



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

AUG 20 1982

Docket NO. 50-508

MEMORANDUM FOR: F. Miraglia, Chief, Licensing Branch No. 3, DL

FROM: L. Wheeler, Project Manager, Licensing Branch No. 3, DL

SUBJECT: CASELOAD FORECAST PANEL MEETING AND TOUR OF WNP-3

DATE AND TIME: August 31 and September 1, 1982: 9:00 AM - 4:00 PM
September 2, 1982: 9:00 AM - 12:00 AM

LOCATION: WNP-3 Site
Satsop, Washington

PURPOSE: Review construction progress to obtain information for use as input to the OL review scheduling process.


AGENDA: See enclosed Meeting Agenda for details:

August 31: Discuss construction progress and schedules for completion.

September 1: Tour the project and observe construction activities.

September 2: Meeting to discuss any questions that are developed during the past two days.

PARTICIPANTS: Washington Public Power Supply System
K. Cook, R. Gates, N. Kauffman, R. Leddick, et. al.
NRC Staff
W. Albert, W. Lovelace, L. Wheeler


L. Wheeler, Project Manager
Licensing Branch NO. 3
Division of Licensing

Enclosure: As stated

cc: w/encl: See next page

NOTE: NRC meetings are open to interested members of the public to attend as observers. Members of the public who wish to attend this meeting must contact L. Wheeler (301/492-7792) no later than 3:45 PM (Eastern Time), August 26, 1982. (The proper safeguarding of security and proprietary information requires the station tour portion of the meeting to be closed to the public).

8209210550 XA

CASELOAD FORECAST PANEL SITE VISIT
MEETING AGENDA

1. Overview of project construction schedule including progress and major milestones completed, current problems and any anticipated problem areas that may impact the current projected fuel load date.
2. Detailed review and current status of design and engineering effort (by major discipline) including any potential problems that may arise from necessary rework.
3. Detailed review and current status of procurement activities including valves, pipe, instruments, cable, major components, etc.
4. Actual and proposed craft work force (by major craft), craft availability, productivity, potential labor negotiations and problems.
5. Detailed review and current status of all large and small bore pipe hangers, restraints, snubbers, etc., including design, rework, procurement, fabrication, delivery and installation.
6. Detailed review of project schedule identifying critical path items, near critical items, amount of float for various activities, the current critical path to fuel loading, methods of implementation of corrective action for any activities with negative float, and provisions for contingencies. The estimated project percent complete as of August 31, 1982.
7. Detailed review and current status of bulk quantities including current estimated quantities, quantities installed to date, quantities scheduled to date, current percent complete for each, actual versus forecast installation rates, in cubic yards/mo., linear feet/mo., or number/mo., and basis for figures.
 - (a) Concrete (CY)
 - (b) Process Pipe (LF)
 - Large Bore Pipe (2 1/2" and larger)
 - Small Bore Pipe (2" and smaller)
 - (c) Yard Pipe (LF)
 - (d) Large Bore Pipe Hangers, Restraints, Snubbers (ea)

- (e) Small Bore Pipe Hangers, Restraints (ea)
- (f) Cable Tray (LF)
- (g) Total Conduit (LF)
- (h) Total Exposed Metal Conduit (LF)
- (i) Cable (LF)
 - Power
 - Control
 - Security
 - Instrumentation
 - Plant Lighting
- (j) Terminations (ea)
 - Power
 - Control
 - Security
 - Instrumentation
 - Plant Lighting
- (k) Electrical Circuits (ea)
 - Power
 - Control
 - Security
- (l) Instrumentation (ea)

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

- (a) Total number of procedures required for fuel load.
- (b) Number of draft procedures not started.
- (c) Number of draft procedures being written.
- (d) Number of procedures approved.
- (e) Number of procedures in review.
- (f) Total number of preop and acceptance tests required for fuel load.
- (g) Number of preop and acceptance tests completed.
- (h) Number of preop and acceptance tests currently in progress.
- (i) Number of systems turned over to start-up.

9. Detailed discussion of potential schedular influence due to changes attributed to NUREG-0737 and other recent licensing requirements.
10. Discussion of schedular impact, if any, regarding potential deficiencies reported in accordance with 10 CFR 50.55(e).
11. Overview of current construction and startup management organization showing interfaces between the two.
12. Site tour and observation of construction activities.

ATTENDANCE ROSTERNamePositionNRC

W. Albert
 W. Lovelace
 A. Vietti
 L. Wheeler

Senior Resident Inspector
 Engineer
 Project Manager
 Project Manager

WPPSS

K. Cook
 D. Dobson
 R. Gates
 D. Herschel
 N. Kauffman
 R. Leddick
 O. Trapp
 J. Werle
 R. Williams

Licensing Manager
 Project Manager
 Project Scheduling
 Consultant (Quadrex)
 Startup Manager
 WNP-3 Program Director
 Quality Assurance Manager
 Project Engineer
 Business Manager

Ebasco

D. Quamme

Project Manager

Bonneville Power Administration

D. Smithpeter

Project Engineer

Northwest Energy Services Company

J. Adams

Project Manager

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: KW COOK

WNP-3 CASELOAD

FORECAST PANEL

MEETING

9/1/82

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 08/01/82
NAME: KW Cook

WNP-3 CASELOAD FORECAST PANEL VISIT
SEPTEMBER 1, 1982

INTRODUCTION	K. W. COOK	9:00 - 9:15
o AGENDA		
o PROCESS		
OVERVIEW	R. S. LEDDICK	9:15 - 9:45
o ORGANIZATIONAL STRUCTURE		
o CONSTRUCTION SCHEDULE		
o CONSTRUCTION PROGRESS		
o SCHEDULE PROGNOSIS		
CONSTRUCTION MANAGEMENT ORGANIZATION	D. E. DOBSON	9:45 - 10:15
ENGINEERING/DESIGN	J. E. WERLE	10:30 - 11:45
o ENGINEERING MANAGEMENT PROCESS		
o COMPLETION STATUS		
o DESIGN CHANGES		
o PIPE/VALVE STATUS		
o KEY DESIGN ISSUES		
PROCUREMENT STATUS	J. MAHAFFEY	11:45 - 12:00
o MAJOR COMPONENTS		
o PIPING/VALVES		
PROJECT SCHEDULES	R. E. GATES	1:00 - 1:45
o SCHEDULE HIERARCHY		
o LEVEL I MILESTONES		
o LEVEL II SCHEDULE		
o CRITICAL PATHS		
BULK QUANTITY STATUS	R. E. GATES	1:45 - 2:00
PEOP/STARTUP STATUS	N. C. KAUFMAN	2:00 - 2:30
o PROGRAM DEVELOPMENT		
o PROCEDURES		
o TEST SCHEDULES		
POTENTIAL DEFICIENCIES	O. E. TRAPP	2:30 - 2:45
WRAPUP	K. W. COOK	2:45 - 3:00

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: R LEDDICK

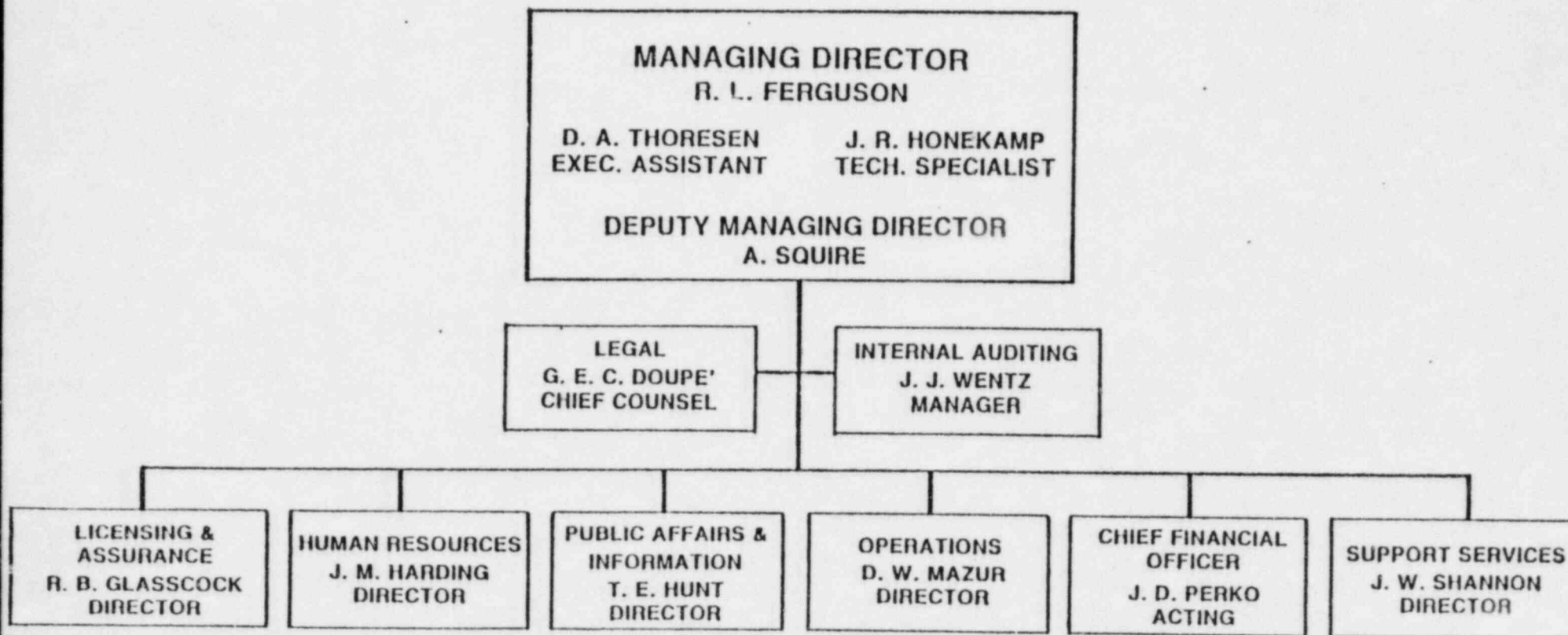
PROGRAM OVERVIEW

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: R LEDDICK

WASHINGTON PUBLIC POWER SUPPLY SYSTEM



BRIEFING FOR NRC:	WASHINGTON PUBLIC POWER SUPPLY SYSTEM NUCLEAR PROJECT 3	DATE: 09-01-82 NAME: R LEDDICK
----------------------	--	-----------------------------------

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

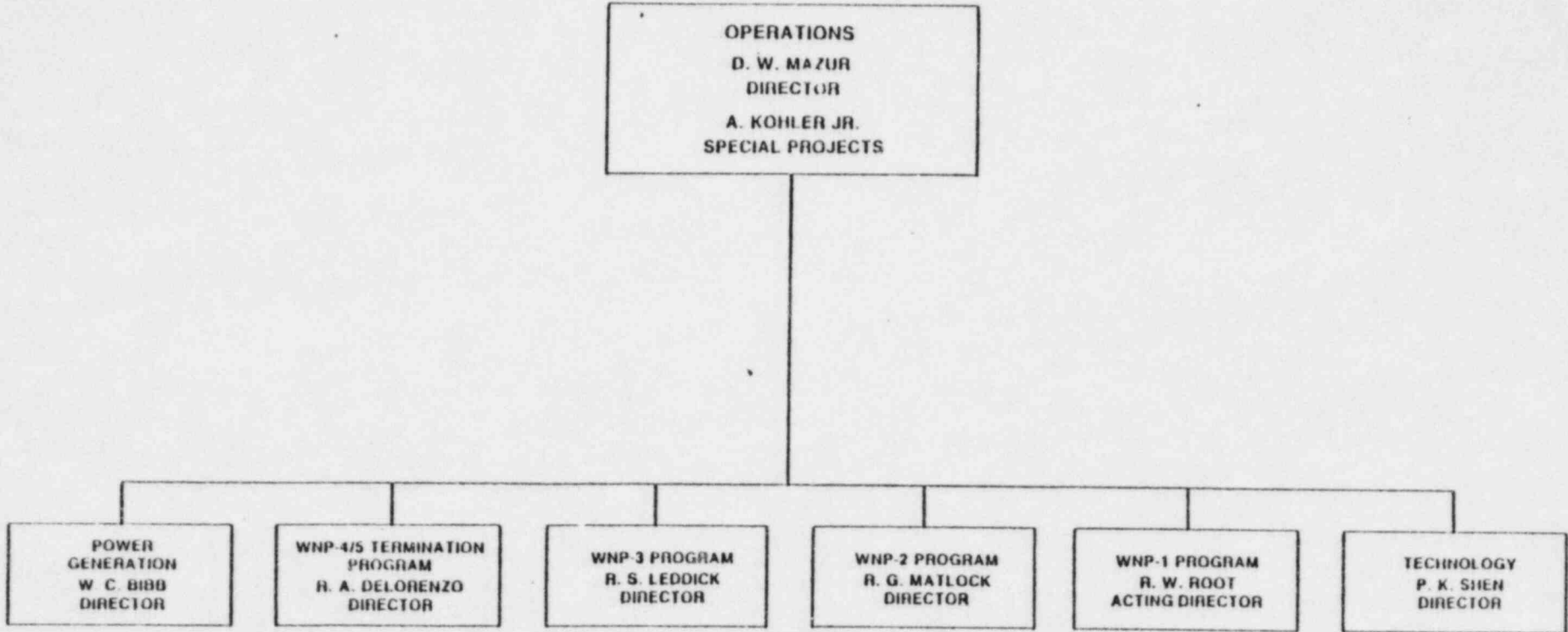
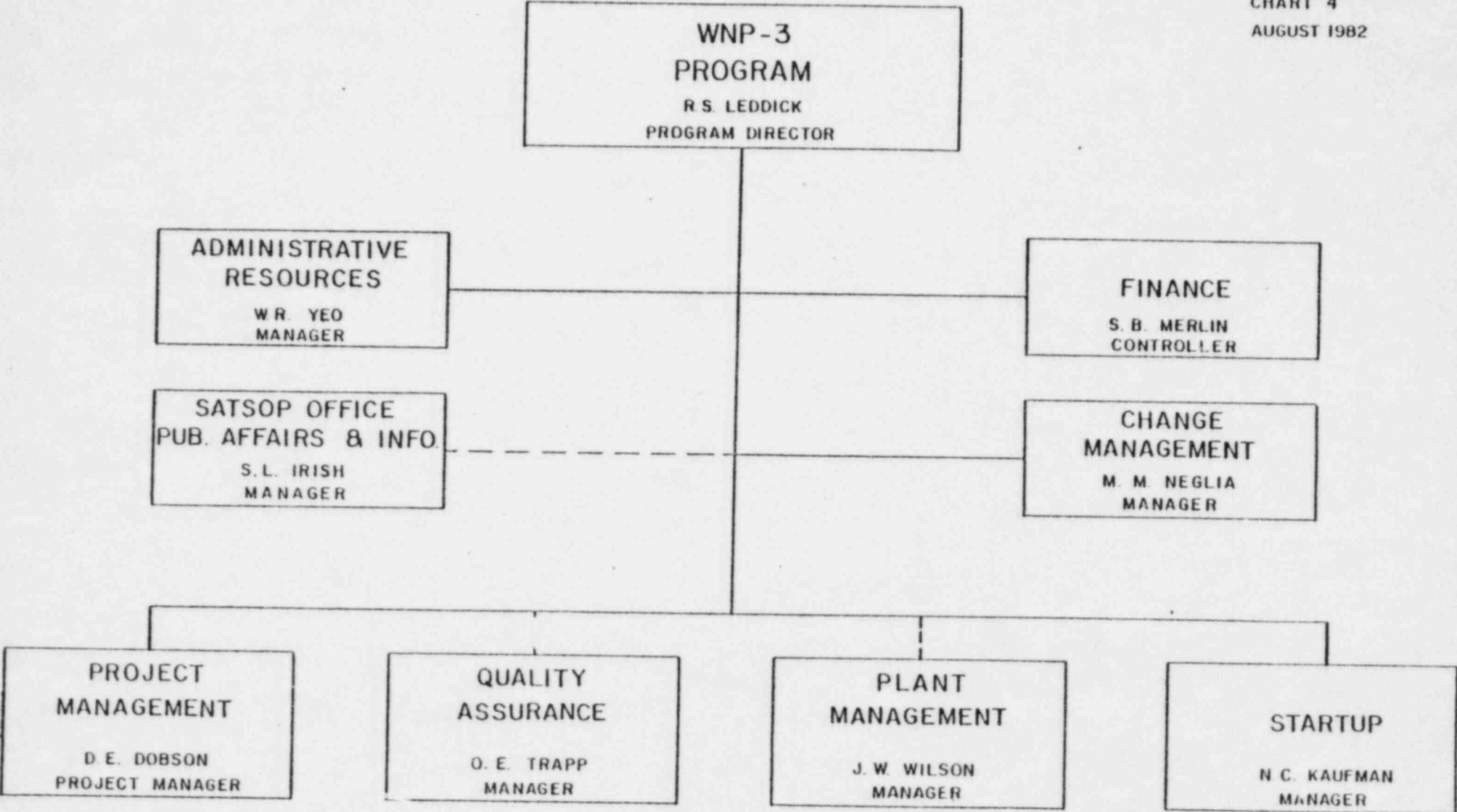
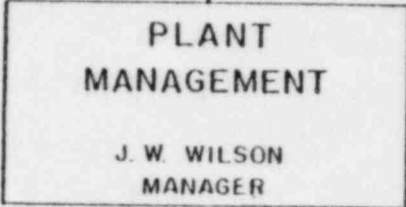
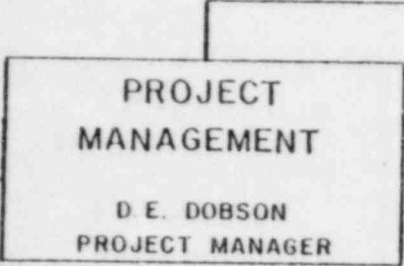
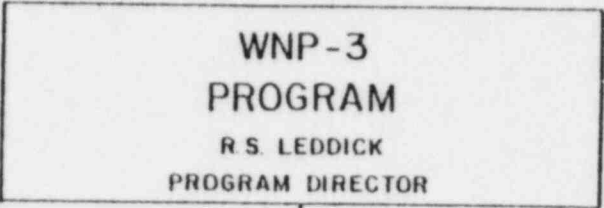


CHART 4
AUGUST 1982

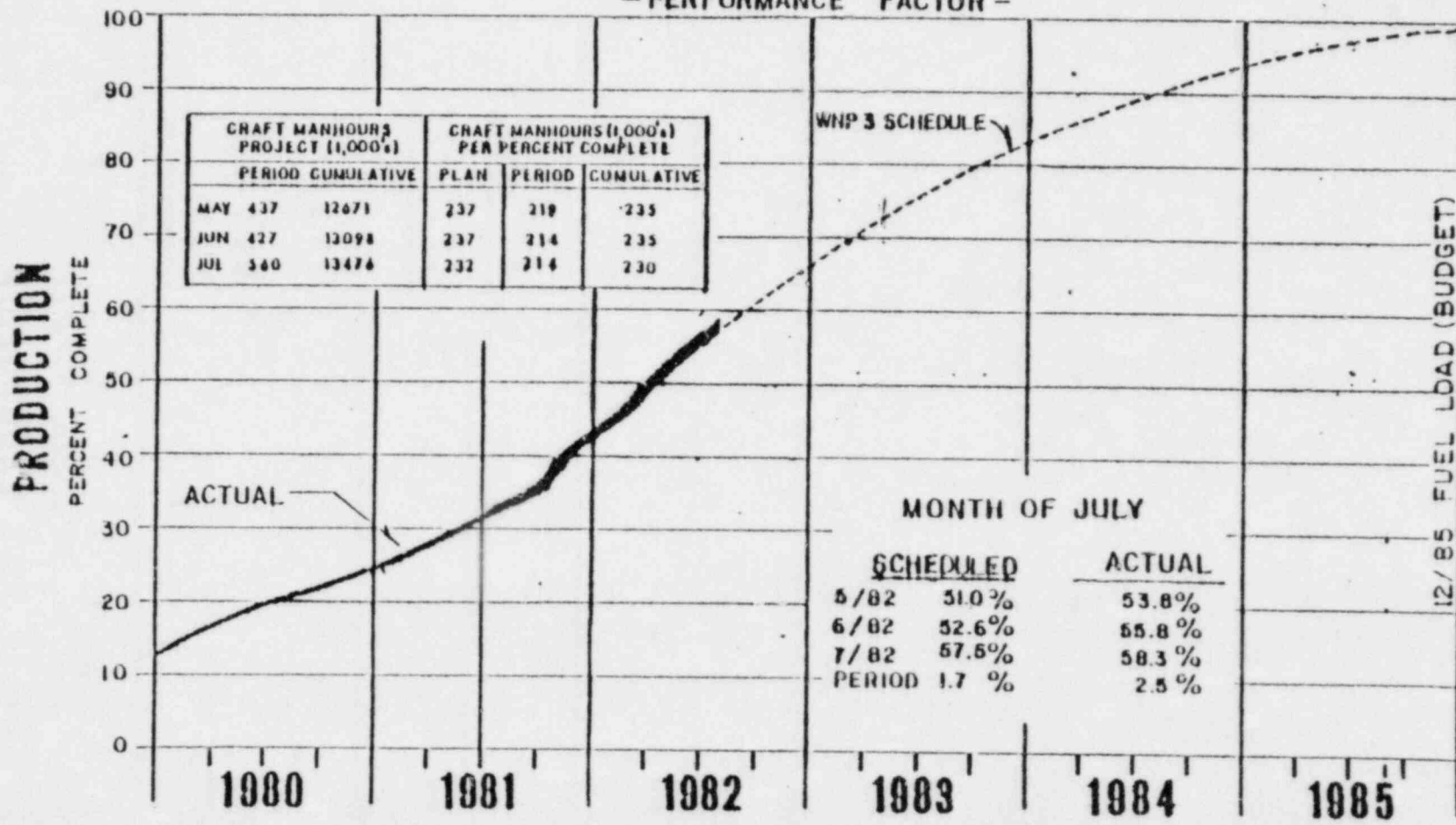
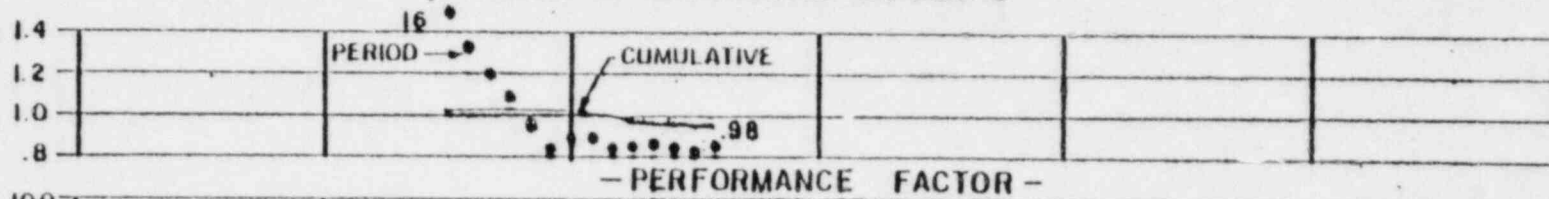


BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: RS LEDDIC

WNP-3 PROJECT PERCENT COMPLETION
WNP-3 BASELINE LEVEL I



BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: RS LEDDICK

FY-82
MANPOWER AND PERCENT COMPLETE HISTORY

MONTH	CRAFT		NONMANUAL				TOTAL		PERIOD PERCENT COMPLETE	
	BUDGET	ACTUAL	EBASCO		CONTRACTOR		BUDGET	ACTUAL	BUDGET	ACTUAL
			BUDGET	ACTUAL	BUDGET	ACTUAL				
JULY81	2326	2395	760	753	1062	1011	4148	4159	1.5	1.6
AUG81	2362	2518	770	751	1083	1006	4215	4275	1.6	1.6
SEPT81	2400	2495	785	747	1090	1033	4275	4275	1.7	1.6
OCT81	2510	2694	805	728	1135	1038	4450	4460	2.0	2.1
NOV81	2500	2888	825	723	1153	1038	4478	4649	1.6	2.1
DEC81	2480	2914	833	626	1162	1046	4475	4586	1.7	2.0
JAN82	2450	2735	833	554	1235	1043	4518	4332	1.9	2.0
FEB82	2400	2604	833	566	1230	1017	4463	4187	1.7	2.1
MAR82	2400	2650	833	564	1239	968	4472	4182	1.6	2.1
APR82	2350	2500	833	523	1248	942	4431	3965	1.8	2.6
MAY82	2350	2732	833	505	1267	916	4450	4153	1.7	2.0
JUNE82	2350	2812	833	494	1267	903	4450	4209	1.6	2.0

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: RS LEDDICK

FY-83
MANPOWER AND PERCENT COMPLETE HISTORY

MONTH	CRAFT		NONMANUAL				TOTAL		PERIOD PERCENT COMPLETE	
	BUDGET	ACTUAL	EBASCO		CONTRACTOR		BUDGET	ACTUAL	BUDGET	ACTUAL
JULY82	2954	2921	608	485	975	921	4535	4327	1.7	2.5
AUG82	2925		602		960		4487		1.7	
SEPT82	2893		605		932		4430		1.6	
OCT82	2903		606		926		4435		1.8	
NOV82	2864		605		911		4380		1.8	
DEC82	2828		607		908		4341		1.6	
JAN83	2707		600		877		4184		1.8	
FEB83	2655		600		875		4130		1.5	
MAR83	2603		600		854		4057		1.7	
APR83	2460		597		857		3914		1.6	
MAY83	2402		597		849		3848		1.5	
JUNE83	2344		601		850		3795		1.7	

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: R LEDDICK

PAGE 1 OF 2

MAJOR PROGRAM ACCOMPLISHMENTS

- o SET REACTOR PRESSURE VESSEL (1 WEEK AHEAD OF SCHEDULE) JULY 1981
- o SET SOUTH STEAM GENERATOR JULY 1981
- o SET NORTH STEAM GENERATOR AUGUST 1981
- o IMPLEMENTED CONSTRUCTION SERVICES COST AVOIDANCE ACTIONS SEPTEMBER 1981
 - o SCAFFOLDING
 - o CRANES
 - o TEMPORARY POWER
 - o CLEANUP
 - o SURVEYING
 - o FACILITIES REDUCTION
- o INSTALLED TG ROTOR NOVEMBER 1981
- o COMPLETED INSTALLATION OF 100,000 LINEAR FEET OF LARGE BORE PIPE AHEAD OF SCHEDULE FEBRUARY 1982
- o BEGAN SETTING CONTROL ROOM PANELS 4 WEEKS AHEAD OF SCHEDULE FEBRUARY 1982
- o SET MAIN AND AUXILIARY TRANSFORMERS 4 MONTHS AHEAD OF SCHEDULE FEBRUARY 1982

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: R LEDDICK

PAGE 2 OF 2

MAJOR PROGRAM ACCOMPLISHMENTS

- o BEGAN CABLE TERMINATIONS 3 WEEKS AHEAD OF SCHEDULE MARCH 1982
- o STARTED SETTING LOCAL INSTRUMENT RACKS IN TURBINE BUILDING MARCH 1982
4 WEEKS AHEAD OF SCHEDULE
- o APPLICATION FOR WNP-3 OPERATING LICENSE TENDERED TO NRC ON MAY 1982
JUNE 2, 1982
- o COMPLETED 100% OF CABLE TRAY INSTALLATION IN TURBINE BUILDING JUNE 1982
- o SET DIESEL GENERATOR - "A" IN REACTOR AUXILIARY BUILDING JUNE 1982

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: RS LEDDICK

MAJOR ACCOMPLISHMENTS

LATEST PERIOD

- o FOR THE TENTH CONSECUTIVE MONTH, MET OR EXCEEDED PLANNED PRODUCTION WITH PRODUCTIVITY FACTORS BETTER THAN BUDGET.
- o REACTOR INTERNALS WERE RECEIVED AND TRANSPORTED TO SITE ON AUGUST 5, 1982.
- o SET FIRST AND SECOND SAFETY INJECTION TANKS ON AUGUST 1, 1982.
- o COMPLETED ERECTION OF MAKE-UP WATER TANKS.
- o COMPLETED SITE REVIEWS OF OWNER FY-83 RESOURCE BUDGET AND ISSUED DRAFT FY-83 BUDGET DOCUMENTS.
- o COMPLETED NINTH ONE MILLION MAN-HOUR WORK PERIOD WITHOUT A LOST TIME ACCIDENT AND THIRD PERIOD OF TWO MILLION CONSECUTIVE MAN-HOURS WITHOUT A LOST TIME ACCIDENT.
- o CONTINUED ADDITIONS TO OPERATIONS STAFF - TOTAL IS CURRENTLY AT 90. SEVEN OFFERS HAVE BEEN EXTENDED. ACCEPTANCE OF THESE OFFERS, PLUS ON-BOARD PERSONNEL, WILL SATISFY THE FY-83 OPERATOR TRAINING PROGRAM.

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82

NAME: RS LEDDICH

PAGE 1 OF 2

SIX-MONTH LOOK AHEAD

	<u>FY-82 PLAN</u>	<u>CURRENT FORECAST</u>
0 COMPLETE CONTRACT REALIGNMENTS	12/81	10/82
0 70 IEEE PROGRAMS (APPROVED AND TESTS COMPLETED)	2/82	8/82
0 START DRAFTING OPERATING PROCEDURES	3/82	8/82
0 HAVE NUCLEUS OF STARTUP STAFF ON BOARD	4/82	9/82
0 COMPLETE FUEL HANDLING BUILDING POOL LINER FLOOR PLATES	5/82	8/82
0 COMPLETE CABLE VAULT TRAY SUPPORTS	5/82	9/82
0 SET PRESSURIZER	6/82	8/82
0 COMPLETE FY-83 BUDGET REVIEW	6/82	9/82
0 90% OF ALL HANGERS DELIVERED	6/82	8/82
0 BEGIN REACTOR INTERNALS WORK	6/82	9/82
0 PUBLISH FLUSHING PROGRAM	6/82	9/82
0 COMPLETE FIRE HAZARD ANALYSIS	8/82	
0 COMPLETE ROOF SLAB AT 475' ELEVATION IN FUEL HANDLING BUILDING	8/82	
0 70 IEEE PROGRAM RESULTS	8/82	
0 DOCKET FSAR	9/82	
0 IEEE PROGRAM APPROVED	9/82	6/83
0 COMPLETE ELECTRICAL CONTROL BUILDING DESIGN	9/82	
0 COMPLETE REMAINING 9 SWITCH YARD DRAWINGS	10/82	
0 EFFECTS OF ASH FALL ON HVAC SYSTEM REPORT	10/82	
0 PROCURE EQUIPMENT FOR MAKEUP WATER ELECTRICAL CONTROL BLDG.	10/82	
0 COMPLETE MAIN LOOP WELDING	11/82	8/82

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: RS LEDDICE

PAGE 2 OF 2

SIX-MONTH LOOK AHEAD

	<u>FY-82 PLAN</u>	<u>CURRENT FORECAST</u>
0 COMPLETE TURBINE ERECTION	11/82	
0 COMPLETE FUEL HANDLING BLDG. STRUCTURE	11/82	
0 COMPLETE TURBINE GENERATOR	11/82	
0 START CHILLER AND ADMINISTRATION BLDG.	12/82	6/82A
0 COMPLETE SYSTEM REVIEWS	1/83	
0 START SETTING REACTOR COOLANT PUMPS	5/83	8/82
0 START DRY COOLING TOWER	5/83	10/82
0 SET CONTAINMENT DOME	6/83	9/82
0 START CONCRETE DOME	8/83	10/82

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: RS Leddick

MANAGEMENT INITIATIVES

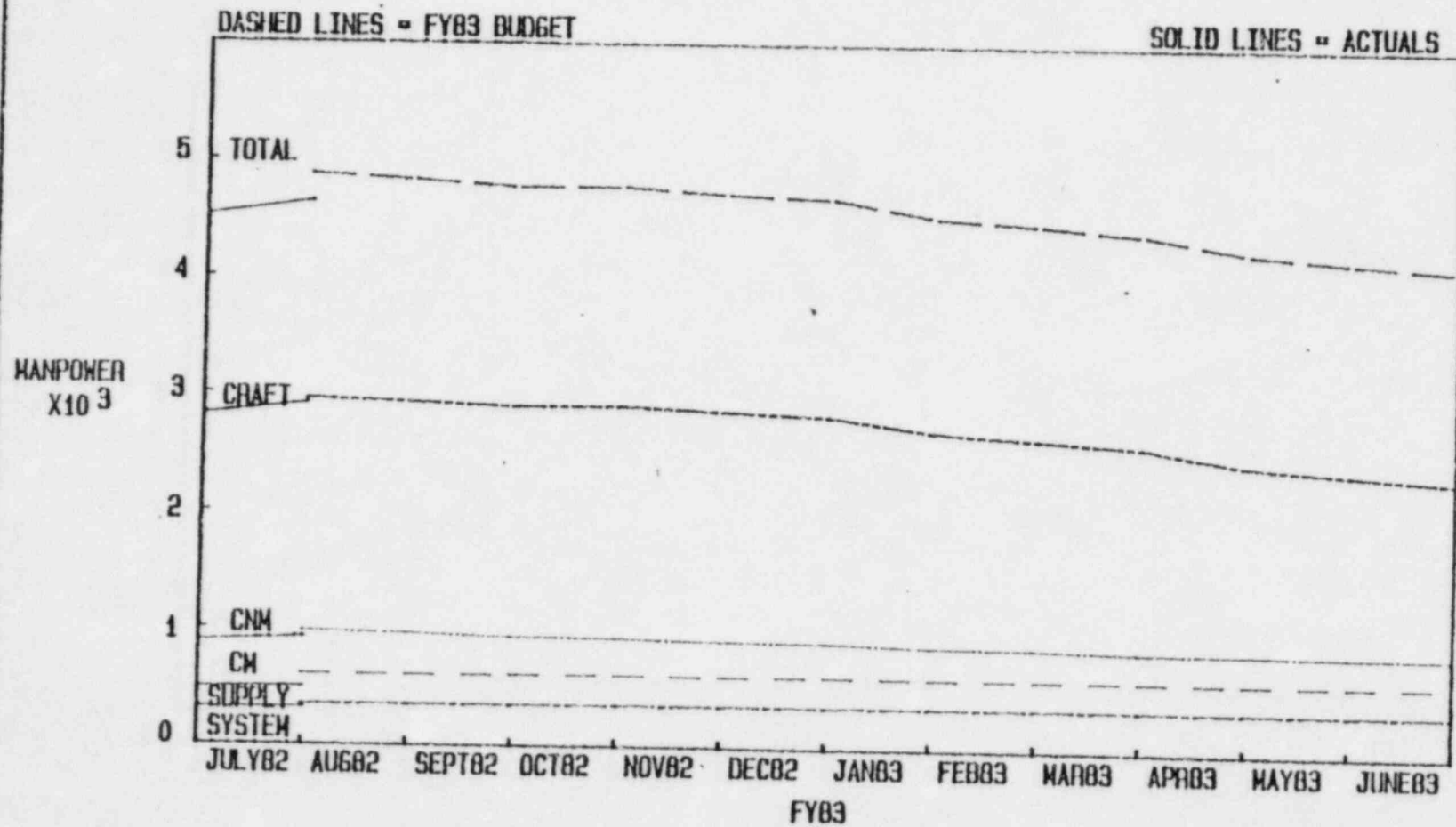
- o CENTRALIZED CONSTRUCTION MANAGEMENT
- o INCENTIVE FEE PROGRAM
- o EXPEDITED CRITICAL MATERIAL PROCUREMENT
- o REALIGNED CONSTRUCTION CONTRACTS
- o CONSOLIDATION OF DUPLICATE SUPPORT WORK
- o LABOR STABILIZATION AGREEMENT

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: RS LEDDICK

SITE MANPOWER

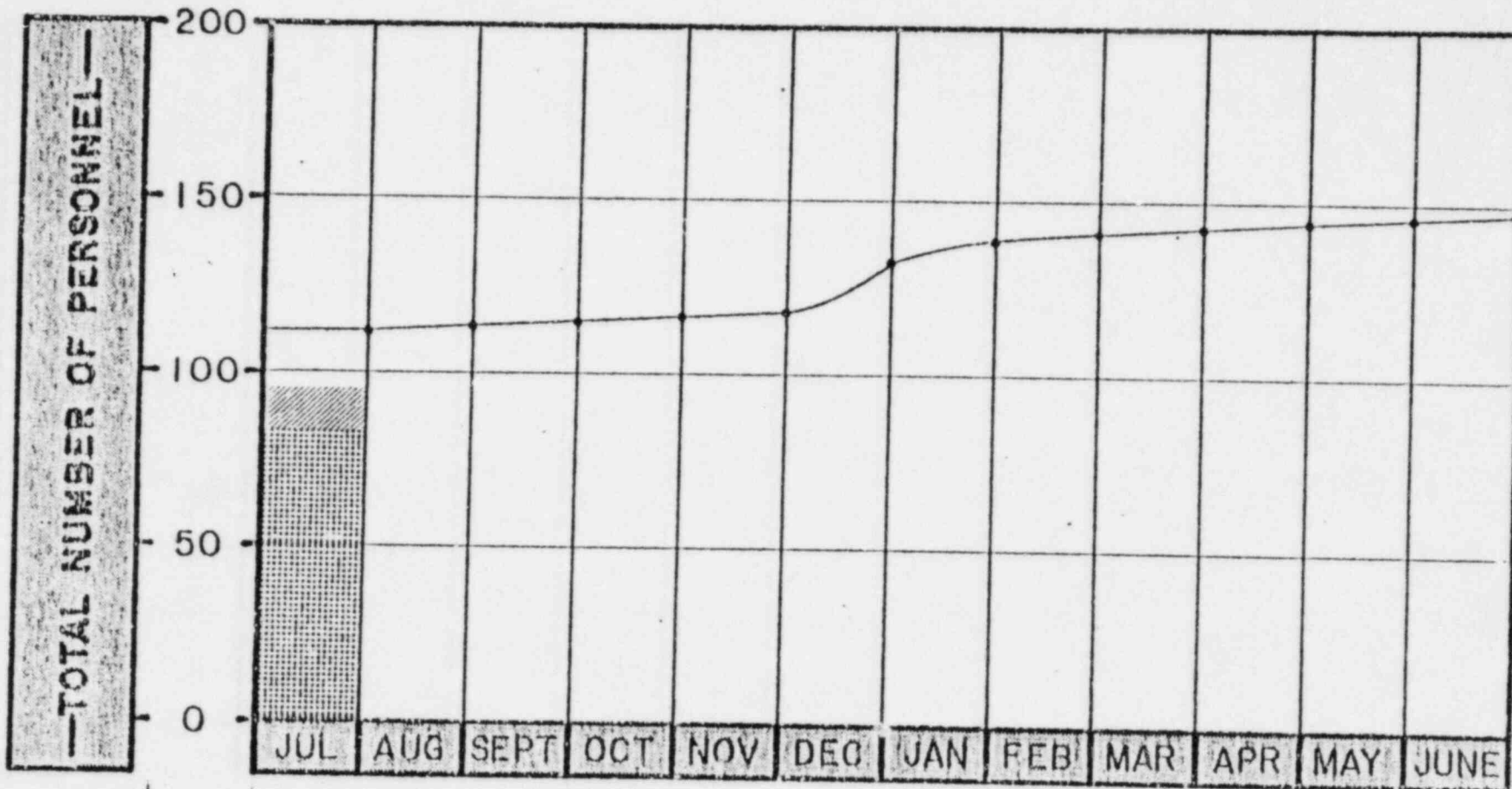


BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: RS LEDDICE

FY83 PLANT STAFFING



APPLICATIONS RECEIVED..... 46
INTERVIEWS REQUESTED..... 18
INTERVIEWS HELD..... 14
OFFER LETTERS IN PROGRESS.. 22

LEGEND

NUMBER ON BOARD [grid pattern]
OFFERS ACCEPTED [diagonal lines]
PROGRAMMED STRENGTH [line with dots]

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: RS Leddick

POTENTIAL PROBLEM AREAS

- o INITIATIVE 394
 - RULED UNCONSTITUTIONAL
 - APPEAL RESOLUTION EXPECTED JANUARY 1983
 - VOTE POTENTIALLY IN FEBRUARY 1983

- o NW ENERGY COUNCIL
 - REPORT ON REGIONAL POWER NEEDS - SPRING 1983
 - COST BENEFIT ANALYSIS OF WNP-3

- o EFFECT OF WNP-5 LAWSUITS ON WNP-3
 - PAYMENT OF WNP-5 DEBTS BY PARTICIPANTS

BRIEFING
FOR NRC

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE 9/1/82
NAME: LEDDICK

IMPROVEMENT ACTIONS - LAST TWO YEARS

MANAGEMENT

- o DE-INTEGRATE OWNER & CM
- o INCENTIVIZE AE/CM CONTRACT
- o STRENGTHEN MANAGEMENT
- o PROJECTIZE
- o ELIMINATE DECISION BACKLOG
- o SEEK NEW LEGISLATION

CONTROL

- o BOTTOMS UP BUDGET
- o IMPROVE AND INTEGRATE SCHEDULES
- o CAREFULLY MANAGE DISCRETIONARY CHANGES
- o TRACK COST FLOW

CONSTRUCTION

- o REALIGN CONSTRUCTION CONTRACTS
- o STABILIZE LABOR
- o BETTER CONTROL VENDORS
- o IMPROVE MATERIAL AVAILABILITY
- o CONSOLIDATED SCOPES

ENGINEERING

- o GET/STAY AHEAD OF CONSTRUCTION
- o REDUCE OVERSPECIFICATION
- o STREAMLINE PROCEDURES
- o LOCATE WITH CONSTRUCTION
- o INCREASE ALLOWABLE TOLERANCES

BRIEFING
FOIA P. RC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: DOBSON

CONSTRUCTION MANAGEMENT

BRIEFING
FOR NRC

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: DOBSON

CONTRACTING APPROACH

- o PUBLIC AGENCY - STATE OF WASHINGTON
 - x FORMAL ADVERTISING THE RULE - LOWEST RESPONSIBLE/RESPONSIVE BIDDER
 - x ORIGINAL CONTRACTS FIXED PRICE/UNIT PRICE/REIMBURSABLE
 - o FEE WAS TARGET MANHOUR INCENTIVE
 - o OTHER ELEMENTS TIED TO PRODUCTION/SCHEDULE
 - o DESIGN NOT FINISHED
 - x MAJOR CONTRACTS REALIGNED

- o LEGISLATIVE RELIEF
 - x SCOPE SHIFTING UNDER 490
 - x EMERGENCY PROCUREMENT

- o OTHER PURCHASING MECHANISMS
 - x CONTRACTOR FURNISH
 - x TRANSFER FROM OTHER PLANTS

- o DOLLAR AUTHORITIES
 - x LESS THAN \$500K - ENTIRELY AT SITE
 - x MORE THAN \$500K - AT SITE, BUT AFTER PRIVATE'S APPROVAL
 - x MORE THAN \$2.5M - BOARD APPROVAL
 - x ALL 490 TAKES BOARD APPROVAL

APPROVAL GENERALLY
PRECEDES
INITIATION

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: DOBSON

CURRENT CONTRACT STRUCTURE

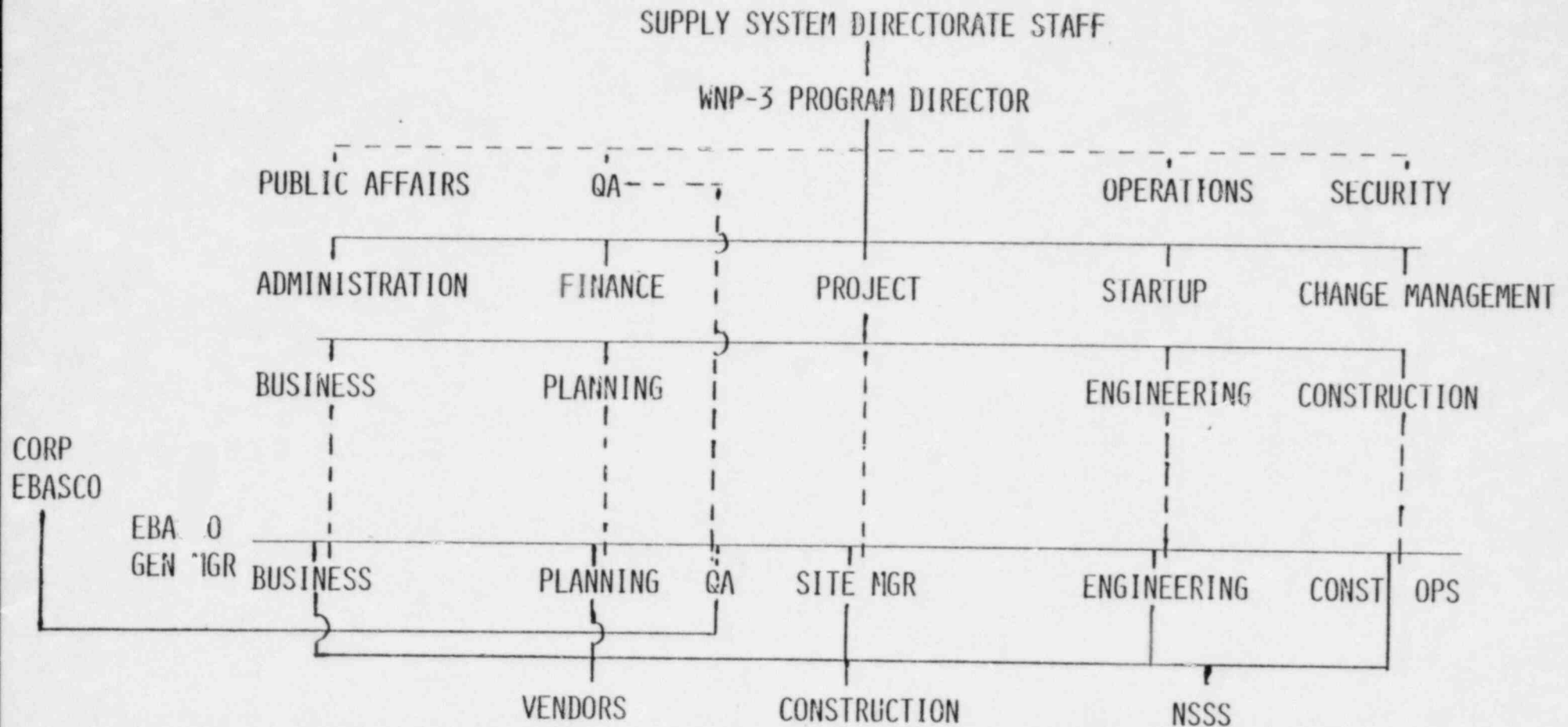
- o AE/CM - EBASCO REIMBURSABLE
FEE TOTALLY INCENTIVIZED
MILESTONES ON CONSTRUCTION, ENGINEERING & MANAGEMENT
- o NSSS - CE 02 IS FIXED PRICE
3 & 5 SEPARATE
LICENSING AND TECHNICAL SUPPORT REIMBURSABLE
- o VENDORS - 200+ MOST FORMALLY ADVERTISED, FIXED PRICE
TWO UNITS
- o CONSTRUCTION MAJOR CONTRACTS
NON-MANUAL - OTHER UNIT PRICED
LABOR REIMBURSABLE
FEE + OVERHEAD FIXED
DISCRETIONARY DIRECTION
SOME 3 - SOME 3/5
MINOR CONTRACTS
MOST FIXED PRICE
OLD ON 3/5 - NEW 3 ONLY

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: DOBSON

HOW JOB CONTROLLED



BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: DCBSON

LABOR BACKGROUND

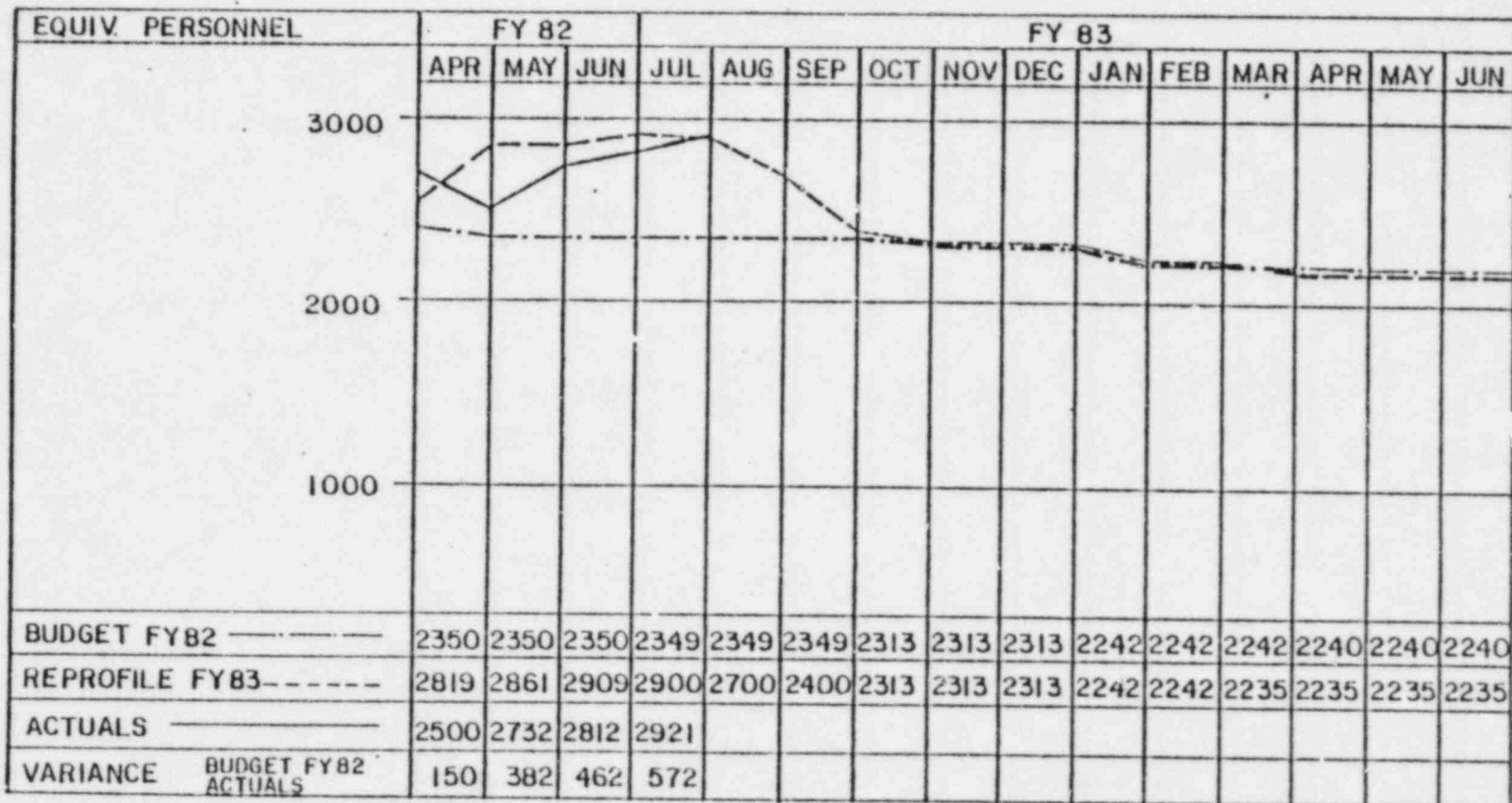
- o REGIONAL LABOR FORCE PRIMARILY ORGANIZED
- o ECONOMY DEPRESSED - AVAILABILITY HIGH
- o MARCH 1981 STABILIZATION AGREEMENT - NO STRIKE, PICKET, LOCKOUT
- o TWO RECENT ECONOMIC ACTION\$ - IMPACT ABOUT 6 DAYS
- o CONTRACT EXPIRATIONS
 - x BOILERMAKERS - SEPTEMBER 1982
 - x OTHERS MOSTLY - MAY 1983
- o MANAGEMENT BY CONTRACTORS & EBASCO

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: DOBSON

MANPOWER STATUS
CRAFT WNP-3

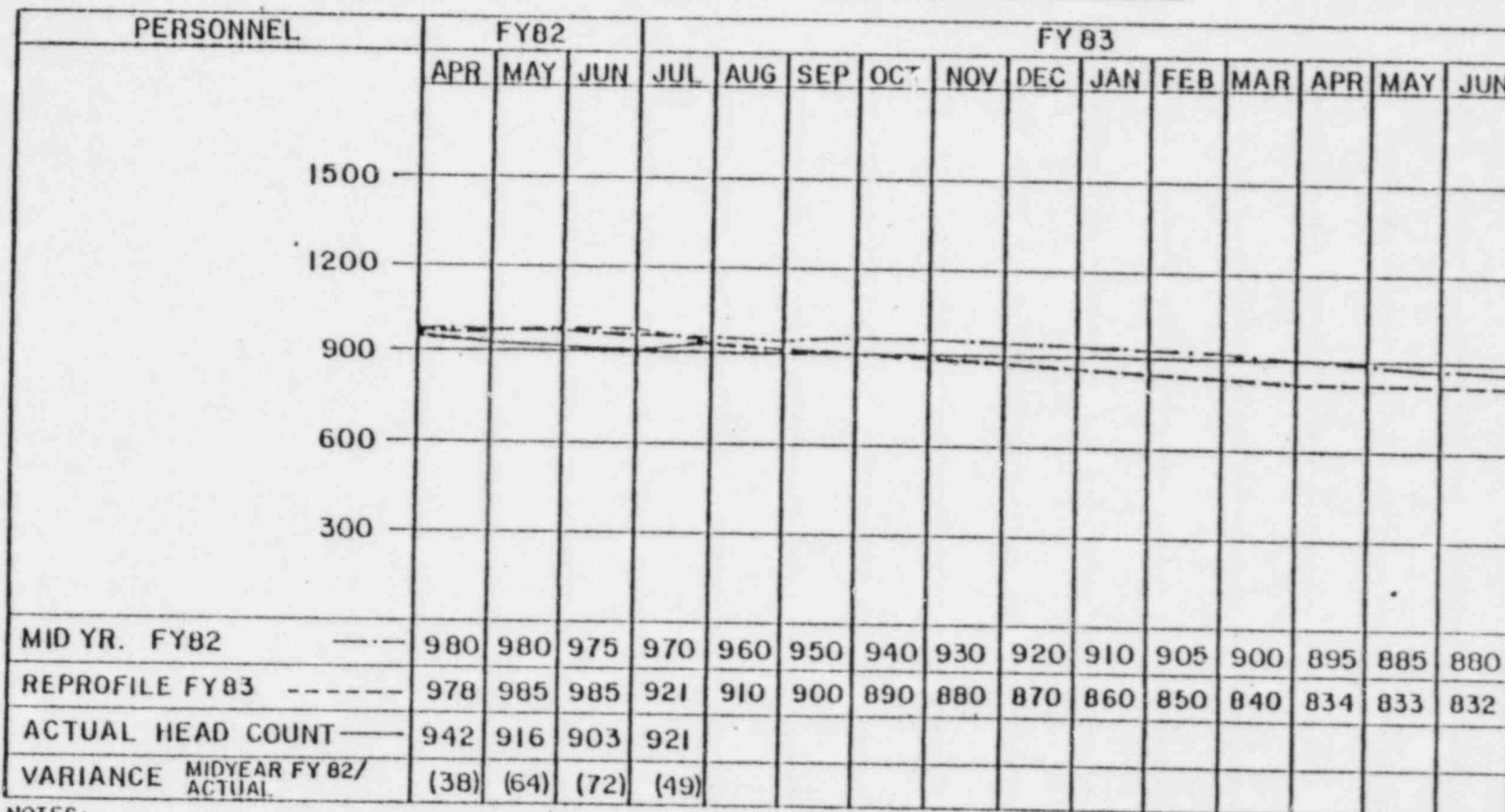


BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: D DOBSON

MANPOWER STATUS
WNP - 3 CONTRACTOR NON-MANUAL



NOTES:

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

ENGINEERING DESIGN

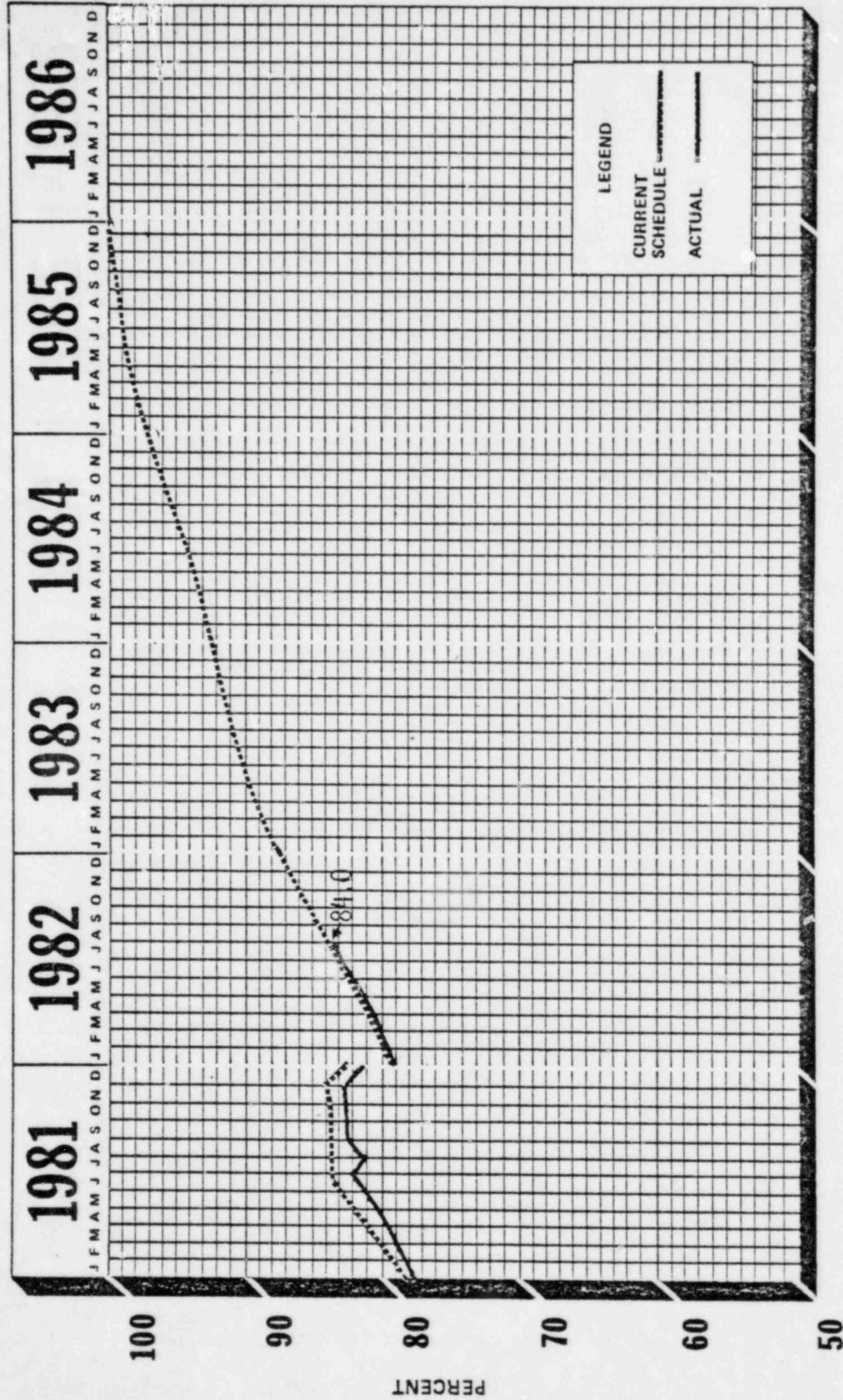
BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82

NAME: JE WERLE

ENGINEERING ACCOMPLISHMENTS



BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE VERLE

engineering management process

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

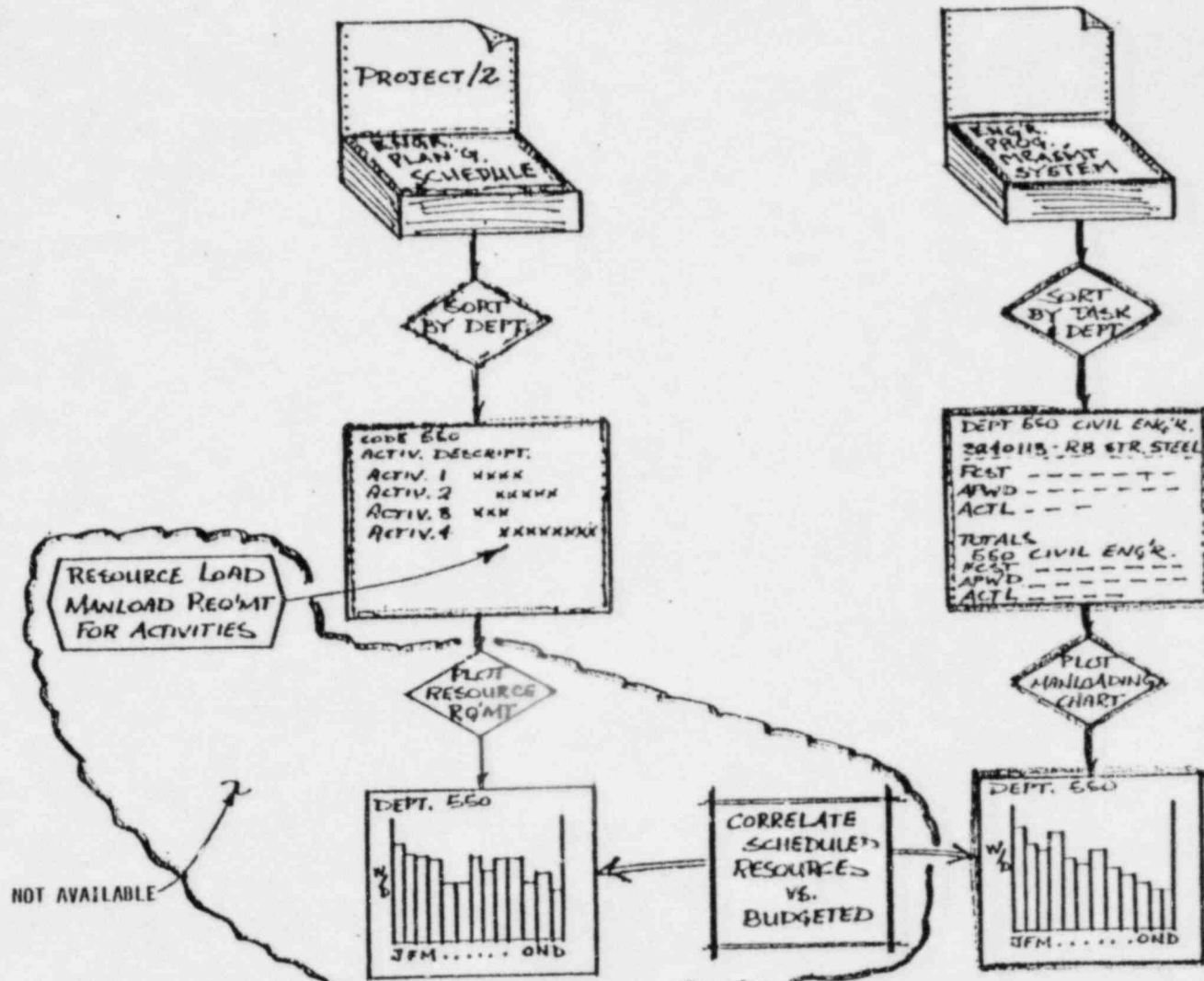
ENGINEERING MANAGEMENT PROCESS

- ESTABLISH ENGINEERING BASELINE
- DEVELOP AND IMPLEMENT PROJECT CONTROL DOCUMENTS
 - ENGINEERING PLANNING SCHEDULE (PROJECT/2)
 - ENGINEERING PROGRESS MEASUREMENT SYSTEM
- PREPARE AND MAINTAIN ENGINEERING TASK SCHEDULE
- EVALUATE A/E ENGINEERING STAFFING PROGRAM
- REVIEW AND APPROVE CHANGE DOCUMENTS (PCP's, 618's)
- AUDIT EBASCO MANDAY CHARGES INVOICES TO SUPPLY SYSTEM

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE



SCHEDULE vs BUDGET CORRELATION

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

A/E ENGINEERING STAFF EVALUATION PROGRAM

- IMPLEMENTS DETAILED EVALUATION OF ENGINEERING AND DESIGN STAFF LEVELS WITHIN A/E FOR PERFORMING DEFINED WORK SCOPE AND LEVEL OF EFFORT (LOE) ACTIVITIES.
- ACTIVITIES EVALUATED INCLUDE DESIGN, DESIGN ANALYSIS, LICENSING SUPPORT, CONSTRUCTION SUPPORT, AND DESIGN CHANGE PROCESSING.
- ESTABLISH GUIDELINES UTILIZED FOR SELECTION AND EVALUATION OF DATA.
- COMPLETE A/E WORKDAY ALLOCATION EVALUATION ON ENGINEERING DISCIPLINE BASIS WITH DETAIL AT TASK LEVEL WITHIN A/E DEPARTMENT.
- UTILIZE PROJECT CONTROL RESOURCES TO MAXIMUM EXTENT POSSIBLE.
- DOCUMENT RESULTS INTO LIST OF CONCLUSIONS AND CORRESPONDING RECOMMENDATIONS FOR MANAGEMENT CORRECTIVE ACTION IMPLEMENTATION. (10 FINDINGS AND CORRESPONDING RECOMMENDATIONS RESULTED FROM RECENT EVALUATION)

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82

NAME: JE VERLE

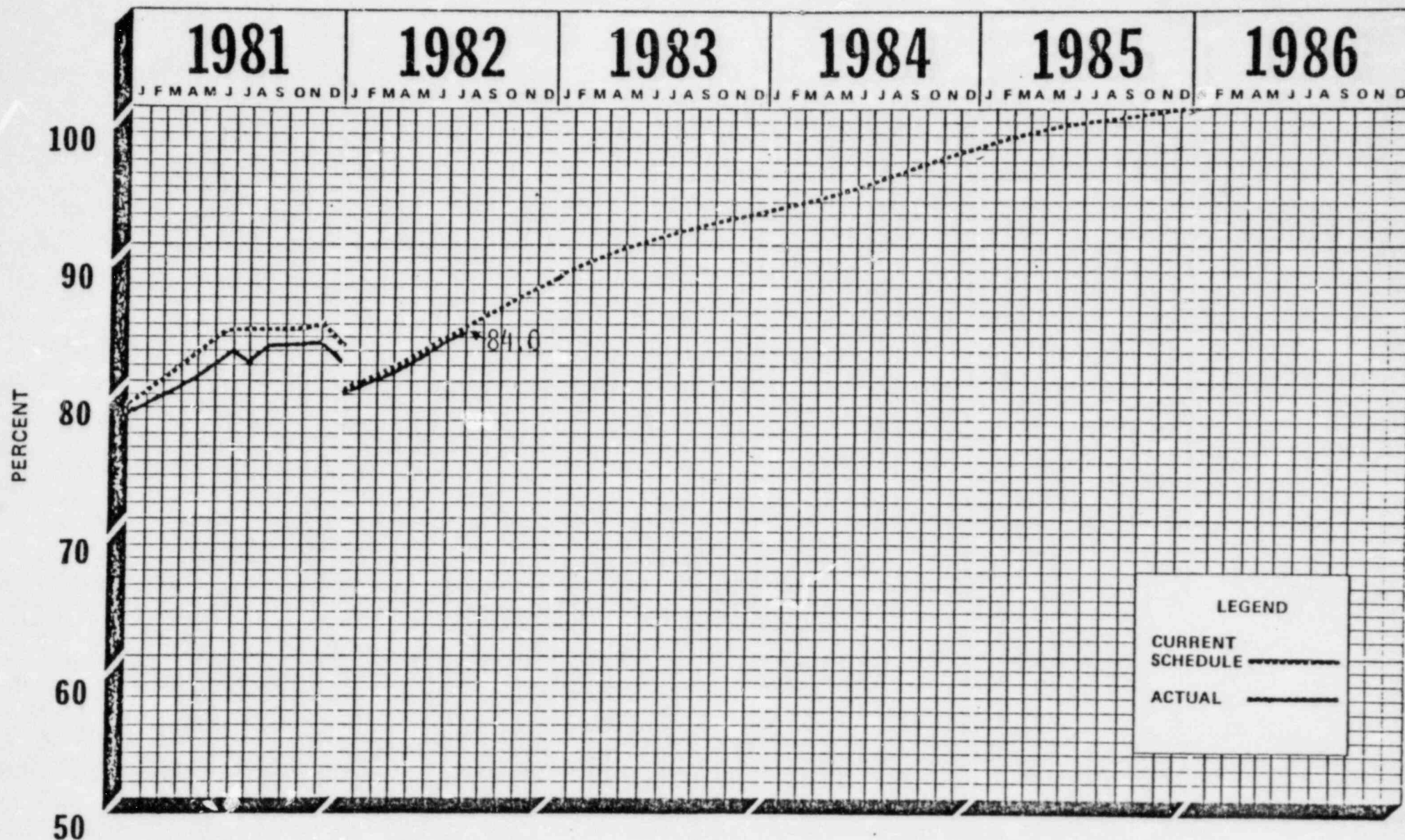
completion status

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

ENGINEERING ACCOMPLISHMENTS



BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

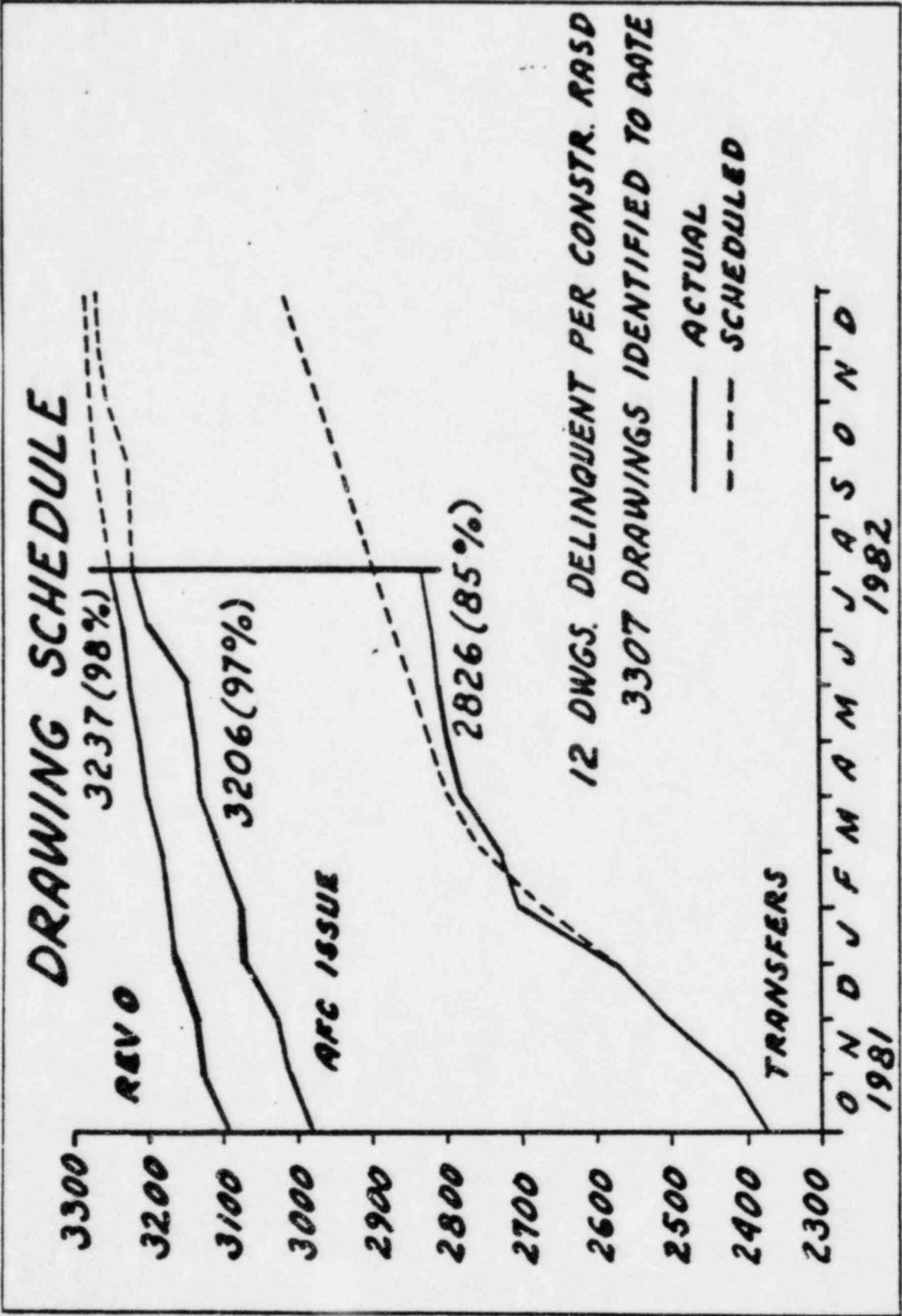
ENGINEERING/DESIGN STATUS
PERCENT COMPLETE

DISCIPLINE	TOTAL PROJECT		DESIGN ENGINEERING		SUSTAINING ENGINEERING	
	SCHEDULE	ACTUAL	SCHEDULE	ACTUAL	SCHEDULE	ACTUAL
CIVIL ENGINEERING	87.4	87.0	95.0	94.8	54.4	53.1
CIVIL DESIGN	99.0	98.9	99.2	99.1	97.5	97.5
CIVIL CONCRETE/HYDRAULIC DESIGN	95.2	95.1	94.7	94.7	99.6	99.3
MECHANICAL ENGINEERING	93.2	92.7	96.3	96.2	74.1	71.7
MECHANICAL DESIGN	94.8	94.4	97.9	97.2	88.3	88.3
ELECTRICAL ENGINEERING	81.3	80.4	95.0	94.1	44.7	43.6
ELECTRICAL DESIGN	88.8	88.5	95.6	95.3	68.2	67.6
I/C ENGINEERING	79.9	78.5	96.2	96.3	45.5	43.7
I/C DESIGN	89.7	89.3	98.1	97.6	78.4	78.4
CUMULATIVE (ALL ENGINEERING & DESIGN)	84.5	84.0	96.5	96.2	61.7	60.4

DATE: 9/1/82
 NAME: JE WERLE

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
 NUCLEAR PROJECT 3

BRIEFING
 FOR NRC:



BRIEFING
FOR NHC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

CONSTRUCTION DRAWING STATUS

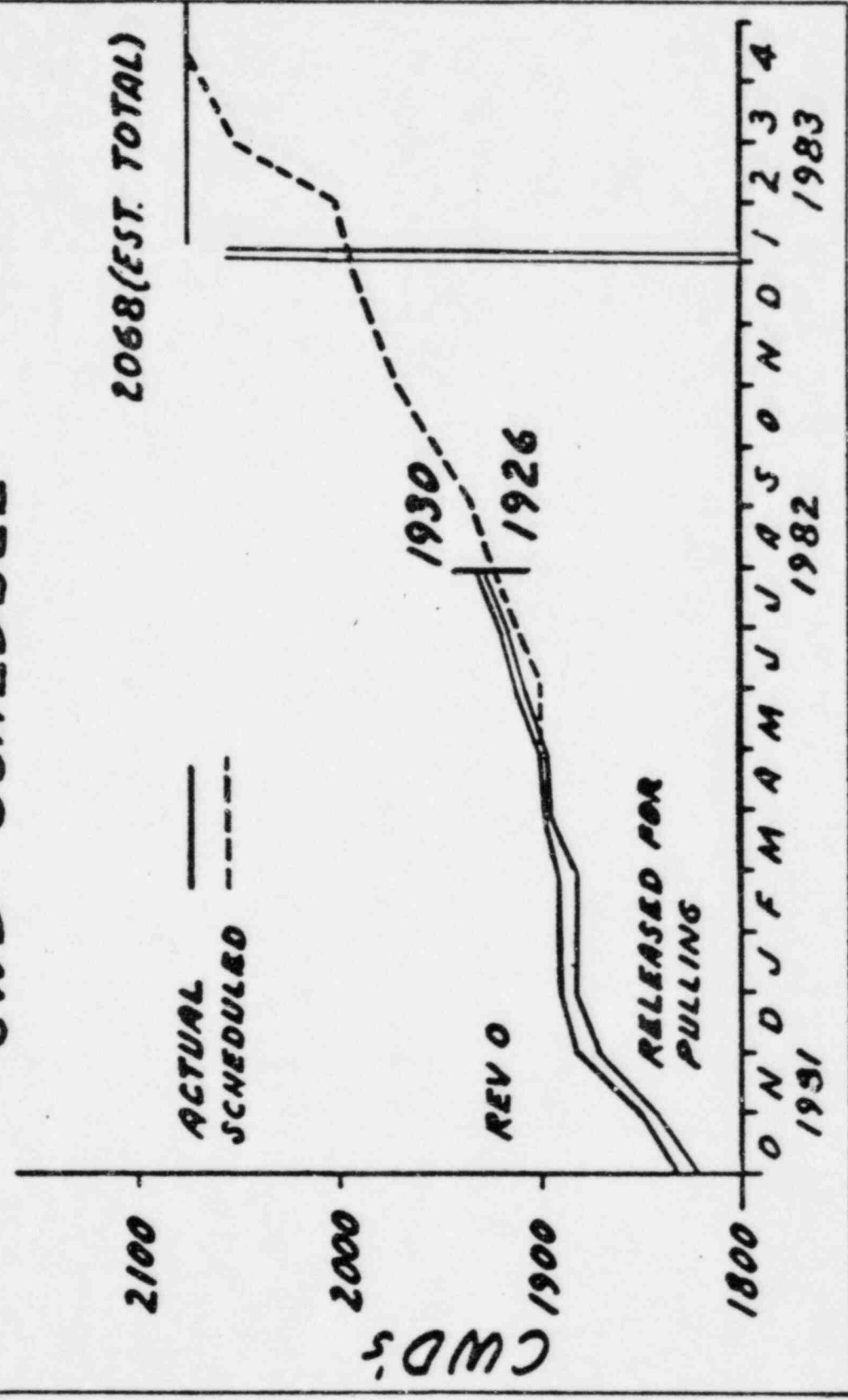
	<u>TOTALS</u>	<u>MECHANICAL</u>	<u>SUPPORTS/ RESTRAINT</u>	<u>CONCRETE HYDRAULIC</u>	<u>ARCHITECTURAL</u>	<u>STRUCTURAL</u>	<u>HVAC</u>	<u>BUILDING PLUMBING</u>	<u>ELECTRICAL</u>	<u>I&C</u>
TOTAL NUMBER LISTED	3307	444	128	828	61	1069	225	113	362	77
NUMBER SIGNED OUT	3237	435	128	804	58	1065	220	113	340	74
NO. DWGS DELINQUENT PER CONSTRUCTION NEED	12	1	0	2	0	4	0	0	5	0

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

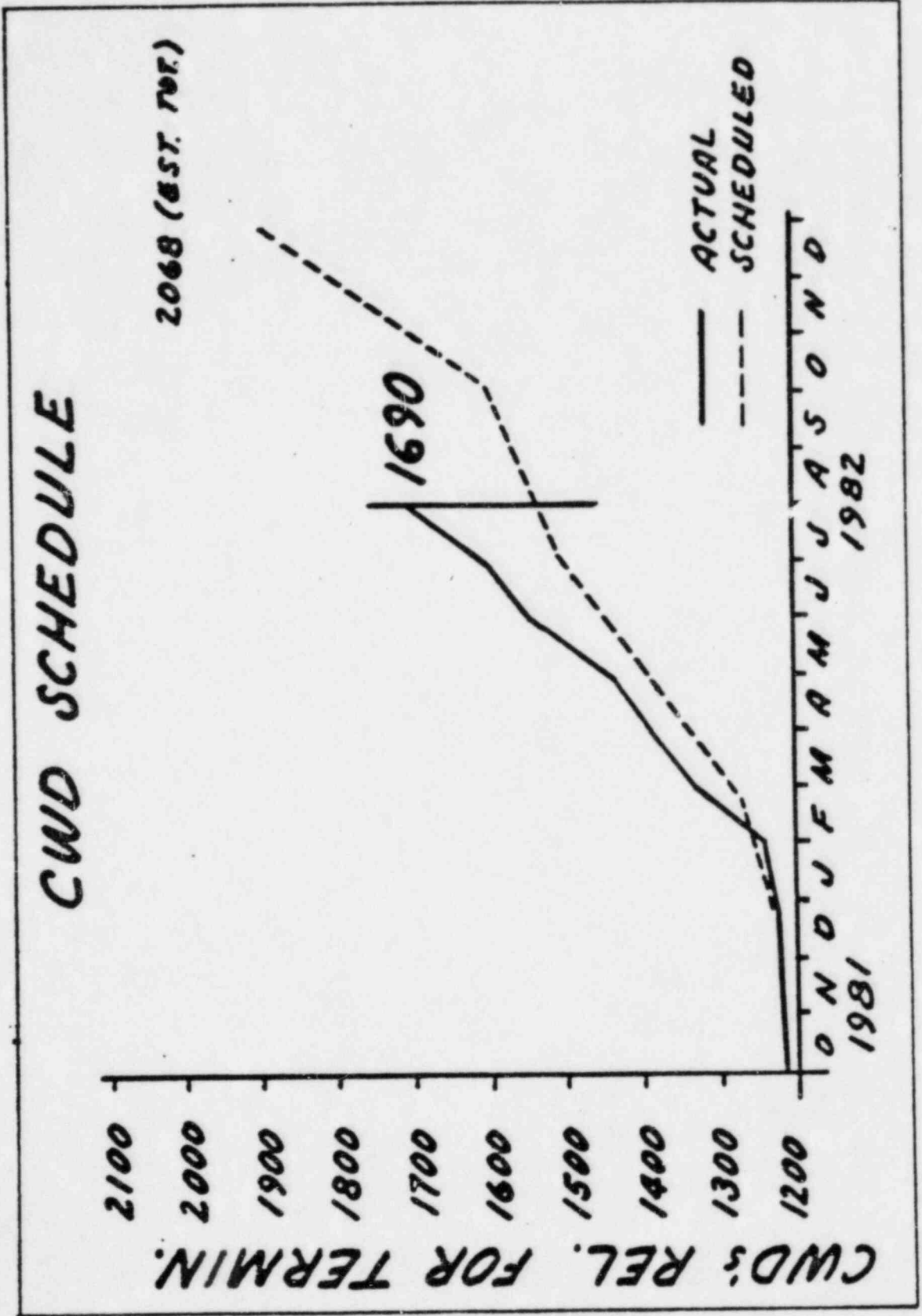
CWD SCHEDULE



DATE: 9/1/82
NAME: JE WERLE

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

BRIEFING
FOR NRC:



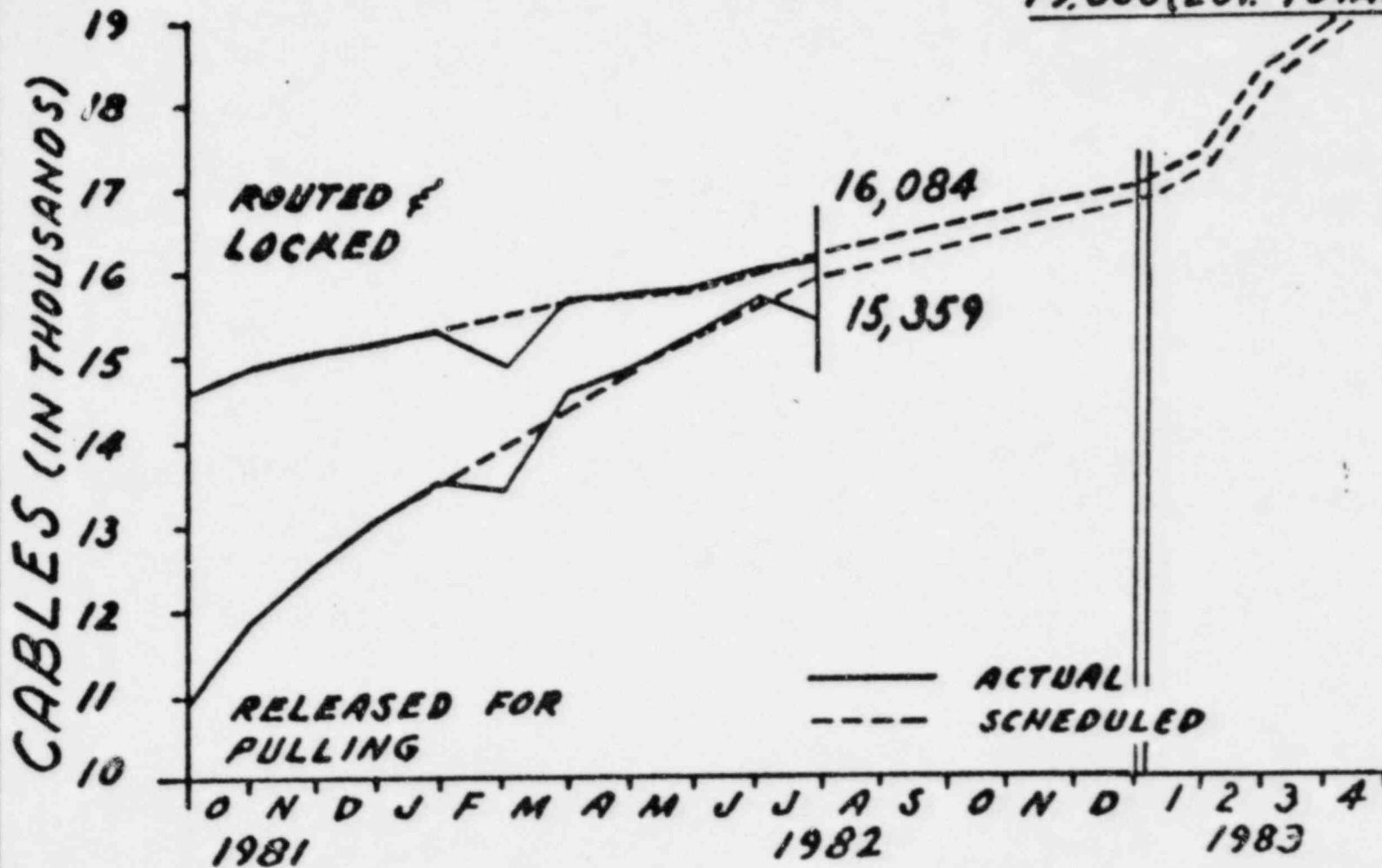
BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

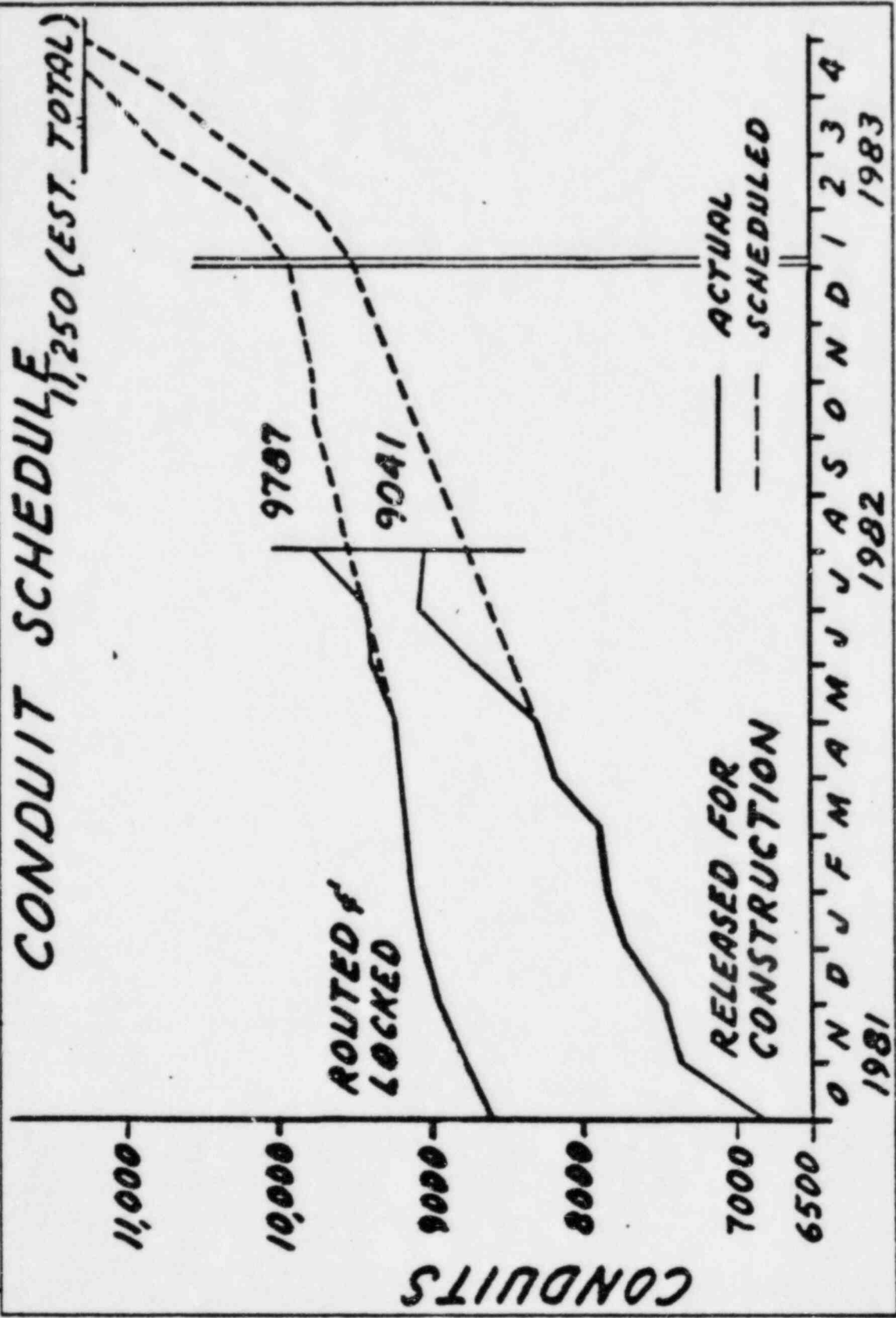
DATE: 9/1/82
NAME: JE WERLE

CABLE SCHEDULE

19,000 (EST. TOTAL)



BRIEFING FOR NRC: WASHINGTON PUBLIC POWER SUPPLY SYSTEM NUCLEAR PROJECT 3 DATE: 9/1/82 NAME: JE WERLE



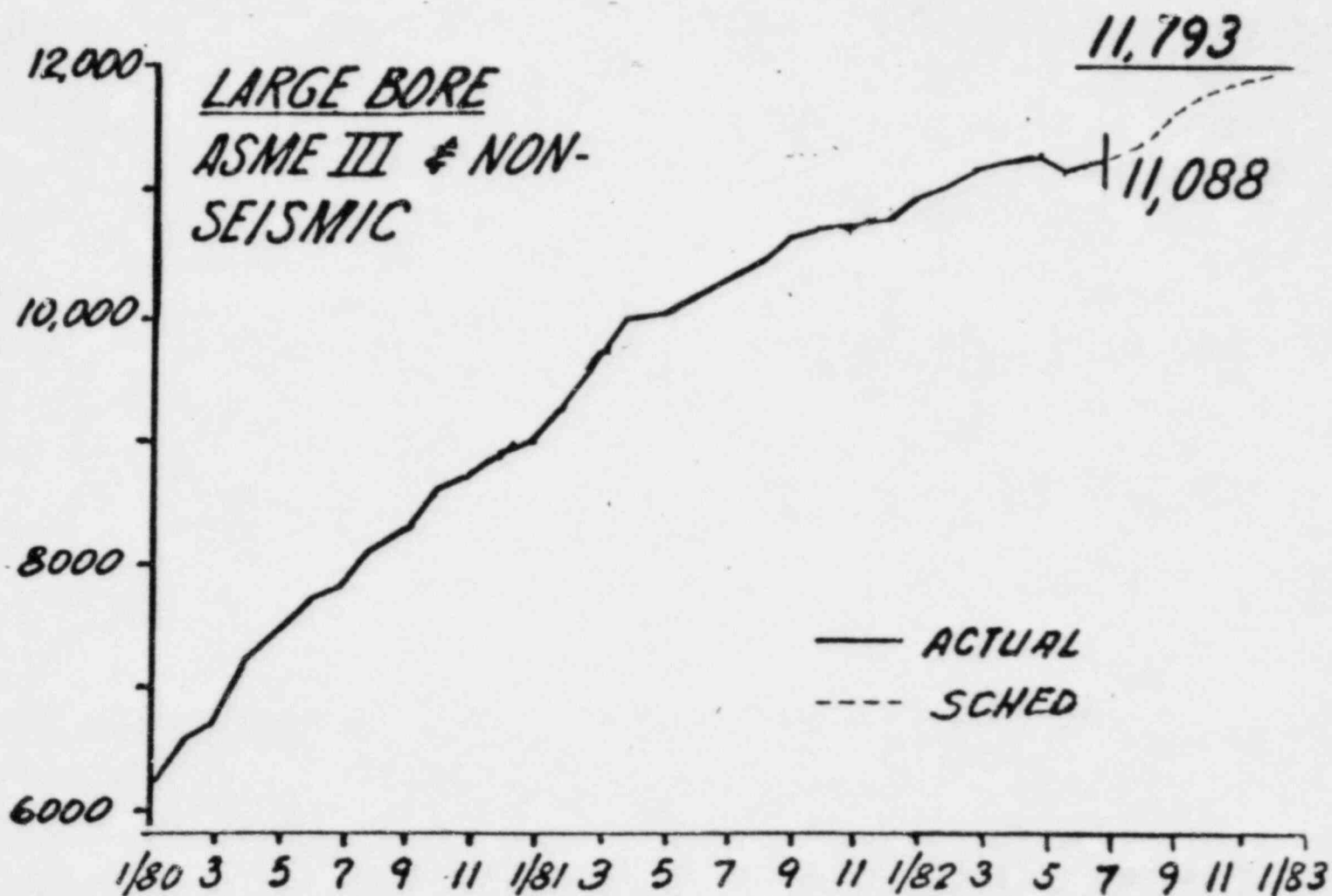
BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE VERLE

SUPPORT/RESTRAINT
DESIGN STATUS

SUPPORTS/RESTRAINTS (SUPPORT POINTS)



BRIEFING
FOR NRC:

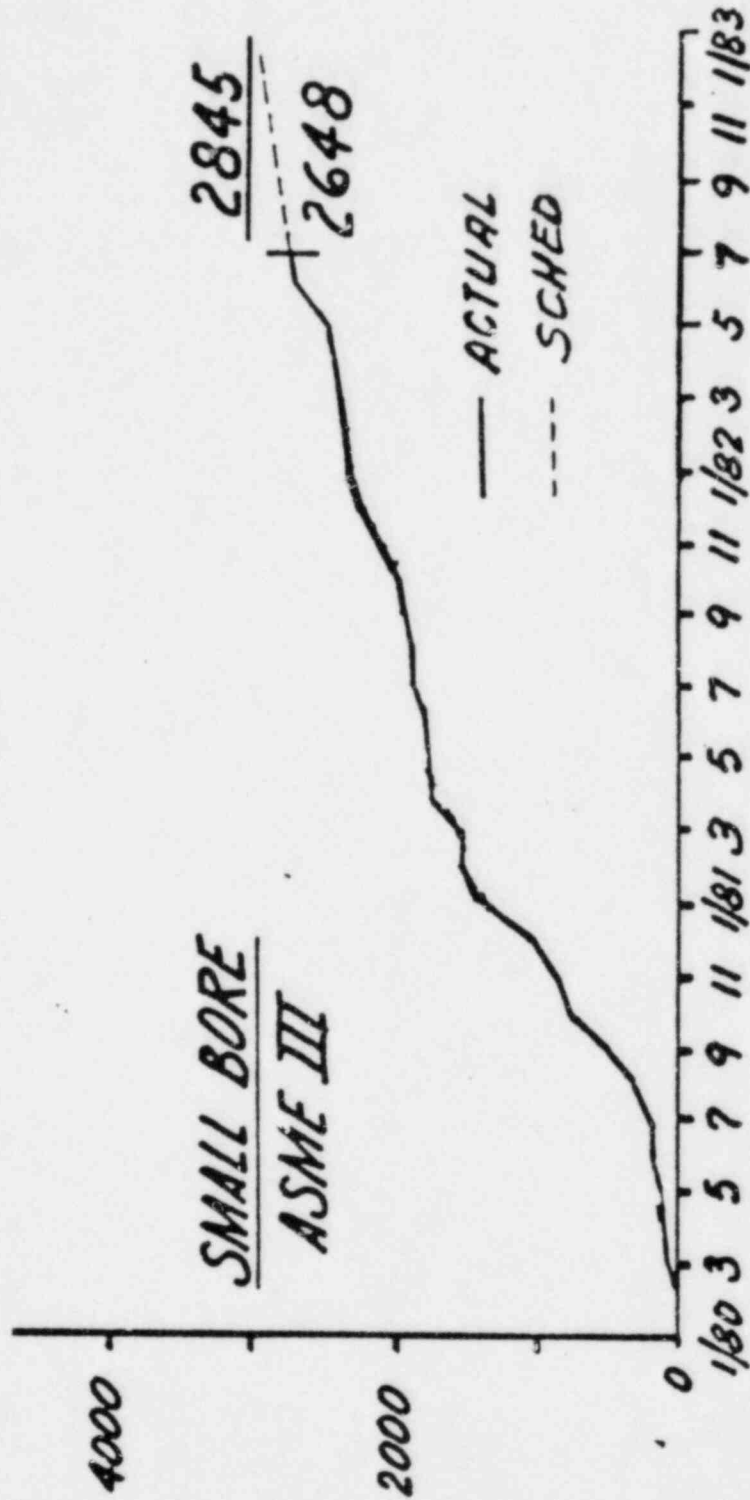
WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82

NAME: JE WERLE

SUPPORTS/RESTRAINTS (SUPPORT POINTS)

SUPPORT/RESTRAINT
DESIGN STATUS



BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

SUPPORT/RESTRAINT DESIGN REMAINING EFFORT

S/A - STRESS ANALYSIS
S/R - SUPPORT/RESTRAINT
GROUP

SYSTEM OR TOPIC	BLDG AREA	QTY S/R	QTY S/R REL	FAB	IN- STLD	REQUIREMENT	ACTION COMPLETION SCHEDULE
BLOWDOWN	RB	66(SB) 21(LB)	- -	- -	- -	CALCS 2200 & 2201 PENDING MECHANICAL ENGINEERING RE- SOLUTION OF FIELD INTER- FACES & CE OVERLOADED CON- NECTIONS. DUE TO PIPE OVER- STRESSES, CALCS 2205 RE- QUIRE PERROUTE OR CONNECTION CHANGES.	S/A: 8/16 (2205) S/R: 9/30 S/A: 9/7 (2200) S/R: 10/15 (2201)
VALVE RESTRAINTS	RB, RAB	30 (SB) & (LB)	-	-	-	RESTRAINT OF VALVES	S/A: 10/11/82 S/R: 12/31/82
ULTIMATE HEAT SINK (DRY COOLING TOWER)	YARD	500	-	-	-	S/A & S/R	S/A: 8/11/82 S/R: 8/15 TO 11/15

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

SUPPORT/RESTRAINT DESIGN REMAINING EFFORT

S/A - STRESS ANALYSIS
S/R - SUPPORT/RESTRAINT
GROUP

SYSTEM OR TOPIC	BLDG AREA	QTY S/R	QTY S/R REL	FAB	IN- STLD	REQUIREMENT	ACTION COMPLETION SCHEDULE
LOCA MOTION (MS,FW,SI,MISC,CH)	RB	110 (LB) 105 (SB)	N/A *SEE NOTE			22S/A CALCS MAY REQUIRE RE- RUN. *SUPPORTS ARE NOT CURRENTLY ON S/R HOLD & LISTING RE- PRESENTS POTENTIAL SCOPE OF WORK.	MECHANICAL ENGINEERING
TMI REACTOR VENT PIPING (MISC)	RB	60 (SB)	-	-	-	S/A WILL RUN CALC 1420 MND WILL REVISE PIPING AS PER CE/EBASCO INTERFACE RE- QUEST.	CE: 8/25 MECHANICAL ENGI- NEERING: 9/9 S/A: 10/8 S/R: 11/30 & 12/30
FEEDWATER (REWORK)	TB	24 (LB)	11	5	6	S/A RERUN, CALC 1024	S/A: 8/5/82 (A) S/R: 9/30/82

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82

NAME: JE WERLE

SUPPORT/RESTRAINT DESIGN REMAINING EFFORT S/A - STRESS ANALYSIS
S/R - SUPPORT/RESTRAINT GROUP

SYSTEM OR TOPIC	BLDG AREA	QTY S/R	QTY S/R REL	FAB	IN-STLD	REQUIREMENT	ACTION COMPLETION SCHEDULE
SAFETY INJECTION	RB	16 (SB)	-	-	-	NEED CALCS 2615, 2616, 2617, & 2618, LOCATED TOP OF SI TANKS.	S/A: 10/11/82 S/R: 12/31/82
COMPONENT COOLING	RAB	37 (LB)	-	-	-	ISOMETRICS FOR CALCS 1115 & 1117 UPDATED WITH LATEST PIPING DRAWINGS. DCNMM85 & PCP 0950.	S/A: 8/16/82 S/R: 9/30/82
CHEMICAL & VOLUME CONTROL	RB	21 (SB)	21	21	HOLD	DUE TO ADDED INSULATION, CALCS 2704 & 2705 REQUIRE RERUN, PENDING APPROVAL OF DCN MN 159	S/A: 9/7/82 S/R: 9/30/82
CHEMICAL & VOLUME CONTROL	RAB	91	91	90	55	DUE TO DCN 148 CALCS, 1347 & 1352 NEED RERUN 20 SUPTS DIRECTLY IMPACTED	S/A: 8/23/82

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
 NAME: JE WERLE

S/A - STRESS ANALYSIS
 S/R - SUPPORT/RESTRAINT
 GROUP

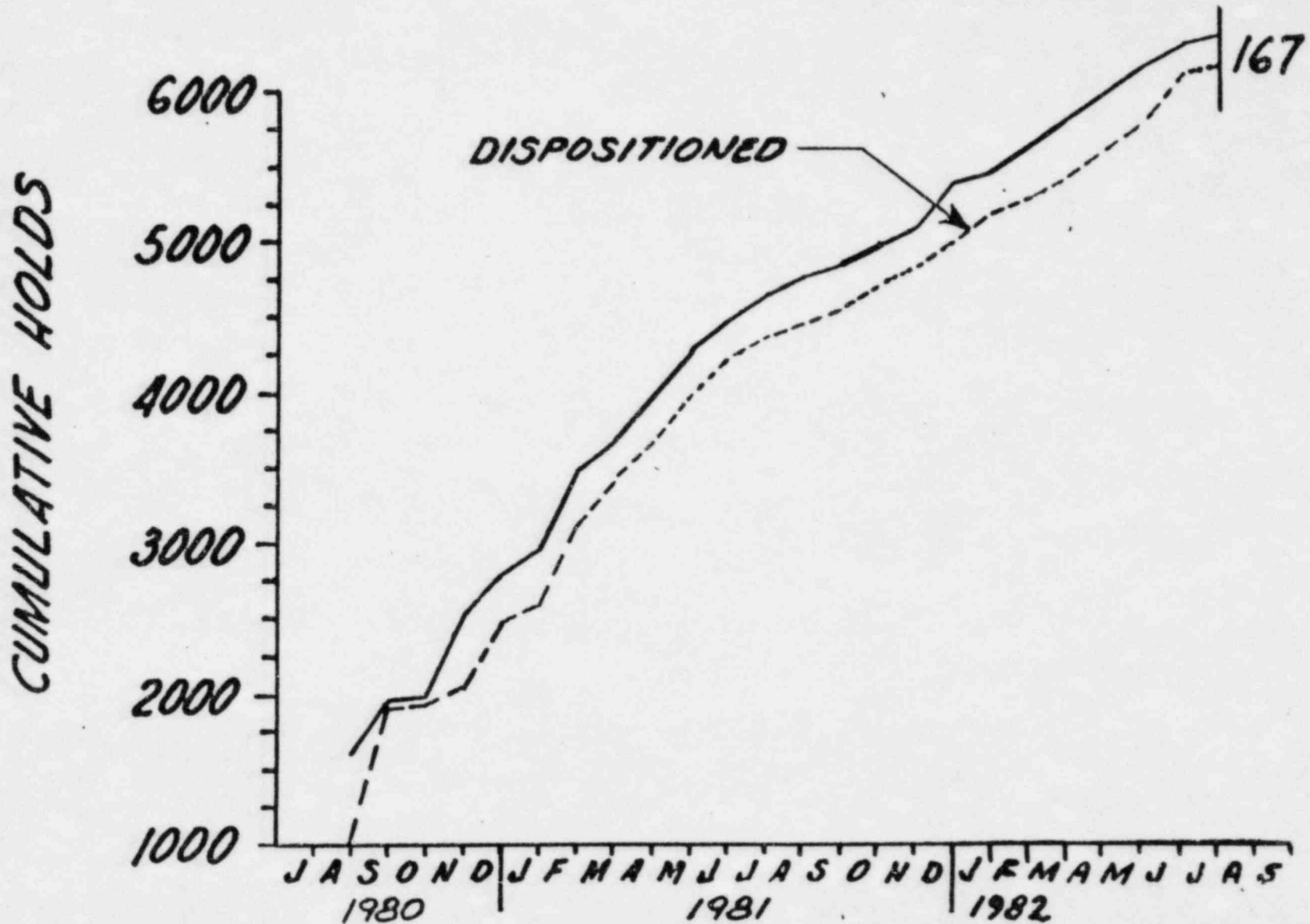
SYSTEM OR TOPIC	BLDG AREA	QTY S/R	QTY S/R REL	FAB	IN-STLD	REQUIREMENT	ACTION COMPLETION SCHEDULE
CLASS 1 S/A	RB	141 (LB) 181 (SB)	N/A			REVIEW OF CLASS 1 ANALYSIS IS REQUIRED. THESE SUPPORTS ARE NOT CURRENTLY ON S/R HOLD. S/R REDESIGNS WERE NOT CONSIDERED IN SCOPE OF WORK DUE TO PREVIOUS INPUT FROM S/A FOR CALC 2600, S/A IS IN THE PROCESS OF REVIEWING INCREASED THERMAL LOADS.	S/A: 8/13/82
CHEMICAL & VOLUME CONTROL	RB	12 (SB) 31 (LB)	9 31	-	-	BY 3/19/82 S/R WILL TRANS-MIT SUPPORT LOCATIONS TO S/A. CALC 2702 WILL BE RUN.	S/A: COMPLETE S/R: 8/82

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

HOLDS ON SUPPORTS & RESTRAINTS



BRIEFING FOR NRC:	WASHINGTON PUBLIC POWER SUPPLY SYSTEM NUCLEAR PROJECT 3
	DATE: 9/1/82 NAME: JE WERLE

WNP-3 SPECIFICATION STATUS

	<u>TOTAL REQUIRED</u>	<u>ISSUED</u>
PRE-PURCHASED EQUIPMENT	115	115
FURNISH & ERECT	11	11
CONSULTING SERVICES	46	46
TECHNICAL SPECIFICA- TIONS (400 SERIES)	<u>90</u>	<u>87</u>
TOTAL NUMBER	262	259

BRIEFING
FOR NRC

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

SPECIFICATION STATUS FOR UNPURCHASED EQUIPMENT

EQUIPMENT

REMARKS

LOOSE PARTS MONITORS

TECHNICAL SPECIFICATION BY SEPTEMBER 6, 1982.

FLEXIBLE HOSES

TECHNICAL SPECIFICATION BY OCTOBER 29, 1982.

THERMISTORS

TECHNICAL SPECIFICATION BY SEPTEMBER 24, 1982.

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE MERLE

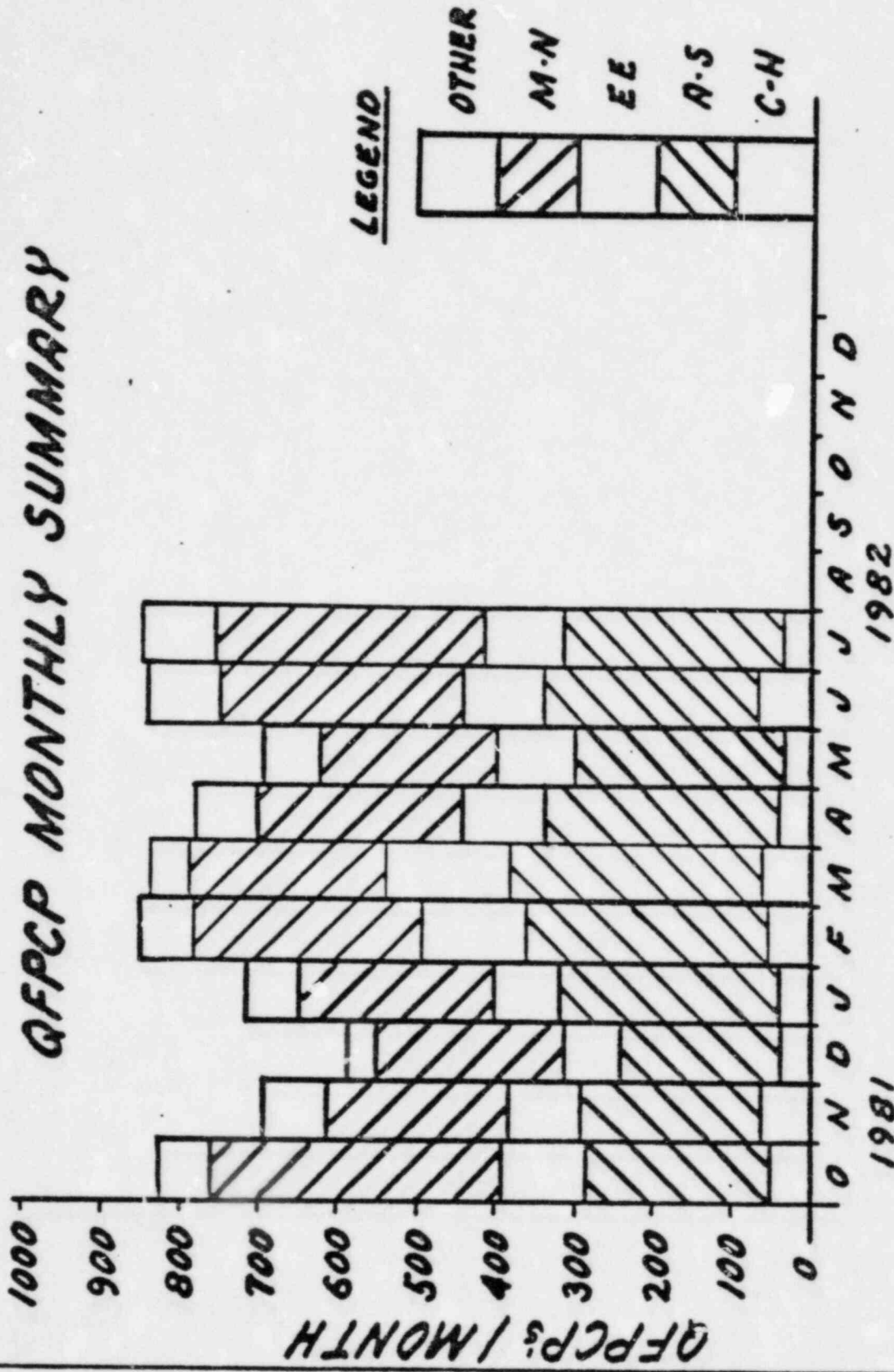
design changes

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

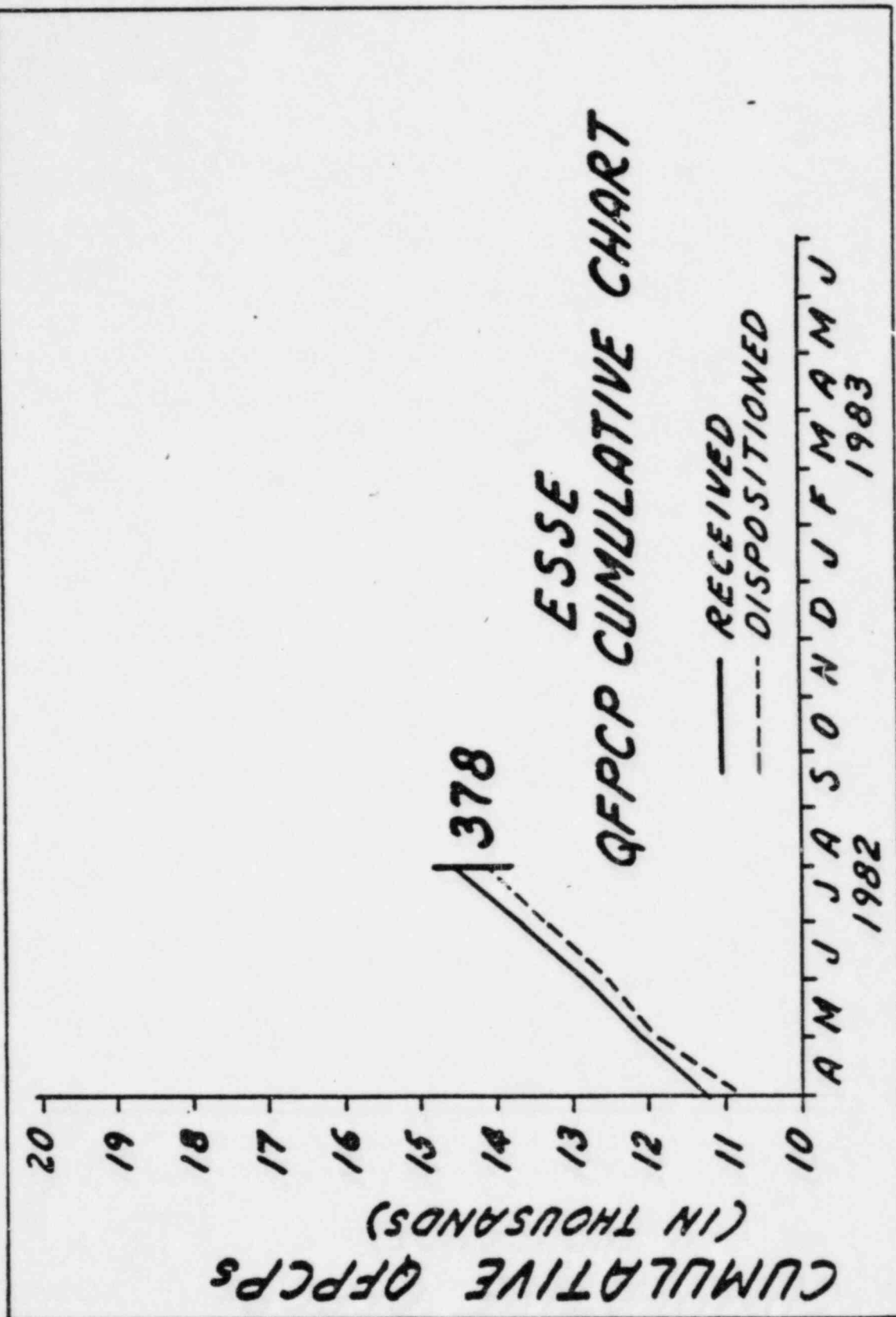
QFPCP MONTHLY SUMMARY



BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE



BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82

NAME: JE HERLE

pipe/supports/valve status

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

LARGE BORE PIPING

BUILDING	NOT INSTALLED				INSTALLED		TOTAL	
	OFFSITE		ONSITE		SPOOL QTY.	LINEAR FOOTAGE	SPOOL QTY.	LINEAR FOOTAGE
	SPOOL QTY.	LINEAR FOOTAGE	SPOOL QTY.	LINEAR FOOTAGE				
RAB/FHB	94	1035.4	1461	15549.8	5411	72551.9	7007	89561.8
RB	71	563.3	750	6870.8	493	6710.7	1344	14358.7
TB	8	62.8	247	2606.8	3318	50527.4	3589	53339.3
YARD	18	176.1	608	7587.6	797	14524.6	1533	24306.8
TOTAL	191	1837.6	3066	32615	10019	144364.6	13473	181566.6

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

PIPING FABRICATION HOLDS AT AP&E

BUILDING	SYSTEM	QUANTITY	REMARKS
REACTOR BUILDING	MAIN STEAM & FEEDWATER MISC. PIPING	1	HOLD VIA DCN-MN-215 PENETRATION ASSEMBLY No. 57 REACTOR HEAD VENT PIPING (SMALL BORE)-FINALIZED CE/EBASCO INTERFACE IS REQUIRED TO FINALIZE EBASCO S/A. ADDRESSED AT EBASCO/CE MEETING OF 5/25-26/82. EBASCO IS EXPEDITING.
	COMBINATION STRUCTURES	$\frac{1}{2}$	
REACTOR AUXILIARY BUILDING	MAIN STEAM & FEEDWATER CONTAINMENT SPRAY	1 3	MISSILE PROTECTION RELEASE (BY CIVIL). SPLITTER PLATES. THIS HOLD IS LIMITED TO A LOCALIZED AREA AND HAS MINIMAL IMPACT TO FABRICATED PIPING. AUXILIARY FIRE WATER PUMP DWGS. ARE NOT EXPECT- ED PRIOR TO SEPTEMBER 15, 1982.
	SOLID WASTE FIRE PROTECTION	5 $\frac{1}{10}$	
TURBINE BUILDING	AUXILIARY CONDENSATE MISC. PIPING	2 1	SUPERHEATER PACKAGE - CONTRACT 226 PROCUREMENT. NOZZLE REORIENTATION, AS-BUILT REQUIRED. SMALL BORE SEAL WATER LINES (WPPSS-ESSE-ME-639) DELETED PER DCN-FD-172. ESSE TO ISSUE PCP.
	TURBINE BUILDING AMERTAP	$\frac{1}{4}$	

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

PIPING FABRICATION HOLDS AT AP&E

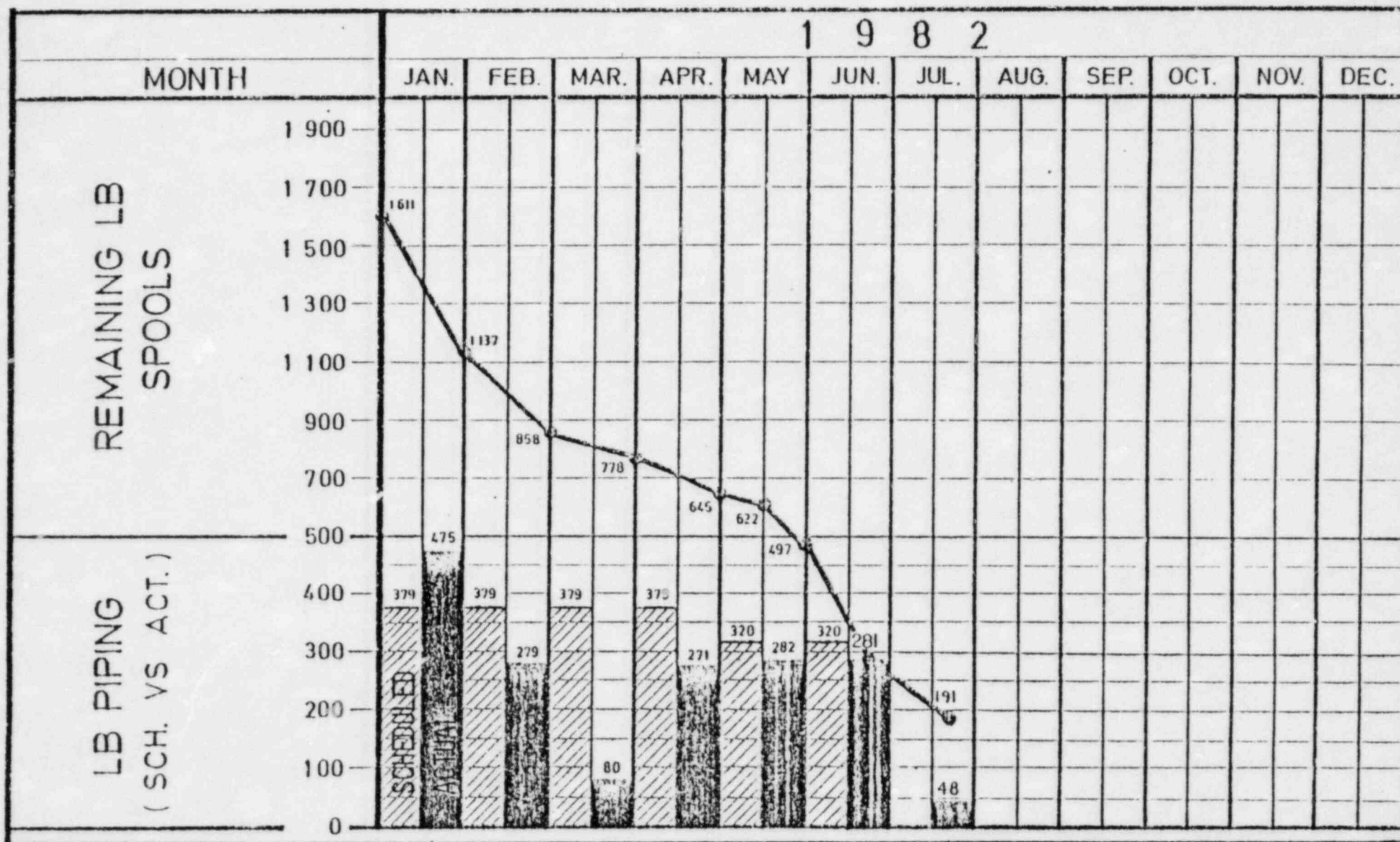
BUILDING	SYSTEM	QUANTITY	REMARKS
YARD	YARD	1	HOLD VIA DCN-MN-196, SLUICE WATER SUCTION PIPING (ITEM No. 2, DWG. No. 1338).
	CHEMICAL & VOLUME CONTROL	2	
	FUEL POOL COOLING	1	SAME AS FOR YARD SYSTEMS,
	DEMINERALIZED WATER	1	
	FILTER AREA PIPING	1	
	MISC. PIPING	1	
TURBINE BUILDING	<u>7</u>		

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

DELIVERY OF LARGE BORE PIPING



BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

PIPING SUPPORTS

		OFFSITE	ONSITE	INSTALLED	TOTAL	TOTAL SUPPORT POINTS	
						RELEASED	REQUIRED
RAB / FHB	LB	936	2293	4641	7870	5562	5831
	SB	657	1466	83	2206	1814	1839
RB	LB	725	907	642	2274	1281	1307
	SB	620	280	0	900	568	750
TB	LB	261	584	2840	3685	3322	3393
YARD	LB	525	324	117	966	550	950
	SB	38	111	0	149	146	146
SUBTOTAL	LB	2447	4093	8200	14740	10660	11426
SUBTOTAL	SB	1315	1872	123	3310	2284	2791
TOTAL		3762	5965	8323	18050	13244	14217

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

VALVES

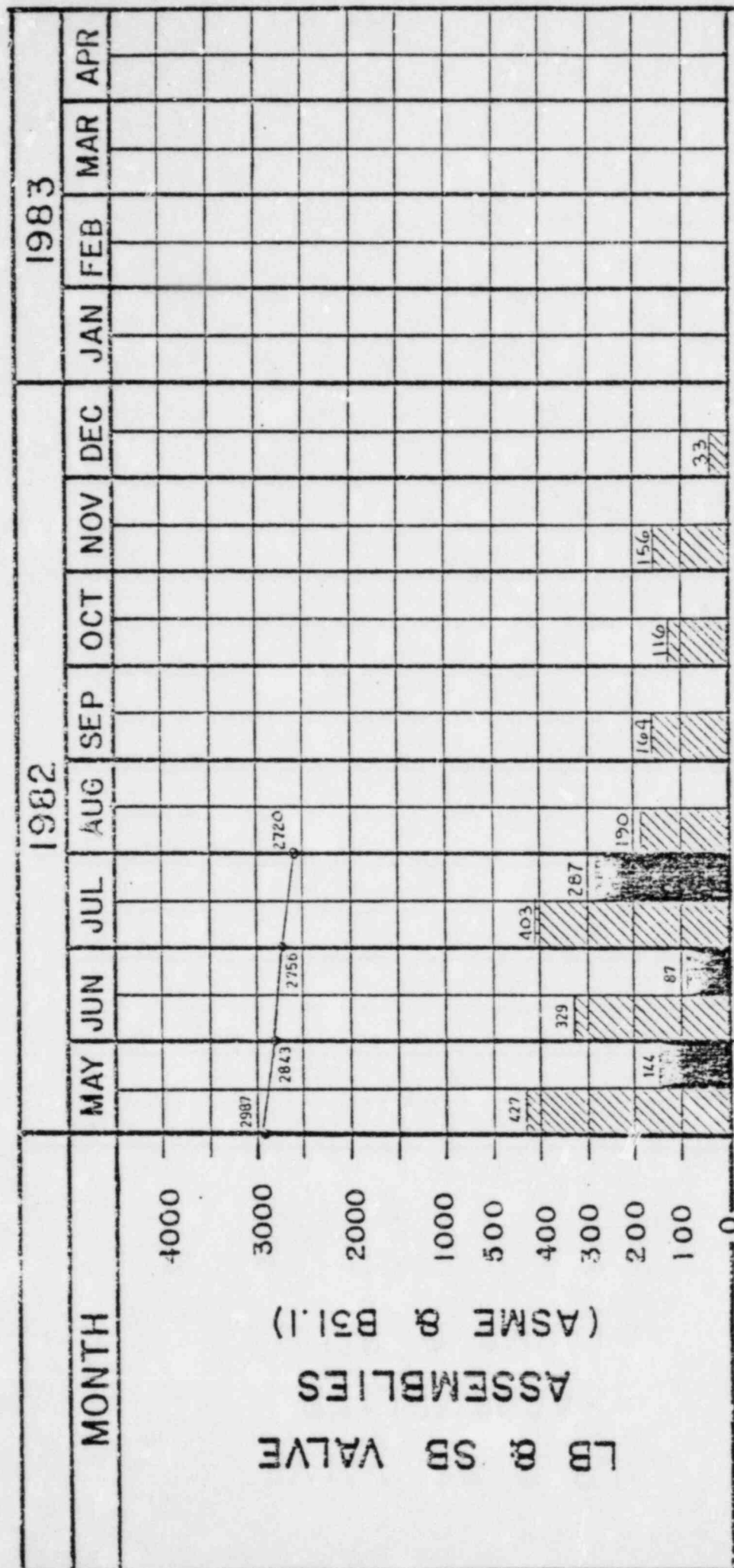
BUILDING		OFFSITE	ONSITE	INSTALLED	TOTAL
RAB / FHB	LB	111	526	588	1225
	SB	1008	2003	0	3011
RB	LB	35	131	9	175
	SB	332	336	0	668
TB	LB	75	132	610	817
	SB	150	413	10	573
YARD	LB	40	260	87	387
	SB	36	100	1	137
NOT PURCHASED		370	1	1	371
BULK QUANTITY	LB	2	2	2	6
	SB	520	2911	14	3445
SUBTOTAL	LB	263	1051	1296	2610
	SB	2416	5764	26	8206
TOTAL	LB	2679	6815	1322	10816
	SB				

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

DELIVERY OF VALVES



LEGEND:

- SCH.
- ACT.
- BAL.

NOTES:

- LB - LARGE BORE
- SB - SMALL BORE
- QUANTITIES EXCLUDE OWNER FURNISHED VALVES
- (INCLUDES NEWLY ADDED VALVES) SB = 2406 LB = 314

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

UNPURCHASED VALVES

<u>CONTRACT</u>	<u>DESCRIPTION</u>	<u>QTY</u>
41J	STATION VALVES 2½" AND LARGER (FOR ULTIMATE HEAT SINK)	40
43A	NUCLEAR & NON-NUCLEAR STATION VALVES 2" AND SMALLER	96
43D	NON-NUCLEAR STATION VALVES 2" AND SMALLER	229
43B	DIAPHRAGM VALVES 2" AND SMALLER	1
167	NON-NUCLEAR STATION VALVES 2½" AND LARGER	1
41C	NON-NUCLEAR STATION VALVES 2½" AND LARGER	2
41J, 41K	STATION VALVES 2½" AND LARGER	2
	TOTAL	371

THERE WAS A NET DECREASE IN THE QUANTITY OF SMALL BORE VALVES TO BE PURCHASED DUE TO THE UTILIZATION OF UNIT 5 VALVES.

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

key design issues

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

KEY ITEMS - CATEGORY 1, SOLUTION IMPLEMENTATION

DESCRIPTION

ACTION PLAN AND STATUS

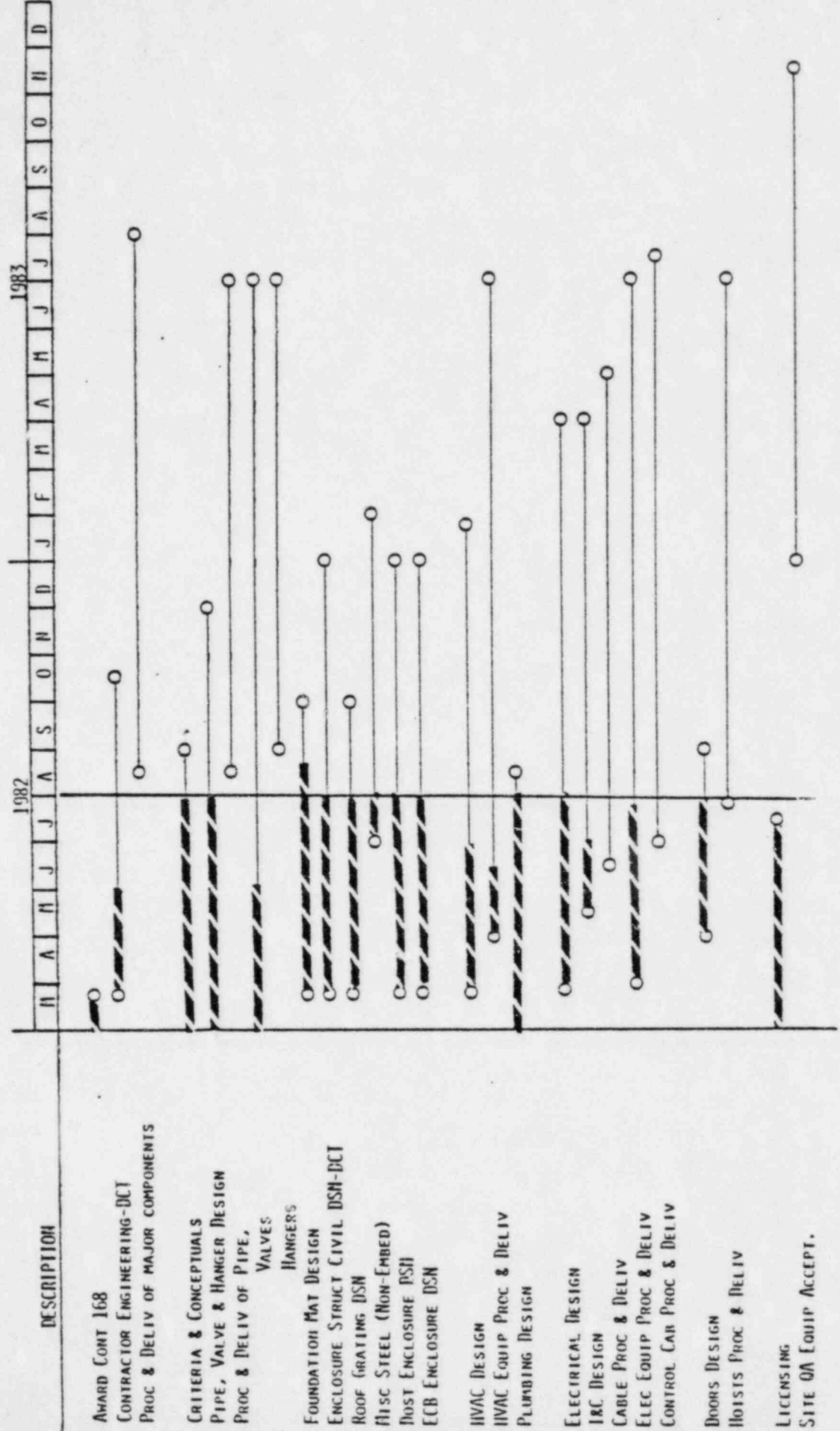
- APPENDIX - R
REQUIRED PLANT DESIGN MODIFICATIONS IN PROGRESS. EQUIPMENT PROCUREMENT HAS BEEN INITIATED.
- PIPING LOADING CHANGES
CURRENTLY PERFORMING A DETAILED STRUCTURAL DESIGN VERIFICATION OF DETAIL PIPE SUPPORT LOADINGS TO CONFIRM PIPE SUPPORT "FOOT PRINT" LOADINGS.
- ULTIMATE HEAT SINK (DRY COOLING TOWER)
DETAILED ENGINEERING TASKS PROCEEDING IN ACCORDANCE WITH SCHEDULED SITE NEED DATES. BASE MAT DESIGN DRAWINGS TO BE ISSUED BY OCTOBER 1, 1982 TO SUPPORT CONSTRUCTION.
- "HANGIT"
THE "HANGIT" PROGRAM WILL BE USED AS A SUBSEQUENT DESIGN VERIFICATION AID IN ADDITION TO REDUCING THE NUMBER OF PIPE SUPPORTS (EMPHASIS ON SNUBBERS). EBASCO IS CURRENTLY, WITH ASSISTANCE FROM CONSULTANT, PREPARING TO USE "HANGIT" ON 15 SECTIONS OF PIPING SYSTEMS. AN ANALYSIS OF THE PROGRAMS COST EFFECTIVENESS WILL BE PERFORMED AT THE CONCLUSION OF THIS ACTIVITY.

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

DRY COOLING TOWER ENGINEERING & PROCUREMENT



BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE HERLE

KEY ITEMS - CATEGORY 1, SOLUTION IMPLEMENTATION

DESCRIPTION

ACTION PLAN AND STATUS

● FIRE PUMP SIZING

INCREASE PUMP CAPACITY FROM TWO, 2500 GPM PUMPS TO TWO, 3500 GPM PUMPS. SPECIFICATION IN PREPARATION.

● STIFF CLAMPS

ALL NONCONFORMING CLAMPS IDENTIFIED, CHANGEOUT PROGRAM IN PROCESS.

● CABLE DELIVERY

RESOLUTION OF VENDOR QUALITY ISSUES ESSENTIALLY COMPLETED. CABLE INSPECTION IN PROCESS WITH DELIVERY IMMINENT. (ROCKBESTOS AND BOSTON INSULATED WIRE (BIW)

● LOOSE PARTS MONITORING

PROCUREMENT IN PROGRESS.

● ASYMMETRIC LOADS

ANALYSIS OF LOOP PIPING AND ATTACHMENTS AND REACTOR INTERNALS IS IN PROGRESS. NO CONSTRUCTION IMPACTS ANTICIPATED. FUELS ASYMMETRIC LOADS ANALYSIS HAS JUST BEEN INITIATED. NO ANTICIPATED PROBLEMS BASED ON PALO VERDE EXPERIENCE.

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

KEY ITEMS - CATEGORY 1, SOLUTION IMPLEMENTATION

DESCRIPTION

● SECURITY SYSTEM

ACTION PLAN AND STATUS

ENGINEERING DESIGN IN PROGRESS. CONTRACTOR FOR FURNISH
OF EQUIPMENT HAS BEEN SELECTED. EQUIPMENT DELIVERIES
HAVE BEEN INITIATED. WILL BE IN OPERATION 90 DAYS PRIOR
TO FUEL LOAD

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

STIFF CLAMP CHANGE-OUT PROGRAM

- ALL NON-CONFORMING CLAMPS IDENTIFIED AND CONTROLLED.
- CHANGE-OUT PROGRAM PREPARED, REVIEWED AND APPROVED.
 - PARTS REPLACEMENT & CONTROL
 - INSPECTION
 - DOCUMENTATION
- TRAINING PROGRAMS CONDUCTED.
- ASME CODE CASE N-249-2 APPROVED.

WNP-3 STIFF CLAMP CHANGE OUT PROGRAM

The stiff clamp nonconformance report (NCR-14020) disposition provides for a program which will identify, track and verify that all nonconforming stiff clamps have been properly changed out and documented.

I. All nonconforming clamps identified and controlled.

A listing of all non-conforming stiff clamps at the site has been compiled by Ebasco utilizing the CCCS. All clamps shipped subsequent to January 22, 1982 utilize the modified design. As the change-out process progresses, the effort will be tracked and verified through a coordinated Contractor and Ebasco system utilizing the CCCS.

II. Change-Out Program Prepared, Reviewed and Approved.

The disposition of NCR-14020 contains the elements of the change-out program. The program has been reviewed and approved and has been transmitted to the installing contractor. The change-out program provides that:

- a) For clamps currently in the warehouse the Owner/Engineer will assure that all components and corresponding replacement parts have been changed out in conformance to the latest clamp design and in accordance with the vendor's written instructions, and that all inspection, documentation and verification for this operation has been performed and accepted by the appropriate personnel.
- b) For clamps which have been requisitioned in the field (either installed or in contractor storage), the installing contractor will be responsible for requisitioning new replacement parts from the Owner's warehouse, assuring that all clamps and corresponding replacement parts have been changed-out in conformance to the latest clamp design and in accordance with the vendor's written instructions, and that all inspection, documentation and verification for this operation has been performed and accepted by the appropriate contractor personnel.
- c) In addition to the process described above, each clamp strap will be inspected for evidence of edge tears at the time of change-out, and any strap found to have such indications will be identified and returned to the vendor for replacement.
- d) The existing installation procedure plate affixed to the Figure 215 yoke body will also be removed. Removal shall be in accordance with the vendor's written instructions.
- e) The mechanism for assuring that all required actions have been completed for this change-out process will be implemented through the use of a manual check list. This information will in turn be entered into the CCCS for future tracking and maintenance of a history file.

III. Training Programs Conducted

Training programs for Ebasco and Contractor personnel were conducted at the site the week of August 2, 1982 by ITT Grinnell and Ebasco representatives. The training program covered the elements of the change-out program and vendors installation instructions for the modified clamp design.

IV. ASME Code Case N249-2 Approved

Code Case N249-2 was approved by the ASME Code Council on June 17, 1982. Implementation of this Code Case is pending submittal of formal request by the contractor.

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

KEY ITEMS - CATEGORY 1, SOLUTION IMPLEMENTATION

DESCRIPTION

ACTION PLAN AND STATUS

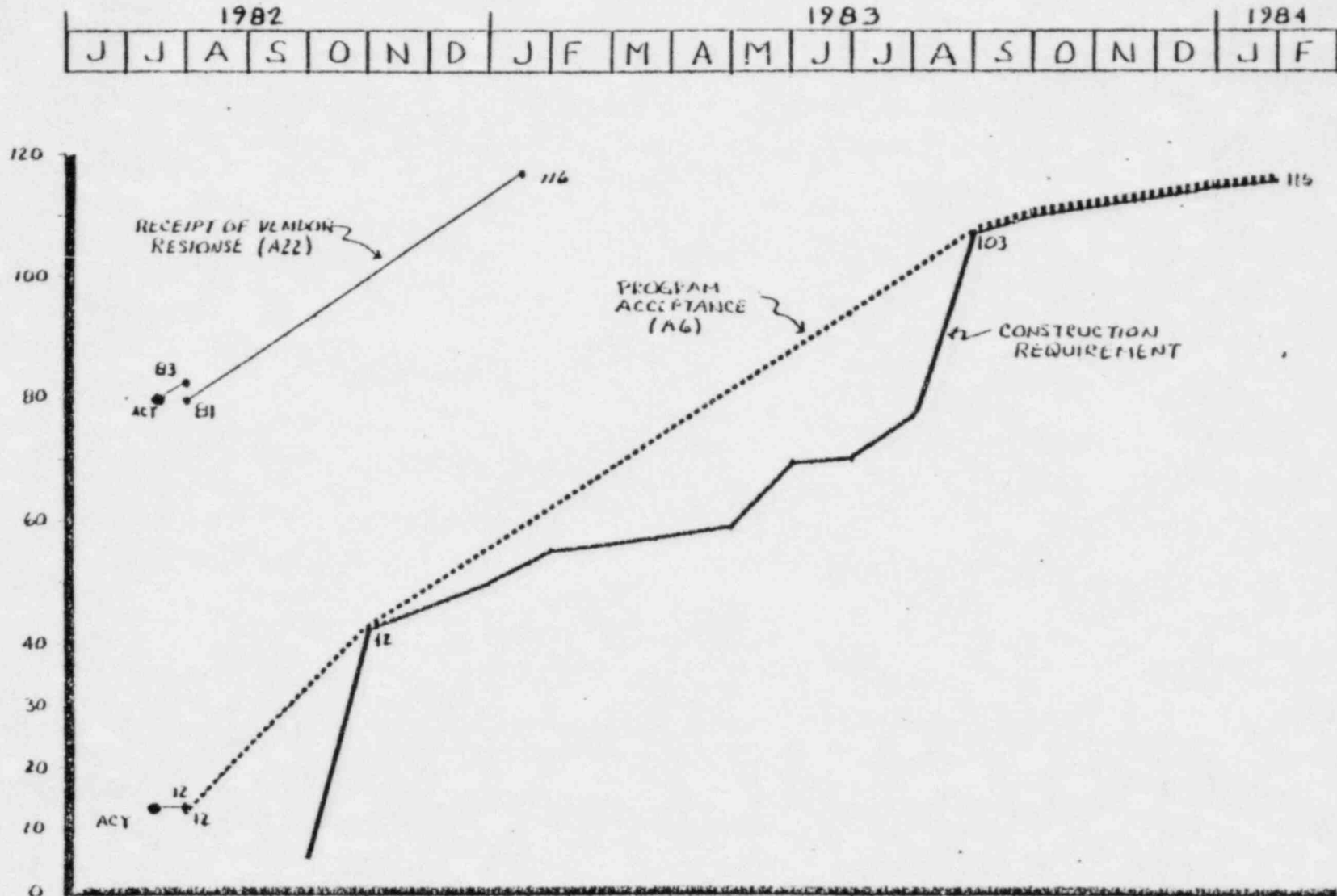
- ALARA
ONGOING PLANT ENGINEERING REVIEW FOR ADDITIONAL SHIELDING REQUIREMENTS. NOT OPTIMIZING ACCESS FOR OPERATIONS AND MAINTENANCE.
- ASHFALL
PLANT DESIGN MODIFICATIONS IDENTIFIED.
- ENVIRONMENTAL/SEISMIC EQUIPMENT QUALIFICATION
ONGOING PROGRAM IN PROGRESS. COMPLETION MILESTONE HAS BEEN COORDINATED WITH PLANT STARTUP REQUIREMENTS.
- SYSTEM REVIEWS
PROGRAM IN PROGRESS AND APPROXIMATELY 40% COMPLETE TO PROVIDE CONFIDENCE THAT DESIGN IS COMPLETE (CLOSURE OF DESIGN), THE DESIGN BASIS HAS BEEN DOCUMENTED & FOLLOWED, AND THE DESIGN EFFORT IS TRACEABLE.
- MOISTURE SEPARATOR REHEATER (MSR) PIPING REROUTE
WESTINGHOUSE REVISED THERMAL ANALYSIS REQUIRES PIPING MODIFICATIONS. FINAL REVIEW OF REDESIGN OF PIPING AND FOUNDATION IN PROGRESS TO BE COMPLETED AND ISSUED BY SEPTEMBER 15, 1982.

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

EQUIPMENT QUALIFICATION IE PROGRAMS

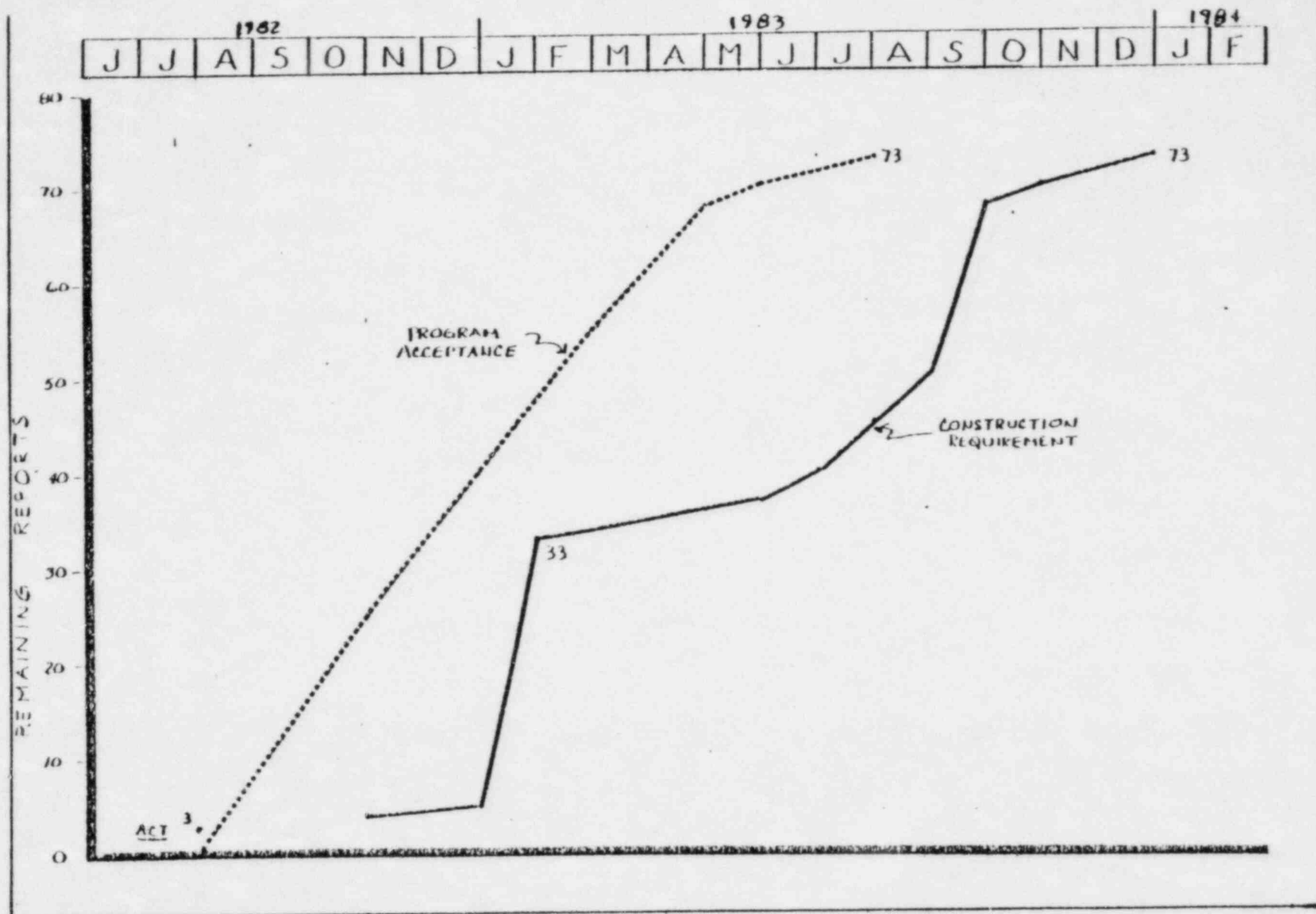


BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

SEISMIC (NON IE) PROGRAMS



BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

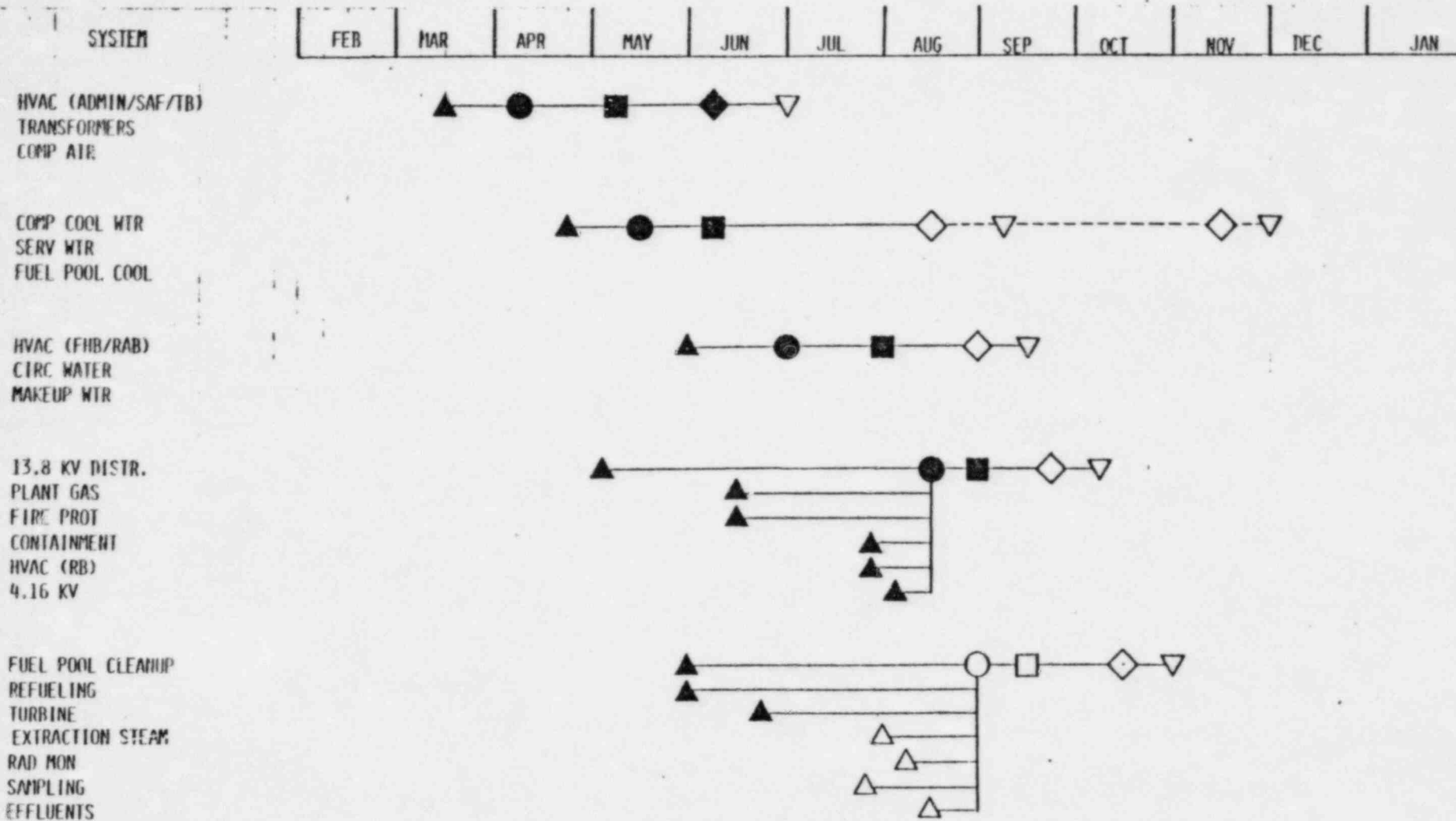
Legend

- △ Complete Review Package
- Ebasco In-house Review
- Presentation to WPPSS

SYSTEMS REVIEW SCHEDULE STATUS

- ◇ Response to Action Items
- ▽ Review Package Accepted by WPPSS

1982



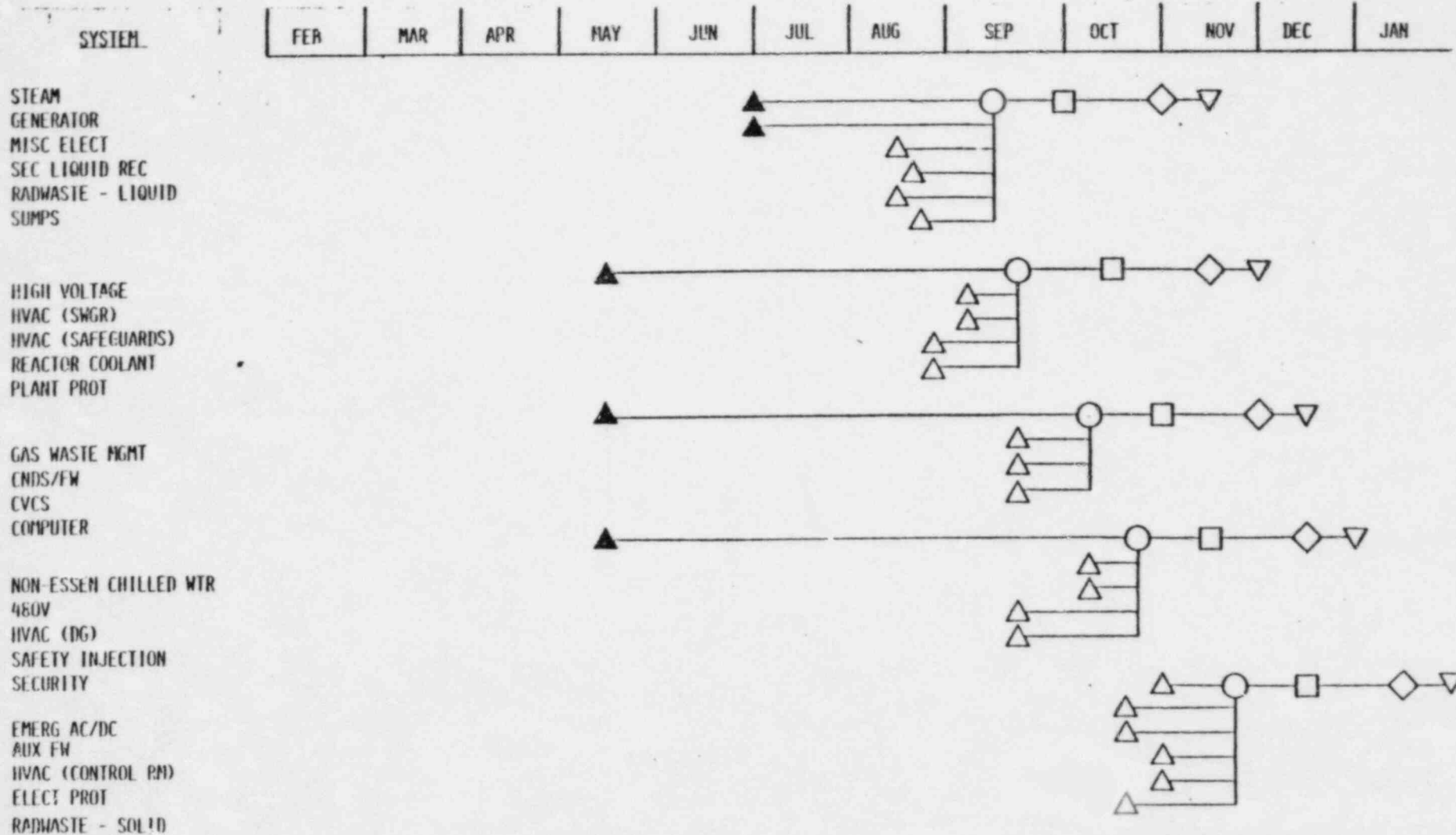
BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

SYSTEMS REVIEW SCHEDULE STATUS

1982



BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

KEY ITEMS - CATEGORY 2, CONCERN IDENTIFIED WITH
CORRECTIVE ACTION UNDER DEVELOPMENT

DESCRIPTION

ACTION PLAN AND STATUS

- MINIMUM CONTAINMENT
BACK PRESSURE
REVISIONS TO COMBUSTION ENGINEERING EMERGENCY CORE
COOLING ANALYSIS ARE ANTICIPATED. NO DESIGN
CHANGES IMPACTING CONSTRUCTION WILL OCCUR.
- ATWS
THIS IS A CEOG ACTIVITY. NO IDENTIFIED PROBLEMS
FOR WNP-3.
- POWER OPERATED RELIEF VALVES
ON PRIMARY SYSTEM (PORV)
STUDY IN PROCESS UNDER THE AUSPICES OF CEOG TO DE-
TERMINE NECESSITY FOR INCLUSION, AND PRELIMINARY
DESIGN LAYOUT BEING PREPARED FOR INSTALLATION FEASI-
BILITY.

BRIEFING FOR NRC:	WASHINGTON PUBLIC POWER SUPPLY SYSTEM NUCLEAR PROJECT 3	DATE: 9/1/82 NAME: JE WERLE
----------------------	--	--------------------------------

KEY ITEMS - CATEGORY 3, CONCERN REQUIRES FURTHER EVALUATION

DESCRIPTION

ACTION PLAN AND STATUS

- FUTURE NRC REQUIREMENTS
(E.G. SRP, I&E BULLETINS,
NUREG DOCUMENTS, REG.
GUIDES)

NRC REQUIREMENTS TO BE DEFINED AT A FUTURE DATE.

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

STATUS OF TMI RELATED ISSUES

- CONFORMANCE WITH NUREG 0737 BEING ACHIEVED THROUGH
 - CE OWNER GROUP ACTIVITIES
 - NSSS VENDOR (CE) DESIGN CHANGES
 - BOP (EBASCO) DESIGN CHANGES
- NO MAJOR IMPACTS ON CONSTRUCTION EXPECTED
- GENERALLY CATEGORIZED ALONG LINES OF
 - (1) DESIGN/CONSTRUCTION RELATED - ABOUT 41% COMPLETE
 - (2) LICENSING RELATED - ABOUT 5% COMPLETE
 - (3) STARTUP/OPERATIONS RELATED - 5% COMPLETE

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

MAJOR TMI TASKS - DESIGN/CONSTRUCTION RELATED

<u>DESCRIPTION</u>	<u>STATUS</u>	<u>ACTIONS TO COMPLETE</u>	<u>REMARKS</u>
(1) CONTROL ROOM DESIGN REVIEW	PROGRAM UNDER DEVELOPMENT	CONDUCT AND DOCUMENT REVIEW. EXPECTED COMPLETION 1983	DO NOT EXPECT SIGNIFICANT DESIGN CHANGES
(2) SAFETY PARAMETER DISPLAY CONSOLE	EVALUATING VARIOUS VENDOR PROPOSALS	FINALIZE DESIGN DETAILS. COMPLETE INSTALLATION BY 1983	PLANNING ON USING EXISTING WNP-5 CORE MONITORING COMPUTER
(3) REACTOR COOLANT SYSTEM VENTS	PROCUREMENT UNDERWAY	COMPLETE INSTALLATION BY 1983	
(4) POST ACCIDENT SAMPLING	PROCUREMENT UNDERWAY	COMPLETE INSTALLATION BY 1983	
(5) VALVE POSITION INDICATION	PROCUREMENT UNDERWAY	COMPLETE INSTALLATION BY 1983	
(6) EMERGENCY POWER TO PRESSURIZER HEATERS	DESIGN/PROCUREMENT COMPLETE	NONE	

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

MAJOR TMI TASKS - DESIGN/CONSTRUCTION RELATED

<u>DESCRIPTION</u>	<u>STATUS</u>	<u>ACTIONS TO COMPLETE</u>	<u>REMARKS</u>
(7) AUXILIARY FEEDWATER INITIATION	EVALUATIONS COMPLETED	NONE	EXISTING DESIGN ADEQUATE
(8) CONTAINMENT ISOLATION	COMPLETING EVALUATIONS	—	DO NOT EXPECT ANY DESIGN CHANGES
(9) ACCIDENT MONITORING INSTRUMENTATION	EVALUATIONS UNDERWAY. SOME PROCUREMENT IN PROCESS	COMPLETE INSTALLATION BY 1984	EXPECT ADDITIONAL INSTRUMENTS MUST BE PROCURED. NO MAJOR CONSTRUCTION IMPACT EXPECTED.
(10) INADEQUATE CORE COOLING INSTRUMENTS <ul style="list-style-type: none">● CORE EXIT T/C● SUBCOOLED MARGIN MONITOR● HEATED JUNCTION T/C	PROCURING HARDWARE	COMPLETE INSTALLATION BY 1984	
(11) UPGRADE EMERGENCY FACILITIES	CONSTRUCTION UNDERWAY	COMPLETE CONSTRUCTION 1983	

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

MAJOR TMI TASKS - DESIGN/CONSTRUCTION RELATED

<u>DESCRIPTION</u>	<u>STATUS</u>	<u>ACTIONS TO COMPLETE</u>	<u>REMARKS</u>
(12) SHIELDING REVIEW	REPORT COMPLETED	NONE	EXISTING DESIGN ADE- QUATE
(13) HYDROGEN REMOVAL	DESIGN COMPLETE, EQUIPMENT PROCURED	COMPLETE CONSTRU- TION BY 1983	PART OF EXISTING PLANT DESIGN
(14) POWER ON REACTOR COOLANT PUMP SEALS	DESIGN ADEQUATE	NONE	

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

MAJOR TMI TASKS - LICENSING RELATED

<u>DESCRIPTION</u>	<u>STATUS</u>	<u>ACTIONS REMAINING</u>	<u>REMARKS</u>
(1) SMALL BREAK LOCA METHODS	CEOG REPORTS UNDER REVIEW	REVIEW COMPLETE 1983	
(2) RELIEF AND SAFETY VALVE TESTING	CEOG REPORTS BEING DEVELOPED	COMPLETE REPORTS BY 1983	
(3) AUXILIARY FEEDWATER EVALUATION	REPORT COMPLETE	NONE	
(4) INADEQUATE CORE COOLING	CEOG REPORTS UNDER DEVELOPMENT	REPORTS COMPLETE 1983	
(5) ACCIDENT MONITORING INSTRUMENTS	REPORTS TO BE DEVELOPED	REPORTS COMPLETE 1983	
(6) VESSEL THERMAL SHOCK	AWAITING NRC TO SOLIDIFY ISSUE	NO PROVISIONS IDENTIFIED	DO NOT EXPECT ANY IMPACT ON WNP-3
(7) VOIDING OF RCS	CEOG REPORT UNDER REVIEW	REVIEW COMPLETE 1983	
(8) AUTO TRIP RC PUMPS	CEOG REPORTS UNDER REVIEW	REVIEW COMPLETE 1983	

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: JE WERLE

MAJOR TMI TASKS - STARTUP/OPERATIONS RELATED

<u>DESCRIPTION</u>	<u>STATUS</u>	<u>ACTIONS TO COMPLETE</u>	<u>REMARKS</u>
(1) NSSS REVIEW OF PROCEDURES	NSSS VENDOR PRE-PARING PROCEDURES	COMPLETE PROCEDURES BY 1984	
(2) TRAINING DURING LOW POWER TESTING	NOT YET STARTED		
(3) TRAINING FOR MITIGATION CORE DAMAGE	CEOG REPORTS UNDER DEVELOPMENT	COMPLETE REPORTS BY 1983	
(4) EMERGENCY GUIDELINES	CEOG ACTIVITY UNDERWAY	COMPLETE GUIDELINES 1983	

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: MAHAFFEY

PROCUREMENT

STATUS

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: MAHAFFEY

P R O C U R E M E N T A C T I V I T Y

- o MAJOR MACHINERY SHIPMENTS ESSENTIALLY COMPLETE

- o COMMODITY DELIVERY SCHEDULES WILL SUPPORT PLANT
CONSTRUCTION SCHEDULES

- o MAJOR CONSTRAINT, EQUIPMENT QUALIFICATION, WILL
NOT AFFECT SCHEDULES

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 9/1/82
NAME: MAHAFFEY

PROCUREMENT ACTIVITY

<u>COMMODITY</u>	<u>MATERIALS RECEIVED</u>	<u>CONSTRAINTS</u>	<u>CONSTRUCTION IMPACT</u>
VALVES			
LARGE BORE	92%	EQ	NONE
SMALL BORE	74%	EQ	NONE
PIPING SPOOLS			
ASME III CLASS I & II	90%	NONE	NONE
OTHER	98%	NONE	NONE
CABLE			
PCWER	73%	EQ	NONE
INSTRUMENTATION/CONTROL	54%	EQ	NONE
HANGERS	75%	NONE	NONE
INSTRUMENTS	68%	EQ	NONE

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: GATES

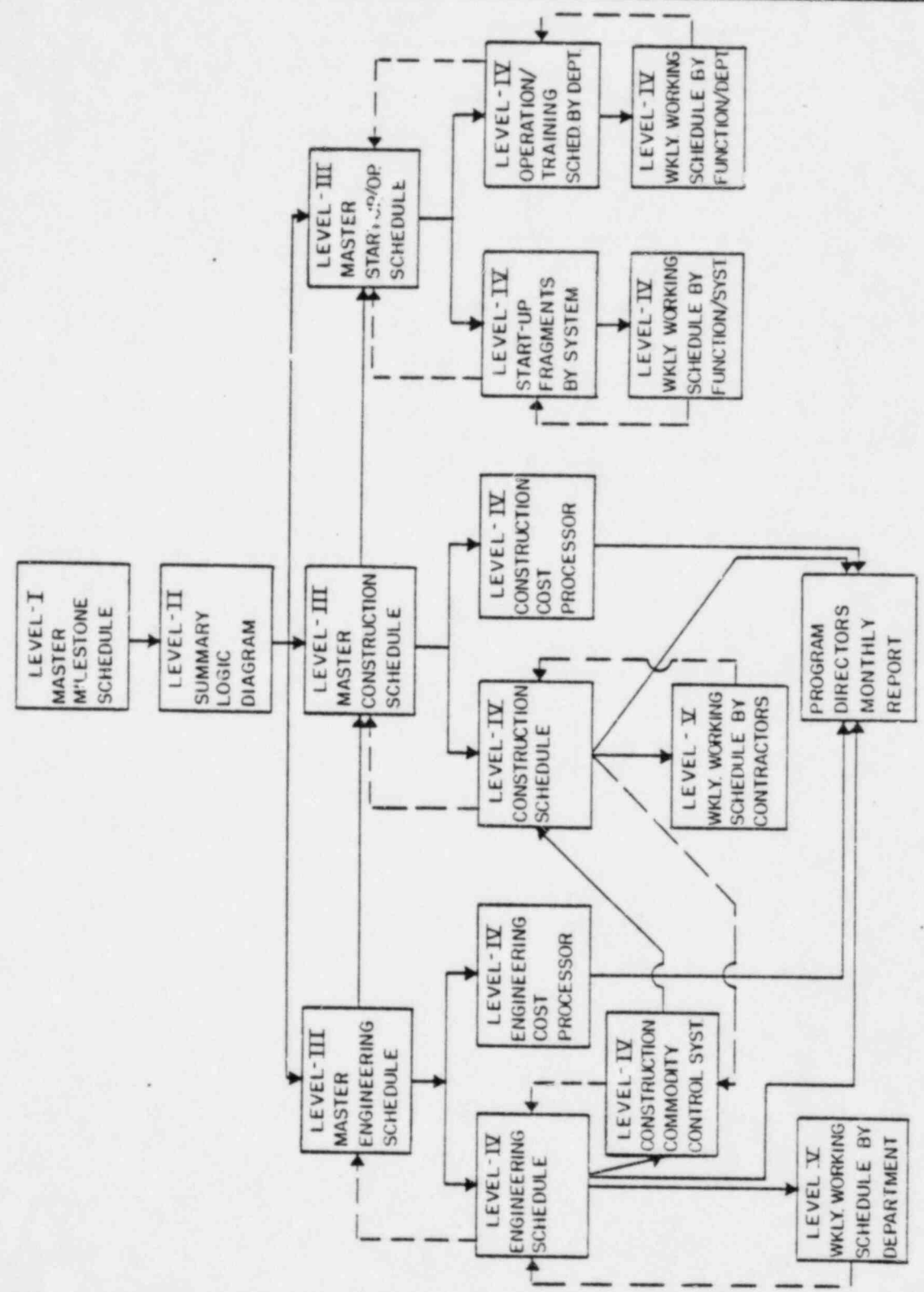
PROJECT SCHEDULES

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: R GATES

SCHEDULE HIERARCHY



BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: R GATES

SCHEDULE HIERARCHY
LEVEL DEFINITION

o LEVEL I - MASTER MILESTONE SCHEDULE

A time phased bar chart structured by major element of the Project Work Breakdown Structure, depicting major Project Milestones at each element and their relationships to one another and time. A monthly statused version of this schedule is usually the tool of Managing Directors, Program Directors, and outside agencies in accessing overall project conditions. This schedule spans the life of the project, including initial operation. This schedule corresponds to the second level of the Project Work Breakdown Structure.

o LEVEL II - SUMMARY LOGIC DIAGRAM

A time phased logic network, either in the activity on node format or the activity on arrow format, depicting the predecessor - successor relationships that exist between major project activities, major contracts and time and represents a readily definable detailed breakout of the Project Work Breakdown Structure at Level IV. The Master Project Milestones should be reiterated and match those of the Master Milestone Schedule and additional milestones should be introduced against which progress toward achieving those Master Milestones is measured. A monthly statused version of this diagram is usually the tool of Project Managers and Department Managers in determining where their emphasis should be directed to achieve timely project completion. This diagram spans the life of the project including initial operation.

o LEVEL III - MASTER INTEGRATED SCHEDULE

A time phased detailed logic network, either in activity on node format or activity on arrow format, depicting the detailed construction sequence, the interrelationships of Engineering, Procurement, Construction, and Startup activities, identifies contractor responsibilities and supportive plans. This schedule represents the sixth level of Project Work Breakdown Structure and should include the Master Project Milestones plus those milestones identified in the Summary Logic Diagram. A monthly statused version of this schedule is the tool of Area Managers and Supervisors and is the basis for Performance Measurement. This schedule's time span is through Startup.

Schedule Hierarchy
Level Definition
Page 2

o LEVEL IV - THERE ARE FIVE TYPES

1. CONSTRUCTION SCHEDULE

A time phased detailed logic network, either in activity on node format or activity on arrow format, depicting construction plans for a six month period, showing interfaces, engineering, and material delivery impacts on the individual contractors and their ability to accomplish the construction sequence of the Master Integrated Schedule. Any Master Project Milestones or Summary Logic Diagram Milestones that would be completed or supported by the activities in this time frame should be clearly visible. A monthly statused version of this schedule is the tool of Area Supervisors, Engineers, Contractors, and Area Planners and feeds Performance Measurement updates.

PROJECT COST PROCESSOR (Performance Measurement)

Project Cost Processor maintains monthly visibility of commodity installations against plan by contract, building and elevation and calculates Performance Measurement data in man-hours. This Processor also contains cost flows at the cost account (contract) level and calculates Performance Measurement data in dollars as well.

2. ENGINEERING

A combination of a computerized list of design changes and their status coupled with a time phased detailed logic network, either in activity on node format or activity on arrow format, depicting Production Engineering's completion of individual drawings in support of detailed construction activities. A weekly statused version of these documents is the tool of Designers, Engineers, Planners, and Construction Managers.

ENGINEERING PERFORMANCE MEASUREMENT SYSTEM

The Engineering Performance Measurement System maintains monthly visibility of Engineering Performance against plan down to and including individual tasks and calculates Performance Measurement data in mandays.

3. CONSTRUCTION COMMODITY CONTROL SYSTEM (CCCS)

A very detailed, continuously updated, computerized report covering all materials necessary for plant construction, depicting quantities needed, need dates for engineering, manufacturing, and shipping, Quality Assurance inspection status, quantities on hand, quantities installed and any other pertinent data that might impact the construction sequence. This report is the tool of Material Contract Administrators, Quantity Trackers, Planners, Superintendents, Contractors and all other individuals supportive of timely project completion. Interfaces with both the Engineering and the Construction Level IV Schedules

4. STARTUP

Individual detailed, mini-logic (Fragnet's) networks, either in the activity on node format or the activity on arrow format, depicting Startup activities. These networks are usually system oriented and culminate in the provisional acceptance of a system or subsystem completed by Construction. These networks would match those of the Startup activities contained in the Master Integrated Schedule. These networks are the tools of Startup Planners and are updated monthly.

5. OPERATIONS

Individual detailed networks depicting the operations and training requirements to support the startup schedule and and power ascension. These networks are department oriented and supportive of the Level III Master Integrated Schedule. They are the tools of Startup and Operations Planners and are updated monthly.

o LEVEL V - WEEKLY WORKING SCHEDULES

A bar chart spanning a four week period, depicting daily work plans, providing the control and scheduling of individual elements of the work and supportive of the Level IV schedule. This schedule is updated weekly and is a tool of the Planners, Supervisors and Managers.

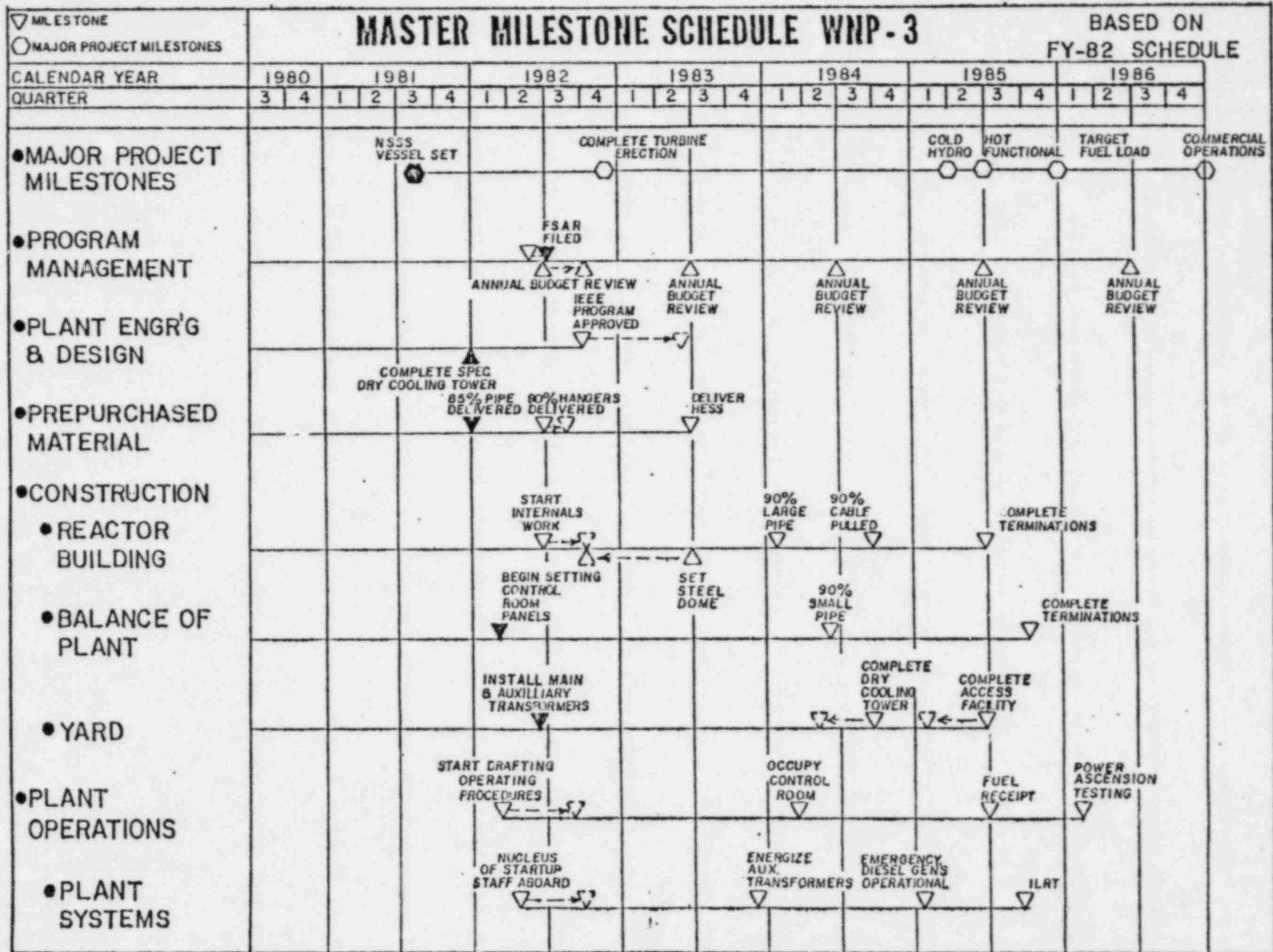
Schedule Hierarchy
Level Definition
Page 4

1. Engineering - Developed in detail for each Department as a hands-on daily working schedule.
2. Construction - Developed in detail for each Contractor as a hands-on daily working schedule and coordination tool.
3. Startup - Detailed working schedules for each system defined by functions required to accomplish a System Test and to coordinate the interfaces between Startup, Operations and Construction. These schedules will be statused daily and updated weekly.
4. Operations - Detailed working schedule for each Department and defined by functions within that Department to assist in accomplishing required tasks to support the Startup Program, power ascension and Operations. These schedules will be statused daily and updated weekly.

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

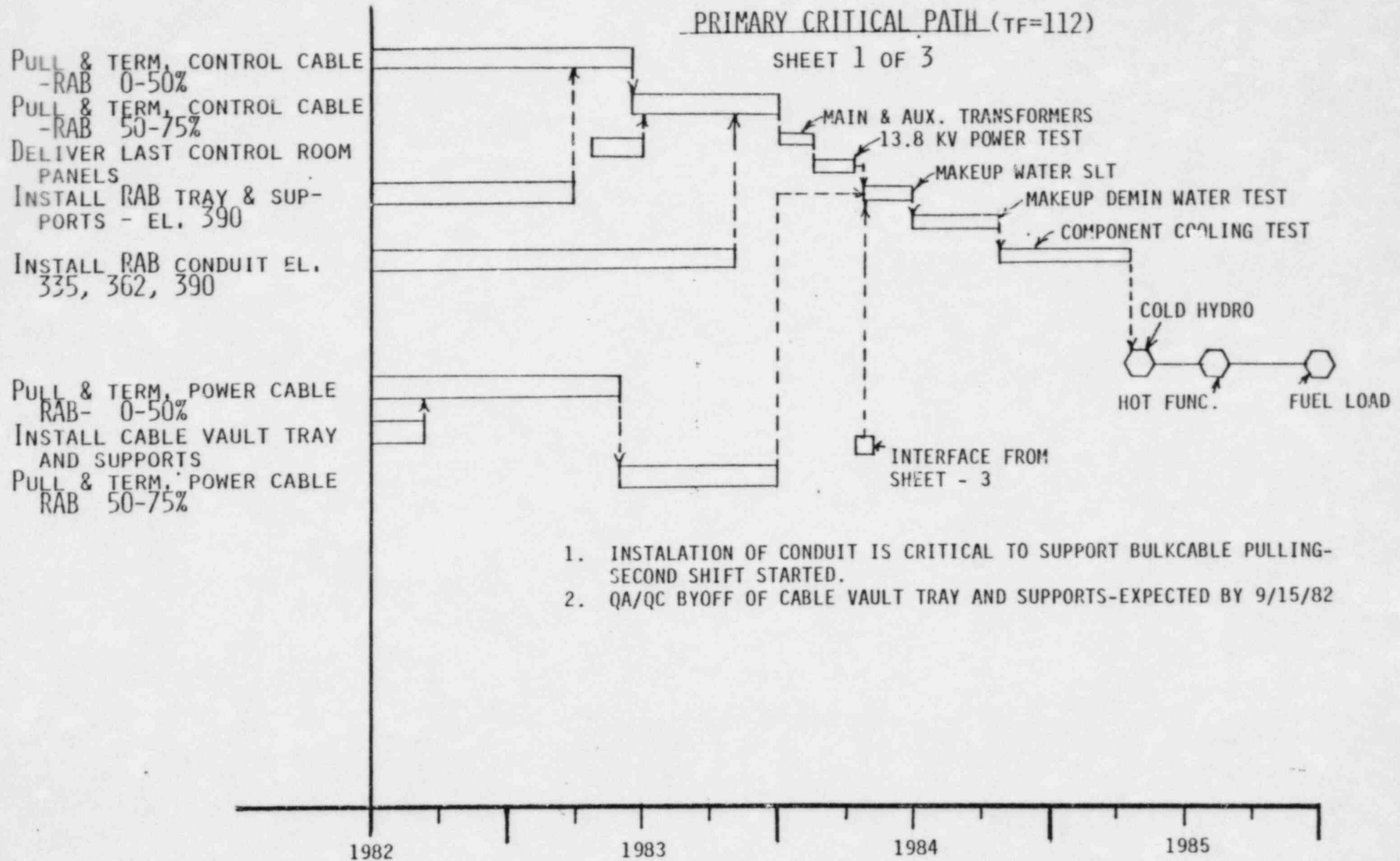
DATE: 09-01-82
NAME: R GATES



BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: R GATES

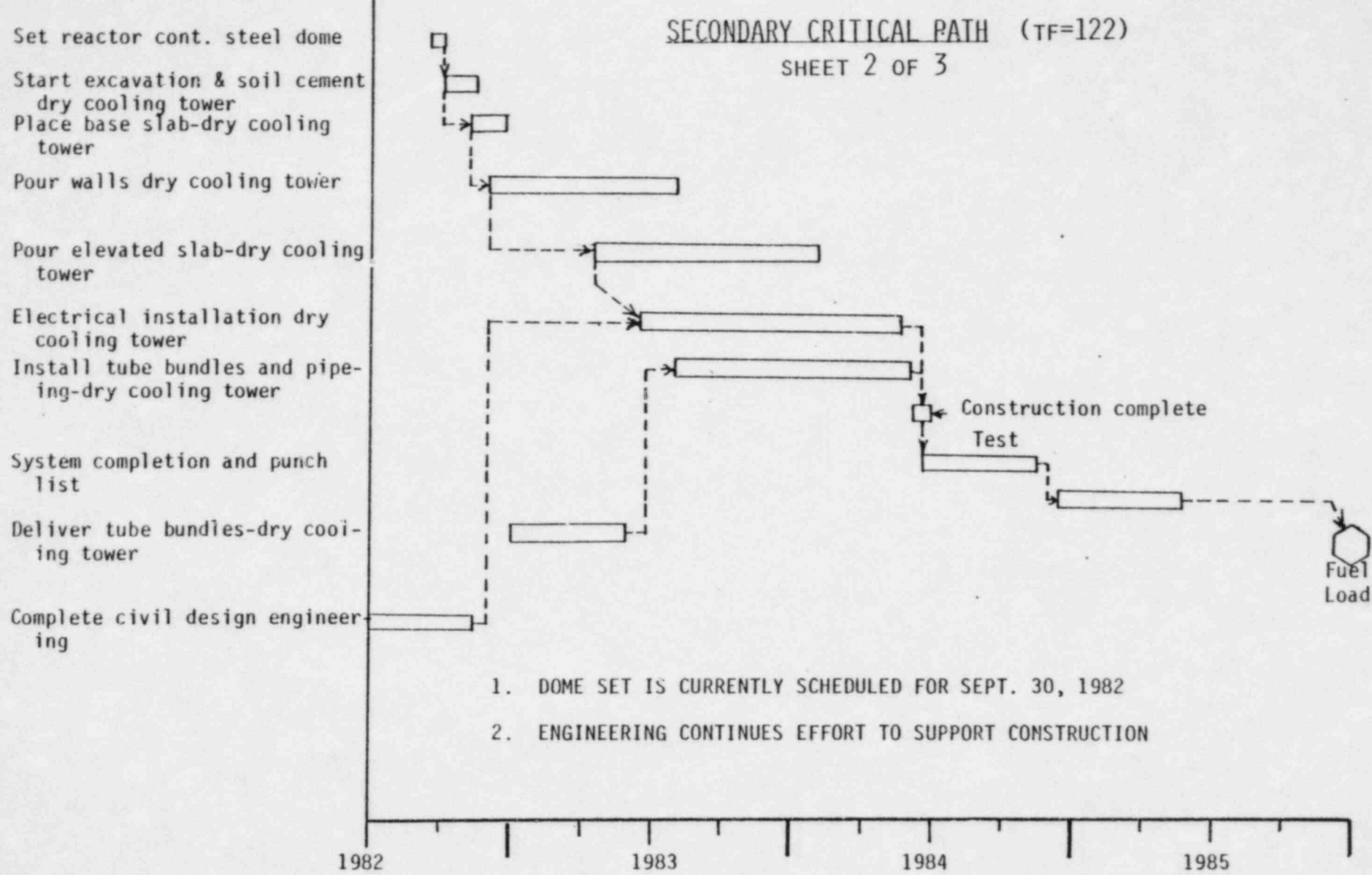


1. INSTALATION OF CONDUIT IS CRITICAL TO SUPPORT BULK CABLE PULLING-
SECOND SHIFT STARTED.
2. QA/QC BYOFF OF CABLE VAULT TRAY AND SUPPORTS-EXPECTED BY 9/15/82

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: R GATES



1. DOME SET IS CURRENTLY SCHEDULED FOR SEPT. 30, 1982
2. ENGINEERING CONTINUES EFFORT TO SUPPORT CONSTRUCTION

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: R GATES

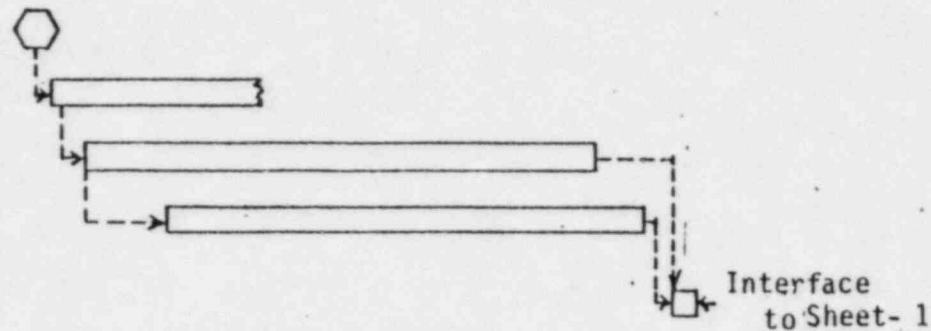
TERTIARY CRITICAL PATH (TF=156)
SHEET 3 OF 3

Start work - award of contract

Fabrication of I&C tubing for
RAB all elevations

Install tubing RAB 335'

Install tubing RAB 362'



- (1) THIS CRITICAL PATH FLOWS FROM THE AWARD OF THE CONTRACT TO FABRICATION OF I&C TUBING AT RAB EL. 335' TO SUPPORT THE APPROPRIATE STARTUP SYSTEMS.
- (2) AWARD OF THE CONTRACT IS EXPECTED DURING AUGUST.
- (3) DUE TO LATE AWARD OF THIS CONTRACT, I&C TUBING IS CURRENTLY IMPACTING THE START OF TUBING INSTALLATION.
- (4) RAB 335' & 362' ESTIMATED DURATION CAN BE REDUCED BY PRIORITIZING MANPOWER TO SUPPORT CRITICAL AREAS.

1982

1983

1984

1985

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: GATES

BULK QUANTITY

STATUS

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: R GATES

BULK QUANTITIES

AGENDA
QUANTITIES

REPORTABLE
QUANTITIES

DIFFERENCE

CONCRETE (CY)

CONCRETE (CY)

PROCESS PIPE (LF)

LARGE BORE PIPE (LF)

SMALL BORE PIPE (LF)

YARD PIPE (LF)

INCLUDED IN PIPING

LARGE BORE PIPE HANGERS (EA)

LARGE BORE HANGERS (EA)

SMALL BORE HANGERS (EA)

INCLUDED IN S.B. PIPE

CABLE TRAYS (LF)

CABLE TRAYS (LF)

TOTAL CONDUIT (LF)

CONDUIT, EXPOSED (LF)

TOTAL EXPOSED METAL CONDUIT (LF)

INCLUDED IN CONDUIT

CABLE (LF)

WIRE & CABLE (LF)

TERMINATIONS (EA)

TERMINATIONS (EA)

ELECTRICAL CIRCUITS (EA)

NOT REPORTED AT THIS TIME

INSTRUMENTATION (EA)

NOT REPORTED AT THIS TIME

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: R GATES

WNP-3

BULK QUANTITY INSTALLATION STATUS

<u>COMMODITY</u>	<u>QUANTITIES</u>				<u>HOURS</u> ⁽¹⁾		<u>UNIT RATES</u>		
	<u>TOTAL QTY.</u>	<u>% COMP.</u>	<u>CUM. QTY.</u>	<u>PERIOD QTY.</u>	<u>CUM. HRS.</u>	<u>PERIOD HRS.</u>	<u>FY-83 BUD.</u>	<u>CUM.</u>	<u>PER.</u>
CONCRETE - CY	268,564	84.5	226,990	2,458	4,799,912	59,809	22.1	21.15	24.3
LG. PIPE - LF	200,206	76.5	153,253	7,024	587,826	27,052	5.1	3.84	3.85
LG. HANGERS - EA	14,274	60.4	8,620	832	419,769	37,585	68.9	53.46	45.17
SMALL PIPE - LF	176,140	37.9	66,790	10,871	207,120	39,356	5.1	3.10	3.62
CABLE TRAY - LF	90,773	67.6	61,504	1,494	254,310	16,003	3.2	4.13	10.71
TRAY SUPPORTS - LB	856,934	82.2	704,521	62,536	329,107	21,680	0.5	0.47	0.35
CONDUIT, EXPOSED - LF	439,000	23.0	101,103	15,388	86,892	15,336	1.2	0.86	0.69
DUCT & SUPPORTS - LB	2,518,700	46.3	1,165,788	112,079	381,884	20,938	0.28	0.33	0.19
WIRE & CABLE - LF	6,549,600	8.4	551,515	162,828	44,084	8,797	0.06	.080	.054
TERMINATIONS - EA	228,540	1.1	2,454	557	846	281	0.86	.345	.504

(1) HOURS INCLUDE DIRECT AND DISTRIBUTABLE CRAFT MANHOURS

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: N KAUFMAN

STARTUP

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: KAUFMAN

MINIMUM OWNER STARTUP OVERSIGHT

VERIFICATION OF DESIGN AND REGULATORY CRITERIA, SYSTEMS ACCEPTANCE/REWORK, READINESS REVIEW, INTEGRATION WITH RECORDS MANAGEMENT AND LICENSING, INTEGRATION WITH CONSTRUCTION AND OPERATIONS.

STARTUP MANAGEMENT

TECHNICAL SUPERVISION, PROGRAM PLANNING AND SCHEDULING, DEVELOP TEST OBJECTIVES AND DRAFT PROCEDURES, STARTUP ENGINEERS AND TECHNICIAN SUPPORT AS NEEDED, SUPERVISE TEST EXECUTION AND EVALUATION.

ARCHITECT ENGINEER/CONSTRUCTION MANAGER

AE DESIGN COMPLETION/REWORK SUPPORT, ESTABLISH PERFORMANCE CRITERIA, CM MANAGED CRAFT SUPPORT; CM MANAGED CONSTRUCTION ACCEPTANCE PROCESS

OPERATIONS

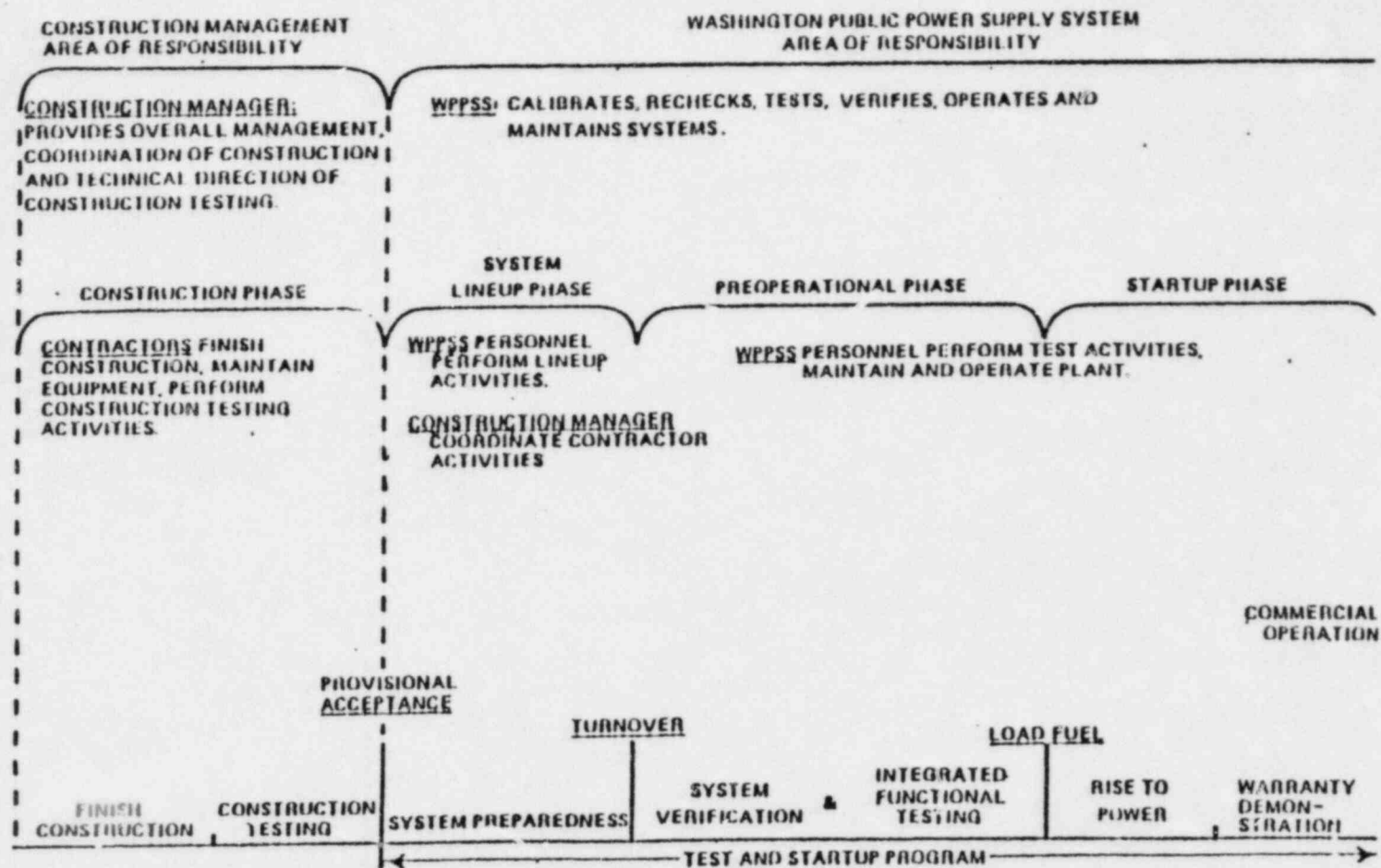
OPERATIONS PERSONNEL TO MANIPULATE, REFINE AND USE PROCEDURES. TECHNICIAN SUPPORT AS REQUIRED BY OPERATION, MAINTENANCE AFTER CONSTRUCTION

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: N KAUFMAN

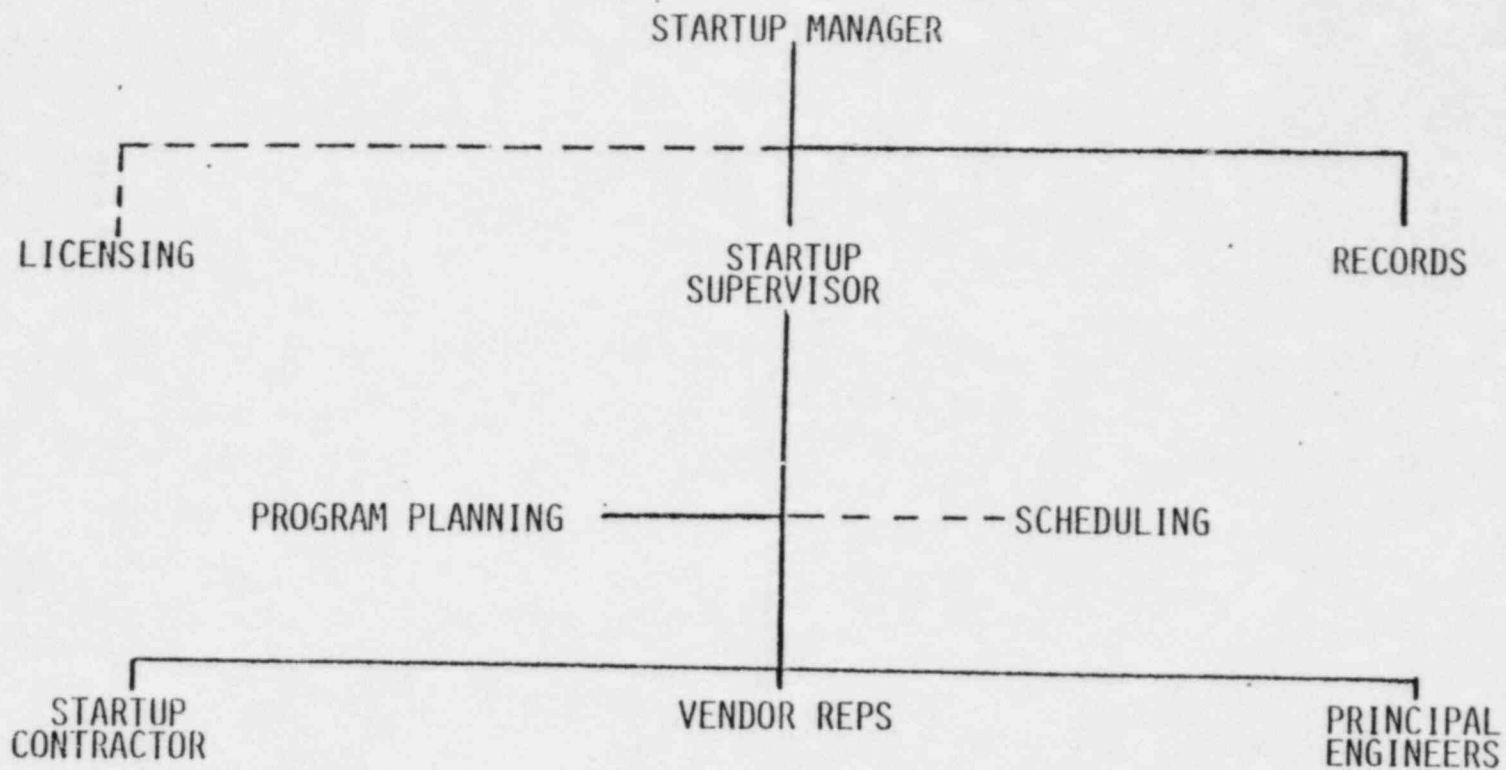
TEST AND STARTUP PROGRAM GENERAL OUTLINE



BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: KAUFMAN



BRIEFING FOR NRC:	WASHINGTON PUBLIC POWER SUPPLY SYSTEM NUCLEAR PROJECT 3	DATE: 09-01-82 NAME: N KAUFMAN
----------------------	--	-----------------------------------

WNP-3 STARTUP

o	CURRENT STARTUP MANPOWER	9
o	CONTRACT FOR STARTUP ORGANIZATION	9/15/82
o	BUDGETED PROPOSED STARTUP MANPOWER	125
o	TYPE OF PROCEDURES REQUIRED	GENERIC SPECIAL SYSTEM LINE UP PRE-OP TESTS ACCEPTANCE TESTS

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: N KAUFMAN

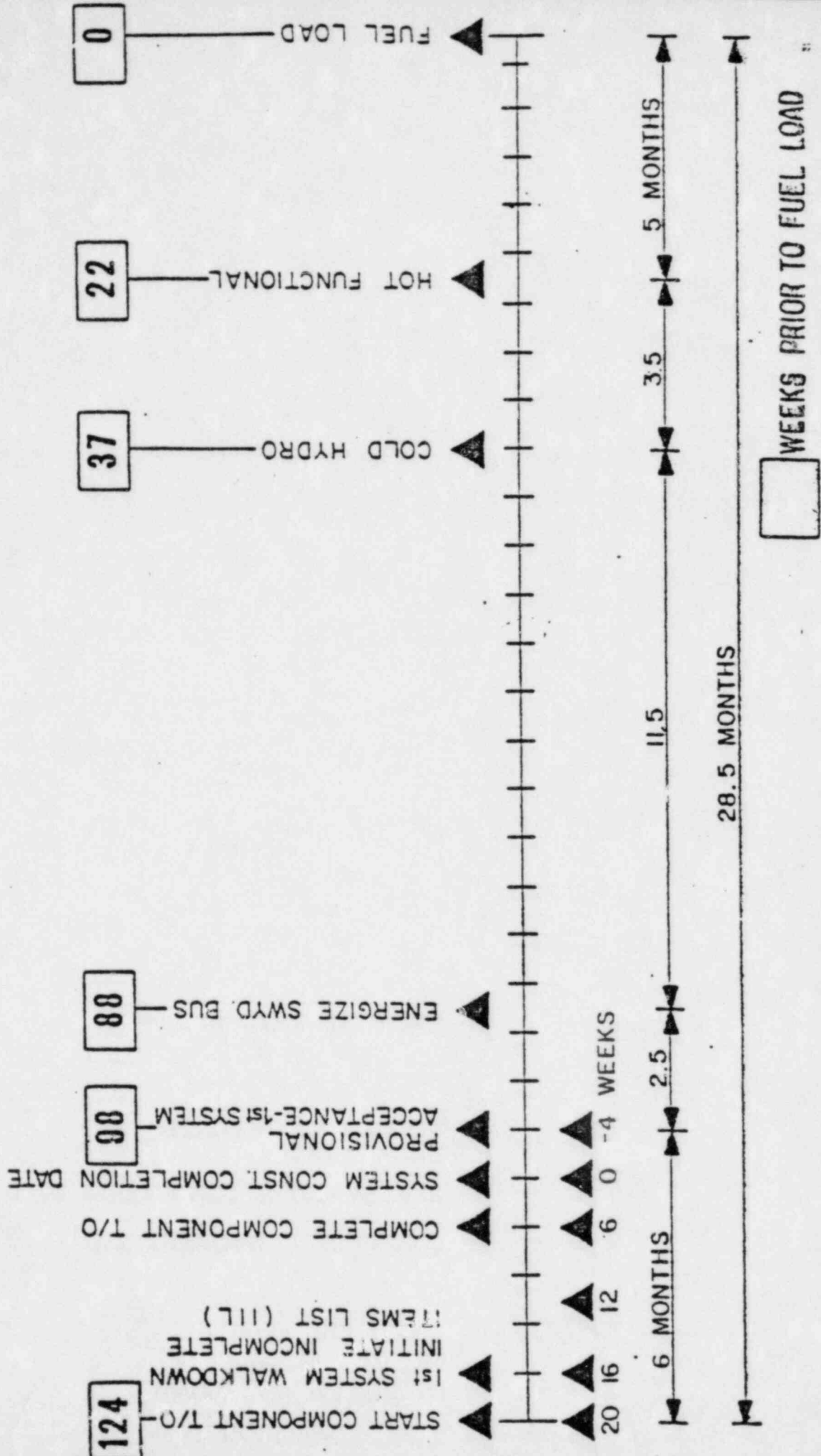
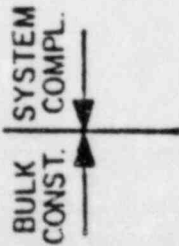
PRE-OP AND ACCEPTANCE TEST PROCEDURES

o	TOTAL PROCEDURES REQUIRED FOR FUEL LOAD	367
o	NUMBER OF DRAFT PROCEDURES NOT STARTED	360
o	NUMBER OF DRAFT PROCEDURES BEING WRITTEN	7
o	PROCEDURES APPROVED	0
o	PROCEDURES IN REVIEW	7
o	TOTAL PRE-OPS AND ACCEPTANCE TESTS REQUIRED FOR FUEL LOAD	165
o	NUMBER OF PRE-OPS AND ACCEPTANCE TESTS COMPLETED	0
o	NUMBER OF PRE-OPS AND ACCEPTANCE TESTS IN PROGRESS	0
o	NUMBER OF SYSTEMS TURNED OVER TO STARTUP	0

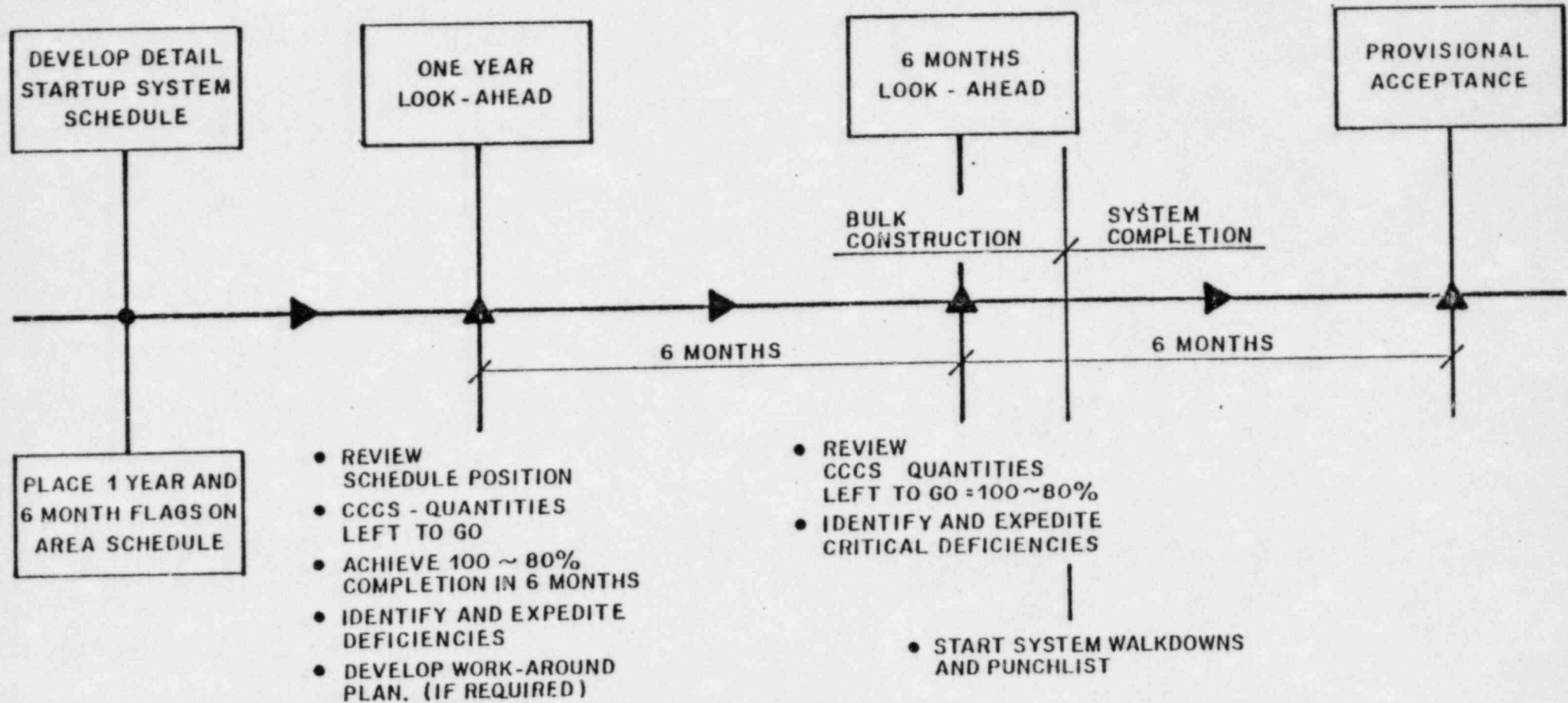
CONSTRUCTION TURN-OVER & PLANT START-UP PLAN

CURRENT PROGRAM

DATE: 09-01-82
NAME: N KAUFMAN

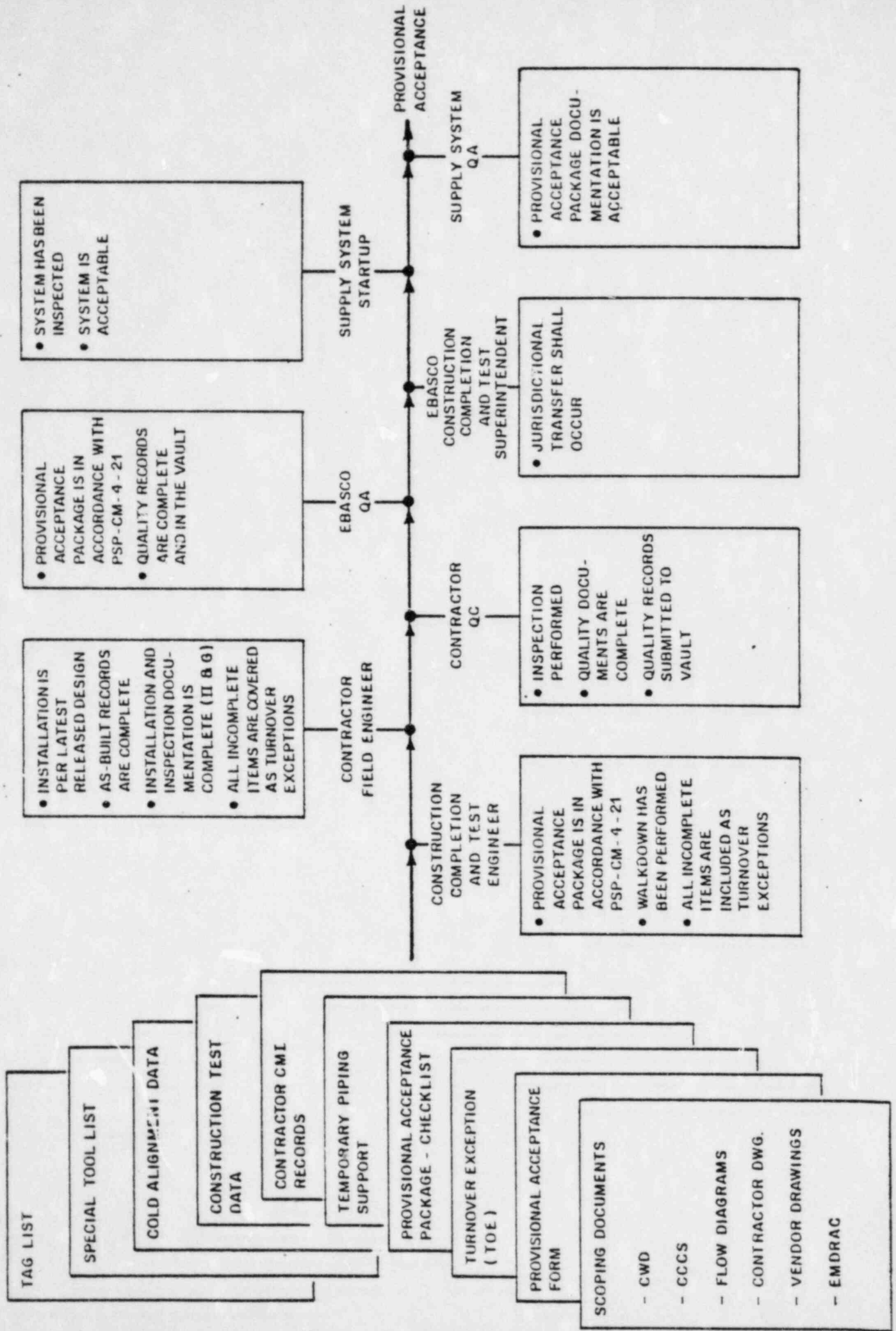


CONSTRUCTION COMPLETION AND TEST - 1 YEAR PLAN



TYPICAL PROVISIONAL ACCEPTANCE/TURNOVER PACKAGE MAKEUP AND SIGN OFF

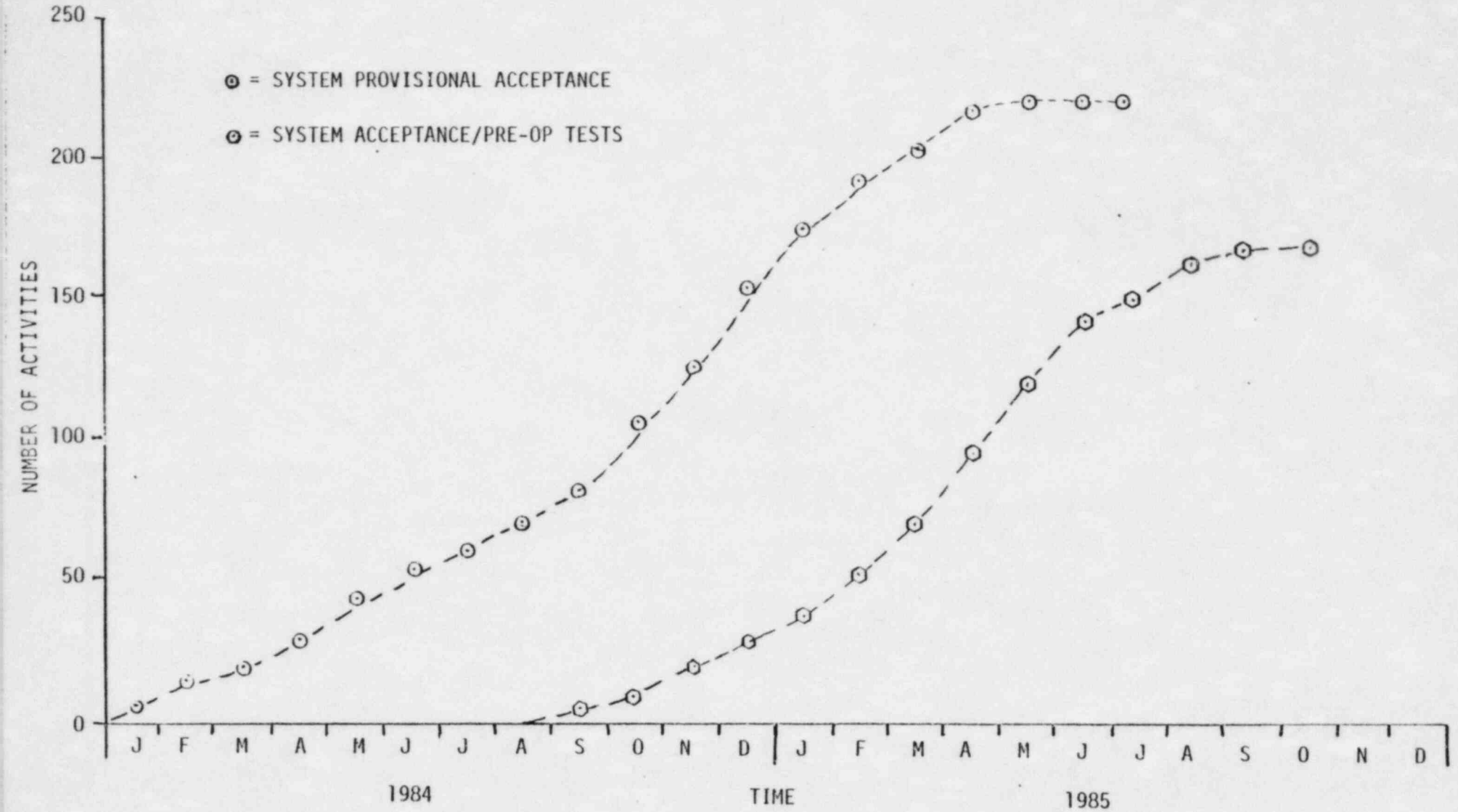
DATE: 09-01-82
NAME: N KAUFMAN



BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE:09-01-82
NAME:N KAUFMAN



BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: TRAPP

POTENTIAL

DEFICIENCIES

BRIEFING
FOR NRC:

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NUCLEAR PROJECT 3

DATE: 09-01-82
NAME: TRAPP

STATUS OF POTENTIAL DEFICIENCIES PER 10CFR50.55(e)

OPEN

D/N #23, RT INDICATIONS - SAFETY INJECTION TANKS

SUPPLY SYSTEM COMMITTED TO PROVIDE ADDITIONAL INFORMATION REGARDING
THE DISPOSITION AND CORRECTIVE ACTIONS FOR LINEAR INDICATIONS FOUND
IN WELDS OF SAFETY INJECTION TANKS

ISSUES AWAITING NRC REGION V CLOSURE

1. D/N #19 - STRUCTURAL STEEL BOLTED CONNECTIONS
2. D/N #25 - WELDING DEFICIENCIES IN RP EMBED PLATES
3. D/N #31 - ITT GRINNELL PIPE HANGER STIFF CLAMPS