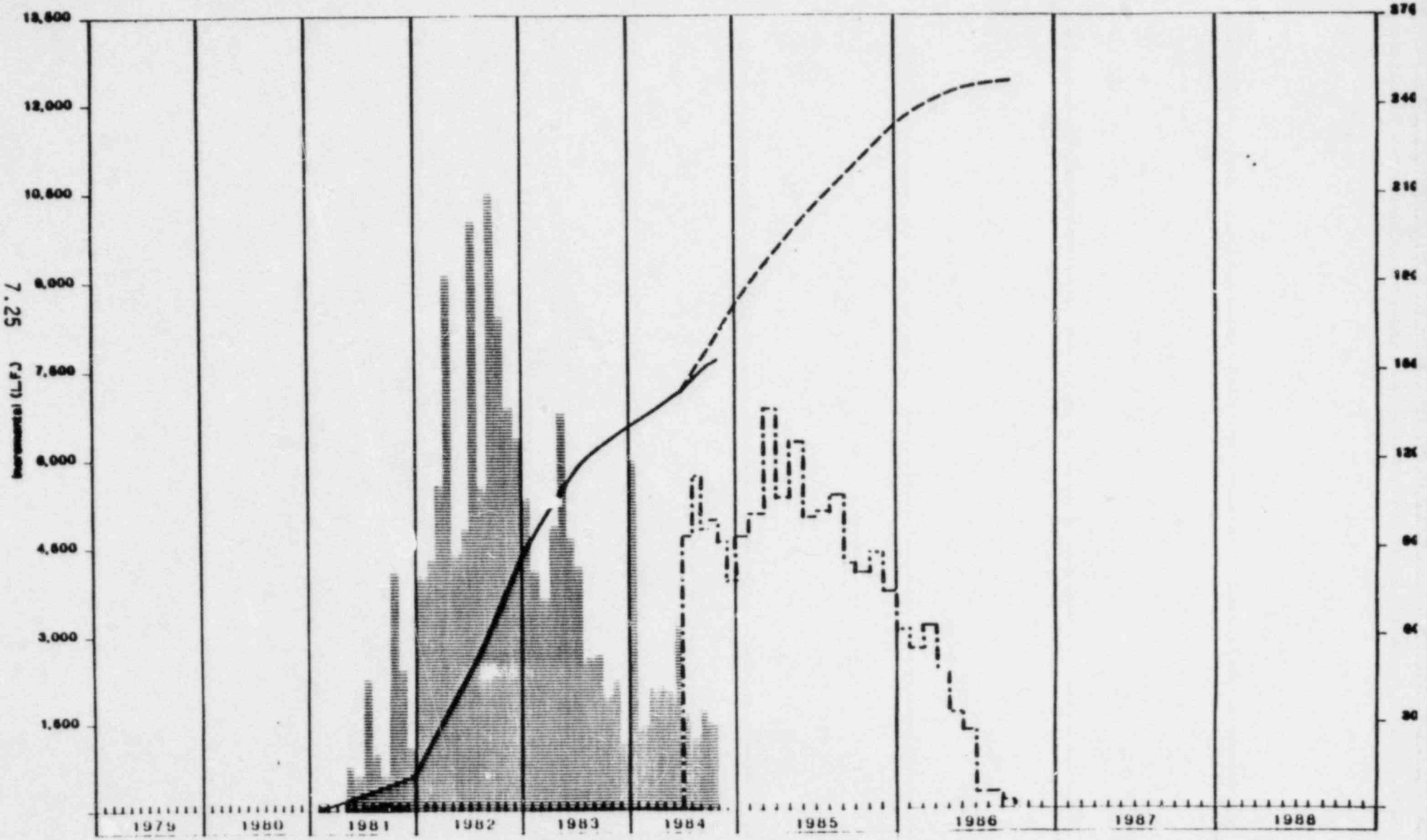


7.24

Legend
Scheduled
Actual
Planned Increment
Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Cable Tray - Unit 1 & Common

4 Week Period Ending	10/21/84
Total Planned	161,912 L.F.
Planned To Date	142,973 L.F.
Actual To Date	138,420 L.F.



Legend

Scheduled

Actual

Planned Increment

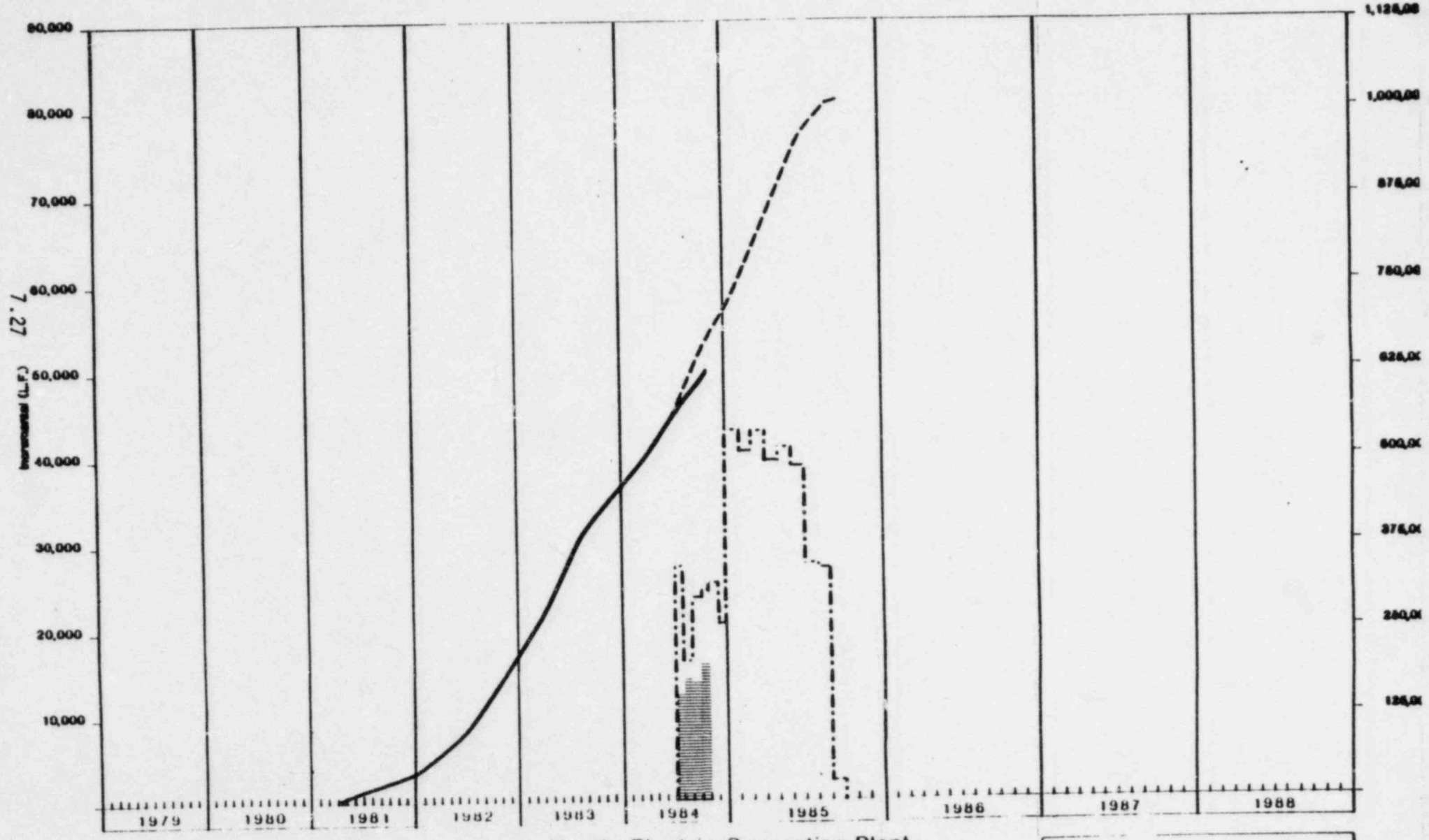
Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Cable Tray - Units 1 & 2

4 Week Period Ending	10/21/84
Total Planned	246,623 L.F.
Planned To Date	162,883 L.F.

VOGTLE ELECTRIC GENERATING PLANT - UNITS 1 & 2
REV. 84-0 CONSTRUCTION SCHEDULE
CONDUIT INSTALLATION STATUS THROUGH 10/21/84
METALLIC & NON-METALLIC EMBEDDED & EXPOSED
IN LINEAL FEET

BUILDING/UNIT	TOTAL ESTIMATED QUANTITY	84-0 CUMULATIVE PLAN	84-0 CUMULATIVE ACTUAL
Auxiliary - U1	83,760	71,859	70,243
Containment - U1	32,585	22,335	21,802
Control - U1	92,009	73,860	70,494
Fuel Handling - U1	14,034	11,218	12,778
Turbine - U1	102,530	87,458	84,857
Yard Nuclear - U1	13,637	10,588	9,018
Yard Non-Nuclear - U1	665,017	356,175	336,827
Radwaste - U1	10,785	5,552	5,604
UNIT 1 TOTAL	1,014,357	639,045	611,623
Auxiliary - U2	69,555	18,209	14,138
Containment - U2	31,685	5,752	5,752
Control - U2	81,612	15,901	15,901
Fuel Handling - U2	11,320	1,858	1,858
Turbine - U2	106,649	4,804	4,804
Yard Nuclear - U2	13,739	847	775
UNIT 2 TOTAL	314,560	47,371	43,228
UNITS 1 & 2 TOTAL	1,328,917	686,416	654,851

Includes power and control cable only



Legend

Scheduled

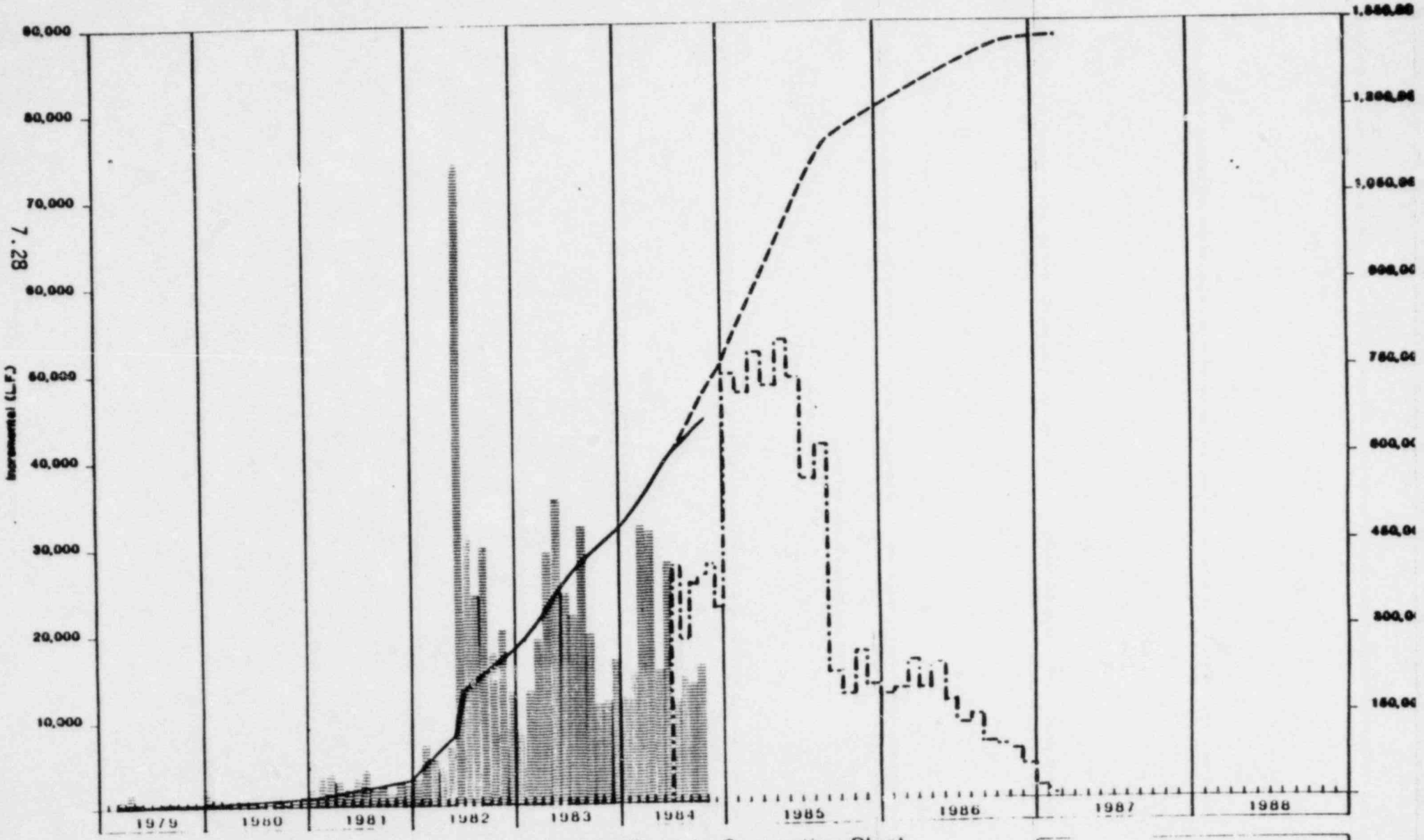
Actual

Planned Increment

Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Conduit - Unit 1 & Common

4 Week Period Ending:	10/21/84
Total Planned	1,914,367 L.F.
Planned To Date	663,554 L.F.
Actual To Date	627,439 L.F.



7.28

Legend
Scheduled
Actual
Planned Increment
Actual Increment

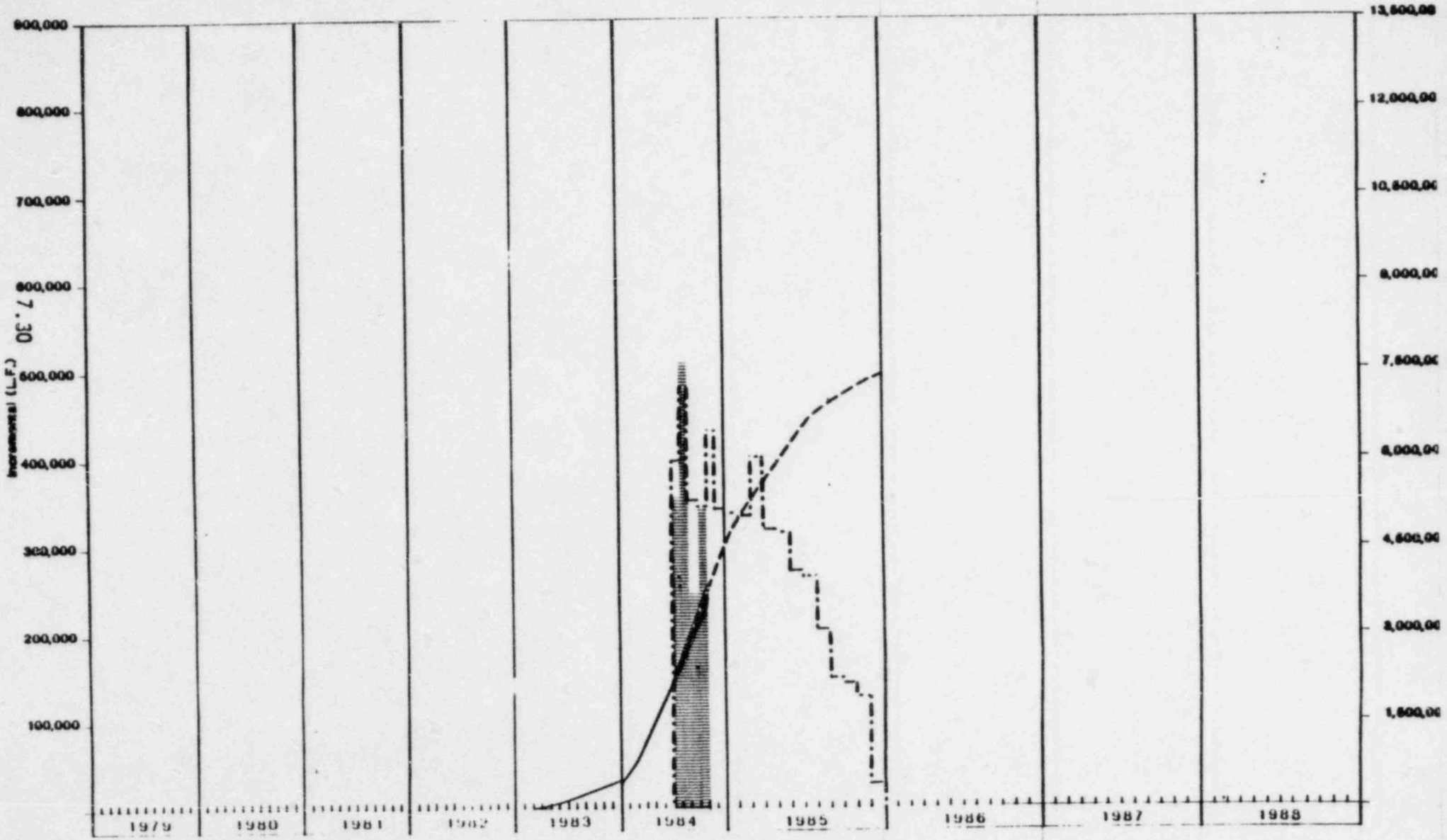
Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Conduit - Units 1 & 2

4 Week Period Ending	10/21/84
Total Planned	1,328,617 L.F.
Planned To Date	712,932 L.F.
Actual To Date	670,787 L.F.

VOGTLE ELECTRIC GENERATING PLANT - UNITS 1 & 2
REV. 84-0 CONSTRUCTION SCHEDULE
WIRE & CABLE INSTALLATION STATUS THROUGH 10/21/84
IN LINEAL FEET

UNIT	TOTAL ESTIMATED QUANTITY	84-0 CUMULATIVE PLAN	84-0 CUMULATIVE ACTUAL
1	7,484,200	3,725,456	3,629,931
2	5,162,100	0	0
TOTAL	12,646,300	3,725,456	3,629,931

Includes power and control cable only.



7.30

Legend

Scheduled

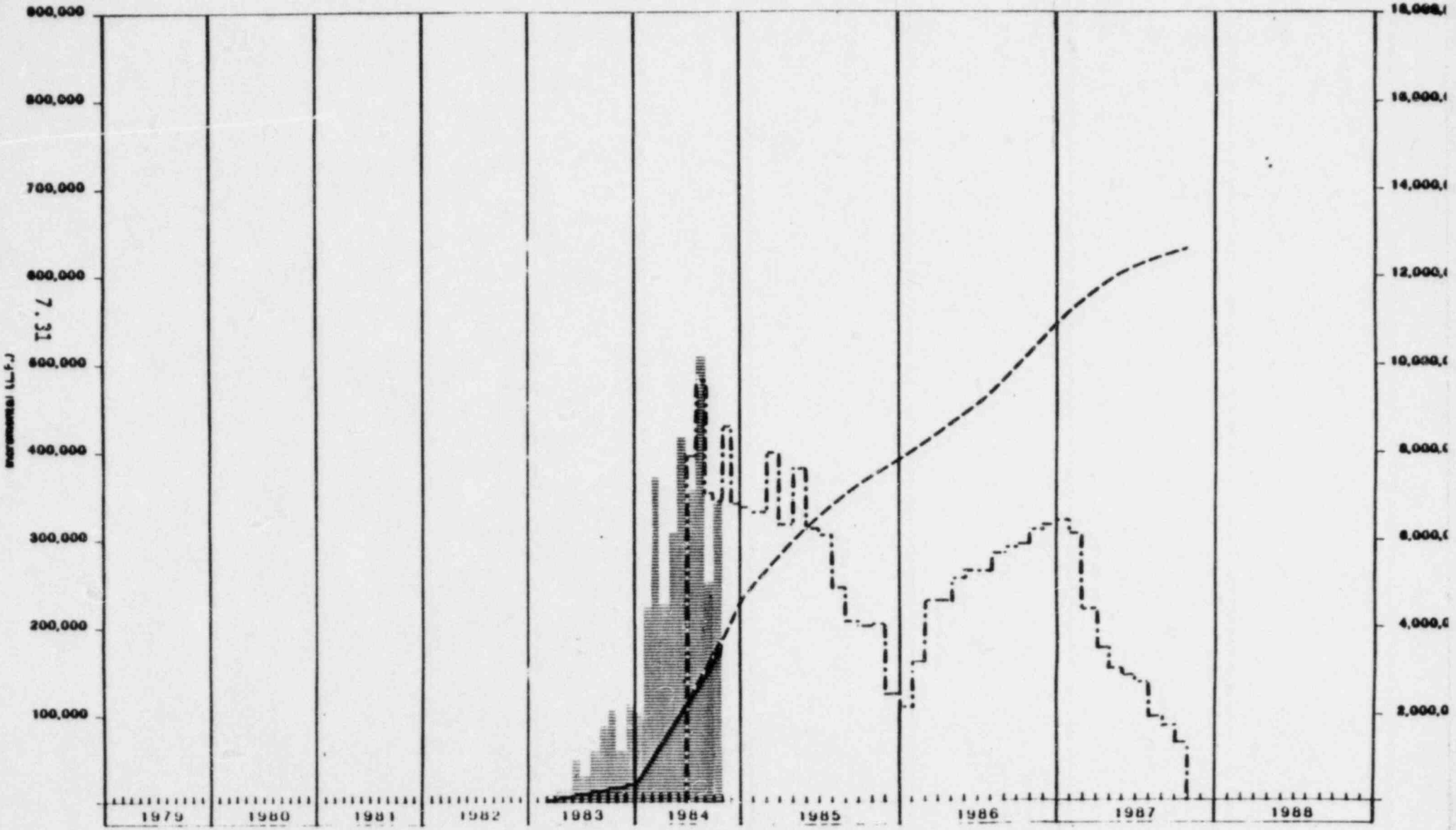
Actual

Planned Increment

Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Wire & Cable - Unit 1 & Common

4 Week Period Ending	10/21/84	
Total Planned	7,484,200	L.F.
Planned To Date	3,725,456	L.F.
Actual To Date	3,629,931	L.F.



7.31

Legend

Scheduled

Actual

Planned Increment

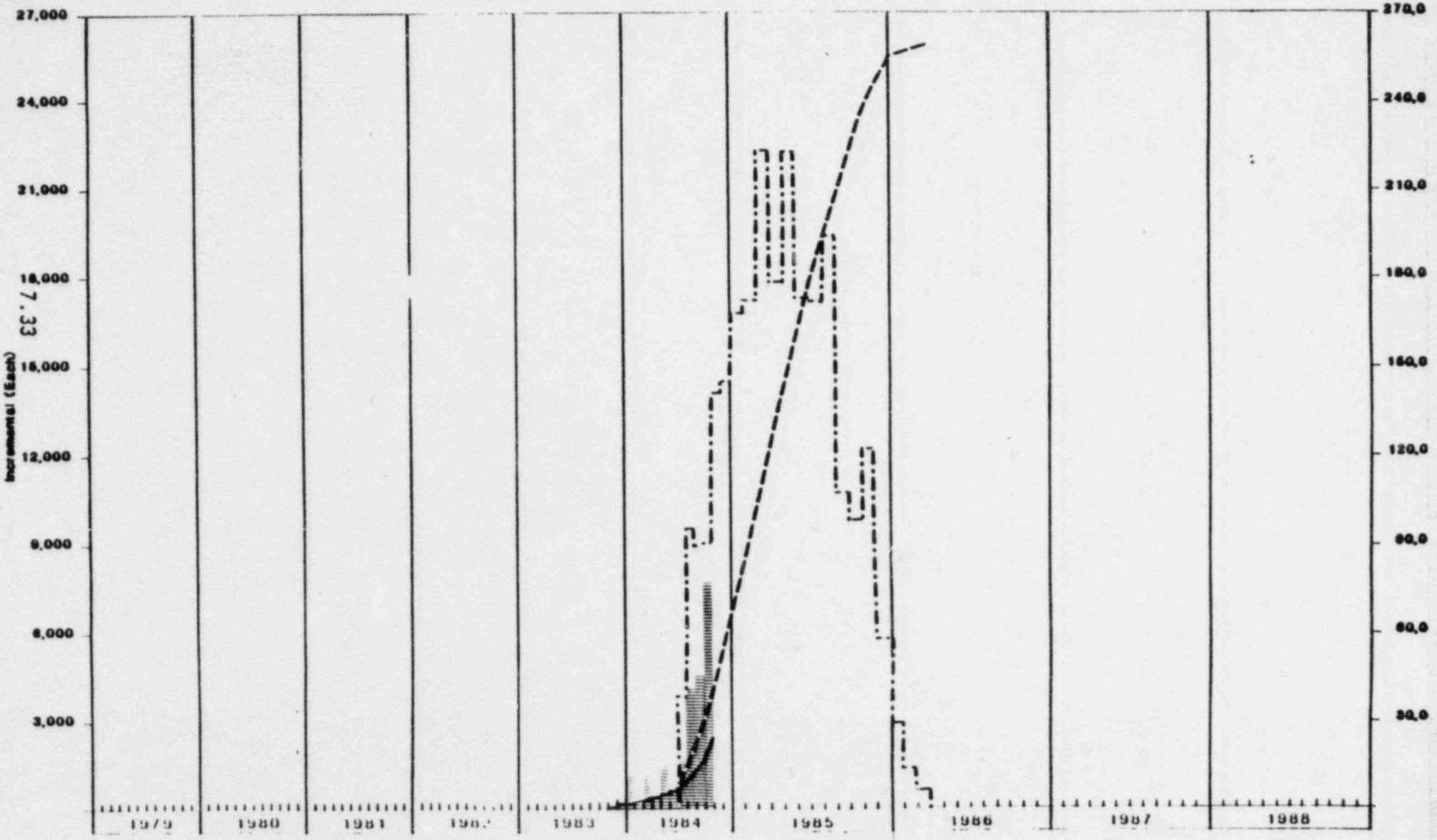
Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Wire & Cable - Units 1 & 2

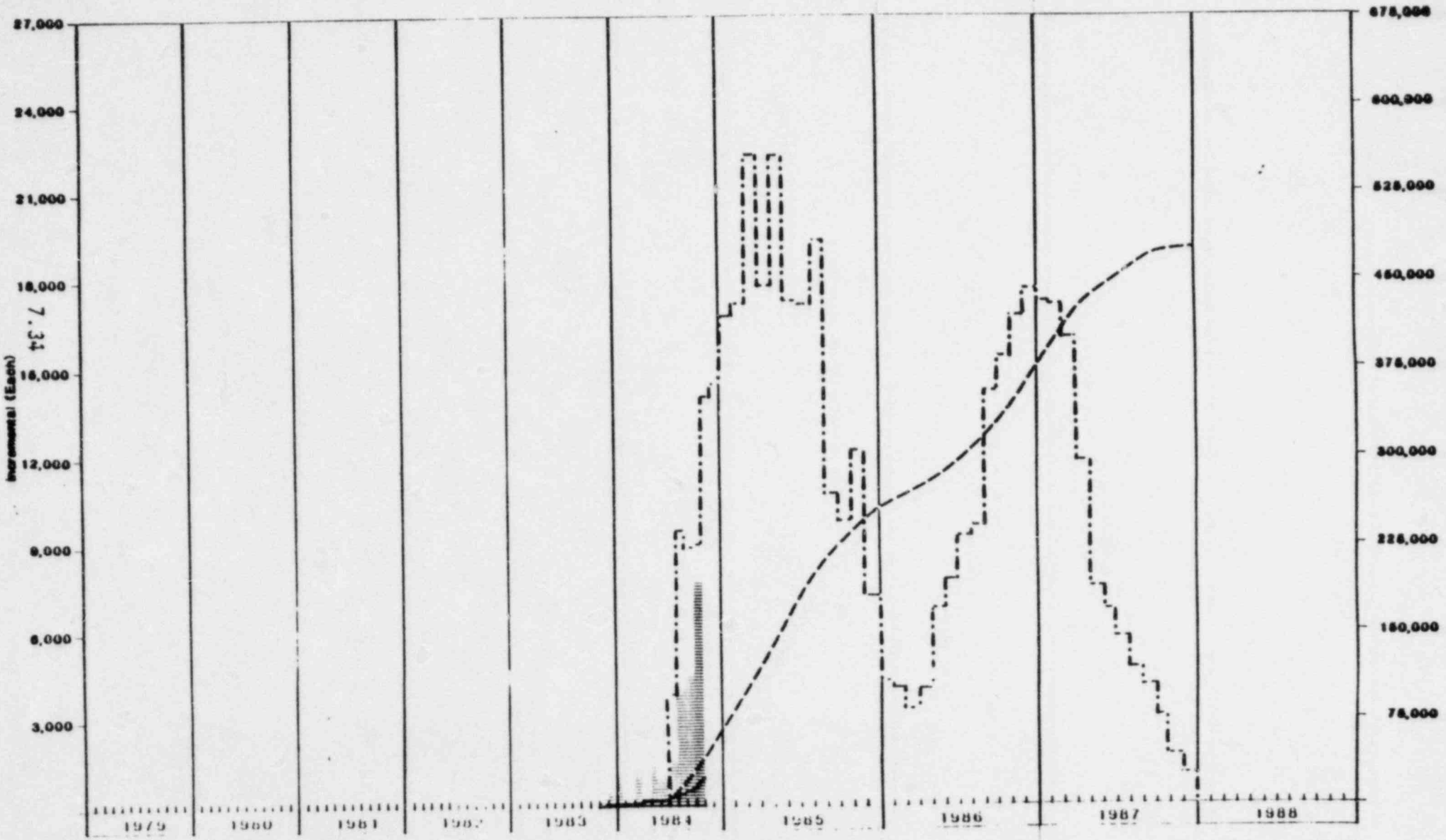
4 Week Period Ending	10/21/84
Total Planned	12,646,300 L.F.
Planned To Date	3,725,456 L.F.
Actual To Date	3,829,931 L.F.

VOGTLE ELECTRIC GENERATING PLANT - UNITS 1 & 2
REV. 84-0 CONSTRUCTION SCHEDULE
TERMINATIONS QC'd THROUGH 10/21/84
EACH

UNIT	TOTAL ESTIMATED QUANTITY	84-0 CUMULATIVE PLAN	84-0 CUMULATIVE ACTUAL
1	260,000	37,206	24,002
2	207,364	0	0
TOTAL	467,364	37,206	24,002

Includes power and control cable only.


27,000
24,000
21,000
18,000
15,000
12,000
9,000
6,000
3,000
270.0
240.0
210.0
180.0
150.0
120.0
90.0
60.0
30.0
Incremental (Each)
7.33
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
Legend
Scheduled
Actual
Planned Increment
Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Terminations - Unit 1 & Common
4 Week Period Ending 10/21/84
Total Planned 260,000 Each
Planned To Date 37,206 Each



7.34

Vogtle Electric Generating Plant
Rev. 84 0 Construction Schedule
Terminations - Units 1 & 2

VOGTLE ELECTRIC GENERATING PLANT

NRC CASELOAD FORECAST

Question

QUESTION: 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, preop and acceptance tests schedule, current and proposed preop and acceptance test program manpower.

INTRODUCTION: During the last 18 months Nuclear Operations has pursued a more aggressive Initial Test Program through accelerating system turnovers and Selected Major Milestones and the Subscoping of systems for earlier Construction completion. This position has resulted in the completion of a detailed startup schedule (Approximately 10,000 activities) which allows Nuclear Operations to easily and rapidly access potential schedule conflicts, adequately plan staffing requirements and status the test program progress. It also allowed Nuclear Operations to accept a component turnover of all 480 V breakers in March, 1984; the first electrical system turnover in April, 1984, energization of the 230 KV switchyard three weeks early and the potential early energization (Approximately 3 months) of the plant. Nuclear Operations continues to evaluate all available options to accelerate startup testing through the above alternatives.

Schedule

A Startup Summary Schedule has been prepared with input from Westinghouse and Bechtel Startup groups and Georgia Power Company inhouse startup personnel. This schedule serves as input to both Construction and Nuclear Operations (N.O.) planning efforts.

Interface to Construction to maintain this schedule until turnover is continuous. Project 2 equipment is utilized to plan resources and provide input to project decision making in the allocation of resources. More aggressive turnover scheduling has been implemented. Completion schedules for the first turnover systems were released in June 1984. Completion schedules for 1984 turnover systems have been issued sequentially on a prioritized, chronological basis. (See attached schedule A). To date, 165 detailed startup schedules have been developed and preliminary reviews completed. *System interrelationships have been verified initially and milestone relationships identified. The system start schedules address the system turnover; test durations, test manpower requirements, allowances for equipment repair/replacement including manpower requirements; and installation and removal of temporary test facilities.

System completion schedule generation is in process with 165 schedules completed. Some of these schedules are generic in nature and will be replaced by detailed system schedules seven months before system turnover.

A Turn Over (T/O) Scope Meeting, approximately six months prior to the schedules system turnover date, serves to status a construction system formally with respect to the Startup Summary Schedule. System walkdowns by Construction and N.O. commence prior to the T/O Scope Meeting; with a formal punch list status meeting 2 weeks prior to the scheduled T/O Date. These walkdowns identify specific areas requiring attention and ensures the turnover of a complete testable system.

*Currently in process - ongoing effort

TRAINING

Engineering Startup

Course Designed To Meet Guidelines

- FSAR 13.2 (Engineering and Technical Support)
- INPO

Overall Course Objective

- Application of Theoretical Knowledge
- Functional Understanding of Systems
- Job Related Application of Startup Manual (SUM)
- Development of Personnel Management and Communications Skills

Course Contents

- Academics - 11 Weeks
- Simulator - 2 Weeks
- Startup Support Training - 1 Week
- Leadership/Communications - 1 Week
- System Exam (In Conjunction with Simulator)

Course Participation

- 68 Completed
- 65 Passed

O - J - T Experience (Other Plants)

- San Onofre
- McGuire
- Comanche Peak
- Callaway
- Farley
- Sequoyah
- Hatch

R O Training

R O Training Program

Classroom - 41 Weeks

Research Reactor - 1 Week

Simulator - 8 Weeks

Observation Training at Similar Plants - Up to 3 Months

- Sequoyah
- Summer
- Farley

42 Currently Enrolled in Program at Various Stages

First Course

25 Of 32 Passed

4 Of The 25 That Passed Are Now At Hatch

Second Course

21 Started And 21 Are Still In Course

S R O Training

S R O Training Program

Classroom - 14 Weeks

Control Room - 8 Weeks

Review and Audit - 4 Weeks

Hot Participation Experience - 6 Weeks To 6 Months

Examinations

38 Administered

31 Passed

82% Passed

S R O Certified By NRC - 31

18 In Operations

11 Outside Operations

1 At GPC Corporate

1 At INPO

Off-Site Licensing Program

8 Individuals Are Currently Obtaining Operating Licenses At Other Plants And Will Return To Plant Vogtle

Training Facility

40,000 Square Feet

12 Class Rooms

5 Laboratories

- Health Physics
- Chemistry
- Mechanical Maintenance
- Electrical Maintenance
- I & C Maintenance

Plant Specific Simulator On Site For Over 2 Years

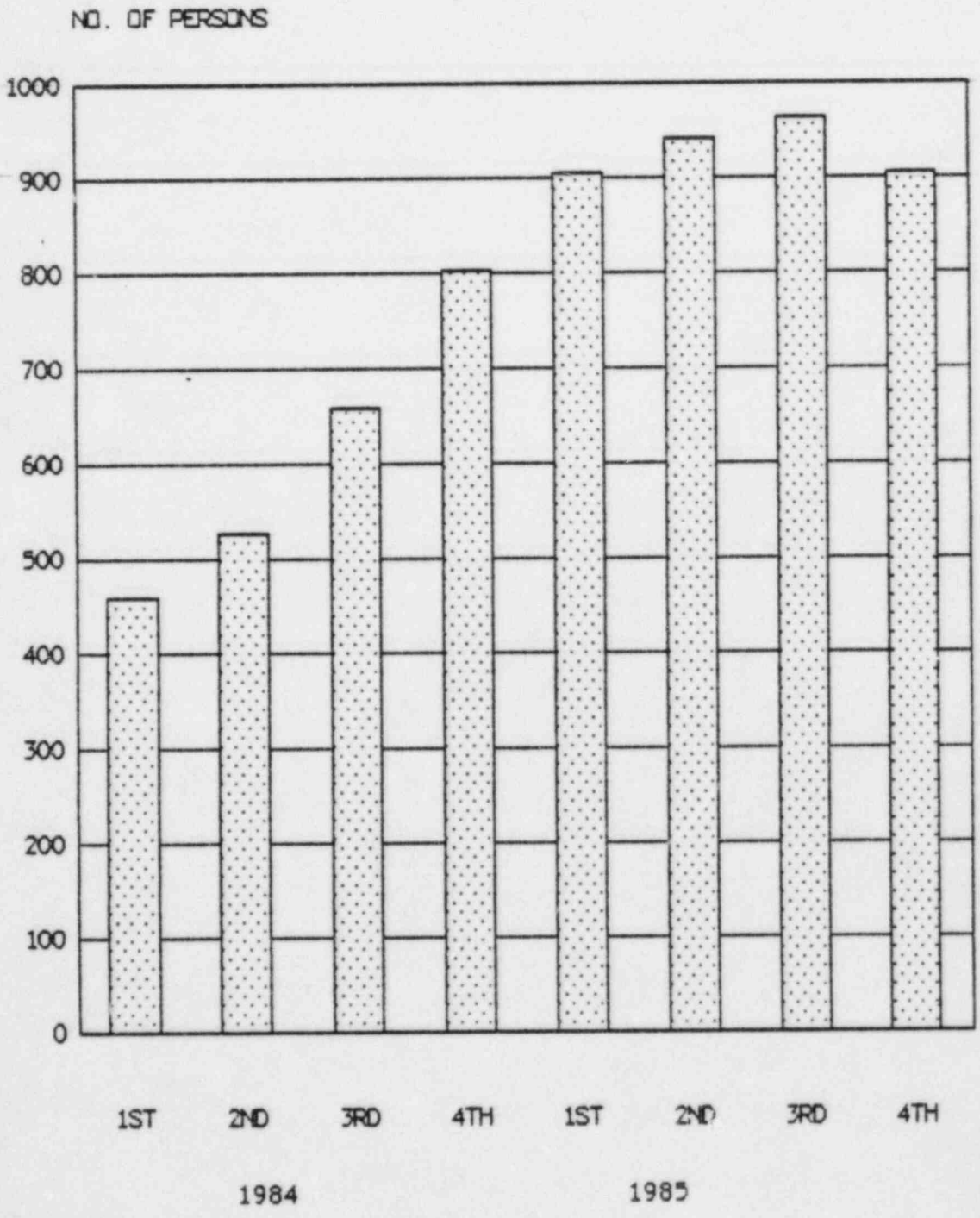
136,000 Manhours Of Training For First 8 Months This Year

Training Staff

- Currently Authorized - 35
- Currently Filled - 30

NUCLEAR OPERATIONS

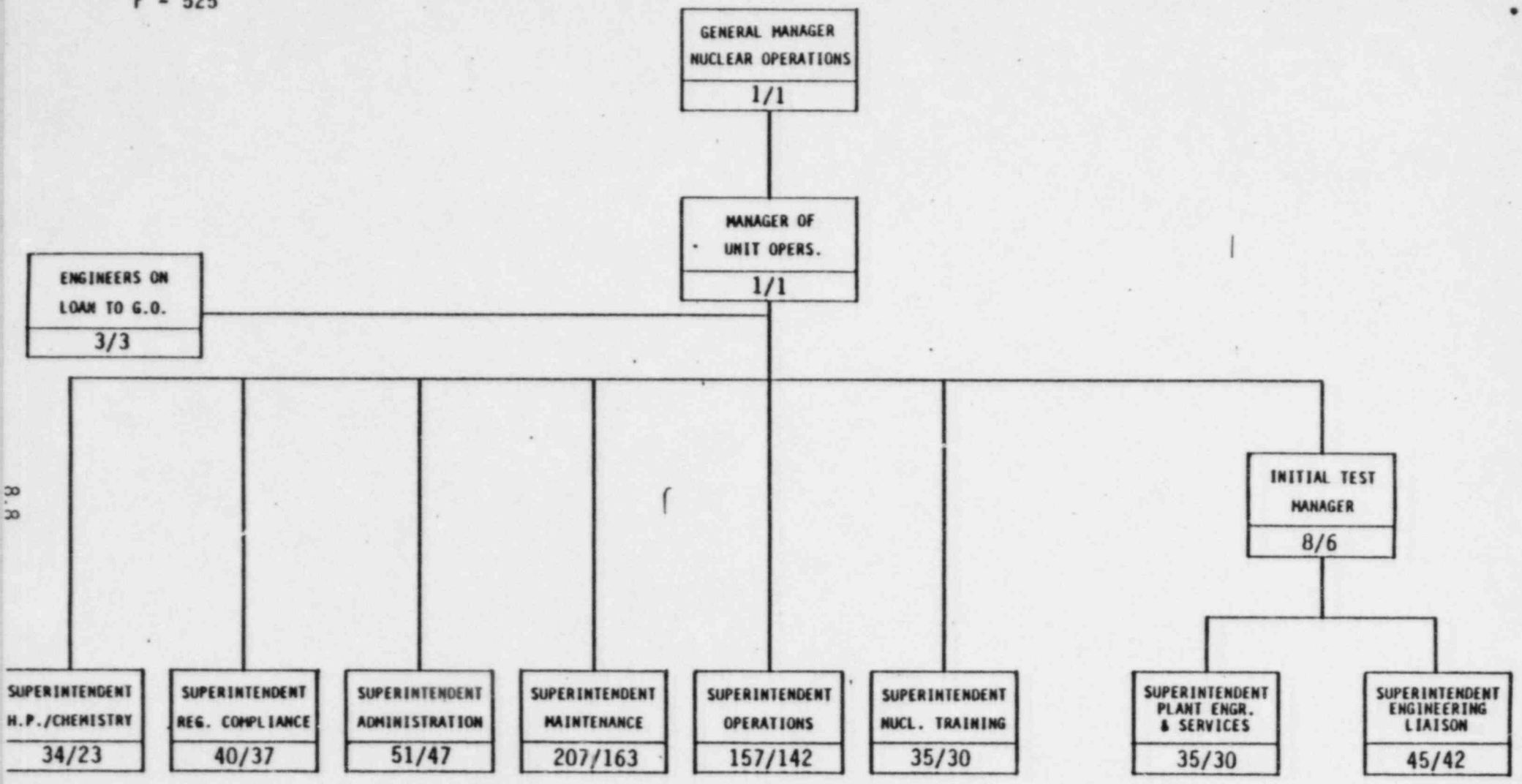
STAFFING



PLANT VOGTLE - NUCLEAR OPERATIONS

TOTAL NUCLEAR OPERATIONS

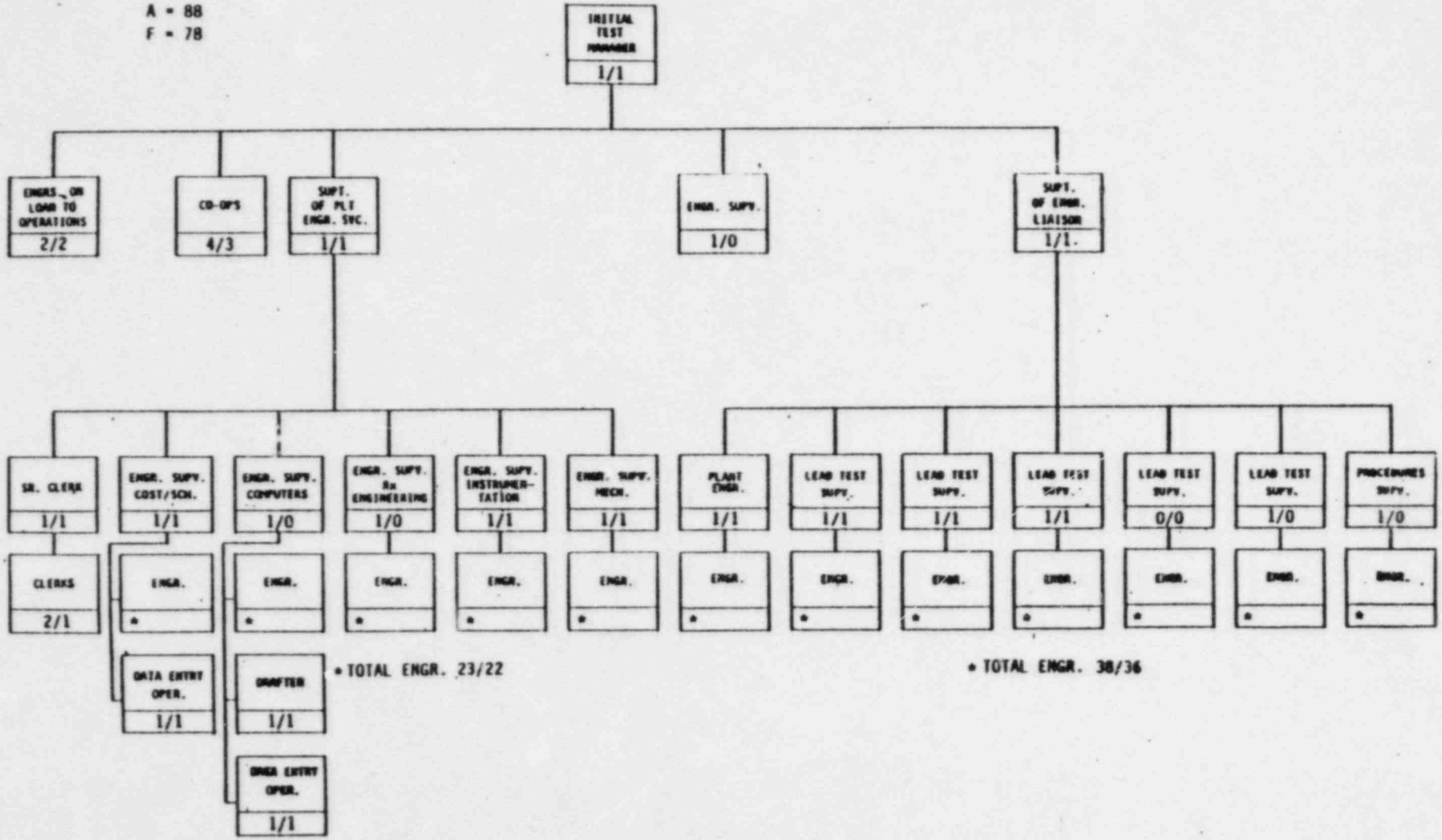
A = 617
F = 525



PLANT YOSTLE - NUCLEAR OPERATIONS

ENGINEERING

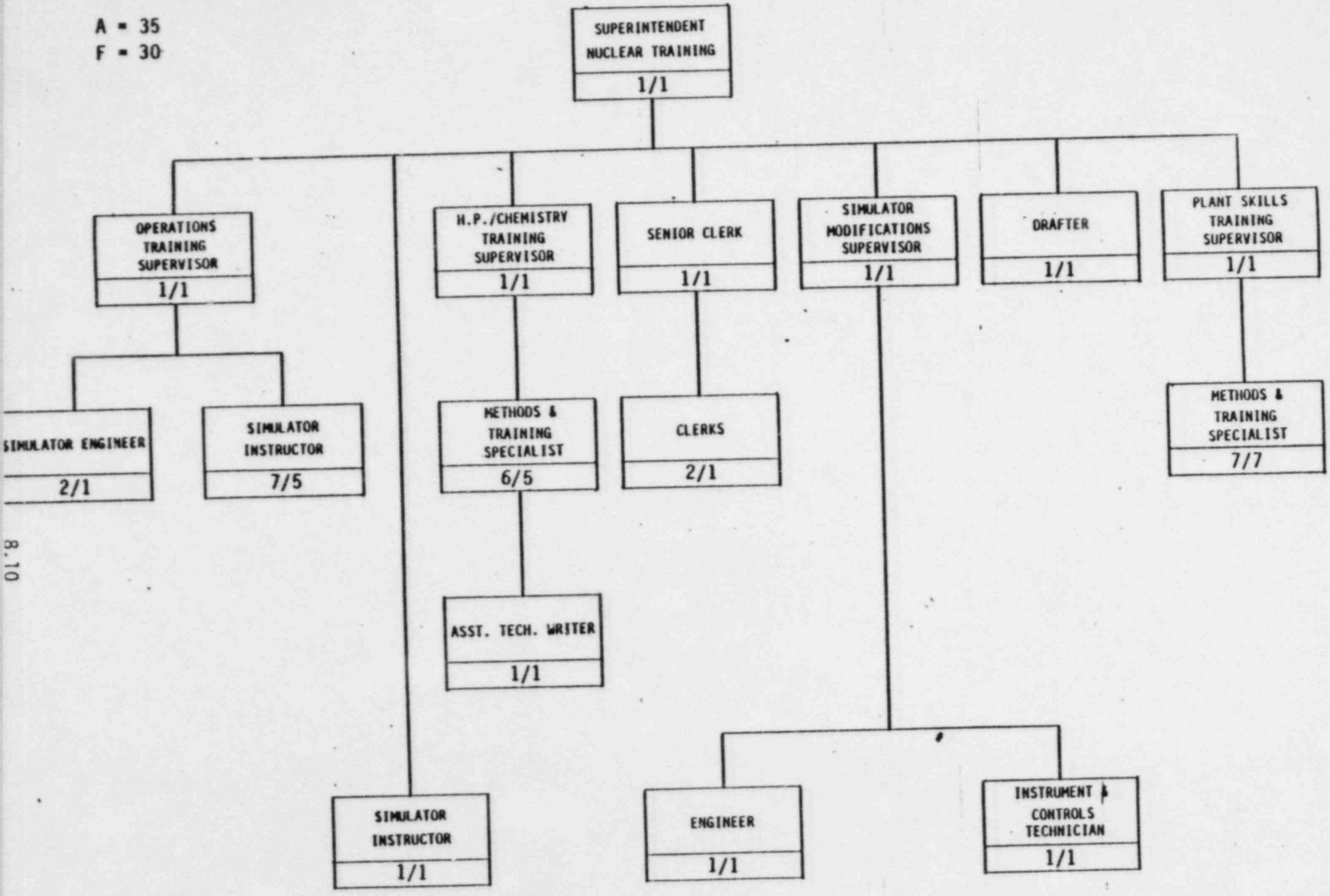
A = 88
F = 78



PLANT VOGTLE - NUCLEAR OPERATIONS

NUCLEAR TRAINING

A = 35
F = 30

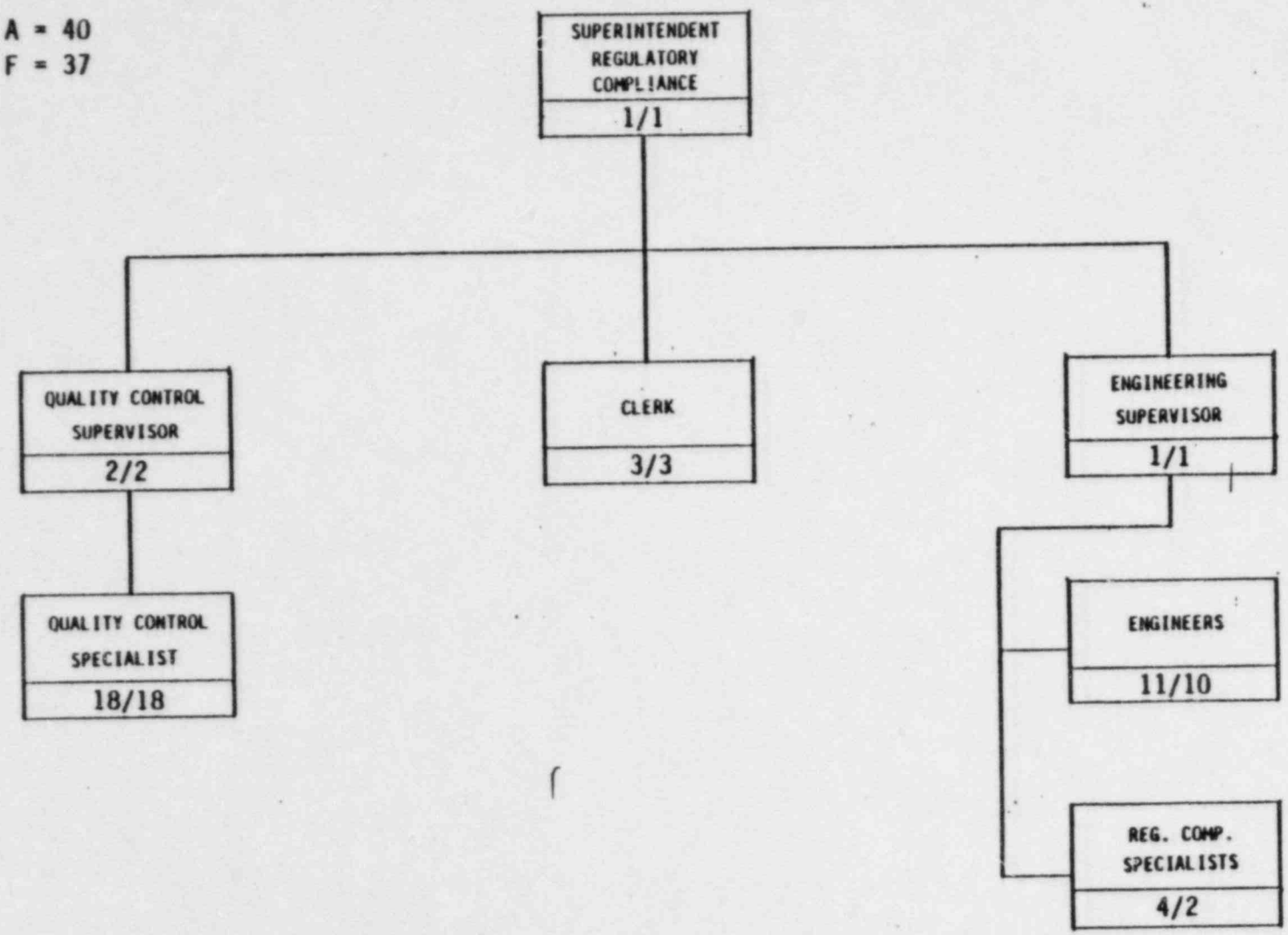


8.10

PLANT VOGTLE - NUCLEAR OPERATIONS

REGULATOR CO.. .IANCE

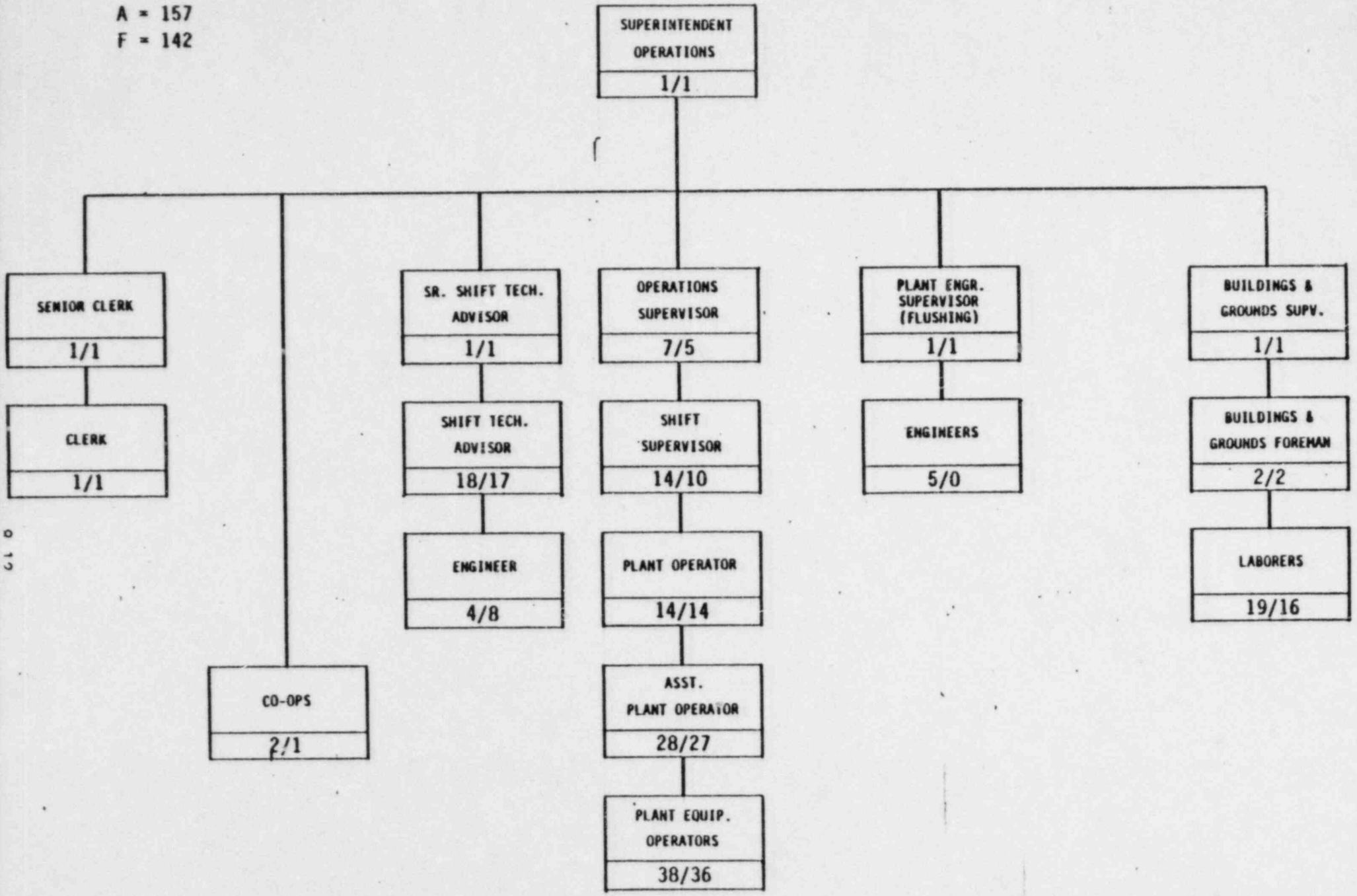
A = 40
F = 37



PLANT VOGTLE - NUCLEAR OPERATIONS

OPERATIONS

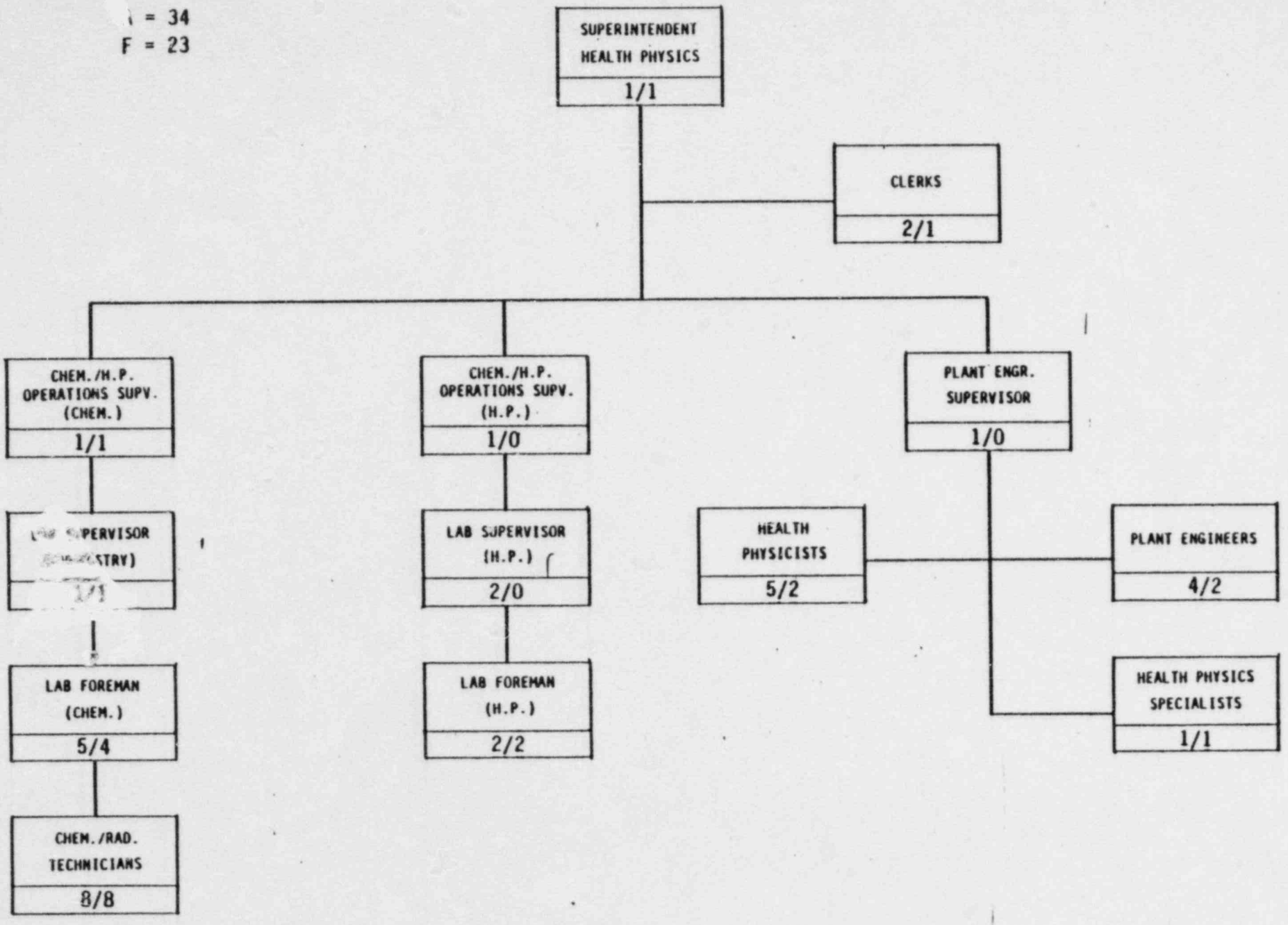
A = 157
F = 142



PLANT VOGTLE - NUCLEAR OPERATIONS

CHEMISTRY/HEALTH PHYSICS

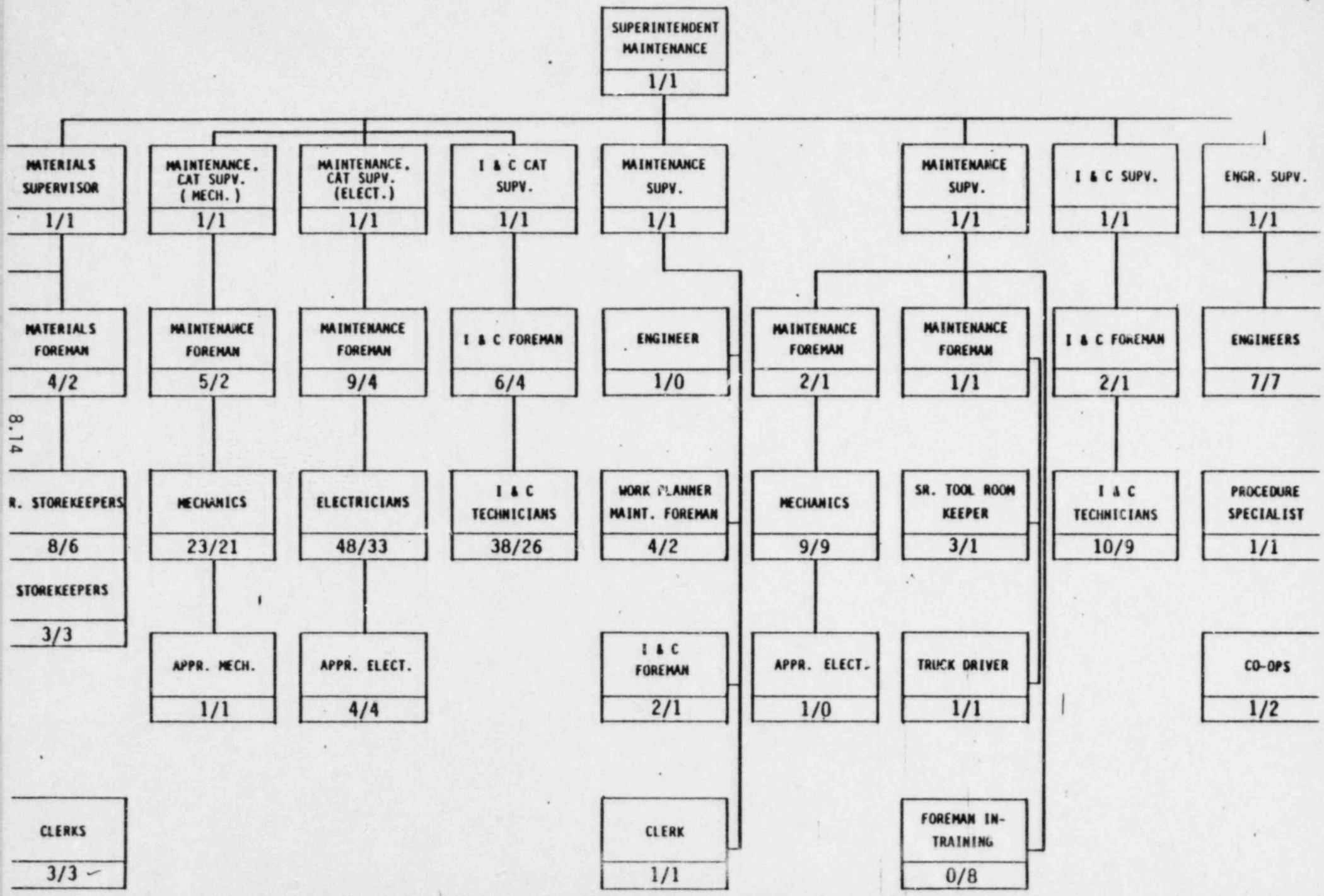
= 34
F = 23



A - 37
F - 163

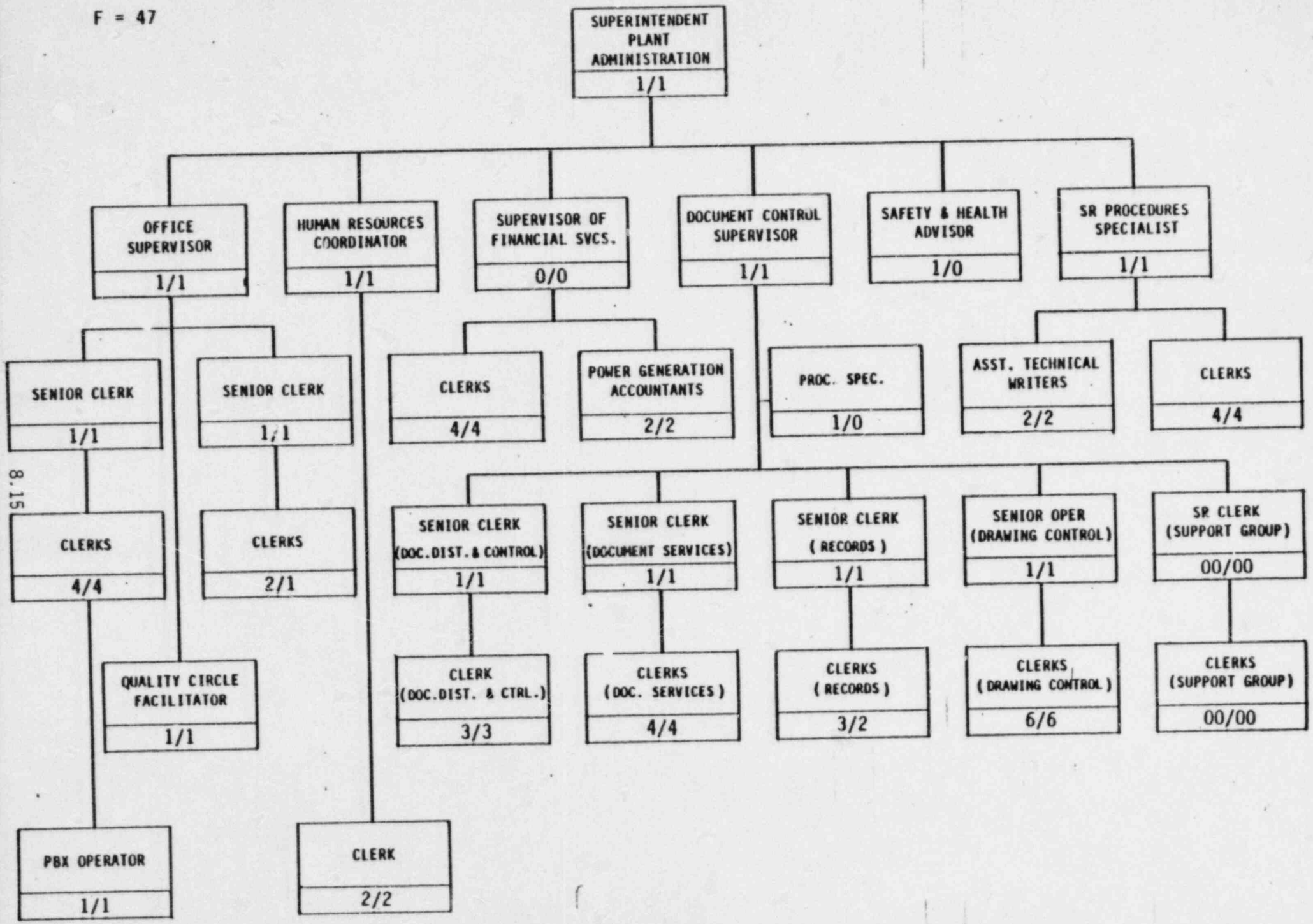
PLANT VOGTLE - EAR OPERATIONS

MAINTENANCE



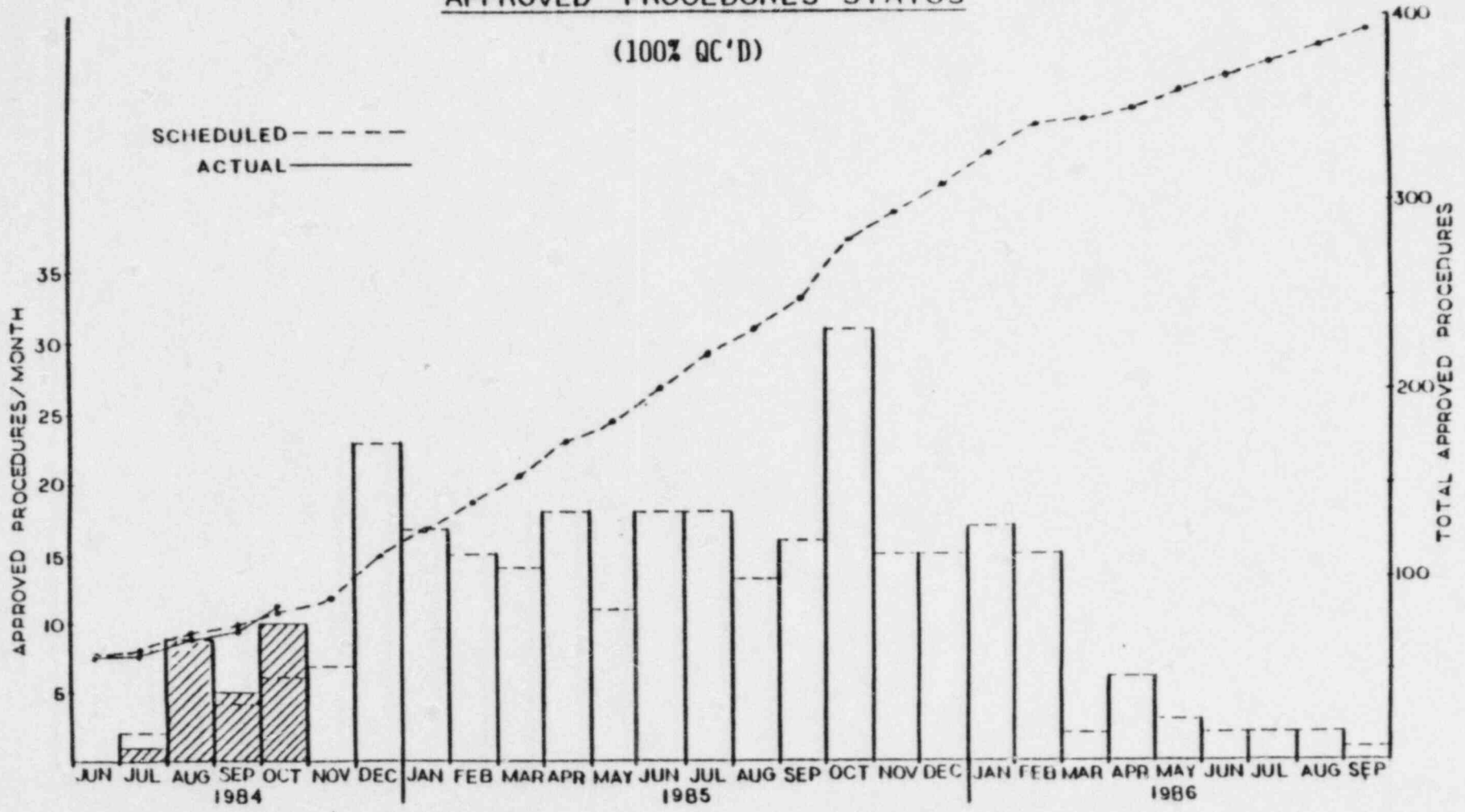
8.14

A = [illegible]
F = 47


SUPERINTENDENT PLANT ADMINISTRATION
1/1
OFFICE SUPERVISOR
1/1
HUMAN RESOURCES COORDINATOR
1/1
SUPERVISOR OF FINANCIAL SVCS.
0/0
DOCUMENT CONTROL SUPERVISOR
1/1
SAFETY & HEALTH ADVISOR
1/0
SR PROCEDURES SPECIALIST
1/1
SENIOR CLERK
1/1
SENIOR CLERK
1/1
CLERKS
4/4
POWER GENERATION ACCOUNTANTS
2/2
PROC. SPEC.
1/0
ASST. TECHNICAL WRITERS
2/2
CLERKS
4/4
CLERKS
4/4
CLERKS
2/1
SENIOR CLERK (DOC.DIST.& CONTROL)
1/1
SENIOR CLERK (DOCUMENT SERVICES)
1/1
SENIOR CLERK (RECORDS)
1/1
SENIOR OPER (DRAWING CONTROL)
1/1
SR CLERK (SUPPORT GROUP)
00/00
QUALITY CIRCLE FACILITATOR
1/1
CLERK (DOC.DIST. & CTRL.)
3/3
CLERKS (DOC. SERVICES)
4/4
CLERKS (RECORDS)
3/2
CLERKS (DRAWING CONTROL)
6/6
CLERKS (SUPPORT GROUP)
00/00
PBX OPERATOR
1/1
CLERK
2/2

INITIAL TEST PROGRAM
APPROVED PROCEDURES STATUS

(100% QC'D)

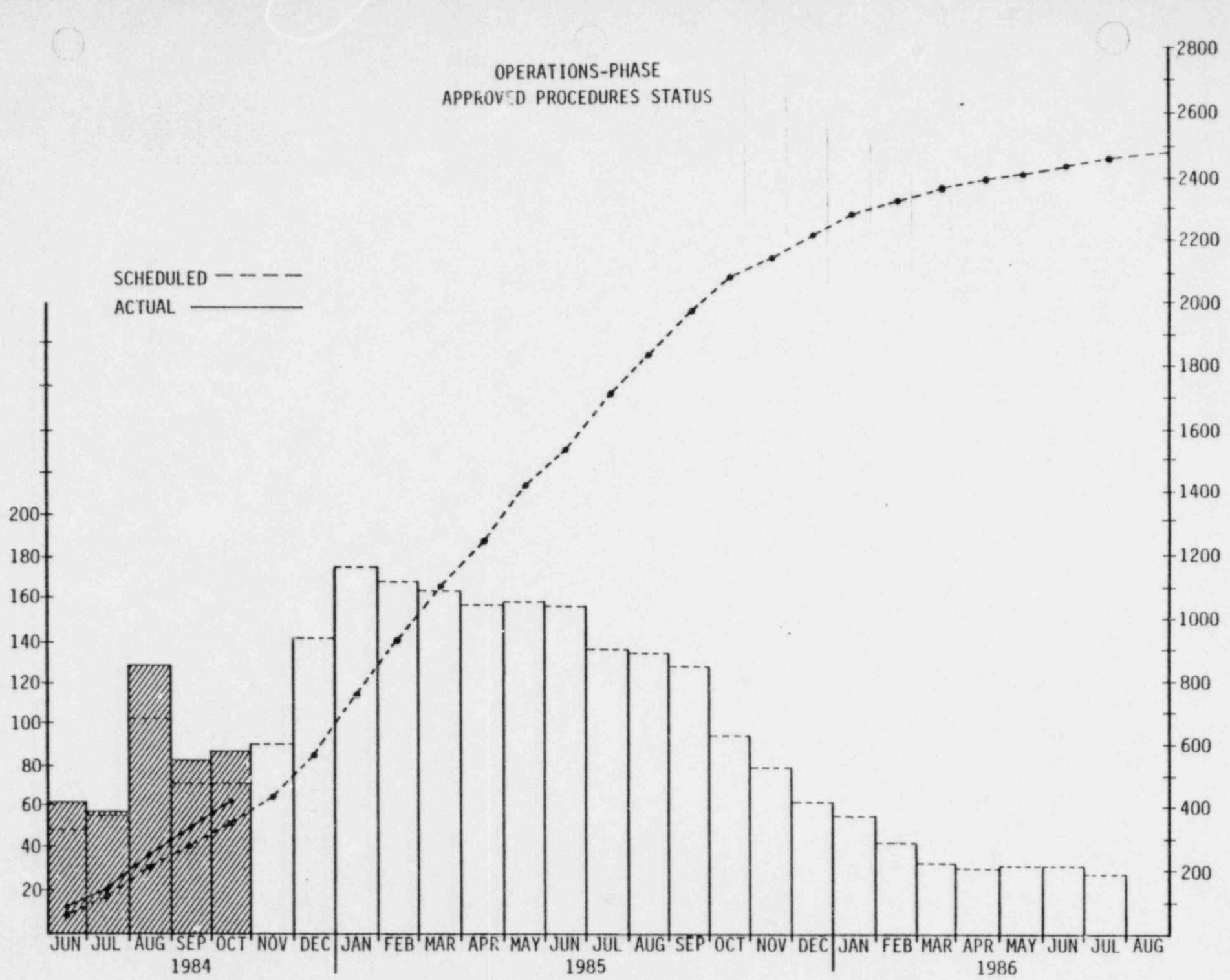


Georgia Power
POWER GENERATION DEPARTMENT
VOGTLE ELECTRIC GENERATING PLANT

PROCEDURES PREPARATION STATUS

Period Ending October 15, 1984

INITIAL TEST PROGRAM PROCEDURES		REVISION A (INITIAL DRAFT)		REVISION 0 (READY FOR FINAL REVIEW)		APPROVED	
PROCEDURES MANUALS	TOTAL PROC.	SCHED.	COMP.	SCHED.	COMP.	SCHED.	COMP.
START-UP MANUAL	23	23	23	23	23	23	23
CAT (GENERIC)	34	32	32	32	32	32	32
CAT (ONE-TIME)	18	17	17	15	15	12	12
FLUSHING	78	78	78	6	6	6	6
PREOPERATIONAL	180	100	97	31	20	9	10
SPECIAL TESTS	11	0	0	0	0	0	0
STARTUP	51	30	31	6	6	0	3
TOTAL	395	280	278	113	102	82	86


OPERATIONS-PHASE
APPROVED PROCEDURES STATUS
SCHEDULED
ACTUAL
200
180
160
140
120
100
80
60
40
20
2800
2600
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG
1984
1985
1986

Georgia Power
POWER GENERATION DEPARTMENT
VOGTLE ELECTRIC GENERATING PLANT

PROCEDURES PREPARATION STATUS

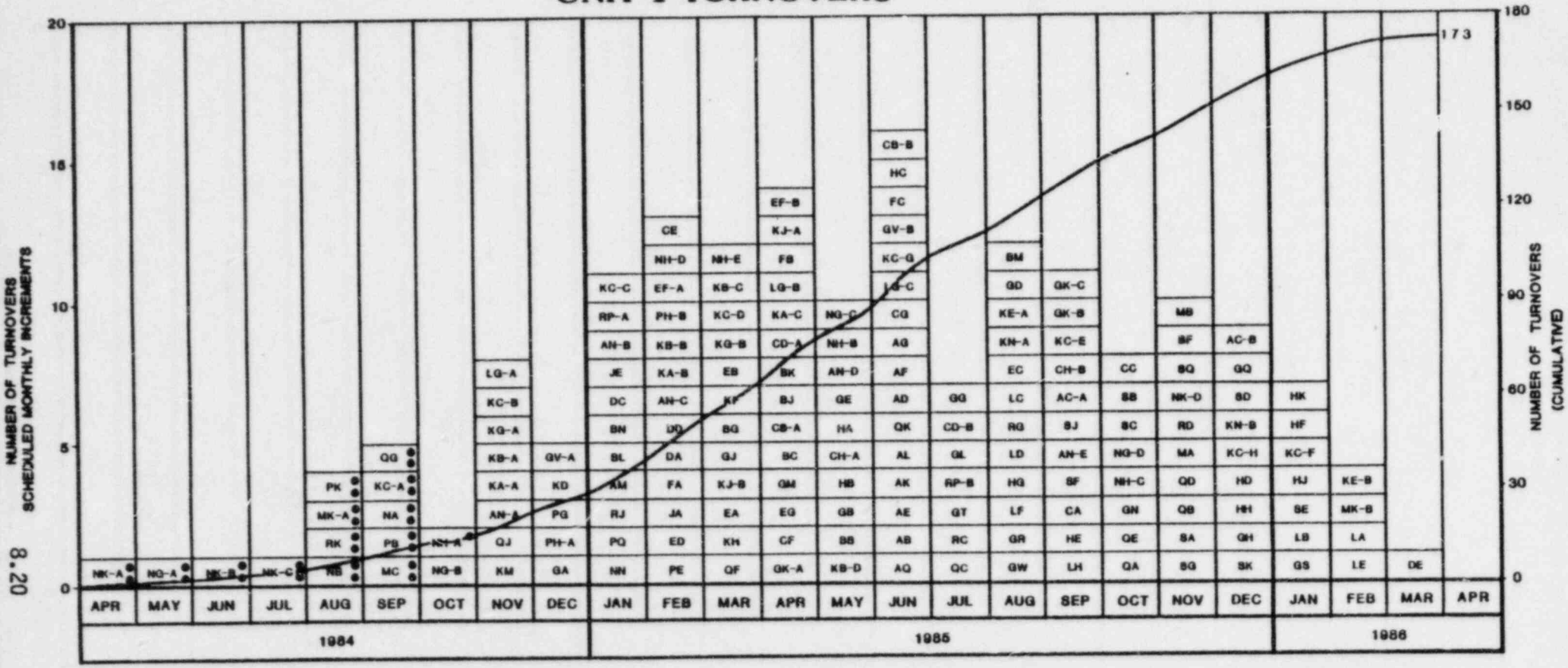
Period Ending October 15, 1984

OPERATIONS-PHASE PROCEDURES		REVISION A (INITIAL DRAFT)		REVISION 0 (READY FOR FINAL REVIEW)		APPROVED	
PROCEDURES MANUALS	TOTAL PROC.	SCHED.	COMP.	SCHED.	COMP.	SCHED.	COMP.
PLANT ADMINISTRATIVE	112	77	83	59	50	39	40
OPERATIONS	667	385	390	128	145	52	108
MAINTENANCE, M&E	367	278	307	225	279	97	160
MAINTENANCE, I&C	658	336	427	181	279	164	165
LABORATORY	75	14	25	14	14	10	9
HEALTH PHYSICS	150	23	36	17	22	6	7
ENGINEERING	69	45	52	21	27	5	7
TRAINING	9	8	8	8	7	6	6
ADMIN. & FINANCE	11	8	8	8	8	6	6
REGULATORY COMPLIANCE & QC	29	19	18	12	14	7	7
SECURITY	28	28	28	28	28	17	17
EMERGENCY	28	0	1	0	0	0	0
FIRE PROTECTION	245	127	130	91	93	0	0
REFUELING	33	12	17	3	3	0	0
GRAND TOTALS	2481	1360	1530	795	969	409	532

NOTE: COMMON AND UNIT 1 PROCEDURES

SCHEDULE A

VOGTLE ELECTRIC GENERATING PLANT
UNIT 1 TURNOVERS



	PLAN	ACTUAL	
		SUBMITTED	ACCEPTED
NO. OF TURNOVERS	15	14	13

STATUS AS OF 10/26/84

LEGEND

- TURNOVERS SUBMITTED
- TURNOVERS ACCEPTED

8.20

NUCLEAR OPERATIONS

Schedule A

1982R1 T/O SEQUENCE SCHEDULE

RUN DATE 9NOV84 PROJECT VEGPSU2 ORIG COMPL 15FEB86

DESCRIPTION	SCHEDULED T/O DATE	ACCEPTED
AK-A T/O PKG FOR 01 125VDC SYS	15APR84	X
NG-A T/O PKG FOR 01 NON 1-E 480V SWGR	15MAY84	X
AK-B T/O PKG FOR 02 125VDC SYS	15JUN84	X
NK-C T/O PKG FOR 03 125VDC SYS	13JUL84	X
NB T/O LOW MED VOLT 4.16 KV (NON 1E)	15AUG84	X
RK T/O PLANT ANNUNCIATOR SYS	15AUG84	X
PK T/O CLASS 1E 125 VDC POWER SYSTEMS	21AUG84	X
MK-A FOR T/O PKG PHASE I 230 KV SWITCHYARD	31AUG84	X
NC T/O STARTUP TRANS(RATS) SYS	14SEP84	X
PB T/O CLASS 1E LOW MED VOLTAGE 4.16 KV	14SEP84	X
NA T/O HIGH MED VOLT 13.8 KV (NON 1E)	14SEP84	X
KC-A T/O PKG FOR 01 FIRE PROT SYS	17SEP84	X
CG T/O GROUNDING SYSTEM	19SEP84	X
NG-B T/O PKG FOR 02 NON 1-E 480V SWGR	10OCT84	
NN-A T/O PKG FOR 01 NON 1-E 480V MCC SY	10OCT84	
KA-A T/O PKG FOR 01,02 SERVICE AIR	8NOV84	
KG-A T/O PKG FOR 01,02 UTILITY WATER SYS	12NOV84	
KC-B T/O PKG FOR 3,5 FIRE PROT SYS	15NOV84	
KB-A T/O PKG FOR 01,02 INSTRUMENT AIR	19NOV84	
KM T/O PLANT MAKEUP WELL WATER	21NOV84	
AN-A T/O FOR 01,02,03 DEMIN WATER	26NOV84	
LG-A T/O PKG FOR 01,03,04 WASTE WATER EFF SYS	26NOV84	
QJ T/O FREEZE PROTECTION SYS	27NOV84	
GA T/O MISC HVAC SYS	5DEC84	
GV-A T/O PKG FOR 01,02 W.T.B. HVAC	7DEC84	

NUCLEAR OPERATIONS

1982R1 T/O SEQUENCE SCHEDULE

RUN DATE 6NOV84 PROJECT VEGPSU2 ORIG COMPL 1SEPP6

DESCRIPTION	SCHEDULED T/O DATE	ACTUAL T/O DATE
PG T/O CLASS 1E LOW VOLT SWGR 480 V	10DEC84	
XQ T/O POTABLE WATER SYSTEM	14DEC84	
PM-A T/O PKG FOR 01 CLASS 1E LOW VOLT MCC 480 V	17DEC84	
AP-A T/O PKG FOR 01 IC & REC EQUIP EAF	4JAN85	
NN T/O 120 VAC INSTR POWER (NON 1E)	7JAN85	
PQ T/O CLASS 1E 120 VITAL VAC	7JAN85	
KC-C T/O PKG FOR 4,6,11 FIRE PROT SYS	18JAN85	
AJ T/O PLANT COMPUTER SYS	22JAN85	
AA-B T/O FOR 05 DEMIN WATER	24JAN85	
AM T/O RIVER INTAKE STRUCTURE	25JAN85	
BL T/O AMWST & DEGASIFIER SYS	25JAN85	
BN T/O AWST SYSTEM	25JAN85	
BE T/O TRAVEL SCREENS & WASH SYS	25JAN85	
JE T/O DIESEL GEN F.O. SYS	25JAN85	
PP-B T/O PKG FOR 02 CLASS 1E LOW VOLT MCC 480 V	1FEB85	
NM-B T/O PKG FOR 04 NON-1-E 480V MCC SYS	1FEB85	
KA-B T/O PKG FOR 3,4,5,7,9,11,12,14 SER	1FEB85	
KB-B T/O PKG FOR 3,4,5,7,9,10,11 INSTR	1FEB85	
PE T/O CLASS 1E STANDBY POWER SYS	4FEB85	
ED T/O AUX COMP COOLING WATER SYS	6FEB85	
GK-A T/O PKG FOR 01,06,08 CONTROL ROOM HVAC SYS	11FEB85	
AA-C T/O FOR 04 DEMIN WATER	13FEB85	
JA T/O AUX BOILER F.O. TRANS & STO SYS	14FEB85	
CE T/O TURB GEN STATOR CLG SYS	15FEB85	
EF-A T/O PKG FOR 01,02,03 TRAINS A & H NSCW SYS	18FEB85	

8.22

1 9 8 2 8 1 T / O S E Q U E N C E S C H E D U L E

RUN DATE 6NOV84 PROJECT VEGPSU2 ORIG COMPL 1SEP86

DESCRIPTION	SCHEDULED T/O DATE	ACTUAL T/O DATE
FA T/O AUX BOILER SYS	18FEB85	
GA T/O CIRC WATER SYS	20FEB85	
DD T/O CIRC WATER CHEM INJ SYS	22FEB85	
KH-E T/O PKG FOR 05 NON 1-E 480V MCC SYS	1MAR85	
KB-C T/O PKG FOR 06,08,12 INSTRUMENT AIR	1MAR85	
KG-B T/O PKG FOR 03-07 BOP UTILITY WATER SYS	1MAR85	
GF T/O IN-PLANT COMMUNICATION SYS	1MAR85	
KH T/O AUX GAS SYS	4MAR85	
EA T/O TPCW SYSTEM	11MAR85	
KC-B T/O PKG FOR 8,9,12,13 FIRE PROT SY	15MAR85	
KJ-B T/O PKG FOR 02 DIESEL GEN TRAIN B	15MAR85	
GJ T/O ESSIENTIAL CHILLED WATER SYS	20MAR85	
PG T/O CVCS SYSTEM	22MAR85	
KF T/O MISC CRANES & HOISTS SYS	25MAR85	
EB T/O TPCCW SYSTEM	28MAR85	
CF T/O TURB L,O, STORAGE & FILT SYS	1APR85	
EF-B T/O PKG FOR 05 CHEM INJ & CHLOR BLDG NSCW SYS	1APR85	
KA-C T/O PKG FOR 06,08,10 SERVICE AIR	1APR85	
LG-A T/O PKG FOR 02 DECHLORINATION FACILITY	1APR85	
EG T/O COMP COOLING WATER SYS	4APR85	
FB T/O AUX STEAM SYS	8APR85	
GK-B T/O PKG FOR 03,05,07 CONTROL BLDG HVAC SYS NORM EXH	15APR85	
KJ-A T/O PKG FOR 01 DIESEL GEN TRAIN A	15APR85	
BC T/O RESIDUAL HEAT REMOVAL SYS	18APR85	
CB-A T/O PKG FOR 01 TURB LUBE OIL COND & PUMPS	18APR85	
BJ T/O SAFETY INJECTION SYS	19APR85	

8.23

NUCLEAR OPERATIONS

1982R1 T/O SEQUENCE SCHEDULE

RUN DATE 6NOV84 PROJECT VEGPSU2 ORIG COMPL 15EP86

DESCRIPTION	SCHEDULED T/O DATE	ACTUAL T/O DATE
GK T/O DIESEL BLDG HVAC SYS	22APR85	
CC-A T/O PKG FOR 01 TURB GEN H2 SEAL OIL SYS (SKID)	24APR85	
BK T/O CONTAINMENT SPRAY SYS	30APR85	
BB T/O REACTOR COOLANT SYSTEM	6MAY85	
GB T/O NORMAL CHILLED WATER SYS	6MAY85	
WB T/O WASTE PROCESSING SYS-LIQ	13MAY85	
AA-D T/O FOR 06 DEMIN WATER	15MAY85	
GK-C T/O PKG FOR 02,04 ELECT EQUIP ROOM CONTROL BLDG HVAC SYS	15MAY85	
KB-B T/O PKG FOR 14,15 INSTRUMENT AIR	15MAY85	
NG-C T/O PKG FOR 03 NON 1-E 480V SWGR	15MAY85	
NN-B T/O PKG FOR 02 NON 1-E 480V MCC SY	15MAY85	
CH-A T/O PKG FOR 01 EHC SYSTEM (SKID)	17MAY85	
GE T/O TB HVAC SYS	25MAY85	
WA T/O WASTE PROCESSING SYS-GAS	30MAY85	
GV-B T/O PKG FOR 03 W.T.B. HVAC	1JUN85	
LG-E T/O PKG FOR 05 AUTO XFRMR SUMPS	1JUN85	
CB-B T/O PKG FOR 02 TURB LUBE OIL (REMAINDER)	3JUN85	
FE T/O STEAM GEN FEED PUMP-TURB SYS	3JUN85	
HC T/O BACKFLUSHABLE FILTER SYS	10JUN85	
AQ T/O CONDENSATE CHEMICAL INJECTION SY	11JUN85	
AB T/O MAIN STEAM SYSTEM	14JUN85	
AE T/O MAIN FEEDWATER SYSTEM	14JUN85	
NC-G T/O PKG FOR 14 FIRE PROT SYS	15JUN85	
AK T/O CONDENSATE DEMIN SYSTEM	18JUN85	
AL T/O AUX FEEDWATER SYSTEM	20JUN85	

8.24

Schedule A

1982R1 T/O SEQUENCE SCHEDULE

RUN DATE 6NOV84 PROJECT VEGPSU2 ORIG COMPL 1SEP86

DESCRIPTION	SCHEDULED T/O DATE	ACTUAL T/O DATE
CK T/O FIRE-SMOKE DETECTION & ALARM SYS	21JUN85	
AB T/O CONDENSATE SYSTEM	24JUN85	
AF T/O FEEDWATER HEATER DRAINS SYSTEM	24JUN85	
AG T/O EXTRACTION STEAM SYSTEM	26JUN85	
CG T/O CONDENSER AIR EJECTION SYS	28JUN85	
RF-B T/O PKG FOR 02,03 PASS & FAM ERF	1JUL85	
CC-B T/O PKG FOR 02 TURB GEN H2 SEAL OIL SYS (REMAINDER)	15JUL85	
GL T/O AUX BLDG HVAC SYS	15JUL85	
QC T/O YARD,ROADWAY & FENCE LIGHTING SY	15JUL85	
RC T/O TURB PLANT SAMPLING SYS	17JUL85	
CI T/O CONTAINMENT AIR PURIFY & CLEAN UP	24JUL85	
GG T/O FHB HVAC SYS	27JUL85	
GL T/O PLANT ENTRY & SECURITY BLDG HAVC	1AUG85	
KN-A T/O PKG FOR 01,02,03,06 HALON F,P,	1AUG85	
GB T/O AUX FW PUMPHOUSE HVAC SYS	5AUG85	
BM T/O STEAM GEN BLOWDOWN SYS	5AUG85	
GR T/O CREN CAVITY & RV SUPPORT COOLING	5AUG85	
LF T/O CONTROL BLDG DRAINS SYS	12AUG85	
MG T/O CTB & AB DRAINS RAB SYS	15AUG85	
LG T/O AUX BLDG & MISC DRAIN NCA RAB SY	15AUG85	
KE-A T/O PKG FOR 2,3,6,7 FH & RV SERVICING SYS	16AUG85	
AQ T/O PLANT SECURITY SYS	19AUG85	
LC T/O TURB BLDG DRAINS SYSTEM	21AUG85	
EC T/O SPENT FUEL POOL COOL & PURIFY SY	26AUG85	
KC-E T/O PKG FOR 07 FIRE PROT SYS	1SEP85	

8.25

1982R1 T/O SEQUENCE SCHEDULE

RUN DATE 6NOV84 PROJECT VEGPSU2 ORIG COMPL 1SEP85

DESCRIPTION	SCHEDULED T/O DATE	ACTUAL T/O DATE
AE-A T/O PKG FOR 01 MAIN TURBINE SYS (ELECTRICAL)	2SEP85	
CF-B T/O PKG FOR 02 EHC SYSTEM (REMAINDER)	1SEP85	
GJ T/O NUCLEAR SMPLING LIQ/GAS SYS	5SEP85	
LH T/O FHB & ELEC CHASE TUNNEL DRAINS S	13SEP85	
ME T/O BORON RECYCLE SYSTEM	19SEP85	
GA T/O TURB STEAM SEALS SYS	23SEP85	
AN-E T/O PKG FOR 07 DEMIN WATER	24SEP85	
SF T/O REACTOR CONTROL SYS	30SEP85	
AG-B T/O PKG FOR 04 AON 1-E 480V SWGR	10CT85	
SB T/O REACTOR PROTECTION SYS	40CT85	
AH-C T/O PKG FOR 03 AON 1-E 480V MCC SY	100CT85	
SC T/O REACTOR INSTRUMENTATION SYS	100CT85	
CC T/O TURB GEN GAS SYS	140CT85	
CE T/O PUBLIC OFFSITE COMMUNICATION SYS	210CT85	
GN T/O CONTAINMENT HEAT REMOVAL SYS	250CT85	
BF T/O WASTE EVAP STEAM SUPPLY SYS	1NOV85	
NB T/O MAIN GEN EXCITE & VOLT REG SYS	1NOV85	
NK-B T/O PKG FOR 04 125VDC SYS	1NOV85	
QA T/O NORMAL LIGHTING SYS	5NOV85	
SA T/O ESFAS SYSTEM	7NOV85	
QB T/O STANDBY LIGHTING (AC) SYS	11NOV85	
QC T/O STANDBY LIGHTING (DC) SYS	11NOV85	
MA T/O MAIN STEPUP/UAT SYS	15NOV85	
SG T/O SEISMIC INSTRUMENTATION	15NOV85	
RB T/O METEOROLOGICAL INSTRUMENTATION S	20NOV85	

8.26

NUCLEAR OP TIONS

Schedule A

1982R1 T/O SEQUENCE SCHEDULE

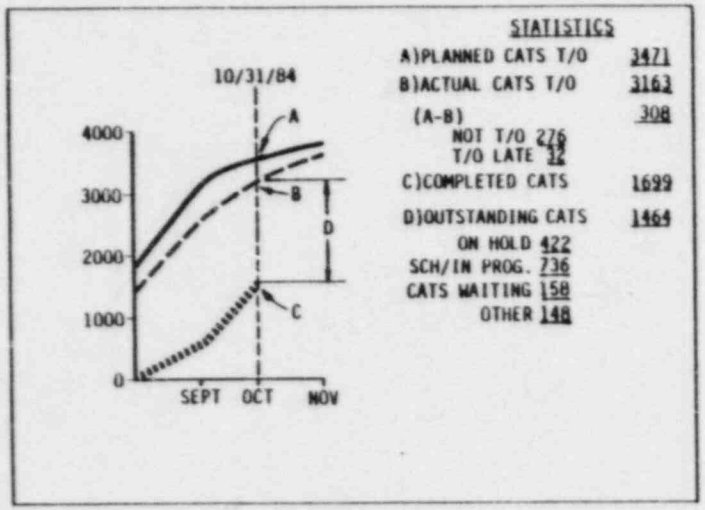
RUN DATE 6NOV84 — PROJECT VEGPSU2 — ORIG COMPL 1SEP86

DESCRIPTION	SCHEDULED T/O DATE	ACTUAL T/O DATE
KN-B T/O PKG FOR 05 HALON F.P.	1DEC85	
GQ T/O EQUIPMENT BLDG HVAC SYS	2DEC85	
GK T/O MISC LEAK DETECTION SYS	5DEC85	
GB T/O RAD MONITORING CAT	9DEC85	
AE-B T/O PKG FOR 02 MAIN TURBINE SYS (REMAINDER)	10DEC85	
KE-H T/O PKG FOR 15 FIRE PROT SYS	15DEC85	
GF T/O RADWASTE BLDG HVAC SYS	17DEC85	
HH T/O RAD WASTE SOLID POLYMER SYS	20DEC85	
HB T/O RESIN/CRUD XFER SYS	30DEC85	
HF T/O VOL RED SYS	2JAN86	
HM T/O RADWASTE SERVICES	2JAN86	
GS T/O CTB LOCA PURGE EXHAUST SYS	6JAN86	
LB T/O STORM DRAINS SYSTEM	13JAN86	
KE-F T/O PKG FOR 2.10 FIRE PROT SYS	15JAN86	
SE T/O NUETRON MONITORING SYS	20JAN86	
HJ T/O RAD WASTE SOLID CMT SYS	22JAN86	
SG T/O METAL IMPACT MONITORING SYS	24JAN86	
KE-B T/O PKG FOR 1.4.5 FH & RV SERVICING SYS	1FEB86	
LE T/O AUX BLDG FLO RETAIN RMS ALARM &	3FEB86	
LA T/O SANITARY DRAINS SYS	17FEB86	
KK-B T/O PKG FOR 03.04 PHASE II 230 KV SWITCHYARD	28FEB86	
CE T/O CONDENSER TUBE CLEANING SYS	3MAR86	

6000-BYE

8.27

INITIAL TEST PROGRAM CAT TEST SCHEDULE



STATISTICS

A)PLANNED CATS T/O	3471
B)ACTUAL CATS T/O	3163
(A-B)	308
NOT T/O 276	
T/O LATE 32	
C)COMPLETED CATS	1699
D)OUTSTANDING CATS	1464
ON HOLD 422	
SCH/IN PROG. 736	
CATS WAITING 158	
OTHER 148	

CUMULATIVE NUMBER OF TEST

60000
55000
50000
45000
40000
35000
30000
25000
20000
15000
10000
5000
0

MAY JUNE JULY AUG SEPT OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEPT OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEPT

1984 1985 1986

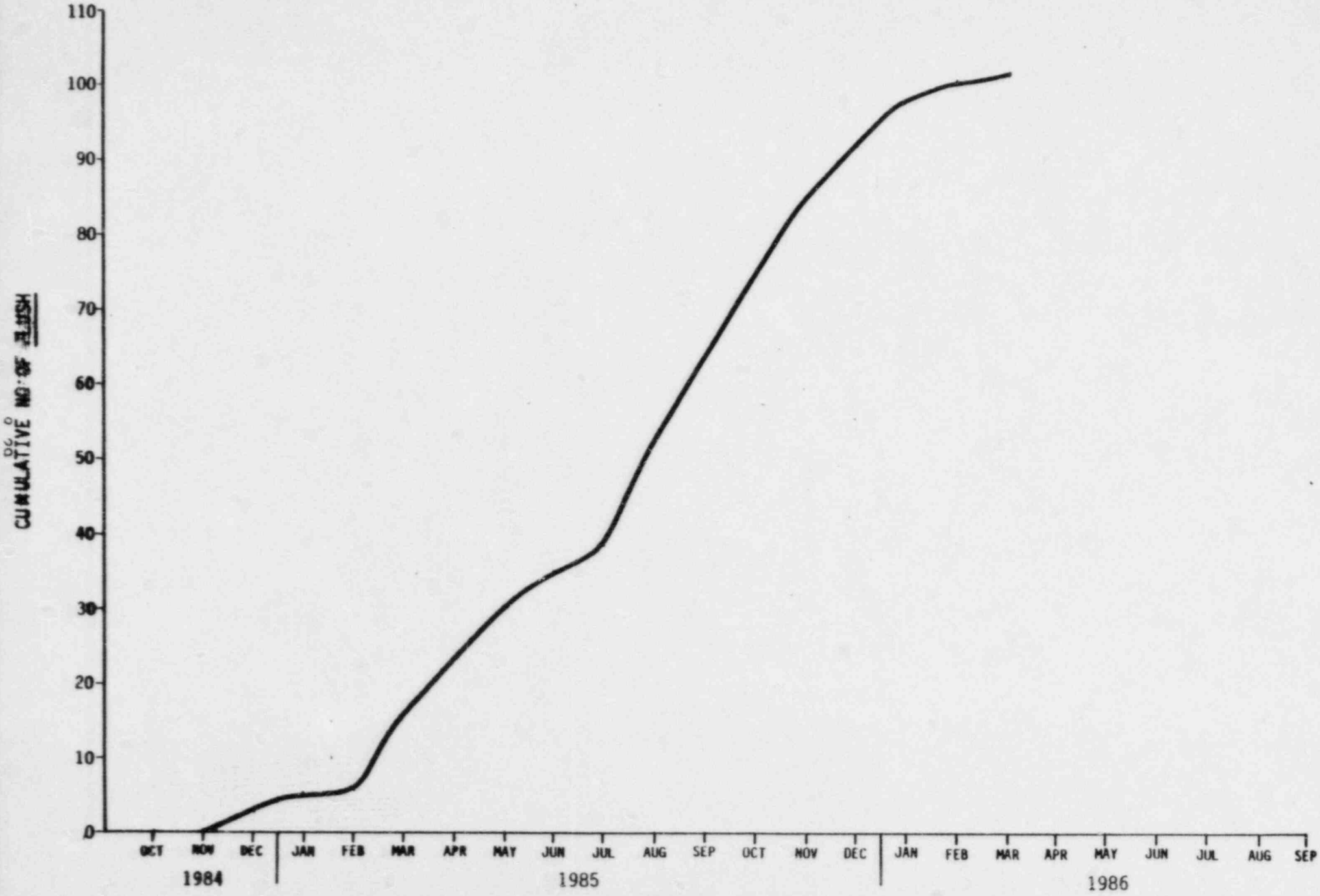
FUEL LOAD

LEGEND
PLANNED T/O
ACTUAL T/O
ACTUAL TESTS

8.28

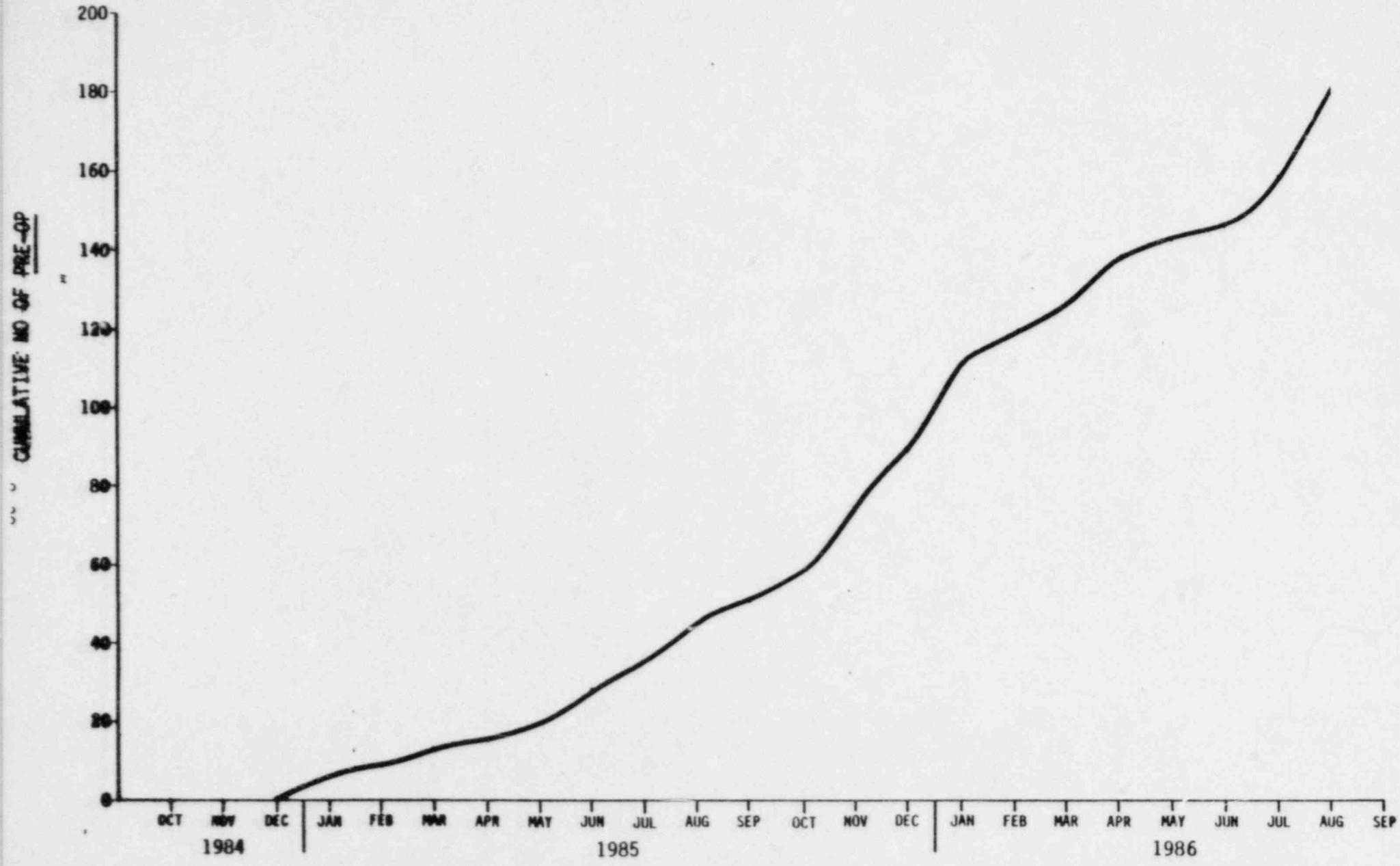
NUCLEAR O RATIONS

FLUSH PROGRAM



NUCLEAR OPERATIONS

PRE-OP JGRAM



STARTUP

ISSUE:

DESCRIPTION	STRATEGY	STATUS
1) Startup of Unit 2 schedule begins 18 months after Unit 1 schedule	- Agressive Training Program for plant staff	Sixty-five (65) engineers have completed a fourteen week Operations Technology Training class, which included 2 weeks of experience on the Vogtle simulator. Training for all is planned.
	- Assignment of staff to other plants for startup and operational experience	Over thirty (30) engineers have completed or are involved now in temporary assignments at other locations to provide background experience in nuclear plant support, startup, construction, operation, or refueling. These assignments range in duration from 3 months to 18 months. Plants involved include Hatch, Comanche Peak, Farley, San Onofre, Sequoyah. Other locations include Southern Company Services and GPC Nuclear Procurement.
	- Early assignment of startup systems to improve test engineer familiarity	Test Supervisors have received system assignments. Involvement began with input to system subscoping efforts and responsibilities in tracking system development.
	- Utilization of experienced contract personnel in development of startup and operational programs	Current assignments include: Westing house - 31 Bechtel - 29 Speer Consultants - 8 Advanced Technology - 9 General Physics - 19

9. LICENSING REQUIREMENTS

Questions: Detailed discussion of potential schedular influence due to change attributed to NUREG-0737 and other recent licensing requirements.

A. INTRODUCTION

Following, is a list, identifying the examples of significant licensing issues that have been addressed by the project since issuance of the construction permit. However, the project has had an extensive ongoing program to identify other issues, and implement design changes, when necessary, due to new and/or changing licensing and criteria requirements.

1. TMI (NUREG-0737)

ITEM NO.	DESCRIPTION
I.D.1	Control Room Design Review
I.D.2	Plant Safety Parameter Display System
II.B.1	RCS Vents
II.B.2	Plant Shielding
II.B.3	Post-Accident Sampling
II.D.3	Valve Position Indication
II.E.1.1	Auxiliary Feedwater (AFW) System Reliability Evaluation
II.E.1.2	Auxiliary Feedwater System Initiation and Flow
II.E.3.1	Emergency Power Pressurizer Heaters
II.E.4.2	Containment Isolation Dependability
II.F.1	Additional Accident Monitoring Instrumentation
II.F.2	Instrumentation for Detection of Inadequate Core Cooling
II.G.1	Emergency Power for Pressurizer Equipment
III.A.1.2	Upgrade Emergency Support Facilities
III.D.3.4	Control Room Habitability Requirements

2. Fire Protection Review (10 CFR 10 Appendix R)

3. ATWS

4. Steam Generator Overfill

5. Auxiliary Component Cooling Water System Instrumentation

6. Boron Dilution at Shutdown

7. Charging Pump Miniflow

8. Reference Leg Heatup

9. LICENSING REQUIREMENTS

B. GENERIC ISSUES

DESCRIPTION OF ISSUE	RESPONSE	CURRENT STATUS
1. TMI (NUREG-0737) General		

GPC will be taking an integrated approach to the implementation of emergency response facilities. (TMI items. I.D.1, I.D.2 and III.A.1.2). The development of safety parameter display system (PSDS) and emergency operating procedures (EOPs), the implementation of a control room design review (CRDR), and the creation of the technical support center (TSC) and emergency operating facility (EOF) are interrelated and are being carried out concurrently. Provisions for these features are now incorporated into the plant design. After the integrated approach is verified, the results will be validated on the VEGP simulator. This will be an iterative process where refinements to the program can be investigated without disrupting plant operations.

NUREG-0737 ITEM NO.		
I.D.1 Control Room Design Review	Conduct a human factor engineering review of the control room complex.	A preliminary control room design review was performed in 1980 by General Physics Corp. The review was performed in accordance with NUREG/CR-1580 using a mock-up of the main control board. A description of the control room and the preliminary control room design review is provided in FSAR Chapter 18. The "Program Plan for Implementation of Control Room Design Review" was submitted to the NRC on Sept. 14, 1984. A summary report outlining any proposed changes will be submitted 6 months prior to fuel load.

9. LICENSING REQUIREMENTS

B. GENERIC ISSUES

DESCRIPTION OF ISSUE	RESPONSE	CURRENT STATUS
NUREG-0737 ITEM NO.		
I.D.2 Plant Safety Parameter Display System	Provide a human factored system for monitoring safety parameters which allows control room personnel to readily assess plant safety status.	The safety parameter display system (SPDS) being designed for Plant Vogtle will utilize a computer system with CRT displays that are separate from the plant process computer system. The system will display information from which the plant operators can readily access the plant safety status. The specific design of the displays will incorporate the experience gained from the development of Westinghouse Generic Emergency Procedure Guidelines by providing the information required to assess the status of the critical safety functions associated with the plant. The design and implementation of the SPDS, including operator training, will be completed prior to fuel load. The safety analysis which describes the basis for parameter selection and the verification and validation program will be submitted for staff review approximately one year prior to fuel load. A description of the SPDS system is provided in FSAR Section 9.5.10.

9. LICENSING REQUIREMENTS

B. GENERIC ISSUES

DESCRIPTION OF ISSUE	RESPONSE	CURRENT STATUS
NUREG-0737 ITEM NO.		
II.B.1 RCS Vents	Provide reactor coolant system high point vents.	Reactor coolant system (RCS) head vent and letdown has been added to the design as part of the cold shutdown design modification. The system is designed to remove noncondensable gases or steam from the RCS using safety-grade equipment. A description of this system is provided in FSAR section 5.4.15.
NUREG-0737 ITEM NO.		
II.B.2 Plant Shielding	Review the plant shielding design to allow personnel access as necessary and to preclude degradation of safety-related equipment.	Normal and post-accident radiation zone maps have been generated and are provided in FSAR Section 12.3.1. The adequacy of plant shielding continues to be evaluated to ensure equipment is qualified for its environment, and to ensure that plant areas which may require occupancy to mitigate the consequences of an accident are accessible.

9. LICENSING REQUIREMENTS

B. GENERIC ISSUES

DESCRIPTION OF ISSUE	RESPONSE	CURRENT STATUS
NUREG-0737 ITEM NO. II.B.3 Post-Accident Sampling	Provide a post-accident sampling system (PASS) which allows personnel to promptly obtain samples under accident conditions without radiation exposures to any individuals exceeding the criteria of GDC-19.	The design for PASS has been finalized and includes an in-line system with grab sample capability. The design provides the sample points and analyses described in NUREG-0737 and Regulatory Guide 1.97. The physical design of the fuel handling building, including supporting systems, has been modified to accommodate a backfit of the PASS equipment. The PASS is scheduled for delivery in the first quarter of 1985 with system turnover scheduled for 7/1/85.
NUREG-0737 ITEM NO. II.D.3 Valve Position Indication	Provide valve position indication for reactor coolant system safety and relief valves.	The reactor coolant system (RCS) power-operated relief valves are solenoid-operated valves provide direct position indication. The RCS safety valves are being modified to incorporate reed switches which will provide direct indication of the safety valve operating stem. This modification is included in included in the RG 1.97 Emergency Response Facility modification being designed by Westinghouse.

9. LICENSING REQUIREMENTS

B. GENERIC ISSUES

NUREG-0737 ITEM NO.	DESCRIPTION OF ISSUE	RESPONSE	CURRENT STATUS
II.E.1.1	Auxiliary Feedwater (AFW) System Reliability Evaluation	Evaluate the reliability of thw AFW system.	The AFW system reliability evaluation has been completed and is provided in FSAR Appendix 10A. The results of the reliability evaluation indicates that the VEGP AFW system compares favorably with the AFW systems of other NTOL plants.

9. LICENSING REQUIREMENTS

B. GENERIC ISSUES

DESCRIPTION OF ISSUE	RESPONSE	CURRENT STATUS
NUREG-0737 ITEM NO.		
II.E.1.2 Auxiliary Feedwater System Initiation and Flow	Provide automatic initiation and safety grade flow indication for the auxiliary feedwater (AFW) system.	The AFW system is automatically initiated upon receipt of the following signals: - Motor-Driven Pumps • Safety injection signal • Low-low water level in any one steam generator • Trip of both main feedwater pumps • Loss of offsite power - Turbine-Driven Pump • Low-low water level in any two steam generators • Loss of offsite power Safety-grade AFW flow indication and steam generator water level is provided. A description of the AFW system is provided in FSAR Section 10.4.9.

9. LICENSING REQUIREMENTS

B. GENERIC ISSUES

DESCRIPTION OF ISSUE	RESPONSE	CURRENT STATUS
NUREG-0737 ITEM NO.		
II.E.3.1 Emergency Power for Pressurizer Heaters	The pressurizer heaters shall have access to emergency power sources.	Two groups of pressurizer backup heaters can be administratively loaded onto Class 1E emergency diesel generator backed buses. Each heater group has sufficient capacity to maintain subcooled conditions in the RCS during natural circulation. Design details are provided in FSAR Section 5.4.10.
NUREG-0737, ITEM NO.		
II.E.4.2 Containment Isolation Dependability	Provide a containment isolation design which limits the release of radiation following an accident while allowing the passage of emergency fluids through the containment boundary.	Containment penetrations have been classified as either essential or nonessential. Nonessential lines are designed to automatically isolate. Diversity in the parameters sensed for initiation of containment isolation is used. Ganged reopening of containment isolation valves is not possible. Design details are provided in FSAR Section 6.2.4.

9. LICENSING REQUIREMENTS

B. GENERIC ISSUES

DESCRIPTION OF ISSUE	RESPONSE	CURRENT STATUS
NUREG-0737, ITEM NO.		
II.F.1 Additional Accident Monitoring Instrumentation	Provide additional post-accident monitoring instrumentation for evaluating plant safety.	Radiation monitors, containment pressure monitors, containment water level instruments, and containment hydrogen monitors have been provided to meet the guidelines of Regulatory Guide 1.97, Revision 2. Design details are provided in FSAR Sections 6.2.5, 7.5, and 11.5.
NUREG-0737, ITEM NO.		
II.F.2 Instrumentation for Detection of Inadequate Core Cooling	Provide an unambiguous, easy-to-interpret indication of inadequate core cooling.	The Westinghouse-designed core subcooling monitor and reactor vessel water level instrumentation has been included in the design. These systems are statused on the PSMS. A description of PSMS will be provided in Appendix 4A.
NUREG-0737 ITEM NO.		
II.G.1 Emergency Power for Pressurizer Equipment	Emergency power is to be provided for the pressurizer PORVs, block valves, and level instrumentation.	The pressurizer power-operated relief valves and block valves are powered from Class 1E buses. Selected pressurizer level transmitters are provided with Class 1E power. Design details are provided in FSAR Section 5.4.11.

9. LICENSING REQUIREMENTS

B. GENERIC ISSUES

NUREG-0737 ITEM NO.	DESCRIPTION OF ISSUE	RESPONSE	CURRENT STATUS
III.A.1.2	Upgrade Emergency Support Facilities	Provide facilities and systems which will improve the emergency response to accidents.	The design will include a technical support center (TSC), operational support center (OSC), and an emergency operations facility (EOF). The guidance provided in NUREG-0696 and NUREG-0737, Supplement 1, is being utilized in the design. The TSC is being included in the control building adjacent to the control room. The OSC will be located in the service building. The EOF will be located in the simulator building. Provisions for a nuclear data link are available, but the scope remains undefined by the NRC. Design details are provided in FSAR Section 9.5.10.
III.D.3.4	Control Room Habitability Requirements	Assure the control room is designed to protect the operators against the effects of radioactive and toxic gases.	The control room habitability system has been designed in accordance with GDC-19. In accordance with NRC guidelines, sufficient information has been provided in FSAR Sections 2.2, 6.4, and 9.4 to allow the NRC to perform an independent evaluation of the habitability system.

9. LICENSING REQUIREMENTS

B. GENERIC ISSUES

DESCRIPTION OF ISSUE	RESPONSE	CURRENT STATUS
2. Fire Protection Review (10 CFR 50, Appendix R)	Provide assurance that the plant can reach and maintain safe shutdown after a fire and that a fire does not significantly increase the risk of radioactive releases to the environment.	A detailed review of the Vogtle design is being conducted against CMEB 9.5-1 which encompasses the functional requirements of Appendix R to ensure that the plant can reach and maintain safe shutdown after a fire and to ensure that a fire does not significantly increase the risk of radioactive releases to the environment. A schedule of the review has been prepared. Work is proceeding on schedule and will be completed prior to required submittal dates so as to not impact project schedule.
3. Anticipated Transient Without Scram	Assure that anticipated plant transients will, as necessary, result in a plant trip.	A final decision on ATWS by the Westinghouse Owner's Group is not expected until 1984. The NRC is reviewing comments on alternatives for an ATWS rule. The Westinghouse auto shunt trip for reactor trip shunt breakers has been purchased by the VEGP and is presently being incorporated in the design.

9. LICENSING REQUIREMENTS

B. GENERIC ISSUES

DESCRIPTION OF ISSUE	RESPONSE	CURRENT STATUS
4. Steam Generator Overfill	Ensure that a feedwater control system malfunction will not result in steam generator overfill and damage to the main steam lines.	Westinghouse has been requested to modify the feedwater control system to provide high steam generator water level logic which meets the design standards appropriate for feedwater isolation. The modification will be accomplished as a field kit and does not impact project schedules.
5. Auxiliary Component Cooling Water (ACCW) Instrumentation	Provide safety-grade indication of a loss of ACCW to the reactor coolant pumps.	The design will incorporate safety grade flow instruments to monitor ACCW flow, with indication and alarm in the control room.
6. Boron Dilution at Shutdown	Ensure that an inadvertent boron dilution will not cause an unwanted increase in reactivity and a decrease in shutdown margin.	Additional boron dilution analyses are in progress to define credible boron dilution scenarios and demonstrate that 15 minutes is available for the operator to take corrective action.

9. LICENSING REQUIREMENTS

B. GENERIC ISSUES

DESCRIPTION OF ISSUE	RESPONSE	CURRENT STATUS
7. Charging Pump Miniflow	Ensure that adequate centrifugal charging pump miniflow is maintained following selected secondary system piping failures or spurious safety injection actuation.	An alternate miniflow line has been provided for each centrifugal charging pump to ensure a minimum of 60 gpm flow through each pump. The path is normally isolated and is opened on as safety injection signal. Implementation of this design change has been completed.
8. Reference Leg Heatup	Ensure that liquid level measuring systems within containment used to initiate safety actions will intiate the action required by the safety analyses throughout the range of accident temperatures encountered.	Level instrument reference legs are to be insulated and the appropriate setpoints adjusted to compensate for bias induced by ambient temperature effects. An analysis to determine the proper reference leg setpoints will be completed the first calendar quarter of 1985 as part of our evaluation of IE Bulletin 79-21.

10. 10 CFR 50.55

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

A. INTRODUCTION

The scheduling impact for each of the following 10 CFR 50.55(e) concerns is addressed:

	FILE NO.	DER NO.	DESCRIPTION
1.	X7BG03-M52	DER-041	Quality of Welds and Radiographs
2.	X7BG03-M59	DER-054	Diesel Generator Bearing Lubrication
3.	X7BG03-M62	DER-062	Quality Concerns Involving Erroneous PT Records
4.	X7BG03-M67	DER-063	Reliance Electric Junction Boxes-Field Mounted Configuration
5.	X7BG03-M68	DER-068	Missing Radius on Coped Structural Steel Members
6.	X7BG03-M69	-	Limitorque Operator-Unqualified Motor

10. 10 CFR 50.55(e)

B. REPORTABLE CONDITIONS/STATUS

DESCRIPTION OF CONDITION	CURRENT STATUS
1. QUALILTY OF WELDS AND RADIOGRAPHS When reviewing the radiographs received from vendors, it was noted by GPC inspection personnel that various specifications and code requirements were not met.	Vendor meeting have been held at the site to resolve this concern. At this time, only one vendor meeting remains. Action items resulting from this meeting should not impact the project schedule.
2. DIESEL GENERATOR BEARING LUBRICATION Transamerica Delaval reported a Part 10 CFR 21 to the NRC concerning bearing lubrication involving the turbocharger lubrication system.	A generic corrective fix cannot be developed by Transamerica Delaval (TDI). All corrective action is site-specific. Bechtel has contacted TDI to obtain a recommended corrective action. This corrrective action should not impact project schedules.
3. QUALITY CONCERNS INVOLVING ERRONEOUS PT RECORDS An individual working for Pullman was suspected of not properly performing his PT inspections. In fact, the individual may have submitted erroneous records and reports	The weld examination performed by this individual have been reviewed by other QC inspection personnel. At this time, only minor discrepancies appear to exist. This item should not impact the project schedule.

10. 10 CFR 50.55(e)

B. REPORTABLE CONDITIONS/STATUS

DESCRIPTION OF CONDITION	CURRENT STATUS
4. RELIANCE ELECTRIC JUNCTION BOXES-FIELD MOUNTING CONFIGURATION Class 1E Reliance Electric junction boxes were seismcally qualified using bolted connections to a rigid structure at the junction box mounting tabs. The field installation drawing allows mounting using either bolted connections at the junction box interior or at the mounting tabs. Additionally, junction boxes may have been mounted to non-rigid supports.	A field walkdown has been conducted. Six junction box support configurations were identified. These configurations are being evaluated to assure seismic requirements are being met. Additionally, Bechtel's analysis indicated there will not be problems relating to the bolting. The corrective action for this item should not impact the schedule.
5. MISSING RADIUS ON COPED STRUCTURAL STEEL MEMBERS A deviation report (MD-07389) reported that structural steel members did not have a radius in an angle; the angle was square cut. This causes potential stress risers to be placed in the members and could lead to crack initiation.	A plant walkdown is being conducted to determine the locations where this concern exists. A detailed inspection document has been prepared with inspections scheduled to begin around December 1, 1984.
6. LIMITORQUE OPERATOR-UNQUALIFIED MOTOR Westinghouse reported that the motor used in the motor-operated valves in the charging pump auxiliary miniflow isolation line did not have qualification documentation. Failure of the valves to function in the event of a steamline or feedline break could have resulted in a failure of the charging pumps.	Westinghouse has ordered qualified motors with the proper documentation. The existing motors will not be used since their qualification documentation is missing.

11. CONSTRUCTION/STARTUP INTERFACE

Question: Overview of current construction startup management organization showing interface between the two.

Introduction: The project matrix organization is utilized to enhance the interfaces between Engineering, Construction and Nuclear Operations.

The attached organization chart displays the interfaces between the different functional organizations.

The Systems Completion Manager provides the necessary day-to-day project direction to the Construction Completion Manager, Project Engineer - Startup, Initial Test Manager and the System Completion Scheduler. Functional direction for the Construction Completion Manager, Initial Test Manager, Project Engineer - Startup, and System Completion Scheduler is received from the manager of each respective functional organization.

The Systems Completion Manager reports to the Deputy Project General Manager for project and functional direction.

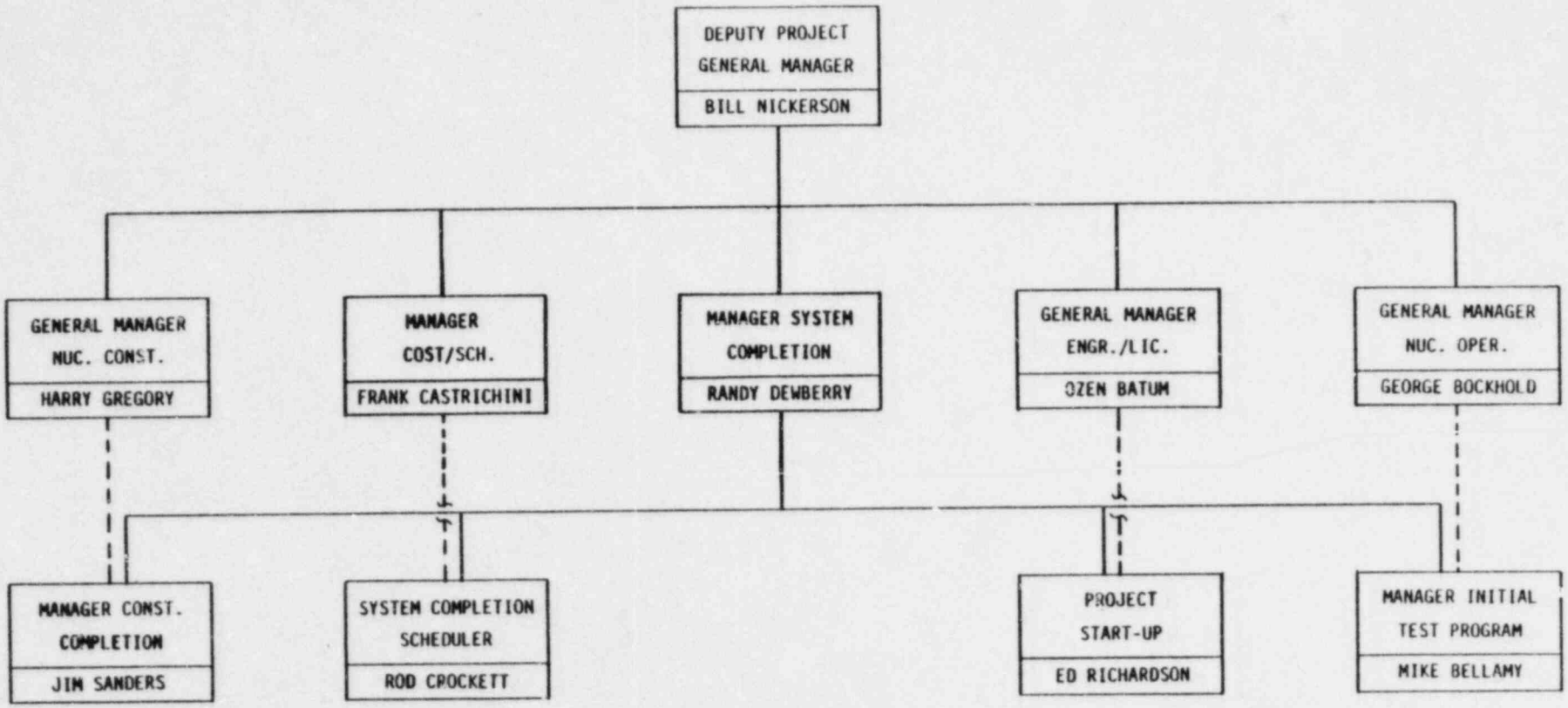
The project's Startup Manual provides for the functional interface between the different functional organizations.

It is expected, as the project progresses toward its milestones, that additional organization enhancements will occur to assure fulfillment of the project's objectives.

The system completion organization provides interfaces primarily in the following functional areas:

- Engineering (Before and After Turnover)
- Construction Completion (Before and After Turnover)
- Flushing
- Maintenance Activities (Repairs and Preventive Maintenance)
- Design Changes (After Design Freeze)
- Scoping

VOGTLE PROJECT ORGANIZATION
SYSTEM COMPLETION



10/18/84

VOGTLE ELECTRIC GENERATING PLANT
NRC CASELOAD FORECAST

12. SITE TOUR

Question: Site tour and observation of construction activities.

A tour of site facilities will be hosted by Mr. Harry Gregory (General Manager Nuclear Construction) and Mr. Jim Bailey (Vogtle Project Licensing Manager).

CONSTRUCTION PROGRESS SUMMARY
BACKUP CALCULATION SHEET
MONTH ENDING 10/21/84
SAMPLE

UNIT 1 % COMPLETE	MANHOURS	WTD FACTOR		% COMPLETE		WTD % COMPLETE
Directs	24,469,630	.7226	X	69.78	=	50.43
Indirects	7.551,520	.2230	X	80.17	=	17.88
Subcontracts	1,838,447	.0543	X	87.71	=	4.76
TOTAL	**33,859,597**	**1.0000**				**73.07**

UNIT 2 % COMPLETE	MANHOURS	WTD FACTOR		% COMPLETE		WTD % COMPLETE
Directs	18,864,616	.7145	X	38.28	=	27.29
Indirects	5,821,103	.2205	X	56.38	=	12.43
Subcontracts	1,718,434	.0650	X	79.34	=	5.16
TOTAL	**26,404,153**	**1.0000**				**44.88**

TOTAL % COMPLETE	MANHOURS	WTD FACTOR		% COMPLETE		WTD % COMPLETE
Unit 1	33,859,597	.5619	X	73.07	=	41.06
Unit 2	26,404,153	.4381	X	44.88	=	19.66
TOTAL	**60,263,750**	**1.0000**				**60.72**

Month Ending 10/84

UNIT 1 & COMMON
SUB CONTRACTS PROGRESS REPORT

CONTRACTOR/ITEM	WTD FACTOR	% COMPLETE	WTD % COMPLETE
JTD INCL Manhattan/Walton	.282	100	.2820
VSL - Post Tensioning	.048	70	.0336
Warehouse & Receiving	.023	100	.0230
Administration Bldg.	.013	100	.0130
Service Building	.047	100	.0470
Simulator Building	.015	100	.0150
Maintenance Building	.030	100	.0300
Plant Entry & Security	.006	41	.0025
Ingalls T. B. Steel	.037	100	.0370
CB & I Containment Liner Plate	.036	100	.0360
CB & I Refuel Canal Liner	.006	100	.0060
CB & I Spent Fuel Pool Liner	.018	100	.0180
Water Treatment	.007	85	.0060
Turbine Bldg. Siding	.016	100	.0160
R. C. Natural Draft C. T.	.237	90	.2133
North Wall Waterproofing	.004	100	.0040
Sprinkler Deluge Fire Protection All Bldg.	.016	16	.0026
Yard Arch. & Roof Phase I & II	.003	50	.0015
Public Phones	.001	52	.0005
Minor Yard Bldg.	.006	72	.0043
Temp. Const. Services	.041	81	.0332
Penetration & Seals	.024	45	.0108
Site Improvements	.009		
Core Drilling	.037	55	.0204
Pond & Canal Earthwork	.007		
Elevators - All Bldgs.	.009	39	.0035
Main Power Transformer	.003	100	.0030
Reserve Aux. Transformer	.003	100	.0030
Aux. Transformer	.001	100	.0010
Security Light	.003		
Fire Detect & Alarm System	.001		
Demineralizer Storage Tank	.003	95	.0029
Fire Protection Tank	.001	95	.0010
Diesel Gen. Storage Tank	.006	100	.0060
Main Turbine Lube Oil T/C	.001	100	.0010
TOTAL	1.000	Total % Complete	27.71

PRELIMINARY

Month Ending 10/84

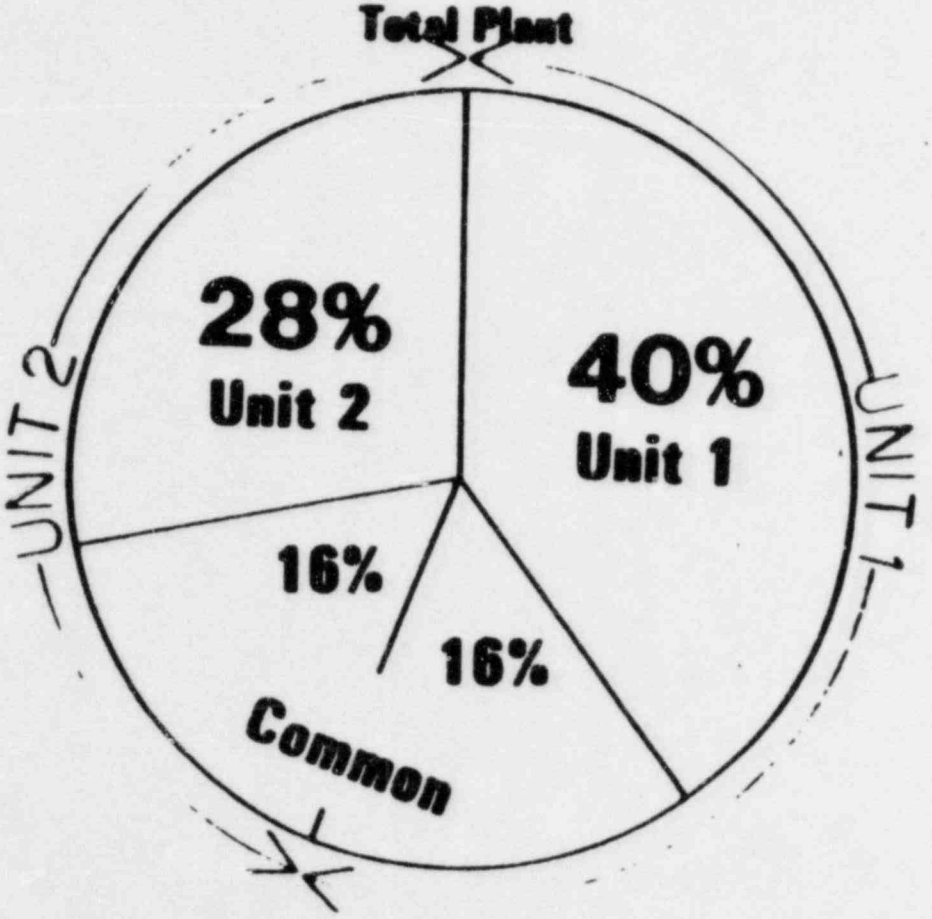
UNIT 2 & COMMON
SUB CONTRACTS PROGRESS REPORT

CONTRACTOR/ITEM	WTD FACTOR	% COMPLETE	WTD % COMPLETE
JTD	.032	100	.0320
VSL - Post Tensioning	.053	49	.0260
Ingalls - T. B. Steel	.061	100	.0610
CB & I Containment Liner Plate	.055	100	.0550
CB & I Refueling Canal Liner	.006	90	.0054
Turb. Bldg. Siding & Roof	.017	100	.0170
R. C. Nat. Draft C. T.	.259	55	.1425
Relocate Makeup Well	.003	100	.0030
Nuc Yd. Roof & Other	.002		
Pent & Seals	.021		
Fire Pro Sprinkler	.015	2	.0003
Elevator All Bldgs.	.004	43	.0017
Main Power Trans	.002		
Res. Aux. Trans	.003		
Aux. Trans	.002		
Core Drilling	.013	28	.0036
Fire Detention & Alarm Sys.	.001		
Drain Receiver Tanks	.001	100	.0010
D/G Fuel Tanks	.005	100	.0050
Manhattan/Walton	.301	100	.3010
Warehouse	.025	99	.0248
Admin. Bldg.	.014	100	.0140
Service Bldg.	.050	99	.0495
Simulator Bldg.	.017	100	.0170
Maintenance Bldg.	.032	100	.0320
Plant Entry & Security	.006	27	.0016

79.34

PRELIMINARY

Vogtle Electric Generating Plant



PERCENT COMPLETE CALCULATION

(BASED ON PHYSICAL PROGRESS)

THREE CATEGORIES:

I. DIRECT CRAFT LABOR

- EARNED MANHOURS (PHYSICAL PROGRESS)
  BUDGET UNIT RATE X ACTUAL QUANTITIES INSTALLED

- 10% OF PIPING ASSOCIATED MANHOURS ARE HELD BACK TO BE ALLOCATED AT HYDRO AND TURNOVER

II. SPECIALTY CONTRACTS

- PHYSICAL PERCENT COMPLETE AS VERIFIED BY GEORGIA POWER COMPANY

III. INDIRECT MANHOURS

- RATIOED, ALLOCATED BASED ON THE ABOVE

- SCOPE, PHYSICALLY PROGRESSED

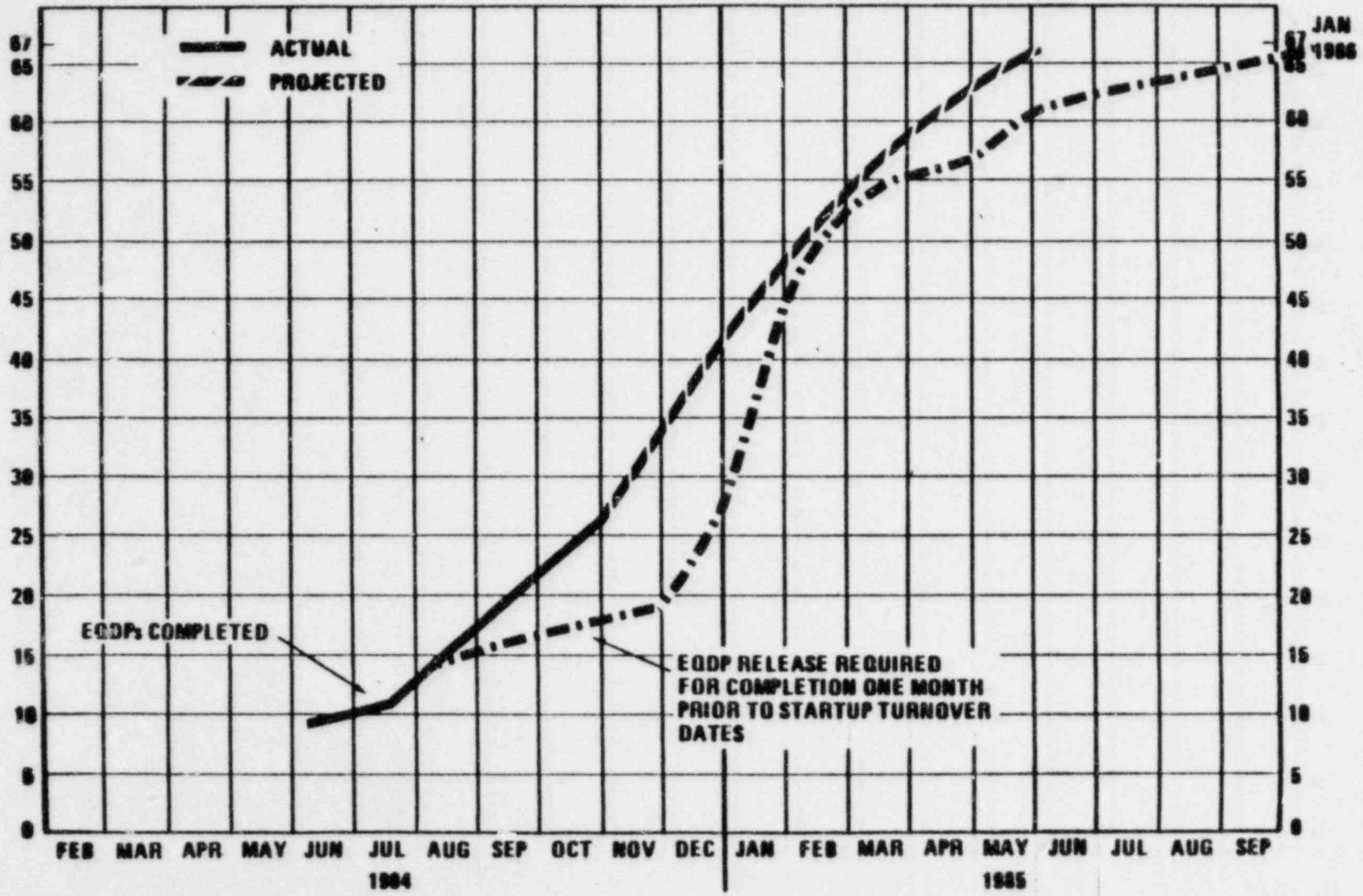
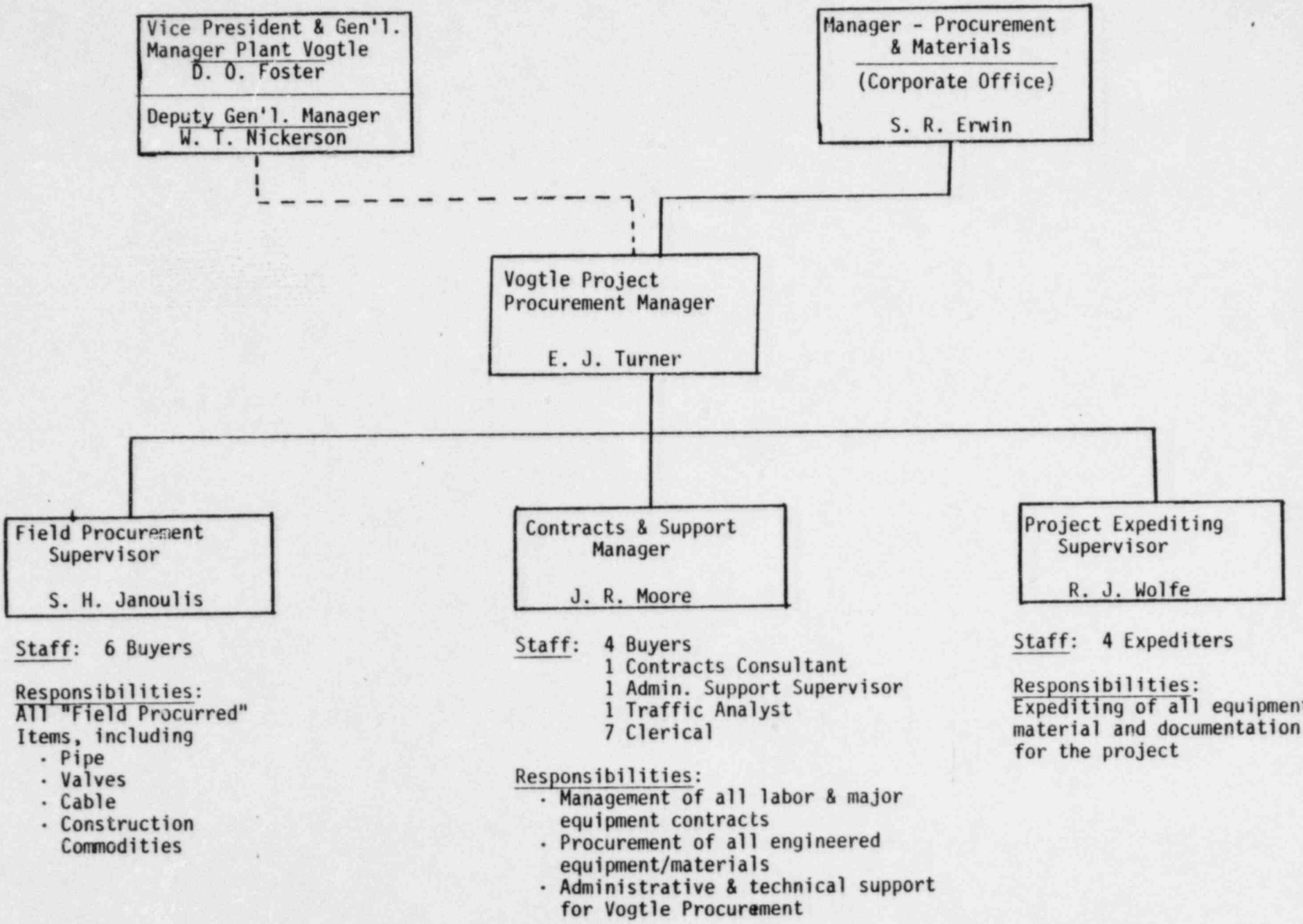


FIGURE 2 - EQUIPMENT QUALIFICATION DATA PACKAGE (EQDP) STATUS

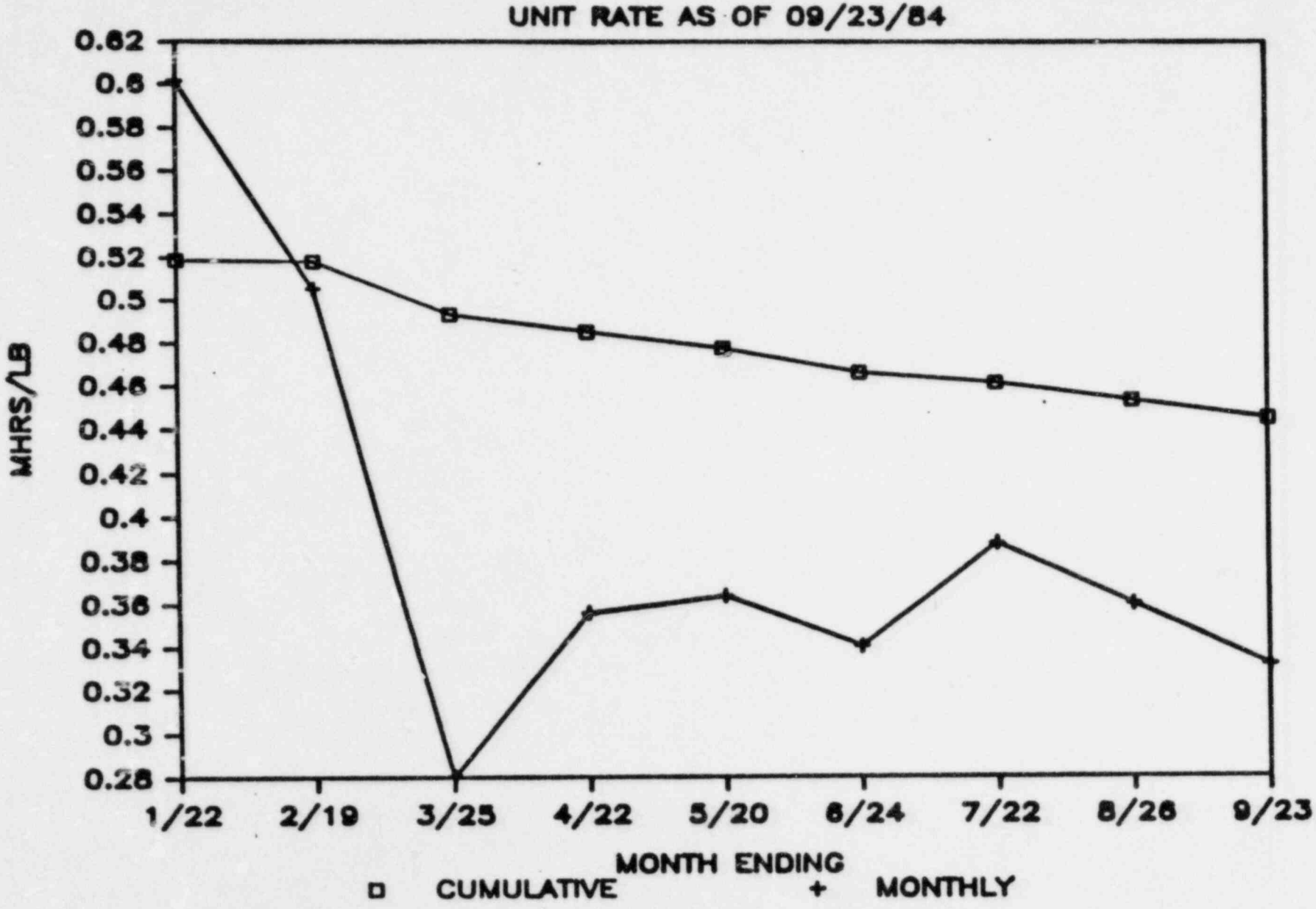

Vice President & Gen'l. Manager Plant Vogtle
D. O. Foster
Deputy Gen'l. Manager
W. T. Nickerson
Manager - Procurement & Materials
(Corporate Office)
S. R. Erwin
Vogtle Project Procurement Manager
E. J. Turner
Field Procurement Supervisor
S. H. Janoulis
Staff: 6 Buyers
Responsibilities:
All "Field Procurred" Items, including
· Pipe
· Valves
· Cable
· Construction Commodities
Contracts & Support Manager
J. R. Moore
Staff: 4 Buyers
1 Contracts Consultant
1 Admin. Support Supervisor
1 Traffic Analyst
7 Clerical
Responsibilities:
· Management of all labor & major equipment contracts
· Procurement of all engineered equipment/materials
· Administrative & technical support for Vogtle Procurement
Project Expediting Supervisor
R. J. Wolfe
Staff: 4 Expediters
Responsibilities:
Expediting of all equipment, material and documentation for the project

SCOPE

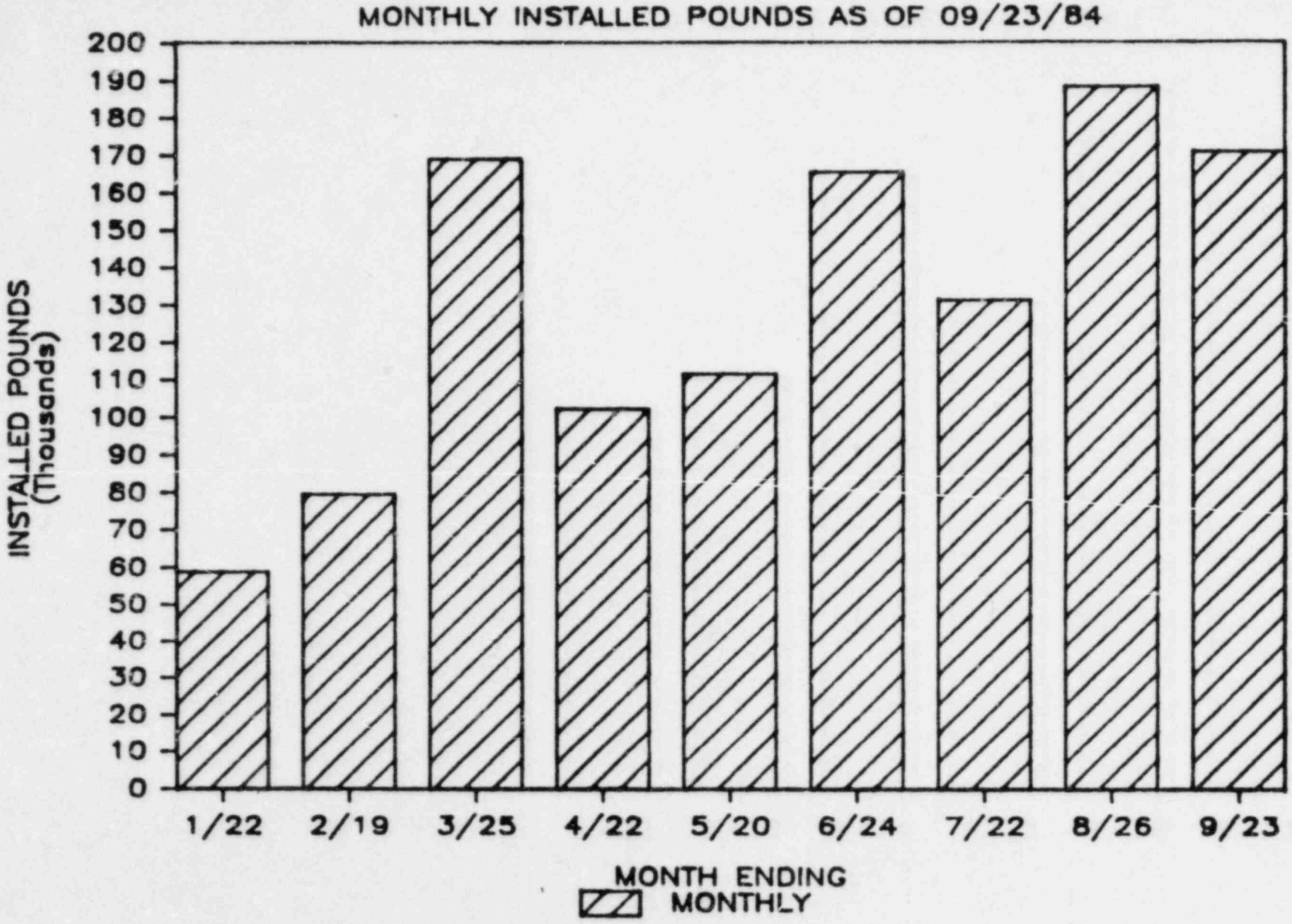
ASME Section III, Division 1 activities for the Vogtle Electric Generating Plant (VEGP) are shared among the following organizations:

- Bechtel Power Corporation (BPC), Los Angeles Power Division (LAPD), "N" Certificate Holder, Nuclear Auxiliary Systems as defined in AX4DR006.
- Westinghouse Electric Corporation, Nuclear Technology Division (NTD), "N" Certificate Holder, Nuclear Primary Loop and as defined in AX4DR006.
- Pullman Power Products (PPP), "NA" and "NPT" Certificate Holder, Installer.
- Georgia Power Company (GPC), Owner's Certificate of Authorization.
- Georgia Power Company, Material Supplier (MS) Activities, Site Quality Assurance, Site Document Control Services, and Installation Activities.
- Hartford Steam Boiler Inspection and Insurance Company (HSBI&IC), Authorized Nuclear Inspection Agency.
- Nuclear Service Installation Service Company (NISCO) "NA" "NPT" Certificate Holder.
- Chicago Bridge and Iron (CBI) "NA" and "NPT" Certificate Holder.

HVAC PRODUCTIVITY — TOTAL PROJECT



HVAC PRODUCTION — TOTAL PROJECT



HVAC

CONSTRUCTABILITY

DESIGN AVAILABLE

ENGINEERS ON THE HILL

CONSOLIDATION - FPFE

HVAC

SCHEDULE

STRENGTHENED EXISTING SCHEDULES

COMBINED CONTRACTORS INPUT

DIRECTIONS FOR ENGINEERING

MATERIAL - SHOP EXPEDITOR

HVAC

WORK LEVEL

PROCEDURES

TURNOVERS

TOOLS, SCAFFOLD

HVAC

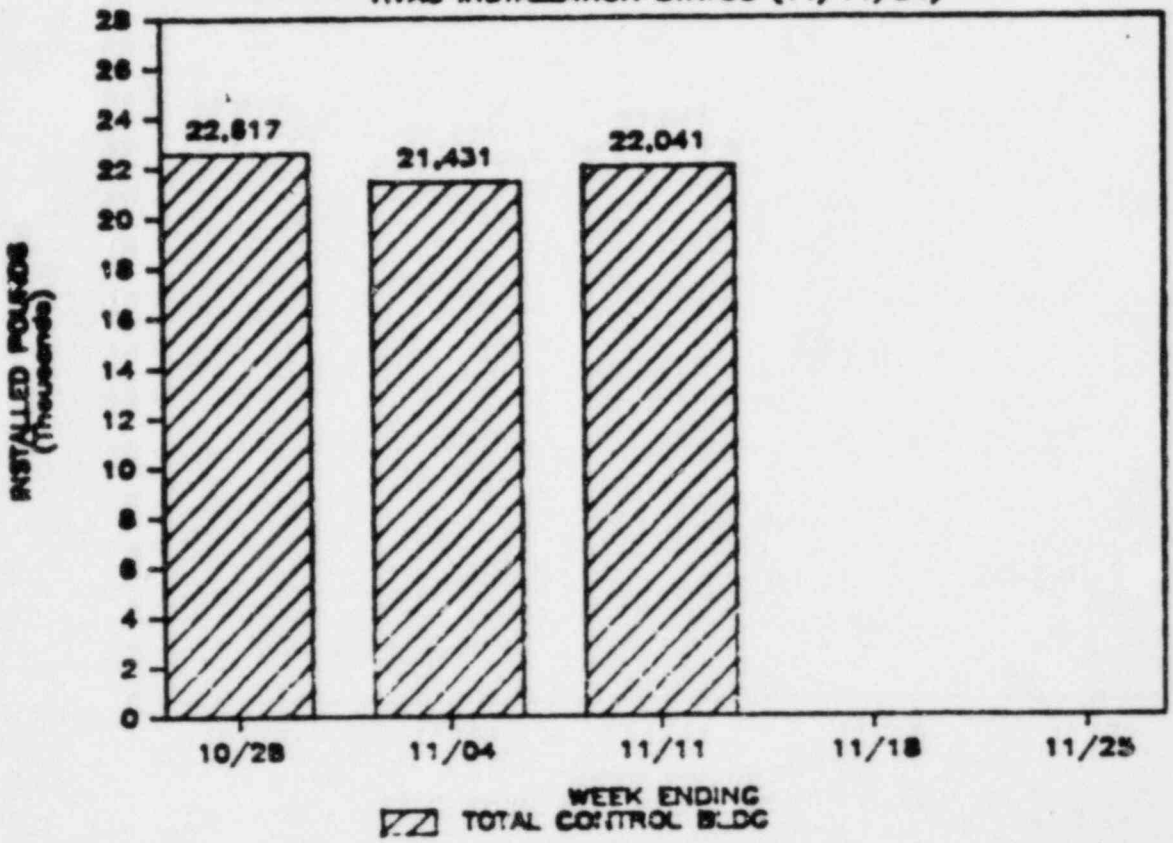
PROBLEM VISIBILITY

FIELD FEEDBACK

WEEKLY MEETINGS

CONTROL BUILDING

HVAC INSTALLATION STATUS (11/11/84)



UNIT RATE W/E 11/04/84	SIX WEEK AVG. UNIT RATE	SHEETMETAL WORKERS
0.38	0.38	212

Zero Defect Leak Test Boundary Completion Status

Through 11/11/84

Sub System	Total	QC List	Field Work	Inspection	Leak Test	Hard-ware	Instruments	T/O Ready	
GX-01	25	12	1	1	0	0	0	0	
GX-06	10	0	0	0	0	0	0	0	
GX-08	8	0	0	0	0	0	0	0	

- APPROACH - Focus On System Completion

  - CONSTRUCTABILITY

    - Cook Books, Bracing Packages, etc. implemented
    - Restraints identified in weekly mtgs, walkdowns
    - Zero - Awareness
    - No new areas of pre-engineering identified

  - SCHEDULE

    - Identify "right" work - Scope
    - Engineering status (Don Kinnsch)

  - PLANNING

    - Preplan and pre-engineer Work Package
    - Accountability of Goals (craft involvement)

  - PROBLEMS

    - Analyze results
    - Work methods
      - Elimination of craft specialization
      - Modified Equipment Storage Methods

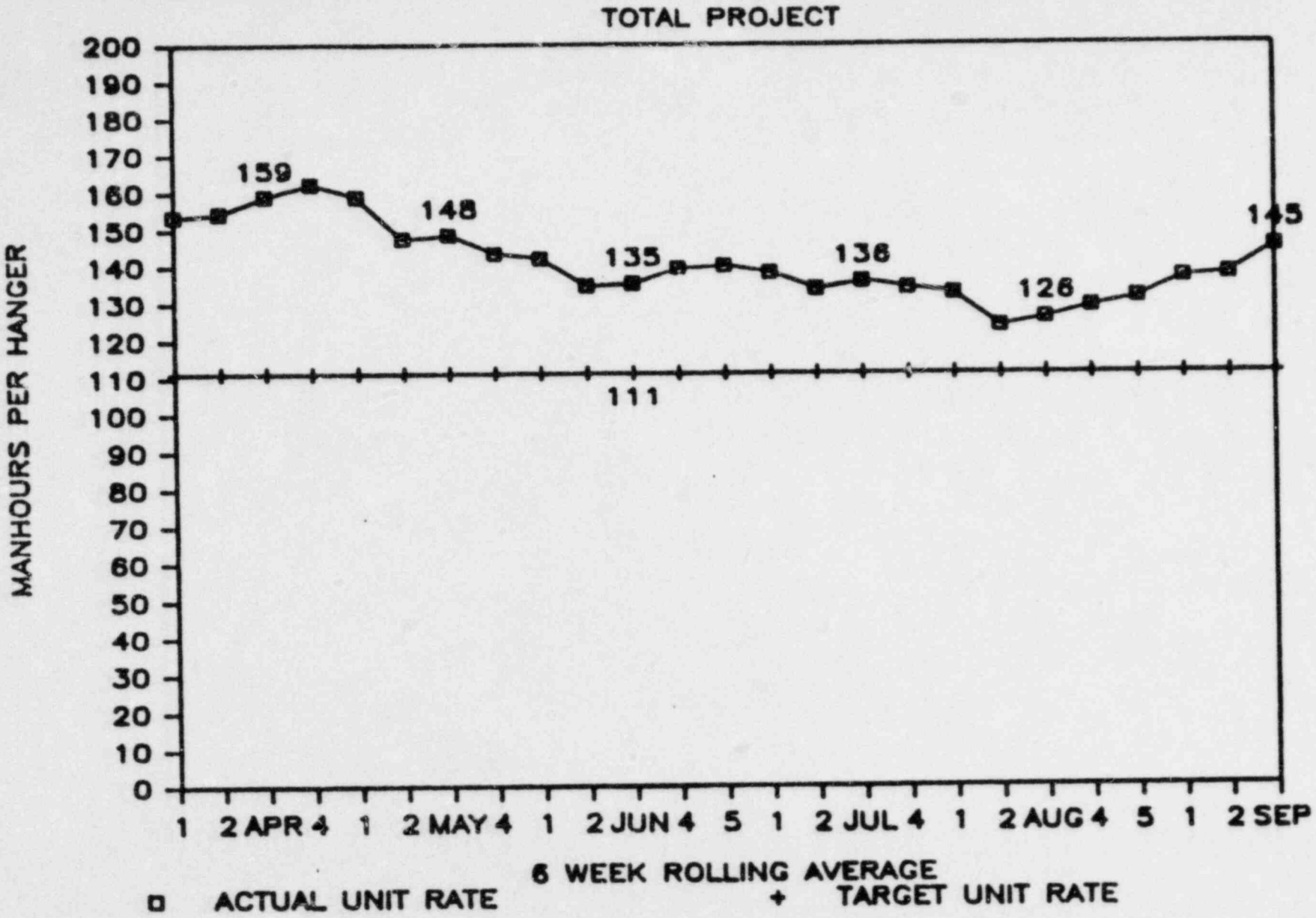
ZERO DEFECT TRACKING PROGRAM

BUILDING AREA Auxiliary Bldg MONTH OF September, 1984

DATE	W/E 9/2/84		W/E 9/9/84		W/E 9/16/84		W/E 9/23/84		W/E		COMMENTS
	GOAL	ACTUAL	GOAL	ACTUAL	GOAL	ACTUAL	GOAL	ACTUAL	GOAL	ACTUAL	
PAIRS	100	89	100	81	100		100				
INSTALLED	200	165	200	154	200		200				
BACKLOG PRE-ENGR.	500	663	500	550	500		500				
BACKLOG FIELD	500	461	500	416	500		500				
V-SAHU/SCS	60	40	60	51	60		60				
LOOKED AT	400	306	400	236	400		400				
PRE-ENGR. GOOD	360	202	360	110	360		360				
LB SUPPORTS /WK	1.50	1.44	1.50	1.60	1.50		1.50				
SB SUPPORTS PR/WK	3.0	2.21	3.0	2.53	3.0		3.0				
LB SUPPORTS INSTALLED	93	89		88							
SB SUPPORTS INSTALLED	107	76		66							

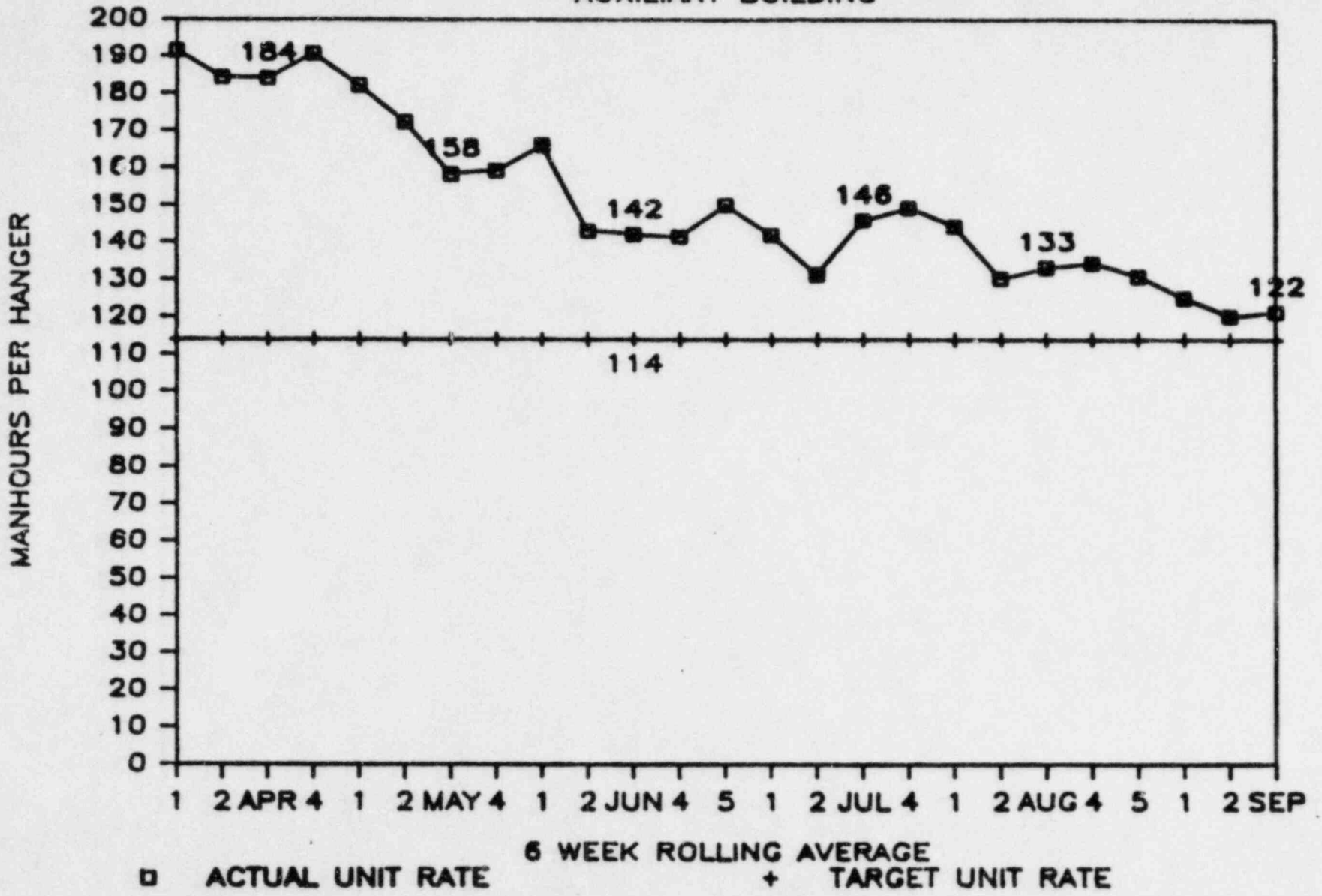
Qty.	No. of Men	W/E 9-9-84 Unit Rate
151	162	42.1

LARGE BORE HANGER PRODUCTIVITY

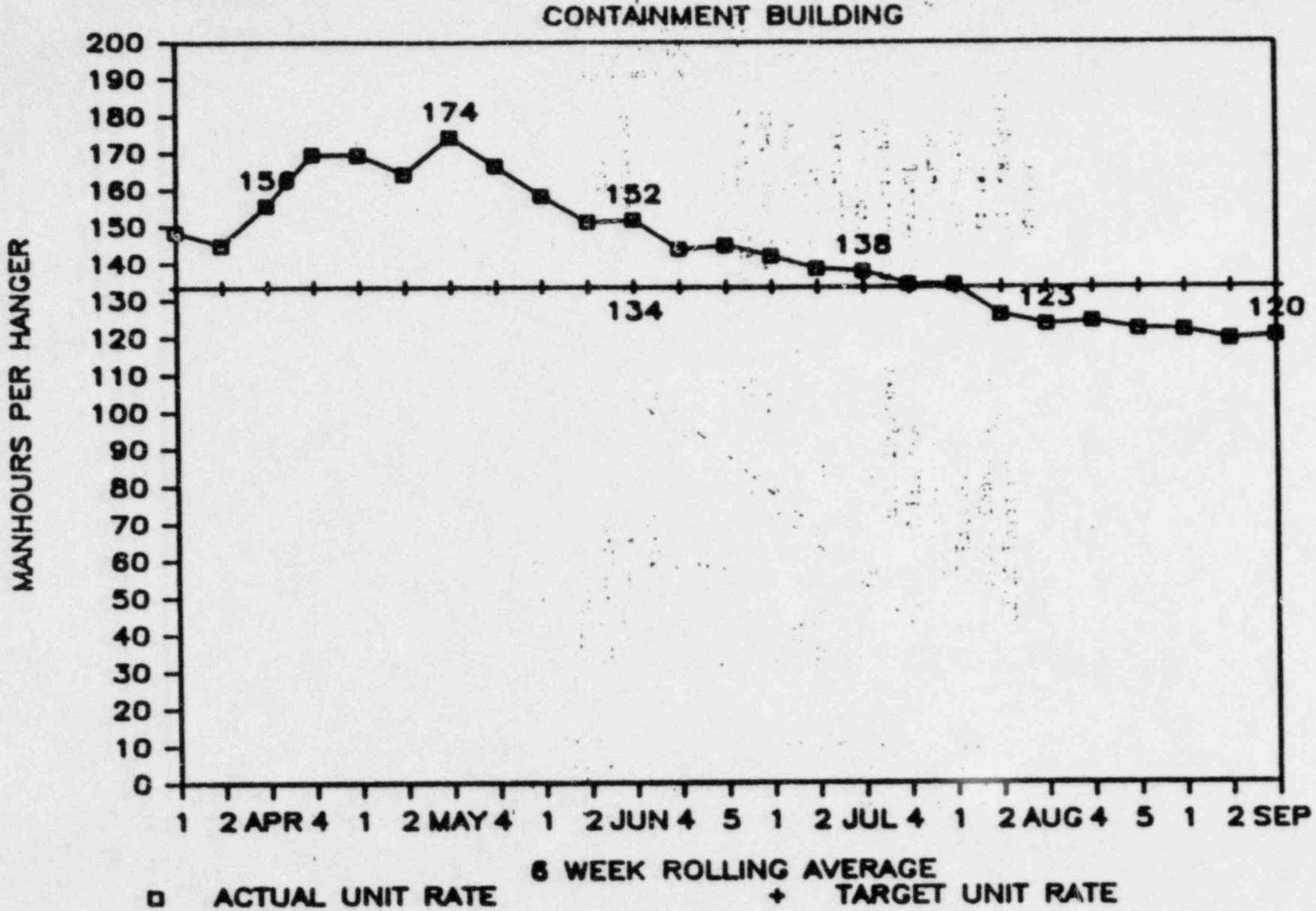


LARGE BORE HANGER PRODUCTIVITY

AUXILIARY BUILDING



LARGE BORE HANGER PRODUCTIVITY



Installation Problem Report

Weekly Summary 9/23/64

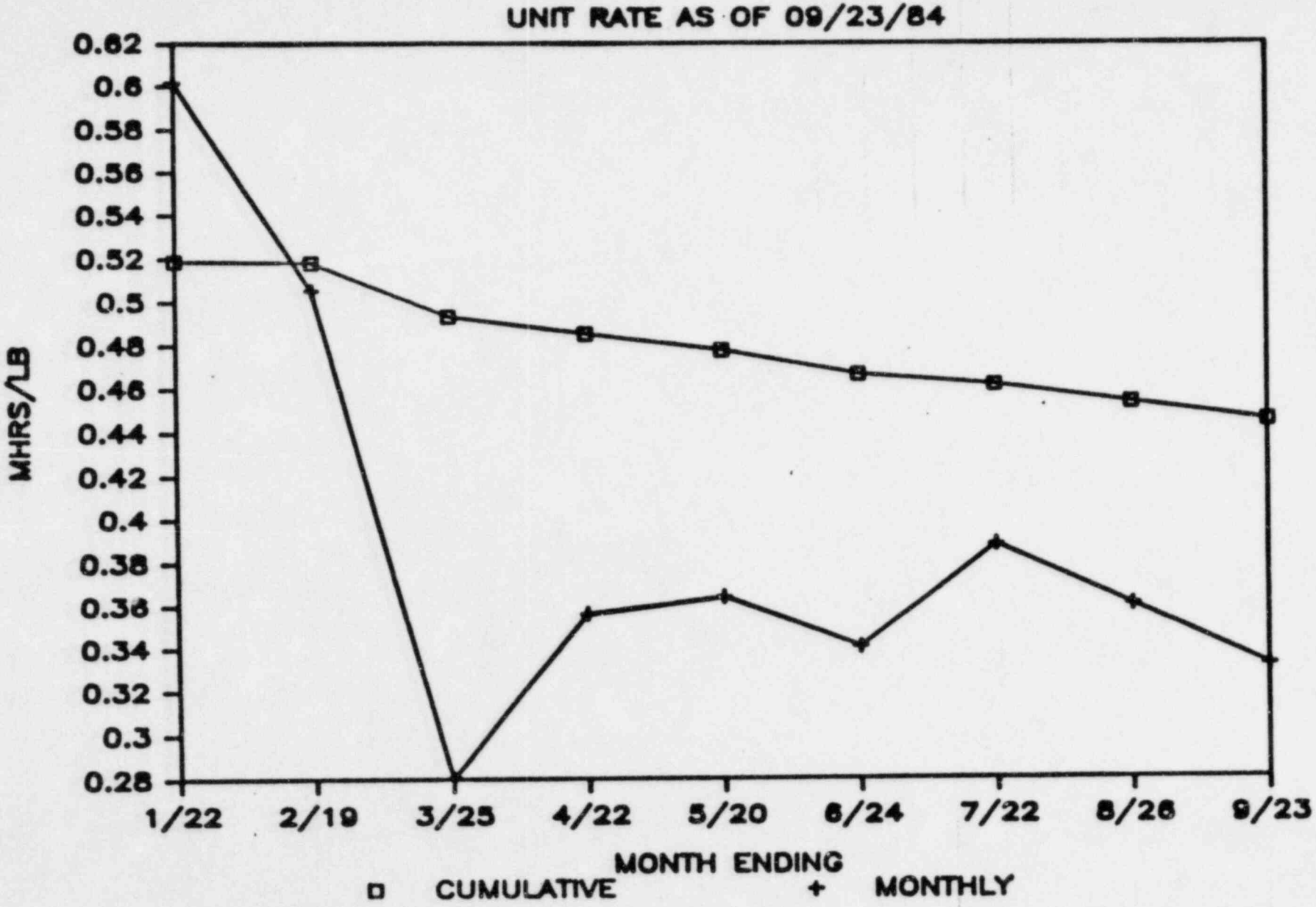
Problem Cause	Control	Aux	Turbine	Containment 1	Containment 2	Fuel Handling	Yard	Rwaste	Totals
1. No Problem	13	67	117	21		7	4	3	232
2. Greenline	1	1					3	4	9
3. Blackline	3	3		8			3		17
4. ATCW				3					3
5. Materials									
5a. Fab Shop Item		1		1					2
5b. Vendor Supplied Item									
6. Documentation		3							3
7. Installation									
8. Other	4	2		1				1	8
Totals →	21	77	117	34		7	10	8	274

Major Reasons For Each Problem Cause
1.
2. Rotated clip 90° c/clockwise, design change
3. Dwg. called out wrong material, Item # changed, ISI clearance violation, design change
4. Member size change for weld
5.
5a. Shim required by DCN's
5b.
6. Requisition altered, NCR
7.
8. Redesign, reinspection, interference

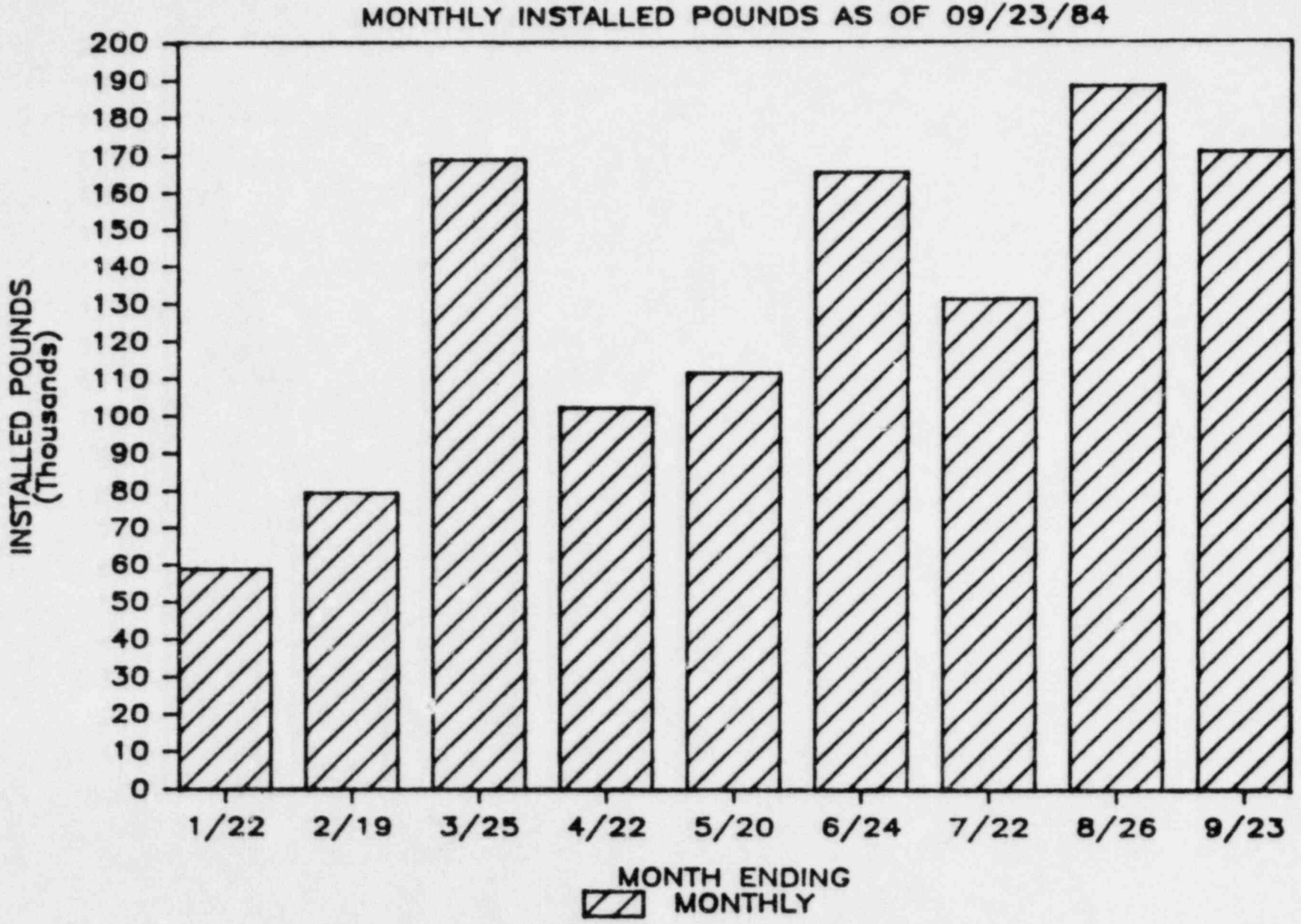
Comments:

84% no problems. Good week. Several of these could be caught at pre-engineering by paying more attention to details.

HVAC PRODUCTIVITY — TOTAL PROJECT



HVAC PRODUCTION — TOTAL PROJECT



HVAC

CONSTRUCTABILITY

DESIGN AVAILABLE

ENGINEERS ON THE HILL

CONSOLIDATION - FPFE

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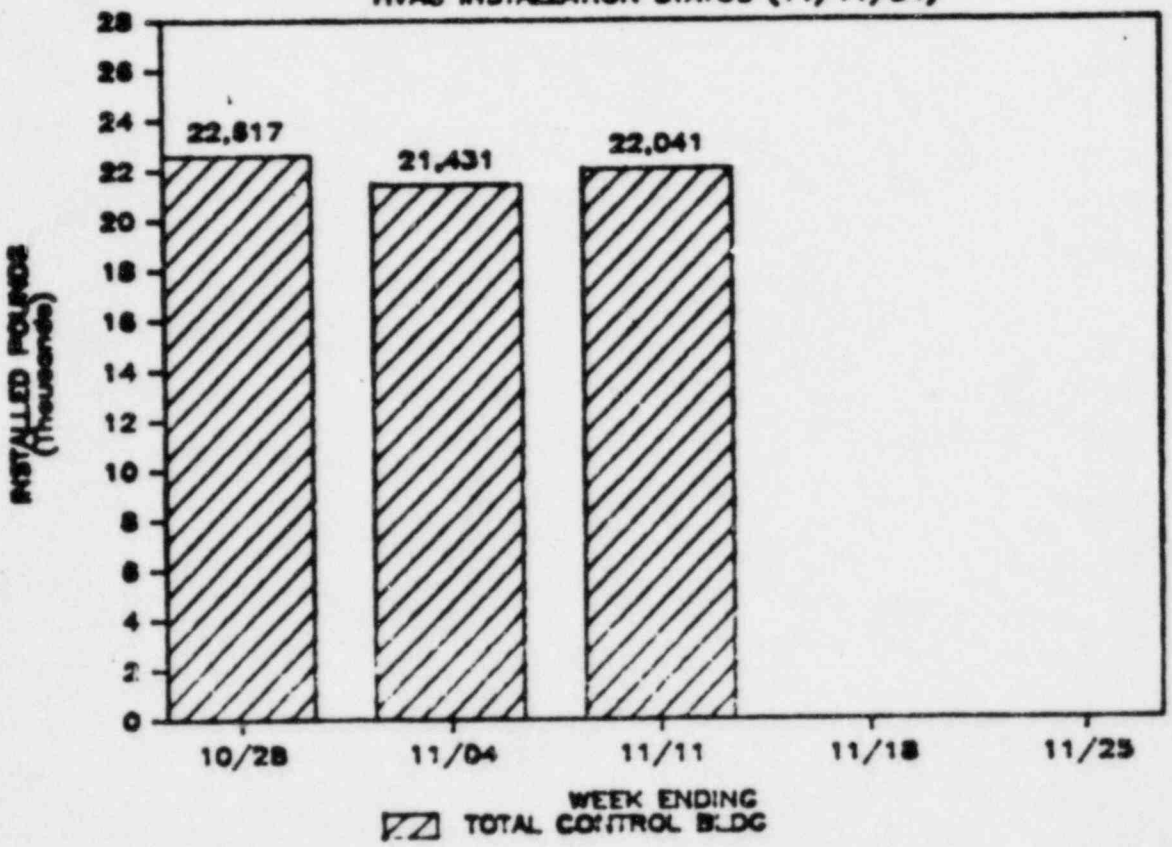
CONTROL BUILDING

HVAC INSTALLATION STATUS (11/11/84)



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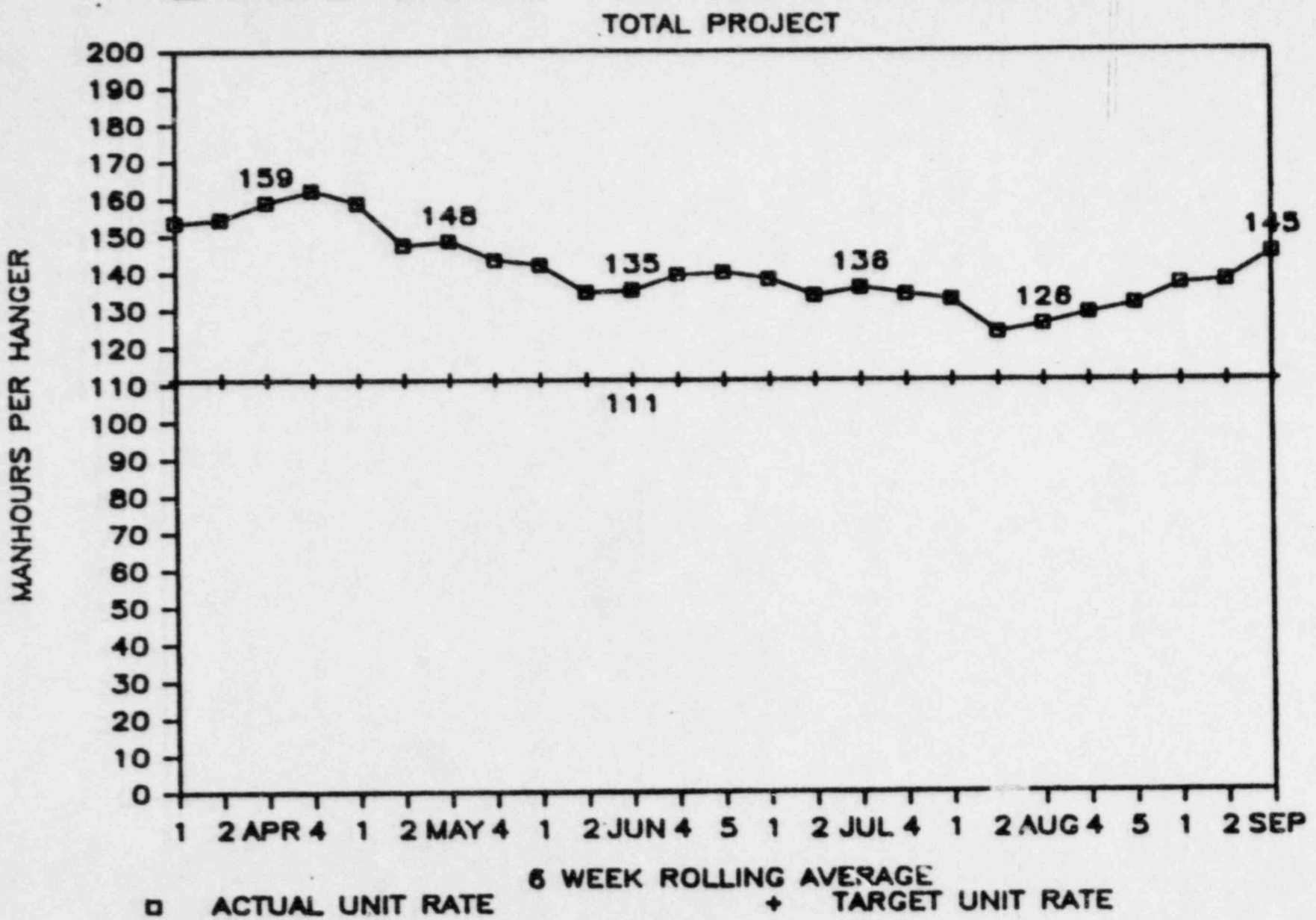

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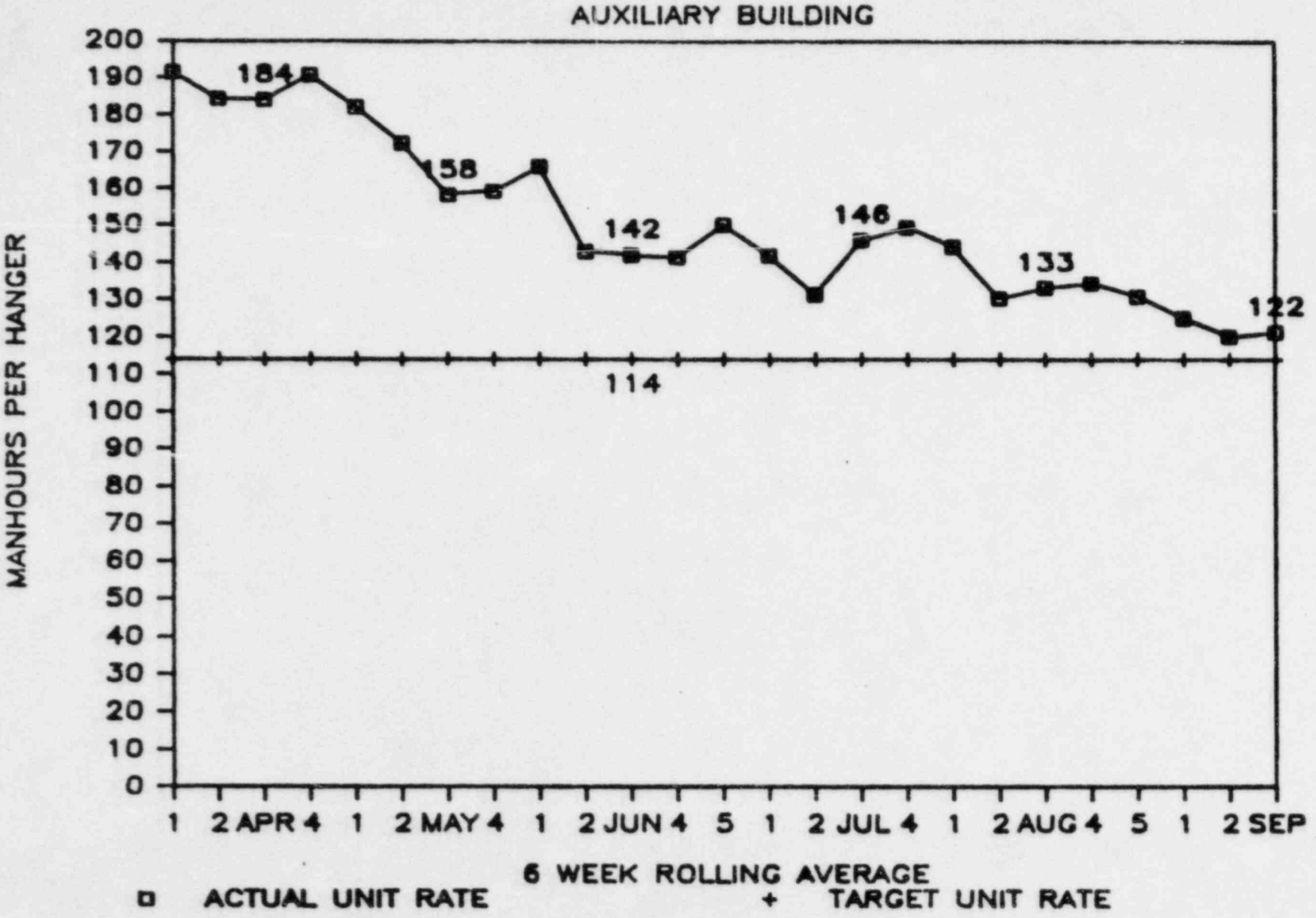
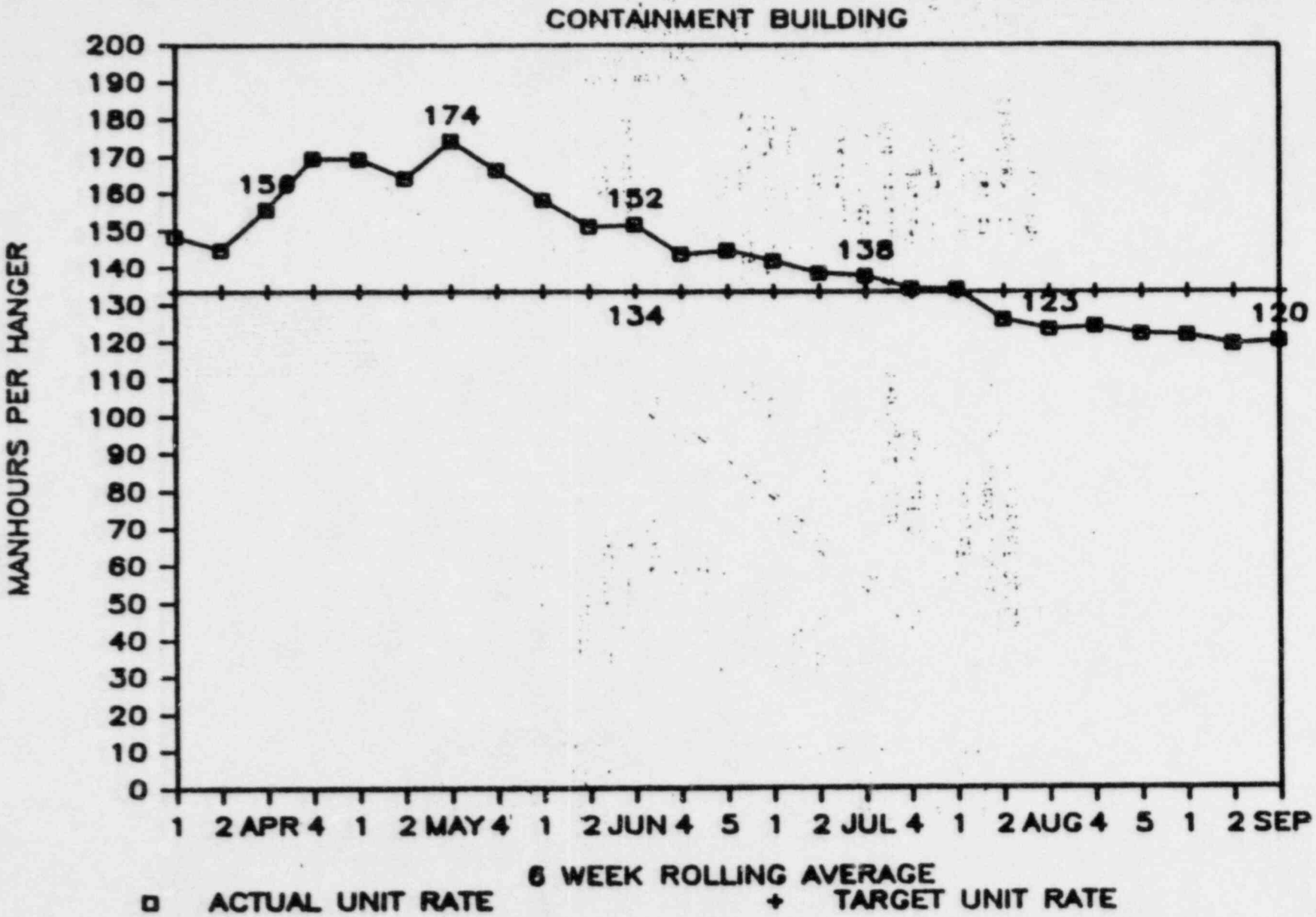


LARGE BORE HANGER PRODUCTIVITY



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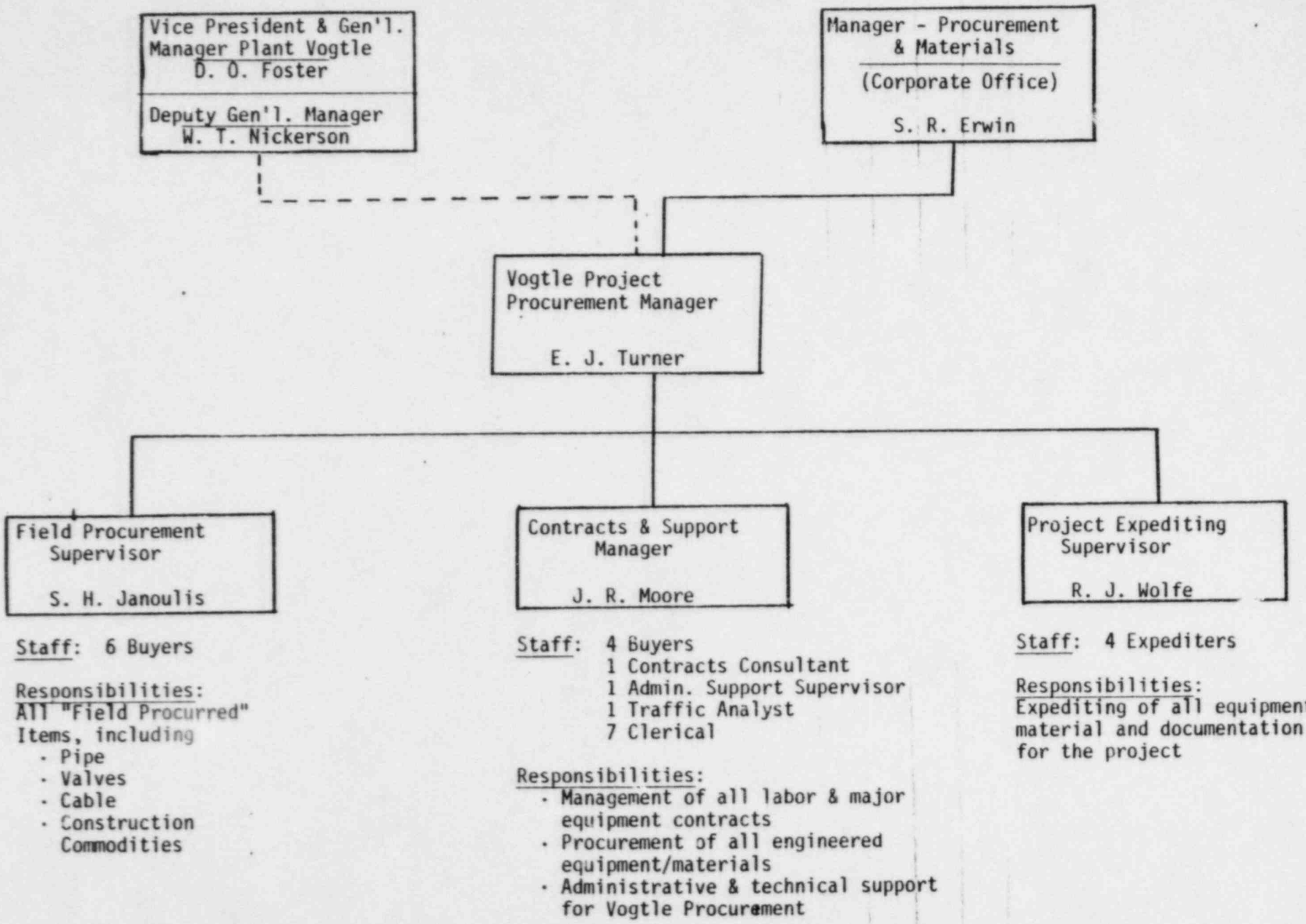

Vice President & Gen'l. Manager Plant Vogtle
D. O. Foster
Deputy Gen'l. Manager
W. T. Nickerson
Manager - Procurement & Materials
(Corporate Office)
S. R. Erwin
Vogtle Project Procurement Manager
E. J. Turner
Field Procurement Supervisor
S. H. Janoulis
Staff: 6 Buyers
Responsibilities:
All "Field Procurred" Items, including
· Pipe
· Valves
· Cable
· Construction Commodities
Contracts & Support Manager
J. R. Moore
Staff: 4 Buyers
1 Contracts Consultant
1 Admin. Support Supervisor
1 Traffic Analyst
7 Clerical
Responsibilities:
· Management of all labor & major equipment contracts
· Procurement of all engineered equipment/materials
· Administrative & technical support for Vogtle Procurement
Project Expediting Supervisor
R. J. Wolfe
Staff: 4 Expediters
Responsibilities:
Expediting of all equipment, material and documentation for the project

SCOPE

ASME Section III, Division 1 activities for the Vogtle Electric Generating Plant (VEGP) are shared among the following organizations:

- Bechtel Power Corporation (BPC), Los Angeles Power Division (LAPD), "N" Certificate Holder, Nuclear Auxiliary Systems as defined in AX4DR006.
- Westinghouse Electric Corporation, Nuclear Technology Division (NTD), "N" Certificate Holder, Nuclear Primary Loop and as defined in AX4DR006.
- Pullman Power Products (PPP), "NA" and "NPT" Certificate Holder, Installer.
- Georgia Power Company (GPC), Owner's Certificate of Authorization.
- Georgia Power Company, Material Supplier (MS) Activities, Site Quality Assurance, Site Document Control Services, and Installation Activities.
- Hartford Steam Boiler Inspection and Insurance Company (HSBI&IC), Authorized Nuclear Inspection Agency.
- Nuclear Service Installation Service Company (NISCO) "NA" "NPT" Certificate Holder.
- Chicago Bridge and Iron (CBI) "NA" and "NPT" Certificate Holder.

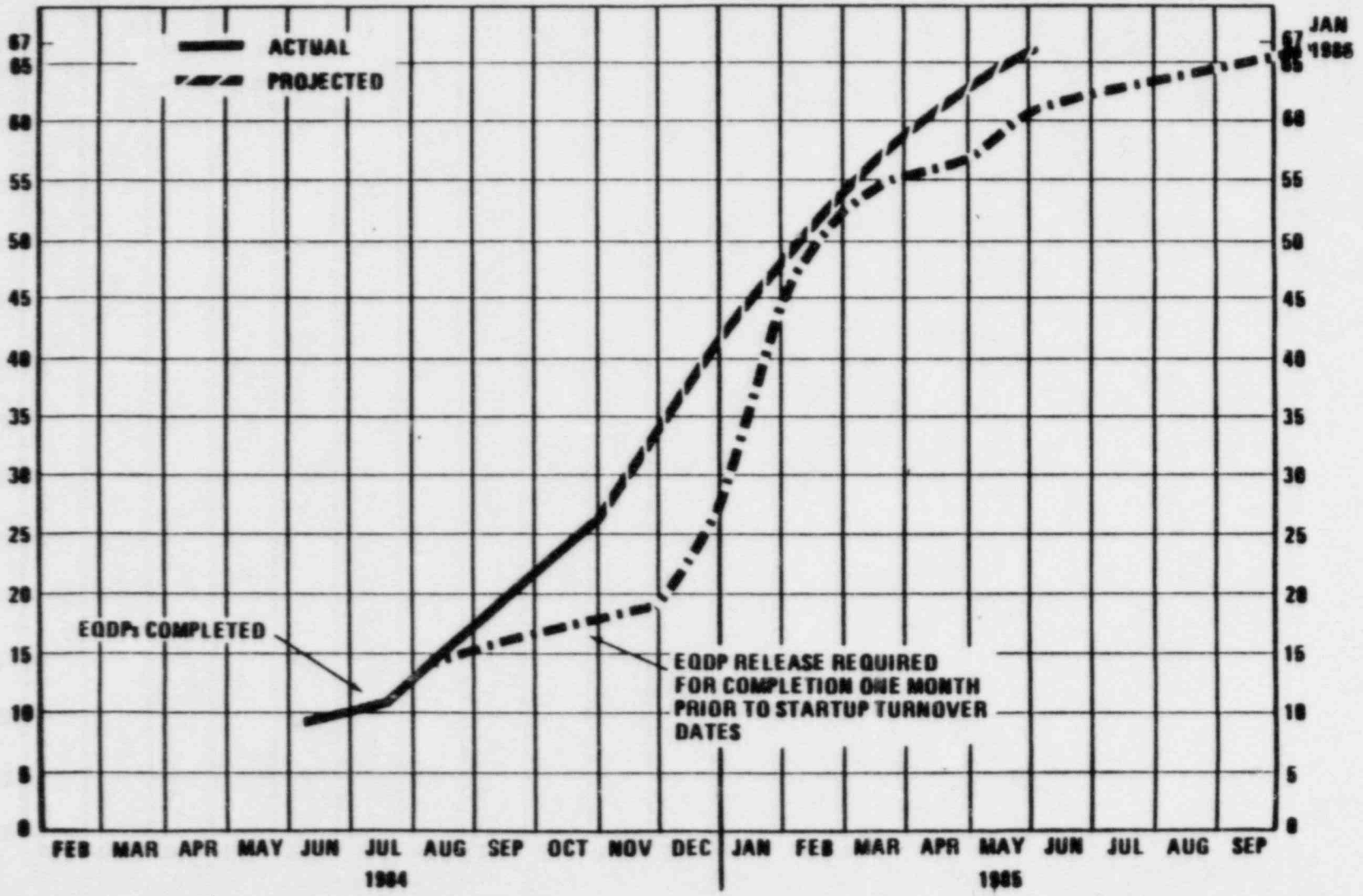


FIGURE 2 - EQUIPMENT QUALIFICATION DATA PACKAGE (EQDP) STATUS

NRC CASELOAD FORECAST

QUANTITY COMPARISON CURVE DATA

The current schedule represented on the following curves as 84-0 is a reforecast of remaining quantities as of June, 1984. Unit 1 & Common projections are based on system completions, while the Unit 2 portion of the total project curves is based on area schedules.

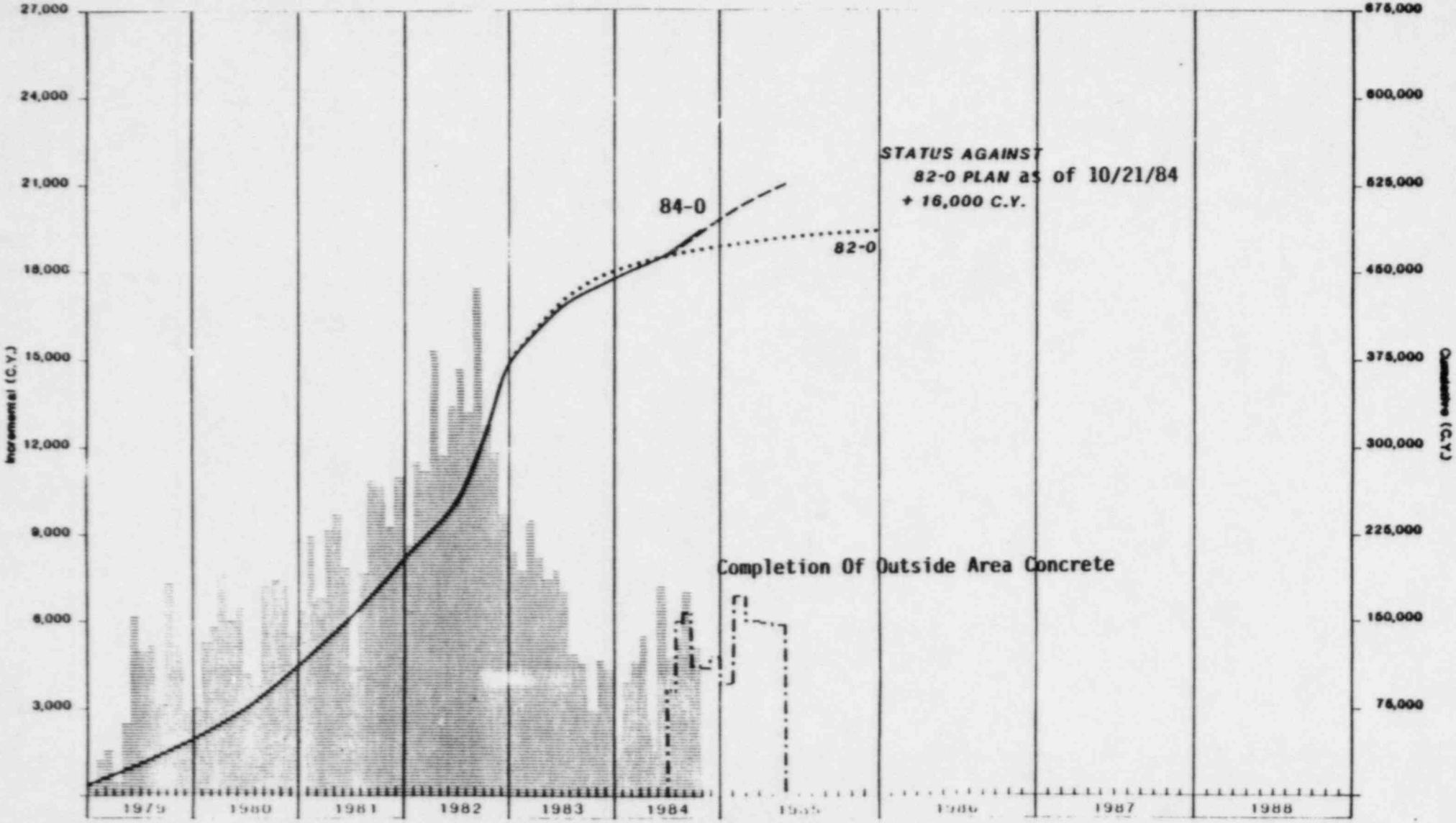
Status is also shown against the 82-0 schedule for your information since this plan was the basis for the previous Caseload Forecast information (May, 1983) submitted by GPC.

Significant changes to the project work plan since the 82-0 schedule and incorporated in the 84-0 schedule are as follows:

1. A reallocation of Unit 1 and Common quantities to include Unit 2 quantities when they are located within the Unit 1 physical boundary. (Resulted in an increase in what we define currently as Unit 1 and Common.)

2. Schedule adjustments to the Unit 2 work effort to put Unit 2 on a "stand alone" schedule basis. (Unit 2 is worked to support Unit 2 fuel load and not earlier.)

3. Hangers (large and small) are currently (84-0) tracked complete when Q.C. has signed off. The 82-0 work plan tracked hangers reported by construction as complete. (Prior to Q.C. sign-off)



Legend

Scheduled

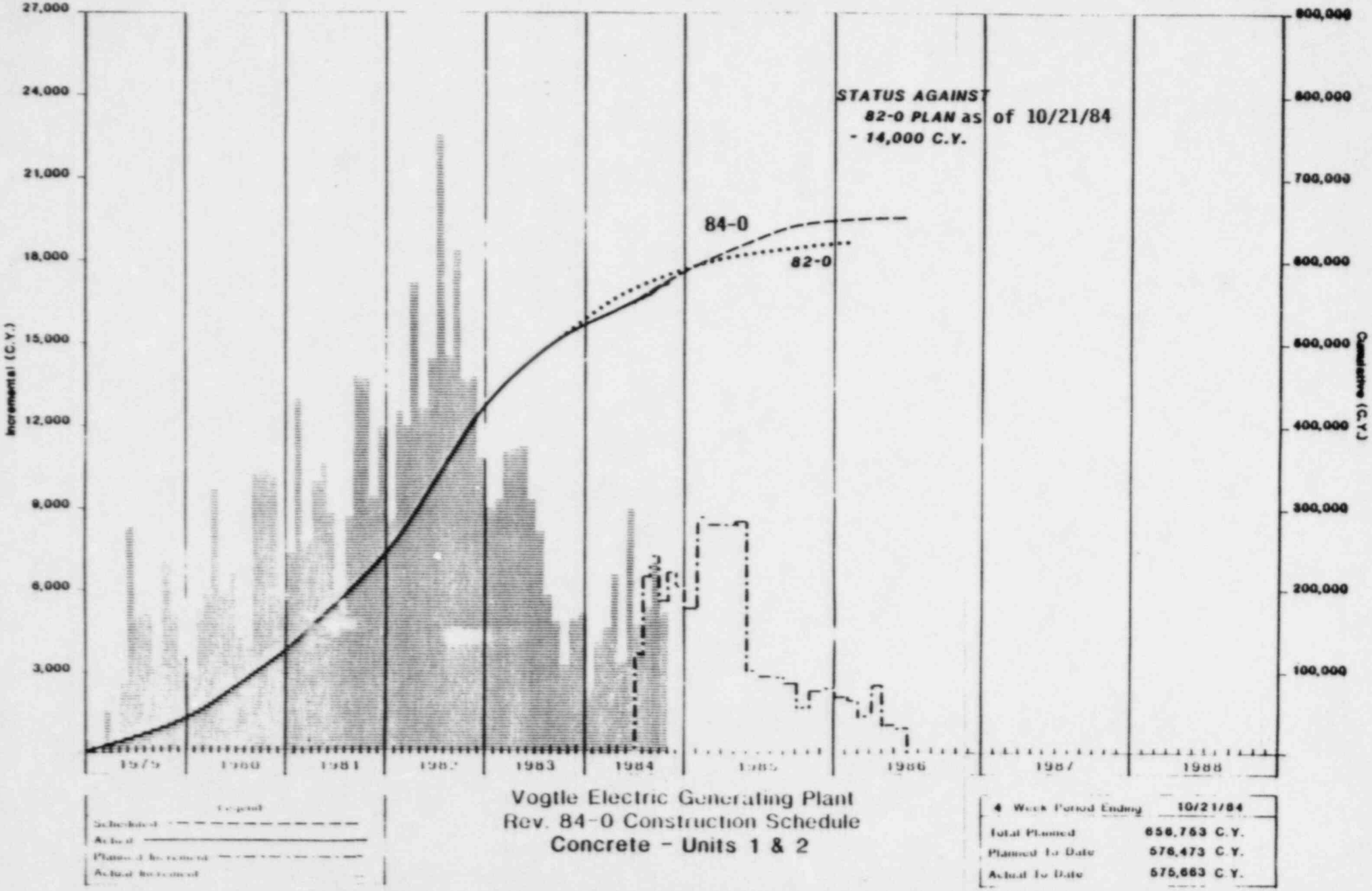
Actual

Planned to date

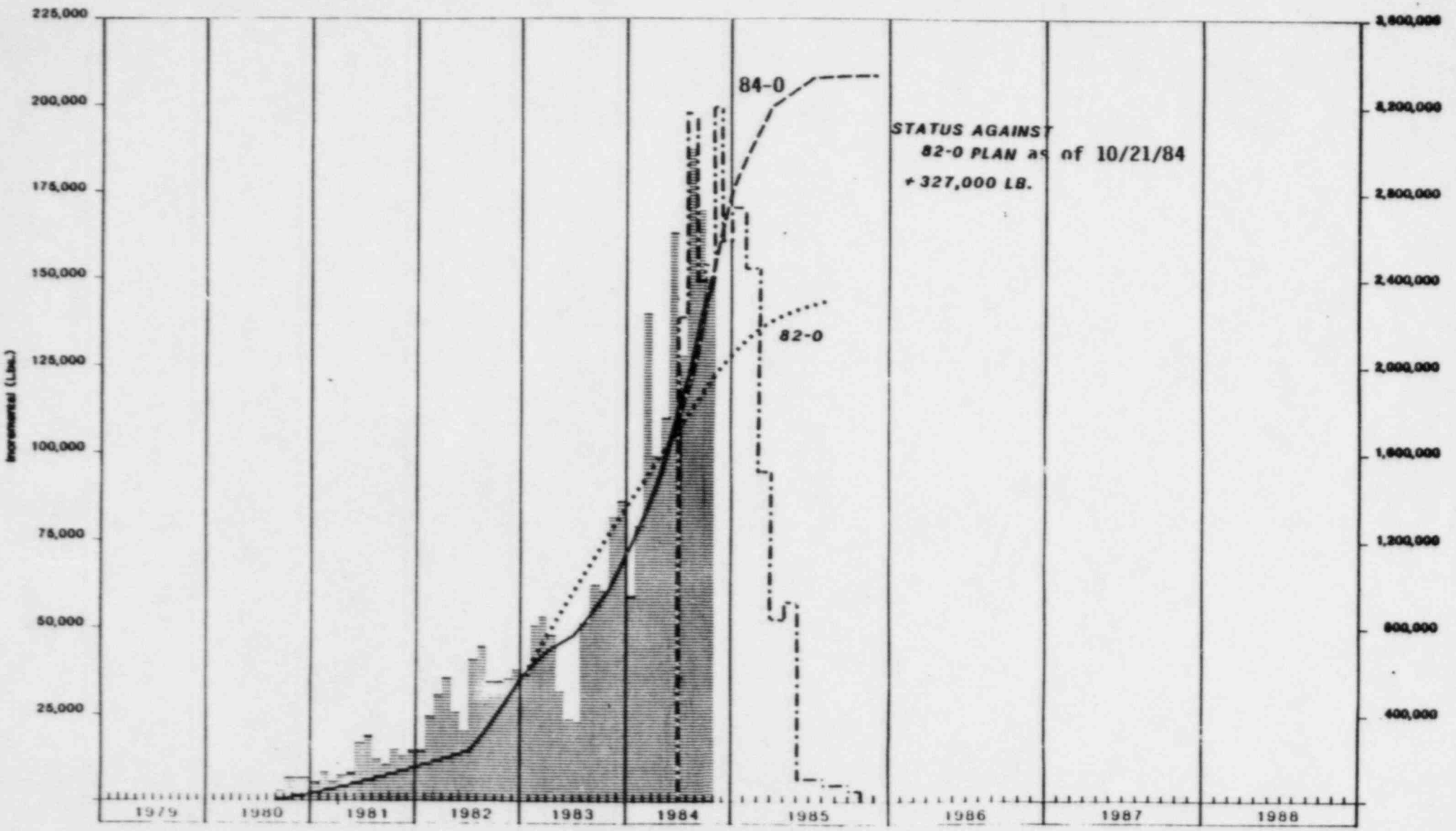
Actual to date

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Concrete - Unit 1 & Common

4 Week Period Ending	10/21/84
Total Planned	526,938 C.Y.
Planned To Date	489,268 C.Y.
Actual To Date	490,957 C.Y.



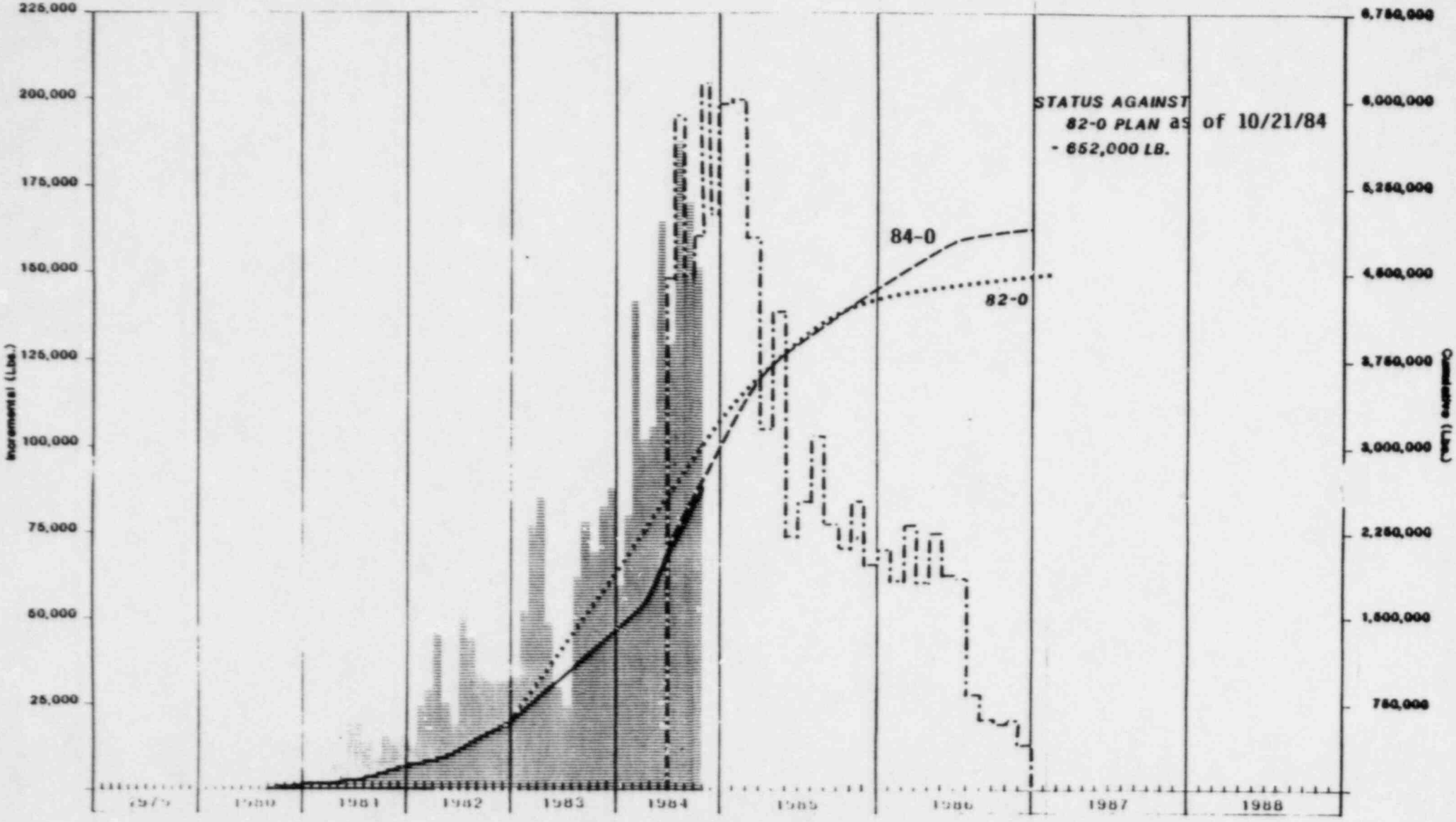
Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Concrete - Units 1 & 2



Legend
Scheduled
Actual
Planned Increment
Actual Increment

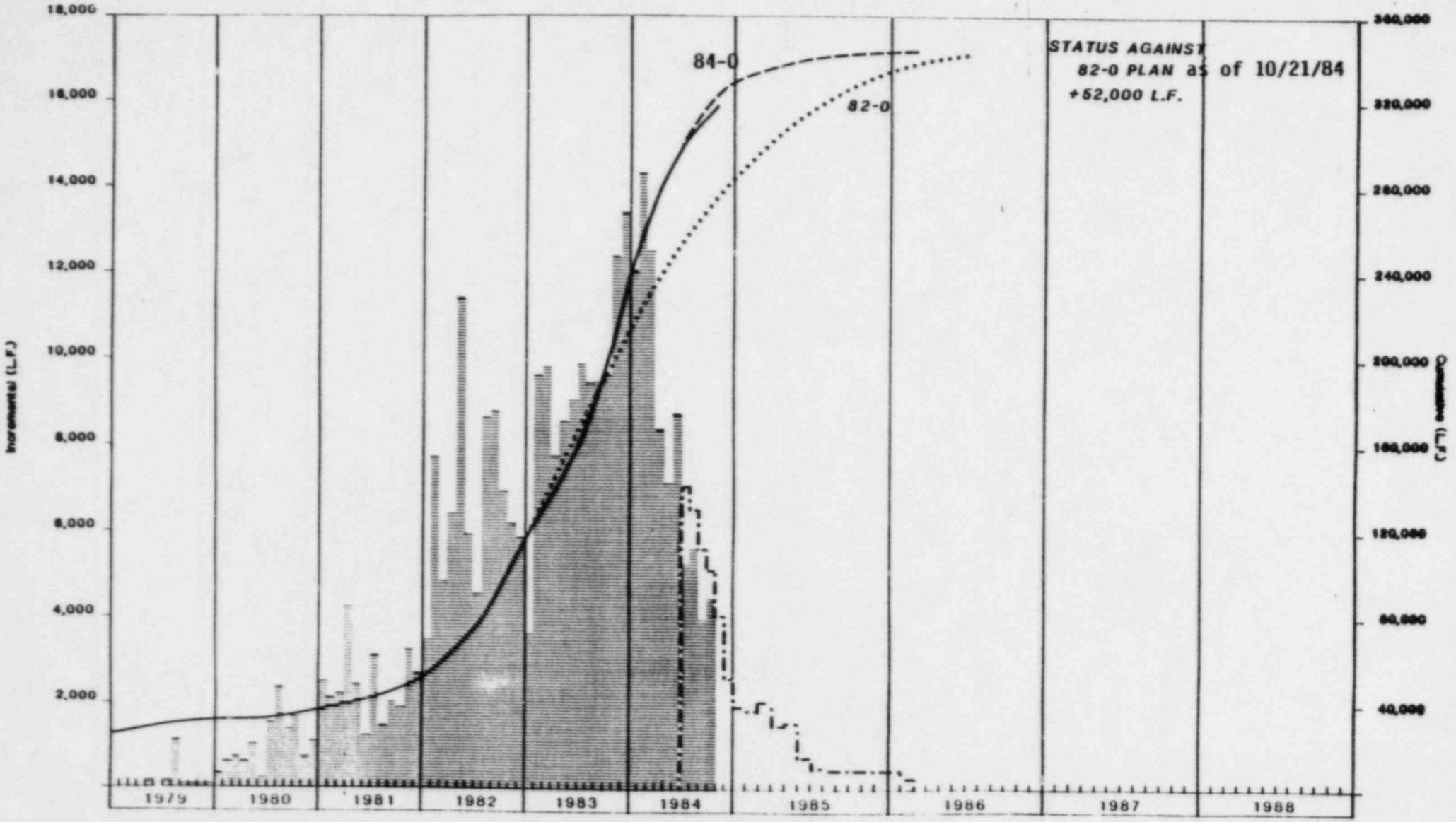
Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
HVAC - Unit 1 & Common

4 Week Period Ending:	10/21/84
Total Planned:	3,352,200 Lbs.
Planned To Date:	2,428,894 Lbs.
Actual To Date:	2,426,794 Lbs.



Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
HVAC - Units 1 & 2

4 Week Period Ending:	10/21/84
Total Planned	4,977,900 Lbs.
Planned To Date	2,861,751 Lbs.
Actual To Date	2,648,430 Lbs.



Legend

Scheduled

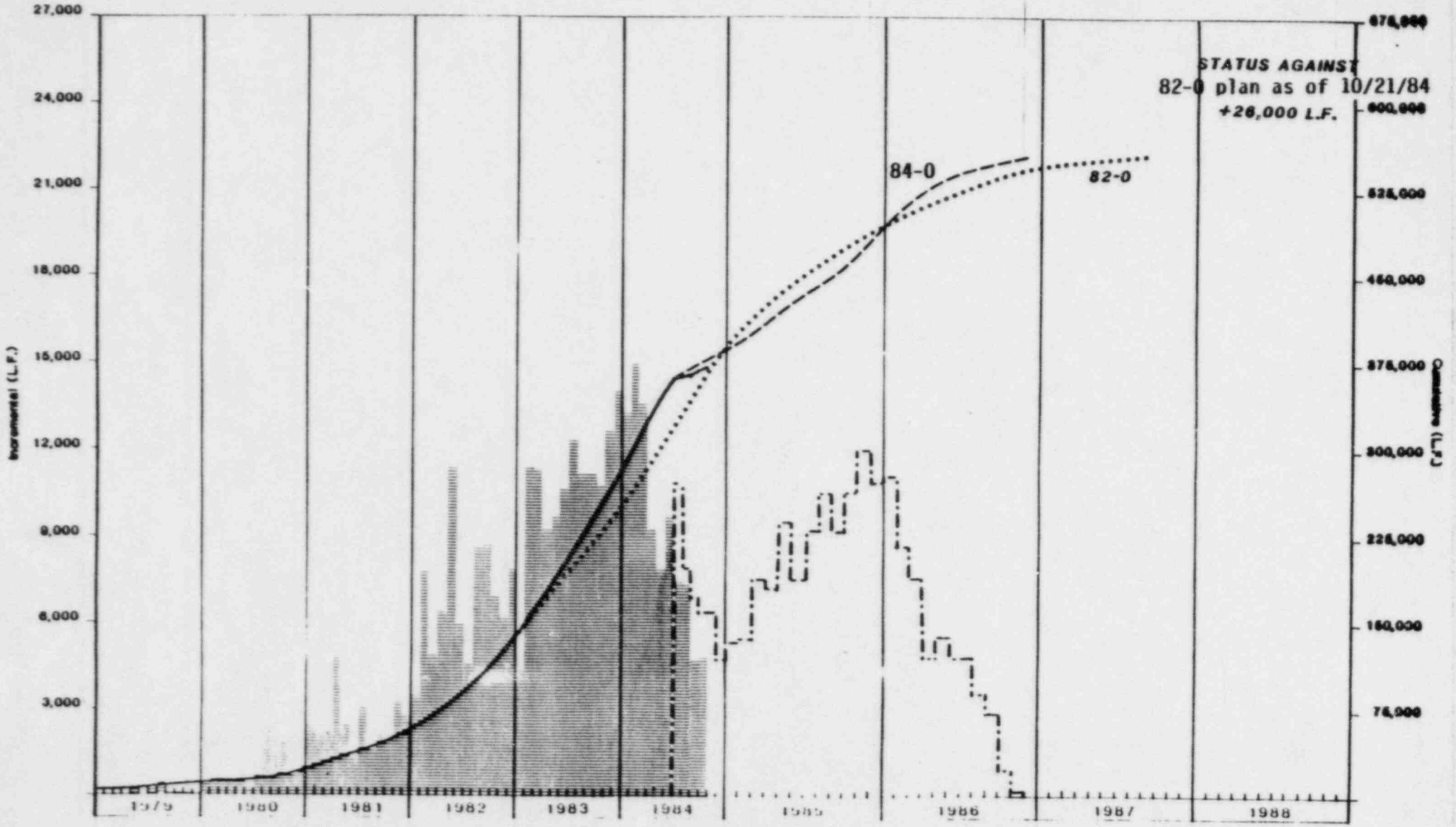
Actual

Planned Increment

Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Large Pipe - Unit 1 & Common

4 Week Period Ending:	10/21/84
Total Planned:	343,920 L.F.
Planned To Date:	324,263 L.F.
Actual To Date:	318,448 L.F.



Legend

Schedule

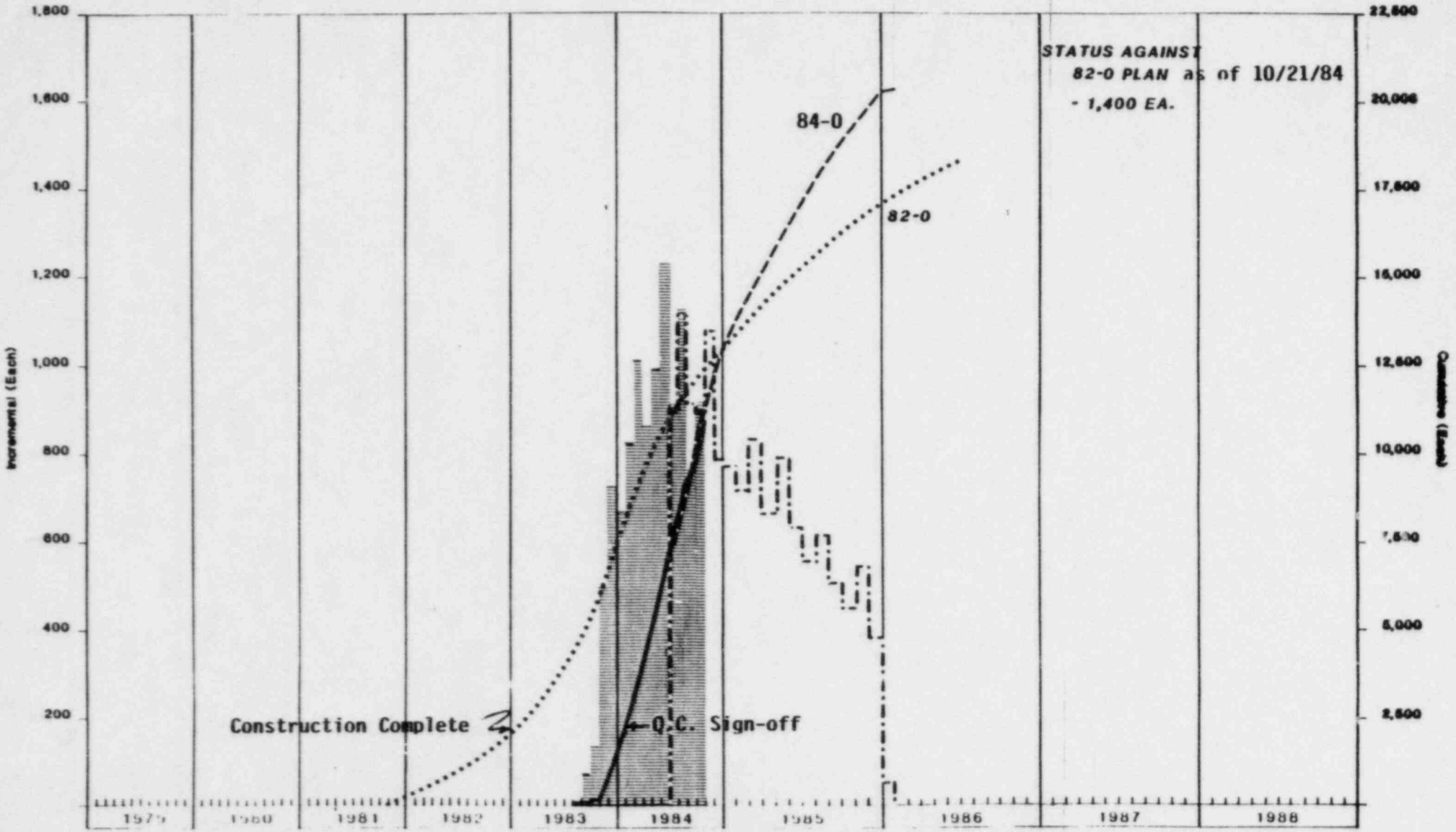
Actual

Planned Increment

Actual Increment

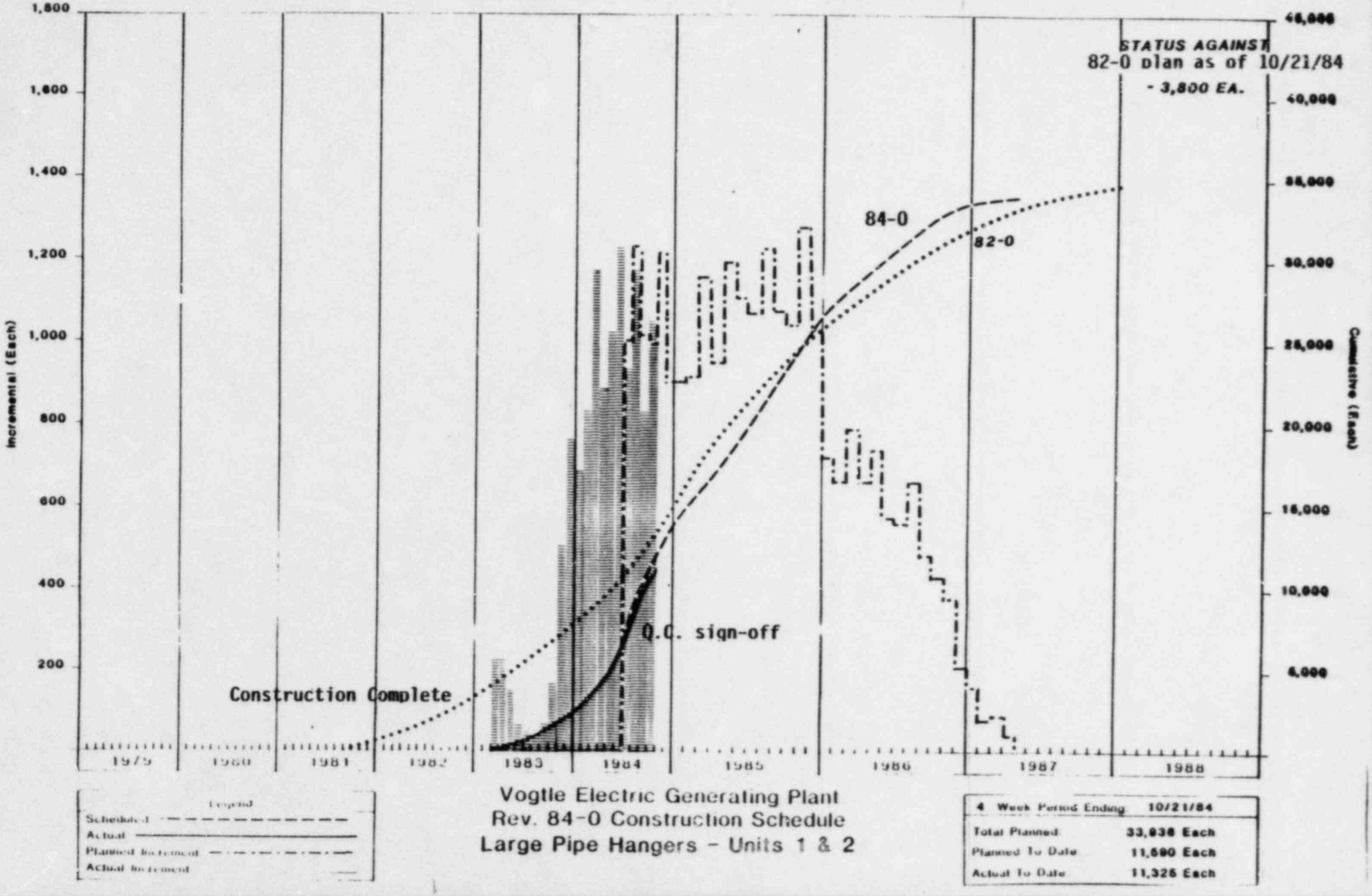
Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Large Pipe - Units 1 & 2

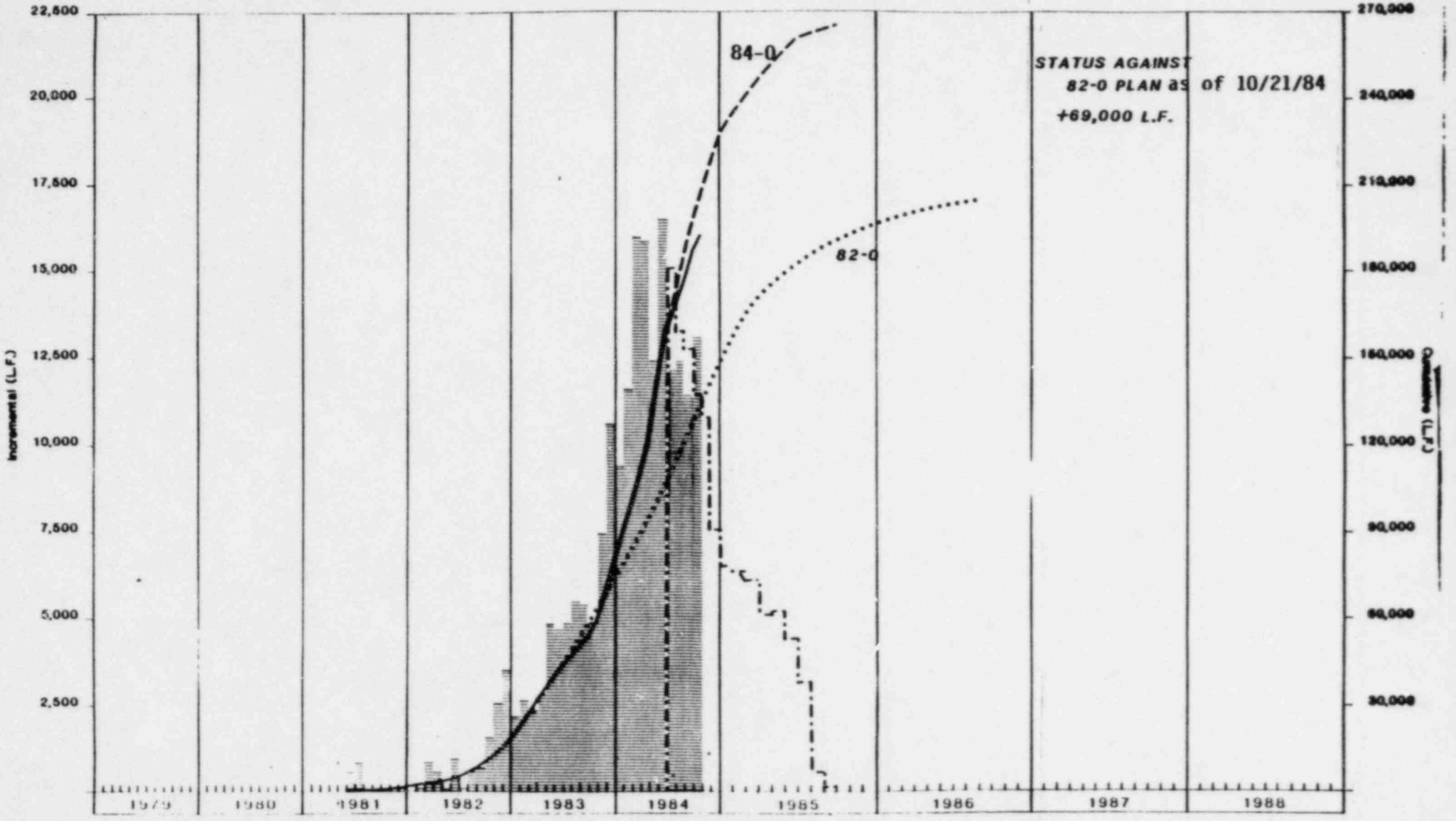
4 Week Period Ending	10/21/84
Total Planned	553,769 L.F.
Planned To Date	382,005 L.F.
Actual To Date	373,020 L.F.



Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Large Pipe Hangers - Unit 1 & Common

4 Week Period Ending:	10/21/84
Total Planned:	20,297 Each
Planned To Date:	10,908 Each
Actual To Date:	10,798 Each


STATUS AGAINST
82-0 plan as of 10/21/84
- 3,800 EA.
84-0
82-0
Q.C. sign-off
Construction Complete
Incremental (Each)
Cumulative (Each)
1,800
1,600
1,400
1,200
1,000
800
600
400
200
48,000
40,000
32,000
24,000
20,000
16,000
10,000
4,000
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
Legend
Scheduled
Actual
Planned Increment
Actual Increment
Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Large Pipe Hangers - Units 1 & 2
4 Week Period Ending 10/21/84
Total Planned 33,938 Each
Planned To Date 11,690 Each
Actual To Date 11,325 Each

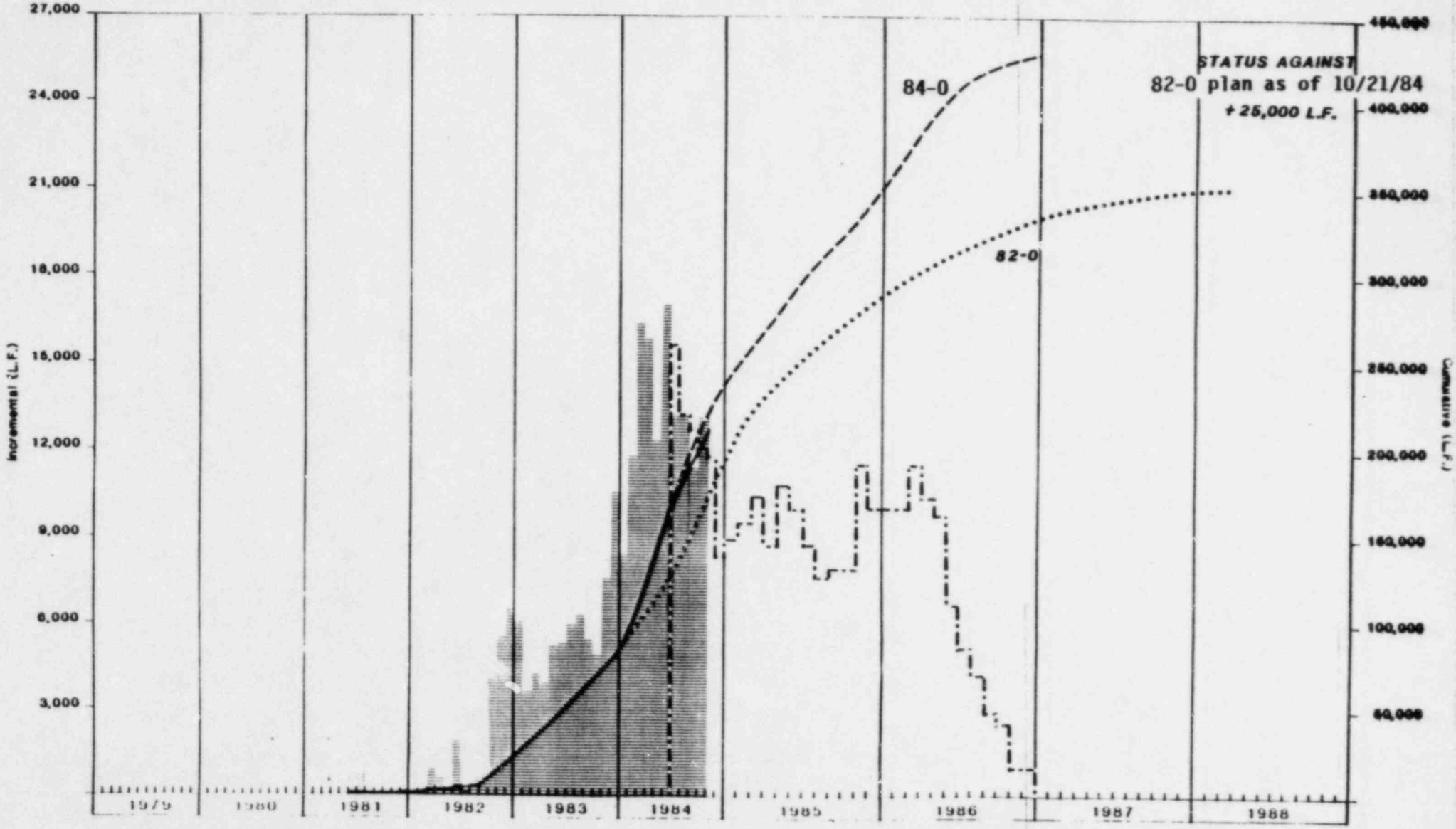


Legend

- Scheduled
- Actual
- Planned Increment
- Actual Increment

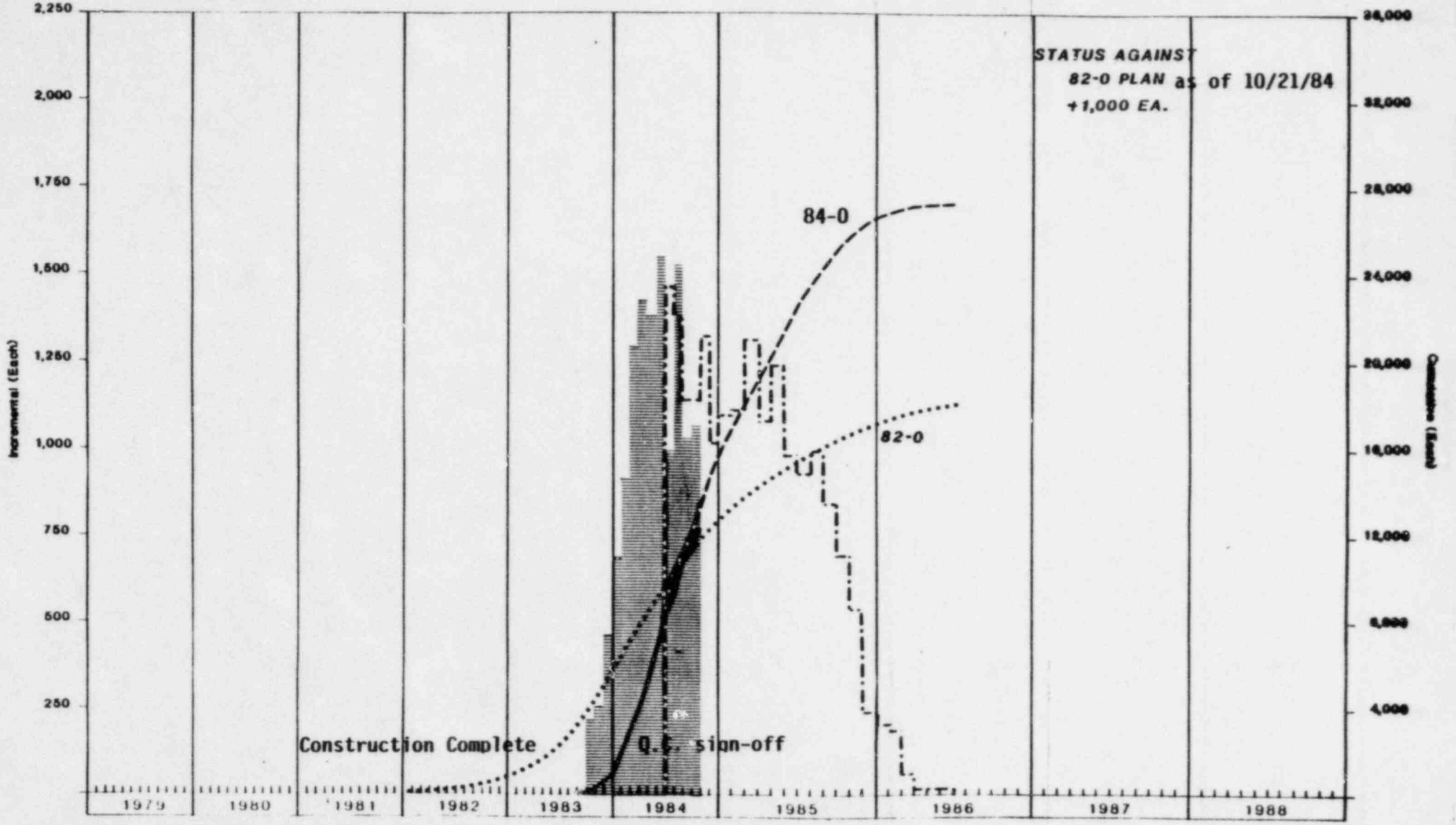
Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Small Pipe - Unit 1 & Common

4 Week Period Ending:	10/21/84
Total Planned:	265,691 L.F.
Planned To Date:	209,103 L.F.
Actual To Date:	201,498 L.F.



Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Small Pipe - Units 1 & 2

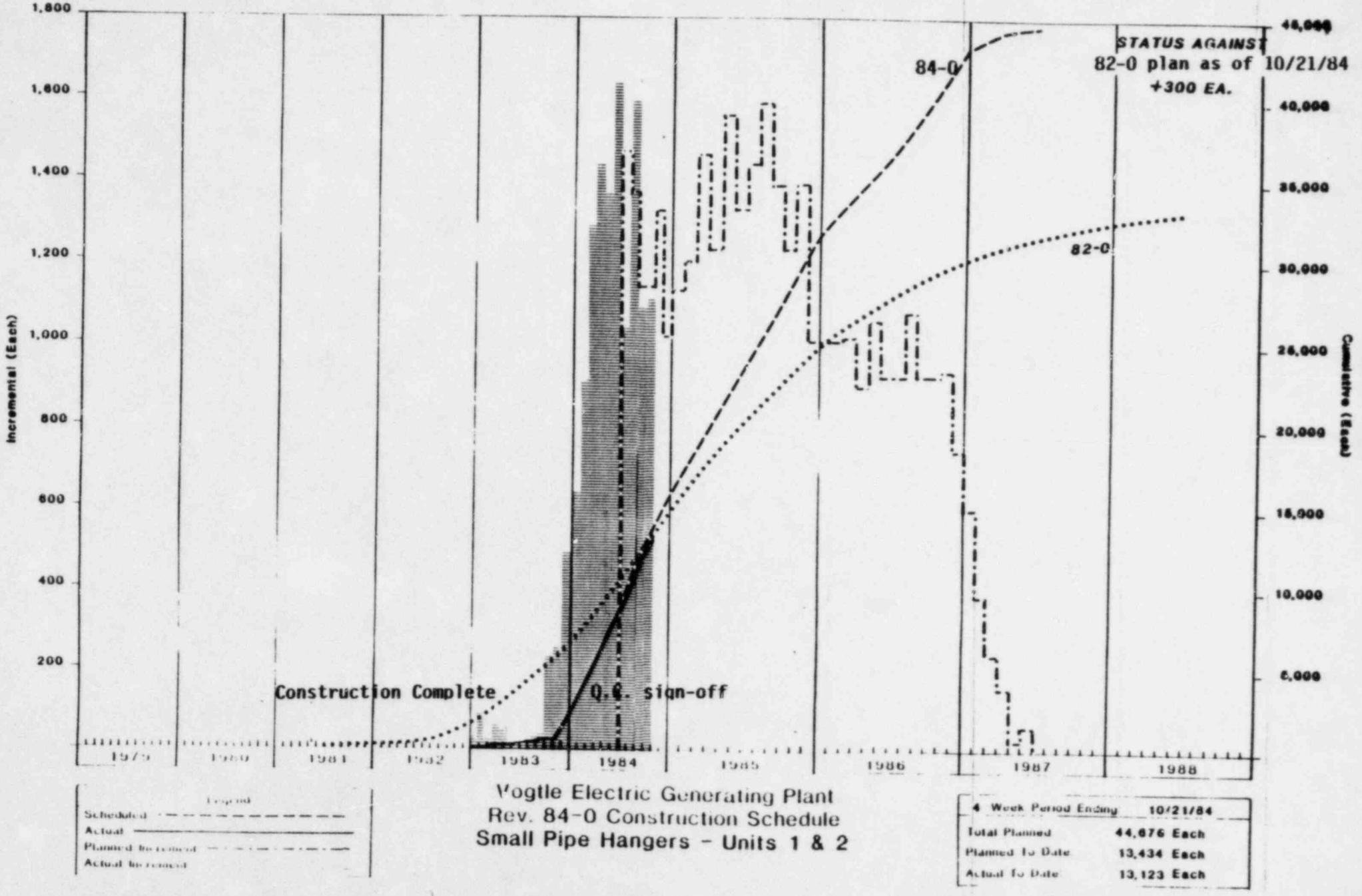
4 Week Period Ending	10/21/84
Total Planned	427,670 L.F.
Planned To Date	219,274 L.F.
Actual To Date	212,150 L.F.



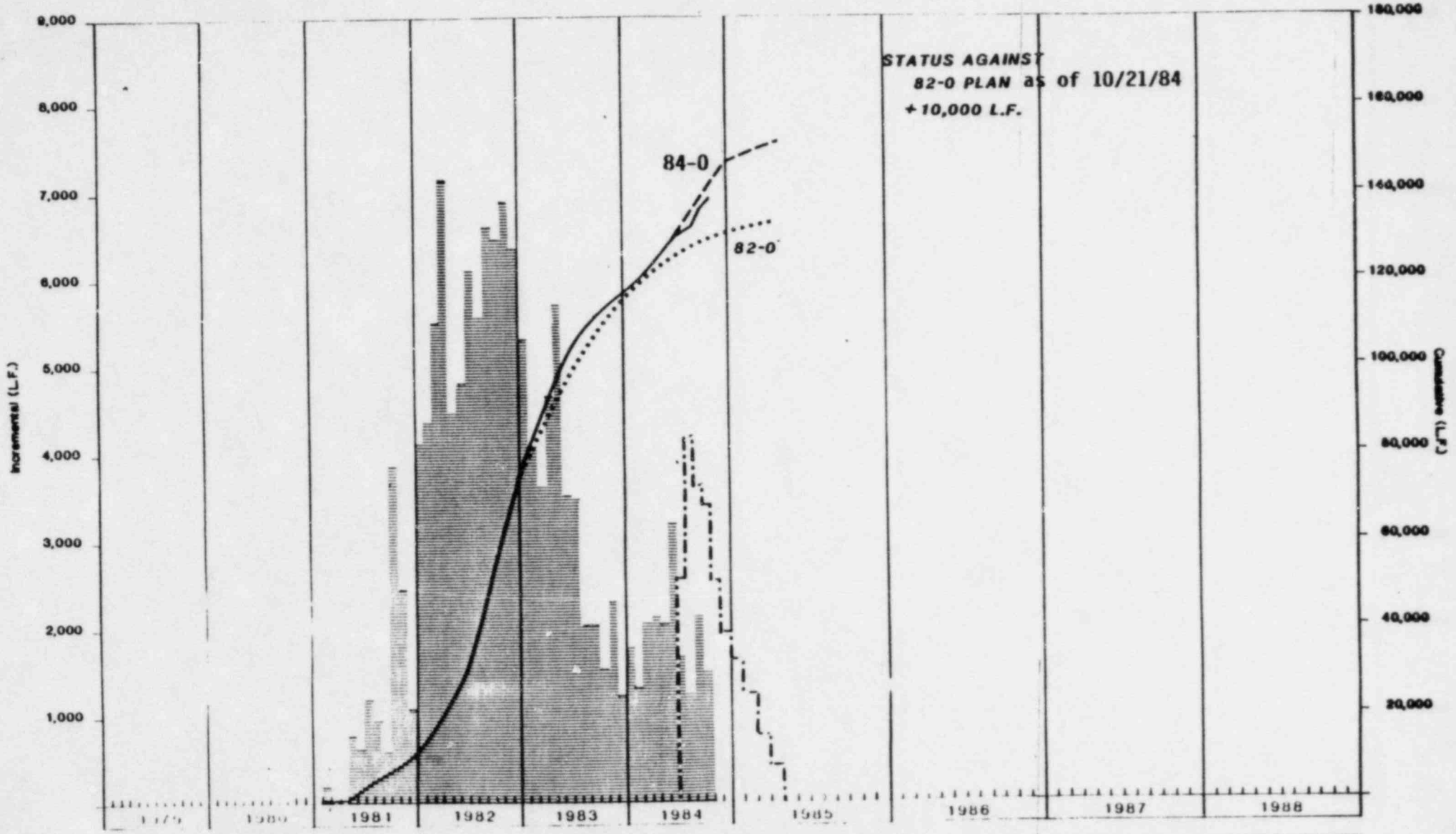
Legend
Scheduled
Actual
Planned Increment
Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Small Pipe Hangers - Unit 1 & Common

4 Week Period Ending:	10/21/84
Total Planned:	27,289 Each
Planned To Date:	13,310 Each
Actual To Date:	12,785 Each

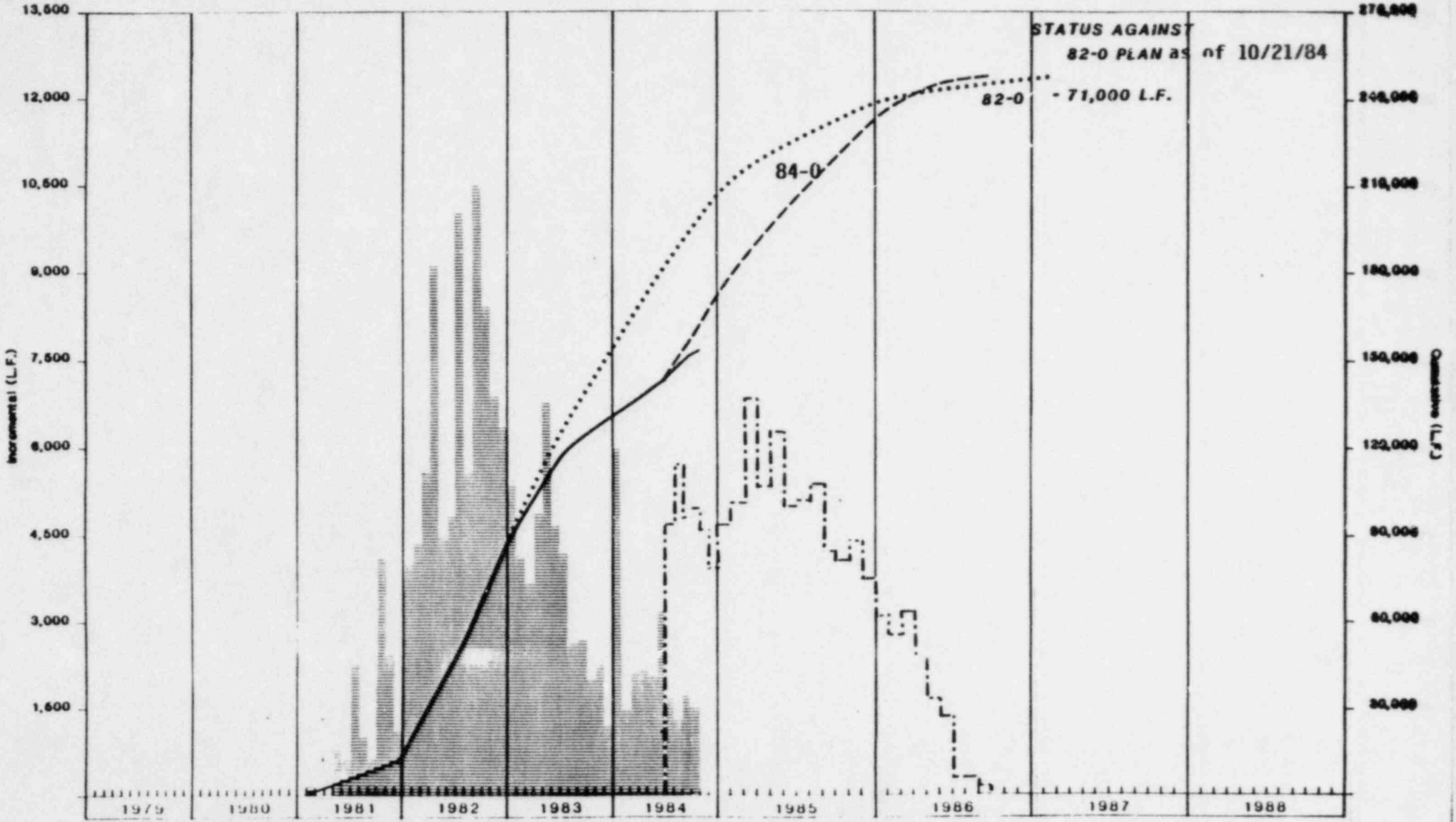


Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Small Pipe Hangers - Units 1 & 2



Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Cable Tray - Unit 1 & Common

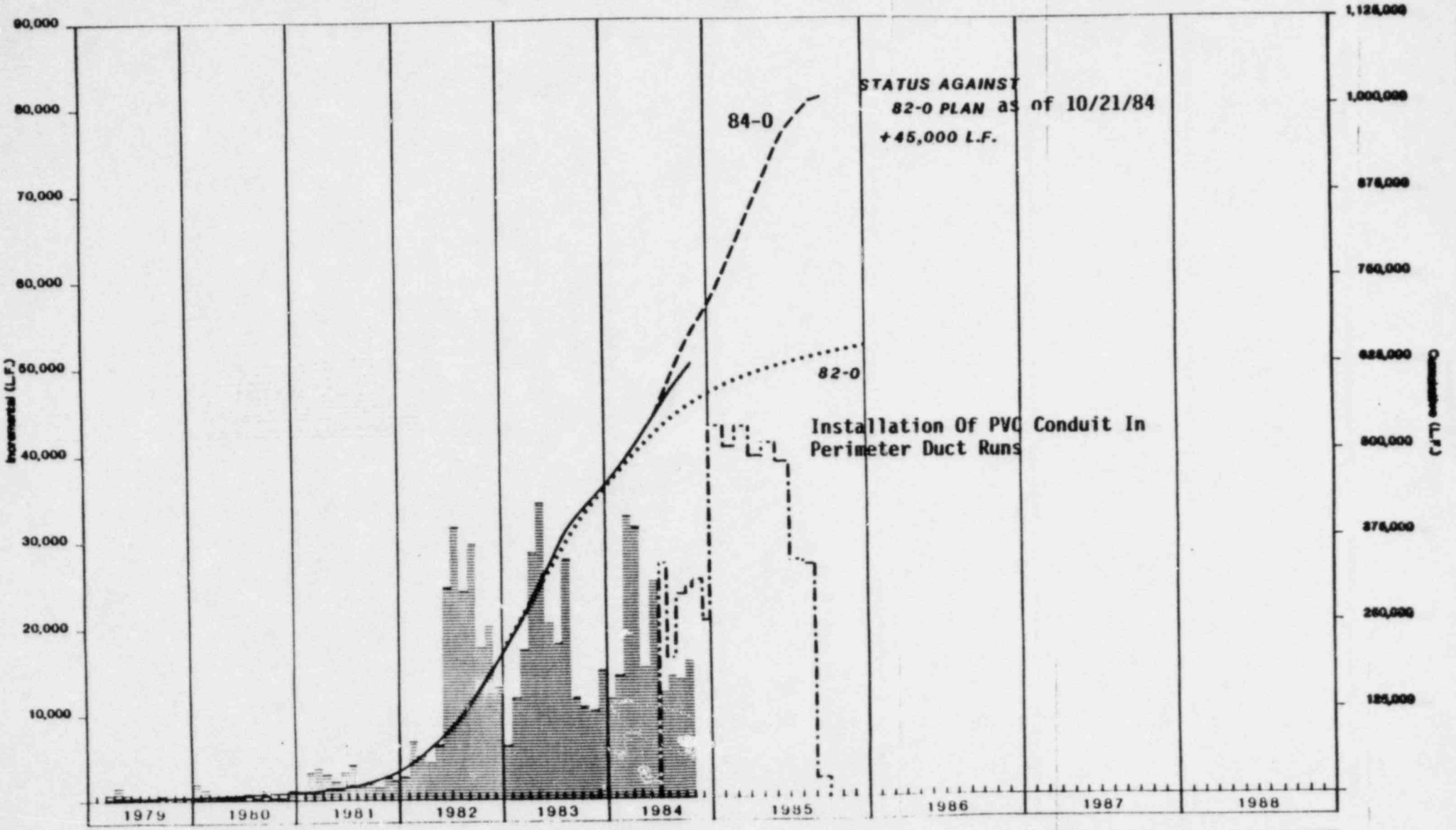
4 Week Period Ending	10/21/84
Total Planned	151,912 L.F.
Planned To Date	142,973 L.F.
Actual To Date	138,420 L.F.



Legend
Scheduled
Actual
Planned Increment
Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Cable Tray - Units 1 & 2

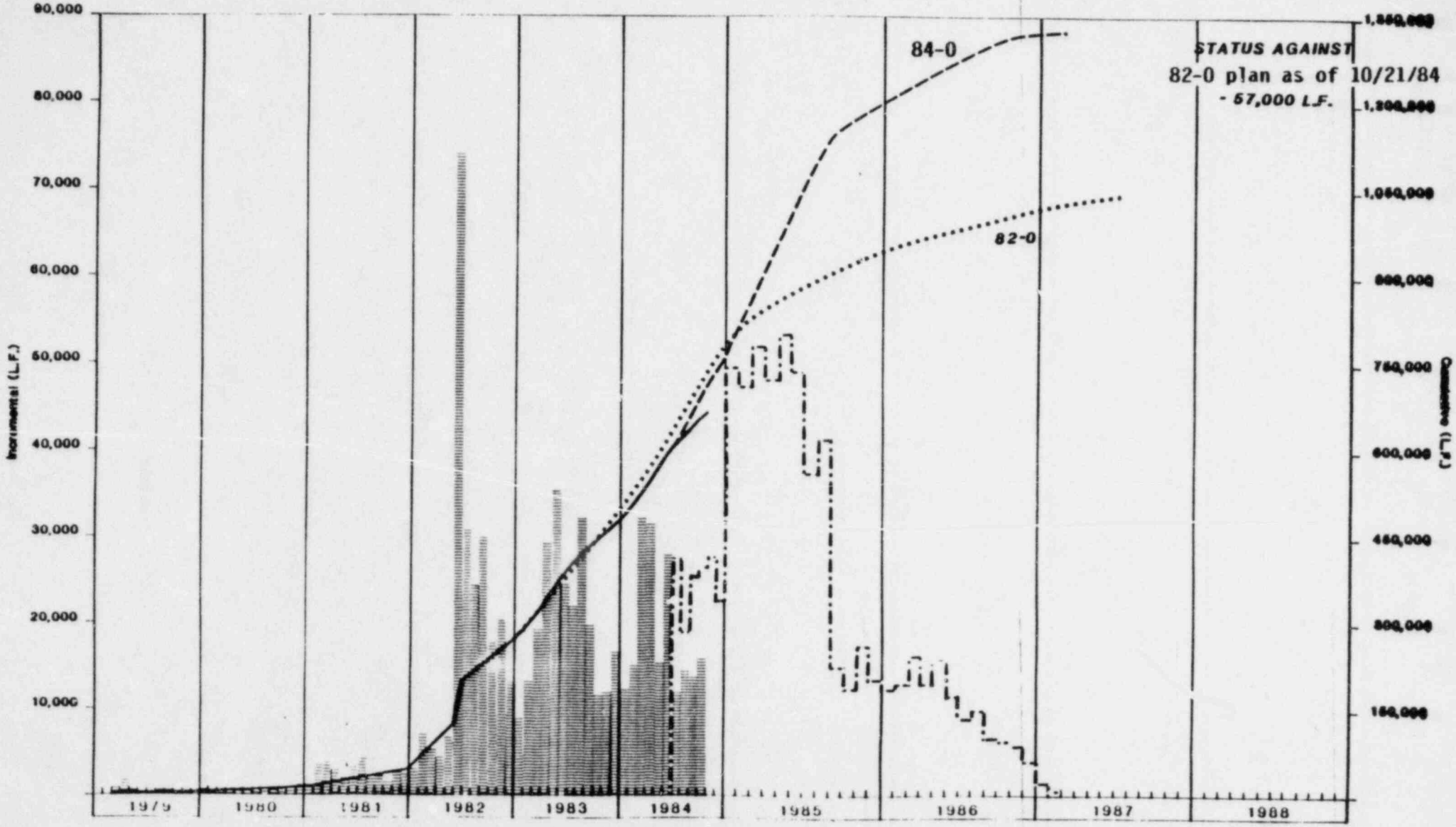
4 Week Period Ending:	10/21/84
Total Planned:	248,627 L.F.
Planned To Date:	162,884 L.F.
Actual To Date:	153,650 L.F.



Legend
Scheduled
Actual
Planned Increment
Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Conduit - Unit 1 & Common

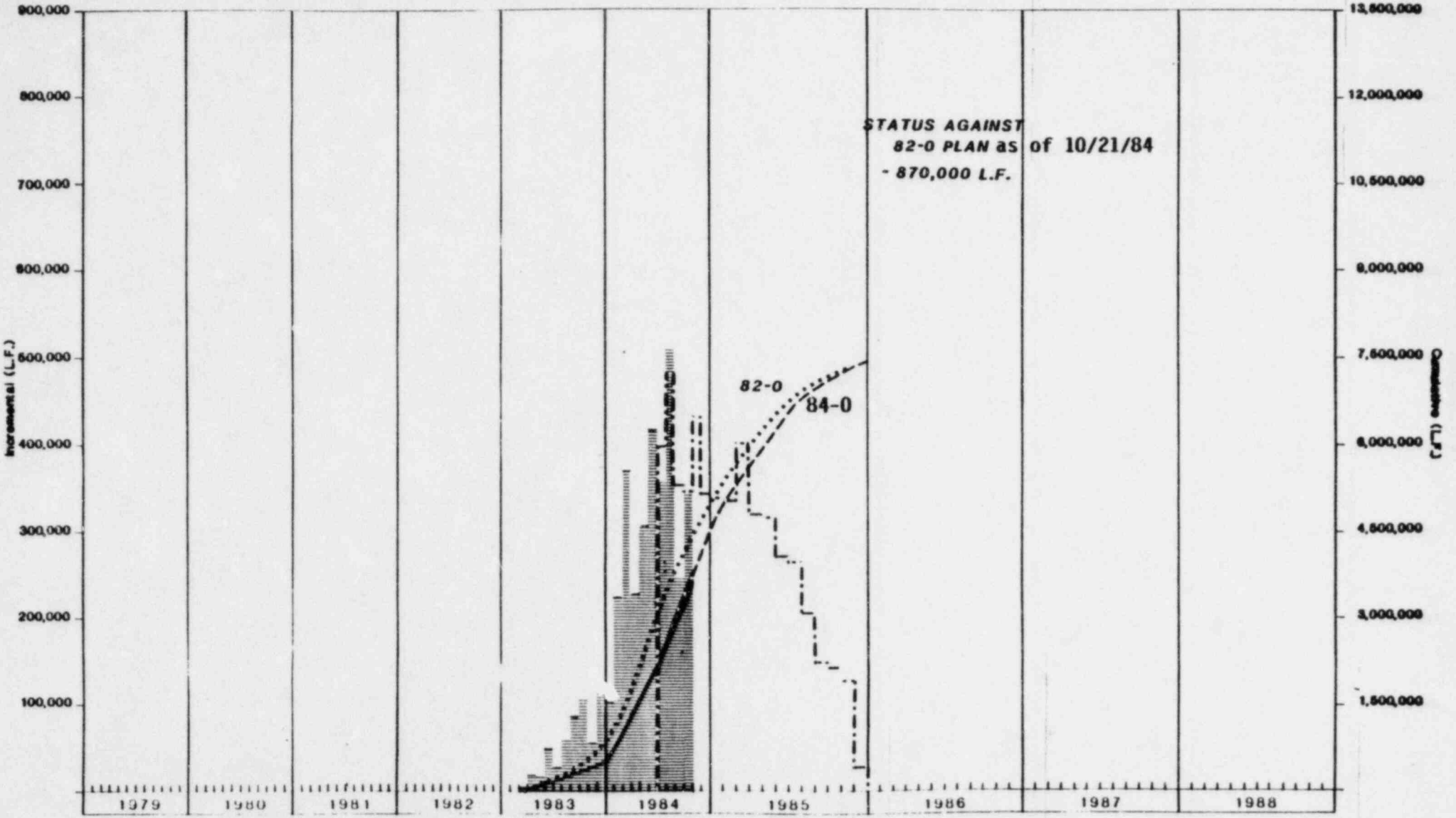
4 Week Period Ending 10/21/84	
Total Planned:	1,014,357 L.F.
Planned To Date:	663,664 L.F.
Actual To Date:	627,489 L.F.



Legend
Scheduled
Actual
Planned Increment
Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Conduit - Units 1 & 2

4 Week Period Ending:	10/21/84
Total Planned:	1,328,917 L.F.
Planned To Date:	712,932 L.F.
Actual To Date:	670,787 L.F.



Legend

Scheduled

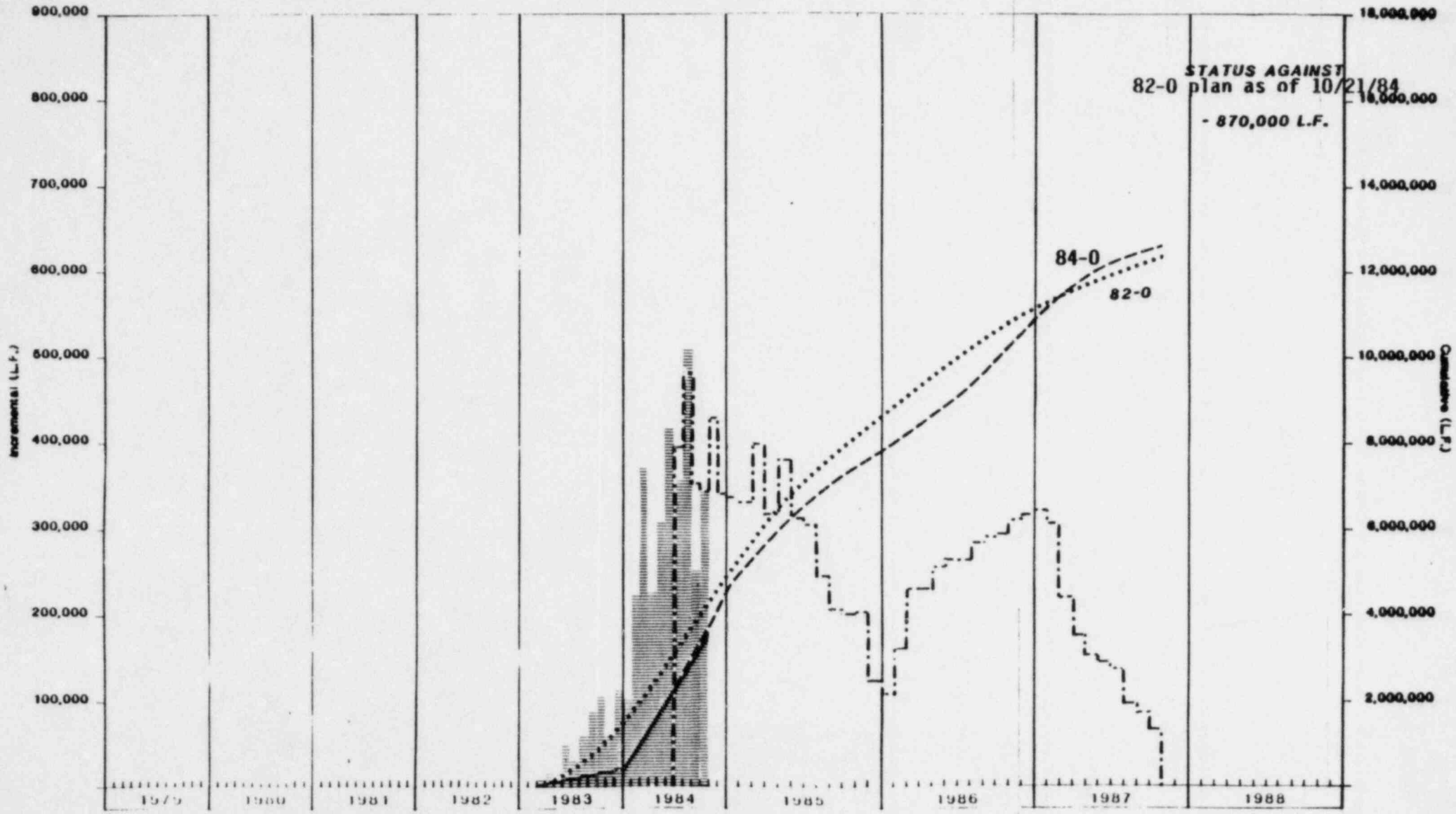
Actual

Planned Increment

Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Wire & Cable - Unit 1 & Common

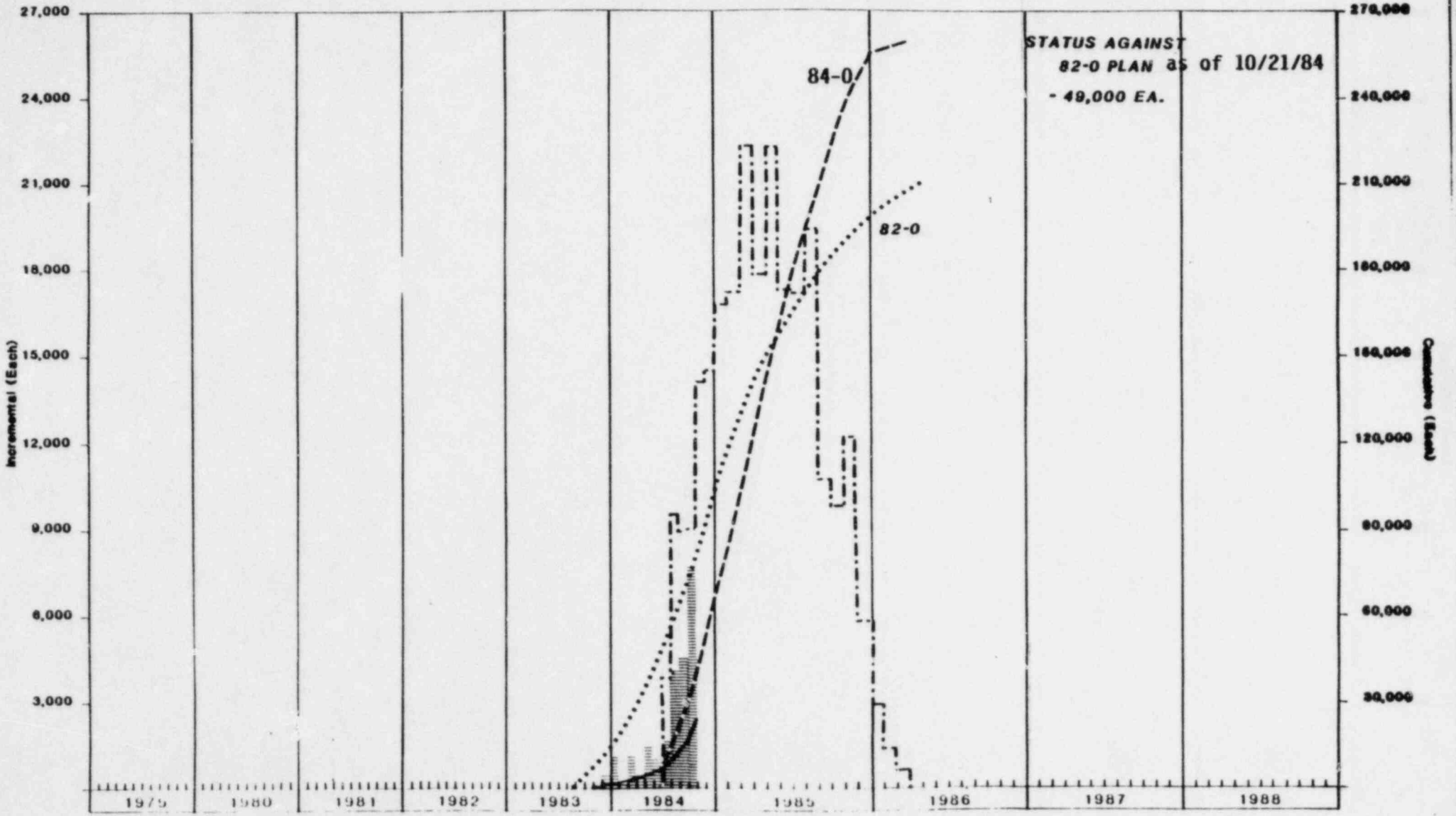
4 Week Period Ending:	10/21/84
Total Planned:	7,484,200 L.F.
Planned To Date:	3,725,456 L.F.
Actual To Date:	3,629,931 L.F.



Legend
Scheduled
Actual
Planned Incremental
Actual Incremental

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Wire & Cable - Units 1 & 2

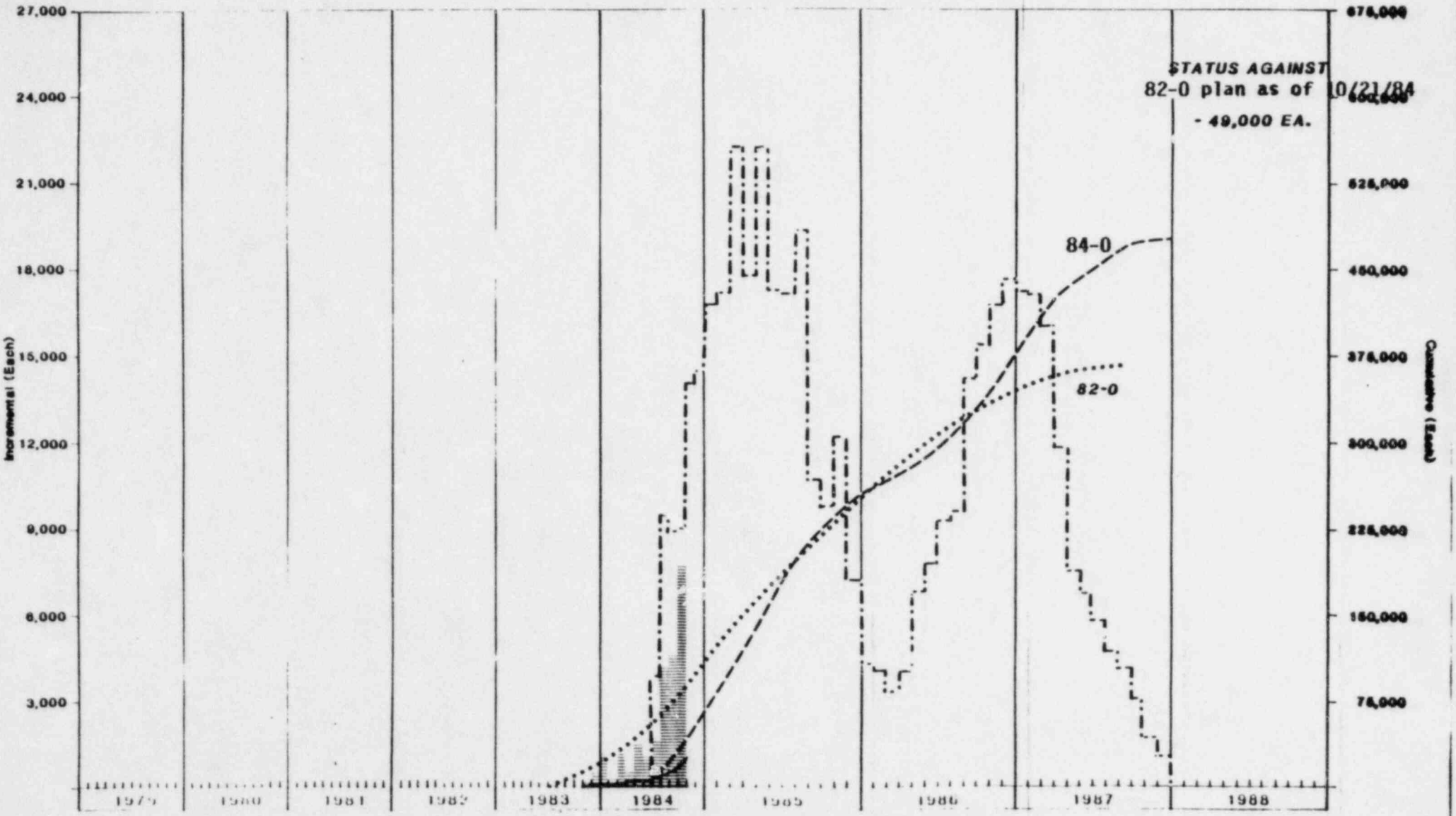
4 Week Period Ending:	10/21/84
Total Planned:	12,646,300 L.F.
Planned To Date:	3,725,456 L.F.
Actual To Date:	3,629,931 L.F.



Legend
Scheduled
Actual
Planned Increment
Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Terminations - Unit 1 & Common

4 Week Period Ending	10/21/84
Total Planned:	260,000 Each
Planned To Date:	37,206 Each
Actual To Date:	24,002 Each



Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Terminations - Units 1 & 2

4 Week Period Ending	10/21/84
Total Planned	467,384 Each
Planned To Date	37,208 Each
Actual To Date	24,002 Each

NRC CASELOAD FORECAST

QUANTITY COMPARISON CURVE DATA

The current schedule represented on the following curves as 84-0 is a reforecast of remaining quantities as of June, 1984. Unit 1 & Common projections are based on system completions, while the Unit 2 portion of the total project curves is based on area schedules.

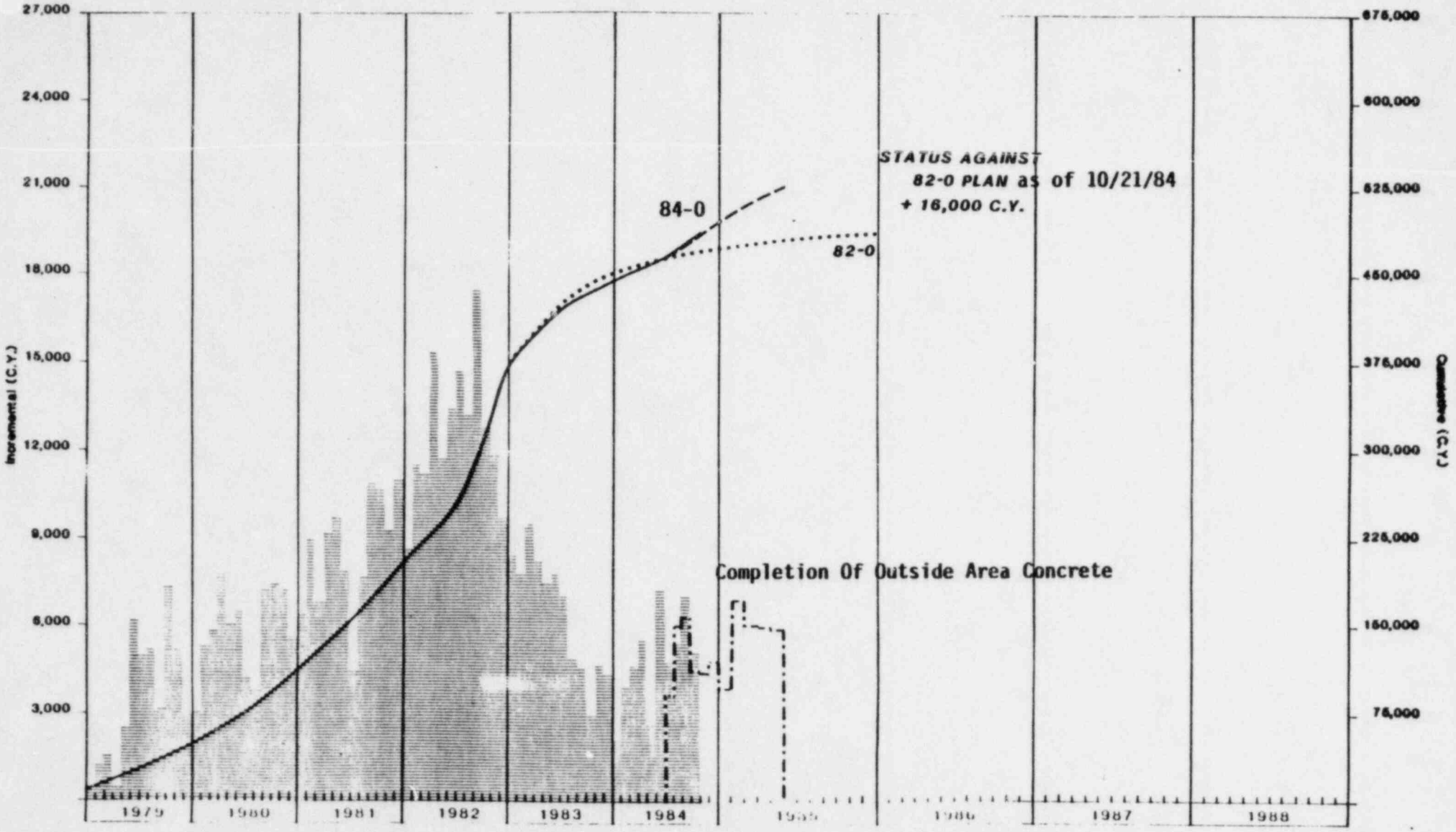
Status is also shown against the 82-0 schedule for your information since this plan was the basis for the previous Caseload Forecast information (May, 1983) submitted by GPC.

Significant changes to the project work plan since the 82-0 schedule and incorporated in the 84-0 schedule are as follows:

1. A reallocation of Unit 1 and Common quantities to include Unit 2 quantities when they are located within the Unit 1 physical boundary. (Resulted in an increase in what we define currently as Unit 1 and Common.)

2. Schedule adjustments to the Unit 2 work effort to put Unit 2 on a "stand alone" schedule basis. (Unit 2 is worked to support Unit 2 fuel load and not earlier.)

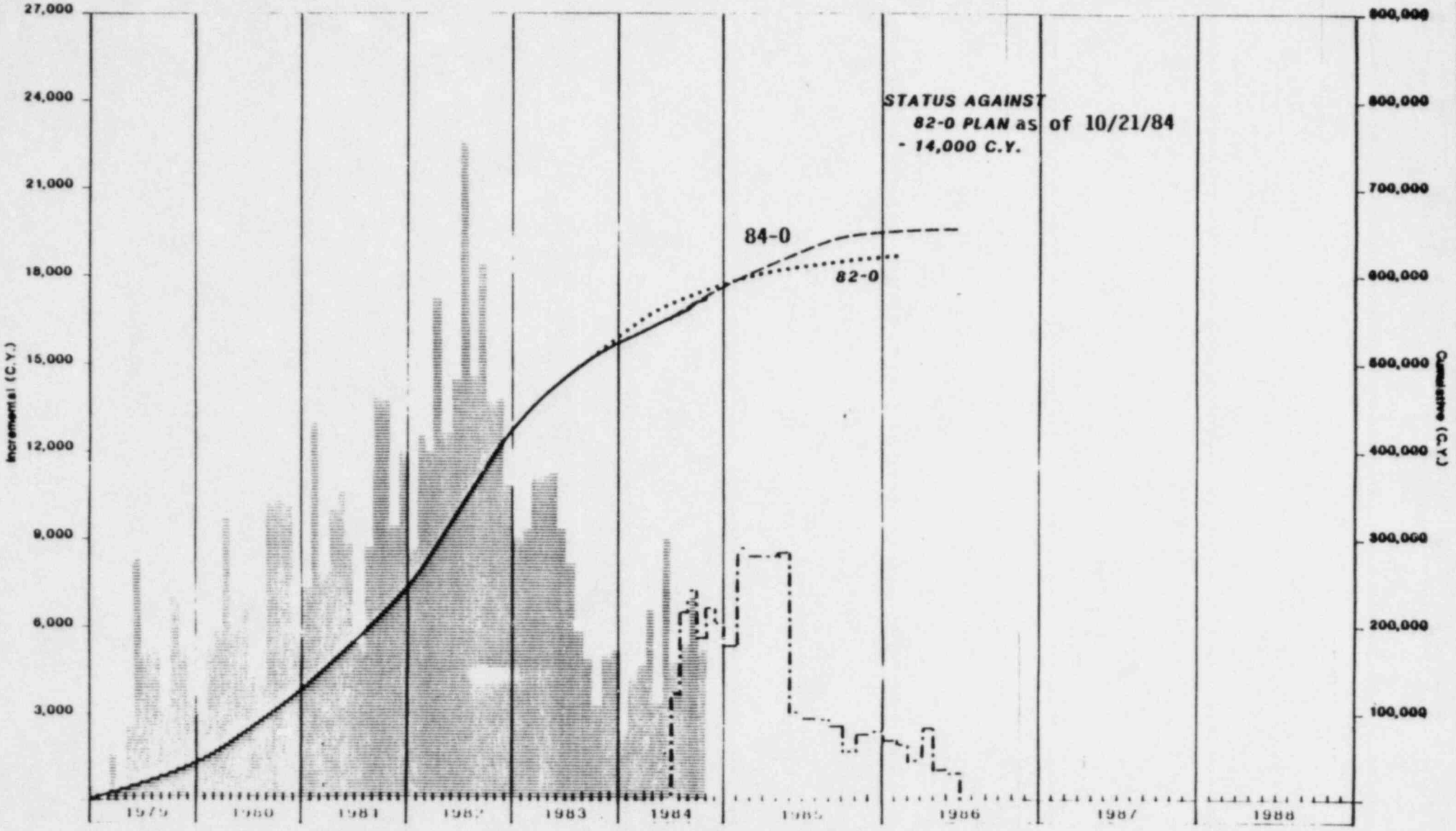
3. Hangers (large and small) are currently (84-0) tracked complete when Q.C. has signed off. The 82-0 work plan tracked hangers reported by construction as complete. (Prior to Q.C. sign-off)



Legend
Scheduled
Actual
Planned Increment
Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Concrete - Unit 1 & Common

4 Week Period Ending	10/21/84
Total Planned	526,938 C.Y.
Planned To Date	489,268 C.Y.
Actual To Date	490,957 C.Y.



Legend

Scheduled

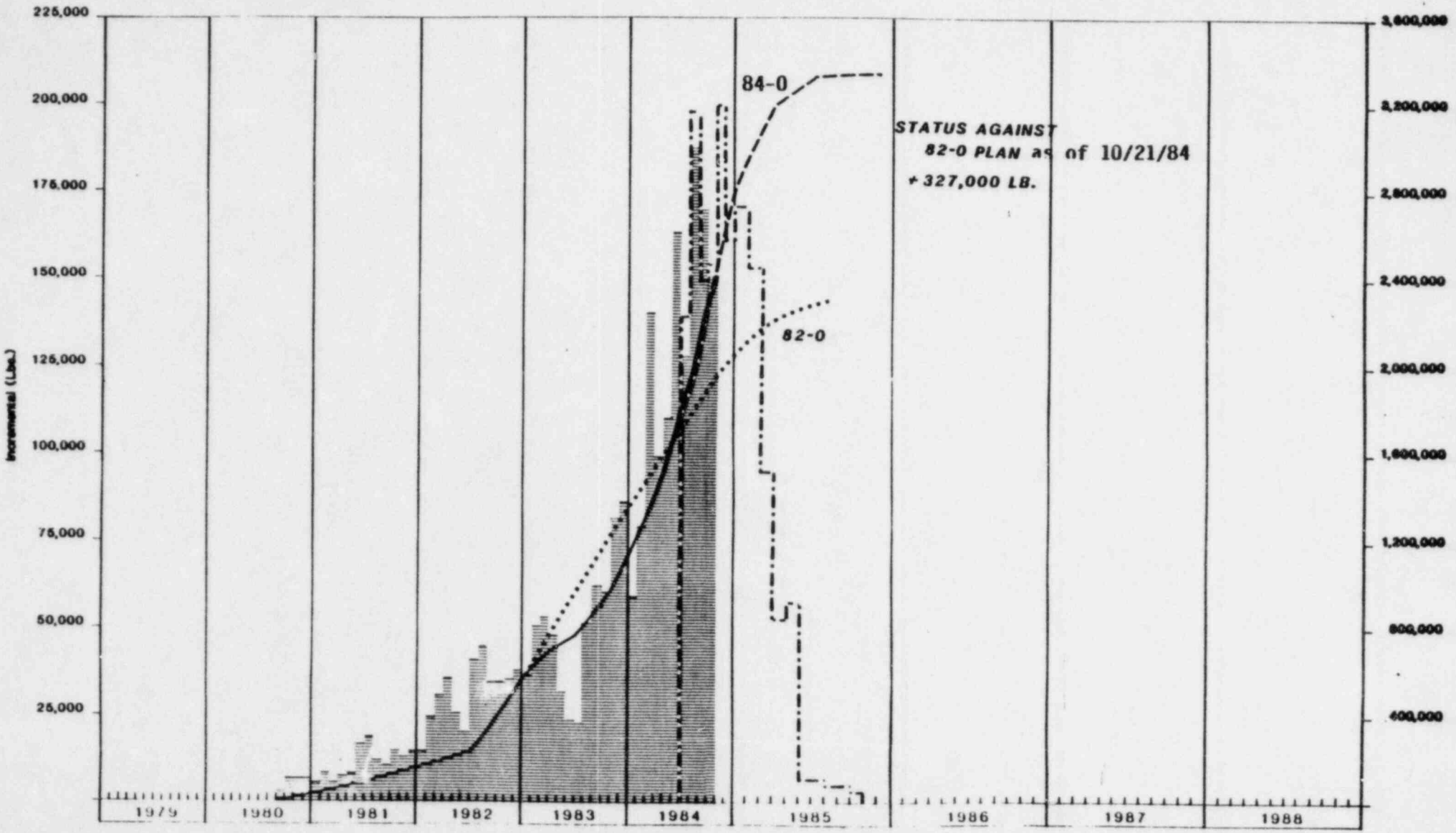
Actual

Planned Increment

Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Concrete - Units 1 & 2

4 Week Period Ending	10/21/84
Total Planned	656,753 C.Y.
Planned To Date	576,473 C.Y.
Actual To Date	575,663 C.Y.



Legend

Scheduled

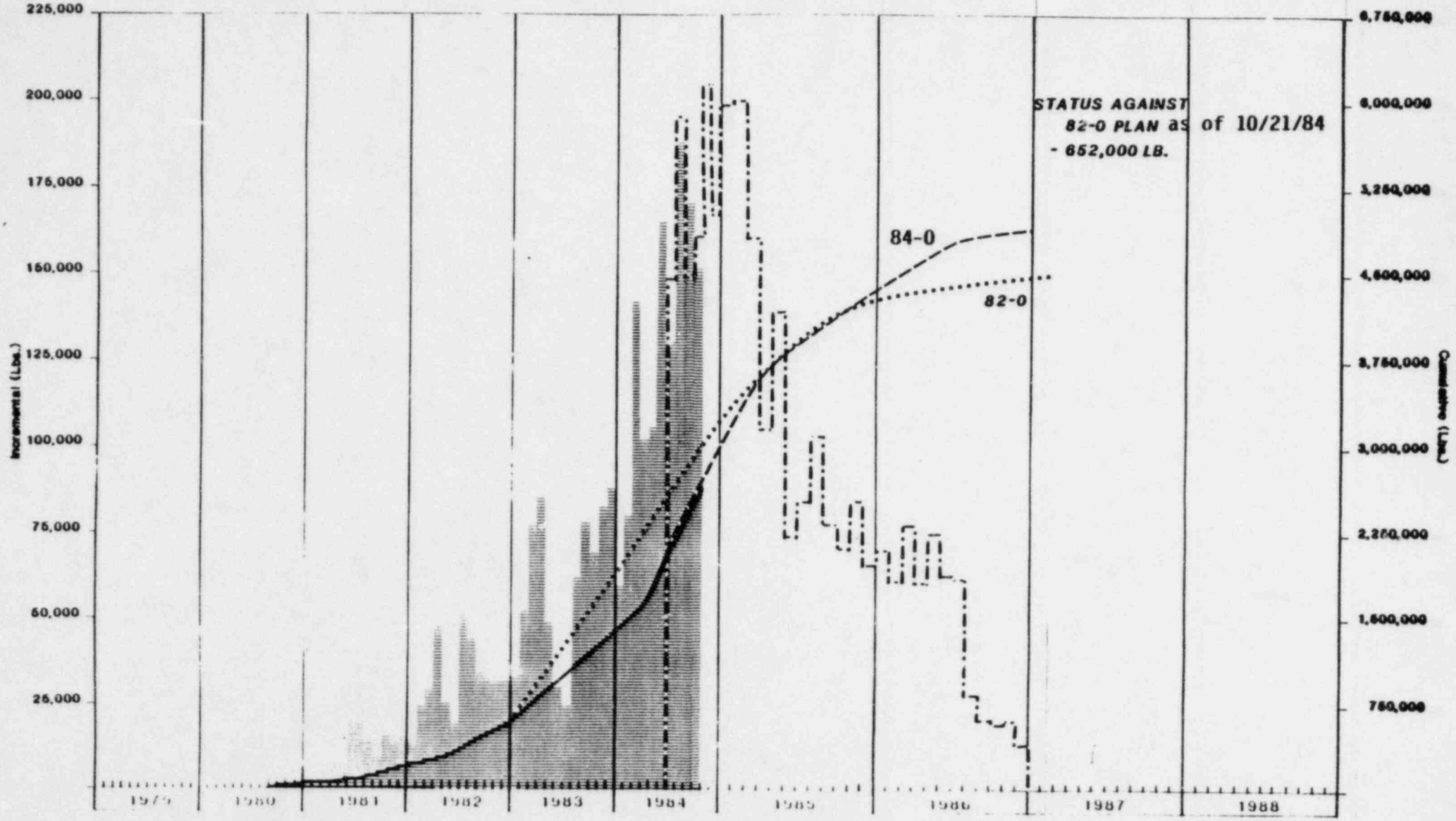
Actual

Planned Increment

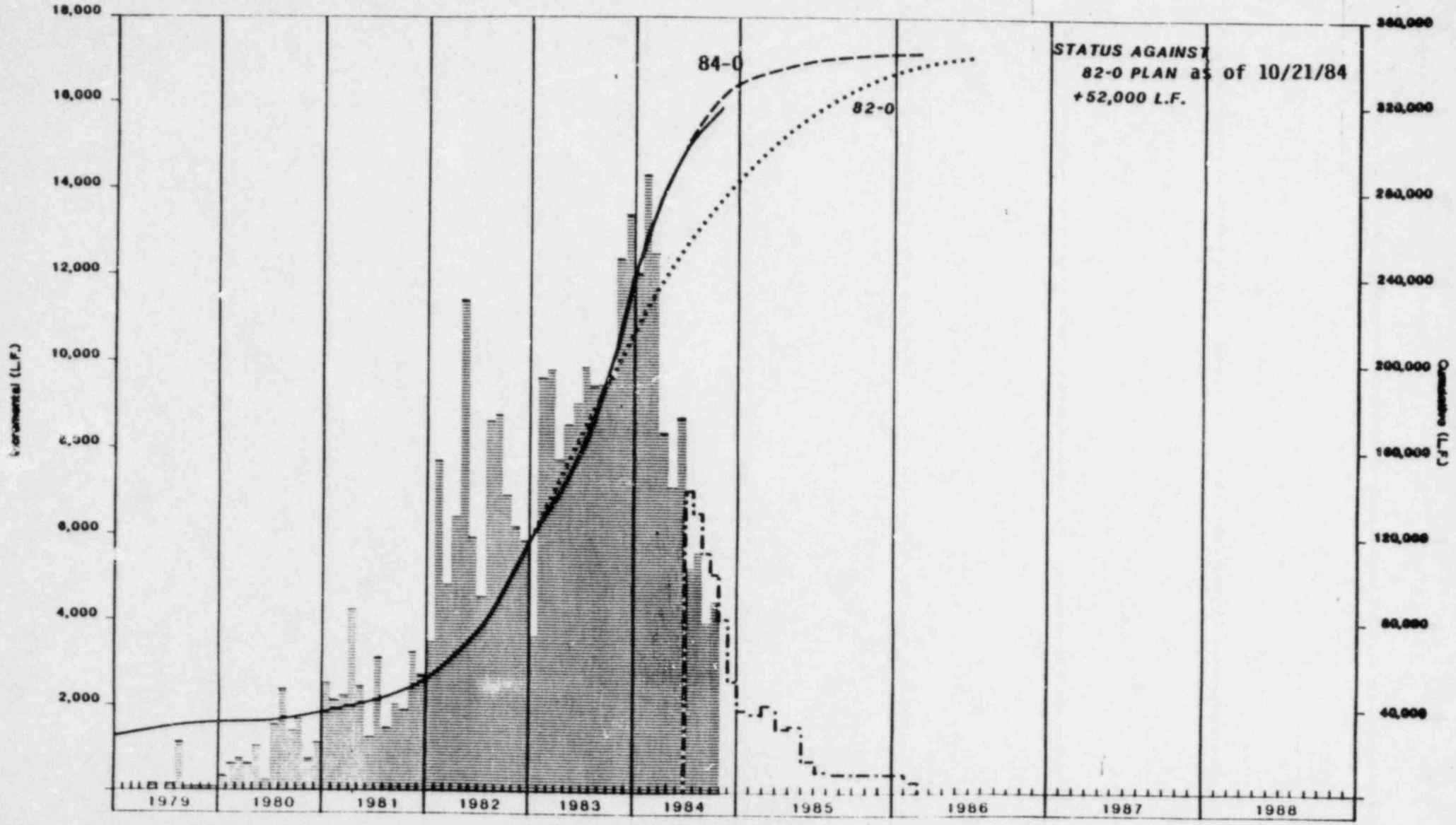
Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
HVAC - Unit 1 & Common

4 Week Period Ending:	10/21/84
Total Planned:	3,352,200 Lbs.
Planned To Date:	2,428,894 Lbs.
Actual To Date:	2,426,794 Lbs.

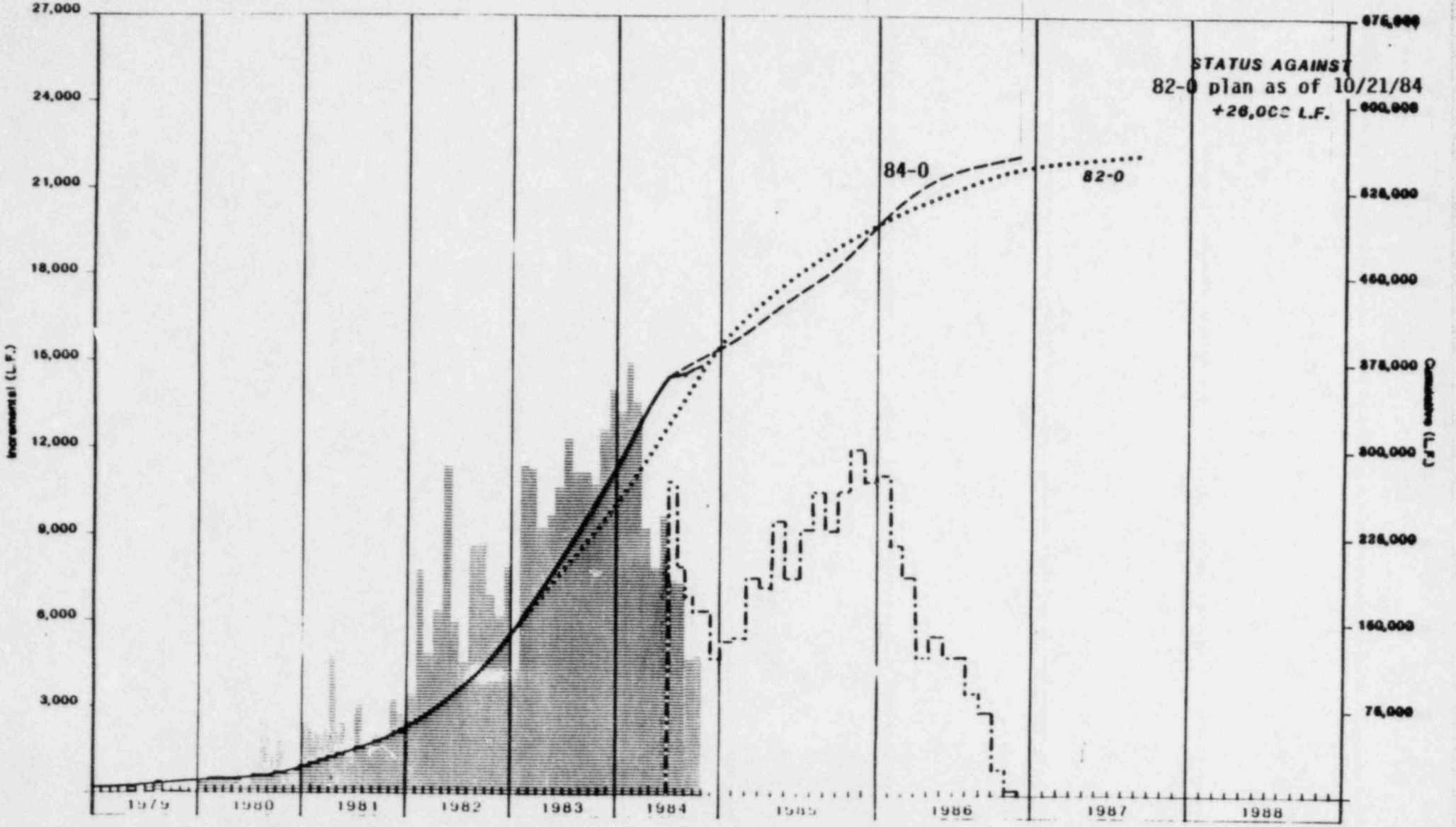


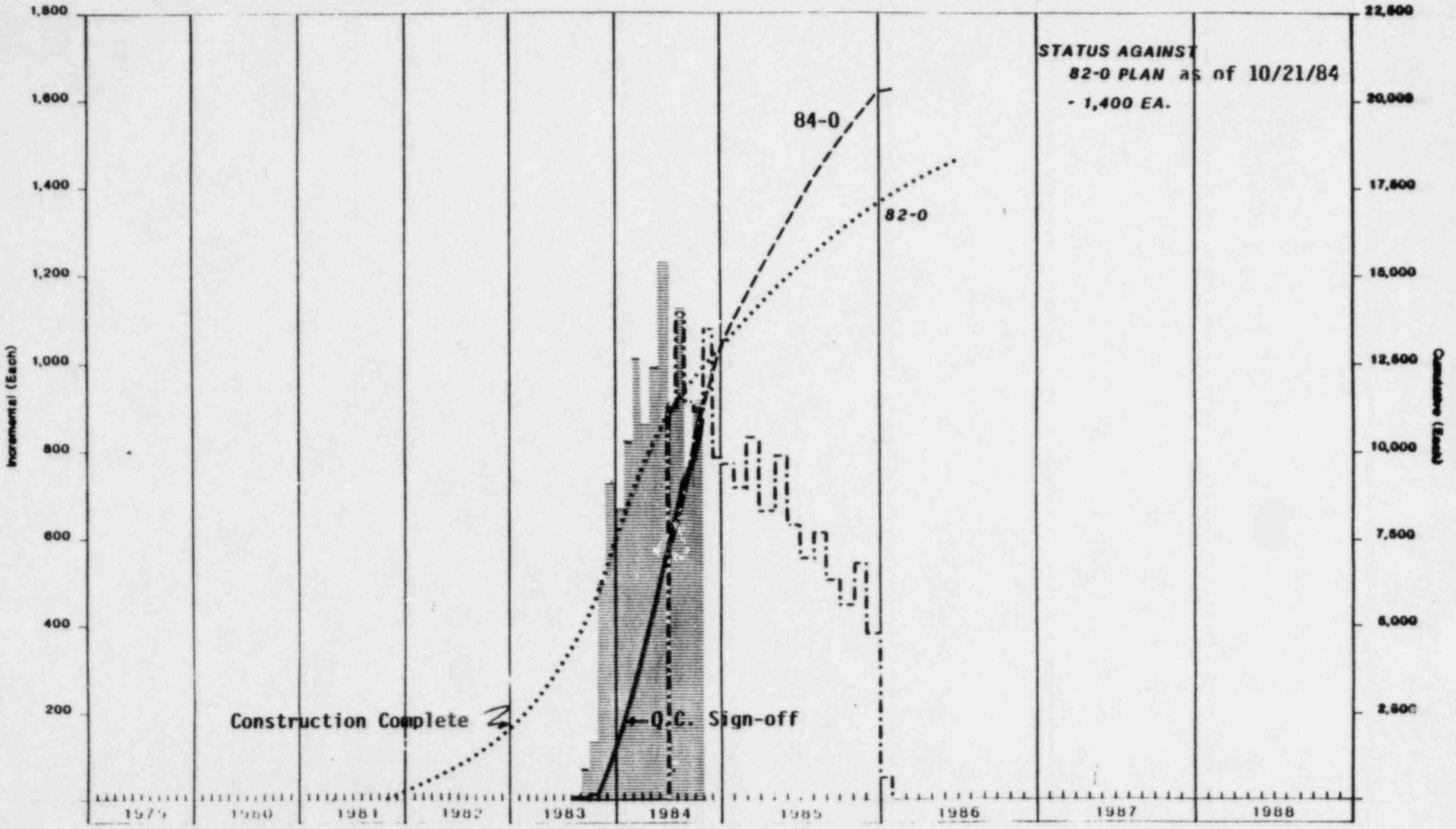
Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
HVAC - Units 1 & 2



Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Large Pipe - Unit 1 & Common

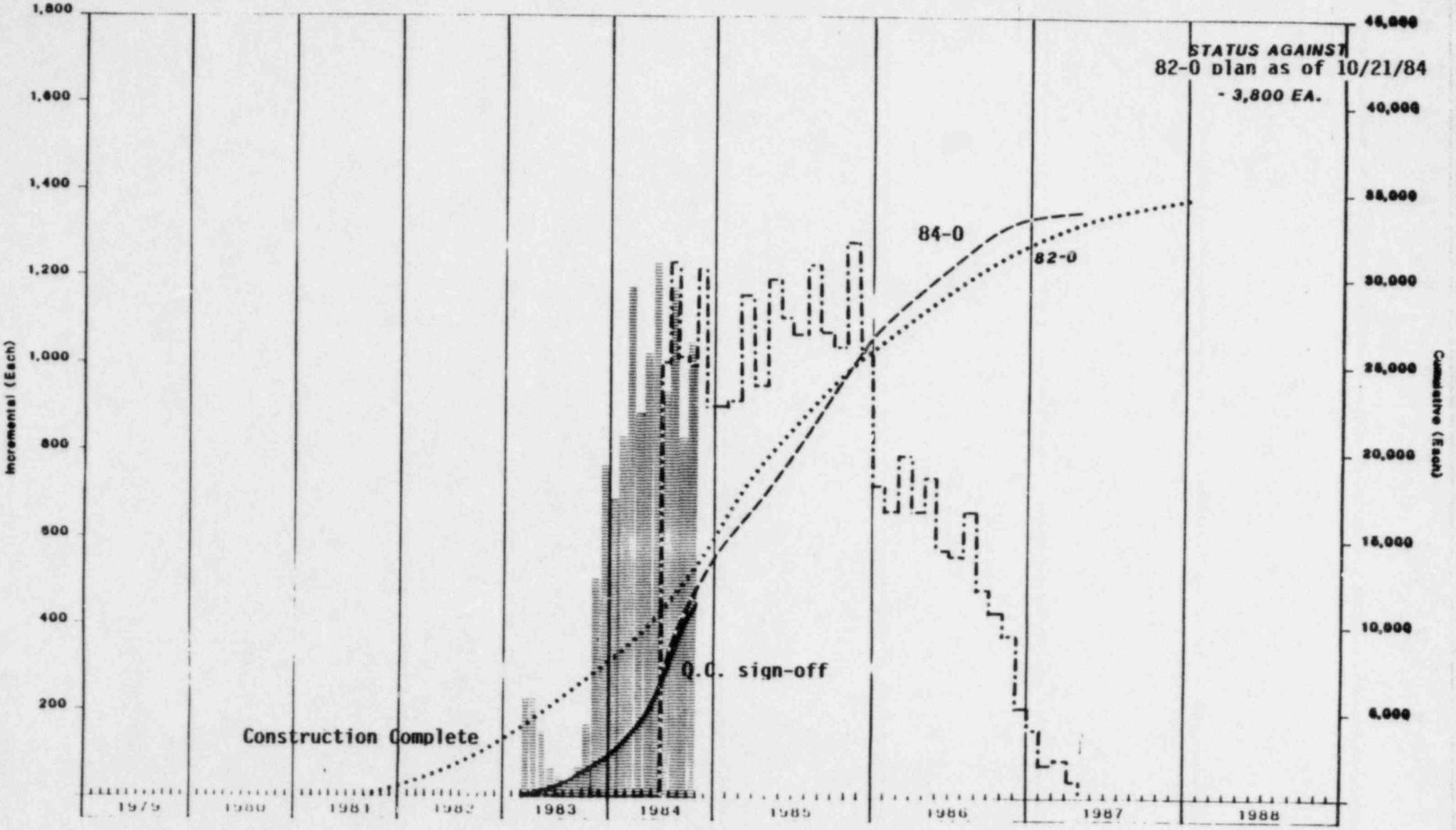
4 Week Period Ending:	10/21/84
Total Planned:	343,920 L.F.
Planned To Date:	324,253 L.F.
Actual To Date:	318,446 L.F.


27,000
24,000
21,000
18,000
15,000
12,000
9,000
6,000
3,000
Incremental (L.F.)
676,000
600,000
526,000
450,000
376,000
300,000
226,000
150,000
75,000
Cumulative (L.F.)
STATUS AGAINST
82-0 plan as of 10/21/84
+26,000 L.F.
84-0
82-0
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
Legend
Schedule
Actual
Planned Increment
Actual Increment
Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Large Pipe - Units 1 & 2
4 Week Period Ending 10/21/84
Total Planned 553,769 L.F.
Planned To Date 382,005 L.F.
Actual To Date 373,020 L.F.



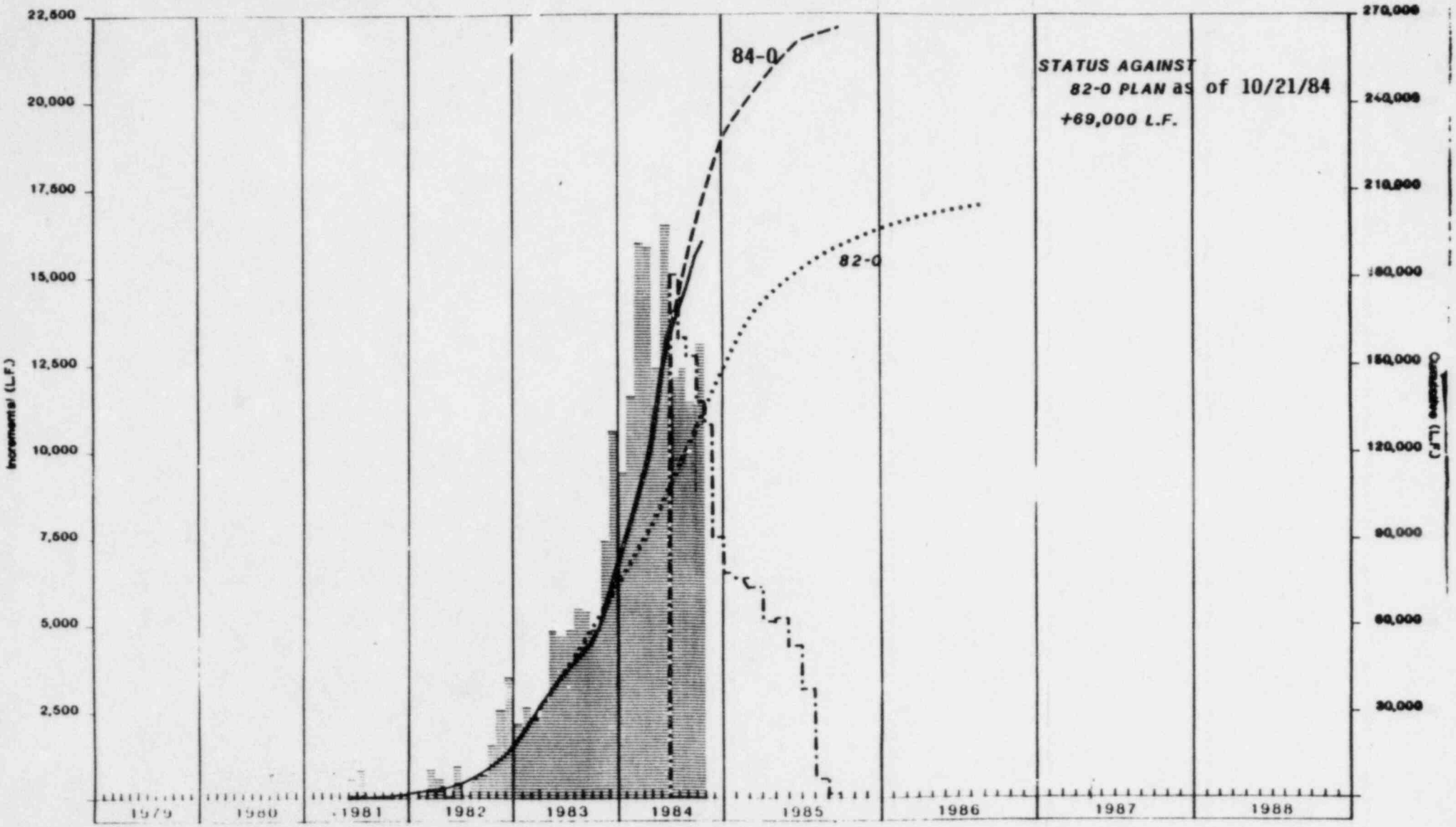
Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Large Pipe Hangers - Unit 1 & Common

4 Week Period Ending	10/21/84
Total Planned	20,297 Each
Planned To Date	10,908 Each
Actual To Date	10,798 Each



Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Large Pipe Hangers - Units 1 & 2

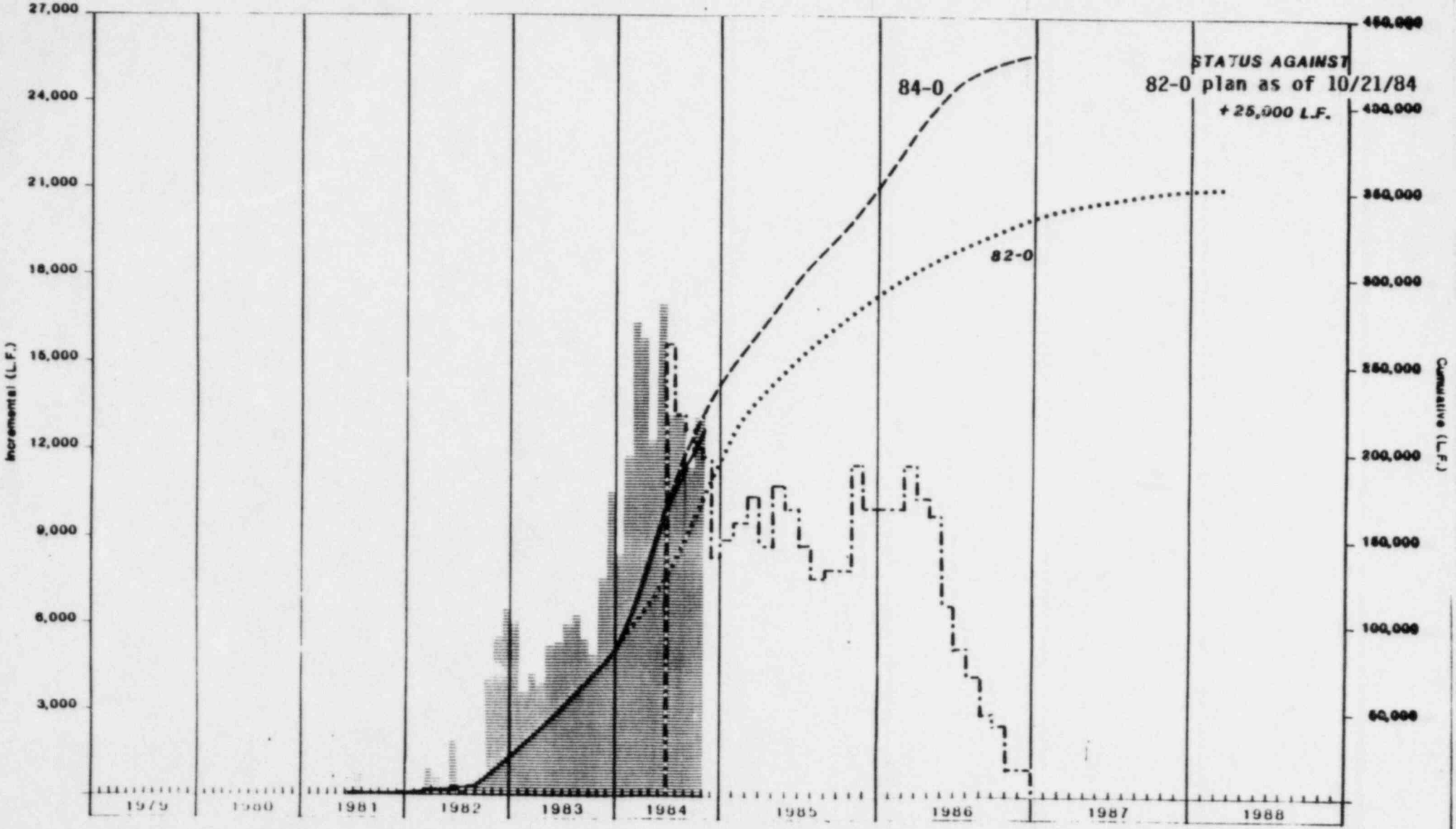
4 Week Period Ending:	10/21/84
Total Planned:	33,936 Each
Planned To Date:	11,690 Each
Actual To Date:	11,326 Each



Legend
Scheduled
Actual
Planned Increment
Actual Increment

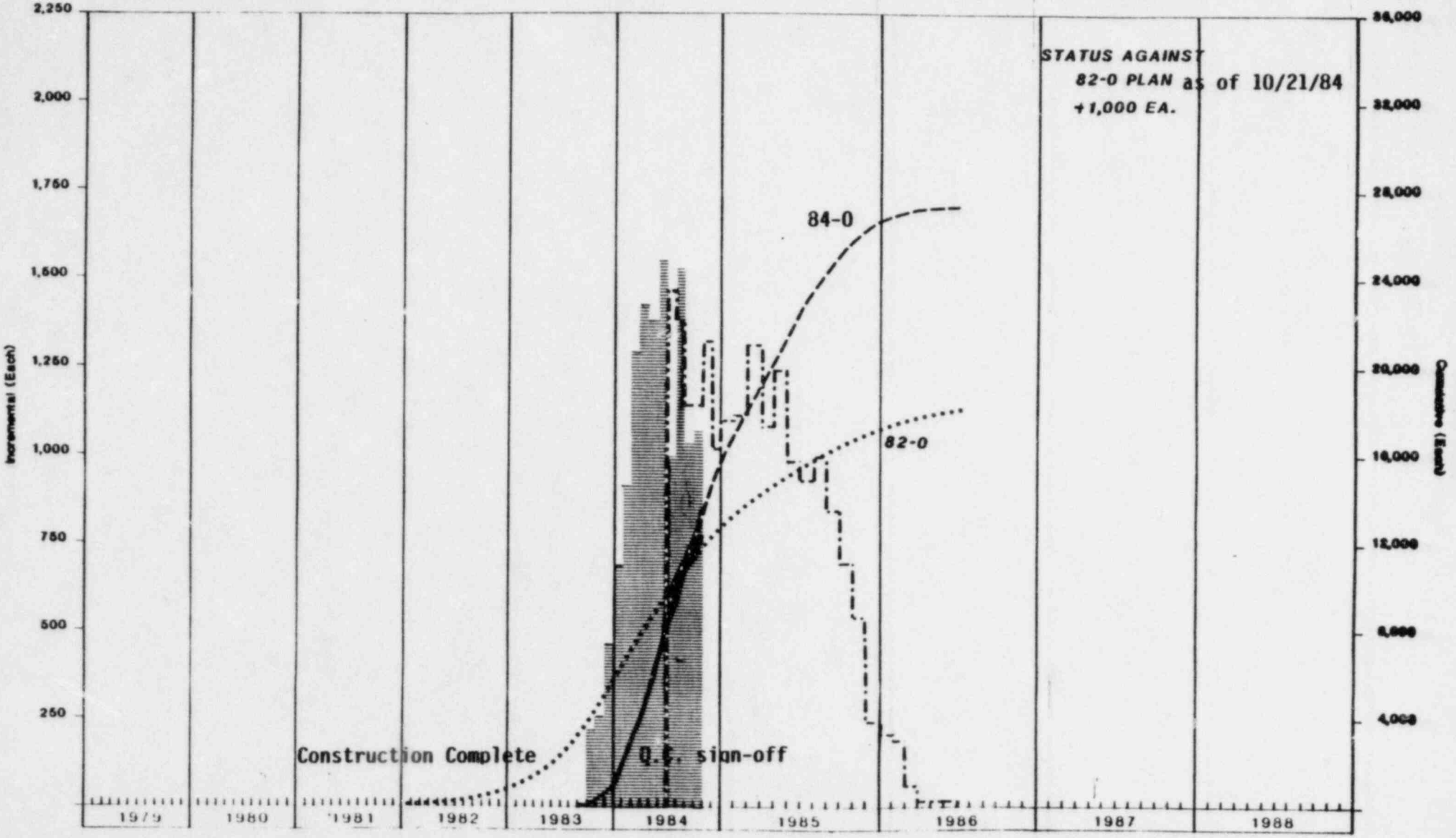
Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Small Pipe - Unit 1 & Common

4 Week Period Ending:	10/21/84
Total Planned:	265,891 L.F.
Planned To Date:	209,103 L.F.
Actual To Date:	201,498 L.F.



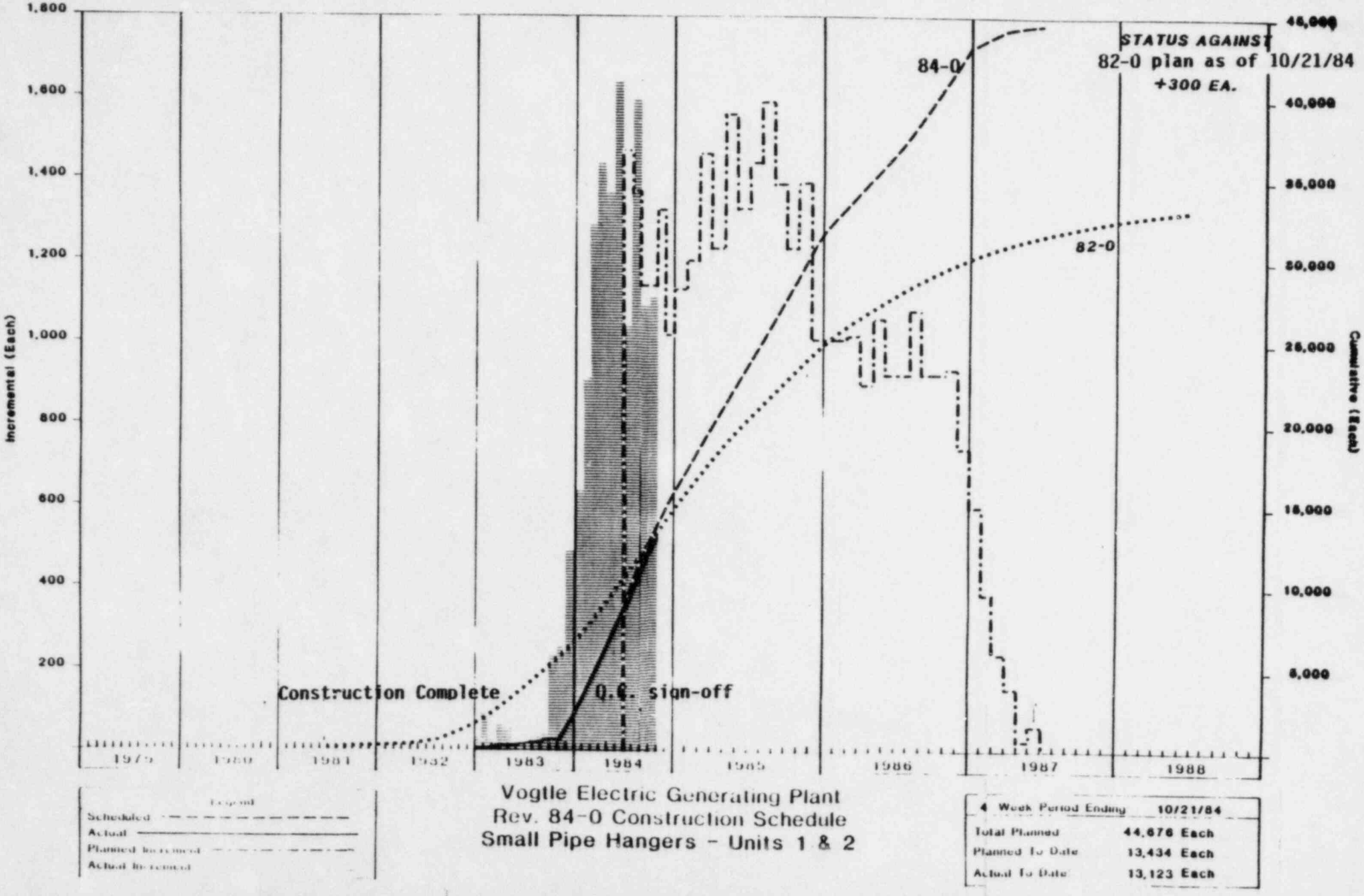
Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Small Pipe - Units 1 & 2

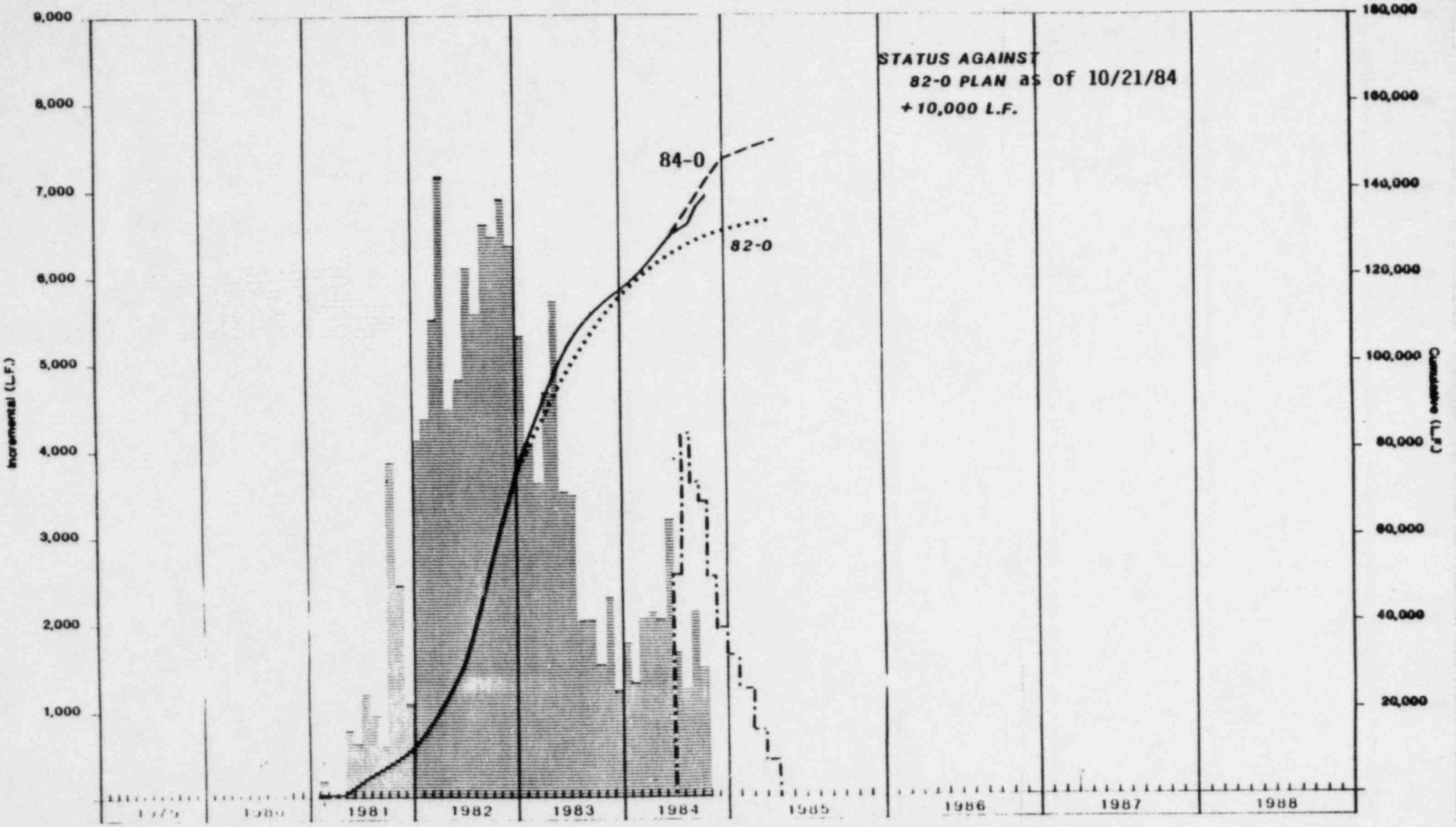
4 Week Period Ending	10/21/84
Total Planned	427,670 L.F.
Planned To Date	219,274 L.F.
Actual To Date	212,150 L.F.



Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Small Pipe Hangers - Unit 1 & Common

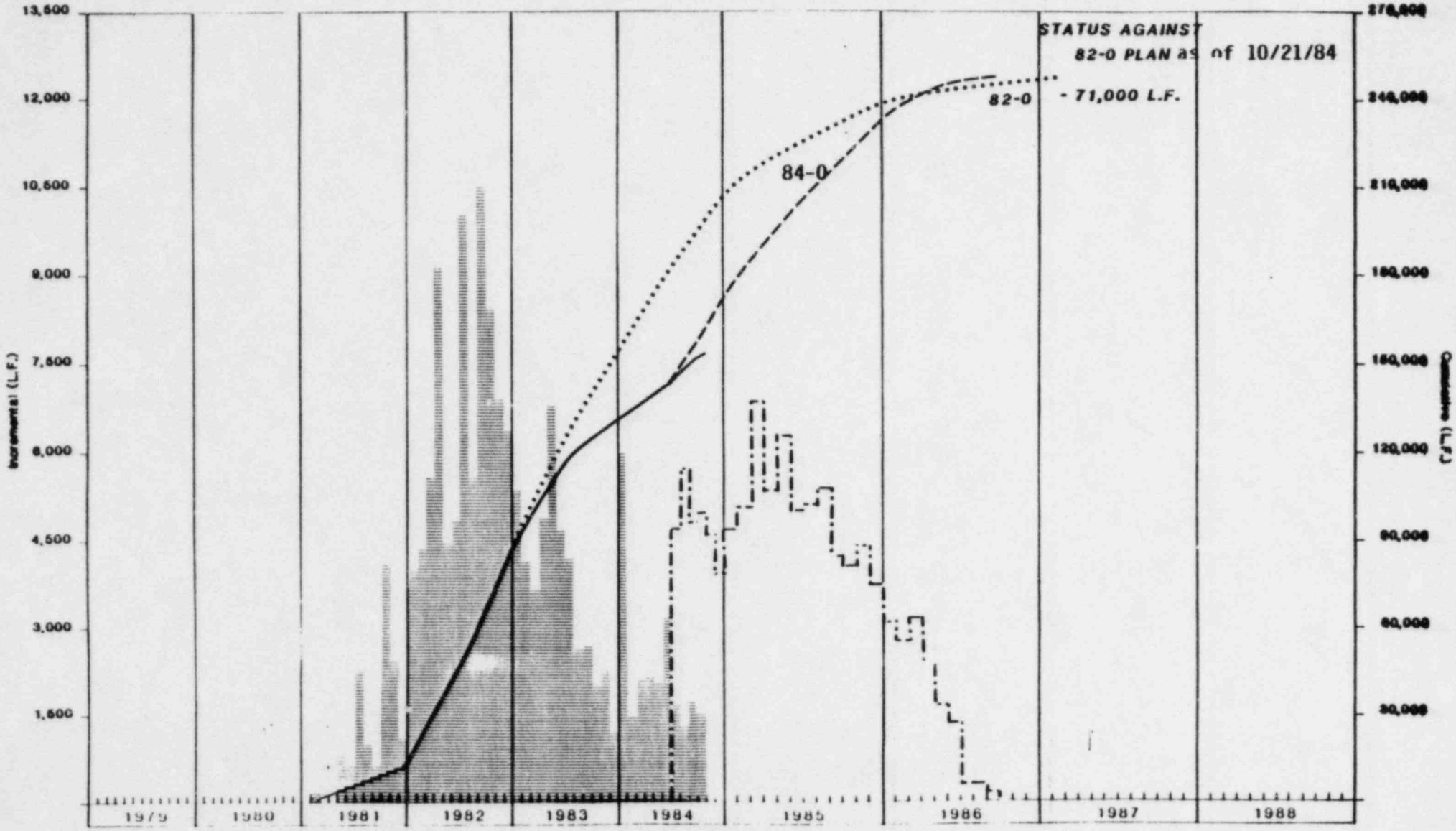
4 Week Period Ending:	10/21/84
Total Planned:	27,269 Each
Planned To Date:	13,310 Each
Actual To Date:	12,786 Each


1,800
1,600
1,400
1,200
1,000
800
600
400
200
Incremental (Each)
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
Cumulative (Each)
STATUS AGAINST
82-0 plan as of 10/21/84
+300 EA.
84-0
82-0
Construction Complete
Q.C. sign-off
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
Legend
Scheduled
Actual
Planned Increment
Actual Increment
Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Small Pipe Hangers - Units 1 & 2
4 Week Period Ending 10/21/84
Total Planned 44,676 Each
Planned To Date 13,434 Each
Actual To Date 13,123 Each



Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Cable Tray - Unit 1 & Common

4 Week Period Ending:	10/21/84
Total Planned:	151,912 L.F.
Planned To Date:	142,973 L.F.
Actual To Date:	138,420 L.F.



Legend

Scheduled

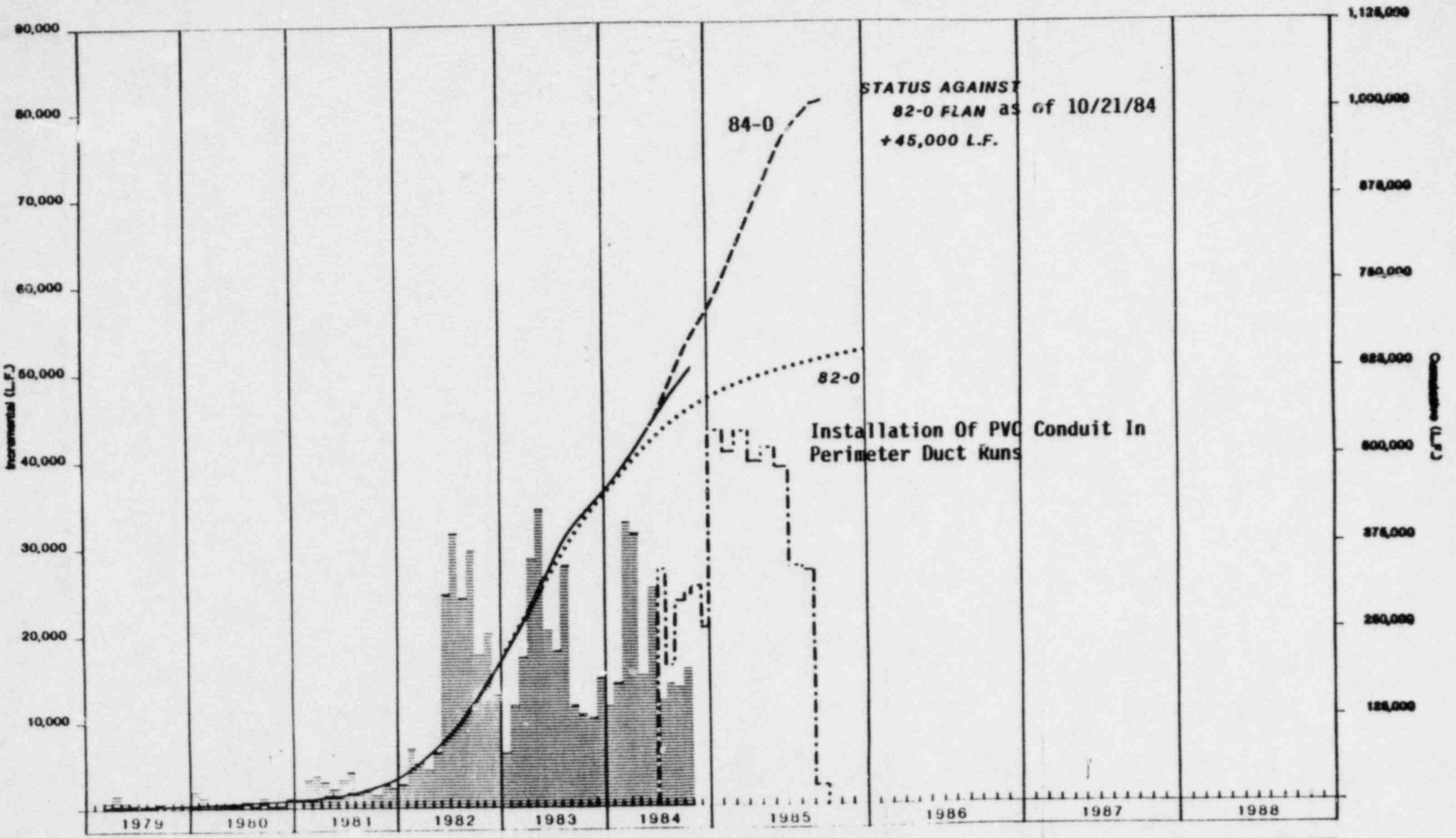
Actual

Planned Increment

Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Cable Tray - Units 1 & 2

4 Week Period Ending:	10/21/84
Total Planned:	248,823 L.F.
Planned To Date:	162,883 L.F.
Actual To Date:	153,650 L.F.

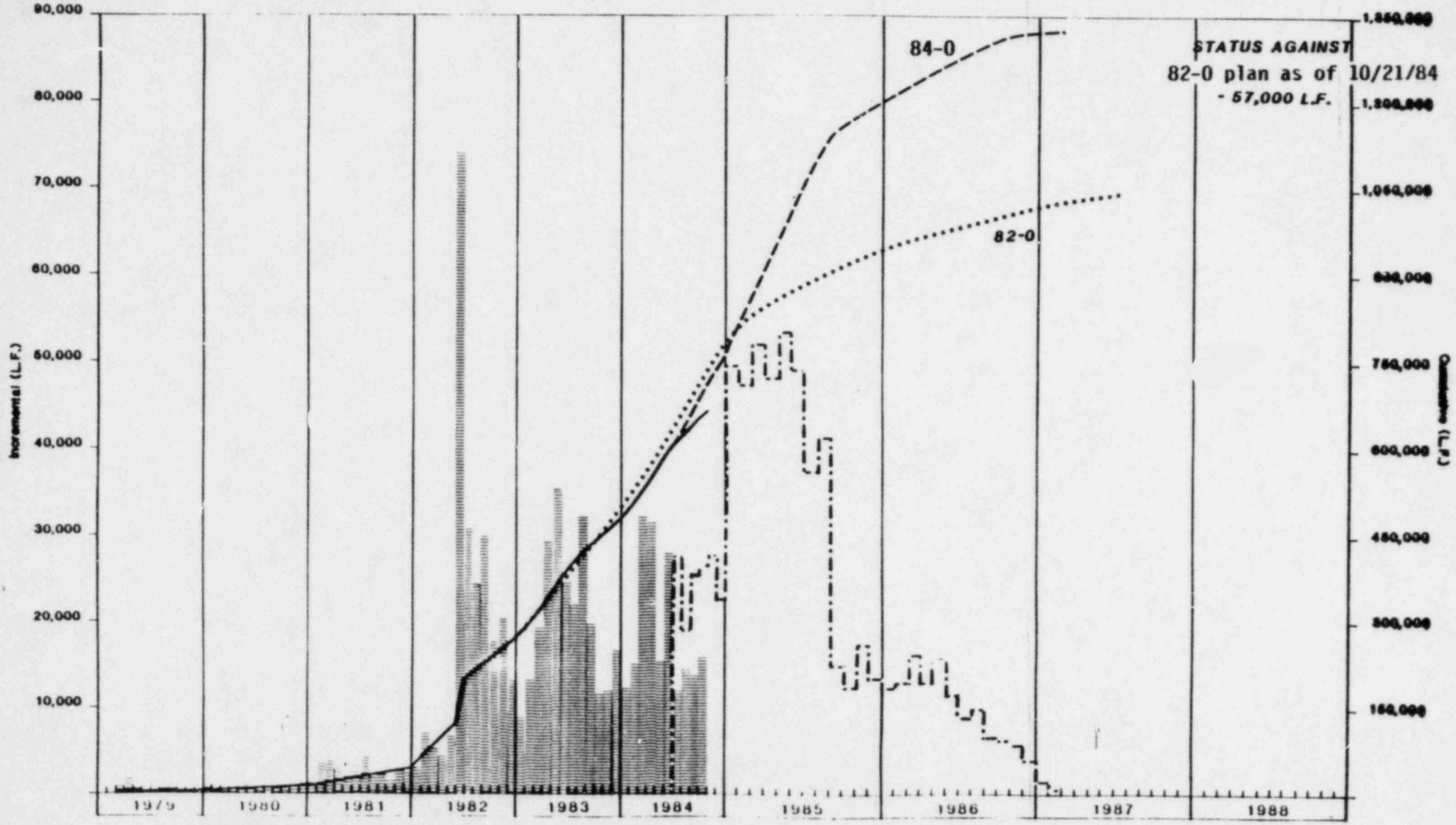


Legend

- Scheduled
- Actual
- Planned Increment
- Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Conduit - Unit 1 & Common

4 Week Period Ending: 10/21/84	
Total Planned:	1,014,357 L.F.
Planned To Date:	663,554 L.F.
Actual To Date:	627,489 L.F.



Legend

Scheduled

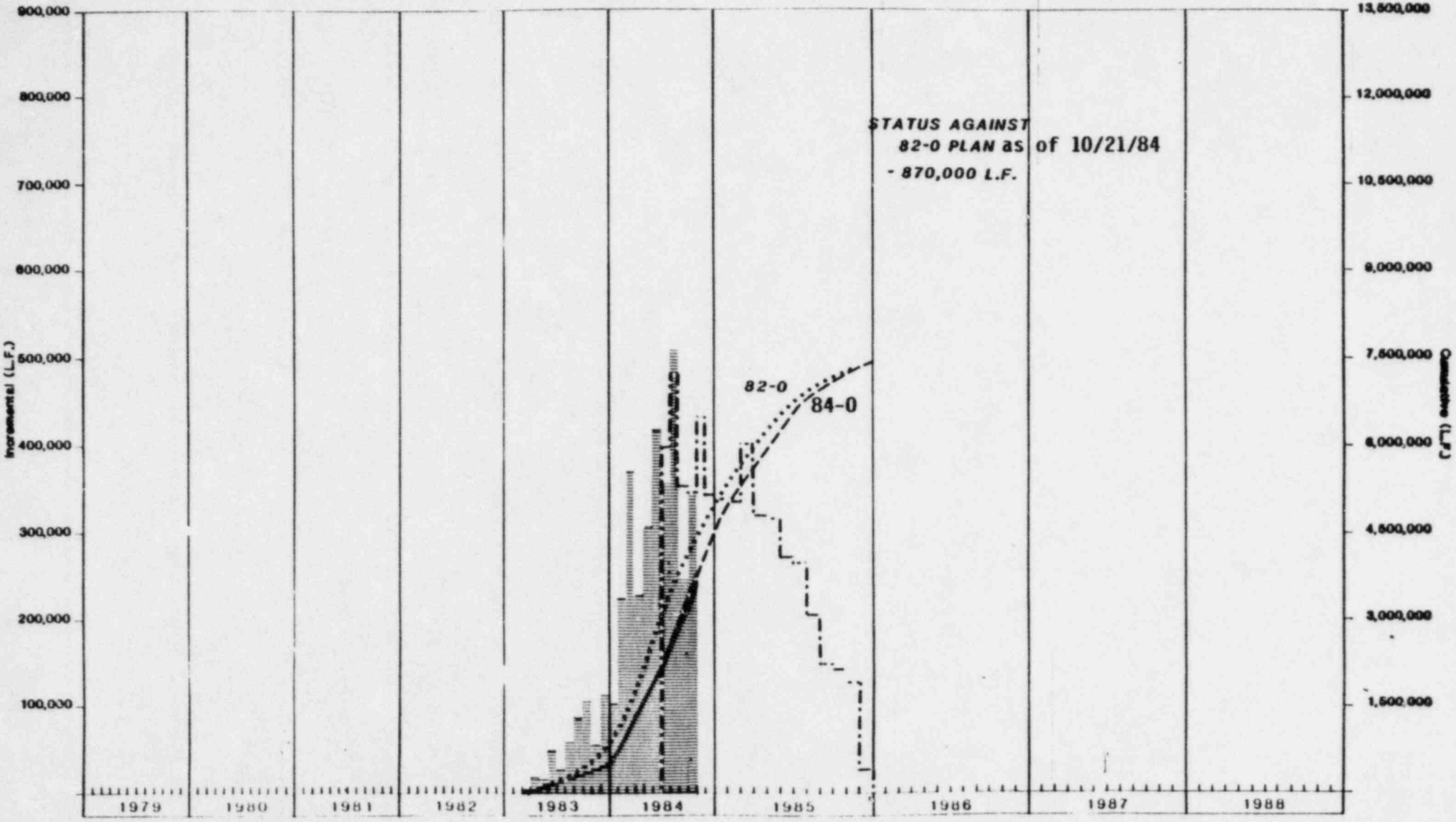
Actual

Planned Increment

Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Conduit - Units 1 & 2

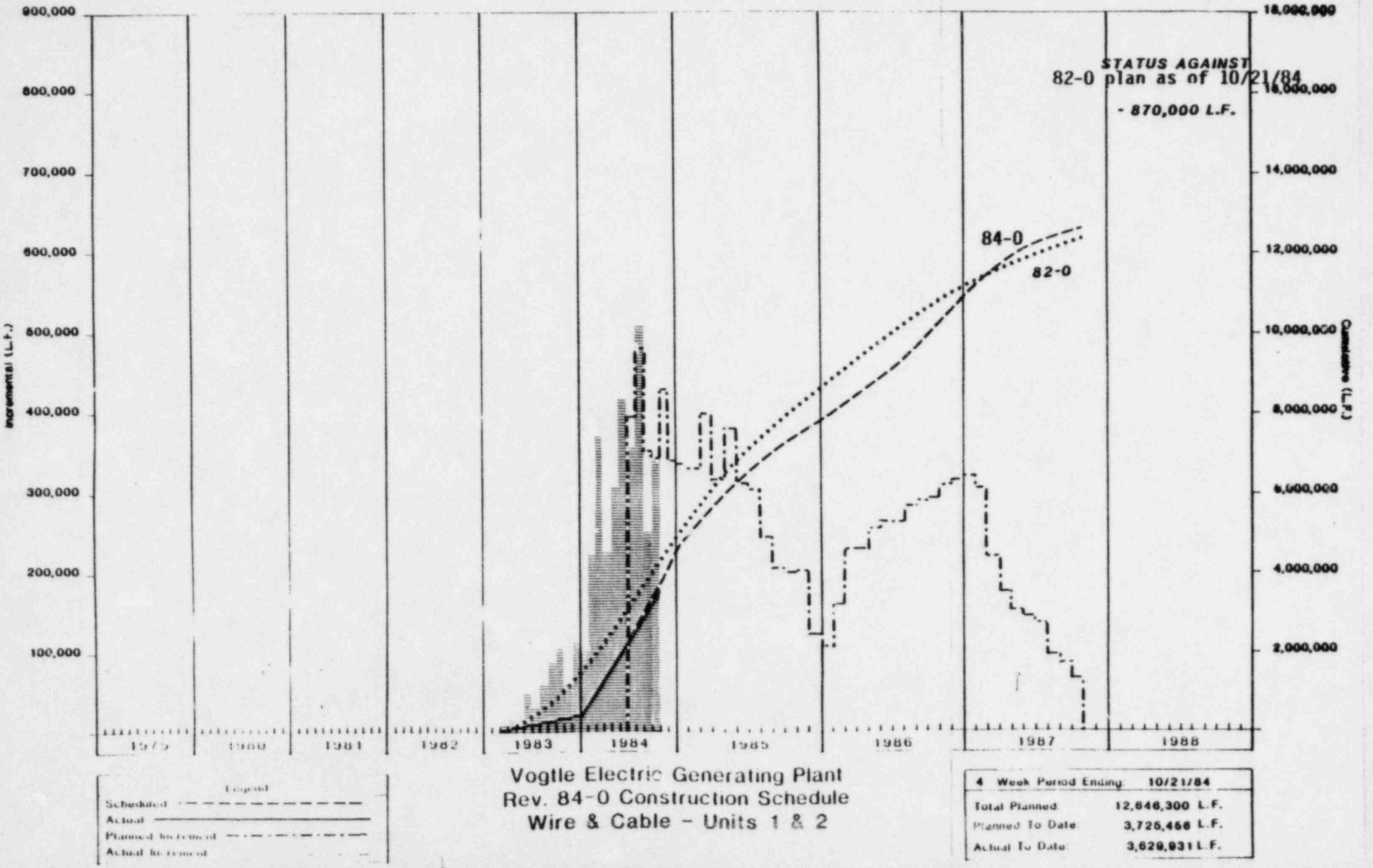
4 Week Period Ending	10/21/84
Total Planned	1,328,817 L.F.
Planned To Date	712,932 L.F.
Actual To Date	670,787 L.F.

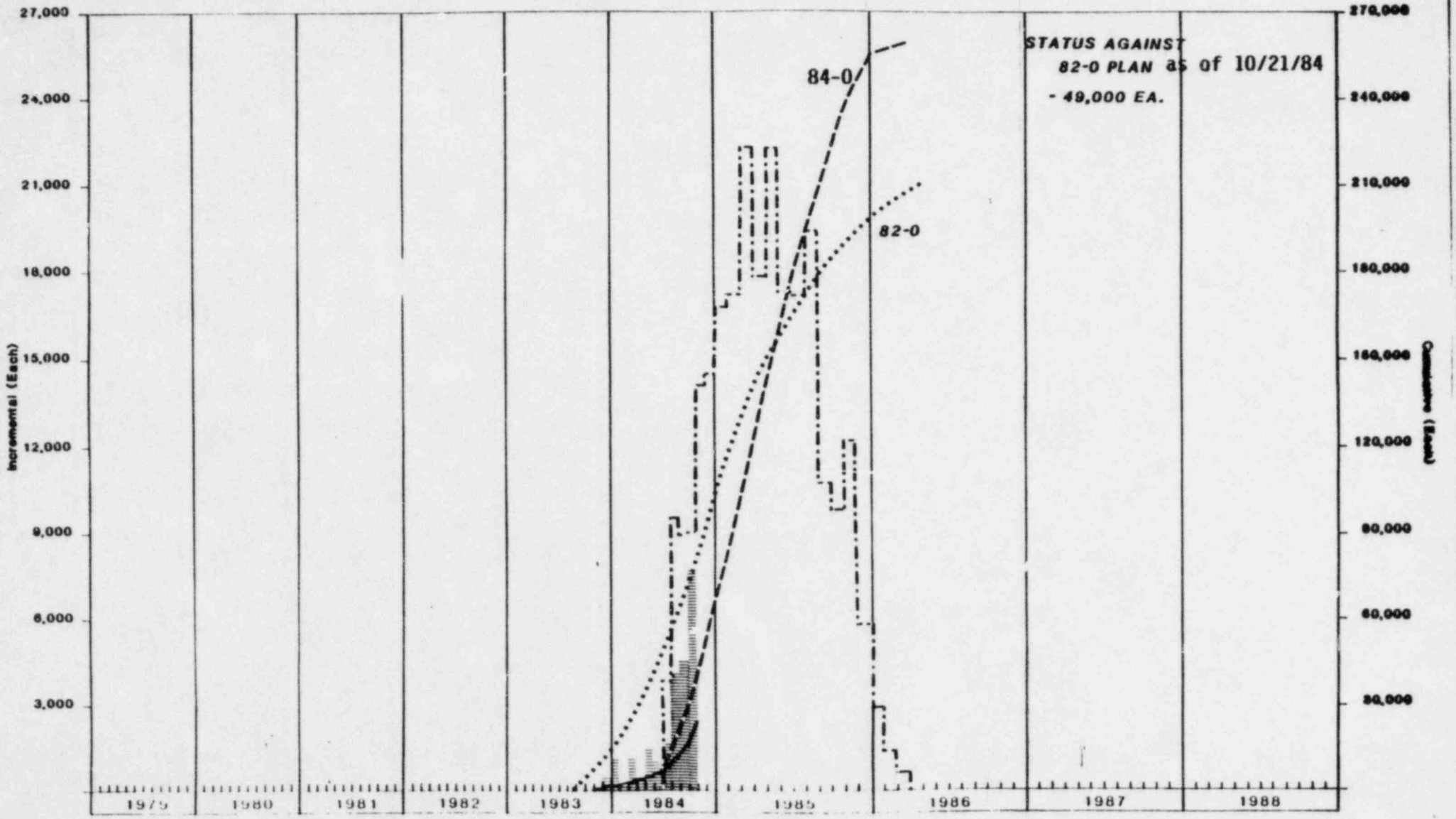


Legend
Scheduled
Actual
Planned Increment
Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Wire & Cable - Unit 1 & Common

4 Week Period Ending:	10/21/84
Total Planned:	7,484,200 L.F.
Planned To Date:	3,725,456 L.F.
Actual To Date:	3,629,931 L.F.

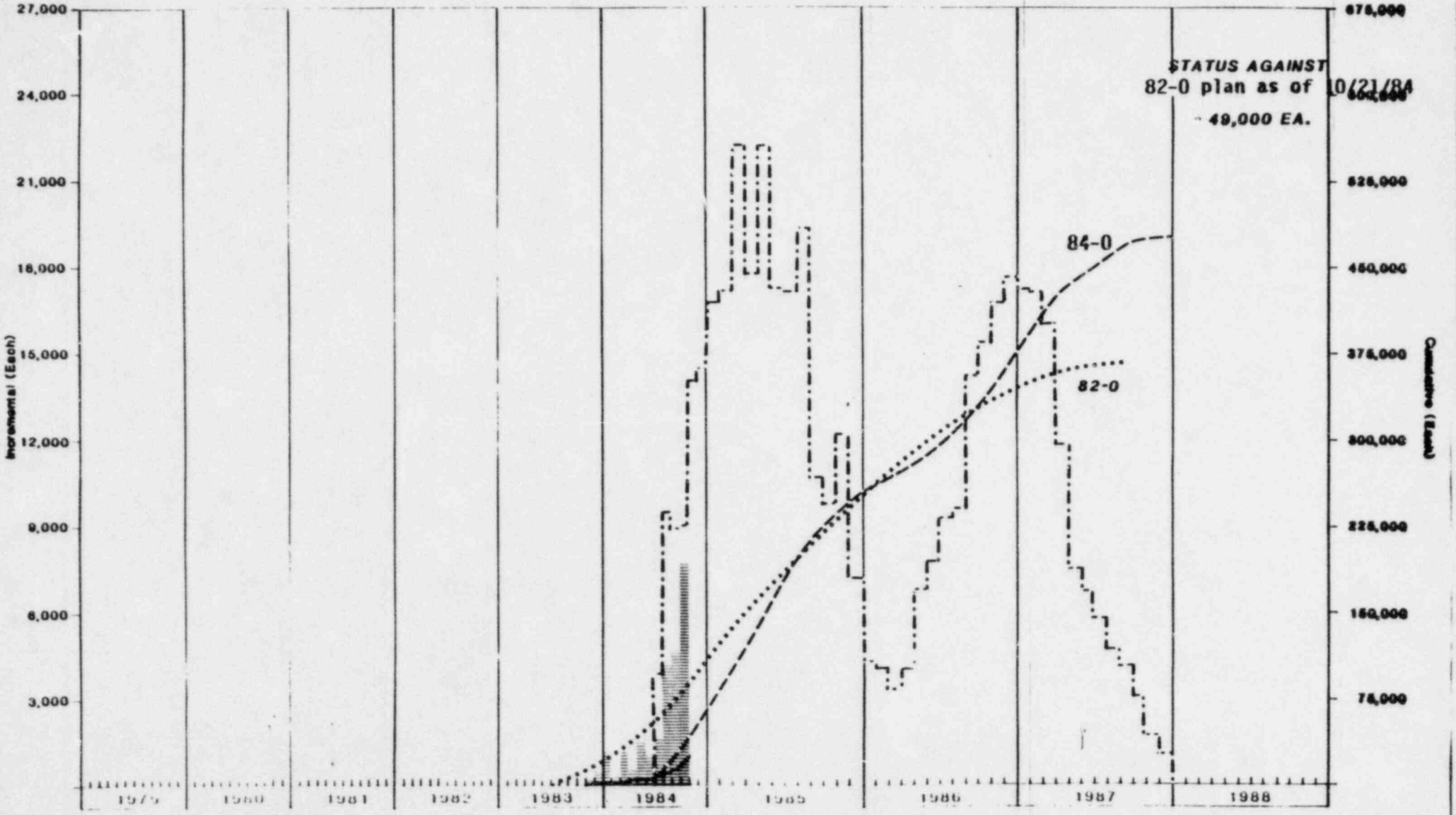

900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
Incremental (L.F.)
18,000,000
16,000,000
14,000,000
12,000,000
10,000,000
8,000,000
6,000,000
4,000,000
2,000,000
Cumulative (L.F.)
STATUS AGAINST
82-0 plan as of 10/21/84
- 870,000 L.F.
84-0
82-0
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
Legend
Scheduled
Actual
Planned Incremental
Actual Incremental
Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Wire & Cable - Units 1 & 2
4 Week Period Ending: 10/21/84
Total Planned: 12,646,300 L.F.
Planned To Date: 3,725,456 L.F.
Actual To Date: 3,629,631 L.F.



Legend
Scheduled
Actual
Planned Increment
Actual Increment

Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Terminations - Unit 1 & Common

4 Week Period Ending	10/21/84
Total Planned:	260,000 Each
Planned To Date:	37,206 Each
Actual To Date:	24,002 Each



Vogtle Electric Generating Plant
Rev. 84-0 Construction Schedule
Terminations - Units 1 & 2

4 Week Period Ending	10/21/84
Total Planned	467,364 Each
Planned To Date	37,206 Each
Actual To Date	24,002 Each

MEETING SUMMARY DISTRIBUTION

Docket No(s): 50-424/425
NRC PDR
Local PDR
NSIC
PRC System
LB #4 r/f
Attorney, OELD
E. Adensam
Project Manager M. Miller
Licensing Assistant M. Duncan

NRC PARTICIPANTS

M. Miller
E. Adensam
R. Hartfield
V. Rogge
W. Sanders
W. Rankin
M. Sinkule

Certified By Angela Hatton

bcc: Applicant & Service List