Presentation to the
NRC Staff
on

AP600 TEST & ANALYSIS PROGRAMS SCHEDULE UPDATE

by
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Test Engineering

Westinghouse Electric Corporation

December 14, 1992

ET-NRC-92-3783

AP600 TEST PROGRAMS

- PASSIVE CONTAINMENT COOLING SYSTEM TEST
- PASSIVE CORE COOLING SYSTEM TESTS
- COMPONENT DESIGN VERIFICATION TESTS

TEST CATEGORIES

- SAFETY RELATED TESTS
- NON-SAFETY RELATED EQUIPMENT TESTS
- BASIC RESEARCH TESTS

TEST CATEGORIES

- SAFETY RELATED TESTS
- NON-SAFETY RELATED EQUIPMENT TESTS
- BASIC RESEARCH TESTS

SAFETY RELATED TESTS

- PROVIDE DATA FOR COMPUTER CODES USED FOR SSAR ANALYSIS:
  - MODELS
  - CORRELATIONS
  - VERIFICATION

- GENERALLY, A THERMAL-HYDRAULIC TEST
  - UNDERSTAND AND EXPLAIN T/H PHENOMENA
  - CAN BE SYSTEM OR SEPARATE EFFECTS TEST

- HIGHEST QUALITY ASSURANCE PEDIGREE
  - NQA-1 APPLIES, 10CFR21 APPLIES
  - TEST SPECIFICATION REQUIRED
  - TEST OPERATING PROCEDURES REQUIRED
  - TEST FACILITY DESIGN DOCUMENTATION REQUIRED
  - QUALITY RECORDS REQUIRED

- EXAMPLES
  - LARGE SCALE PCCS HEAT TRANSFER TESTS
  - INTEGRAL SYSTEMS TEST (SPES-2, OSU)
  - SEPARATE EFFECT TESTS (ADS, CMT)

NON-SAFETY RELATED EQUIPMENT TESTS

- PROVIDE DESIGN INFORMATION ON SPECIFIC COMPONENTS
  - FEASIBILITY OF DESIGN
  - MANUFACTURABILITY
  - VERIFY COMPONENT PERFORMANCE

- GENERALLY, MECHANICAL TESTS
  - PERFORMANCE DATA
  - WEAR DATA

- HIGH QUALITY ASSURANCE STANDARDS
  - NQA-1 APPLIES
  - TEST SPECIFICATION OPTIONAL
  - TEST OPERATING PROCEDURES REQUIRED
  - TEST FACILITY DESIGN DOCUMENTATION REQUIRED
  - QUALITY RECORDS REQUIRED

- EXAMPLES
  - HIGH INERTIA ROTOR TESTS
  - RCP FLOW TESTS (AIR & WATER)
  - CHECK VALVE TESTS

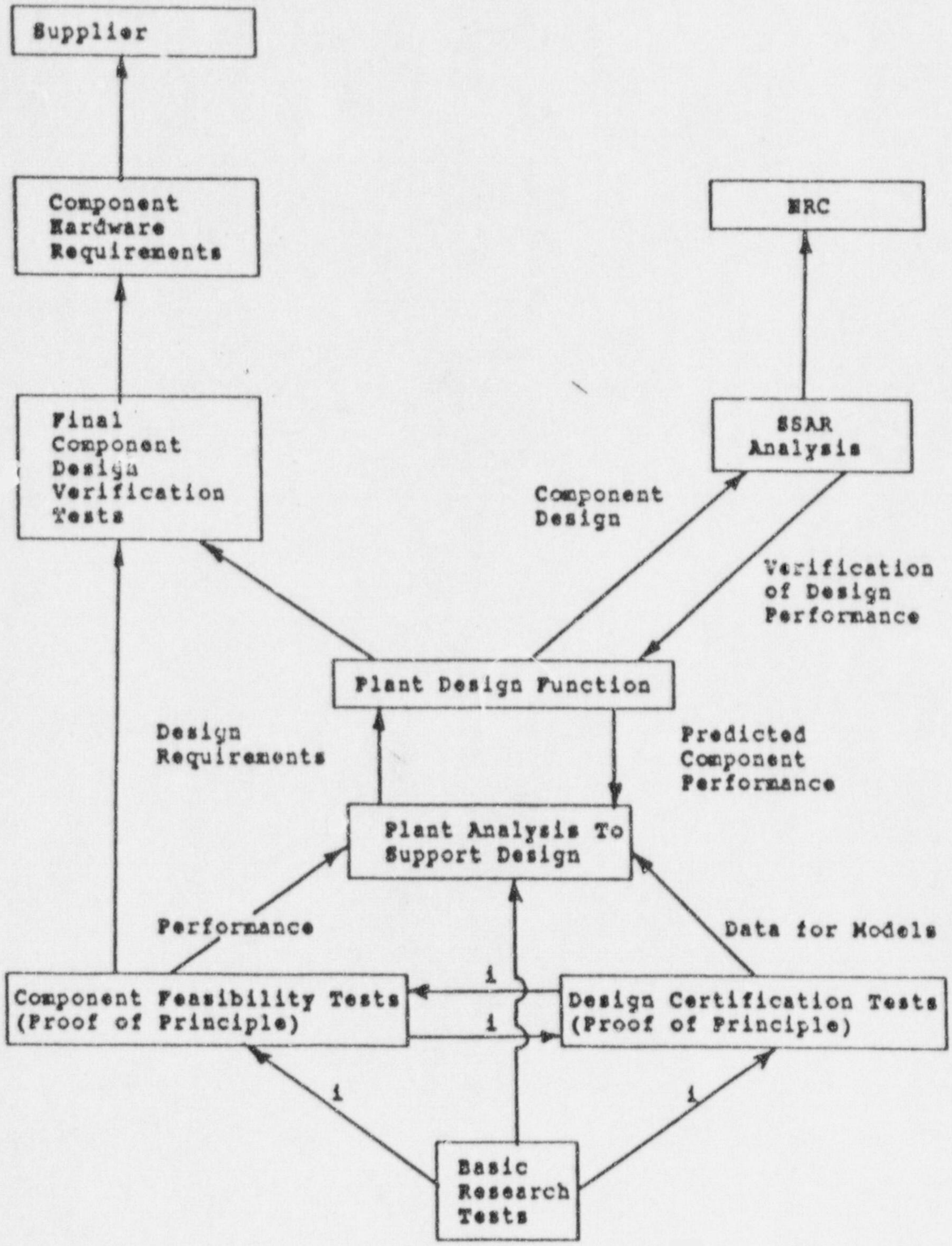
BASIC RESEARCH TESTS

- EXPERIMENTAL IN NATURE

- GENERALLY BENCH TESTS PERFORMED AT UNIVERSITIES
  - INVESTIGATE SPECIFIC PHENOMENA IN DETAIL
  - ANSWER SPECIFIC QUESTIONS OF PERFORMANCE OR FEASIBILITY
  - PROVIDE GUIDANCE FOR FURTHER TESTING

- QUALITY REQUIREMENTS
  - TEST PLAN REQUIRED
  - TEST FACILITY DESIGN DOCUMENTS REQUIRED

- EXAMPLES
  - UNIVERSITY OF WISCONSIN CONDENSATION TESTS
  - UNIVERSITY OF TENNESSE REACTOR VESSEL AIR VISUALIZATION TE
  - BENCH WIND TUNNEL TEST


Supplier
Component Hardware Requirements
NRC
Final Component Design Verification Tests
SSAR Analysis
Component Design
Verification of Design Performance
Plant Design Function
Design Requirements
Predicted Component Performance
Plant Analysis To Support Design
Performance
Data for Models
Component Feasibility Tests (Proof of Principle)
Design Certification Tests (Proof of Principle)
i
i
i
i
Basic Research Tests

AP600 Test Objectives/Conclusions

Passive Containment Cooling Tests	Test Objective/Conclusion	Completion Date	Test Results Requir		
			SSAR	FDA/DC	D-
Integral PCCS Test (Westinghouse STC)	Demonstrated operation of the PCCS over the full range design basis operating conditions	Completed, July 1992	X		
Large Scale PCCS (Westinghouse STC)	To demonstrate operation of the PCCS on a scaled structure which accurately models both the containment dome and sidewall heat transfer areas, and inside containment structures	Phase 1 - May 1992	X		
		Phase 2 - June 1993		X	
PCCS Water Distribution (Westinghouse AESD)					
Phase 1 - Center of Dome, 20' Diameter	Demonstrated the effectiveness of water distribution on the center of the containment dome	Completed, June 1991	X		
Phase 2 - Full Scale 1/8 Section	Demonstrated the effectiveness of water distribution on the containment dome and upper sidewall	Completed, January 1992	X		
Phase 3 - Full Scale 1/8 Section	Verify design of water distribution system	April 1993			
PCCS Wind Tunnel (University of Western Ontario)					
o Phase 1 - Overall building effects	Demonstrated the wind induced pressure on the containment shield building due to air inlet/outlet configurations and site structures	Completed, July 1991	X		
o Phase 2 - Detailed Model, Final Verification	Determined baffle loading and demonstrated the effect of wind on containment ann[u]lus air flow	Completed, February 1992	X		
o Phase 3/4	To demonstrate effects of site geography and to perform tests at higher Reynold's [n]umbers	September 1993		X	

0 Test Objectives/Conclusions

...ry System Tests	Test Objective/Conclusion	Completion Date	Test Results Required for		
			SSAR	FDA/DC	Design Verification
...HX (Westinghouse STC)	Determined heat transfer characteristics of the PRHR heat exchanger and mixing characteristics in the IRWST				
		Completed, December 1989	X		
		Completed, October 1990	X		
...pressurization System Test (Cassacia, Italy)					
Sparger Performance & Tank Loads	To confirm the capacity of the sparger and to determine the dynamic effects on the IRWST structure	November 1992		X	
Valve Performance	To simulate operation of the automatic depressurization system and to confirm the capacity and operability of the ADS valves	December 1993		X	
Tank (Westinghouse AESD)	To verify the gravity drain behavior of the core makeup tank over a full range of flow rates and pressures and to verify the operation of the tank level instrumentation	April 1993		X	
...oling (1/4 Scale) ... University)	To provide data to evaluate the operation of the PXS at low pressure	December 1993		X	
...a University)	To extend the existing critical heat flux correlation for W fuel assemblies at lower flow conditions	February 1993		X	
...Pressure Integral Systems Test ...n Italy)	To provide data to evaluate the operation of the PXS at high pressure, including response to small break LOCA, tube rupture and steamline break transients	November 1993		X	

600 Test Objectives/Conclusions

nent Design Tests	Test Objective/Conclusion	Completion Date	Test Results Required for		
			SSAR	FDA/DC	Design Verification
RHR Suction Nozzle Test (East Pittsburgh)	Eliminated Suction Vortex	Completed, September 1988			X
Coolant Pump (RCP)/SG Channelhead Air Vestinghouse EMD)	No SG to Pump Flow Anomalies	Completed, March 1991			X
Vater Flow (Westinghouse EMD)	To obtain flow, head and efficiency data to accurately predict the performance of the full-scale AP600 reactor coolant pump	September 1994			X
ournal Bearing (Westinghouse STC)	Demonstrated manufacturability of depleted uranium rotor sections and large radial bearings and determined rotor drag losses				X
e 1		Completed, December 1989			
e 2		Completed, February 1991			
gh Inertia Rotor ghouse STC)	To optimize rotor drag losses	Completed, August 1992			X
nstrumentation Tests (ICIS)					
omagnetic Interference nghouse EMD)	Demonstrated that system is not susceptible to Electromagnetic Interference from the CRDMs	Completed, September 1990			X
nduced Vibration (facility not chosen)	To demonstrate that the thimble is not subjected to excessive wear	May 1994			X

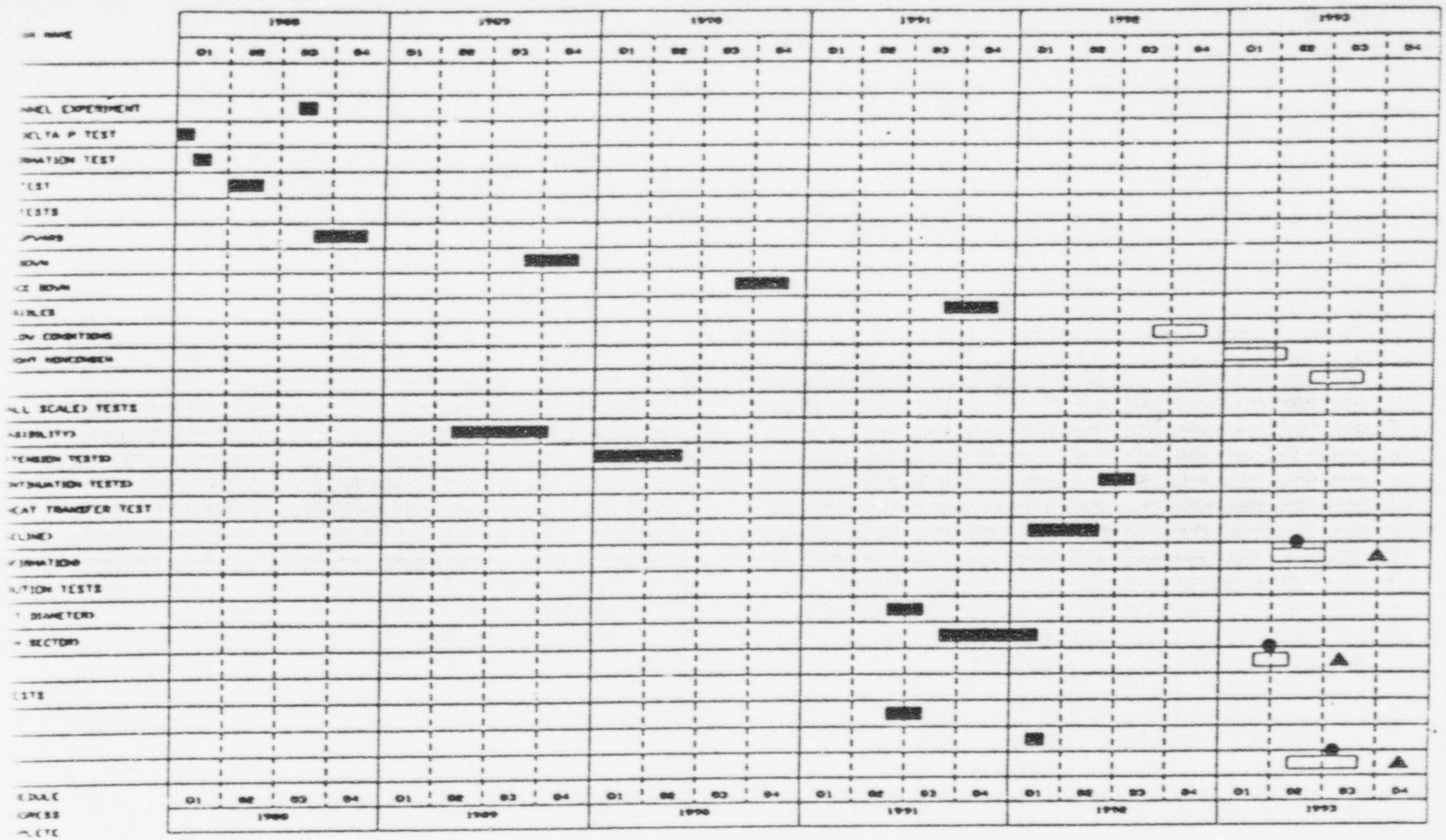
600 Test Objectives/Conclusions

onent Design Tests (Continued)	Test Objective/Conclusion	Completion Date	Test Results Required for		
			SSAR	FDA/DC	Design Verification
Vessel Internals Test					
Visualization (University of Tennessee)	Demonstrated that no abnormal flow distribution occurs in the reactor vessel downcomer and lower plenum	Completed, February 1992			X
Scale Hydraulic (facility not chosen)	To verify the hydraulic characteristics of the AP600 vessel and internals	May 1997			X
Valve (Westinghouse AESD)					
minary Hydraulic	Determined flow vs. dP for prototypic check valves	Completed, June 1991	X		
	To determine opening dP for check valves following prolonged exposure to plant conditions	December 1994			X
fication Testing	To assess check valve performance	(Later)			X
Stage Valve Test (facility not chosen)	To verify valve and operator performance	December 1994			X

ST PROGRAMS

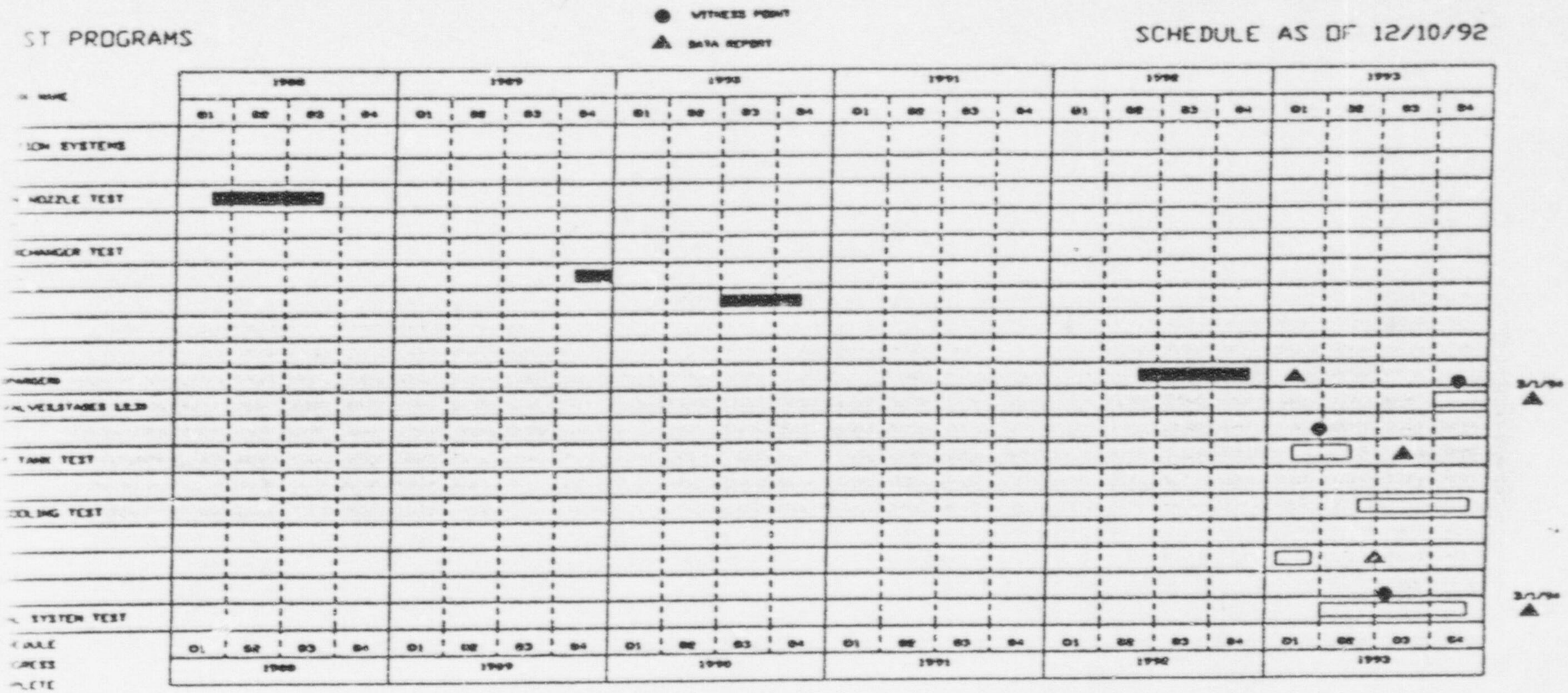
● WITNESS POINT
▲ DATA REPORT

SCHEDULE AS OF 12/10/92



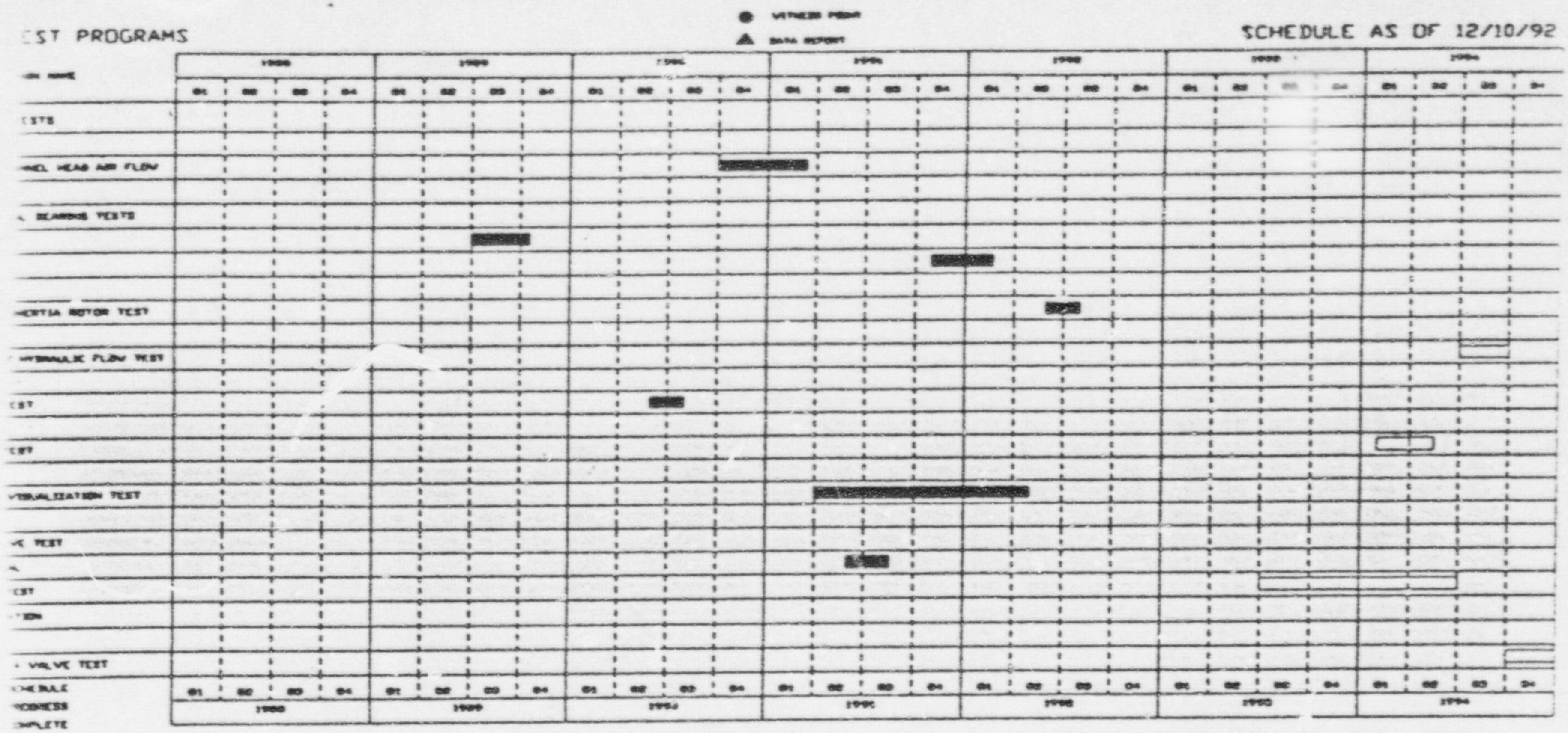
ST PROGRAMS

SCHEDULE AS OF 12/10/92



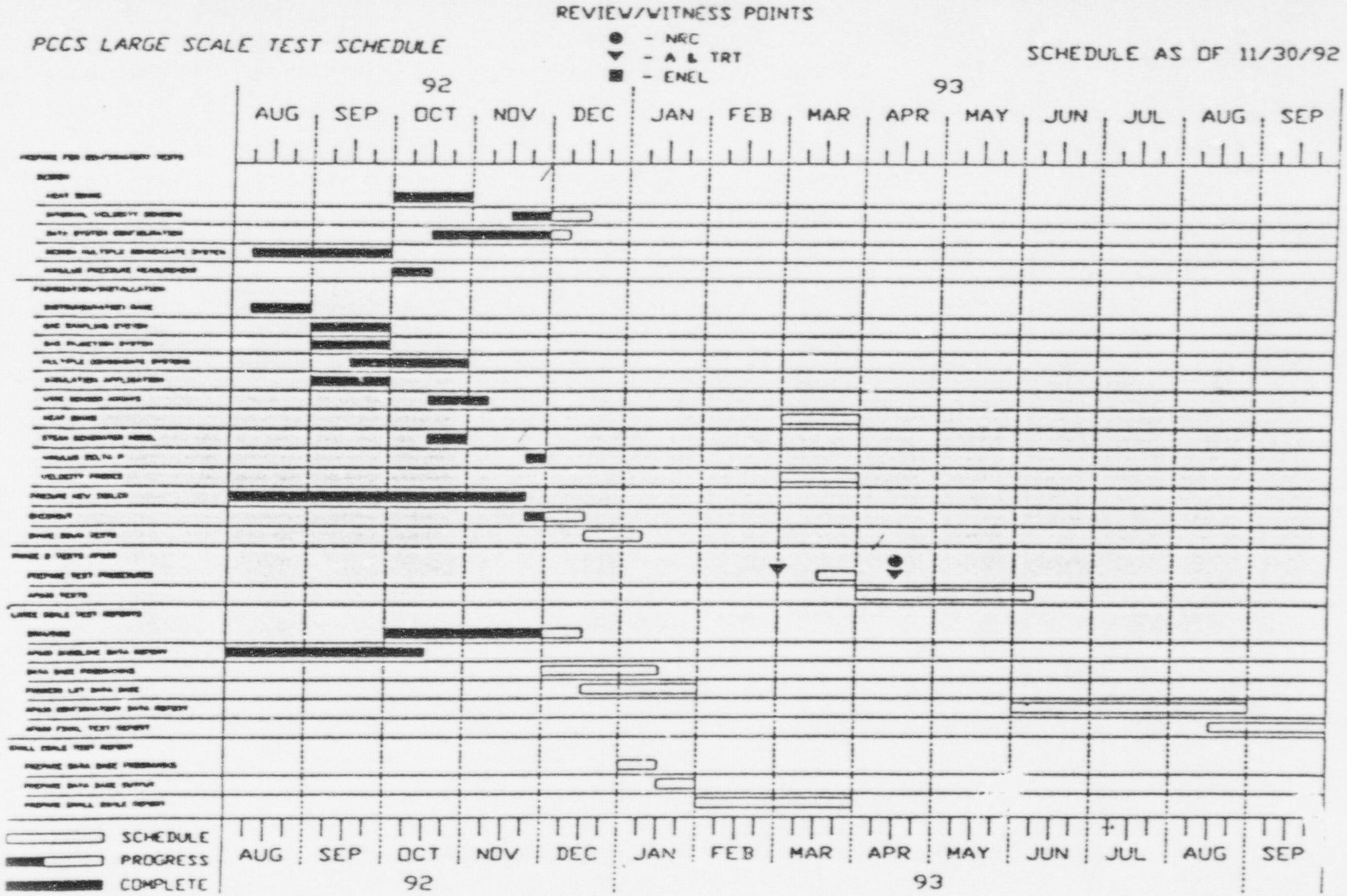
ST PROGRAMS

SCHEDULE AS OF 12/10/92



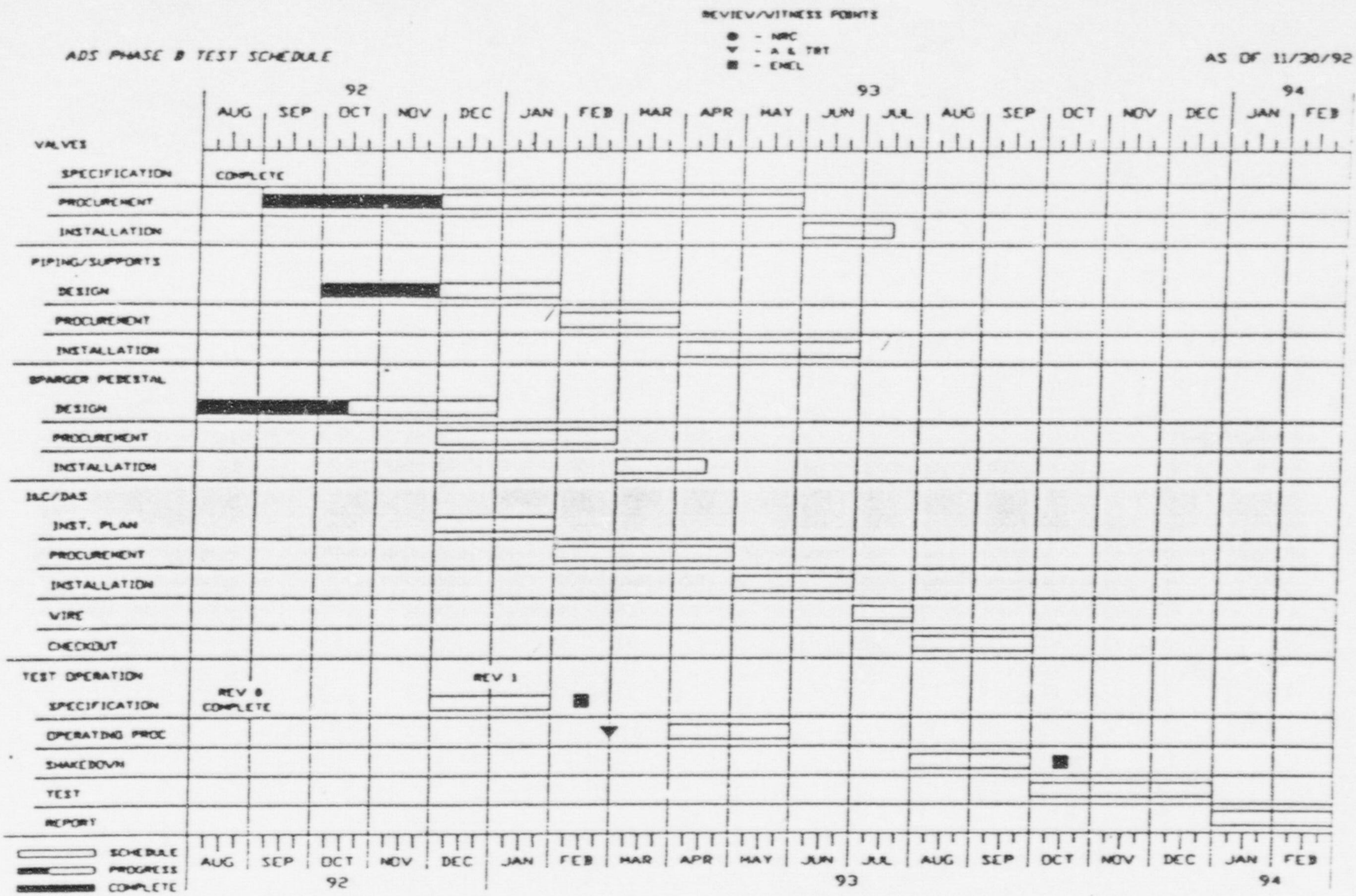
PCCS LARGE SCALE TEST SCHEDULE

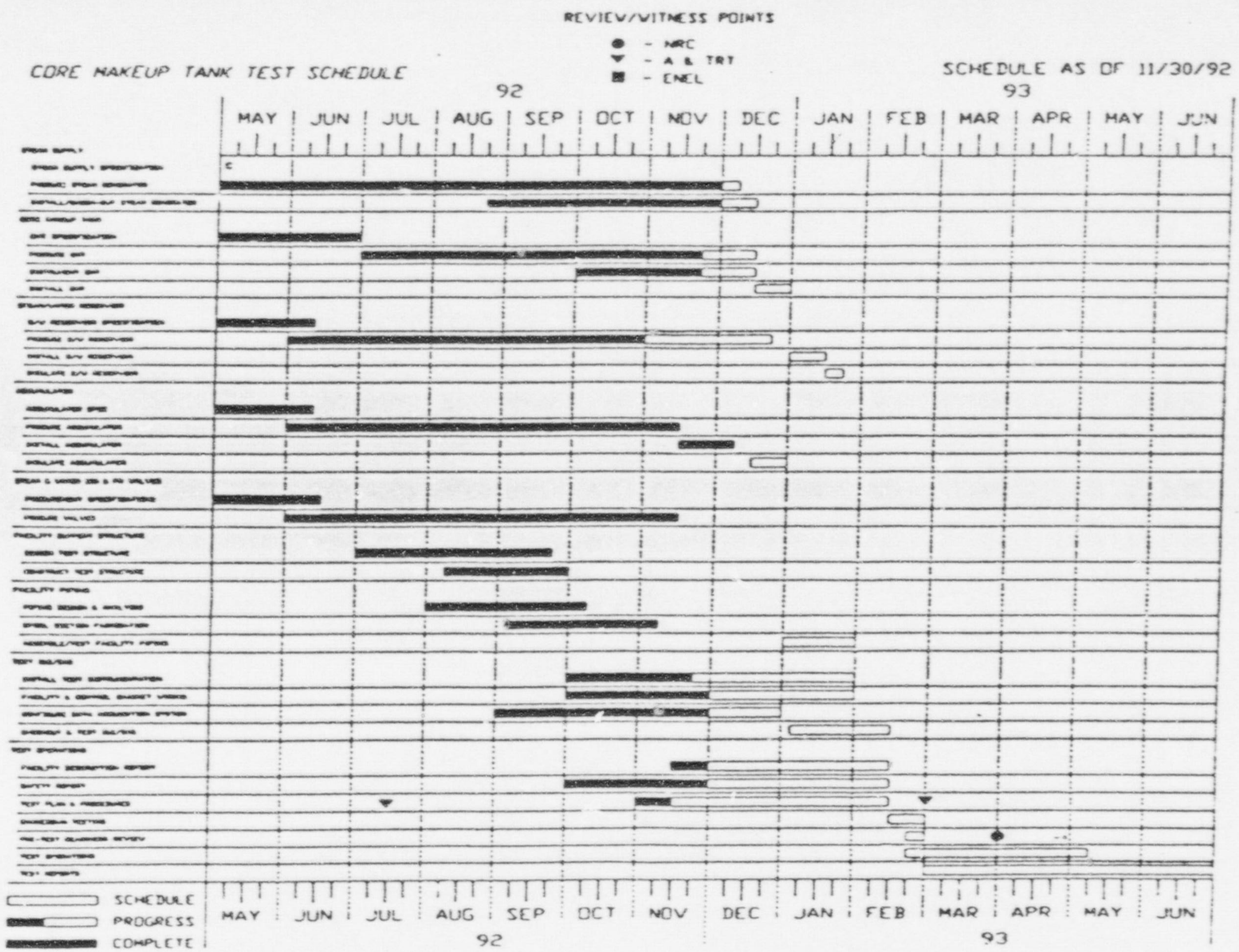
SCHEDULE AS OF 11/30/92



ADS PHASE B TEST SCHEDULE

AS OF 11/30/92

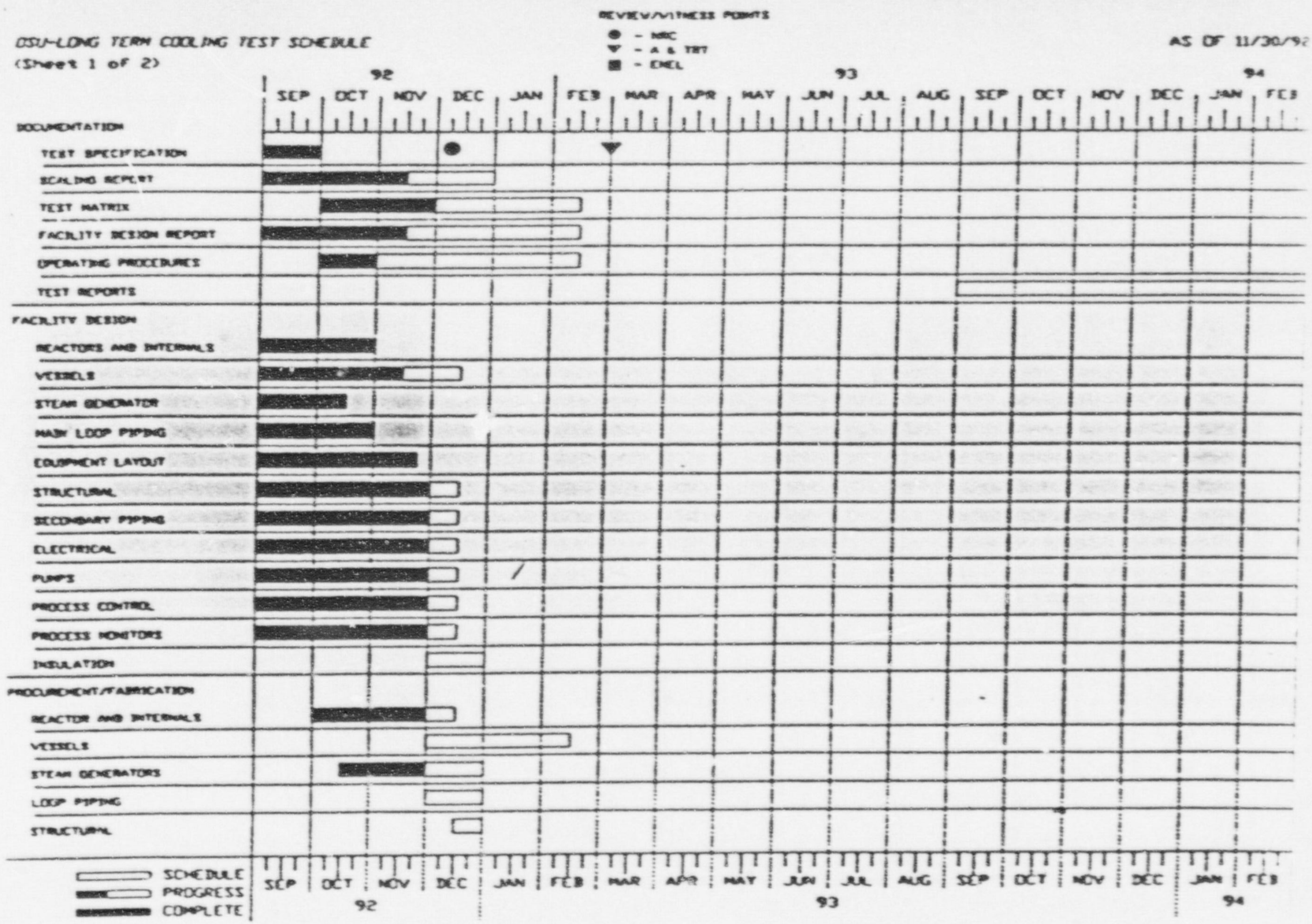



CORE MAKEUP TANK TEST SCHEDULE
SCHEDULE AS OF 11/30/92
REVIEW/WITNESS POINTS
- NRC
- A & TRT
- ENEL
92
93
MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY JUN
SCHEDULE
PROGRESS
COMPLETE

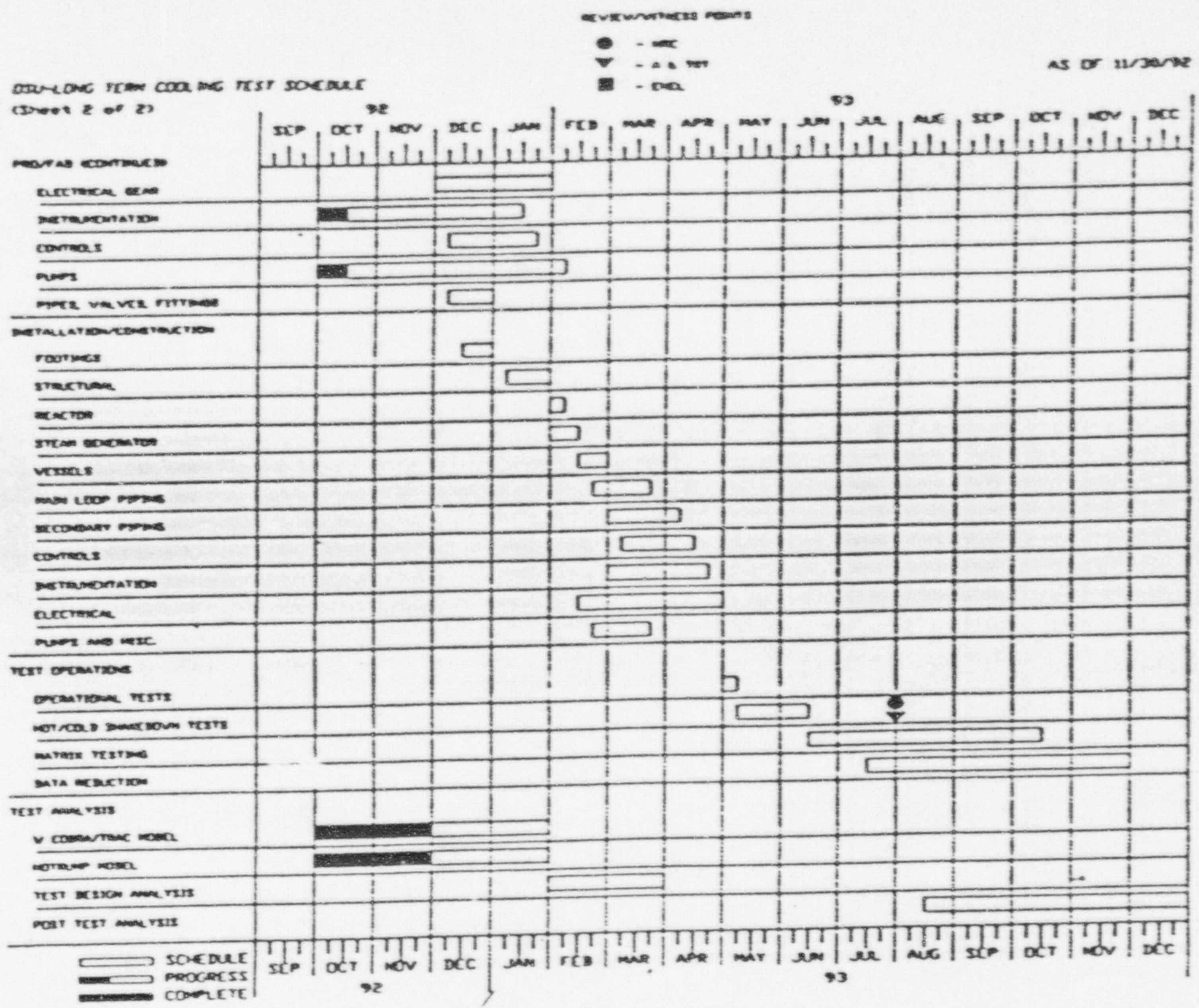
OSU-LONG TERM COOLING TEST SCHEDULE

(Sheet 1 of 2)

AS OF 11/30/92

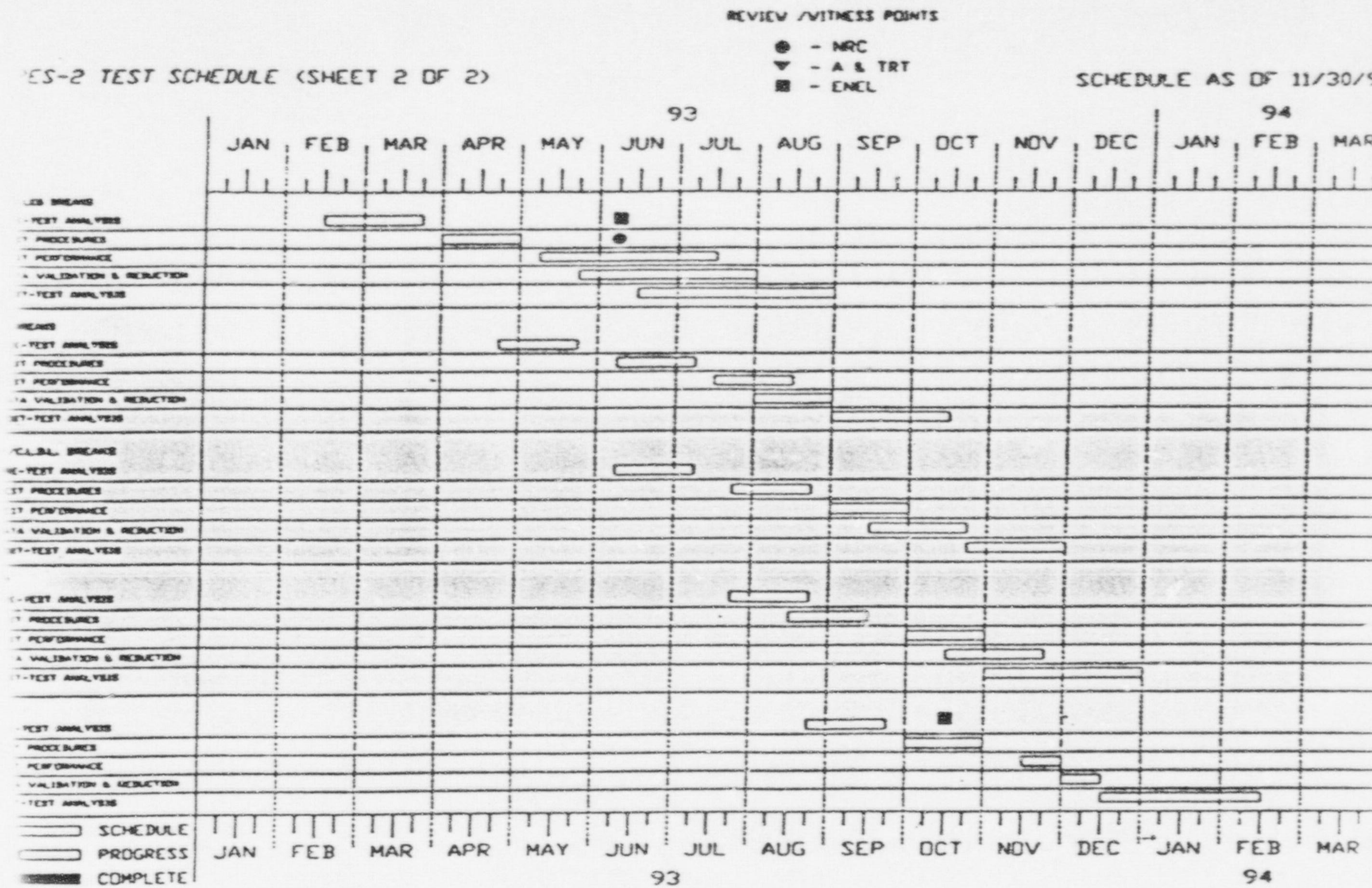


REVIEW/WITNESS POINTS



'ES-2 TEST SCHEDULE (SHEET 2 OF 2)

SCHEDULE AS OF 11/30/9?



AP600 Test Documentation
(Westinghouse Proprietary Class 2 WCAPS)

PCCS Tests	Test Spec or Test Plan	Operating Procedures	Facility Design Report	Interim Data Report	Final Test Report
Bench Wind Tunnel Experiment					
Air Flowpath Delta P Test					13328 (0) 04/30/92
Heated Plate Test					12665 07/16/90 12665 (0) 04/30/92
Condensation Tests					13307 (0) 04/30/92
Integral (Small Scale) Tests					
Phase 1					12667 07/16/90 12667 (0) 04/30/92
Phase 2A	13315 (0) 04/30/92				
Phase 2B					
1/8th (Large Scale) Tests					
Phase 1	13267 (1) 04/30/92				
Phase 2	13267 (1) 04/30/92				
Water Distribution Tests					
Phase 1	13290 (0) 04/30/92		13292 (0) 04/30/92		13353 (0) 04/30/92
Phase 2	13290 (0) 04/30/92		13292 (0) 04/30/92		13[illegible]96 (0) 04/30/92
Phase 3					
Wind Tunnel Tests					
Phase 1	13318 (0) 04/30/92				13294 (0) 04/30/92
Phase 2	13318 (0) 04/30/92				13323 (0) 10/02/92
Phase 3	13318 (0) 04/30/92				
Phase 4	13318 (0) 04/30/92				

Revision 0: December 13, 1992

AP600 Test Documentation
(Westinghouse Proprietary Class 2 WCAPS)

PXS Tests	Test Spec or Test Plan	Operating Procedures	Facility Design Report	Interim Data Report	Final Test Report
NRHR Suction Nozzle Test					
PRHR Heat Exchanger Tests					
Phase 1					12666 07/16/90
Phase 2					13368 (0) 08/07/92 12980 (0)
ADS Tests					
Phase A	13342 (0) 04/30/92				
Phase B	13342 (0) 04/30/92				
Core Makeup Tank Test	13345 (0) 04/30/92				
Long Term Cooling Test	13234 (0) 04/30/92				
FHFP Integral System Test	13277 04/03/92				

AP600 Test Documentation
(Westinghouse Proprietary Class 2 WCAPS)

Component Tests	Test Spec or Test Plan	Operating Procedures	Facility Design Report	Interim Data Report	Final Test Report
RCP/SG Channel Head Air Flow Test					13296 (0) 04/30/92
RCP Journal Bearing Tests					
Phase 1	13309 (0) 04/30/92				12668 07/16/90 12668 (0) 04/30/92
Phase 2	13312 (0) 04/30/92				13319 (0) 04/30/92
RCP High Inertia Rotor Test	13313 (0) 04/30/92				13487 (0) 10/12/92
RCP Water Hydraulic Flow Test	13305 (0) 04/30/92				
Incore Instrumentation System EMI Test					12648 (0) 04/30/92
Incore Instrumentation System FIV Test					
RV Flow Visualization Test					13351 (0) 04/30/92
Check Valve Tests					
Mechanical	13288 (0) 04/30/92		13284 (0) 04/30/92		13286 (0) 04/30/92
In-Situ					
Qualification					

AP600 CHECK VALVE TEST

- o Verify hydraulic performance of swing check valve (provide valve design feasibility information)
  - Opening differential pressure
  - Differential pressure over the expected valve flow rate with prototypic valve arrangement

- o Develop a qualification plan
  - Contract Penn State University to review existing check valve data

- o Utility participation
  - Have contacted 5 utilities about the possibility of testing existing check valves

S CHECK VALVE FLOW TEST

RPOSE

nonstrate the capability of the Passive Safety Injections System Check ves to open under low differential pressure conditions which exist under vity drain injection and natural circulation operation.

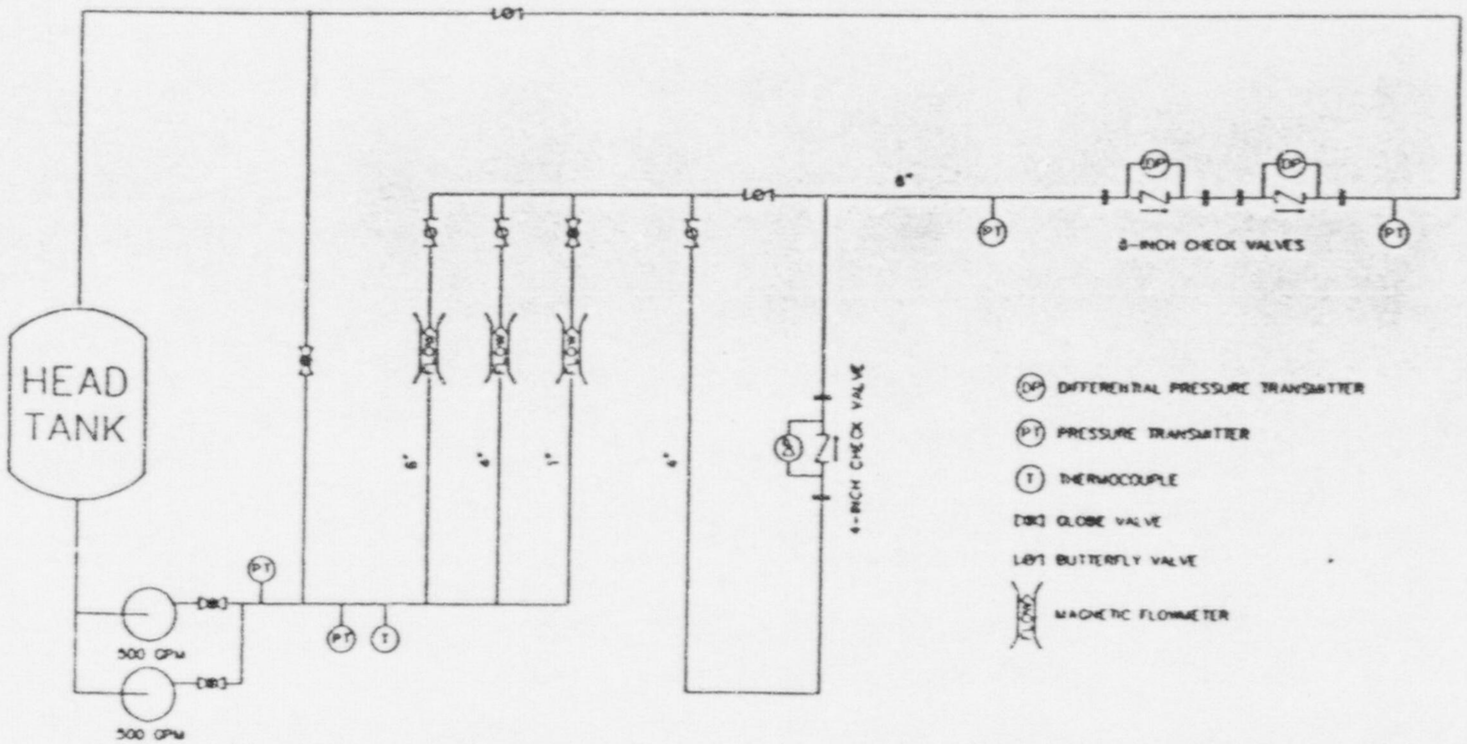
Verify differential pressure required to open the valve disk and to maintain the disk full open

Verify data on flow versus differential pressure over the expected valve operating range

PXS CHECK VALVE TESTS

- INSTALL SINGLE CHECK VALVE (0 TO 600 GPM)
  - 4-INCH CHECK VALVE
  - EACH 6-INCH CHECK VALVE
- 6-INCH CHECK VALVES IN SERIES (0 TO 600 GPM)
- INSTALL 4-INCH AND 6-INCH VALVES IN SERIES (0 TO 600 GPM)

CHECK VALVE FLOW TEST FACILITY



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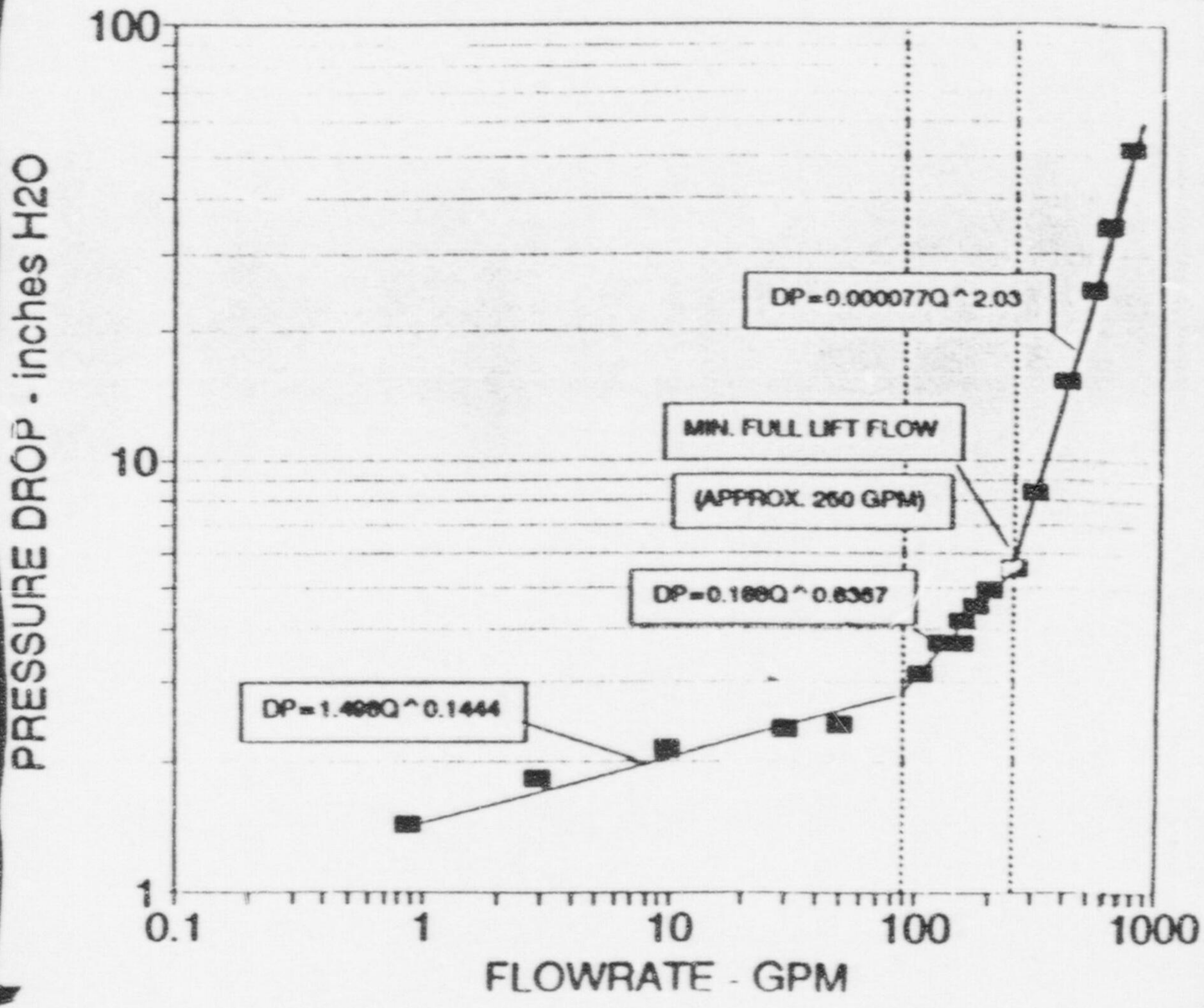
PXS CHECK VALVE FLOW TEST DATA

4" CHECK VALVE TEST DATA - PRESSURE DROP vs. FLOWRATE

[redacted]

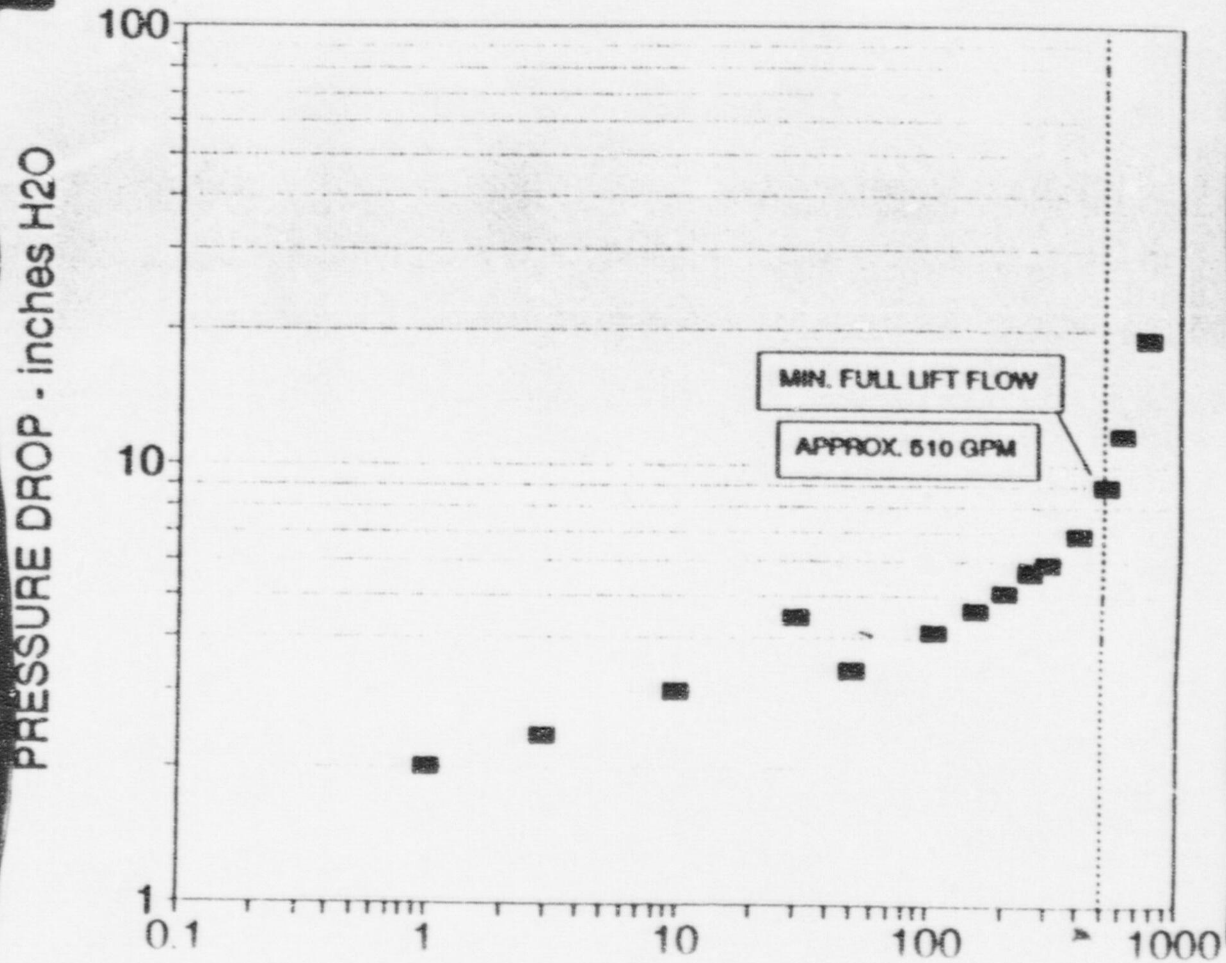


[redacted]

[redacted]

S CHECK VALVE FLOW TEST DATA

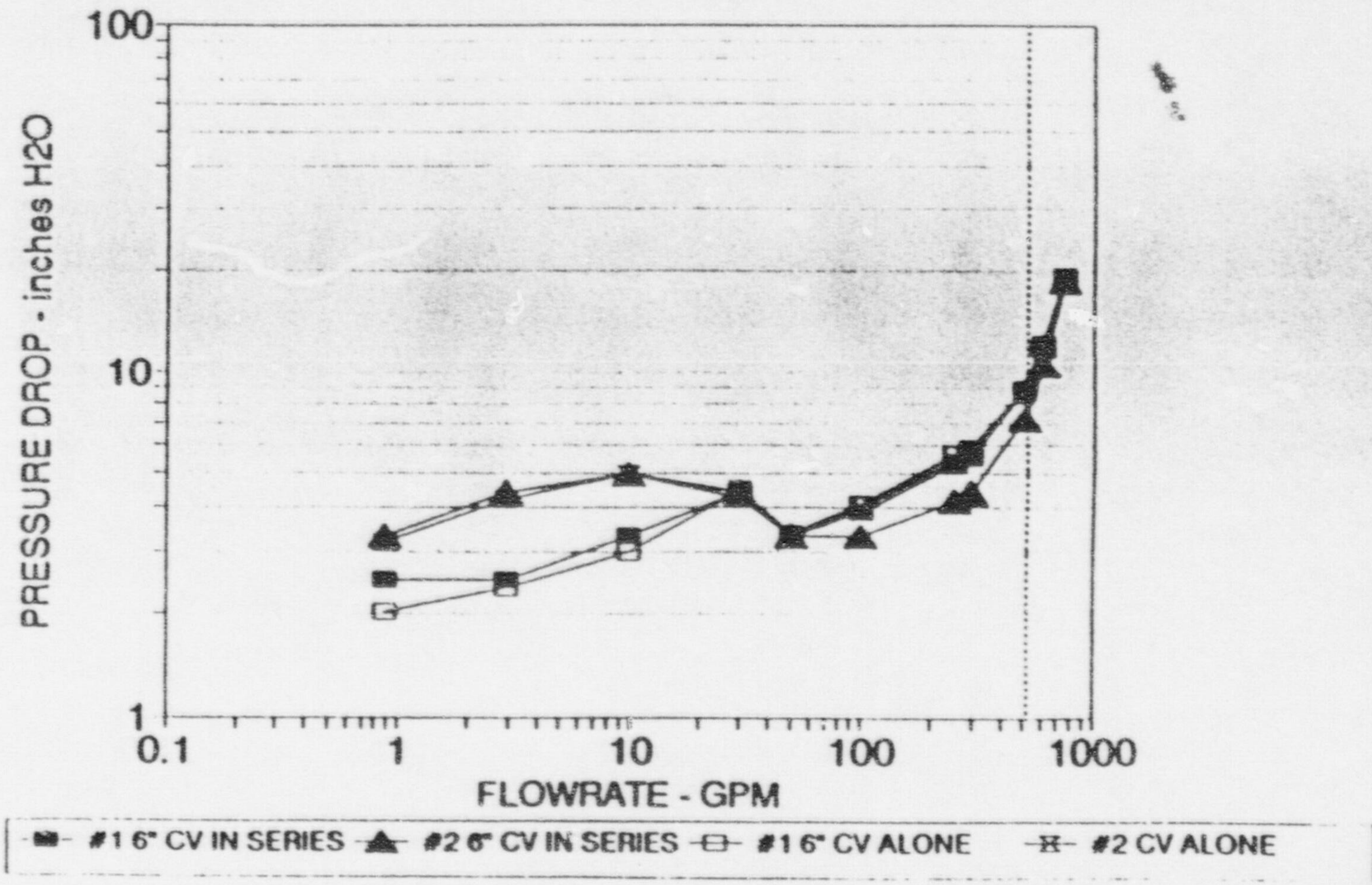
HECK VALVE TEST DATA - PRESSURE DROP vs. FLOWRATE



[redacted]

S CHECK VALVE FLOW TEST DATA

HECK VALVES IN SERIES - PRESSURE DROP VS. FLOWRATE



[redacted]

)0 CHECK VALVE TEST

RESULTS

ferential pressure required to initially open check valve is small (less than
uple inches of water

peration of each check valve is smooth under all flow rates, ranging from
ninar to fully turbulent

essure drop vs. flow rate is predictable

ere exists a critical flow rate for each check valve at which the disk is just
y ope..

interaction seen between valves in series when piping between valves is
g. Interaction seen at 3 pipe diameters was very small.

AP600 CHECK VALVES

- **Current PWRs Use Check Valves In Similar Service**
  - RCS chemistry
  - Stainless steel with stellite seats
  - Infrequent use, normally closed

- **Well Designed, Simple Check Valves Are Reliable In Nuclear Power Plant Service**
  - Search of NPRDS failure records (1984 to 90) indicate 4500 check valve failures
  - Of these only 87 were failures to open
  - None of the failures was for a check valve with similar conditions to the IRWST valves
  - No indication of boric acid corrosion or self welding was found

- **Check Valve Testing**
  - Performance tests show AP600 IRWST injection and recirculation check valves perform well
  - Further testing is being discussed to determine if in plant testing could be conducted to determine if corrosion bonding or other sticking failures would occur at IRWST opening pressures

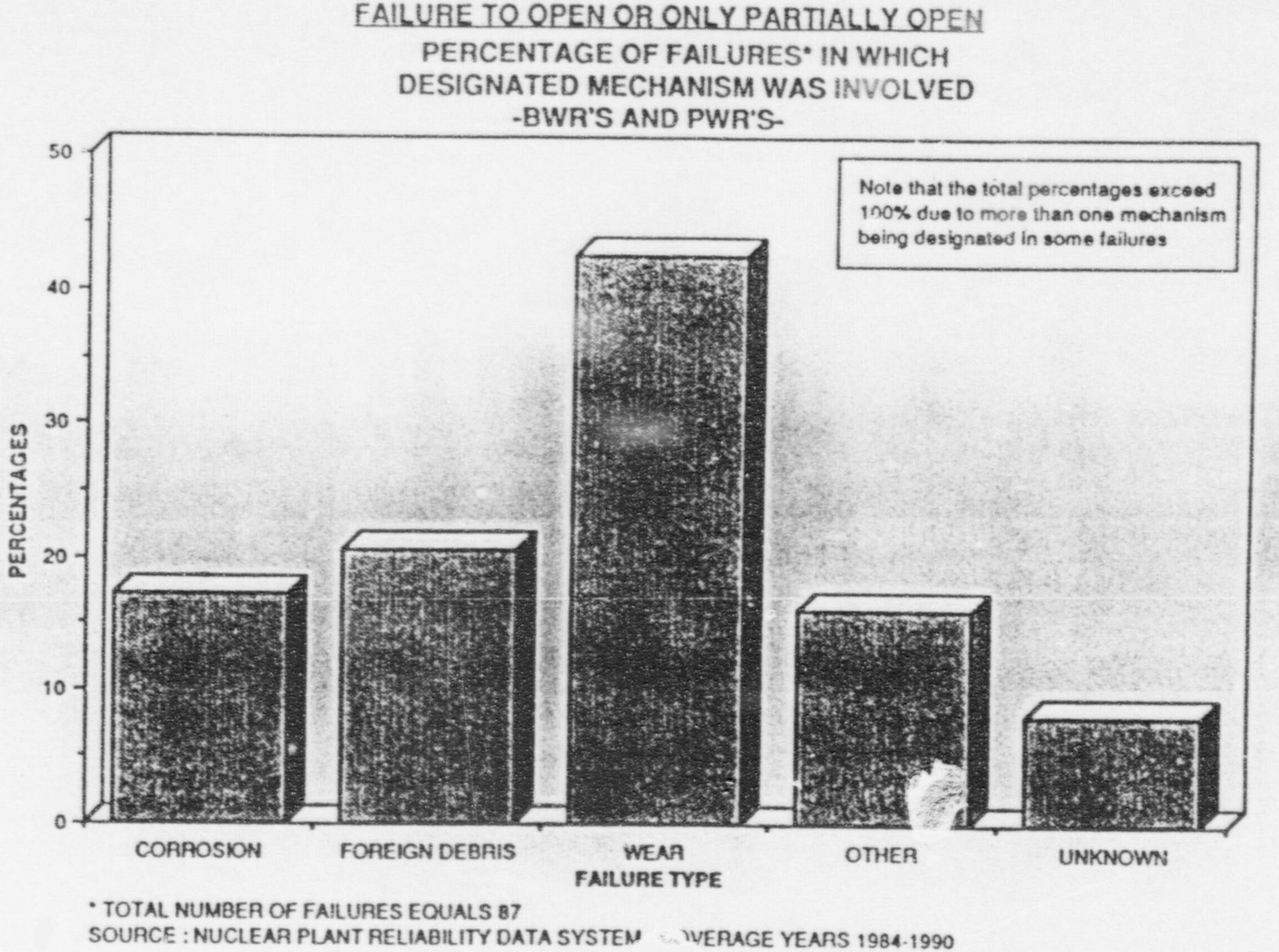


Figure 3.1 Percentage of Failures as a Function of Failure Type - BWRs and PWRs

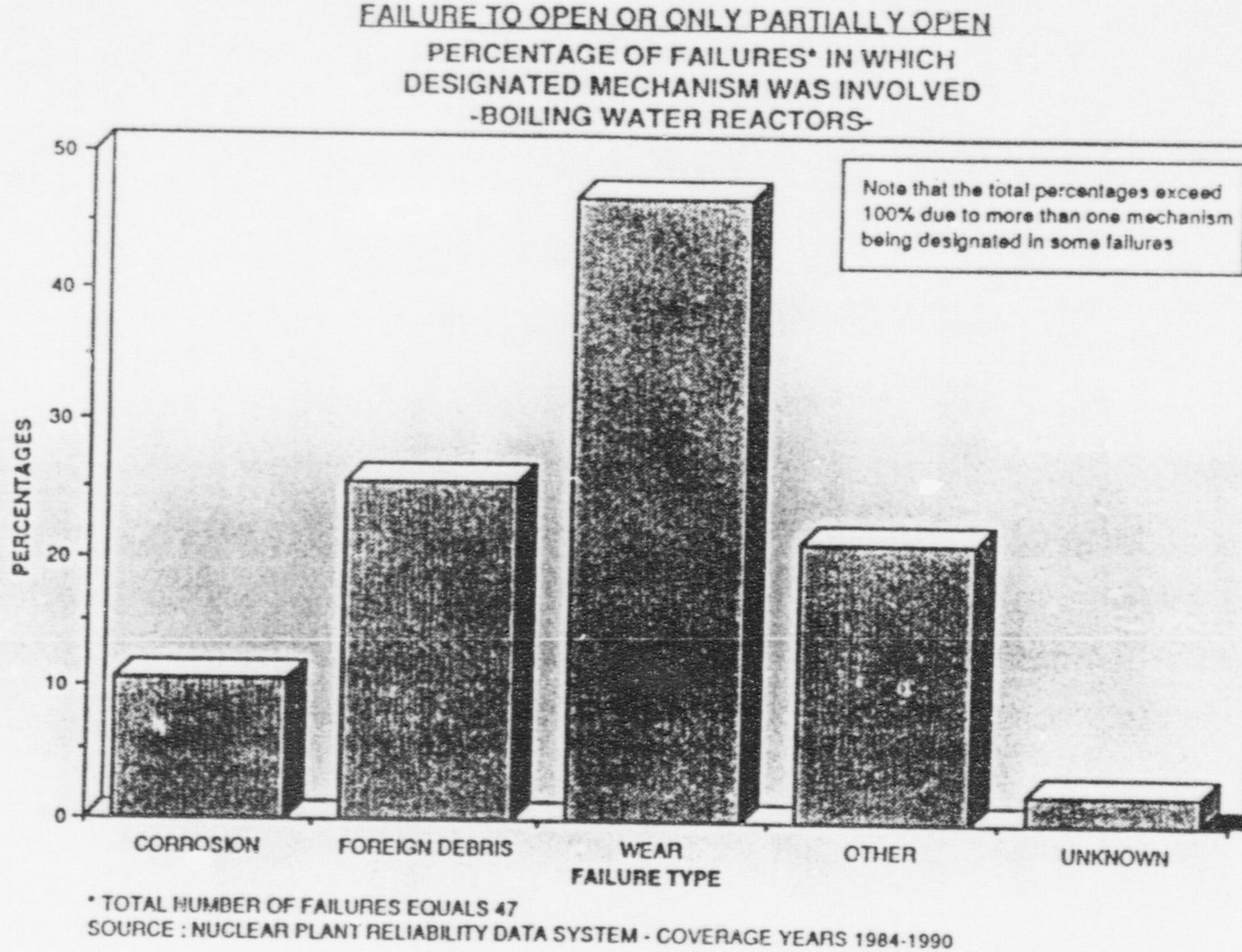


Figure 3.2 Percentage of Failures as a Function of Failure Type - BWRs

Table 3.1 Failure Type Categorized by System - BWRs

ILURE TYPE :	WEAR/MECH DAMAGE	CORROSION	FOREIGN DEBRIS	HUMAN ERRORS	OTHER	UNKNOWN	UNSURE-REPLACED	TOTALS	# OF
NL FAILURE TYPE NO. :	[1]	[1]	[2]	[3]	[4]	[5]	[6]	[1]-[6]	FAILURES
SYSTEM									
AIN STEAM	11	1			4			16	16
EACTOR CORE ISOL COOLING	2		2		3	1		8	8
GH PRES COOLANT INJ	1	3	1					5	5
SSENTIAL SERVICE WATER	1	1	3	1				6	3
ESEL STARTING AIR	1		1					2	2
W PRES CORE SPRAY	1		1					2	2
PPRESSION POOL SUPPORT	1			1				2	2
MBUSTIBLE GAS CONT-DIL			2					2	2
R/LOW PRES INJECT	1		1					2	2
ACT BLDG CCW	1				1			2	2
SEL FUEL OIL			1					1	1
EDWATER	1							1	1
NTROL ROD DRIVE	1							1	1
TALS :	22	5	12	2	8	1	0	50	47
RCENTAGES :	46.81%	10.64%	25.53%	4.26%	17.02%	2.13%	0.00%	106.38%	

E : THE TOTAL PERCENTAGES EXCEED 100% DUE TO MORE THAN ONE MECHANISM BEIGN DESIGNATED IN SOME FAILURES

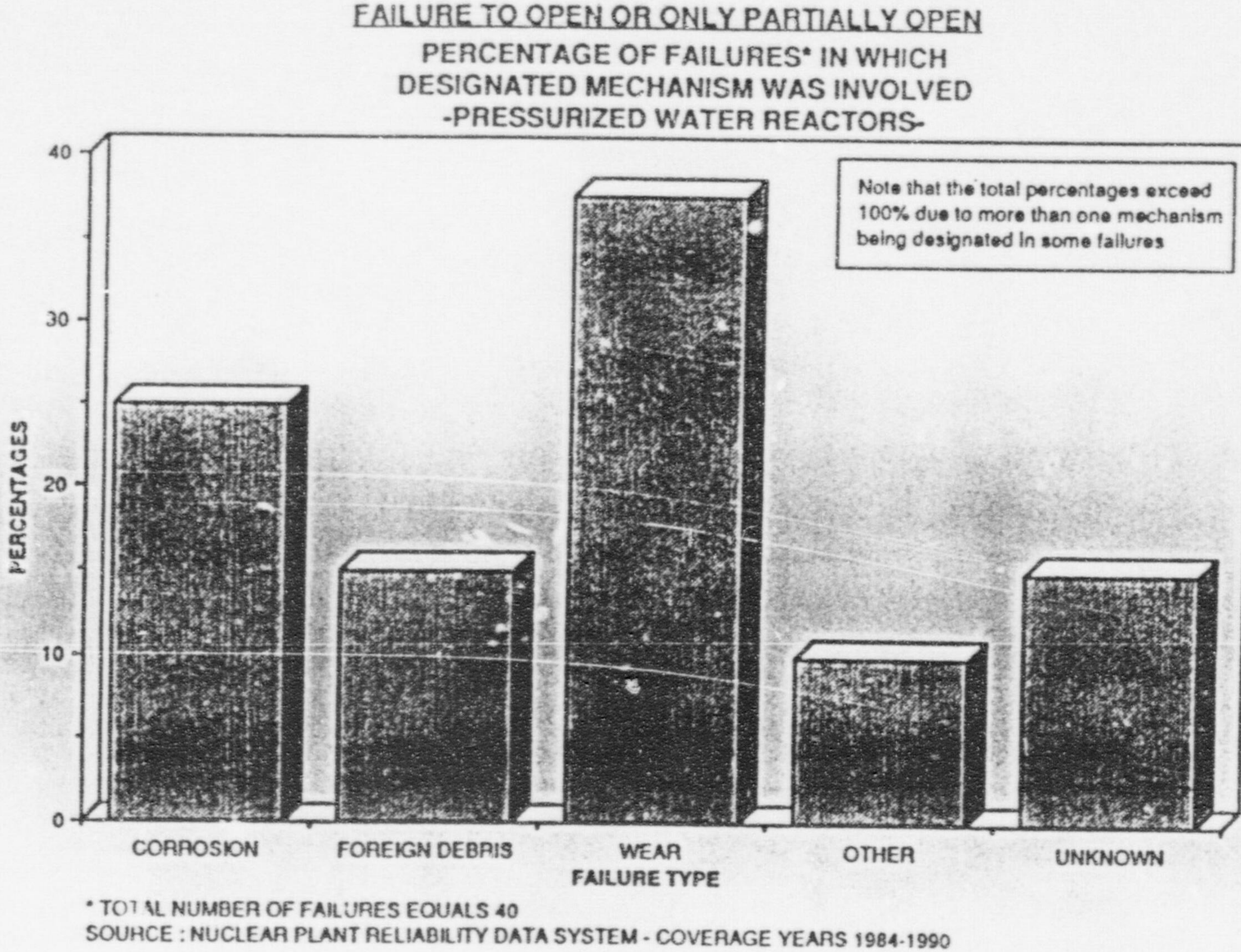
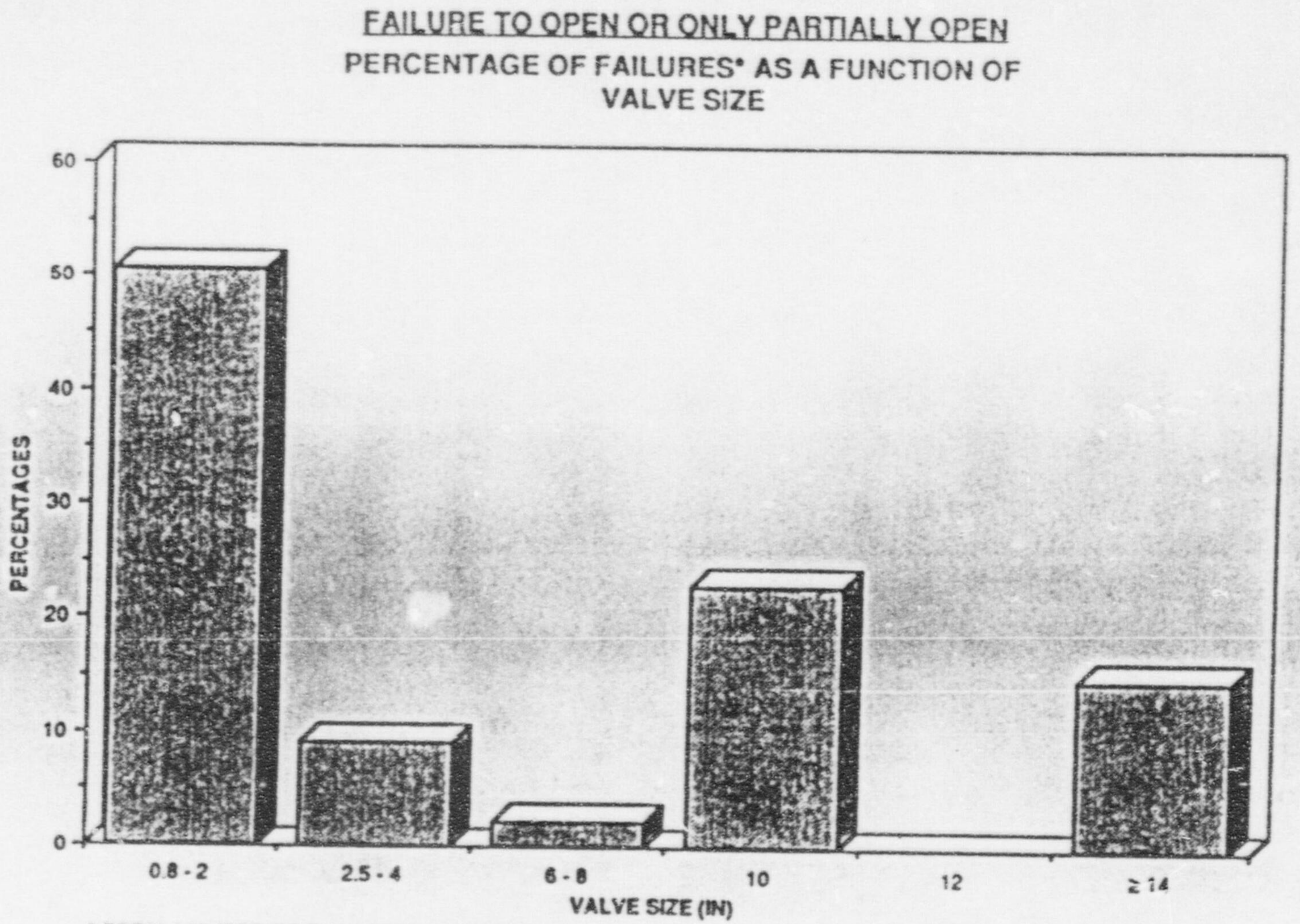


Figure 3.3 Percentage of Failures as a Function of Failure Type - PWRs

Table 3.2 Failure Type Categorized by System - PWRs

IRE TYPE :	WEAR/MECH DAMAGE	CORROSION	FOREIGN DEBRIS	HUMAN ERRORS	OTHER	UNKNOWN	UNSURE-REPLACED	TOTALS	# OF
FAILURE TYPE NO. :	[1]	[1]	[2]	[3]	[4]	[5]	[6]	[1]-[6]	FAILURES
SYSTEM									
P COOLING WATER	4	2	1	1				8	8
EL STARTING AIR	1	1	2	1	1	2		8	8
LEAR SERVICE WATER	2	2						4	4
I STEAM	2						1	3	3
IIARY FEEDWATER	1		1			1		3	3
TAINMENT SPRAY	2		1					3	3
DENSATE		2				1		3	3
PRESSURE INJECTION	2							2	2
BUSTIBLE GAS CONT-DIL		2						2	2
FEEDWATER SYSTEM				1		1		2	2
CTOR COOLANT		1						1	1
IICAL & VOLUME CNTRL	1		1					2	1
LS :	15	10	6	3	1	5	1	41	40
ENTAGES :	37.50%	25.00%	15.00%	7.50%	2.50%	12.50%	2.50%	102.50%	

THE TOTAL PERCENTAGES EXCEED 100% DUE TO MORE THAN ONE MECHANISM BEIGN DESIGNATED IN SOME FAILURES



* TOTAL NUMBER OF FAILURES EQUALS 87

SOURCE : NUCLEAR PLANT RELIABILITY DATA SYSTEM - COVERAGE YEARS 1984-1990

Figure 3.4 Percentage of Failures as a Function of Valve Size

WR CHECK VALVE FAILURE
)BSERVATIONS

Most check valve failures occurred due to mechanical/wear damage (not applicable to AP600 valve application)

No failures to open due to corrosion observed for stainless steel valves

No failures to open due to foreign debris in water service for stainless steel valves

- FOURTH STAGE ADS TEST PROGRAM
  - BACKGROUND
    - ORIGINAL ADS FOURTH STAGE VALVE WAS AN 8-INCH VALVE AND WOULD HAVE BEEN ADDRESSED IN THE CURRENT ADS TEST PROGRAM
      - THE ADS TESTS ARE COMPLEX EXPERIMENTS THAT EXAMINE THE ENTIRE ADS SYSTEM, VALVES, PIPING, AND SPARGER
    - AS A RESULT OF THE SSAR ANALYSIS, THE VALVE SIZE WAS INCREASED TO A 12-INCH VALVE TO PROVIDE INCREASED RCS VENTING CAPACITY
    - A SPECIFIC TEST WILL BE RUN ON THE FOURTH STAGE ADS VALVE, AS A COMPONENT DESIGN VERIFICATION TEST, NOT AS PART OF DESIGN CERTIFICATION

- INFORMATION REQUIRED FROM FOURTH STAGE ADS VALVE PROGRAM

  - THE MAJORITY OF THE INFORMATION NEEDED FROM SUCH A PROGRAM IS SPECIFICALLY COMPONENT DESIGN RELATED:

    - OPENING TORQUES

    - SEALING CAPABILITY

    - SIZING OF VALVE OPERATOR

- INFORMATION IS ALSO NEEDED TO VERIFY THE FLOW BEHAVIOR OF THE VALVE - HOWEVER OTHER SOURCES/BASIS FOR THIS INFORMATION DOES/WILL EXIST TO REDUCE UNCERTAINTIES
  - FOURTH STATE ADS AND VALVE IS A SIMPLIFIED SYSTEM AND DISCHARGES DIRECTLY TO CONTAINMENT
  - DATA FROM THE 8-INCH ADS VALVES IN CURRENT PROGRAM WILL BE AVAILABLE
  - OTHER SOURCES OF CRITICAL FLOW DATA MARVIKEN, ETC

- IF CONCERNS EXIST ABOUT THE FLOW UNCERTAINTIES, THESE CAN BE ADDRESSED VIA SENSITIVITY STUDIES ON THE CRITICAL AND SUB-SONIC FLOW MODELS USED IN THE SSAR ANALYSIS
- IF NECESSARY, A MORE CONSERVATIVE MODEL COULD BE USED

Distribution: Mary Pat
Bill Huffman

Westinghouse Electric Corporation **Energy Systems**

Box 355
Pittsburgh Pennsylvania 15230-0355

DCP/NRC1409
NSD-NRC-98-5753
Docket No. 52-003

August 13, 1998

Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555

ATTENTION: T. R. QUAY

SUBJECT: RESPONSE TO NRC LETTERS CONCERNING REQUEST FOR WITHHOLDING INFORMATION

Reference:

1. Letter, Sebrosky to McIntyre, "Request for withholding proprietary information for Westinghouse letters dated December 14, 1992, and December 17, 1992," dated July 10, 1998.

2. Letter, Huffman to McIntyre, "Request for withholding information from public disclosure of Westinghouse AP600 design letters of December 15, 1992," dated July 14, 1998.

3. Letter, Sebrosky to McIntyre, "Request for withholding information from public disclosure for Westinghouse AP600 design letter of February 24, 1993, April 19, 1993, and July 14, 1993," dated June 18, 1998.

4. Letter, McIntyre to Quay, "Status review of AP600 proprietary submittals," dated September 18, 1995.

Dear Mr. Quay:

Reference 1 provided the NRC assessment of the Westinghouse claim that proprietary information was provided in a letter dated December 14, 1992, that provided the NRC with copies of presentation material from a management meeting held December 14, 1992, discussing the AP600 testing program. The NRC has no record of a nonproprietary version of the slides being provided. At the time this presentation was made, the information was proprietary since that description of the AP600 testing program had commercial value to Westinghouse. At this time, almost six years later, this information does not have commercial value and is no longer considered to be proprietary by Westinghouse.

Reference 1 also provided the NRC assessment of the Westinghouse claim that proprietary information was provided in a letter dated December 17, 1992, that provided the NRC with copies of presentation material from a meeting with the technical staff held December 9-10, 1992, discussing the AP600

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Enclosure 2

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testing program. The NRC has no record of a nonproprietary version of the slides being provided. At the time this presentation was made, the information was proprietary since that description of the AP600 testing program had commercial value to Westinghouse. At this time, almost six years later, this information does not have commercial value and is no longer considered to be proprietary by Westinghouse.

Reference 2 provided the NRC assessment of the Westinghouse claim that proprietary information was provided in a letter dated December 15, 1992, that contained a preliminary description of the AP600 refueling outage plan activities. The NRC assessment was that no material in the letter was specifically identified as being proprietary and that a nonproprietary version was not provided. At the time this subject was being discussed with the NRC technical staff, the information was considered to be proprietary by Westinghouse since it contained information that had commercial value to Westinghouse. At this time, almost six years later, this information does not have commercial value and is no longer considered to be proprietary by Westinghouse.

Reference 3 provided the NRC assessment of the Westinghouse claim that proprietary information was provided in a letter dated February 24, 1993, that contained presentation materials from the February 24, 1993, Westinghouse/NRC AP600 senior management meeting. The NRC assessment was that the material was similar to material that exists in the current (1998) nonproprietary version of the AP600 probabilistic risk assessment and AP600 standard safety analysis report. In addition the staff indicated the material was used by the staff in the development of the AP600 draft safety evaluation report and therefore should remain on the docket. Our 1995 request, Reference 4, indicated that the material provided in the Westinghouse letter of February 24, 1993, was presentation material that was intended for clarification only, not part of the formal review material and requested that the material be returned to Westinghouse. At the time this subject was being discussed with the NRC technical staff, the information was considered to be proprietary by Westinghouse since it contained information that had commercial value to Westinghouse. If this presentation material was indeed used by the staff in development of the AP600 draft final safety evaluation report in November 30, 1994, then at this time, over five years later, this information is no longer considered to be proprietary by Westinghouse.

Reference 3 provided the NRC assessment of the Westinghouse claim that proprietary information was provided in a letter dated April 19, 1993, that contained presentation materials from the April 20, 1993, AP600 overview. The NRC assessment was that the material was similar to material that exists in the current (1998) nonproprietary version of the AP600 probabilistic risk assessment and AP600 standard safety analysis report. In addition the staff indicated the material was used by the staff in the development of the AP600 draft safety evaluation report and therefore should remain on the docket. Our 1995 request, Reference 4, indicated that the material provided in the Westinghouse letter of April 19, 1993, was presentation material that was intended for clarification only, not part of the formal review material and requested that the material be returned to Westinghouse. At the time this subject was being discussed with the NRC technical staff, the information was considered to be proprietary by Westinghouse since it contained information that had commercial value to Westinghouse. If this presentation material was indeed used by the staff in development of the AP600 draft final safety evaluation report in November 30, 1994, then at this time, over five years later, this information is no longer considered to be proprietary by Westinghouse.

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Reference 3 provided the NRC assessment of the Westinghouse claim that proprietary information was provided in a letter dated July 14, 1993, that contained presentation materials from the July 14, 1993, meeting where the AP600 main control room habitability was discussed. The NRC assessment was that the material was similar to material that exists in the current (1998) nonproprietary version of the AP600 probabilistic risk assessment and AP600 standard safety analysis report. In addition the staff indicated the material was used by the staff in the development of the AP600 draft safety evaluation report and therefore should remain on the docket. Our 1995 request, Reference 4, indicated that the material provided in the Westinghouse letter of July 14, 1993, was presentation material that was intended for clarification only, not part of the formal review material and requested that the material be returned to Westinghouse. At the time this subject was being discussed with the NRC technical staff, the information was considered to be proprietary by Westinghouse since it contained information that had commercial value to Westinghouse. If this presentation material was indeed used by the staff in development of the AP600 draft final safety evaluation report in November 30, 1994, then at this time, over five years later, this information is no longer considered to be proprietary by Westinghouse.

This response addresses the proprietary issues delineated in the references.

Brian A. McIntyre, Manager
Advanced Plant Safety and Licensing

jml

cc: J. W. Roe - NRC/NRR/DRPM
J. M. Sebrosky - NRC/NRR/DRPM
W. C. Huffman - NRC/NRR/DRPM
H. A. Sepp - Westinghouse

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