

TEST PROGRAM STATUS  
AND  
REVISION 12 - TEST SCHEDULE

PREPARED BY: TECHNICAL DEPARTMENT  
MIDLAND ENERGY CENTER  
CONSUMERS POWER COMPANY  
April 12, 1983

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CASE LOAD FORECAST REPORT - APRIL 1983  
TEST PROGRAM

I. INTRODUCTION

This report contains;

1. The status of the Test Program Schedule as of March 31, 1983, and
2. Revision 12 of the Test Schedule based upon the Two-Unit startup concept.

The basic premise in the development of this schedule is to establish a safe, organized, and logical approach to meeting the Project Objectives in a timely manner without sacrificing quality.

<u>DISCIPLINE</u>	Generic Checkout <u>Percent Complete</u>
Electrical	83
I & C	37
Turbine/HVAC	24
Feedwater/Condensate	25
NSSS	4
Auxiliary System	8
Process Steam	<u>15</u>
Total	45%

In summary, 45% of the Systems (850) in the Plant have been initially checked out, and 4% of required Tests (Preop, Acceptance, Flush, and Specific) have been performed.

II. TEST PROGRAM SCHEDULE STATUS

The status of the Test Program Schedule as of March 31, 1983 is presented in this section in terms of System Turnovers, what we have accomplished so far in the Test Program, and where we are relative to Test Program Milestones leading to initial fuel load.

1. System Turnovers - Summary

Total scoped Systems (approximate)	-	850
Total System Turnovers Accepted	-	<u>543</u>
Remaining System Turnovers	-	307
%		
complete = <u>543</u>	=	64%
		850

Figure 1 shows a graph of actual number of systems accepted thru March 31, 1983. It also shows the remaining system turnovers based upon Revision 12 Turnover demand dates. The numbers in parenthesis show ACTUAL % complete.

2. TESTING ACTIVITIES SUMMARY

The status of the Test Program Network as of 3-31-83 is presented below. It should be noted that "checkout complete" as reported in this Section may not be necessarily 100% complete due to remaining punchlist open items such as design changes, corrective actions, and turnover exceptions requiring checkout and/or retest.

a. ELECTRICAL SYSTEMS

321 of 371 Electrical Systems have been turned over to CPCo. (87 %).

83 % have been initially checked out and energized. No

Preoperational tests or Acceptance Tests have started.

Significant activities completed and/or in progress include:

- BOTH UNITS' MAIN POWER XFMRs and STATION POWER XFMRs have been turned over and checked out. The Common Startup Power XFMRs are energized and in operation. Final "Pre-energize" testing will be performed in 1983. Backfeed from 345 KV System is dependent on Turnover of Main Generator Protection and Microwave Systems.
- all 6.9 KV BUSSES, 4.16 KV Busses, have been energized; major portions of 480 VAC Load Control Centers, 460 VAC Motor Control Centers, 250 VDC Motor Control Centers, 125 VDC Control Power Panels, 120 VAC Instrument Power Panels, and 480 VAC Distribution Panels have also been energized and are in operation.
- QA overinspection of class 1E cable routing is 91% complete.
- Electrical Reactor Building penetration repairs and replacement resulting from rodent damage and faulty Bunker-RAYMO modules is 95% complete.

b. Instrumentation and Control (I&C) Systems

36 of 69 I&C Systems have been turned over to CPCo  
(52 %).



37% of I&C Systems have been checked out.

No Pre-operations/Acceptance Tests have started. Six specific procedures have been completed.

Significant Activities completed and/or in progress include:

- Plant computer installation, checkout, energization, and vendor acceptance test are complete. Computer points input verification is in progress and will continue throughout the Preoperational Test Program.
  
- Unit Control Room Annunciator Cabinets (both Units), Evaporator Building Annunciator Logic cabinets, and Radwaste annunciator logic cabinet, have been energized and logic verification completed. The HVAC Annunciator logic cabinet has been energized.
  
- Non-Nuclear Instrumentation (NNI Cabinets and Modules both units)
  - The electrical checkout and initial energization of NNI cabinets are complete.
  
- Incore Monitor Remote Analog Peripherals (both units) - partial I&C checkout is complete. The Incore Guide Tube Clearance checks have been completed.

- CRD Stator Preinstallation check was completed on both Units.
- ICS cabinets and Modules (both units) - The electrical checkout is complete, the pre-turnover calibration of modules is complete; initial energization of ICS cabinets is in progress including the Evaporator System Development Demand (ESDD) Cabinets.
- Instrument Racks - (Note: Each instrument rack represents one system) - Electrical checkout and energization, of the following instrument racks are complete:

Balance of Plant Instr. Rack 1C-49, 2C-49  
 1C-53, 2C-53  
 1C-166, 2C-166  
 OC-180 2C-146  
 OC-343

Radwaste Instrument Rack OC-167  
 Evaporator Instrument Rack OC-168  
 OC-281

- Analog Isolation Cabinets 1C46, 2C46 - Electrical and I&C check-out are complete.

- Digital Isolation Cabinets 1C47, 2C47 - Electrical and I&C checkout are complete.
- Process Steam Transfer Instrument Rack, including power supply and peripheral - electrical checkout, I&C checkout of power supply, and energization of Instrument Racks OC391 and OC386 are complete.
- Boron Recovery and Liquid Waste Programmatic Controller System including remote I/O Cabinets - Prepower checks, and electrical checkout of I/O cabinets are complete, ladder checks are essentially complete except for design changes requiring retest.
- Radwaste Gas System Programmatic Controller System including remote I/O cabinets - prepower checks, Part 1 - Power ON preliminary checks, and Part 2 Ladder checks are complete.

C. Nuclear Steam Supply Systems (NSSS)

14 of 56 systems have been turned over to CPCo (or 25 %.)

No Preop or Acceptance Tests have been started. One specific procedure (Unit 2 Decay Heat Removal Initial Pump Run) has been completed.

Significant Activities completed or in progress include:

- Turbine Bypass Valves - Unit 1 Electrical and I&C checkout complete; Unit 2 electrical checkout complete.
- Unit 1 Reactor Vessel Internals Modification is in progress
- Unit 2 Reactor Vessel Internals Modification complete; the HFT Flow screen is installed/attached to the PLENUM; the CRD dummy guide assemblies being installed in the PLENUM.
- Unit 2 Reactor Coolant Pump Motors - partial electrical checkout complete; all 4 RCPM's have been bumped for proper rotation and anti-rotation devices have been installed. Preparations are underway for initial motor runs.
- Unit 2 Decay Heat Removal System (portions in the Auxiliary Building) - Electrical and I&C checkout are essentially complete; Initial Pump Runs-Recirc Mode, complete; Gravity flush to suction of DH Pumps and Velocity Flush of lines from pump discharge to BWST recirc lines complete.
- Unit 2 Makeup System (High Pressure Injection Pumps) - Gravity flush to MU pump suction complete; two of the 3 HPI pump motors have been run and preparations are underway to run the third HPI pump motor.

- Unit 1 & 2 Boronometer - Electrical checkout complete.
- Unit 2 - Boric Acid Addition - The mix tank has been cleaned; electrical and I&C checkout in progress
- Unit 1 & 2 Hydrazine and Lithium hydroxide - Electrical I&C, and mechanical checkouts complete. Nitrogen blow to hydrazine drums complete. Unit 2 flush to suction of LIOH and Hydrazine Pumps complete.
- Unit 2 RB Spray suction piping - partial flush complete.
- Unit 2 Borated Water Storage Tank Outlet Piping - Flush to suction of DH pumps complete. The BWST Circulation pump initial run complete.

d. AUXILIARY SYSTEMS

26 of 84 Auxiliary systems have been turned over to CPCo  
(31 %).

Performance of two flush procedures (Unit 1 & 2 FH Bridge Air System Flush) and one Specific Procedure (Receipt of Dummy Fuel Assemblies and Control Rods) have been completed.

Significant Activities completed and/or in progress include:

- Service Water Sluice Gates - I&C checkout complete; electrical checkout in progress.
  
- component cooling water - Portions of the system (B-Loop) required to provide cooling water to the RCP motors have been checked out and flushed; this includes piping to the CCW and Decay Heat Coolers and DH Pump Seal Coolers.
  
- Reactor Building Vent Header - Electrical checkout of valves complete.
  
- Radwaste pump seal water/headers - electrical checkout complete.
  
- Filter Handling - Electrical checkout complete.
  
- Primary Mixed Bed demineralizer - Electrical checkout complete.
  
- New Fuel Elevator - electrical checkout complete.
  
- Spent Fuel Pool Handling Bridge - electrical checkout complete
  
- Unit 1 Reactor Building Fuel Handling (FH) - electrical and I&C checkout complete, portions associated with Dry Indexing Preoperational Test (Milestone 1A) complete

- Unit 2 Reactor Building Fuel Handling - Electrical and I&C checkout complete, portions associated with Dry Indexing Preoperational Test (MILESTONE 2A) complete
  
- Unit 1 FH Transfer Mechanism - I&C checkout complete; Fuel Transfer Hydraulic System Flush in progress
  
- Unit 2 FH Transfer Mechanism - Electrical and I&C checkout complete, FH Transfer Hydraulic System Flush in progress.
  
- Service Water System - electrical c/o Main Header valves in progress, I&C checkout of common Header to the Turbine Building Service Water complete; electrical checkout Unit 1 & 2 Turbine Building Service water complete; electrical checkout Unit 2 Turbine Building service water complete.
  
- Initial Pump and/or motor runs completed to date include: Primary Water Storage Transfer and Vacuum Pumps (Motor only), service water Travelling screens, four of the five service water pump motors, four of the five service water strainers, and one of the CCW pumps.

e. Feedwater/Condensate Systems

55 of 100 systems have been turned over to WPCo (55%).

Performance of one Specific Procedure (Aux Boiler Initial Operation and Boilout) and 6 Flush Procedures, described below, have been completed.

Significant Activities completed and/or in progress include:

- Unit 2 Condensate supply and Low Pressure Feedwater Heating - Electrical, I&C, and mechanical checkouts complete; condensate pumps initial run complete.
- Unit 1 & 2 Hotwell makeup and Rejection - Electrical and I&C checkout complete except for Unit 2 I&C checkout which is in progress.
- Unit 1 & 2 Main Condenser - I&C checkout complete.
- Unit 1 & 2 Condenser Hotwell sampling - Electrical checkout complete.
- Common Feedwater crossconnect - electrical C/O complete.
- Unit 2 Condensate Demineralizers and Associated Systems - Electrical and I&C C/O in progress.
- Makeup Demineralizers - all checkouts complete, system is functional.



- Demineralized Water Storage and Transfer - all checkout essentially complete; system is functional and providing primary source of Flush Water; Flushes associated with the storage and transfer header branch lines to all hose stations, and Unit 1 & 2 Reactor Building piping, complete.
  
- Makeup Demineralizer Chemical Storage and Transfer - all system checkout and flushes complete; system is functional.
  
- Condensate storage (common system) - partial electrical and I&C checkout complete, flush to Unit 1 & 2 Auxiliary Feedwater Pump recirc lines complete.
  
- Unit 1 Condensate Storage - Tank has been cleaned; I&C C/O complete.
  
- Unit 2 Condensate Storage - all system C/O complete except for electrical C/O; tank has been cleaned; flush from tank to Hotwell complete (Milestone 2E).
  
- Condensate Transfer - For the common system, all electrical and I&C C/O complete; condensate jockey and transfer pumps have been run; flush of the system is complete.  
Unit 1 system electrical and I&C C/O complete.

- Ammonium Hydroxide Storage and Transfer - The common unit electrical and I&C C/O complete; chemical addition pumps have been coupled. The Unit 1 & 2 systems electrical and I&C C/O complete.
  
- Hydrazine Addition System - Unit 1 & 2 Electrical and I&C C/O complete.
  
- Hogging/Exhaust Piping Vacuum Relief - Unit 1 & 2 I&C C/O complete.
  
- Circulating Water Supply - Unit 1 & 2 initial motor run of circulating water pump motors complete.
  
- Water Box Scavenging - Unit 1 & 2 Electrical and I&C C/O complete.
  
- Acid Storage, Supply, Distribution - Electrical checkout complete; pumps have been coupled.
  
- Auxiliary Boiler - all system C/O complete; both boilers have been fired and Auxiliary System flushes completed; boiler tuning and load test is in progress.
  
- Auxiliary Boiler Steam Distribution - all system C/O complete steam blow of main headers complete.

- Air Compressors/Instrument Air Dryer - all system C/O complete. compressors are functional; presently clearing punchlist open items; air blows main header complete.
- Service Air Distribution - all system C/O of the Unit 1, 2 and common headers complete; air blows to subheaders and branch lines in progress.
- Instrument Air Distribution - All system C/O complete; Instrument air is available to Evap Bldg, Miscellaneous Buildings, Dow pump house, Turbine Building (both units), and portions of the Auxiliary Building.
- Fire Water Supply/Distribution - System C/O complete; Diesel Fire and electric pump initial runs is complete. System is supplying site fire water protection.
- Transformer Deluge - I&C C/O complete.
- Carbon Dioxide Fire Protection - I&C and Electrical C/O in progress on those portions that are turned over.
- Building Deluge Protection - Electrical and I&C C/O for portions of the system turned over is complete.

- Hose Station Protection - Checkout of Hose Stations complete (to Warehouse 2, Turbine Building, Reactor Building, and Miscellaneous Buildings.
- Nitrogen System - System C/O complete; N<sub>2</sub> blow/purge of system complete; the distribution system is undergoing redesign work and therefore flushing will have to be done over.
- Natural Gas Evap Bldg Lab - System C/O complete; flush of system complete.
- Vacuum Fume Hood (Evap Bldg Lab) - Elect C/O and piping flush complete.
- Acid and Caustic Waste - Unit 2 sumps have been cleaned; I&C and electrical C/O complete; initial pump run of Neutralizing sump pump complete.

f. Turbine/HVAC Systems

76 of 150 systems have been turned over to CPCo (50%).

Performance of one Acceptance Test (D G Electric Heat Test) and 6 Flush Procedures as described below have been completed.

Significant activities completed or in progress include:

- Unit 1 & 2 Turbines - System C/O complete; Turbine has been placed on turning gear.
- Unit 1 & 2 Turbine Generator Bearing Lube Oil Supply - System C/O complete; Oil flush complete; system functional.
- Generator H<sub>2</sub> and CO<sub>2</sub> - Unit 1 & 2 I&C C/O complete; preparations under way to perform Generator Air Drop Test.
- Unit 1 & 2 Hydrogen Seal Oil - System C/O complete except for I&C C/O. Oil flush complete.
- Turbine Lube Oil Storage, Transfer, and Purification (Unit 1, 2, and Common) - All system C/O complete; oil flush complete; system functional.
- Cooling Pond Makeup Screens/Screen Wash - System C/O complete; system is functional.
- Cooling Pond Makeup, traveling screens, sluice gates, trash racks - Cooling Pond has been filled with water, checkout of screen wash pumps, screens, makeup pumps, sluice gate, valves complete. Cooling Pond blowdown system checkout is in progress.
- Hot Water Supply/Chemical Treatment - Electrical C/O complete; initial motor run of hot water pumps complete.

- Plant Hot Water Heat Systems - Unit 1 & 2 Turbine Building electrical C/O and initial motor runs complete; electrical C/O Auxiliary Bldg Hot Water heat complete; Unit 2 electrical, I&C C/O and initial motor runs complete; Office, Service Building electrical, I&C C/O complete including initial motor runs; Intake, Hypochlorination, Service Water Building electric heat-system C/O complete; Unit 1 & 2 Diesel Generator Building electric heat - system C/O complete - The Diesel Generator Building Electric Heat Acceptance Test is complete.

Reactor Building Hot Water Heat (Unit 1, common) electrical C/O complete; Process Evaporator Hot Water Heat electrical C/O including initial motor runs complete; Auxiliary Building Safeguard Room Electric Heat - electrical and I&C C/O complete (common Unit; Unit 1 - electrical C/O in progress); Guard House electric Heat - I&C and electrical C/O complete.

- Turbine Building Chilled Water - Unit 1 & 2 I&C C/O complete; chilled water pump motors were run and coupled; the system flushes are in progress.
- Office/Service Building Chilled Water - Electrical and I&C C/O complete; startup of chillers and pumps complete; proof flush is complete.

- Office/Service Building HVAC - System C/O complete, air balancing and setting of dampers complete.
  
- Chlorination Building HVAC, Cooling Pond MU Building HVAC, Cooling Pond Intake Building HVAC, Guard House HVAC, and Pond Blowdown Building HVAC - System C/O is complete.
  
- Evaporator Building HVAC, Circulating Water Intake Building HVAC, Oily Waste Treatment Building HVAC, and Dow Condensate Return Pump House HVAC - electrical C/O in progress.
  
- Refuel Pool Air Supply (Unit 1) - electrical c/o in progress.
  
- Domestic Water Storage, Transfer, and Heating - System c/o complete and system is functional.
  
- Hydrogen Supply - Electrical and I&C C/O complete; purging H<sub>2</sub> system with nitrogen complete (common system); Unit 1 & 2 H<sub>2</sub> system is functional up to the Main Generator and to the RCS MU Tank.
  
- Oily Waste System - Common Unit electrical and I&C c/o complete. Unit 1 electrical and I&C c/o complete and flush is complete; Unit 2 electrical and I&C c/o complete.

- Turbine Bolt Heater Panels - Both Unit 1 heater panels have been turned over; one of the panels have been checked out. Four of the Unit 2 Heater panels have been turned over; of these 1 heater panel has been checked out.

g. Process Steam

12 of 15 Process Steam Systems have been turned over to CPCo (80%). Performance of one Flush Procedure (Demineralized Water Supply) has been completed.

Significant Activities completed and/or in progress include:

- Steam to HP Evaporator - I&C C/O complete, electrical C/O in progress.
- condensate Return/Unit 2 Condenser, HP steam to Dow Isolation Valves - I&C C/O complete
- LP Steam to Dow Isolation Valve - I&C C/O in progress.
- Process Steam Blowdown to Dow - Electrical and I&C C/O complete; motor run has been performed and coupling of pump to motors complete.



- condensate return from Dow - Electrical, mechanical and I&C C/O complete (for C/Co equipment only).
  
- Condensate Chemical addition - electrical c/o complete; HP chemical Feed flush, sodium sulfite chemical feed flush and associated pump runs complete.
  
- condensate Supply/Vacuum Deaerator - system c/o complete; Dow Demineralized Water Tank (2.5 million gal) is filled with water for flushes; initial demin pump run and flush complete, evap deaerator feed pump initial run complete.
  
- Feedwater Supply - Electrical, Mechanical, and I&C C/O is near completion; initial motor run of HP Feed Pump motor is complete.
  
- Iron removal (Condensate Return) - Mechanical and I&C c/o complete.
  
- Iron Removal sump - system c/o and iron removal sump pump run complete.
  
- HP Boilers - Initial checkout, start up, and testing complete, all 3 boilers have been fired up.
  
- Process steam plant sample I&C c/o complete.

h. Programmatic Testing

3 of 5 systems were accepted by CPCo (60%)

Significant activities completed and/or in progress include:

- The Unit 1 & 2 Reactor Building Tendon Test Facility has been turned over as well as the Unit 2 RB Structural Integrity Test Facility.

3. Procedure Development

- a. The status of Procedure Development and Approval required for the Test Program is summarized below and detailed breakdown of each Procedure type and Discipline is shown on Table 1.

STATUS - PERCENT OF TOTAL

<u>Procedure Type</u>	<u>Total</u>	<u>Drafts Not Written</u>	<u>In Review &amp; Approval Cycle</u>	<u>Approved</u>
Preoperational Test				
Procedure	268	23%	56%	21%
Acceptance Test Procedures	128	29%	38%	33%

Flush Procedures	168	2%	20%	69%
Specific Procedures	119	13%	21%	66%
Generic Procedures	<u>46</u>	<u>4</u>	<u>22%</u>	<u>74%</u>
	729	16%	33%	45%
	(Total)	(Not)	(in)	(Approved)
		(Written)	(Review)	

Our goal is to have all Procedures approved by March 1984.

Figure 2 shows a curve of Procedure Development - Actual vs Scheduled. Based upon Rev 12 Test Schedule, we project that procedures required to support Testing Activities will be developed and approved at least 2 months before the scheduled test start date.

- b. The status of Test Program Procedure Performance completions is summarized below and shown in detail in TABLE 2 and Figure 3.

PROCEDURES COMPLETED

Preoperational Tests completed -	None
Preoperational Tests started/not complete -	2
Acceptance Tests completed -	1
Acceptance Tests started (not complete)	0
Flushes completed -	16

Flushes started (not complete) -	17
Specific Tests completed -	9
Specific Test started (not complete) -	23

Generic Tests/Checkout - Checkout procedures are performed for all components, subsystems, controls, and similar items to ensure that they function properly and are installed correctly prior to the start of system Preoperational or Acceptance Testing. Due to the nature of checkout (i.e. required for electrical, mechanical, and I&C), the status of checkout is presented below only as an approximate. The "completion" status is assumed that the checkout activity in itself is complete but there may be punchlist items that are still open and require checkout testing. In addition, the following guidelines were assumed in reporting checkout complete:

Electrical - system is checked out and energized

Mechanical System - electrical, I&C, and mechanical C/O are  
complete

I&C - electrical and I&C C/O are complete

<u>DISCIPLINE</u>	Generic Checkout <u>Percent Complete</u>
Electrical	83
I & C	37
Turbine/HVAC	24
Feedwater/Condensate	25
NSSS	4
Auxiliary System	8
Process Steam	<u>15</u>
Total	45%

In summary, 45% of the Systems (850) in the Plant have been initially checked out, and 4% of required Tests (Preop, Acceptance, Flush, and Specific) have been performed.

### III. Project Test Schedule - Rev 12

#### A. Rev 12 Test Schedule Philosophy

The Rev 12 Test Schedule Philosophy is basically the same as Rev 11 relative to the dual Unit startup concept and is summarized in this section. Figure 4 shows Rev 12 Test sequence through commercial operation for both Units.

1. The majority (95%) of Unit 1 preoperational testing will be performed prior to Unit 2 Fuel Load.

This will relieve Unit 1 preoperational testing of restraints and delays due to Unit 2 license operating restrictions (technical specifications and surveillance testing). This will increase Unit 2 availability for power production owing to fewer interferences from Unit 1 preoperational testing.

2. Inherent timeframes are built into the merged schedule to absorb corrective design and/or maintenance following major periods of integrated initial plant operation and preoperational testing.

Historically, nuclear plant test programs have suffered lengthy delays immediately following the Cold Hydro Test Phase and the Hot Functional Test Phase due to equipment or other operational failures. These failures have in the past slowed and in many cases stopped critical path progression onto the next succeeding scheduled event(s) until repairs and/or design problems were resolved. These timeframes are shown on Figure 2 as "Resolve Punchlist Items---".

3. No two Unit 1 and Unit 2 milestone events are required to be performed simultaneously.

It is impractical to focus site activities on more than one (1) major Unit 1 and Unit 2 milestone activity at the same time. The Midland Site is currently being staffed to permit simultaneous component testing with each Unit but not for simultaneous integrated milestone testing. To do so would require two of every resource including the Testing Group, Operations Group, Bechtel, B&W, and CPCo Management support.

However, one major change in this philosophy is that, on Rev 12 the ILRT on one Unit is now scheduled to be performed simultaneously with HFT on the other unit. Since Testing manpower required to perform ILRT is different from HFT, and since there is no system nor technical relationship between ILRT on one unit and HFT on the other unit, we believe that these two events can occur in parallel.

4. Separation of Fuel Loads

Unit 1 and Unit 2 Fuel Loads are separated in time to support the Dow requirements with regard to process steam availability.

5. LLRT/ILRT/SIT are performed nearly piggy-back during the same timeframes.

Containment leak rate and structural integrity testing would benefit by capitalizing on the commonality of equipment, personnel, and vendor support required to perform these tests.

6. The integrated ESFAS Test would be a common test phase.

The safeguards system for the Midland Project is essentially a common system in that each plant is designed to respond to the others safeguards action. As such, this particular milestone test for each plant will include the other plant to the extent that neither could provide sustained power during conduct of the test. Thus, ESFAS testing will be performed for each plant at approximately the same timeframe to avoid duplication of effort and interruption of power production from the "on-line" plant.

7. Several disadvantages with the Rev 11 schedule at the time it was developed have become less significant in terms of the Rev 12 schedule. These are:

- a. The potential problem of Spent Fuel Pool area work interfering with fuel receipt would be less significant.

Receipt and storage of new fuel on site imposes a number of restrictions on the fuel storage facilities (spent fuel pool area). Typically, this means all activities are limited to either fuel handling itself or to routine maintenance of fuel handling related equipment. Usually, the license for receipt and storage of "special nuclear materials" (fuel) specifically prohibits construction activity or any other dirt generating or heavy maintenance work which could potentially affect cleanliness or structural integrity of the new fuel.

Based upon Rev 12, only 7 systems remain to be turned-over to support fuel receipt. The potential problem of receiving and storing Unit 2 fuel conflicting with construction of Unit 1 (construction access to the inside of the containment) is now much less significant due to large amount of construction work completed. There is no longer the problem associated with Tendon tensioning on the Unit 1 RB interfering with fuel receipt because the Tendon tensioning is complete.

- b. Construction has a better chance of achieving the turnover demand dates since there are only 307 of 850 turnovers remaining. In addition, the CCP concept is predicated on quality work which would result in a more complete system at the time of turnover, i.e. less construction deficiencies.
- c. The feedwater and condensate system will not have to be laid up for a long time between chemical cleaning and the start of HFT.
- d. We have more time to reduce backlog punchlist open items.



8. Initial Turbine Roll - Three temporary high pressure boilers were installed in 1982 and fully tested to primarily allow early testing of the Process Steam Systems which will result in considerable schedule gains during power escalation testing of Unit 1. The Temporary High Pressure Boilers will also be capable of supplying steam to support Secondary Plant Testing including Initial Turbine Roll. Early Testing of the Secondary Steam Side of the plant and the Main Turbine will result in overall test schedule gains in the secondary side of the Plant. A Turbine Roll Milestone (TR) has been added to the Test Sequence which is required to be accomplished approximately 1 to 2 months prior to HFT. The Pre HFT Schedule Gains is expected from being able to perform early testing of relief valves, initial steam leak tests, steam blows and flushes of Secondary Side Systems.

B. REV 12 TEST PROGRAM PLAN

This section describes the Test Program Plan Revision 12, both in narrative form discussing the Testing highlights and Tabular/Chart forms showing details of the Test Program.

Figure 4 shows the Rev 12 Test Program Schedule Sequence showing the major milestones leading to initial fuel load and commercial operation. Figure 5 shows the full-blown Test Schedule in Tabular form listing the projected start dates for Preoperational, Acceptance, and Specific tests as well as system flushes.

The narrative presented below pertain to Unit 2; however, due to similarities between the two units, it is applicable also to Unit 1.

1. Planned Activities Leading to the Next Target Milestones (B-Auxiliary System Flushes and G-Feedwater System Flushes)

The major thrust during this period is to complete system checkouts and flushes for the 543 systems now in the hands of CPCo (as of 3-31-83). In addition, approximately 60 System Turnovers and subsequent checkout and flushing activities are projected to occur during this time frame.

In the electrical area, turnover of the remaining electrical power systems and subsequent energization are scheduled to provide permanent power to run the mechanical systems. Backfeed from the 345 KV lines through the Station Transformers will be a major event to ensure that sufficient power is available to support major test events and their power load requirements, and allow testing of the electrical systems.

In the I&C area, the major effort will be devoted to completing I&C checkout of instrument racks, cabinets, modules, and annunciators that have been turned over to CPCo. The majority of the remaining I&C system turnovers are scheduled during this time frame to allow as much checkout as possible in support of Mechanical systems checkout and startup. Verification of input/output

signals to the plant computer, annunciators, indicators, and controls will be an on-going process.

In the primary systems area, seven (7) systems remain to be turned over to support Milestone B-Auxiliary System Flushes into the Reactor Vessel. The major objective during this period is to checkout and flush the individual auxiliary systems which support the Reactor Coolant System (RCS). These include the DH Removal, High Pressure Injection, RCP seal injection, RC makeup, Core Flood, RCS letdown, and portions of the Reactor Coolant System Cold leg piping.

In the secondary side of the plant, the major testing activities involve checkout and flushing of the entire Condensate system and the Deaerators. Seven (7) Systems remain to be turned over to allow the next target Milestone (G) to start, which is the Main Feedwater Flush.

In the Evaporator Building, major activities in 1983 will include complete checkout and flush of Secondary and Tertiary Systems; complete flushing after remaining five (5) systems are turned over to CPCo; complete Tunnel modifications, and initial piping heatup using the HP Boilers.

## 2. Milestone B-Auxiliary System Flushes into Reactor Vessel

This Milestone involves flushing of the low and high pressure injection, and Core Flooding lines into the Reactor Vessel. Other activities scheduled to be performed/completed during this period include:

- Reactor Vessel internals modification and final clean up
- Reactor Vessel internals pre-HFT baseline inspection
- Reactor Cooling Pump Motor initial runs, seal installation, alignment and coupling to pumps,
- After flushes to the RV, setting the Core Support Assembly and filling the RV up to the flange level.
- Conducting the Reactor internals Vent Valve Test, and surveillance specimen holder tube test.

## 3. Milestone C - Refueling Canal Hydro and Wet Fuel Handling Test

The Milestone will verify the integrity of the Refueling Canal and the seal plate, and the FH equipment and fuel index test with refueling canal water at its full level (simulating refueling operations).

Following CANAL Hydro, several key events take place in preparation for RCS COLD Hydro. Some of the activities include the following:

- Set Plenum in Reactor Vessel
- Install RV Head and Tension Studs
- Couple Control Rod Drive Mechanism lead screws and install closures.
- Fill and Vent Reactor Coolant System
- Draw Pressurizer Bubble, and Run Reactor Coolant Pumps.

#### 4. Milestone D - RCS COLD HYDRO

During this test, the RCS is pressurized to 125% of design pressure to verify system integrity. During the Hydro phase, miscellaneous tests will be conducted such as:

- RCP Flow Tests
- MU/HPI/LPI/CF System Tests
- Secondary Side, Steam Generator Hydro Test

Following Unit 2 RCS depressurization, test and manpower emphasis will be shifted to Unit 1. At this point, resolution of punchlist open items will be vigorously pursued and remaining RCS insulation will be installed in preparation for Unit 2 HFT.

5. Milestone G - Feedwater System Flush

Following the Condensate System flushes and Turnover of the Feedwater System, the Deaerator will be filled and the Feedwater Booster Pumps will be used to flush the feedwater system including piping through the condensate demineralizers. Other activities during this time period include:

- Turnovers, checkout, and flush of remaining systems required for drawing vacuum in Condenser and initial Turbine roll.

6. Milestone H - Condenser Vacuum

Drawing a vacuum in the condenser involves the checkout and operation of the air ejectors, vacuum pumps, and the Circulating Water System. Any air inleakage to the condenser will be identified and required at this time prior to HFT. The permanent Auxiliary Boilers or temporary HP Boilers will be operated to provide steam to the gland seal steam system and blanketing steam of the Moisture Separator reheater, tube side. The HP Heater

Vents, drains and level control system will be in operation. The Turbine will be placed on turning gear with support systems such as Seal and Lube oil, and cooling water, in operation.

#### 7. Milestone TR - Initial Turbine Roll

Due to the availability of the HP Boilers, the Main Turbine initial roll can be accomplished independent of the Reactor Coolant System and Steam Generators. To support initial Turbine roll the Condensate and portions of the Feedwater System have to be in operation and the Condenser in a vacuum. In addition, the following systems have to be functional:

- Main Turbine Steam Supply and drains.
- Moisture Separator Reheater supply and drains
- Stator Cooling
- Turbine EHC System
- Main Turbine Supervisory Instrumentation
- Main Generator Protection
- Microwave System

8. Milestone J - Hot Functional Testing

During HFT, operation of the NSSS and secondary systems is integrated for the first time: The test will be conducted at ambient conditions, heatup, hot shutdown conditions (2,155 psig and 532F), and cooldown. A significant number of Preoperational and Acceptance Tests will be conducted during this time.

9. Milestone K - Integrated Leak Rate Test

The ILRT involves pressurizing the Containment above the Design Bases Accident Pressure and conducting a leak integrity check to ensure that the building and penetrations are air tight and capable of isolating the structure in the unlikely event of an accident involving release of radioactivity. Prior to this test, the Local Leak Rate Test of all containment penetrations will be conducted. Based upon the two-Unit startup concept, the ILRT for Unit 1 will precede Unit 2 ILRT.

10. Milestone L - Integrated Safeguards Features Activation System Test

Upon completion of HFT and ILRT, the next major milestone is the SFAS Test. The prerequisites for this test involve:

- Reactor Vessel Head Removal



- RV internals removal
- Turnover, checkout, and testing of all system/components that receive a signal from the SFAS cabinets.

During the SFAS test, operation of all emergency core cooling systems is checked. An emergency condition will be simulated which will cause the plant's automatic safeguard systems to start in response to the signal. The Diesel Generators, HPI and LPI pumps, and containment spray pumps will be actuated. Required flow conditions will be verified as well as the order in which systems respond and the length of time elapsed before the response is initiated.

11. Milestone M thru O - Fuel Load and Post Fuel Load Activities

This phase of the Test Program is called the Startup phase and will not be described in this report. For planning purposes, Figure 2 shows the Major Milestone Target dates beyond Fuel Load, and shows a duration of approximately 4.5 months from Fuel Load to Commercial Operation (UNIT 2) and approximately 6 months for Unit 1.

C. Manpower Requirements - Revision 12

Figure 5 shows manpower resource curves for Test Engineers, operators, electrical checkout (ECO) personnel, I&C Technicians, Maintenance Mechanics, Maintenance electricians, and Chemistry and Health Physics Technicians required to support Revision 12 of the Test Schedule.

The Midland Plant has been staffed to support the Dual Unit Startup Plan. The resource availability for each of the above resources has been superimposed on the appropriate curves. It is also worth noting that a separate organization, Construction General Service Organization (CGSO), will perform the majority of work associated with Post Turnover Punchlist items. The present load of CGSO personnel is:

Non-Manual - 55

Manual (Crafts) 100

Breakdown of Manual:

Pipefitters and Welders	-	55
Electricians	-	35
Laborers	-	10

In terms of shift work, the estimated durations in the Test Schedule were assumed as follows:

1. The majority of Post Turned-over activities were assigned a 5-day work week, 8 hrs/day.
2. Mainline Activities and Milestones (such as RCS initial fill and vent, RCS Hydro, HFT, etc.) AND key systems (such as Auxiliary Systems required to support RCS Hydro) were assigned a 7 day work week, 24 hrs/day.
3. The majority of System Flushes and initial fill and vent operations requiring Operations support were assigned a 7 day work week, 24 hours/day.

MIDLAND POWER PLANT  
TECHNICAL DEPARTMENT

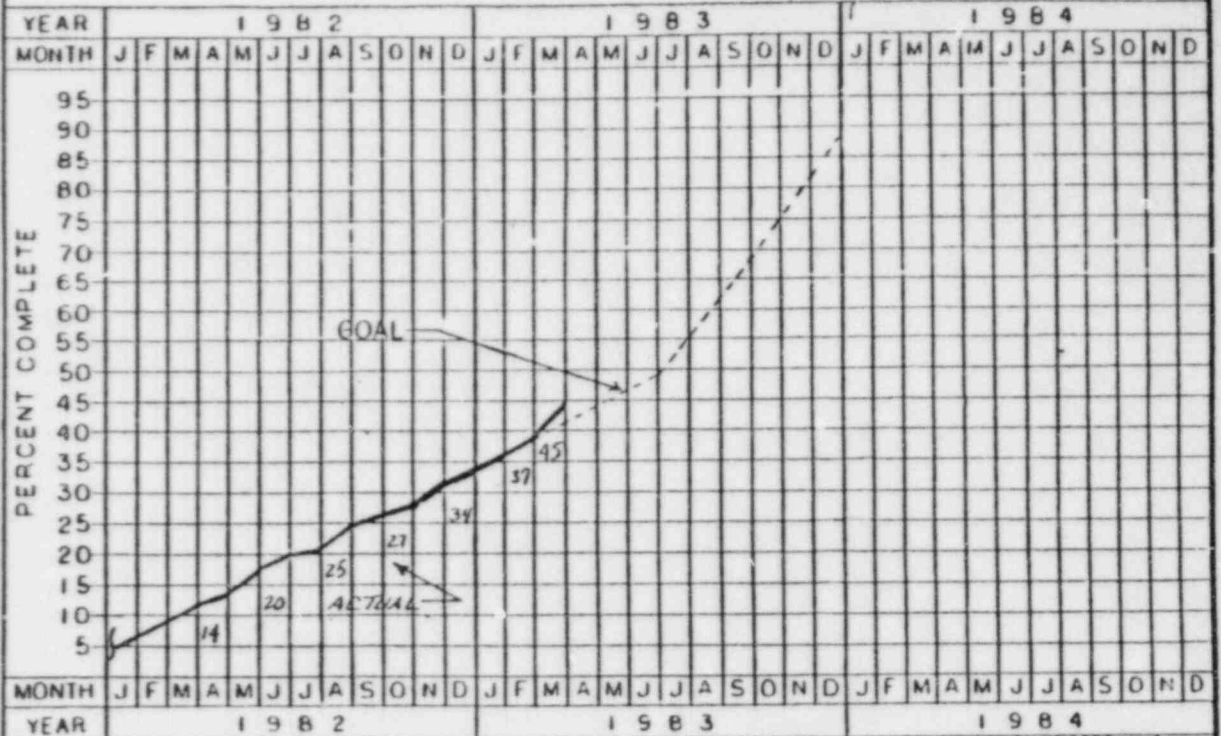
PROCEDURE DEVELOPMENT-ACTUAL VS SCHEDULED

PROGRESS SUMMARY

APPROVED

DISCIPLINE	% COMPLETE 10 20 30 40 50 60 70 80 90	WT FACT	C/C Y
AUXILIARY	31	.154	112
ELECTRICAL	35	.060	44
FEEDWATER / CONDENSATE	50	.118	86
INSTRUMENT / CONTROL	65	.091	30
NUCLEAR STEAM SUPPLY SYSTEM	58	.173	53
PROCESS STEAM	23	.182	133
PROGRAMATIC TESTING & PERFORMANCE	6	.118	86
TURBINE / HVAC	44	.134	98
		.078	57
		.064	47
		.015	11
		.064	47
		.004	3
		.136	99
		.060	44
		1.0	729
		371	328

PERFORMANCE CURVE



AS OF 3-31-83


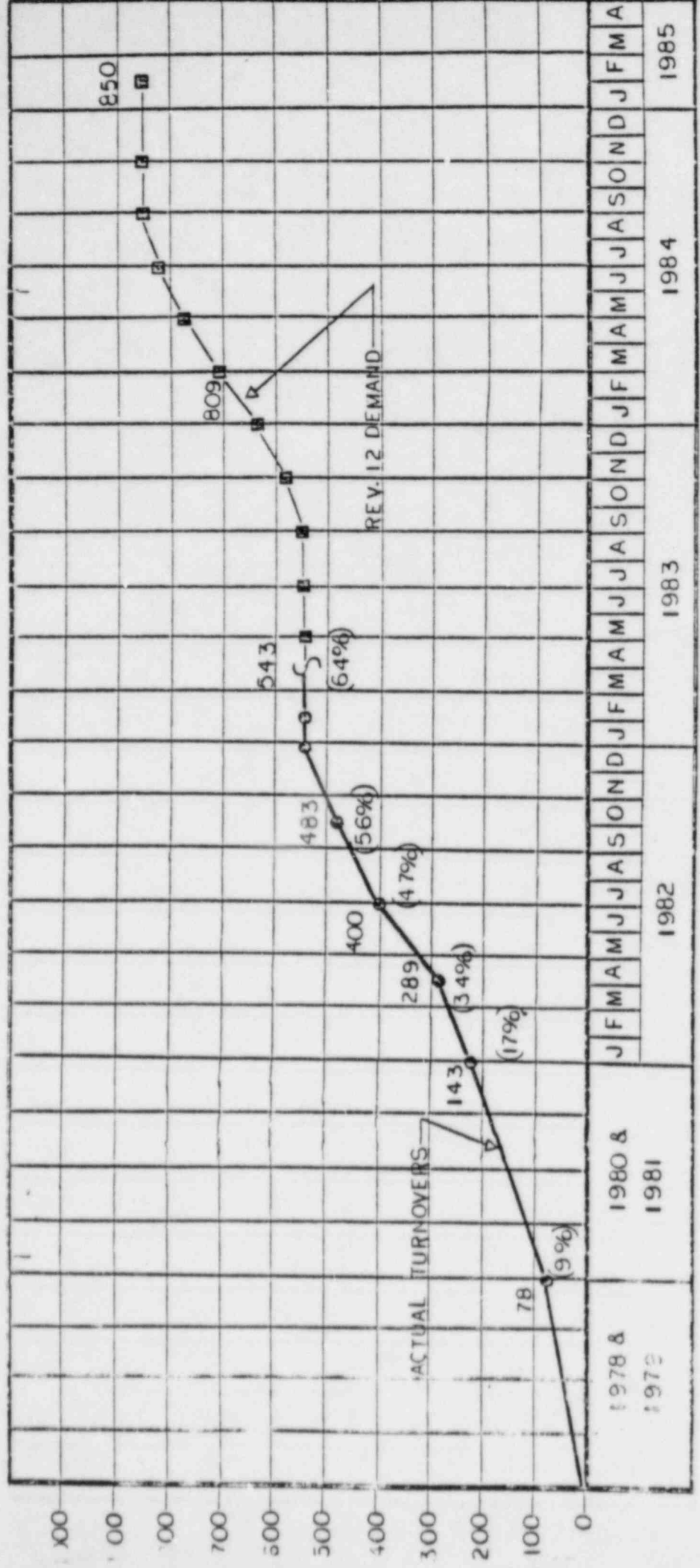
1	10-27-82	DESIGNED & DRAWN	JRP	JRP
0	2-87	INITIAL ISSUE	JRP	JRP
REV	DATE	REVISIONS	BY	CHK APPR APPR
SCALE	NONE	DESIGNED	JRP	DRAWN Klonowski
<b>MIDLAND PLANT</b>				
PROCEDURE DEVELOPMENT				
 Consumers Power Company		DRAWING NO	REV	
		TPS-5	2	

FIGURE 2



ACTUAL TURNOVERS AND REV. 12 DEMAND TURNOVER CURVE

FIGURE 1

MIDLAND POWER PLANT  
TECHNICAL DEPARTMENT

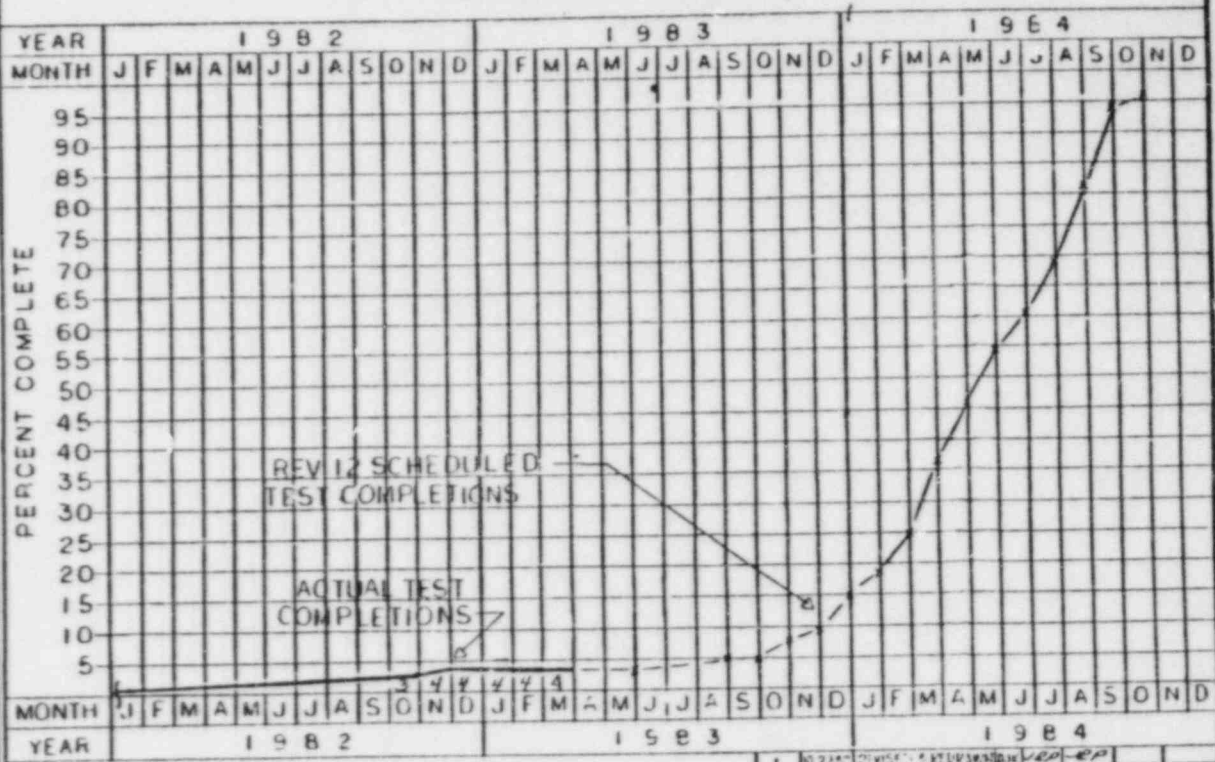
PROCEDURE PERFORMANCE (LESS GP) - ACTUAL VS SCHEDULED

PROGRESS SUMMARY COMPLETED

DISCIPLINE	% COMPLETE										WT FACT	CCG
	10	20	30	40	50	60	70	80	90	90		
AUXILIARY	5										.169	112
ELECTRICAL	0										.095	45
FEEDWATER / CONDENSATE	7										.150	103
INSTRUMENT / CONTROL	5										.009	6
NUCLEAR STEAM SUPPLY SYSTEM	1										.143	98
PROCESS STEAM	2										.001	46
PROGRAMATIC TESTING & PERFORMANCE	0										.059	40
TURBINE / HVAC	8										.136	93
											.10	683
											.037	25

AS OF 3-31-83

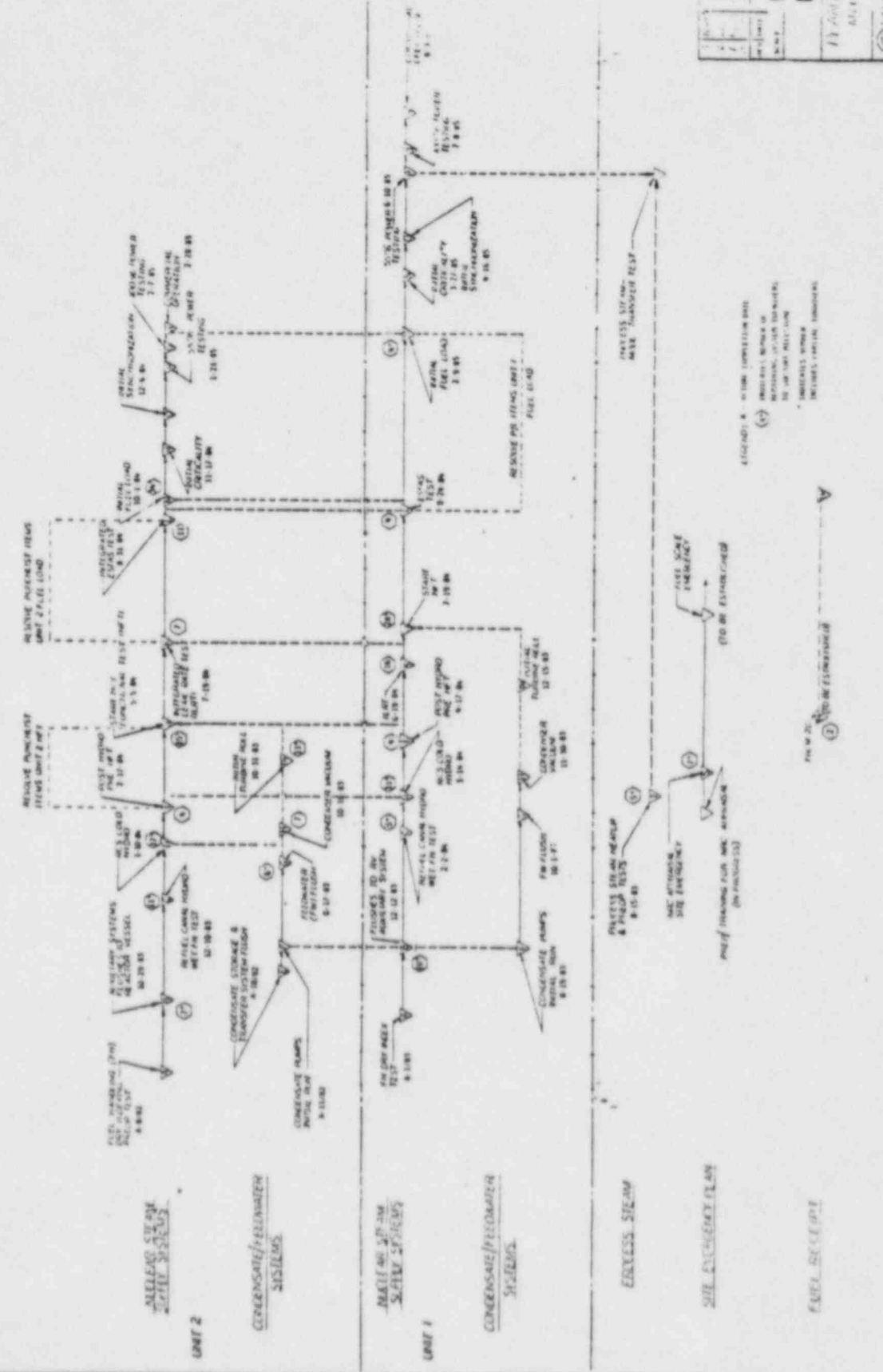
PERFORMANCE CURVE



1	10/2/82	DESIGNED	JLD	DRIVEN	VED-EP	
0	2-83	REVISIONS	BY	CHK	APP	APP
SCALE	NONE	DESIGNED	JLD	DRAWN	Klanon	
<b>MIDLAND PLANT</b>						
PROCEDURE PERFORMANCE						
Consumers Power Company					DRAWING NO	REV
					TPS-6	2

FIGURE 3- TEST COMPLETIONS

RELAY	DESCRIPTION
W	RELAY FOR UNIT 2
W	RELAY FOR UNIT 1
W	RELAY FOR UNIT 3
W	RELAY FOR UNIT 4
W	RELAY FOR UNIT 5
W	RELAY FOR UNIT 6
W	RELAY FOR UNIT 7
W	RELAY FOR UNIT 8
W	RELAY FOR UNIT 9
W	RELAY FOR UNIT 10
W	RELAY FOR UNIT 11
W	RELAY FOR UNIT 12
W	RELAY FOR UNIT 13
W	RELAY FOR UNIT 14
W	RELAY FOR UNIT 15
W	RELAY FOR UNIT 16
W	RELAY FOR UNIT 17
W	RELAY FOR UNIT 18
W	RELAY FOR UNIT 19
W	RELAY FOR UNIT 20



MIDLAND PLANT			
UNIT TWO LEFT STARTUP			
REVISIONS			
NO.	DATE	BY	REVISION
1			
2			
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REVISIONS

(1) REVISIONS TO BE MADE TO THIS DRAWING

(2) REVISIONS TO BE MADE TO THIS DRAWING

(3) REVISIONS TO BE MADE TO THIS DRAWING

(4) REVISIONS TO BE MADE TO THIS DRAWING

(5) REVISIONS TO BE MADE TO THIS DRAWING

(6) REVISIONS TO BE MADE TO THIS DRAWING

(7) REVISIONS TO BE MADE TO THIS DRAWING

(8) REVISIONS TO BE MADE TO THIS DRAWING

(9) REVISIONS TO BE MADE TO THIS DRAWING

(10) REVISIONS TO BE MADE TO THIS DRAWING

FIG. NO. 2

UNIT TWO LEFT STARTUP

EXCESS STEAM

MAIN EMERGENCY PLAN

CONDENSATE/FEEDWATER SYSTEMS

UNIT 2

UNIT 1

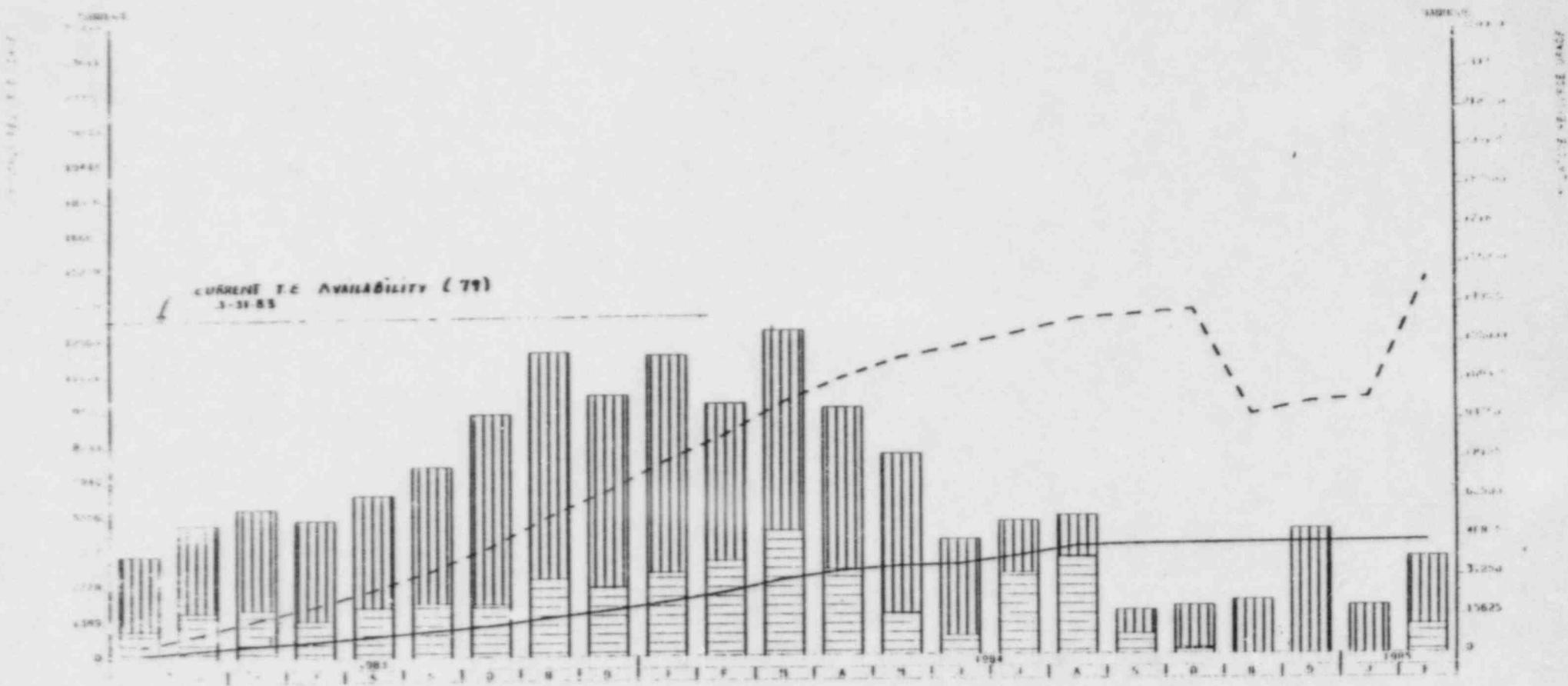
UNIT 3

# MIDLAND PROJECT RESOURCE CURVE - REVISION 12

## TESTING ENGINEERS

### LEVELIZED MANPOWER PROJECTIONS

TOTAL SYSTEMS - 41 T.E. /DAY AVERAGE



MONTHLY RESOURCE CURVE  
MANHRS RESOURCE

UNIT 2&0 FORECASTED MONTHLY MANHOURS  
MANHRS RESOURCE 21000  
TARG SCH 32 ES

UNIT 1 FORECASTED MONTHLY MANHOURS  
MANHRS RESOURCE 21000  
TARG SCH 31 ES

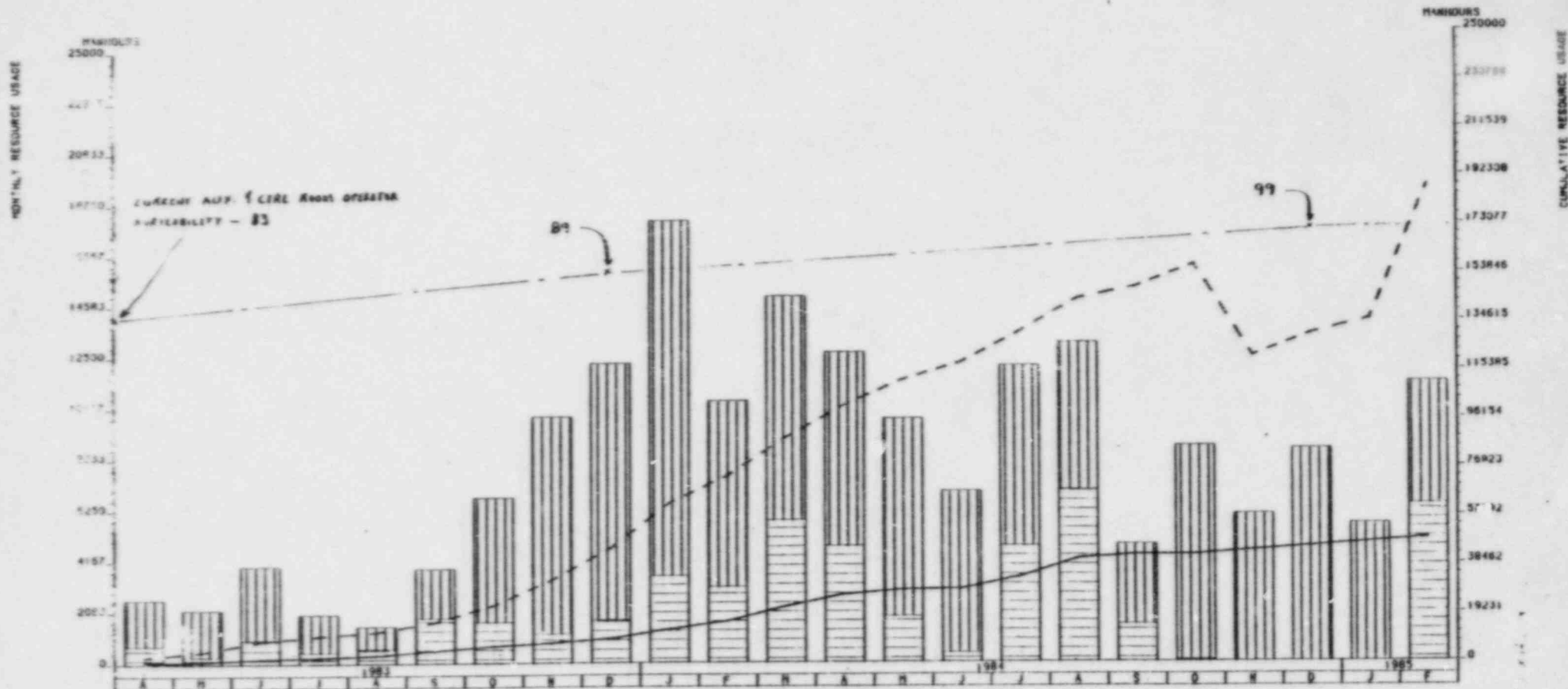
CUMULATIVE RESOURCE CURVE  
MANHRS RESOURCE

UNIT 2&0 CUMULATIVE MANHOURS  
MANHRS RESOURCE 21000  
TARG SCH 32 ES CUM

UNIT 1 CUMULATIVE MANHOURS  
MANHRS RESOURCE 21000  
TARG SCH 31 ES CUM



MIDLAND PROJECT RESOURCE CURVE - REVISION 12  
 OPERATORS  
 LEVELIZED MANPOWER PROJECTIONS  
 TOTAL SYSTEMS - 50 OPS /DAY AVERAGE



MONTHLY RESOURCE USAGE  
 MANHOURS INCREASING BASE

CUMULATIVE RESOURCE USAGE  
 MANHOURS INCREASING BASE

UNIT 2&0 OF FORECASTED MONTHLY MANHOURS  
 MANHRS RESOURCE 31100  
 TARG SCH 32 ES

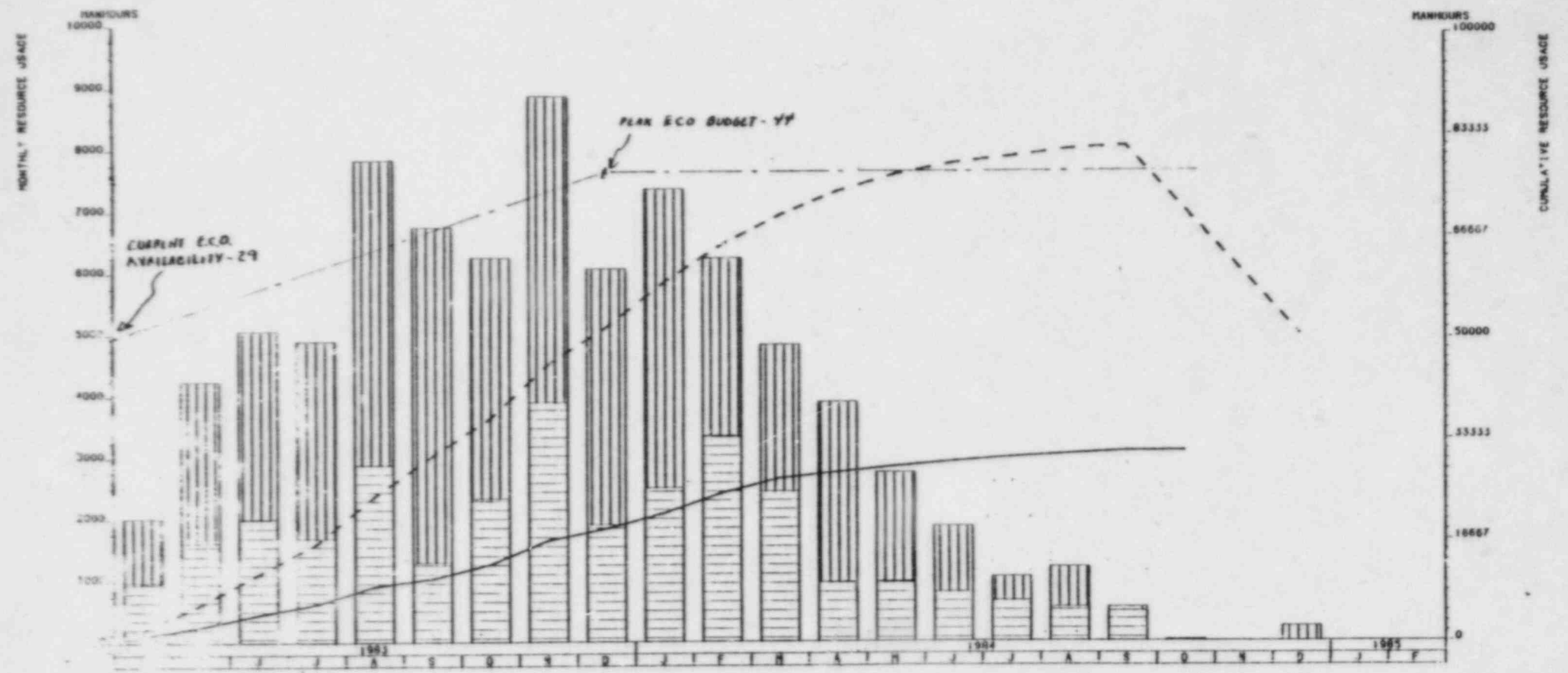
UNIT 1 OF FORECASTED MONTHLY MANHOURS  
 MANHRS RESOURCE 31100  
 TARG SCH 31 ES

UNIT 2&0 OF CUMULATIVE MANHOURS  
 MANHRS RESOURCE 31100  
 TARG SCH 32 ES CUM

UNIT 1 OF CUMULATIVE MANHOURS  
 MANHRS RESOURCE 31100  
 TARG SCH 31 ES CUM

# MIDLAND PROJECT RESOURCE CURVE - REVISION 12

## ELECTRICAL CHECKOUT TECHNICIANS LEVELIZED MANPOWER PROJECTIONS TOTAL SYSTEMS - 301 E.C.O. /DAY AVERAGE



MONTHLY RESOURCE USAGE  
MANHOURS INCREASING BASE

CUMULATIVE RESOURCE USAGE  
MANHOURS INCREASING BASE

- UNIT 2 & 3 FORECASTED MONTHLY MANHOURS  
MANHRS RESOURCE 21200  
TARG SCH 32 ES
- UNIT 1 FORECASTED MONTHLY MANHOURS  
MANHRS RESOURCE 21200  
TARG SCH 31 ES

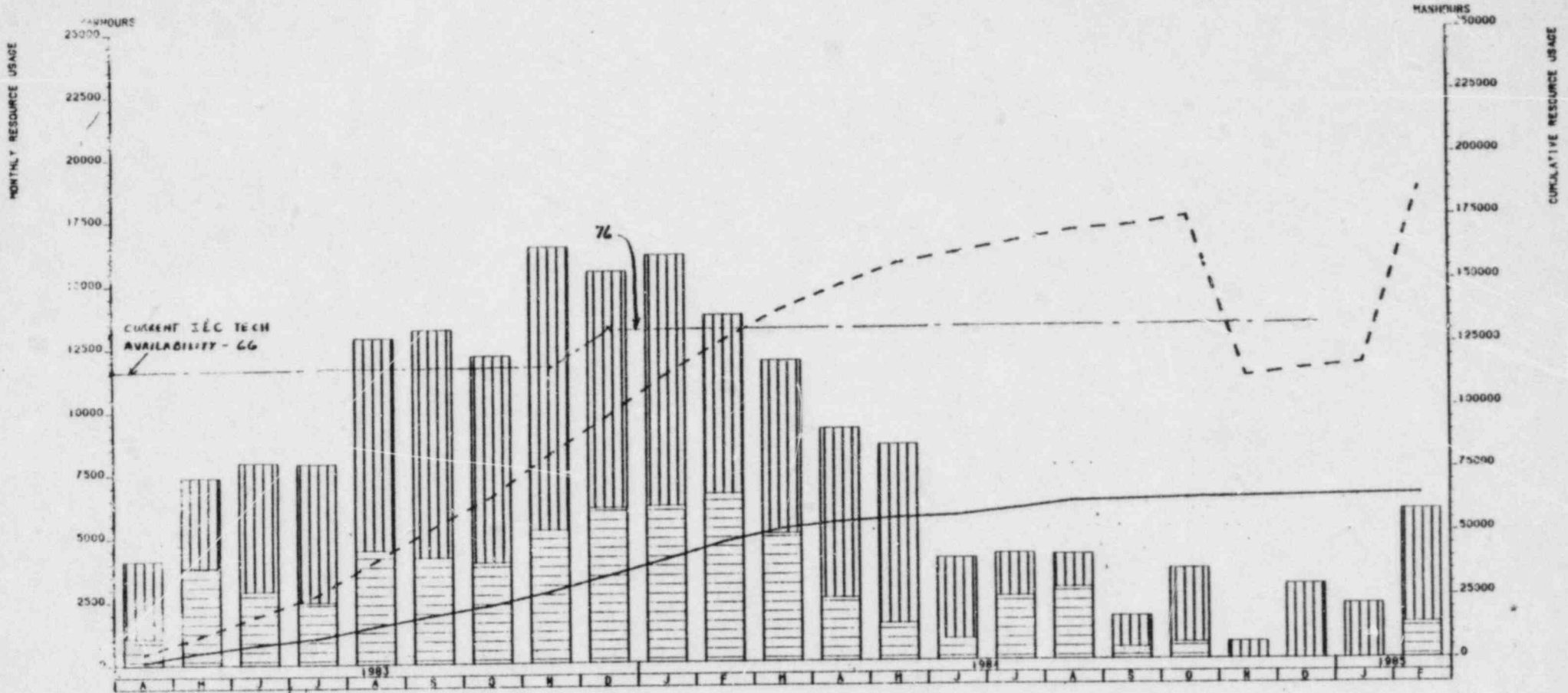
- UNIT 2 & 3 ECO CUMULATIVE MANHOURS  
MANHRS RESOURCE 21200  
TARG SCH 32 ES CUM
- UNIT 1 ECO CUMULATIVE MANHOURS  
MANHRS RESOURCE 21200  
TARG SCH 31 ES CUM

# MIDLAND PROJECT RESOURCE CURVE - REVISION 12

## INSTRUMENTATION AND CONTROL TECHNICIANS

### LEVELIZED MANPOWER PROJECTIONS

TOTAL SYSTEMS - 50 IIC /DAY AVERAGE



MONTHLY RESOURCE USAGE  
MANHOURS INCREASING BASE

CUMULATIVE RESOURCE USAGE  
MANHOURS INCREASING BASE

UNIT 2&3 I&C FORECASTED MONTHLY MANHOURS  
MANHRS RESOURCE 31300  
TARG SCH 32 ES

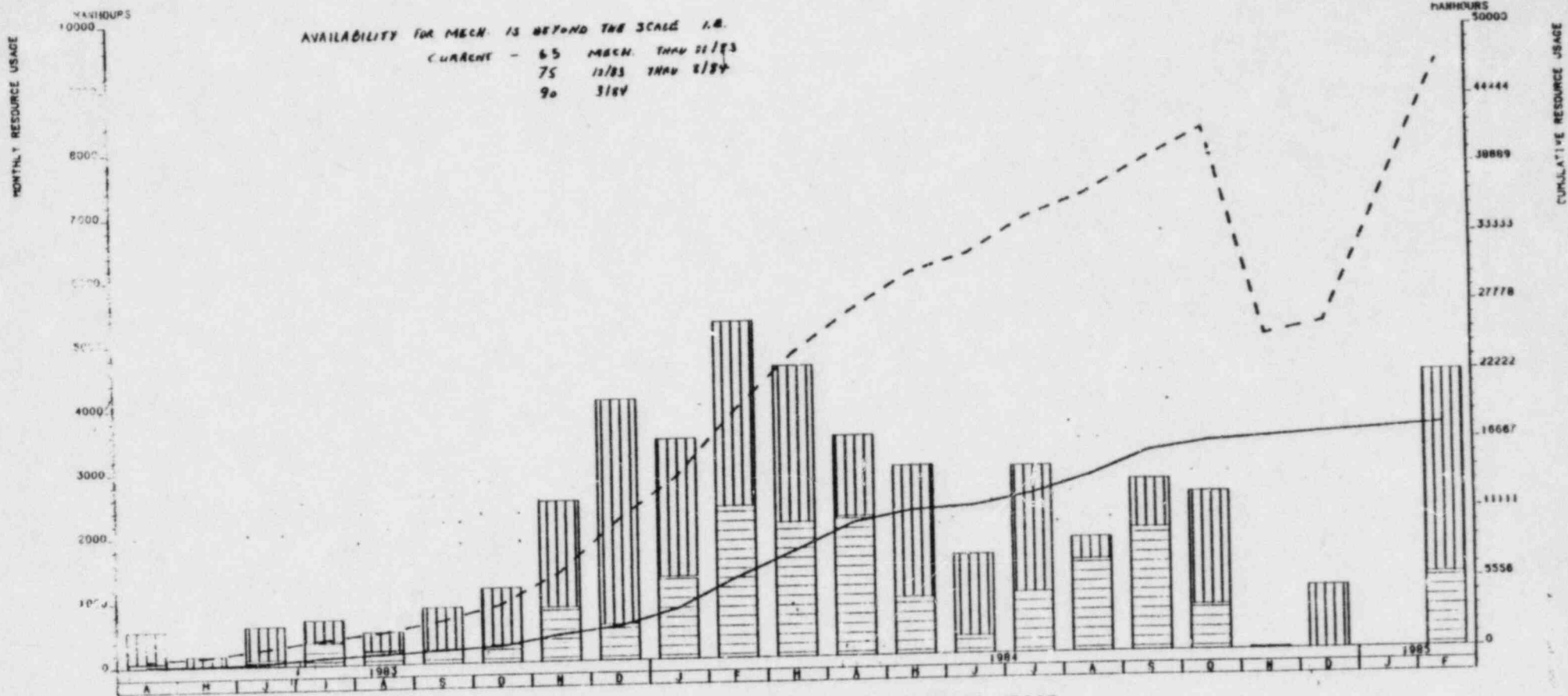
UNIT 2&3 I&C CUMULATIVE MANHOURS  
MANHRS RESOURCE 31300  
TARG SCH 32 ES CUM

UNIT 1 I&C FORECASTED MONTHLY MANHOURS  
MANHRS RESOURCE 31300  
TARG SCH 31 ES

UNIT 1 I&C CUMULATIVE MANHOURS  
MANHRS RESOURCE 31300  
TARG SCH 31 ES CUM


MIDLAND PROJECT RESOURCE CURVE - REVISION 12  
 MAINTENANCE MECHANICS  
 LEVELIZED MANPOWER PROJECTIONS  
 TOTAL SYSTEMS - 13 MAINT./DAY


AVAILABILITY FOR MECH. IS BEYOND THE SCALE I.E.  
 CURRENT - 65 MACH. THRU 21/83  
 75 12/83 THRU 2/84  
 90 3/84





MONTHLY RESOURCE USAGE  
 MANHOURS INCREASING BASE

CUMULATIVE RESOURCE USAGE  
 M/NHOURS INCREASING BASE

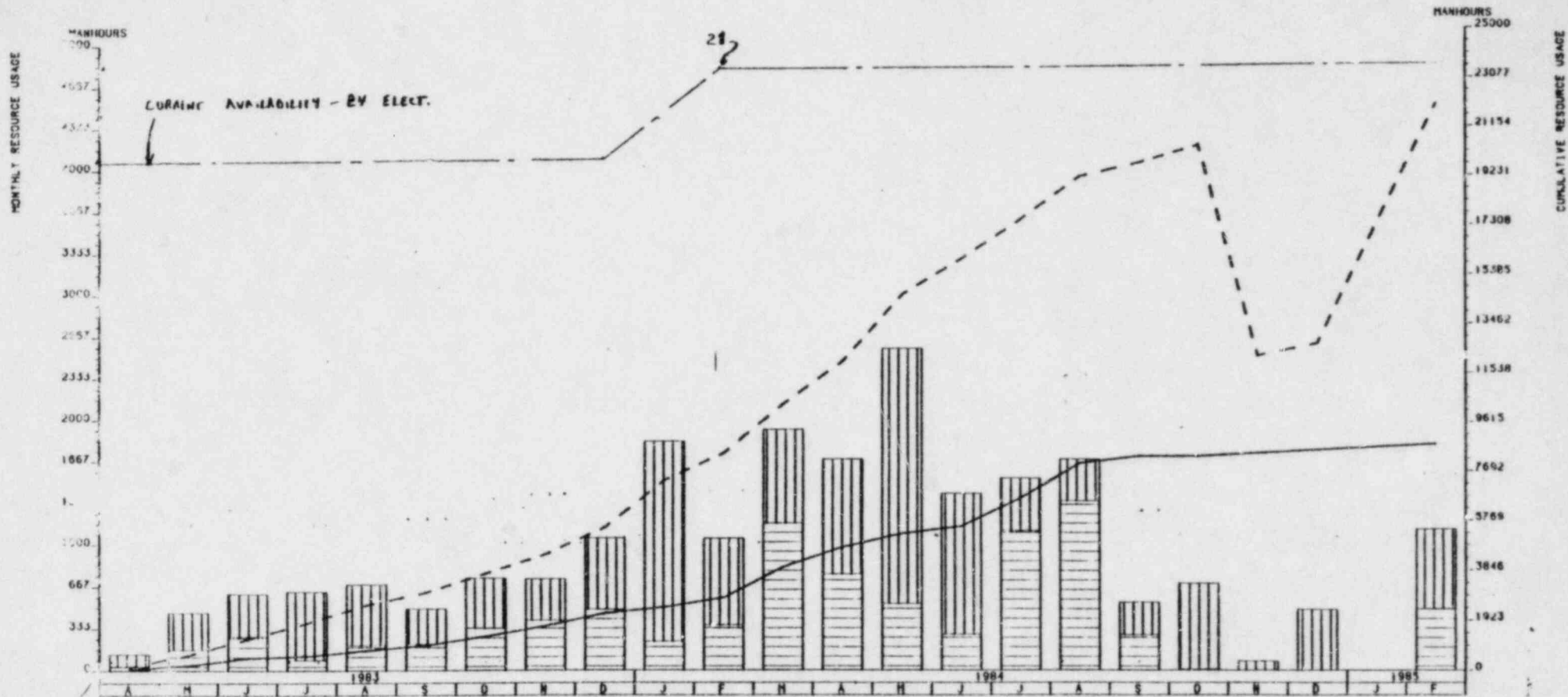
 UNIT 2&0 MM FORECASTED MONTHLY MANHOURS  
 MANHRS RESOURCE 31500  
 TARG SCH 32 ES

 UNIT 1 MM FORECASTED MONTHLY MANHOURS  
 MANHRS RESOURCE 31500  
 TARG SCH 31 ES

 UNIT 2&0 MM CUMULATIVE MANHOURS  
 MANHRS RESOURCE 31500  
 TARG SCH 32 ES CUM

 UNIT 1 MM CUMULATIVE MANHOURS  
 MANHRS RESOURCE 31500  
 TARG SCH 31 ES CUM

### MIDLAND PROJECT RESOURCE CURVE - REVISION 12 MAINTENANCE ELECTRICIANS LEVELIZED MANPOWER PROJECTIONS TOTAL SYSTEMS - 6 ELECT /DAY



MONTHLY RESOURCE USAGE  
 MANHOURS INCREASING BASE

CUMULATIVE RESOURCE USAGE  
 MANHOURS INCREASING BASE

UNIT 2&0 ME FORECASTED MONTHLY MANHOURS  
 MANHRS RESOURCE 31400  
 TARG SCH 32 ES

UNIT 2&0 ME CUMULATIVE MANHOURS  
 MANHRS RESOURCE 31400  
 TARG SCH 32 ES CUM

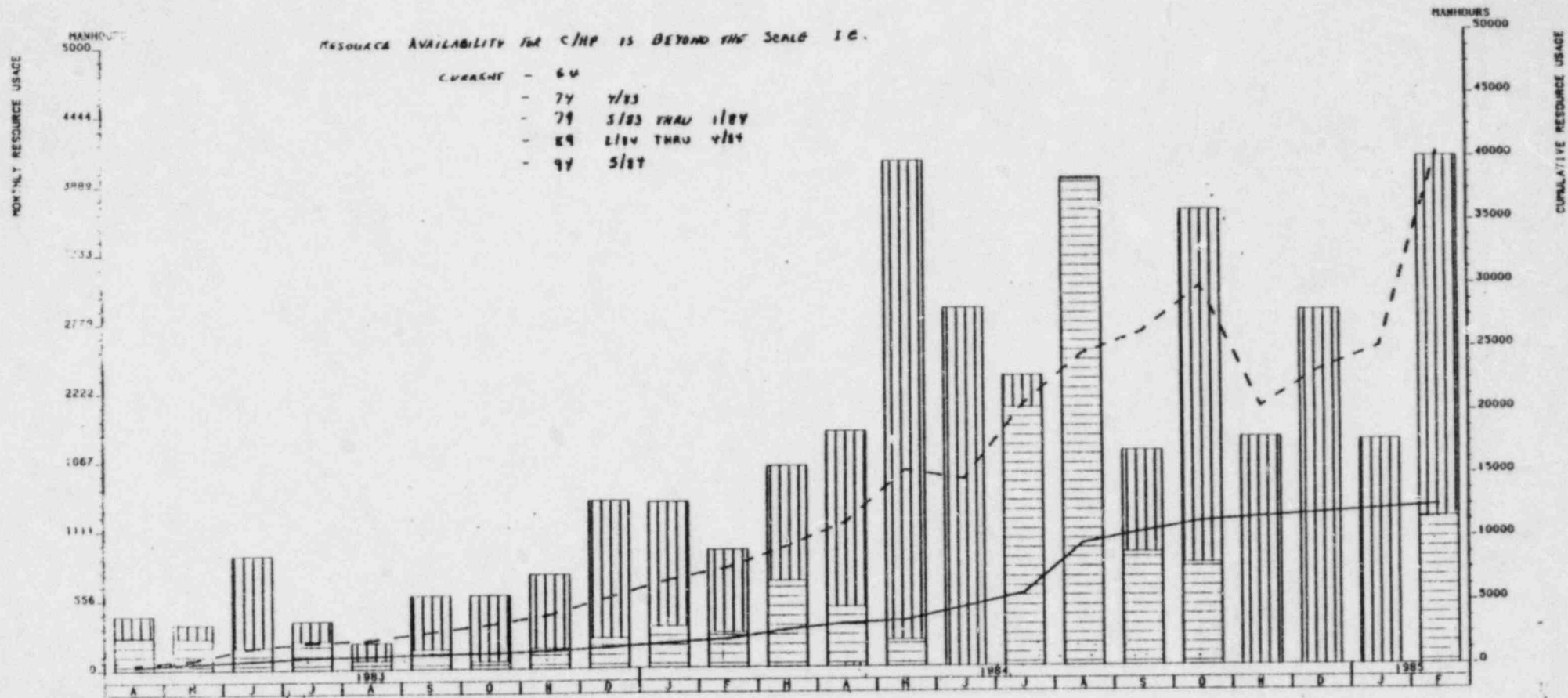
UNIT 1 ME FORECASTED MONTHLY MANHOURS  
 MANHRS RESOURCE 31400  
 TARG SCH 31 ES

UNIT 1 ME CUMULATIVE MANHOURS  
 MANHRS RESOURCE 31400  
 TARG SCH 31 ES CUM

MIDLAND PROJECT RESOURCE CURVE - REVISION 12  
 CHEMICAL AND HEALTH PHYSICS TECHNICIANS  
 LEVELIZED MANPOWER PROJECTIONS  
 TOTAL SYSTEMS - 10 ICHP /DAY

RESOURCE AVAILABILITY FOR C/HP IS BEYOND THE SCALE I.E.

- CURRENT - 64  
 - 74 4/83  
 - 79 5/83 THRU 1/84  
 - 84 1/84 THRU 4/84  
 - 89 5/84



MONTHLY RESOURCE USAGE  
 MANHOURS INCREASING BASE

CUMULATIVE RESOURCE USAGE  
 MANHOURS INCREASING BASE

UNIT 2&0 C&H FORECASTED MONTHLY MANHOURS  
 MANHRS RESOURCE 31900  
 TARG SCH 32 ES

UNIT 2&0 C&H CUMULATIVE MANHOURS  
 MANHRS RESOURCE 31900  
 TARG SCH 32 ES CUM

UNIT 1 C&H FORECASTED MONTHLY MANHOURS  
 MANHRS RESOURCE 31900  
 TARG SCH 31 ES

UNIT 1 C&H CUMULATIVE MANHOURS  
 MANHRS RESOURCE 31900  
 TARG SCH 31 ES CUM

		PROG	NSSS	AUX	TURB HVAC	FEED COND	ELEC	I & C	PS	TOTAL	REMARKS	
ESTIMATED TO BE DEVELOPED	TP	20	66	43	29	17	44	55	0	268	725 LAST REPORT	
	AP	1	0	5	37	34	10	1	40	128		
	FP	0	26	52	26	54	2	2	6	168		
	SP	19	6	12	1	4	9	68	—	119		
	GP	7	0	0	6	4	21	7	1	46		
TOTAL	GP	7	0	0	6	4	21	7	1	46		
729	SUB-TOTAL	47	98	112	99	107	86	133	47	729		
DRAFTS NOT SUBMITTED BY DISCIPLINES	TP	3	3	9	4	7	26	9	—	61	129 LAST REPORT	
	AP	0	—	2	2	13	10	1	9	37		
	FP	—	0	0	0	1	0	2	1	4		
	SP	11	0	0	1	0	3	0	—	15		
	GP	0	—	—	0	1	0	0	1	2		
TOTAL	GP	0	—	—	0	1	0	0	1	2		
119	SUB-TOTAL	14	3	11	7	22	39	12	11	119		
PROCEDURES IN REVIEW & APPROVAL CYCLE	TP	14	9	21	14	4	5	5	—	72	217 LAST REPORT	
	AP	0	—	2	11	13	0	0	23	49		
	FP	—	3	21	8	13	1	0	2	48		
	SP	6	0	5	0	2	4	1	—	18		
	GP	3	—	—	4	0	0	1	0	8		
TOTAL	GP	3	—	—	4	0	0	1	0	8		
195	SUB-TOTAL	23	12	49	37	32	10	7	25	195		
PROCEDURES IN TWG REVIEW CYCLE	TP	3	26	7	11	0	7	24	—	78	86 LAST REPORT	
	AP	—	—	—	—	0	—	—	—	0		
	FP	—	—	—	—	—	—	—	—	—		
	SP	2	0	1	0	—	0	4	—	7		
	GP	2	—	—	0	0	0	0	0	2		
TOTAL	GP	2	—	—	0	0	0	0	0	2		
87	SUB-TOTAL	7	26	8	11	0	7	28	0	87		
APPROVED TEST PROCEDURES	TP	0	28	6	0	0	6	17	—	57	293 LAST REPORT	
	AP	1	—	1	24	8	0	0	8	42		
	FP	—	23	31	18	40	1	0	3	116		
	SP	0	6	6	0	2	2	63	—	79		
	GP	2	—	—	2	3	21	6	0	34		
TOTAL	GP	2	—	—	2	3	21	6	0	34		
328	SUB-TOTAL	3	57	44	44	53	30	86	11	328		
PERCENT COMPLETE (APPROVED vs EST. TOTAL)		TOTAL	6	58	39	44	50	35	65	23	15	40 LAST REPORT
TOTAL		45%										

TABLE I

TABLE 2 - TEST PROCEDURE PERFORMANCE COMPLETIONS

<u>PROCEDURE NO</u>	<u>TEST</u>	<u>RESULTS REVIEW STATUS</u>
<u>PREOPERATIONAL TESTS</u>		
NONE		
<u>ACCEPTANCE TESTS</u>		
GAP-PTU.03	Diesel Bldg Electric Heating Acceptance Test	DS/TE Review
<u>FLUSHES</u>		
OFP-AN.01	Demineralized Water Storage and Transfer Header Flush	Approval Cycle
OFP-AN.02	Demineralized Water Hose Station Flush	Approval Cycle
OFP-AN.04	Demineralized Water Flush of Containment Piping	Approval Cycle
OFP-AT.02	Demineralized Water Supply Flush	Approval Cycle
1FP-CB.01	Turbine Generator Lube Oil And Hydrogen Seal Oil Flush	Approval Cycle
2FP-CB.01	Turbine Generator Lube Oil And Hydrogen Seal Oil Flush	DS/TE Review
OFP-CF.01	Lube Oil Storage Purification And Transfer System	DS/TE Review
1FP-CF.01	Unit 1 Lube Oil Purification System Flush	Approval Cycle
2FP-CF.01	Unit 2 Lube Oil Purification System Flush	DS/TE Review



TABLE 2 - TEST PROCEDURE PERFORMANCE COMPLETIONS

<u>PROCEDURE NO</u>	<u>TEST</u>	<u>RESULTS REVIEW STATUS</u>
<u>PREOPERATIONAL TESTS</u>		
NONE		
<u>ACCEPTANCE TESTS</u>		
0AD-PT.03	Diesel Bldg Electric Heating Acceptance Test	DS/TE Review
<u>FLUSHES</u>		
OFP-AN.01	Demineralized Water Storage and Transfer Header Flush	Approval Cycle
OFP-AN.02	Demineralized Water Hose Station Flush	Approval Cycle
OFP-AN.04	Demineralized Water Flush of Containment Piping	Approval Cycle
OFP-AT.02	Demineralized Water Supply Flush	Approval Cycle
1FP-CB.01	Turbine Generator Lube Oil And Hydrogen Seal Oil Flush	Approval Cycle
2FP-CB.01	Turbine Generator Lube Oil And Hydrogen Seal Oil Flush	DS/TE Review
OFP-CF.01	Lube Oil Storage Purification And Transfer System	DS/TE Review
1FP-CF.01	Unit 1 Lube Oil Purification System Flush	Approval Cycle
2FP-CF.01	Unit 2 Lube Oil Purification System Flush	DS/TE Review

TABLE 2 - TEST PROCEDURE PERFORMANCE COMPLETIONS

<u>PROCEDURE NO</u>	<u>TEST</u>	<u>RESULTS REVIEW STATUS</u>
QFP-FA.01	Aux Steam Boiler System	Approval Cycle
QFP-GB.02	Admin Bldg Cooling Tower System	Approved
1FP-KE.02	Fuel Handling Bridge Air System Flush	Approved
2FP-KE.02	Fuel Handling Bridge Air System Flush	Approved
QFP-KH.02	Hydrogen Supply System Flush	Approval Cycle
QFP-KH.06	Evaporator Building Lab Natural Gas	Approval Cycle
QFP-KH.07	Evaporator Building Lab Vacuum System Flush	Approved
<u>SPECIFIC TESTS</u>		
OSP-ANN.02	OC173 Annunciator Cab Energization	Approval Cycle
OSP-ANN.03	OC155 Annunciator Cab Energization	Approval Cycle
OSP-AXB.01	Aux Boiler Initial Operation And Boilout	Approval Cycle
ISP-CRD.03	Control Rod Drive Tech Stator Pre-Inst Check	Approval Cycle
2SP-CRD.03	Control Rod Drive Tech Stator Pre-Inst Check	Approval Cycle
OSP-DVT.01	Decay Heat Removal Initial Pump Run	Approval Cycle

<p>JAN</p>	<p>UNIT 2/COMMON</p>	<p>UNIT 2/COMMON</p>
<p>JAN</p>	<p>UNIT 2/COMMON</p>	<p>UNIT 2/COMMON</p>
<p>JAN</p>	<p>UNIT 2/COMMON</p>	<p>UNIT 2/COMMON</p>

1983

<p>UNIT 2/COMMON</p>	<p>UNIT 2/COMMON</p>	<p>UNIT 2/COMMON</p>
<p>JAN</p>	<p>FEB</p>	<p>MAR</p>

1983

	<p> <small>           (R)C 05P-FIN.36 BOP RACK C/O 20-166 (E)1001            (R)C 05F-FIN.34 PT 2 LATER CHECKS (E)1002         </small> </p> <p style="text-align: center;">UNIT 2/Common</p> <p style="text-align: center;">UNIT 1</p> <p> <small>           (R)A 15F-FIN.38 PS RACK C/O 10-49 (E)1011F         </small> </p>	<p> <small>           (R)A 05P-AL.31 CNO PIP 116/FLSH VIA "1" (E)1001            (R)A 05P-AT.31 INST TEMP MGR (E)1002            (R)A 05F-AT.31 EVAP PD FLSH TO DA (E)1003            (R)A 05F-AT.31 FLUSH DA (E)1004         </small> </p> <p style="text-align: center;">UNIT 2/Common</p>
APR	MAY	JUN

1983

<pre> 090 DEP-AT.04 LOGIC VERIF      (EFS)DT 091 DEP-AT.05 SYSTEM FLUSH     (EFS)DT 092 DEP-AT.06 FLUSH LOOP 1     (EFS)DT 093 DEP-AT.07 LP FD DPH FLUSH  (EFS)DT 094 DEP-AT.08 FLUSH LOOP 2     (EFS)DT 095 DEP-AT.09 LP FD PYP SECTION FLUSH (EFS)DT  UNIT 2/Common  UNIT 1 1KE1 1SF-FHS.05 FUEL XFER C/G &amp; ADJ (EFS)DC 1KE2 1SF-RC.01 FUEL XFER MECH FLUSH (EFS)DC 1KAC DEP-RT.01 BLOW DOWN        (EFS)DF </pre>	<pre> 096 DEP-RT.02 OPEN X-F VIEW FZLINE INSP(S)DT 097 DEP-AT.06 LOGIC VERIFICATION (EFS)DT 098 DEP-AT.07 HP STM FLSH LINE IF TUNN:(EFS)DT 099 DEP-AT.08 FLSH LOOP 3       (EFS)DT 100 DEP-AT.09 FLSH LOOP 4       (EFS)DT 101 DEP-AT.10 HP FD PYP SUCTION FLSH (EFS)DT 102 DEP-AT.11 MISC FLUSH LP FD  (EFS)DT 103 DEP-AT.12 HP STM FLSH TO TUNNEL (EFS)DT  UNIT 2/Common  UNIT 1 1KLA 1SF-FHS.05 FUEL XFER C/G &amp; ADJ (EFS)DC 1KNA 1SF-RC.01 FUEL XFER MECH FLUSH (EFS)DC 1KAC DEP-RT.01 BLOW DOWN        (EFS)DF </pre>	<pre> 104 DEP-RT.02 OPEN X-F VIEW FZLINE INSP(S)DT 105 DEP-AT.06 LOGIC VERIFICATION (EFS)DT 106 DEP-AT.07 HP STM FLSH LINE IF TUNN:(EFS)DT 107 DEP-AT.08 FLSH LOOP 3       (EFS)DT 108 DEP-AT.09 FLSH LOOP 4       (EFS)DT 109 DEP-AT.10 HP FD PYP SUCTION FLSH (EFS)DT 110 DEP-AT.11 MISC FLUSH LP FD  (EFS)DT 111 DEP-AT.12 HP STM FLSH TO TUNNEL (EFS)DT  UNIT 2/Common  UNIT 1 112 DEP-PL.01 FLUSH UNIT 1 PRIM WTR SYS (EFS)DT 113 DEP-EN.01 FLUSH ENGT LINES      (EFS)DT 114 DEP-AT.05 OPEN PTVS FZLINE     (EFS)DT </pre>
<p style="text-align: center;">JUL</p>	<p style="text-align: center;">AUG</p>	<p style="text-align: center;">SEP</p>

1983

<p>           1000 21P-HMS.75 REEF DRY PREOP &amp; INSDN 4EFS324            1001 21P-HSA.71 LOGIC PRE-OP 4EFS320            1002 21P-HMS.74 FULL XFER PRE-OP 4EFS320            1003 21P-HMS.75 MU PUMP INIT PRT 4EFS320            1004 21P-HMS.76 RCP PACK C/O 20-445 A&amp;E 4EFS320            1005 21P-HSA.72 ECCAS LOGIC TEST 4EFS320            1006 21P-HMS.73 C/O CRD MG SET 4EFS320            1007 21P-HMS.71 IPR &amp; EXTERNAL FLUSH 4EFS320            1008 21P-HMS.71 FLUSH WITH FMP TO MU TANK 4EFS320            1009 21P-HMS.71 FLUSH MU TR TO MU FMP 4EFS320            1010 21P-HMS.71 FLUSH TO SUCT-OF FILL PMP 4EFS320            1011 21P-HMS.71 FLUSH HPT LINES 4EFS320            1012 21P-HMS.71 FLUSH MAINF SYS 4EFS320            1013 21P-HMS.71 FLUSH BOLT LINES 4EFS320            1014 21P-HMS.71 FLUSH SEAL RETURN COOLERS 4EFS320            1015 21P-HMS.71 MU FMP L/O CLRS 2052A&amp;E 4EFS320            1016 21P-HMS.71 PRELIM FLUSH &amp; HAL L/O P 4EFS320            1017 21P-HMS.71 CRT INIT/LOGIC SYS FLUSH 4EFS320            1018 21P-HMS.71 IPR FMP/LOGIC FMP FMP 4EFS320            1019 21P-HMS.72 GRAY FLUSH TO RCP SUCT 4EFS320            1020 21P-HMS.71 NEW FUEL DISVATER PRE-OP 4EFS320            1021 21P-HMS.71 FULL IPR SYS DRY ACCEPT 4EFS320            1022 21P-HMS.71 FILL OT-IP 4EFS320            1023 21P-HMS.71 HP AUX RCP INIT STARTUP 4EFS320            1024 21P-HMS.72 INIT RCP B &amp; D PUMPS 4EFS320            1025 21P-HMS.72 FLUSH TO OT-IP THRU X-OVER 4EFS320            1026 21P-HMS.71 SYSTEM FLUSH 4EFS320            1027 21P-HMS.71 VEL FLUSH ENTIRE SYSTEM 4EFS320            1028 21P-HMS.72 LP STM HPT INSPECT 4EFS320              UNIT 2/COMMON              UNIT 1            1029 21P-HMS.74 FULL XFER PRE-OP 4EFS320            1030 21P-HMS.71 GRAY FLUSH TO RCP SUCT 4EFS320            1031 21P-HMS.71 IPR/FLUSH COLTEN HT EX LP 4EFS320            1032 21P-HMS.71 FLUSH/CLL/VEILL SEGE TR LP 4EFS320            1033 21P-HMS.71 FLUSH ON FMP SEAL COOLERS 4EFS320            1034 21P-HMS.71 GRAY FSH TO RCP SUCT LF 4EFS320         </p>	<p>           1035 21P-HMS.71 PRELIM FLUSH EN 2 PMP 4EFS320            1036 21P-HMS.71 IPR IPR/FLUSH/CLL/VEILL FLUSH 4EFS320            1037 21P-HMS.71 2 FSH CLAZ/FIL SPGE TR LP 4EFS320            1038 21P-HMS.71 GRAY FLUSH TO RCP SUCT 4EFS320            1039 21P-HMS.71 IPR/CLL/VEILL FLUSH 4EFS320            1040 21P-HMS.71 REC FLUSH FW THRU COND DEM 4EFS320            1041 21P-HMS.71 RCP/FLUSH COND THRU C 4EFS320            1042 21P-HMS.71 SY IPR &amp; COMPLETE FLUSH 4EFS320            1043 21P-HMS.71 COND DEM/16 FLUSH SP PIPE 4EFS320            1044 21P-HMS.71 FLUSH TO POND 4EFS320            1045 21P-HMS.71 FLUSH TO OTSG 4EFS320            1046 21P-HMS.71 FLUSH BELIC/VEILL FLUSH TO DA 4EFS320            1047 21P-HMS.71 FSH TO THE FISH EM FMP 4EFS320            1048 21P-HMS.71 FLOW M2 TO CF TRS 4EFS320            1049 21P-HMS.74 COND DEM INST PPG AIR FLO 4EFS320            1050 21P-HMS.74 COND DEM INST PPG AIR FLO 4EFS320            1051 21P-HMS.71 HP-FU HPT FLUSH 4EFS320            1052 21P-HMS.75 SYS FLUSH S C/O 4EFS320            1053 21P-HMS.71 JACKET WATER FLUSH 4EFS320            1054 21P-HMS.71 VAC (TURB L&amp;E) 4EFS320              UNIT 2/COMMON              UNIT 1            1055 21P-HMS.75 REMOVE CORE SUPPORT ASSY 4EFS320            1056 21P-HMS.71 RH IPR &amp; RCP TO PAST 4EFS320            1057 21P-HMS.75 MU PUMP INIT FMP 4EFS320            1058 21P-HMS.71 IAC C/O 4EFS320            1059 21P-HMS.76 RCP PACK C/O 10-445 A&amp;E 4EFS320            1060 21P-HMS.71 C/O CRD MG SET 4EFS320            1061 21P-HMS.71 FLUSH-PZ/HP/HP PMS/EX SAP 4EFS320            1062 21P-HMS.71 FLUSH W/CH PMP TO MU TANK 4EFS320            1063 21P-HMS.74 FLUSH DOWNSTREAM PIPELINE 4EFS320            1064 21P-HMS.72 VELOCITY FLUSH 4EFS320            1065 21P-HMS.72 FILL IT-IP 4EFS320            1066 21P-HMS.72 FLUSH TO &amp; FILL IT-7 A&amp;E 4EFS320            1067 21P-HMS.71 FLUSH 4EFS320            1068 21P-HMS.71 INST FLUSH MU PMP SUCT/OTSG 4EFS320            1069 21P-HMS.71 FLUSH FR MU TRK TO MU FMP 4EFS320            1070 21P-HMS.72 GRAY FLUSH TO EA ADD FMP S 4EFS320            1071 21P-HMS.74 FLUSH SUCTION OF IP-68 4EFS320            1072 21P-HMS.74 FLUSH SUCTION OF IP-69 4EFS320            1073 21P-HMS.71 MU PMP L/O CLRS IP-58&amp;E 4EFS320            1074 21P-HMS.71 FLUSH SEAL RETURN COOLERS 4EFS320            1075 21P-HMS.71 PRELIM FLUSH &amp; HAL L/O P 4EFS320         </p>	<p>           1076 21P-HMS.71 PROCF FLUSH &amp; CHK CHECK 4EFS320            1077 21P-HMS.71 INST AIR LLLW 4EFS320            1078 21P-HMS.72 FLOWDOWN SEC 7-1 4EFS320            1079 21P-HMS.71 PREOP TEST 4EFS320            1080 21P-HMS.71 INTERLOCK &amp; CONT. TEST 4EFS320            1081 21P-HMS.73 HTP MU STM-XFER VLVS 4EFS320            1082 21P-HMS.73 HTP MU STM LIFE TO 100 4EFS320            1083 21P-HMS.73 HP/LP LINE INIT HEATUP 4EFS320            1084 21P-HMS.73 HTP LP STEAM TO TURB 4EFS320            1085 21P-HMS.73 SET YR FMP HANGERS 4EFS320            1086 21P-HMS.76 INSPECT &amp; CLEAN HEADER 4EFS320            1087 21P-HMS.75 COND/VENT FLOW FM PSS BLEED/TEST 4EFS320            1088 21P-HMS.71 NTC FLUSH HP FMP 4EFS320            1089 21P-HMS.75 COND/VENT FLOW 1/2 TURB BLOW 4EFS320            1090 21P-HMS.71 FLUSH COOLING WATER LINES 4EFS320            1091 21P-HMS.75 LP STM HPT GLOBE EXT 4EFS320            1092 21P-HMS.71 FLUSH SAMPLE LINES 2TH 4EFS320            1093 21P-HMS.71 IPR &amp; FILL 4EFS320            1094 21P-HMS.71 FILL SYS W/HA CH 4EFS320            1095 21P-HMS.71 FILL &amp; VENT SYSTEM 4EFS320            1096 21P-HMS.71 DRAIN &amp; FLOW DRY 4EFS320              UNIT 2/COMMON              UNIT 1            1097 21P-HMS.71 ECCAS LOGIC PRE-OP 4EFS320            1098 21P-HMS.72 RCP IPR &amp; LOGIC C/O 4EFS320            1099 21P-HMS.72 ECCAS LOGIC TEST 4EFS320            1100 21P-HMS.72 INIT EMERGENCY CRD SYS 4EFS320            1101 21P-HMS.71 FLUSH HPT LINES 4EFS320            1102 21P-HMS.71 FLUSH-SUCT OF CF FILL PMP 4EFS320            1103 21P-HMS.71 FLUSH SEAL INJECTION LINES 4EFS320            1104 21P-HMS.71 FLUSH OF FILL PMP TO CF TR 4EFS320            1105 21P-HMS.71 FM CF/OTSG/NO FLUSH TO HPT 4EFS320            1106 21P-HMS.71 CF FLUSH TO RX VESSEL 4EFS320            1107 21P-HMS.71 FLUSH MU SUPPLY TO CF 4EFS320            1108 21P-HMS.71 FLUSH RCP MOTOR COOLERS 4EFS320            1109 21P-HMS.71 FLUSH TO COND VIA MI REC 4EFS320            1110 21P-HMS.71 PARTIAL FLUSH TO HOTWELL 4EFS320            1111 21P-HMS.71 FMP IPR/VEILL FM DA TO COND 4EFS320            1112 21P-HMS.71 FILL 24/2000 FMP ON PIP 4EFS320            1113 21P-HMS.71 COMPL CGE SYS IPR/COOL FL 4EFS320            1114 21P-HMS.71 GRAVITY FL ELEC A&amp;E SUCT 4EFS320            1115 21P-HMS.71 BLOW M2 TO CF TRS 4EFS320            1116 21P-HMS.74 COND DEM INST 21R BLOW 4EFS320         </p>
OCT	NOV	DEC

UNIT 2/COMMON

20BA 2TP-RCS.16 VENT VLV. SHT & DR TEST (RCS) 410310  
 20BA 2TP-RCS.11 RCS CHEM TEST RCS FILL 410310  
 20BA 2TP-RCS.02 DTSG PHDR CHEM/DTSG FILL 410310  
 20BA 2TP-PLF.01 MUX/PRX CHEM AT VV/TSHT 410310  
 20BA 2TP-RCS.18 RX VESSEL STLD HGL TEST 410310  
 20BA 2TP-RCS.17 SET FLEUP IM HV 410310  
 20BA 2TP-RCS.14 PM RCS INITIAL FILL 410310  
 20BA 2TP-RCS.17 SET HEAD & TENSIO 410310  
 20BA 2TP-RCS.14 CISC FILL & LVL VFI 410310  
 20BA 2TP-RCS.05 PZK LVL VERIFY RCS FILL 410310  
 20BA 2TP-RCS.04 PRE-HFI INTER INSP/LEAD 410310  
 20BA 2TP-RCS.02 ECCAS LOGIC PRE-CP 410310  
 20BA 2TP-RCS.01 CRD PRE-CP 410310  
 20BA 2SP-NEI.06 POWER SUPPLY CALIF. 410310  
 20BA 2SP-NEI.05 PROB PROXIMETER CALIF. 410310  
 20BA 2SP-NEI.13 DUAL PULSE SHAFTR CALIF 410310  
 20BA 2SP-NEI.07 DUAL RAD VIB MON CALIF 410310  
 20BA 2SP-NEI.08 IS-4 TAPE RECORDER C/O 410310  
 20BA 2SP-NEI.14 BEPT NEV 4000 SERIES CAL 410310  
 20BA 2SP-CHP.01 CO2/AFS ALKALINE CLFAN 410310  
 20BA 2SP-CHP.01 CHM CLFAN COND & FW SYS 410310  
 20BA 2FF-CP.01 FILL IPR & FLUSH 410310  
 20BA 2FF-CP.05 CLOSE PS XFER VALVE 410310  
 20BA 2FF-AL.01 CRAWL DOWN STM LINE 410310  
 20BA 2FF-AR.01 COND FEMIN CHEM ADD FLUSH 410310  
 20BA 2FF-AR.01 FILL & FLUSH 410310  
 20BA 2FF-AR.02 COND DE'IN FLUSH LG PIPE 410310  
 20BA 2FF-ER.01 INSPECT & CLEAN RCS 410310  
 20BA 2FF-ER.01 TO SEAL FTH CLFAN IM 410310  
 20BA 2FF-ER.01 FLUSH EG VENTS/RTS W/ 2 410310  
 20BA 2FF-ER.01 PRELIM FLUSH & EAR LOOP F 410310  
 20BA 2FF-EG.01 IPR/FTH COU/DR HT EXC LP 410310  
 20BA 2FF-EG.01 IPR CRD LSTD PMP/AFM CRD 410310  
 20BA 2FF-ER.01 FSH RSTR PMP SUB/AFM CRD 410310  
 20BA 2FF-ER.01 FLUSH GAC COMPRESSORS 410310  
 20BA 2FF-EG.01 HCP SEAL CLFS 2FF-AR 410310  
 20BA 2FF-EG.01 FUEL PGOUL HT EXCHS 2F-74 410310  
 20BA 2FF-ER.01 LETDOWN CLFS 2F-07 ARE 410310  
 20BA 2FF-EG.01 FLUSH RAL WST EVAP 2F-07 410310  
 20BA 2FF-EG.01 FLUSH RAL WST EVAP 2F-04 410310  
 20BA 2FF-EG.01 FLUSH DECAIFIER 2F-04/RAC 410310  
 20BA 2FF-ER.01 SPR PMP SEAL CLFS 2F-04 410310  
 20BA 2FF-SU.01 IPR & FLUSH 410310  
 20BA 2FF-AR.01 FLUSH & PUMP CAP CHECKS 410310  
 20BA 2FF-AL.01 DRN TNS & REFL W/2HD SOL 410310

UNIT 2/COMMON

20BA 2TP-RCS.04 PRE-HFI INTER INSP/CCO 410310  
 20BA 2TP-RCS.04 HCP IPR & LOGIC 410310  
 20BA 2TP-RCS.04 PRE-HFI INTER INSP (RVS) 410310  
 20BA 2SP-CHP.04 PI C/O 410310  
 20BA 2SP-FIT.06 HCP PACK C/O 20-01 410310  
 20BA 2SP-CRE.02 INIT EMER/FALIP CRD SYS 410310  
 20BA 2FF-CE.01 COMPLETE SYS FLUSH 410310  
 20BA 2FF-EG.01 FLOP OF FILL PMP TO CF IM 410310  
 20BA 2FF-EG.01 FLUSH REAL INJECTION LINE 410310  
 20BA 2FF-ER.01 FLUSH MU SUPPLY TO CF 410310  
 20BA 2FF-ER.01 CF FLUSH TO RX VESSEL 410310  
 20BA 2FF-ER.01 PM CF/DR/PU FLUSH TO FCO 410310

OCT

NOV

DEC

1983 (CONT.)



		<p style="text-align: center;">UNIT 2/COMMON</p> <p>AREA 2TP-CFS.01 OF CHK VLVE VV/SPT (ECS)00  AREA 2TP-FMS.00 CANAL HYDR/NET FM (ECS)00  AREA 2TP-FFC.01+ FILL FIF CANAL (ECS)00  AREA 2TP-FCS.XX SET CSP/INDEX IN POLAR (ECS)00</p>
OCT	NOV	DEC

1983 (CONT.)<sup>2</sup>

1001 ZEP-HA.01 FLOW SUCT PIPE TO RW SFRA (EFS)01  
 1002 ZEP-EN.01 FLUSH HYDRAZINE (EFS)01  
 1003 ZEP-HA.01 CLN 2I-HAZ/FSH NYC FMP SUC (EFS)01  
 1004 ZEP-HA.01 IPR & FLOW TO COGGL FOUT (EFS)01  
 1005 ZEP-HA.01 FSH TO VLV OPS OF LWS DPN (EFS)01  
 1006 ZEP-HA.01 EMER SUMP FLUSH (EFS)01  
 1007 ZEP-HA.01 STP FLOW MN STEAM LINES (EFS)01  
 1008 ZEP-HA.01 STEAM PLOC SEAL LINES (EFS)01  
 1009 ZEP-HA.01 COND LEM INST PFG AIR FLO (EFS)01  
 1010 ZEP-HA.01 AIR FLOW FILLING (EFS)01  
 1011 ZEP-HA.01 HE AUX-HN CONDSTA LG TO (EFS)01  
 1012 ZEP-HA.01 HANGER CHECK COLD (EFS)01  
 1013 ZEP-HA.01 RELIEF VALVE TESTING (EFS)01  
 1014 ZEP-HA.01 SET LP 2IN HEP HANGERS (EFS)01  
 1015 ZEP-HA.01 LP EVAL TUBE INTEG CHECK (EFS)01  
 1016 ZEP-HA.01 PRV PHS 1 TE-920.9 (EFS)01  
 1017 ZEP-HA.01 LP EVAL 1 HEATER (EFS)01  
 1018 ZEP-HA.01 STP FLASK SAMPLE ACCEPT (EFS)01  
 1019 ZEP-HA.01 INITIAL EGGS ENERGIZATION (EFS)01  
 1020 ZEP-HA.01 CLEANSE CUSE LP HEP-006 (EFS)01

UNIT 2/COMMON

UNIT 1

1021 ZEP-HA.01 OF CNK MOVE W/ACTE (EFS)01  
 1022 ZEP-HA.01 DRN PROV/SSHE (EFS)01  
 1023 ZEP-HA.01 FILL REF CATALYTIC TR (EFS)01  
 1024 ZEP-HA.01 PH PHE-RTI INTERNAL TEST (EFS)01  
 1025 ZEP-HA.01 VENT VLV/ST/STZEM TESTS (EFS)01  
 1026 ZEP-HA.01 SET COVINDEX FL CRANE (EFS)01  
 1027 ZEP-HA.01 DRN PRE OP (EFS)01  
 1028 ZEP-HA.01 INIT ICS ENH (EFS)01  
 1029 ZEP-HA.01 FRESH/LLN/FILL CUSE TR LP (EFS)01  
 1030 ZEP-HA.01 GRAVITY FLUSH TO FMP SUCT (EFS)01  
 1031 ZEP-HA.01 REC FL LG THRU COND DEMIN (EFS)01  
 1032 ZEP-HA.01 REC FLUSH COND THRU DEMIN (EFS)01  
 1033 ZEP-HA.01 COND CE 1IN FL SMALL FIBR (EFS)01  
 1034 ZEP-HA.01 IPR & COMPLETE FLUSH (EFS)01  
 1035 ZEP-HA.01 FL REVERSE CLEANUP TO E (EFS)01  
 1036 ZEP-HA.01 FLUSH TO CTGS (EFS)01  
 1037 ZEP-HA.01 FLUSH TO PLOC (EFS)01  
 1038 ZEP-HA.01 FLUSH CONDENSATE KEFF SYS (EFS)01  
 1039 ZEP-HA.01 FLUSH-PMP DISCH FM AUX FW (EFS)01  
 1040 ZEP-HA.01 COND DEMIN INST AIR FLOW (EFS)01  
 1041 ZEP-HA.01 COND DEMIN INST AIR FLOW (EFS)01  
 1042 ZEP-HA.01 HEP FLOW (EFS)01

JAN

UNIT 1

1043 ZEP-HA.01 CANAL HYDRO/MET FM (EFS)01  
 1044 ZEP-HA.01 DTSG PRELIM CPM FILL (EFS)01  
 1045 ZEP-HA.01 RCS CHEM TEST ACS FILL (EFS)01  
 1046 ZEP-HA.01 MAMP BNX CHEM ATLVV/SSHE (EFS)01  
 1047 ZEP-HA.01 PPECFE THEM EXP RCS FILL (EFS)01  
 1048 ZEP-HA.01 SET HEAD 1 ION-510 (EFS)01  
 1049 ZEP-HA.01 NX VESSEL SLD HGRU TEST (EFS)01  
 1050 ZEP-HA.01 SET PLUMIN 1IN KV (EFS)01  
 1051 ZEP-HA.01 DTSG FILL/LEVEL VERIFY (EFS)01  
 1052 ZEP-HA.01 PM RCS INITIAL FILL (EFS)01  
 1053 ZEP-HA.01 PZR LEVEL VERIFY RCS FILL (EFS)01  
 1054 ZEP-HA.01 ECCAS LOGIC PPEOP (EFS)01  
 1055 ZEP-HA.01 NU SYS PHE-OP (PARTIAL) (EFS)01  
 1056 ZEP-HA.01 PI C/O (EFS)01  
 1057 ZEP-HA.01 POWER SUPPLY CALIB. (EFS)01  
 1058 ZEP-HA.01 PROR PROXIMETER CALIB. (EFS)01  
 1059 ZEP-HA.01 DUAL RAD VIG MON CALIB. (EFS)01  
 1060 ZEP-HA.01 COND/FW ALKALINITY CLEAR (EFS)01  
 1061 ZEP-HA.01 COMPLETE SYS FLUSH (EFS)01  
 1062 ZEP-HA.01 IPR & EXTERNAL FLUSH (EFS)01  
 1063 ZEP-HA.01 FILL IPR & FLUSH (EFS)01  
 1064 ZEP-HA.01 FILL & FLUSH (EFS)01  
 1065 ZEP-HA.01 IPR & COMPLETE FLUSH (EFS)01  
 1066 ZEP-HA.01 COND DEMIN CHEM AND FLUSH (EFS)01  
 1067 ZEP-HA.01 PARTIAL FLUSH FROM IPR (EFS)01  
 1068 ZEP-HA.01 COND DEMIN FL LARGE FIBR (EFS)01  
 1069 ZEP-HA.01 INSPECT & CLEAN RCS (EFS)01  
 1070 ZEP-HA.01 FLUSH EQ VENT, PENS W/1 (EFS)01  
 1071 ZEP-HA.01 FLUSH-SEAL WTR CLR & SW TR (EFS)01  
 1072 ZEP-HA.01 FLOW SSTR PMP SUCZYVE C/O (EFS)01  
 1073 ZEP-HA.01 SPR PMP SCAL CURE II HEP (EFS)01  
 1074 ZEP-HA.01 FLUSH LYING CLMS 1E-87 AFB (EFS)01  
 1075 ZEP-HA.01 IEP CRU - IIR PMP/ZELVE CHE (EFS)01  
 1076 ZEP-HA.01 HC FME TO BE CLMS 1E-14-C (EFS)01  
 1077 ZEP-HA.01 IPR/FSH COARSH HT EX LP (EFS)01  
 1078 ZEP-HA.01 FUEL PLOC HT EXCHS 9E-76 (EFS)01  
 1079 ZEP-HA.01 IPR & FLUSH (EFS)01  
 1080 ZEP-HA.01 FL/PPP HEAD CAPACITY C/O (EFS)01  
 1081 ZEP-HA.01 FLUSH & PMP CAPACITY CR (EFS)01  
 1082 ZEP-HA.01 DRAIN TK & REFILL W/2000 (EFS)01  
 1083 ZEP-HA.01 DRAIN T&E & REFILL W/2000 (EFS)01  
 1084 ZEP-HA.01 FLUSH L/D TO PLOC W/2000 FUMP (EFS)01  
 1085 ZEP-HA.01 PLOC/TTIS HEP-01 VT 2000 (EFS)01

FEB

1086 ZEP-HA.01 FL CHEM WST REC FMP SUCT (EFS)01  
 1087 ZEP-HA.01 FL W/UTILITY WTR TO PLOC (EFS)01  
 1088 ZEP-HA.01 FL CHEM WST DRNS TO REC TRK/SSHE (EFS)01  
 1089 ZEP-HA.01 GRAVITY FLUSH PUMP SUCT/IGL/SSHE (EFS)01  
 1090 ZEP-HA.01 FL LIG WTR SYS W/UTIL WTR (EFS)01  
 1091 ZEP-HA.01 IPR/FSH FMP LWS-MIX SEC (EFS)01  
 1092 ZEP-HA.01 DEGAS INLET USING HEP FMP (EFS)01  
 1093 ZEP-HA.01 GRAY LEM EDT FMP SUC LINE (EFS)01  
 1094 ZEP-HA.01 GRAY FLSH PUMP SUCT LINE (EFS)01  
 1095 ZEP-HA.01 FILL LEGAL-PLS IPR FCH-SES (EFS)01  
 1096 ZEP-HA.01 DRAWDYAR GAS FLOWS (EFS)01  
 1097 ZEP-HA.01 N2 BLOW IRS VENT HEP (EFS)01  
 1098 ZEP-HA.01 N2 BLOW FESIN VENT HEP (EFS)01  
 1099 ZEP-HA.01 N2 BLOW FM WST GAS CEC TR (EFS)01

UNIT 2/COMMON

UNIT 1

1100 ZEP-HA.01 NU SYS LTRWN CTL TRAFFIC (EFS)01  
 1101 ZEP-HA.01 DRAW PZR BUBBLE (EFS)01  
 1102 ZEP-HA.01 PM POC HYDRO TEST (EFS)01  
 1103 ZEP-HA.01 ROP INIT FUM (EFS)01  
 1104 ZEP-HA.01 (EART) AUX FW REC-OP (EFS)01  
 1105 ZEP-HA.01 RCS RECIRC & FLOW ALARMS (EFS)01  
 1106 ZEP-HA.01 EMER RECIRC DEMONSTRATION (EFS)01  
 1107 ZEP-HA.01 CWS ISOLATION VALVES (EFS)01  
 1108 ZEP-HA.01 PM MPI CSEAF TEST (EFS)01  
 1109 ZEP-HA.01 SM DTSG HYDRO (EFS)01  
 1110 ZEP-HA.01 PZR ROP FLOW TEST (EFS)01  
 1111 ZEP-HA.01 PZR LEVEL VERIFY ACS HYDRO (EFS)01  
 1112 ZEP-HA.01 ROP START VOLT DOC TEST (EFS)01  
 1113 ZEP-HA.01 BERT REV 9000 SERIES C/O (EFS)01  
 1114 ZEP-HA.01 COND/FW SYS FINE (EFS)01  
 1115 ZEP-HA.01 PRELIM FLUSH & PAL LOOP A (EFS)01  
 1116 ZEP-HA.01 HYDRAZINE SYS FLUSH (EFS)01  
 1117 ZEP-HA.01 CLN 2I-HAZ/FSH NYC FMP SUC (EFS)01  
 1118 ZEP-HA.01 FLUSH SUCT PFG TO RW SPRAY (EFS)01  
 1119 ZEP-HA.01 FRESH-VLV DESTAB OF LWS IPR (EFS)01  
 1120 ZEP-HA.01 IPR AND FLOW TO COGGL FOUT (EFS)01  
 1121 ZEP-HA.01 EMER SUMP FLUSH (EFS)01  
 1122 ZEP-HA.01 PRELIM FLUSH & PAL LOOP A (EFS)01  
 1123 ZEP-HA.01 PRELIM FLUSH & PAL LOOP A (EFS)01  
 1124 ZEP-HA.01 PRELIM FLUSH & PAL LOOP A (EFS)01  
 1125 ZEP-HA.01 STP FLOW MN STEAM LINES (EFS)01  
 1126 ZEP-HA.01 BLOW SERVICE AIR TO 3-HAT (EFS)01  
 1127 ZEP-HA.01 FLOW N2 TO 2076 (EFS)01

MAR

1984

UNIT 2/COMMON

0001 2TP-HE.01 MC LTOP CNTL PIP RUP (E)S021  
 0002 2TP-HE.01 PY FOR HYDRA (E)S021  
 0003 2TP-HE.01 DRW PIP PIP (E)Z/E LVL W (E)S021  
 0004 2TP-HE.01 LIT MC PUMP RULS SEC W (E)S021  
 0005 2TP-HE.01 (PART) AUX FW PIP RUP (E)S021  
 0006 2TP-HE.01 RUPP TO SUPP FLOW TEST (E)S021  
 0007 2TP-HE.01 PLS RECDIC K FLOW ALARMS (E)S021  
 0008 2TP-HE.01 INST RECDIC DEMONSTRATION (E)S021  
 0009 2TP-HE.01 COMMON RECDIC MORE RECDIC (E)S021  
 0010 2TP-HE.01 EPS ISOLATION VALVE (E)S021  
 0011 2TP-HE.01 PD EFFEC TEST (E)S021  
 0012 2TP-HE.01 PG SYSTEM PNEOP (E)S021  
 0013 2TP-HE.01 PZR LEVEL VERIF PDS WYCH (E)S021  
 0014 2TP-HE.01 PY FOR FLOW TEST (E)S021  
 0015 2TP-HE.01 SM DISC HYDRO (E)S021  
 0016 2TP-HE.01 HEATUP PIP LINE TO XREF (E)S021  
 0017 2TP-HE.01 C/O OPER VALVE/PIPE C/LD (E)S021  
 0018 2TP-HE.01 GET AIR DRAP TEST (E)S021  
 0019 2TP-HE.01 HYDROGIC SEAL CIL ACCPT (E)S021  
 0020 2TP-HE.01 CONDENS SYS FINSE (E)S021  
 0021 2TP-HE.01 FAST LIFE LOSS TEST (E)S021  
 0022 2TP-HE.01 INIT ICS OPER (E)S021  
 0023 2TP-HE.01 CRAWL SIP LINE PET PSIV & TUGR (E)S021  
 0024 2TP-HE.01 DRAIN IN & REFILL (E)S021  
 0025 2TP-HE.01 FLOW L/O TO RES W/CH PNE (E)S021  
 0026 2TP-HE.01 INITIAL PIP RUP (E)S021

JAN

0027 2TP-HE.01 PR OF CP VALV OPER TEST (E)S021  
 0028 2TP-HE.01 PM LPT RESAS TESTS (E)S021  
 0029 2TP-HE.01 PWR ESAC TEST (E)S021  
 0030 2TP-HE.01 BACKUP OF COOLING CLMG (E)S021  
 0031 2TP-HE.01 EMER DEF STOR (E)S021  
 0032 2TP-HE.01 ICS OPER LTOP PNEOP (E)S021  
 0033 2TP-HE.01 GENERATOR GAS SYS ACCEPT (E)S021  
 0034 2TP-HE.01 STEAM SEAL SYS ACCEPT (E)S021  
 0035 2TP-HE.01 COM/FCO PN TUR L/O (E)S021  
 0036 2TP-HE.01 PRELIM FLUSH & PAL LOOP A (E)S021  
 0037 2TP-HE.01 FLUSH LINES TO OF FULL (E)S021  
 0038 2TP-HE.01 FILL FW FWP L/O SYS (E)S021  
 0039 2TP-HE.01 IPR & PNEOP FLUSH (E)S021  
 0040 2TP-HE.01 IPR & FLUSH (E)S021  
 0041 2TP-HE.01 DRAIN & CLEAN DAY TRNK (E)S021  
 0042 2TP-HE.01 FLUSH F/W SYS (E)S021  
 0043 2TP-HE.01 FLUSH F/W SYS (E)S021  
 0044 2TP-HE.01 NO FLOW PX & AUX FLOW VENTING (E)S021  
 0045 2TP-HE.01 NUCLEONIC SEC T/O (E)S021  
 0046 2TP-HE.01 PNEOP TEST (E)S021  
 0047 2TP-HE.01 SEAL WATER SYS PNEOP (E)S021  
 0048 2TP-HE.01 RESIN STOP & HOME PNEOP (E)S021  
 0049 2TP-HE.01 FILL/VIT DRAIN PDSIP SYS (E)S021  
 0050 2TP-HE.01 LP SIM FOR SET PDSIP NET (E)S021  
 0051 2TP-HE.01 LEAK TEST THX STEAM LINE (E)S021  
 0052 2TP-HE.01 FLUSH (E)S021  
 0053 2TP-HE.01 TRVSL TAMP FLANGES/FILL (E)S021  
 0054 2TP-HE.01 PL FWP SLOP LINE TO CHCI (E)S021  
 0055 2TP-HE.01 FILL & FLUSH (E)S021  
 0056 2TP-HE.01 IPR & FLUSH (E)S021  
 0057 2TP-HE.01 IPR & FLUSH (E)S021  
 0058 2TP-HE.01 FUEL OIL LINE FLUSH (E)S021  
 0059 2TP-HE.01 DOMESTIC WATER FLUSH (E)S021

UNIT 2/COMMON

FEB

1984 (CONT.)

UNIT 2/COMMON

0060 2AP-HE.01 FWP THX NO LOAD TEST (E)S021  
 0061 2AP-HE.01 SM COND EVAC ACCEPT (E)S021  
 0062 2AP-HE.01 FWP LUFF OIL ACCEPT (E)S021  
 0063 2SP-HE.01 FUNCTIONAL TEST (E)S021  
 0064 2SP-HE.01 C/O AIR START SYS (E)S021  
 0065 2SP-HE.01 C/O AIR START SYS (E)S021  
 0066 2SP-HE.01 FLOW SAMPLE LINES (E)S021  
 0067 2SP-HE.01 FLOW FWT L/O SYSTEM (E)S021  
 0068 2SP-HE.01 PRELIM FLUSH & PAL LOOP A (E)S021  
 0069 2SP-HE.01 PRELIM FLUSH & PAL LOOP A (E)S021  
 0070 2SP-HE.01 PRELIM FLUSH & PAL LOOP A (E)S021  
 0071 2SP-HE.01 SEGRD CHILL WTR TRK 2A (E)S021  
 0072 2SP-HE.01 SEGRD CHILL WTR TRK 2B (E)S021  
 0073 2SP-HE.01 FLUSH J/W SYS (E)S021  
 0074 2SP-HE.01 FLUSH S/A SYS (E)S021  
 0075 2SP-HE.01 FLUSH L/O SYS (E)S021  
 0076 2SP-HE.01 FLUSH L/O SYS (E)S021  
 0077 2SP-HE.01 FLUSH S/A SYS (E)S021  
 0078 2SP-HE.01 FLUSH J/W SYS (E)S021  
 0079 2SP-HE.01 SIM BLOW AIR LUFOTOR PPG (E)S021  
 0080 2SP-HE.01 SIM BLOW AIR HOOVER PIPING (E)S021  
 0081 2SP-HE.01 BLOW AIR TO DRAG (E)S021  
 0082 2SP-HE.01 BLOW SERVICE AIR TO D-HAT (E)S021  
 0083 2SP-HE.01 FILL ECT W/CEMIF W/F (E)S021  
 0084 2SP-HE.01 FILL RCVE IN FW HGA & HENL (E)S021  
 0085 2SP-HE.01 LIQUID VANTS SYR PNEOP (E)S021  
 0086 2SP-HE.01 EVAP SLEP PIPE THEM EXP (E)S021  
 0087 2AP-HE.01 MISC LUGR ELECTRIC ACCEPT (E)S021  
 0088 2AP-HE.01 LP EVAP C REL VALVE TEST (E)S021  
 0089 2AP-HE.01 LP EVAP C FEATUP (E)S021  
 0090 2AP-HE.01 LP EVAP C FEATUP (E)S021  
 0091 2AP-HE.01 LP EVAP C FEATUP (E)S021  
 0092 2AP-HE.01 LP EVAP C FEATUP (E)S021  
 0093 2AP-HE.01 LP EVAP C FEATUP (E)S021  
 0094 2AP-HE.01 LP EVAP C FEATUP (E)S021  
 0095 2AP-HE.01 LP EVAP C FEATUP (E)S021  
 0096 2AP-HE.01 LP EVAP C FEATUP (E)S021  
 0097 2AP-HE.01 LP EVAP C FEATUP (E)S021  
 0098 2AP-HE.01 LP EVAP C FEATUP (E)S021  
 0099 2AP-HE.01 LP EVAP C FEATUP (E)S021  
 0100 2AP-HE.01 LP EVAP C FEATUP (E)S021

MAR

		<p style="text-align: right;">UNIT 2/Common</p> <p>           20KA 2TP-EHC.32 ENG ELECTRICAL PRE-UP      4EMC21F            2AC 2TP-TUS.32 INIT TYPG ROLL            4TIS21R            2PA 2TP-EEF.32 480 VAC MCC PRE-OP      4FFR10J            2SG 2TP-ICS.31 ICS INFIT VERIF            4IFS10J            2AL 2AP-MES.05 MV &amp; STA XFMPS ACCEPT   4MCS21F            2MA 2AP-MES.01 MV GENER/EXCIT           4MCS21F            2ME 2AP-MES.12 150-PHASE HVIS CUBL RECEP/TEST 4MCS21F         </p>
JAN	FEB	MAR

1984 (CONT.)

APR			MAY			JUN		
UNIT 1			UNIT 1			UNIT 1		
0902 JEP-HR.01 OTHER SYS FLUSH TO RUCF	4EFS10J		101A ITP-RPP.01 RX FLTR PRESS (INST AIR)	4EFP11F		105A ITP-DEL.05 CELL FUNCTIONAL TEST	4E-G11J	
0903 JEP-HR.05 GRAVITY FLUSH EVAP	4EFS10J		101C ITP-RPF.01 LX CHASE SYS LX TEST	4EFP11K		105B ITP-DEL.02 WHI VAC PCC PRE-OP	4E-D11J	
0904 JEP-HR.05 IPR FLUSH TO DTBOR DEMPS	4EFS10J		101G ITP-RTF.03 4F) 1217/61/25/65/66	4EMLP11K		105C ITP-DEL.01 SAFEGD LG CHILL WTR	4E-GP11J	
0904 JEP-HR.01 LWS DRN SYS DPSTM PMS TO F	4EAD10J		101GA ITP-RTF.03 4F) 1246-MD	4EFP11F		105D ITP-RPF.01 VERIFY/FILL WTR PMS	4EFP11F	
0904 JEP-HR.01 LWS DRN IN INPUT LINE TO F	4EAD10J		101HG ITP-RTF.03 4F) 1212	4EFS11F		105E ITP-RPF.01 RX PENT PRESS (R2)	4EFP11K	
0904 JEP-HR.01 GRAY FLOC LF TR PMP SUCT	4EFS10J		101LA ITP-RTF.03 4F) 1241	4EPAW11F		105F ITP-RTF.03 4F) 12-8,11	4E-S11J	
0904 JEP-HR.01 HYDRA P/PCP FLOW VERIF	4EFS10J		101CA ITP-RTF.05 12-19ALC220R/35/45C-PZR	4ECS11K		105G ITP-RTF.03 4F) 12-42/43	4E-T11J	
0904 JEP-HR.01 GUARDHOUSE FLUSH	4E-S11J		101CC ITP-RTF.03 4F) 12-33	4EVL10Y		105H ITP-RTF.03 4F) 12-47/48	4E-S11J	
0904 JEP-HR.02 FLUSH	4E-S11J		101CD ITP-RTF.03 4F) 12-63/PE	4ECC11Y		105I ITP-RPF.01 VERIFY/FILL WTR SUPPLY	4EFP11F	
0904 JEP-EL.01 FLUSH ACID & CAUSTIC WST	4E-S11J		101CC ITP-RTF.03 4F) 12-15PC/161C	4ECC11Y		105J ITP-RPF.01 5 RTF.02 FM RE SET/FLTR	4E-S11J	
0904 JEP-EL.01 FLUSH DRIS TO AN COLL HOR	4E-S11J		101CS ITP-RTF.03 4F) 1244R/45AB	4ECS11F		105K ITP-RPF.03 4F) 12-47	4E-S11J	
0904 JEP-EL.06 AIR FLOW TUNE SIDE OF EVAPILTS02J	4E-S11J		101CA ITP-RTF.03 4F) 1209/30/53/56	4ECS11F		105L ITP-RTF.03 4F) 12-74	4E-S11J	
0904 JEP-AP.04 OXYTURB LAB1 AB/FUNCT	4ECC12J		101CE ITP-RTF.03 4F) 12-34	4ECS11F		105M ITP-RTF.03 4F) 12-77	4E-S11J	
0904 JEP-KH.02 OXYLAUX #163 AB/FUNCT	4E-L11J		101DA ITP-RTF.03 12-49A/71/50A/71/5A/11A	4ECC11Y		105N ITP-RTF.03 4F) 12-78	4E-S11J	
0904 JEP-KH.03 PROPILTURE LAB1 AB/FUNCT	4E-L11J		101GA ITP-RTF.03 4F) 1237/75/107/68	4EFP11F		105O ITP-RTF.03 4F) 12-86	4E-S11J	
0904 JEP-PE.17 ACETLAUX #323 AB/FUNCT	4E-S11J		101CE ITP-RTF.03 4F) 1214/760/67	4EFP11F		105P ITP-RTF.03 4F) 12-71	4E-S11J	
0904 JEP-PE.05 ACETLAUX LAB1 AB/FUNCT	4E-S11J		101EA ITP-RTF.03 4F) 12-32	4EFC11K		105Q ITP-RTF.03 4F) 12-76	4E-S11J	
0904 JEP-KH.15 P-10 LAUX #323 AD/FUNCT	4E-S11J		101EA ITP-RTF.03 4F) 12-70/7P	4EFC11K		105R ITP-RTF.03 4F) 12-84	4E-S11J	
0904 JEP-PE.14 HEL LAUX #163 AB/FUNCT	4E-S11J		101ES ITP-RTF.03 4F) 12-66/21	4EFC11K		105S ITP-RTF.03 4F) 12-85	4E-S11J	
0904 JEP-KH.17 PROPLAUX #163 AB/FUNCT	4E-S11J		101KA IAP-EPC.01 MN TURB LNC ACCEPT	4EFC11R		105T ITP-RTF.03 4F) 12-88	4E-S11J	
0904 JEP-KH.16 PROPLAUX #163 AB/FUNCT	4E-S11J		101CA IAP-GGS.01 GENERATOR GAS SYS ACCEPT	4ECS11R		105U ITP-RTF.03 4F) 12-88	4E-S11J	
0904 JEP-PE.15 ACETLAUX #163 AB/FUNCT	4E-S11J		101AE IAP-MCS.02 ISC-PHATE BUS COOL ACCEP	4ECS11R		105V ITP-RTF.03 4F) 12-88	4E-S11J	
UNIT 2/COMMON			101MA IAP-MCS.01 MC GENR & EXCITER	4EFP11J		105W ITP-RTF.03 4F) 12-88	4E-S11J	
			101EP IAP-ART.01 FWP TURB RL LOAD TEST	4EFP11J		105X ITP-RTF.03 4F) 12-88	4E-S11J	
			101C IAP-ELC.01 FWP TURB GIL ACCEPT	4EYS11J				
			101AC IAP-CMS.01 FUNCTIONAL TEST	4EFP11J				
			101FT IAP-PLS.01 C/O AIR START SYS	4EYS11J				
			101EA IAP-PCS.01 C/O AIR START SYS	4EYS11J				
			101CA IAP-SC.01 FLUSH SAMPLE LINES	4EYS11J				
			101EP IAP-CJ.01 FLUSH FWP L/O SYSTEM	4EYS11J				
			101C IAP-PE.01 FLUSH J/W SYS	4EYS11J				
			101EB IAP-PE.01 FLUSH F/W SYS	4EYS11J				
			101EC IAP-PE.01 FLUSH J/W COOL SYS	4EYS11J				
			101EA IAP-PE.01 FLUSH F/W SYS	4EYS11J				
			101EA IAP-PE.02 FLUSH S/W SYS	4EYS11J				
			101EB IAP-PE.01 FLUSH WTR LINES TO ISO VLV	4EFP11F				
			101EA IAP-PE.01 FINAL FLUSH	4EFS11K				
			101CA IAP-PE.01 INIT FLUSH NCHN WITH PMW	4EFS11K				
			101EA IAP-PE.01 OTHER SYS FLUSH TO PRCH	4EFS11K				
			101CA IAP-CA.01 STEAM BLOW SEL LINES	4ECS11H				
			101CB IAP-FC.01 STM FLOW AIR EJECT PPG	4EFP11H				
			101CA IAP-FC.01 STM FLOW AIR HOCGER PIPING	4EFP11H				
			101TA IAP-ET.01 BLOWDN PENET AIR LINES	4EFP11K				
			101TC IAP-ET.01 BLOW DN LINES TO PENETRATIONS	4EFP11K				
			101TC RUM COMPRESSIONS & AIR BLOW	4EFP11K				

UNIT 2/Common

DATE DAP-PSS.24 LP EVAP G HLL VLVL TEST (EFS312H  
 DATE DAP-PSS.24 "G"EVAP BOILOUT (EFS312H  
 DATE DAP-PSS.24 "H" EVAP BOILOUT (EFS312H  
 DATE DAP-PSS.24 LP EVAP G HEATUP (EFS312H  
 DATE DAP-PSS.24 LP EVAP F HEATUP (EFS312H  
 DATE DAP-PSS.24 BOE HACK CVD 30-184 (EFS312H  
 DATE DAP-PSS.24 VALVE LOGIC LOOP CHECK (EFS312H  
 DATE DAP-PSS.24 COMP CLIC INTR DMP NUM (EFS312H  
 DATE DAP-PSS.24 DIESEL FINE PNP INTR FPL (EFS312H  
 DATE DAP-PSS.24 FLUSH (EFS312H  
 DATE DAP-PSS.24 CLN 0T-18/ZFN-AUX COLL (EFS312H  
 DATE DAP-PSS.24 0T-18-AUX FLDO COLL FEN (EFS312H  
 DATE DAP-PSS.24 FINAL FLUSH & DAL LOCK I (EFS312H  
 DATE DAP-PSS.24 FINAL FLUSH & DAL LOCK A (EFS312H  
 DATE DAP-PSS.24 GRAY FLSH TO PMP SUCT (EFS312H  
 DATE DAP-PSS.24 LIQUID WASTE FLUSH (EFS312H  
 DATE DAP-PSS.24 GRAVITY FL FMP SUCTION (EFS312H  
 DATE DAP-PSS.24 FILL/IRK FL TACHN WST DRN (EFS312H  
 DATE DAP-PSS.24 FLUSH SYSTEM (EFS312H  
 DATE DAP-PSS.24 FLUSH CHEM WASTE (EFS312H  
 DATE DAP-PSS.24 FLUSH LWS FILTERS/SEMI (EFS312H  
 DATE DAP-PSS.24 GRAY-FEC TO PMP SUCT LITE (EFS312H  
 DATE DAP-PSS.24 FLUSH TO HEU (EFS312H  
 DATE DAP-PSS.24 FLUSH TO HEA-HEP (EFS312H  
 DATE DAP-PSS.24 GRAVITY FLSH PUMP SUCTS (EFS312H  
 DATE DAP-PSS.24 FLSH W/HEP PMP TO DECA (EFS312H  
 DATE DAP-PSS.24 GRAY FLSH APS INR TO FLB (EFS312H  
 DATE DAP-PSS.24 FILL COMP W/PPW (EFS312H  
 DATE DAP-PSS.24 FILL COND TR IPR & FLUSH (EFS312H  
 DATE DAP-PSS.24 INLET COND TR W/LEMP WTP (EFS312H  
 DATE DAP-PSS.24 DRN W/TX/FIL W/PPW FM DEG (EFS312H  
 DATE DAP-PSS.24 FILL CONDENSED W/PPW (EFS312H  
 DATE DAP-PSS.24 AUX STR LINE TO REC TR (EFS312H  
 DATE DAP-PSS.24 FLUSH DWS REC TANK INLET (EFS312H  
 DATE DAP-PSS.24 IPR DIST FIVE TO POLISH TR (EFS312H  
 DATE DAP-PSS.24 FILL ABL TR W/PPW (EFS312H  
 DATE DAP-PSS.24 TO R17 REC TR (HEC) & FLO (EFS312H  
 DATE DAP-PSS.24 COND FMP IPR/FLSH TO COME (EFS312H  
 DATE DAP-PSS.24 GRAVITY FLSH COND TO FLP (EFS312H  
 DATE DAP-PSS.24 IPR FSH TO REC/RS NOR TR (EFS312H  
 DATE DAP-PSS.24 TURE SIDE OF EVAP W/CC (EFS312H  
 DATE DAP-PSS.24 FILL EVAP W/PPW (EFS312H  
 DATE DAP-PSS.24 COMPLETE SYS FLUSH (EFS312H  
 DATE DAP-PSS.24 FILL SEC TR-PPW FM HED (EFS312H  
 DATE DAP-PSS.24 FSH FIVE THRU HED (EFS312H  
 DATE DAP-PSS.24 FM REC TR FIVE THRU HED (EFS312H

DATE DAP-PSS.24 LANYARD REDUCER CALIB (EFS312H  
 DATE DAP-PSS.24 RCP MTR DPG FERR REUSSDP (EFS312H  
 DATE DAP-PSS.24 INIT RPS EMER/MD CALIB (EFS312H  
 DATE DAP-PSS.24 FLUSH SAMP SYS (EFS312H  
 DATE DAP-PSS.24 STEAM PLOW PIPING (EFS312H  
 DATE DAP-PSS.24 AIR FLOW SAMPLE LINES (EFS312H  
 DATE DAP-PSS.24 AIR FLOW SAMPLE LINES (EFS312H  
 DATE DAP-PSS.24 WET PH TEST (SFF) SILE (EFS312H  
 DATE DAP-PSS.24 PPS PNE-CP (EFS312H  
 DATE DAP-PSS.24 POST RESM LOAD (EFS312H  
 DATE DAP-PSS.24 PRE-DR (EFS312H  
 DATE DAP-PSS.24 POST RESIN LOAD (EFS312H  
 DATE DAP-PSS.24 BORDN CIL TEST ACCSSDP (EFS312H  
 DATE DAP-PSS.24 FIRE PROT PNE-WP (EFS312H  
 DATE DAP-PSS.24 EV PLO AC/CADE WST SUMP (EFS312H  
 DATE DAP-PSS.24 DOMESTIC WATER ACCEPT (EFS312H  
 DATE DAP-PSS.24 MISC GAS/DR SUPPLY ACCEPT (EFS312H  
 DATE DAP-PSS.24 LP EVAP H POWER RUN UP (EFS312H  
 DATE DAP-PSS.24 LP EVAP K REL VLVE TEST (EFS312H  
 DATE DAP-PSS.24 "J" EVAP BOILOUT (EFS312H  
 DATE DAP-PSS.24 "K" EVAP BOILOUT (EFS312H  
 DATE DAP-PSS.24 LP EVAP J HEATER (EFS312H  
 DATE DAP-PSS.24 LP EVAP J REL VLVE TEST (EFS312H  
 DATE DAP-PSS.24 LP EVAP J POWER RUN LP (EFS312H  
 DATE DAP-PSS.24 LP EVAP H HEATUP (EFS312H  
 DATE DAP-PSS.24 LP EVAP K POWER RUN UP (EFS312H  
 DATE DAP-PSS.24 "M" EVAP BOILOUT (EFS312H  
 DATE DAP-PSS.24 LP EVAP H REL VLVE TEST (EFS312H  
 DATE DAP-PSS.24 NEW FUEL BACK INSPECTION (EFS312H  
 DATE DAP-PSS.24 FLUSH AUX INSTR & FUDI (EFS312H  
 DATE DAP-PSS.24 FLUSH COMPLETE (EFS312H  
 DATE DAP-PSS.24 FINAL FLUSH (EFS312H  
 DATE DAP-PSS.24 VAC (APX-18)/FMC TEST (EFS312H  
 DATE DAP-PSS.24 VAC (APX-22)/FMC TEST (EFS312H  
 DATE DAP-PSS.24 FLUSH FIVE STEAM BLOW/FL (EFS312H

UNIT 2/Common

UNIT 1

DATE DAP-PSS.24 EMC ELECTRICAL PROE (EFS312H  
 DATE DAP-PSS.24 INIT TURB ROLL (EFS312H  
 DATE DAP-PSS.24 SFR DSL FULL STORAGE (EFS312H  
 DATE DAP-PSS.24 ICS OPER LOOP PROE (EFS312H  
 DATE DAP-PSS.24 ICS INERT VCRIF (EFS312H

DATE DAP-PSS.24 FSH MTR LNES TO ISO VLVS (EFS312H  
 DATE DAP-PSS.24 FLOW LINES TO PENETRATIONS (EFS312H  
 DATE DAP-PSS.24 FLOW PENETRATION AIR LINES (EFS312H  
 DATE DAP-PSS.24 RUN COMPRESSORS & AIR BLOW (EFS312H  
 DATE DAP-PSS.24 S&S (F) 12-2 & 27-2 (EFS312H  
 DATE DAP-PSS.24 S&S (F) 12-1H & 22-1B (EFS312H  
 DATE DAP-PSS.24 (F) 22-1 (EFS312H  
 DATE DAP-PSS.24 (F) 22-1 (EFS312H  
 DATE DAP-PSS.24 FILL EXT LUTE OIL SYS (EFS312H  
 DATE DAP-PSS.24 SPNT RES DECLT & REGR P (EFS312H  
 DATE DAP-PSS.24 LP TRX STM QUALTY "EVAP (EFS312H  
 DATE DAP-PSS.24 LP SUPEROL/2 PHASE FLOW (EFS312H  
 DATE DAP-PSS.24 "M" EVAP QUALITY CHECK (EFS312H  
 DATE DAP-PSS.24 LP EVAP A POWER RUN UP (EFS312H  
 DATE DAP-PSS.24 LP STM QUALITY "M" EVAP (EFS312H  
 DATE DAP-PSS.24 "M" EVAP QUALITY CHECK (EFS312H  
 DATE DAP-PSS.24 "M" EVAP QUALITY CHECK (EFS312H  
 DATE DAP-PSS.24 LP EVAP H V/PI/SG COME (EFS312H  
 DATE DAP-PSS.24 LP DEPH/RECOM PHASE 1 (EFS312H  
 DATE DAP-PSS.24 LP EVAP A REL VLVE TEST (EFS312H  
 DATE DAP-PSS.24 LP EVAP P/RES (IF AC) "M (EFS312H  
 DATE DAP-PSS.24 "M" EVAP QUALITY CHECK (EFS312H  
 DATE DAP-PSS.24 "M" EVAP BOILOUT (EFS312H  
 DATE DAP-PSS.24 PLE & SAMP ACCPT C EVAP (EFS312H  
 DATE DAP-PSS.24 PLE & SAMP ACCPT H EVAP (EFS312H  
 DATE DAP-PSS.24 PLE & SAMP ACCPT S EVAP (EFS312H  
 DATE DAP-PSS.24 BLD & SAMP ACCPT D EVAP (EFS312H  
 DATE DAP-PSS.24 BLD & SAMP ACCPT F EVAP (EFS312H  
 DATE DAP-PSS.24 FLL & SAMP ACCPT L EVAP (EFS312H  
 DATE DAP-PSS.24 FLUSH & IPR RESIN GET (EFS312H  
 DATE DAP-PSS.24 IPR/FSH OF-18/21/22/18 (EFS312H  
 DATE DAP-PSS.24 FILL RES DET TANK (EFS312H  
 DATE DAP-PSS.24 CLEAR ALPHAL TANK & FLUSH (EFS312H  
 DATE DAP-PSS.24 FLL BLD, CWIS, ETC STALL (EFS312H  
 DATE DAP-PSS.24 CLEAR/FLSH DWE OIL TANK (EFS312H  
 DATE DAP-PSS.24 "G" EVAP STEAM BLOW (EFS312H  
 DATE DAP-PSS.24 "M" EVAP STEAM BLOW (EFS312H  
 DATE DAP-PSS.24 "H" EVAP STEAM BLOW (EFS312H  
 DATE DAP-PSS.24 "M" EVAP STEAM BLOW (EFS312H  
 DATE DAP-PSS.24 "H" EVAP STEAM BLOW (EFS312H  
 DATE DAP-PSS.24 "M" EVAP STEAM BLOW (EFS312H

UNIT 2/Common

APR

MAY

JUN



UNIT2/COMMON

004 2TP-HPL.01 CLASS IE DC SYS PRE-OP (E0D10J  
 004 2TP-HPL.02 CLASS IE MIN VOLTAGE PRE-OP (E0D10J  
 004 2TP-HPL.03 STATION OPER BC CIL (E0D10J  
 004 2TP-HPL.04 RMS X-COR VALVES (E0D10J  
 004 2TP-HPL.05 MURKURIE CHEM ADD PRE-OP (E0D10J  
 004 2TP-HPL.06 USE PRES MONIT SYS PART (E0D10J  
 004 2TP-HPL.07 RX BLOC SPRAY PREOP (E0D10J  
 004 2TP-HPL.08 POOL ACC SAMPLE (E0D10J  
 004 2TP-HPL.09 SAFED EG CHILL WTR (E0D10J  
 004 2AP-HPL.01 DELAID CONDOR EVAC ACCEPT (E0D10J  
 004 2AP-HPL.02 CONDENSATE DEMIN. ACCEPT (E0D10J  
 004 2AP-HPL.03 CONDENSATE SYS ACCEPT (E0D10J  
 004 2AP-HPL.04 TUBE BLOC CHILL WTR TEST (E0D10J  
 004 2AP-HPL.05 CIRC WATER SYS ACCEPT (E0D10J  
 004 2AP-HPL.06 FW CHEM ADD ACCEPT TEST (E0D10J  
 004 2AP-HPL.07 FW CHEM ADD ACCEPT TEST (E0D10J  
 004 2AP-HPL.08 CONDENSATE/FW RECIPRO ACCEPT (E0D10J  
 004 2AP-HPL.09 LE HTR INHT/VALVE CIL (E0D10J  
 004 2AP-HPL.01 TURB PLO HVAC TEST (E0D10J  
 004 2AP-HPL.02 STATOR COOLING ACCEPT (E0D10J  
 004 2AP-HPL.03 STN PLANT SHELFG TEST (E0D10J  
 004 2SP-HPL.01 ACCELR TEST TRAIL CALL (E0D10J  
 004 2SP-HPL.02 LOAD SENSING TRAIL CALL (E0D10J  
 004 2SP-HPL.03 DATA AGO SETUP EXHIBIT 2 HFT (E0D10J  
 004 2SP-HPL.04 INSTALL LARYARD XCORP/2 UNIT (E0D10J  
 004 2SP-HPL.05 INSTALL ACCELR IN UNIT 2 (E0D10J  
 004 2SP-HPL.06 INSTALL LOAD CELLS IN UNITS 100 (E0D10J  
 004 2SP-HPL.07 POC START VOLT LOG TEST (E0D10J  
 004 2SP-HPL.08 DASH FAST FOR XFER (E0D10J  
 004 2SP-HPL.09 POC MHA-IX SIG COND CALD (E0D10J  
 004 2SP-HPL.10 MASTER FLAL AUDIO C/O (E0D10J  
 004 2SP-HPL.11 DUAL PULSE SHAPER CALL (E0D10J  
 004 2SP-HPL.12 NEUTRON NGISE KPE CALIB (E0D10J  
 004 2SP-HPL.13 T9-4 TAPT RECORDER C/O (E0D10J  
 004 2SP-HPL.14 DIGIT LPH LOG C/O (E0D10J  
 004 2SP-HPL.15 INITIAL RUN DIESEL FLY (E0D10J  
 004 2SP-HPL.16 INITIAL RUN DIESEL ONLY (E0D10J  
 004 2SP-HPL.17 20-11 EGG ILEC C/O (E0D10J  
 004 2SP-HPL.18 20-10 EGG ILEC C/O (E0D10J  
 004 2SP-HPL.19 DIESEL GEN INIT RUN (E0D10J  
 004 2SP-HPL.20 DIESEL GEN INIT RUN (E0D10J  
 004 2SP-HPL.21 GRAY FLSH TUBE AFWP DUCT (E0D10J  
 004 2SP-HPL.22 FLUSH INLET & OUTLET PPC (E0D10J  
 004 2SP-HPL.23 R45LIM FLUSH & R4L (E0D10J  
 004 2SP-HPL.24 DOMESTIC WATER FLUSH (E0D10J  
 004 2SP-HPL.25 ACID & CALSTIC WASTE (E0D10J

APR

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JUN

1984 (CONT.) 3



UNIT2/COMMON

REF 2TP-2F1.71	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.72	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.73	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.74	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.75	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.76	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.77	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.78	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.79	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.80	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.81	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.82	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.83	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.84	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.85	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.86	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.87	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.88	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.89	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.90	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.91	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.92	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.93	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.94	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.95	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.96	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.97	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.98	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.99	2F-25A NPPR 2E1PR P1R	EE1N10J
REF 2TP-2F1.00	2F-25A NPPR 2E1PR P1R	EE1N10J

APR

MAY

JUN

1984 (CONT.)





UNIT2/ COMMON							
JUL 01	2TP-RT-01	VERTICAL FILL T2 SUPPLY	48F32M				
JUL 02	2TP-RT-01	FX PRESS PRESS IN2	48F32M				
JUL 03	2TP-RT-01	VERTICAL FILL WTR TKS	48F32M				
JUL 04	2TP-RT-01	4F 22-02-02	48F32M				
JUL 05	2TP-RT-01	4F 22-04-11	48F32M				
JUL 06	2TP-RT-01	4F 27-01A	48F32M				
JUL 07	2TP-RT-01	4F 02-01	48F32M				
JUL 08	2TP-RT-01	4F 12-04	48F32M				
JUL 09	2TP-RT-01	4F 02-01	48F32M				
JUL 10	2TP-RT-01 & 2TP-01	PM AD SIZALRT	48F32M				
JUL 11	2TP-RT-01	4F 02-01	48F32M				
JUL 12	2TP-RT-01	4F 02-01	48F32M				
JUL 13	2TP-RT-01	4F 02-01	48F32M				
JUL 14	2TP-RT-01	4F 02-01	48F32M				
JUL 15	2TP-RT-01	4F 02-01	48F32M				
JUL 16	2TP-RT-01	4F 02-01	48F32M				
JUL 17	2TP-RT-01	4F 02-01	48F32M				
JUL 18	2TP-RT-01	4F 02-01	48F32M				
JUL 19	2TP-RT-01	4F 02-01	48F32M				
JUL 20	2TP-RT-01	4F 02-01	48F32M				
JUL 21	2TP-RT-01	4F 02-01	48F32M				
JUL 22	2TP-RT-01	4F 02-01	48F32M				
JUL 23	2TP-RT-01	4F 02-01	48F32M				
JUL 24	2TP-RT-01	4F 02-01	48F32M				
JUL 25	2TP-RT-01	4F 02-01	48F32M				
JUL 26	2TP-RT-01	4F 02-01	48F32M				
JUL 27	2TP-RT-01	4F 02-01	48F32M				
JUL 28	2TP-RT-01	4F 02-01	48F32M				
JUL 29	2TP-RT-01	4F 02-01	48F32M				
JUL 30	2TP-RT-01	4F 02-01	48F32M				
JUL 31	2TP-RT-01	4F 02-01	48F32M				
UNIT2/ COMMON							
AUG 01	2TP-RT-01	HEATER WATER STOP PRE-OP	48F32M				
AUG 02	2TP-RT-01	ESFAS RESPONSE TIME TEST	48F32M				
AUG 03	2TP-RT-01	TOT SPAS RESPONSE TIME	48F32M				
AUG 04	2TP-RT-01	INTERCATED CREF LP	48F32M				
AUG 05	2TP-RT-01	ECCAS LCP SEQ PREOP	48F32M				
AUG 06	2TP-RT-01	1-E AREA RAD MONT PRE-OP	48F32M				
AUG 07	2TP-RT-01	1-E AIR RAD MONT	48F32M				
AUG 08	2TP-RT-01	RP AIR FUR/CLAMP/MT	48F32M				
AUG 09	2TP-RT-01	H2 MONITORING PRE-OP	48F32M				
AUG 10	2TP-RT-01	H2 VENT SUPPLY/EXH PRE-OP	48F32M				
AUG 11	2TP-RT-01	H2 RECHECK PRE-OP	48F32M				
AUG 12	2TP-RT-01	RFS TIME RESPONSE	48F32M				
AUG 13	2TP-RT-01	DC BLDG HVAC PRE-OP	48F32M				
AUG 14	2TP-RT-01	AREA RAD MONT (ESP)	48F32M				
AUG 15	2TP-RT-01	CITE HEAT REMOVAL PREOP	48F32M				
AUG 16	2TP-RT-01	CMFLT C/O	32M				
AUG 17	2TP-RT-01	CMFLT C/O	32M				
AUG 18	2TP-RT-01	CMFLT C/O	32M				
AUG 19	2TP-RT-01	CMFLT C/O	32M				
AUG 20	2TP-RT-01	RCF PWR MGT RECPTS TIME	48F32M				
AUG 21	2TP-RT-01	INITIAL ENERGIZATION	48F32M				
AUG 22	2TP-RT-01	FLSH PRIM WTR INTO EPS TK	48F32M				
AUG 23	2TP-RT-01	INST AIR PLOW	48F32M				
AUG 24	2TP-RT-01	CNTL RM HVAC PRE-OP	48F32M				
UNIT2/ COMMON							
SEP 01	2TP-RT-01	POLAR STATE TEST-OP	48F32M				
SEP 02	2TP-RT-01	HALON FIRE PROTECTION PRE-OP	48F32M				
SEP 03	2TP-RT-01	MU SYS PRE-OP (EPS)	48F32M				
SEP 04	2TP-RT-01	AI DETECTOR PRE-OP	48F32M				
SEP 05	2TP-RT-01	SEVER INITIAL SETTINGS	48F32M				
SEP 06	2TP-RT-01	ICM SYSTEM PRE-OP	48F32M				
SEP 07	2TP-RT-01	AI DETECTOR CALIBG TEST	48F32M				
SEP 08	2TP-RT-01	CITE HI RANGE RAD MON	48F32M				
SEP 09	2TP-RT-01	STACK HI RANGE RAD MON	48F32M				
SEP 10	2TP-RT-01	RD SPRAY HIR AIR TEST	48F32M				
SEP 11	2TP-RT-01	PST HFT INTX INSPR-VTC	48F32M				
SEP 12	2TP-RT-01	ARTS SYS PREOP	48F32M				
SEP 13	2TP-RT-01	TERDON GALLERY HVAC	48F32M				
SEP 14	2TP-RT-01	CATHODIC PRPT ACCEPT	48F32M				
SEP 15	2TP-RT-01	CMFLT C/O	32M				
SEP 16	2TP-RT-01	CMFLT C/O	32M				

1984 (CONT.)

		<p style="text-align: center;">UNIT 1</p> <p style="text-align: center;">1504 11P-11S-01 ICP ELECT TEST      01.1511V  1505 11P-11S-04 MI DETECTOR PRE-OP      01.1511P</p>
		NOV
		OCT

1984

DATE DSP-01.01 DATA ALL SETUP EX-011 - FEB 1985

UNIT 2/COMMON

UNIT 1

100A 1TR-01.00 DENIS LIFT TO DOW PCID 4F5010  
 100B 1TR-01.00 COND LIFT FLUSH TO PCID 4F5010  
 100C 1TR-01.00 PCLAR CHASE PRE-OP 4F5010  
 100D 1TR-01.00 DC FLEG HVAC PRE-OP 4F5010  
 100E 1TR-01.00 FIRE LIFT ALARM PREP 4F5010  
 100F 1TR-01.00 CO2 FINE PROT PRE-OP 4F5010  
 100G 1TR-01.00 HALON FIRE PROTECTIVE PRE-OP 4F5010  
 100H 1TR-01.00 NE DETECTOR CALLING TEST 4F5010  
 100I 1TR-01.00 LCP SY. PRE-OP 4F5010  
 100J 1TR-01.00 SWITER INITIAL SETTING 4F5010  
 100K 1TR-01.00 RE SPRAY FOR AIR TEST 4F5010  
 100L 1TR-01.00 CT'D HFT REMOVAL PRE-OP 4F5010  
 100M 1TR-01.00 HP FLEG DISCONNECT INSP 4F5010  
 100N 1TR-01.00 TLED GALLERY HVAC 4F5010  
 100O 1TR-01.00 CATHODIC PROTECTION 4F5010  
 100P 1TR-01.00 CHILL EXO 1LP  
 100Q 1TR-01.05 FILL EGS TO COMPLETELY 4F5010  
 100R 1TR-01.05 FLUSH OUT CUI PIPE 4F5010  
 100S 1TR-01.05 BACK FLUSH FVATCC 4F5010

100T DSP-01.01 LOAD SEVERING TRAIL CALL 32F  
 100U DSP-01.01 ACCELA TRAIN CALL 32F  
 100V DSP-01.01 INSTALL LANYARD REDUCERS 32F  
 100W DSP-01.01 LANYARD REDUCER CALL 32F

UNIT 2/COMMON

JAN

FEB

MAR

1985

ATC TP-9020.14 HP DOW LINE STEAM BLOW 4F5531G  
 ATC TE-9021.14 LP DOW WEST STEAM BLOW 4F5531G  
 ATC TE-9022.14 LP DOW EAST STEAM BLOW 4F5531G  
 ATC TE-9023.14 LP DOW TUR LFE SIM BLOW 4F5531G

UNIT 2/COMMON

UNIT 1

SAFE-170 041-955.14 UNIT RTUP EXT LINE TO TURBIO

APR

MAY

JUN

1985

<p style="text-align: center;">UNIT 1</p> <p>1040 05-1005.04 DATA ACQ SETUP F/UNIT 1 REC 31P  1041 05-1005.14 LOAD CELL CALI 31P  1042 05-1005.06 INSTALL ACCELR IN UNIT 1 31P  1043 05-1005.17 ACCEL TRAIN CALI 31P  1044 05-1005.08 INSTALL LARYARD RODDERS IN UNIT 1 31P  1045 05-1005.15 LARYARD RODDER CALI 31P</p>		
JUL	AUG	SEP

1985



OCT	NOV	DEC

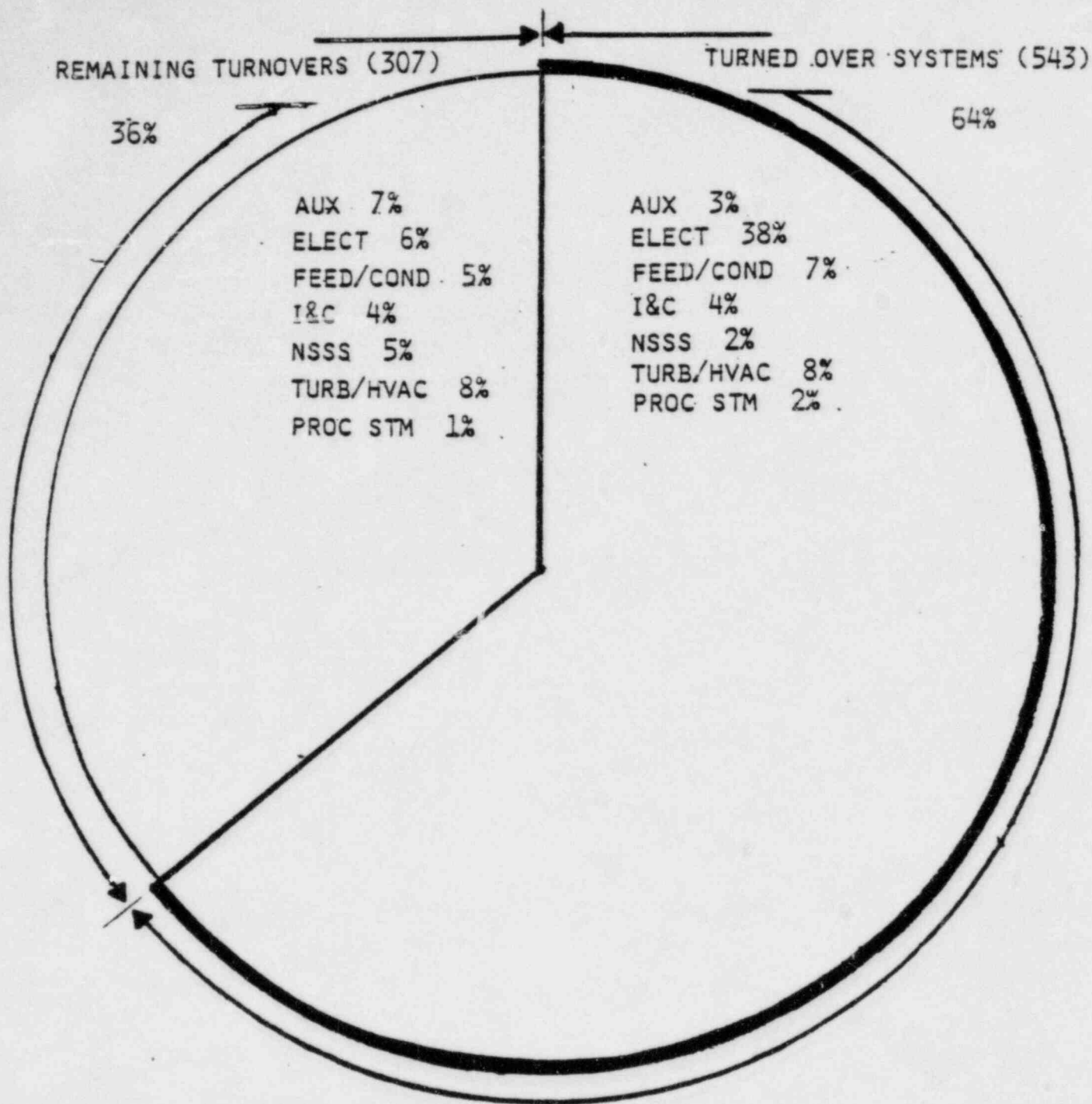
1985

VIEW GRAPHS

SYSTEM

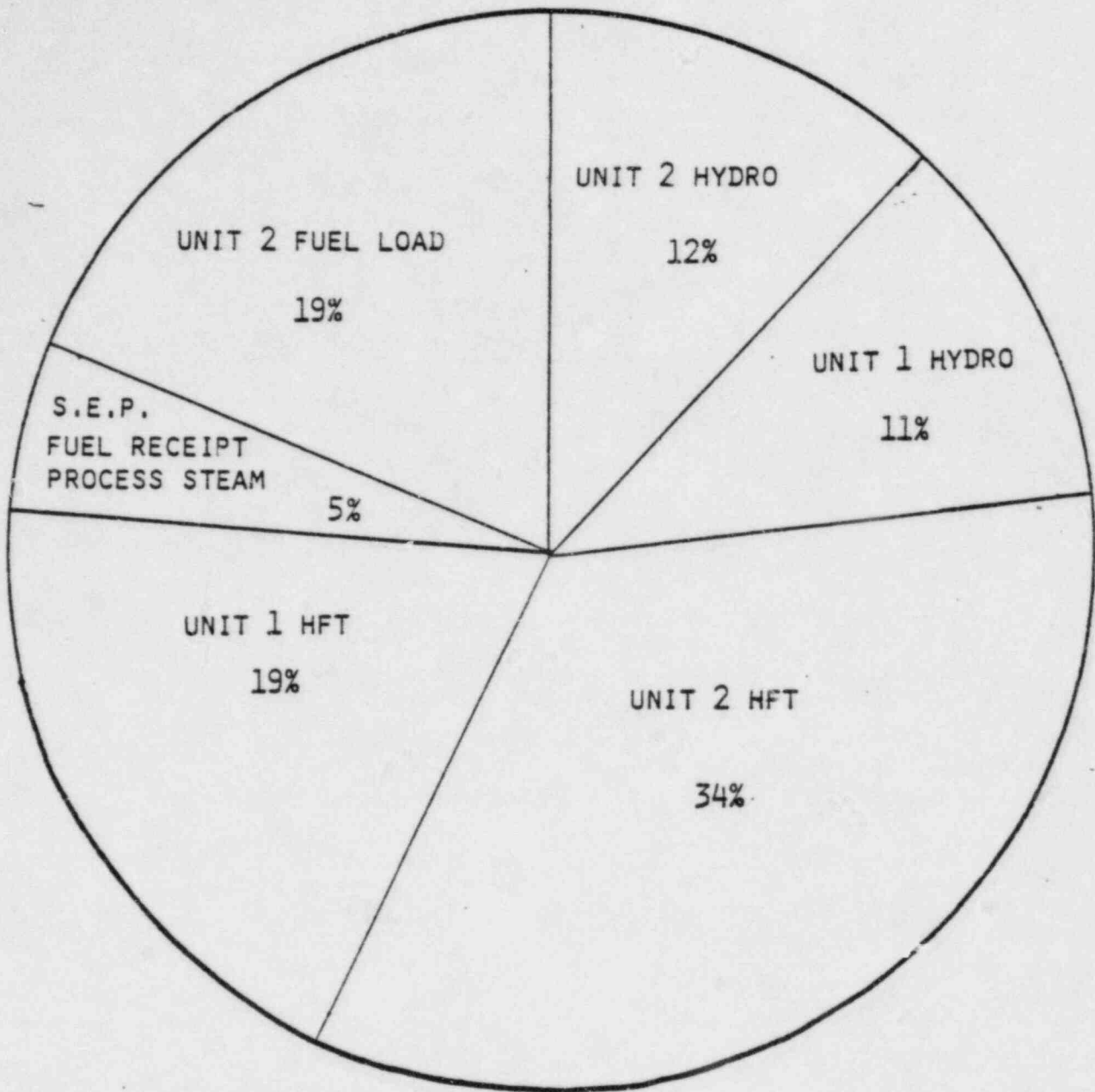
TURNOVER

STATUS



TOTAL SYSTEMS = 850  
 TURNED OVER = 543  
 REMAINING = 307  
 % COMPLETE = 64

SYSTEM TURNOVERS BY DISCIPLINE = (3-31-83)

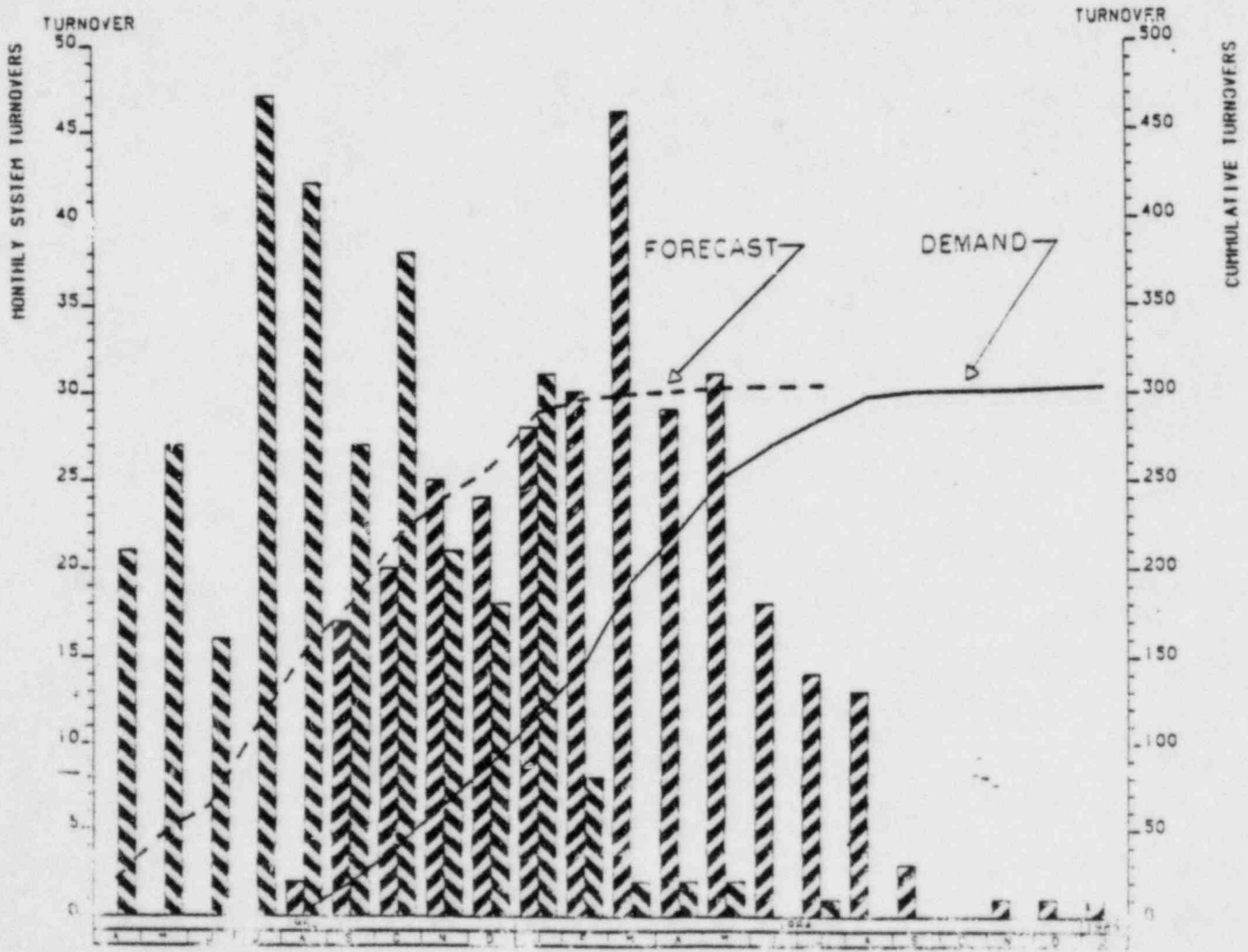


REMAINING SYSTEMS = 307

REMAINING SYSTEMS BY MILESTONES - (3-31-83)

\*\*\* REVISION 12 \*\*\*

SYSTEMS ACCEPTED= 544 OF 850 TOTAL



MONTHLY SYSTEM TURNOVERS  
TURNOVER

- REV 12 SCHEDULED LATE START TURNOVERS
- CURR SEM 15
- PRELIMINARY PROJECTED TURNOVERS
- STARTS CURR SEM 15

TEST STATUS

(REFER TO HANDOUT MATERIAL)

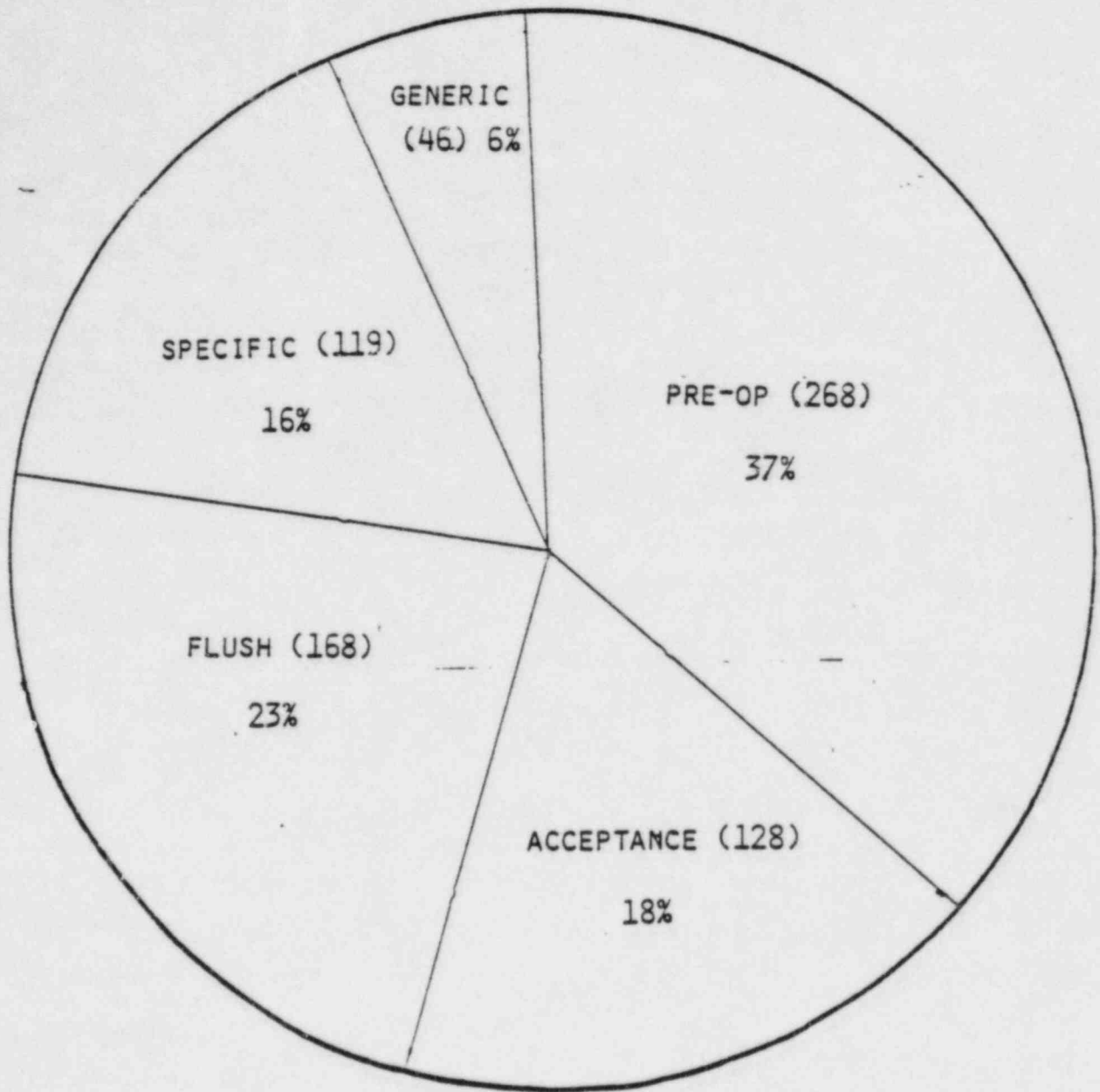
	<u>PAGE</u>
ELECTRICAL	2
I&C	3
NSSS	6
AUXILIARY	8
FEEDWATER/CONDENSATE	10
TURBINE/HVAC	15
PROCESS STEAM	19
PROGRAMMATIC	21

PROCEDURE DEVELOPMENT

AND

PERFORMANCE STATUS

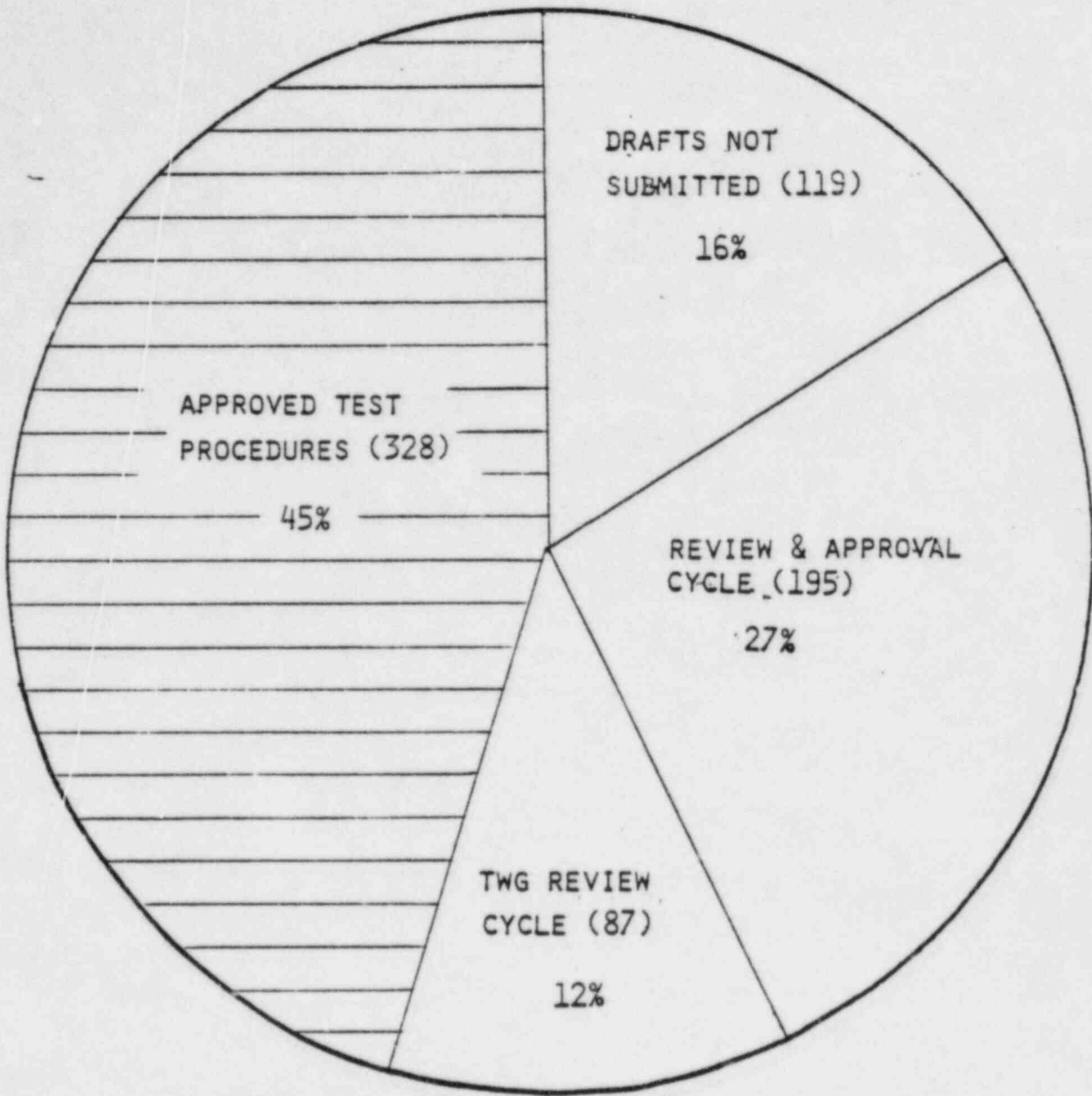




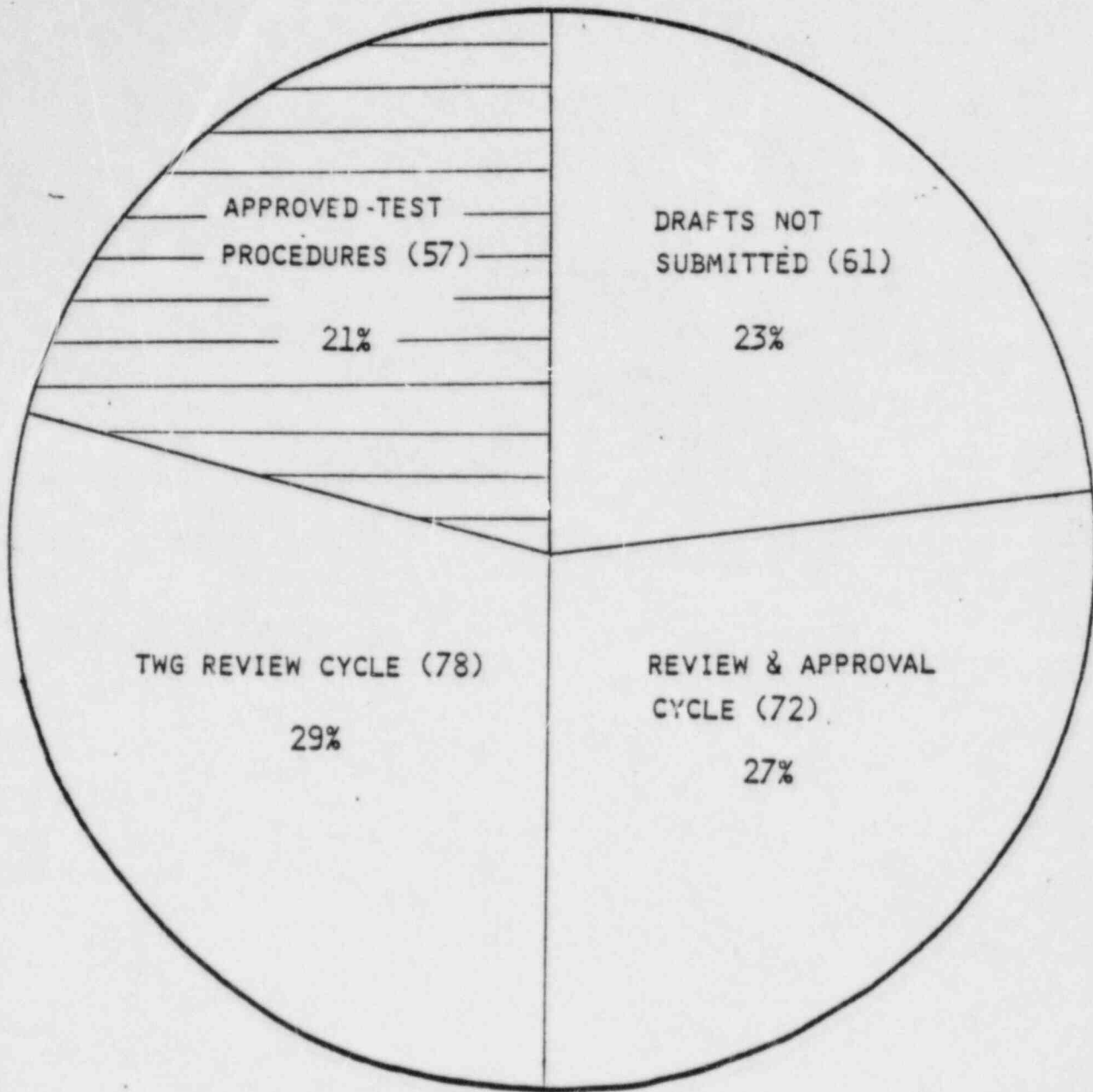
TEST PROCEDURES - PROCEDURE TYPES

(729)

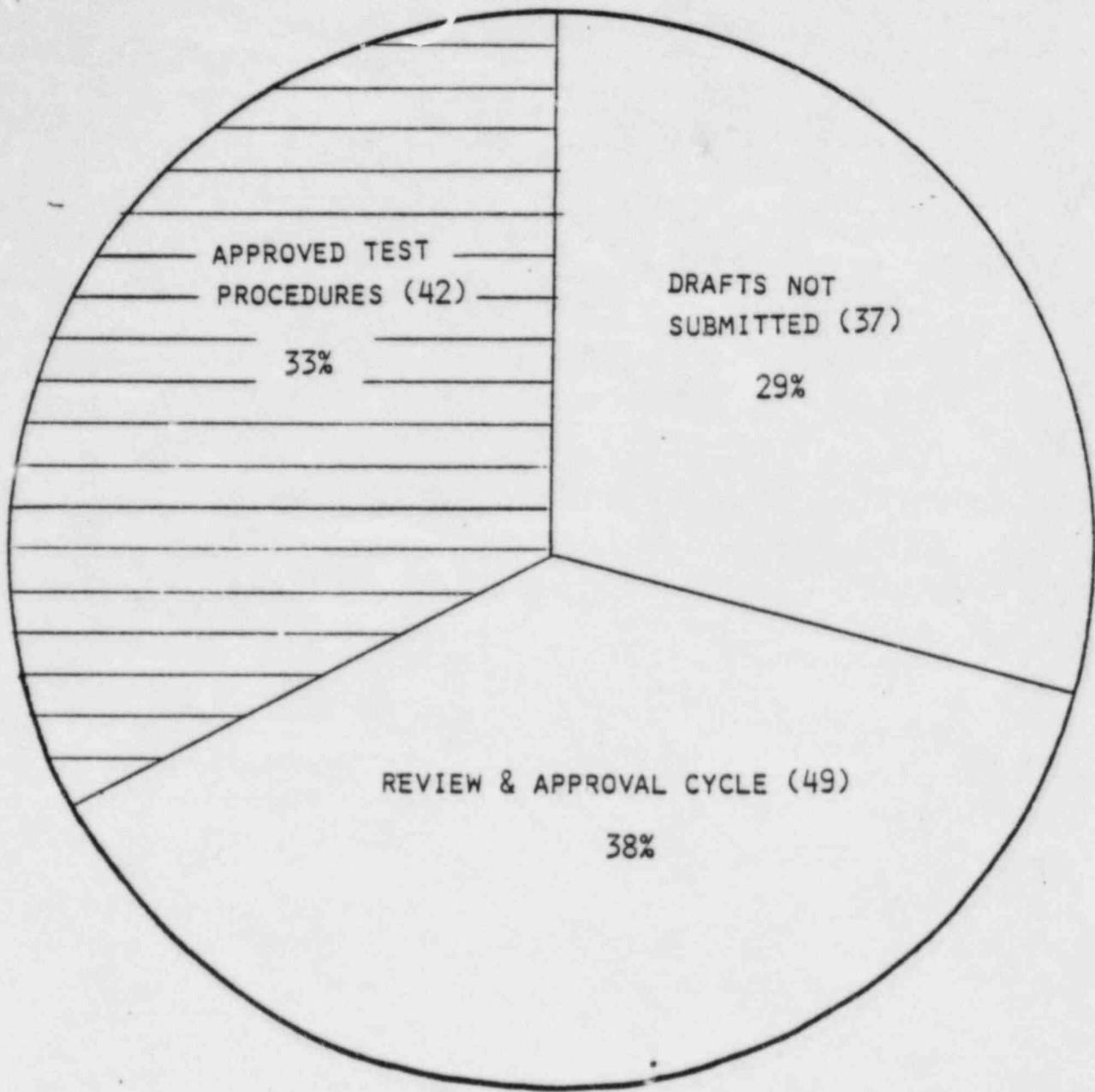
(5)



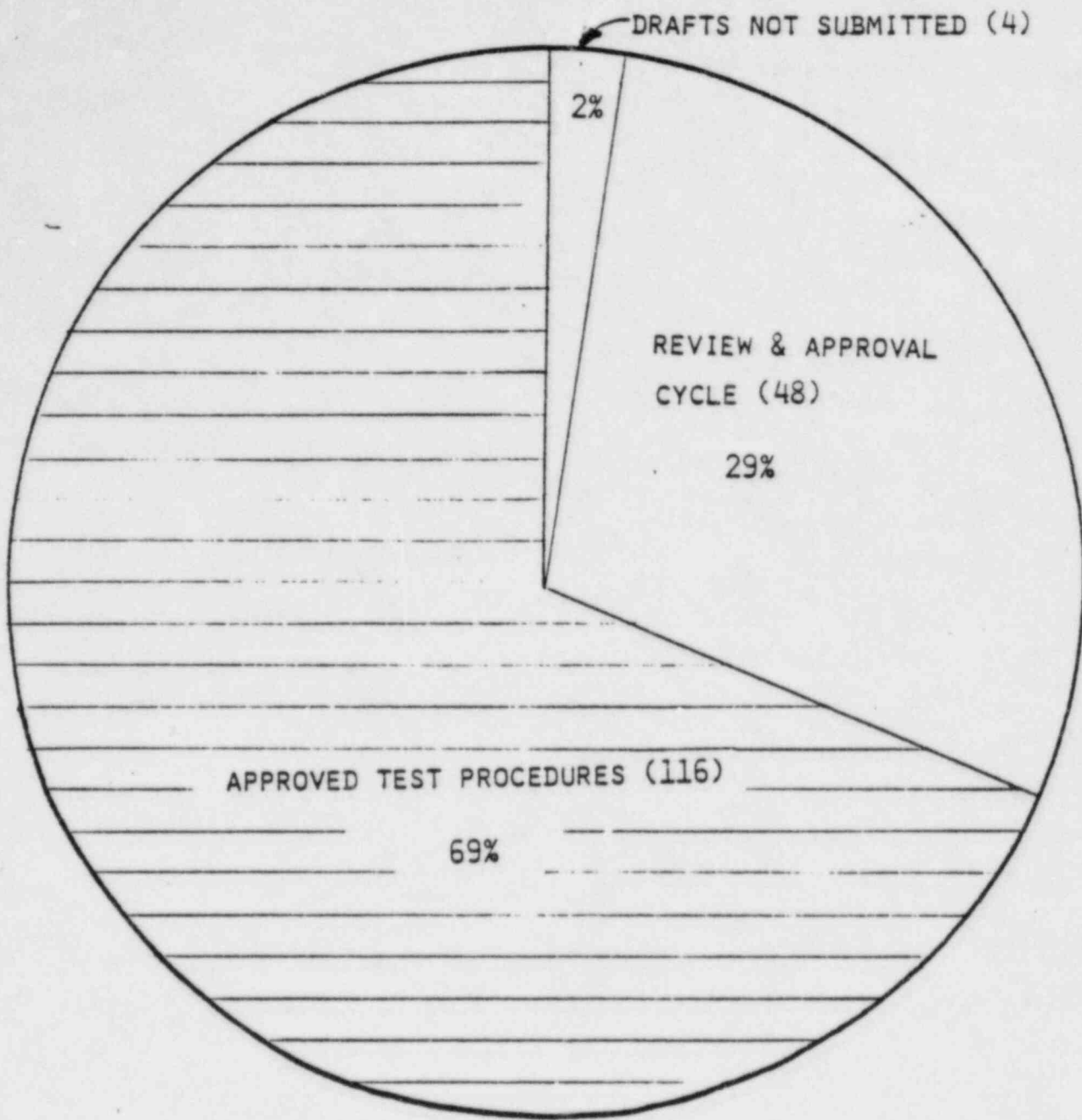
TEST PROCEDURE - STATUS 3-31-83 (729)



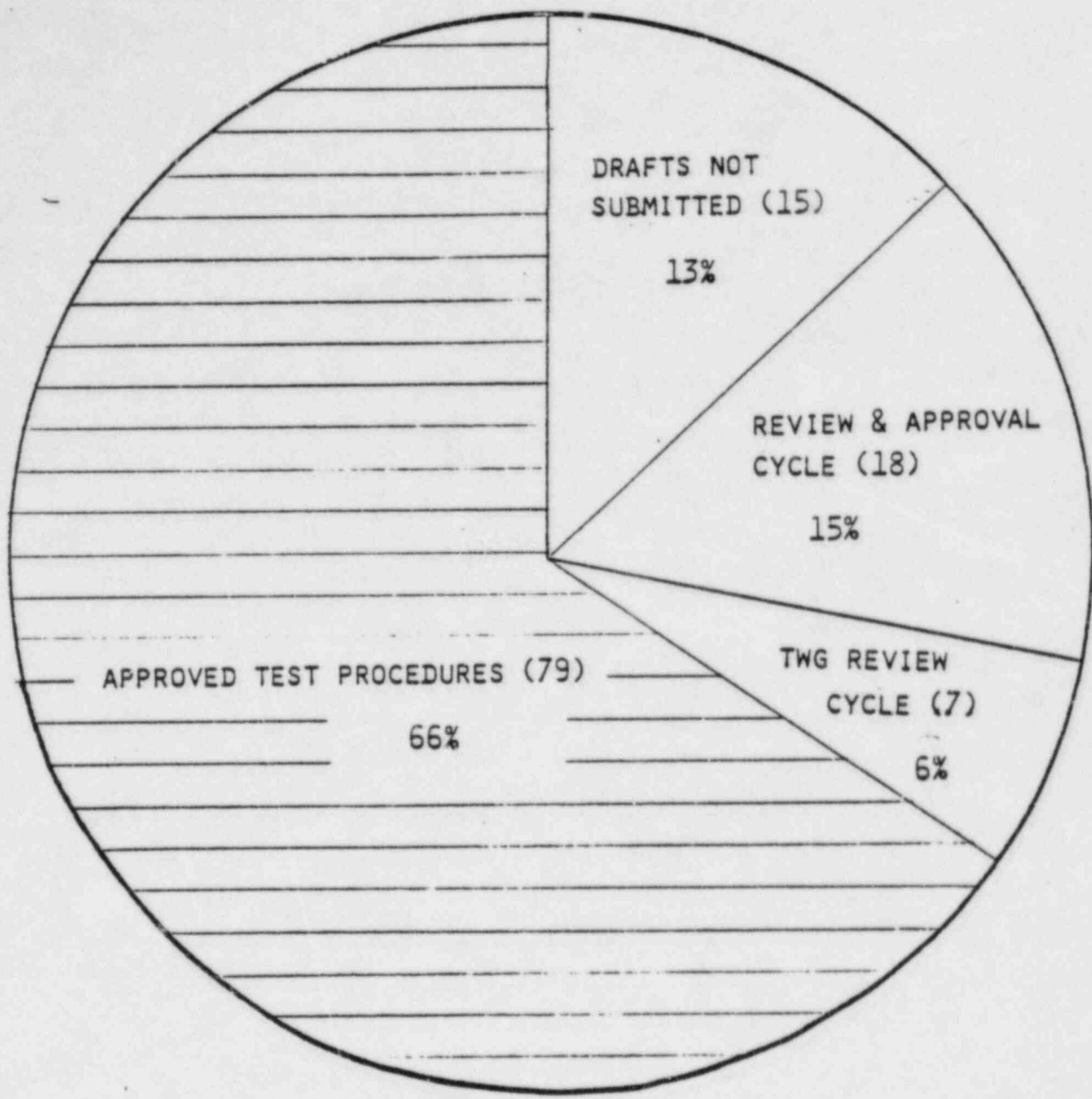
PREOPERATIONAL TEST PROCEDURES (268)



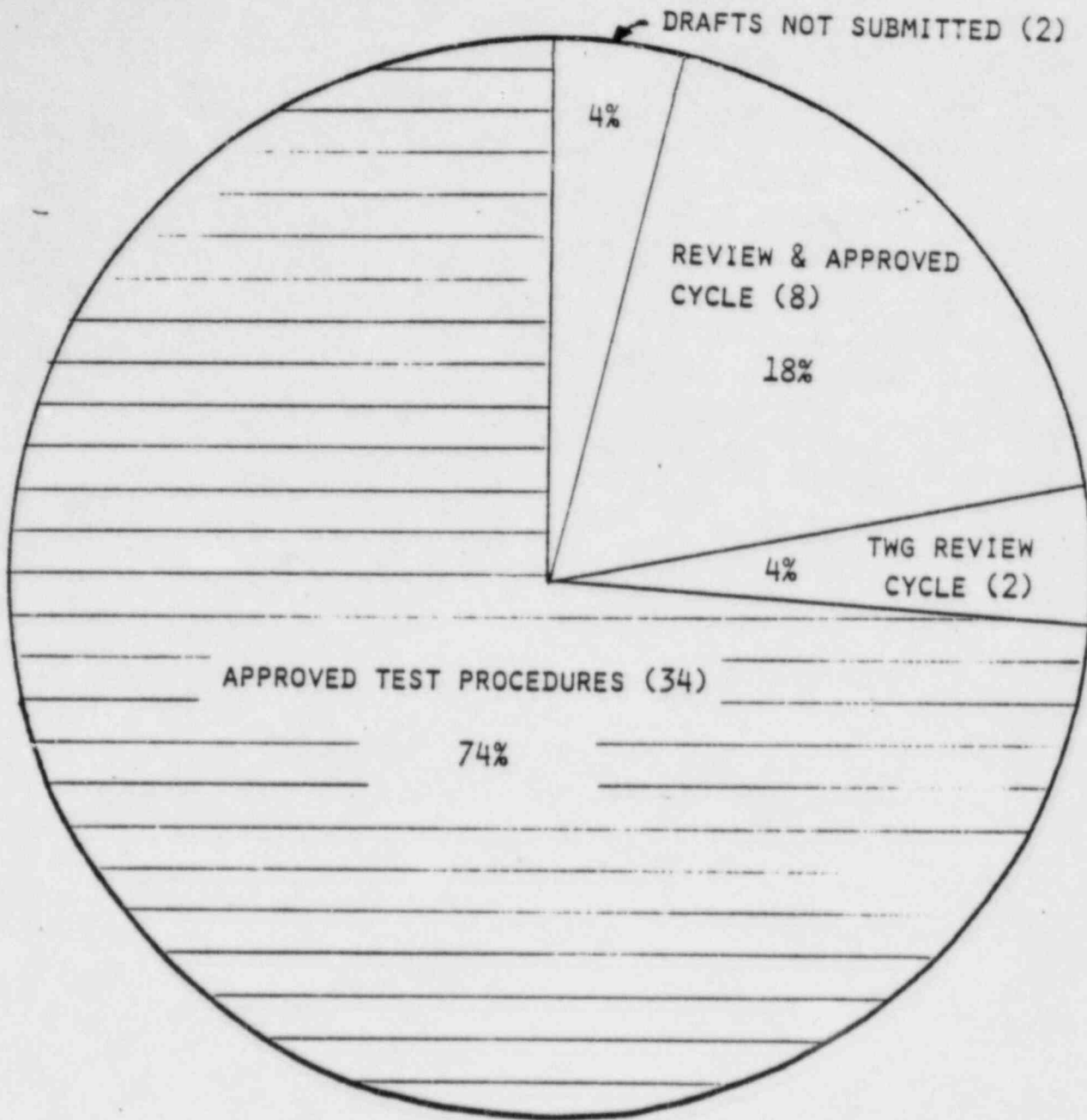
ACCEPTANCE PROCEDURES (128)



FLUSHING PROCEDURES (168)



**SPECIFIC PROCEDURES (119)**



GENERIC PROCEDURES (46)

	<u>COMPLETED</u>	<u>STARTED/NOT COMPLETE</u>
PRE-OPERATIONAL TESTS	0	2
ACCEPTANCE TESTS	1	0
SYSTEM FLUSHES	16	17
SPECIFIC TESTS	9	23
	-----	-----
TOTAL	26	42

TOTAL TESTS REQUIRED

(EXCLUDING GENERIC TESTS) 683

% TEST COMPLETE = 4

TESTS COMPLETED - (3-31-83)



<u>DISCIPLINE</u>	<u>GENERIC CHECKOUT PERCENT COMPLETE</u>
ELECTRICAL	83
I & C	37
TURBINE/HVAC	24
FEEDWATER/CONDENSATE	25
NSSS	4
AUXILIARY SYSTEM	8
PROCESS STEAM	15
	<hr/>
TOTAL SYSTEM CHECKOUT COMPLETE	45%

SYSTEM CHECKOUT STATUS - (3-31-83)

TEST SCHEDULE REV 12

(REFER TO BIG CHART - PLAN FOR  
TWO UNIT STARTUP OR FIGURE 4  
OF HANDOUT)

MANPOWER CURVES

REFER TO HANDOUT MATERIAL, FIGURE 5

POST TURNOVER EXCEPTION WORK

CONSTRUCTION GENERAL SERVICES ORGANIZATION MANPOWER

NON-MANUAL 55

MANUAL

PIPEFITTERS & WELDERS - 55

ELECTRICIANS - 35

LABORERS - 10

100

THIS IS A RESPONSE TO A1 3-033 - TO CMC

# Bechtel Associates Professional Corporation

050561

777 East Eisenhower Parkway  
Ann Arbor, Michigan

Mail Address: P.O. Box 1000, Ann Arbor, Michigan 48106



BLC-11923

November 25, 1981 CONSUMERS POWER COMPANY

Consumers Power Company  
1945 West Parnall Road  
Jackson, Michigan 49201

**RECEIVED**  
DEC 08 1981

Attention: Mr. R.C. Bauman  
Design Production Manager

FIELD QUALITY ASSURANCE  
MIDLAND, MICHIGAN

Subject: Midland Plant Units 1 and 2  
Consumers Power Company  
Bechtel Job 7220  
Strength Test of Cable Tray and  
Raceway Support Material  
File: C-1201 w/A

Reference: Bechtel letter BLC-11695, 10/23/81,  
Curtis to Bauman

Consumer Power Company's comments in response to the referenced letter were received and resolved. (Telephone conversation between Richard Oliver of CPCo and P.V. Regupathy of Bechtel).

Final Electrical Raceway Support Tests Report, parts 1 and 2 are enclosed. Part 1 contains engineering analysis and summary of test results. Part 2 consisting of four volumes contains test data.

Please note that, on the basis of analysis of test results, the report concludes that the electrical raceway supports as installed are adequate.

Very truly yours,

It

L.H. Curtis  
Project Engineer

SLS/SDG/dkj(C)  
11/20/2

- Attachments: 1. Electrical Raceway Support Test Report, Part 1
- 2. Electrical Raceway Support Test Report, Part 2 (4 volumes)

cc: (all w/a 1):  
D.B. Miller  
T.J. Sullivan W.R. Bl [redacted]  
R.A. Wells

Written Response

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