Presentation to the NRC Staff on

AP600 TEST & ANALYSIS PROGRAMS SCHEDULE UPDATE

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Westinghouse Electric Corporation

December 14, 1992 2T-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

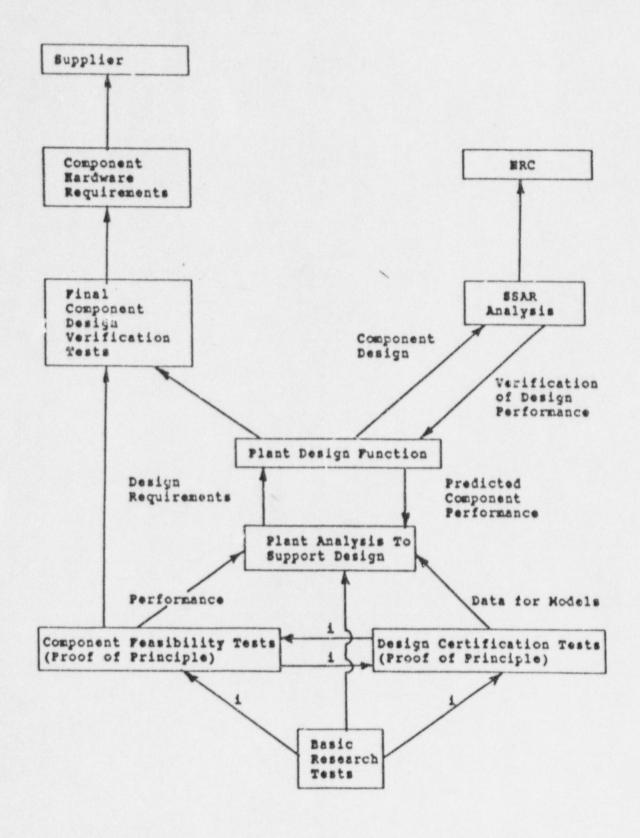
- . PROVIDE DATA FOR COMPUTER CODES USED FOR SSAR ANALYSIS:
 - MODELS
 - CORRELATIONS
 - VERIFICATION
- GENERALLY, A THERMAL-HYDRAULIC TEST
 - UNDERSTAND AND EXPLAIN T/H PHENOMENA
 - CAN BE SYSTEM OR SEPARATE EFFECTS TEST
- HIGHEST QUALITY ASSURANCE PEDIGREE
 - NQA-1 APPLIES, 10CFR21 APPLIES
 - TEST 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





AP600 Test Objectives/Conclusions

Passive Containment Cooling Tests	Teet Objective/Conclusion	Completion	Teet Re	soults Requ	dre
		Dete	SSAR	FDA/DC	1
Integral PCCS Test (Westinghouse STC)	Demonstrated operation of the PCCS over the full range design basis operating conditions	Completed, July 1992	х		-
Large Scale PCCS (Weetinghouse 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 Phase 2 - June 1993	X	x	
PCCS Water Distribution (Westinghouse AESD)					-
Phase 1 - Center of Pome, 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		Personal and State of
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	×		-
o Phase 2 - Detailed Model, Final Verification	Determined baffle loading and demonstrated the effect of wind on containment annulus air flow	Completed, February 1992	х		-
o Phase 3/4	To demonstrate effects of site geography and to perform tests at higher Reynold's creaters	September 1993		×	A A STATE OF THE PARTY OF THE P



0 Test Objectives/Conclusions

ry System Tests	Teet Objective/Conclusion	Completion	Test Re	weulte Requ	ired for
		Dete	SSAR	FDA/DC	Design Verticetion
HX (Weetinghouse 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 (Cassada, 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	
alve Performance	To simulate operation of the automatic depressurization system and to confirm the capacity and operability of the ADS valves	December 1993		x	
*ank (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	
ooking (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 in (taly)	To provide data to evaluate the operation of the FYS at high pressure, including response to small break LOCA, tube now a and steamine break transients.	November 1993		x	



300 Test Objectives/Conclusions

- De des Tests	Test Objective/Conclusion	Completion	Test Re	euts Requi	red for
nent Design Tests		Dete	SSAR	FDA/DC	Design Verificatio
RHR Suction Nozzle Test (East Pittsburgh)	Eliminated Suction Vortex	Completed, September 1988			x
Coolant Pump (RCP)/SG Channelhead Air astinghouse EMD)	No SG to Pump Flow Anomalies	Completed, Merch 1991		-	×
ater Flow (Weetinghouse EMD)	To obtain flow, head and efficiency data to accurately predict the parformance of the full-scale AP600 reactor coolant pump	September 1994			X
urnal Bearing (Westinghouse STC)	Demonstrated manufacturability of depleted uranium rotor sections and large radial bearings and determined rotor drag losses				X
11		Completed, December 1989			
2		Completed, February 1991			
gh Inertia Rotor phouse STC)	To optimize rotor drag losses	Completed, August 1992			х
restrumentation Tests (ICIS)					
omagnetic Interference	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 weer	May 1994			X



500 Test Objectives/Conclusions

Seart Design Tests (Continued)	Teet Objective/Condusion	Completion	Teet Res	Teet Results Required for	red for
		Dese	SSAR	SSAR FDA/DC Design	Dasign Verification
× Vassel Internals Test					
Vaualization (University of Tennessee)	Demonstrated that no abnormal flow distribution occurs in the reactor vessel downcomer and lower plenum.	Completed. February 1992			×
Scale Hydrautic (facility not chosen)	To verify the hydraulic characteristics of the AP600 vessel and internals May 1997	May 1997			×
Valve (Weetinghouse AESD)					
minary Hydraulic	Determined flow vs. dP for prototypic chadt valves	Completed, June 1991	×		
p	To determine opening dP for check velves following prolonged exposure to plant conditions	December 1994			×
hoston Testing	To assess check valve performance	(later)			×
Stage Valve Test (facility not chosen)	To verify valve and operator performance	December 1994			×

ST PROGRAMS

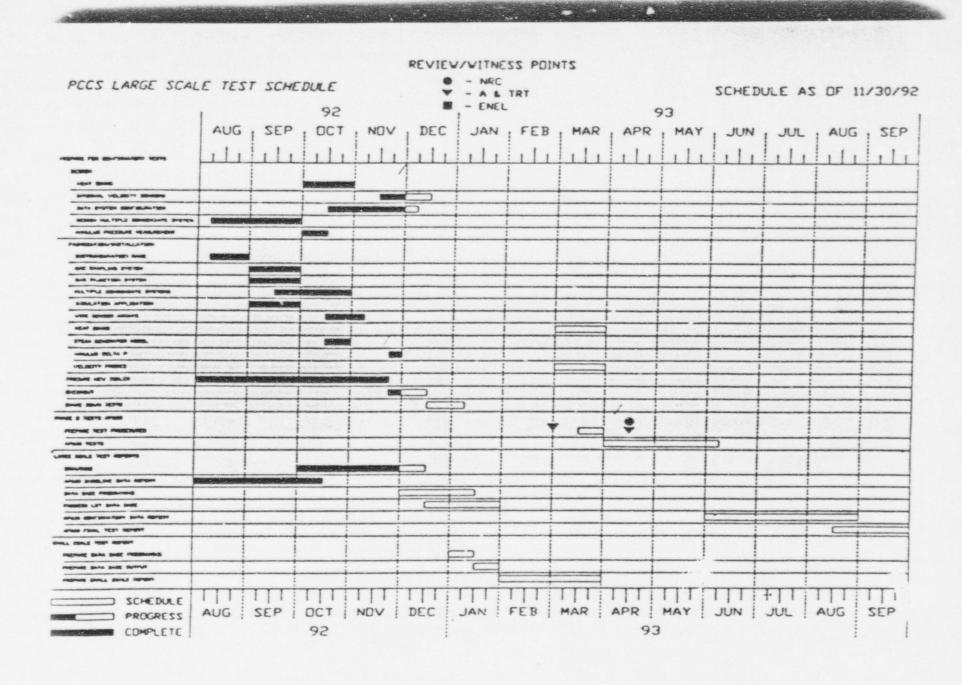
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REVIEW/VITNESS POINTS

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SCHEDULE AS DF 11/30/9 REVIEW ANTHESS POINTS . - MRC V - A & TRT B - ENCL ES-2 TEST SCHEDULE (SHEET 2 OF 2)

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AP600 Test Documentation (Westinghouse Proprietary Class 2 WCAPS)

PCCS Yests	Test Spec or Test Plan	Operating Precedures	Facility Design Raport	Interim Deta Report	Finel Test Report
Bench Wind Turnel Experiment					
Air Flowpeth Delts P Yest					13328 (0) 04/30/92
Neeted 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 28					
1/8th (Large Scale) Yests					
Phase 1	13267 (1) 04/30,	165			
Phase 2	13267 (1) 04/30/	192	,		
Weter Distribution Tosts					
Phase 1	13290 (0) 04/30/	792	13292 (0) 04/30/5	72	13353 (0) 04/30/92
Phase 2	13290 (0) 94/30/	792	13292 (0) 04/30/5	72	13796 (0) 04/30/92
Phase 3					
Wind Tunnel Tests					
Phase 1	13318 (0) 04/30/	792			13294 (0) 04/30/92
Phase 2	13318 (0) 04/30/	792			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 Teets	Test Spec or Test Plan	Operating Procedures	Facility Design Report	interia Deta Report	Final Test Report
MRMR Suction Mozzle Test					
PRHK Heat Exchanger Tests					
Phase 1					12666 87/16/90
Phase 2					13368 (0) 08/07/92 12960 (0)
ADS Tests	/				
Phase A	13342 (8) 04/30	/92	/		
Phase 8	13342 (0) 04/30	185			

13345 (0) 04/30/92

13234 (0) 04/30/92

13277 04/03/92

Core Makeup Tank Test

Long Term Cooling Test

FRFP Integral System Test

AP600 Test Documentation (Westinghouse Proprietary Class 2 WCAPS)

Component Tests	Test Spec or Test Plan	Operating Procedures	Facility Design Report	Interim Deta Report	Fire! Yest Report
RCP/SG Channel Need Air Flow Test					13296 (0) 04/30/92
RCF Journal Bearing Tests					
Phase 1	13309 (0) 04/30/	185			12668 (0) 04/30/92
Phase 2	13312 (0) (4/30/	192			13319 (8) 84/30/92
RCP High Inertia Rotor Test	13313 (0) 04/30/	465			13487 (0) 10/52/92
ROP Water Mydraulic Flow Test	13305 (0) 04/30/	192			
Incore Instrumentation System ENI Test					12648 (0) 04/30/92
Incore Instrumentation System FIV Test					
RY Flow Visualization Test					13331 (8) 04/30/92
Check Valve Tests					
Rechanical	13288 (0) 04/30/	192	13284 (0) 04/30/	92	13286 (8) 84/30/92

In-Situ

Qualification



AP600 CHECK VALVE TEST

 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

ves to open under low differential pressive conditions which exist under nonstrate the capability of the Passive Safety Injections System Check vity drain injection and natural circulation operation. Verify differential pressure required to open the valve disk and to maintain the disk full open

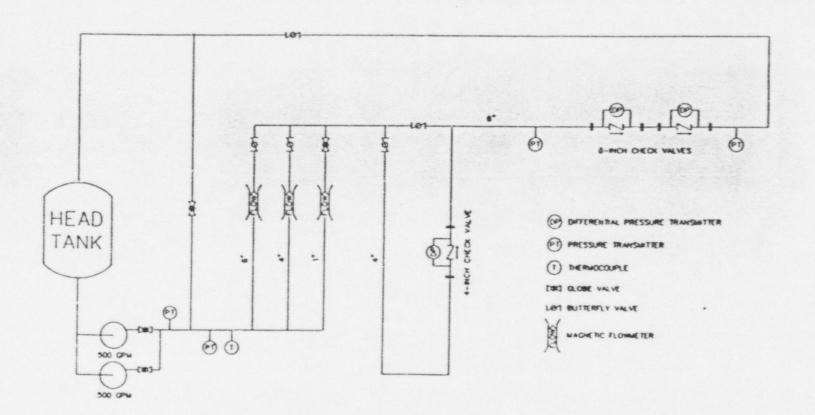
Verify data on flow versus differential pressure over the expected valve operating range



PXS CHECK VALVE TESTS

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

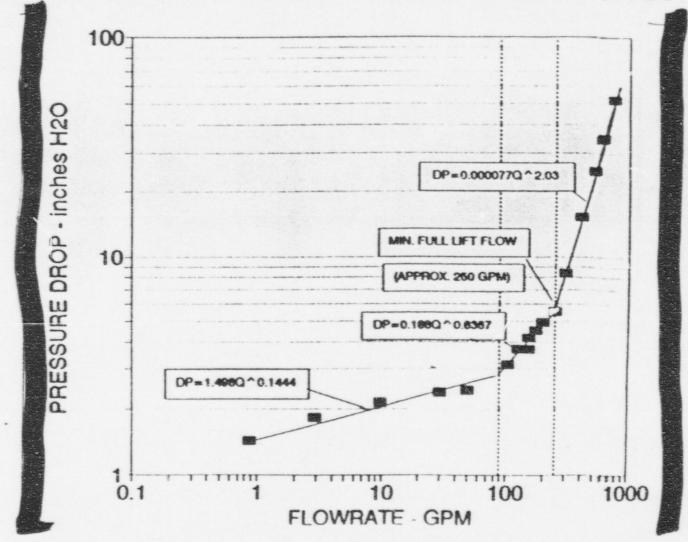
CHECK VALVE FLOW TEST FACILITY





PXS CHECK VALVE FLOW TEST DATA

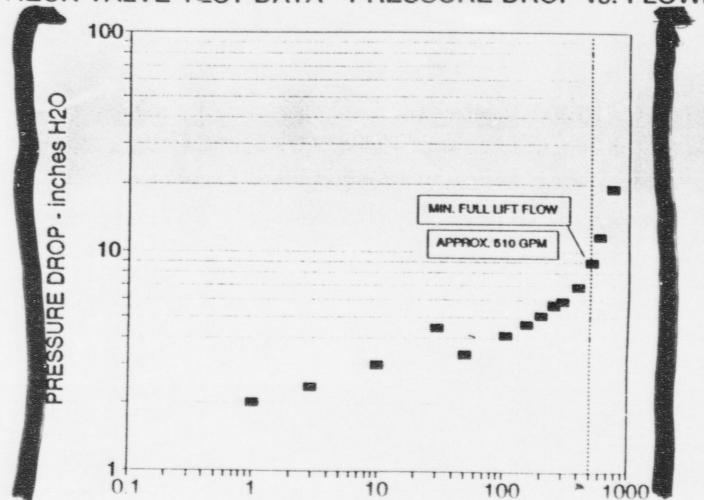
1" CHECK VALVE TEST DATA - PRESSURE DROP vs. FLOWRATE





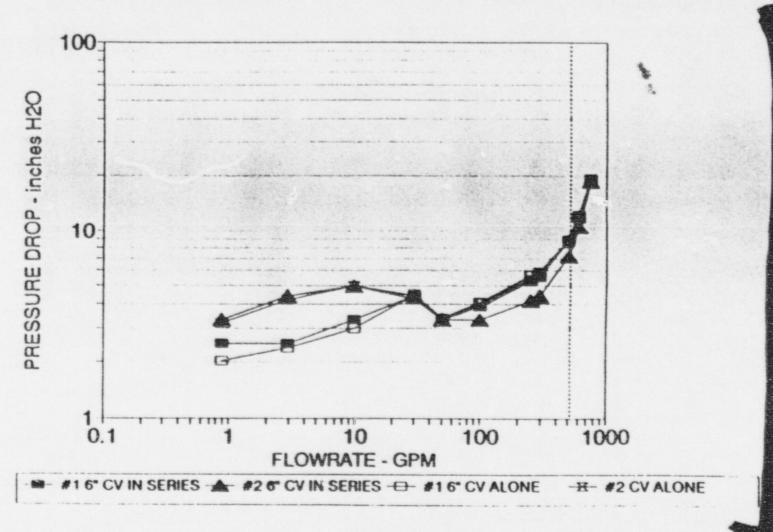
S CHECK VALVE FLOW TEST DATA

HECK VALVE TEST DATA - PRESSURE DROP vs. FLOWRATE



3 CHECK VALVE FLOW TEST DATA

HECK VALVES IN SERIES - PRESSURE DROP VS. FLOWRATE





00 CHECK VALVE TEST

RESULTS

iferential 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 minar 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

o 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

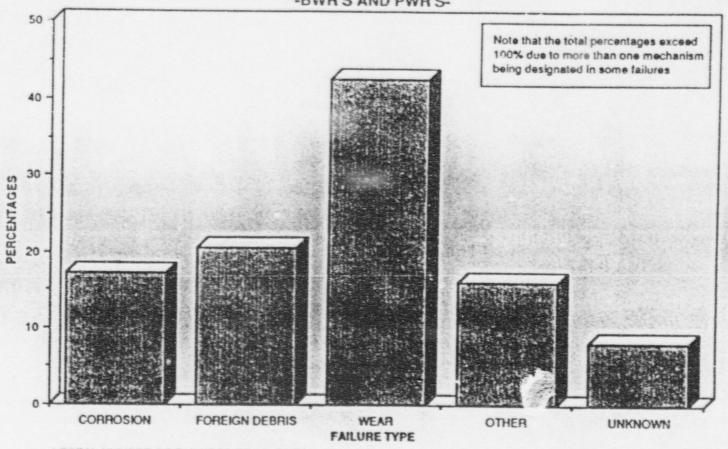
No indication of boric acid corrosion or self welding was found

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

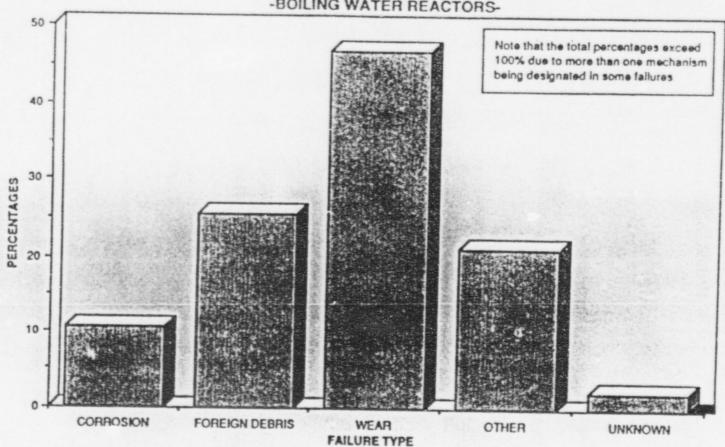
PERCENTAGE OF FAILURES* IN WHICH DESIGNATED MECHANISM WAS INVOLVED -BWR'S AND PWR'S-



* TOTAL NUMBER OF FAILURES EQUALS 87
SOURCE: NUCLEAR PLANT RELIABILITY DATA SYSTEM *** IVERAGE YEARS 1984-1990

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

PERCENTAGE OF FAILURES* IN WHICH DESIGNATED MECHANISM WAS INVOLVED -BOILING WATER REACTORS-



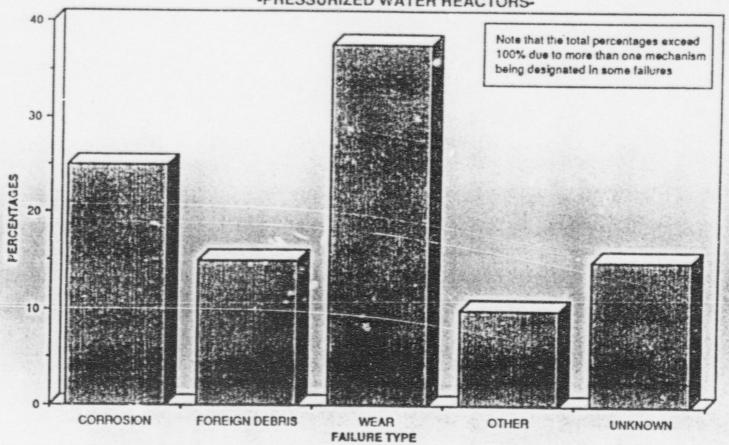
* TOTAL HUMBER OF FAILURES EQUALS 47 SOURCE: NUCLEAR PLANT RELIABILITY DATA SYSTEM - COVERAGE YEARS 1984-1990

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

Table 3.1 Failure Type Categorized by System - BWRs

" URE TYPE :	WEARMECH DAMAGE	COPPICSION	FOREIGN DEBRIS	HUMAN ERRORS	OTHER	INMOUNT	UNSURE REPLACED	TOTALE	-05
NL FAILURE TYPE NO. :	[1]	[1]	[2]	[3]	[4]	[5]	[6]	-	# OF
	Marina de 12 para de 1					101	101	[1]-[6]	FAILURE
SYSTEM	SECTION SECTION S.			PQ. 12 (PAL2) S1 (PAL2)	10000		C 17865 20065	harantana.	
IN STEAM	された時期 11 年間数数で	1	F-2 - 12:19:19.4 (3-18)	SEA COMPANIES	4	200,000,000	5069 (SALS) V. SOMESSAL	-	
ACTOR CORE ISOL COOLING	Marine 2 Telephone		2	State of the state	3	1 K.O	CONTRACTOR AND THE	16	16
SH PRES COOLANT IN	MISSER 1 DEPORTURE	3	1 100	Section of the party	discount of	ACTERNATION	Althorate a financial action	0	8
SENTIAL SERVICE WATER	WANTED TRANSPORTED	1	3	terming 1 margina		School of the last		3	5
SEL STARTING AIR	· · · · · · · · · · · · · · · · · · ·	Committee of the Commit	200 200 1 30 000	ent things and the	D2/95/26+	distribution.	Contract Con	0	3
W PRES CORE SPRAY	GROTTERS TOWNSHIP	the at many regularies	1	FAMILY TWENTY	1945227	The Manager Lane	8 3 4 4 5 5 5 5 5 5 5 5 6 5 6 5 6 5 6 6 6 6	-	
PPRESSION POOL SUPPORT	研究等2000年1.25年2月2日	SADAR STALTUNE		100 mg 1 manufacture	oneron, to	New year and the		2	2
MBUSTIBLE GAS CONT-DIL	The war of the base of the same	TO SERVICE STATE	2	LANGE OF STREET	4175×345	784 3.4	(12 -21 - 12 12 12 12 14 14 14 14 14 14 14 14 14 14 14 14 14	2	2
RALOW PRES INJECT	TO SECURE TO BE COMMUNICATION		1	4				2	2
ACT BLDG CCW	47 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -			The second section of the second	1			2	2
SEL FUEL OIL	TEXA SERVICE A MARKET		1		-			2	2
DWATER	1							1	1
NTROL ROD DRIVE	1							1	1
								1	1
ALS:	22	5	12	2	8	1	0	50	47
CENTAGES:	46.81%	10.64%	25.53%	4.26%	17.02%	2.13%	0.00%	-	47
					11,02 %	2.1376	0.00%	106.38%	

PERCENTAGE OF FAILURES* IN WHICH DESIGNATED MECHANISM WAS INVOLVED -PRESSURIZED WATER REACTORS-



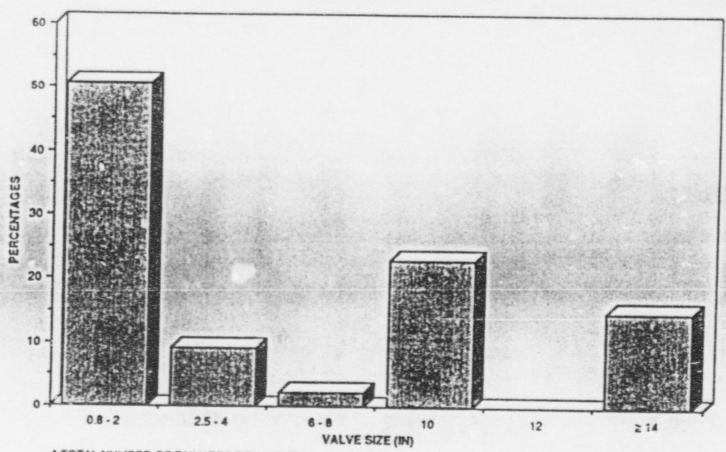
* TOTAL NUMBER OF FAILURES EQUALS 40 SOURCE: NUCLEAR PLANT RELIABILITY DATA SYSTEM - COVERAGE YEARS 1984-1990

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

Table 3.2 Failure Type Categorized by System - PWRs

AE TYPE:	WEARMECH DAMAGE	CORPLOSION	FOREIGN DEBRIS	HUMAN ERRORS	OTHER	INKNOWN	UNSURE REPLACED	TOTALS	1 -05
FAILURE TYPE NO. :	[1]	[1]	[2]	[3]	[4]	[5]	[6]	[1]-[6]	FAILURE:
SYSTEM									
COOLING WATER	4	2	1	1					
EL STARTING AIR	1	1	2	•				8	8
EAR SERVICE WATER	2	2	-	-	1	2		8	8
STEAM	2							4	4
MRY FEEDWATER	0.675 582 599 1 636 500 60F to	- Carlo	1	Compression Section	No. Common Commo		1	3	3
AINMENT SPRAY	terre terre 2 minimus	established and	Market America		makes and	1	The state of the state of the state of	3	3
ENSATE	UAP POST APPLY TO SPECIFIE SELECT	2	diasiAeth diazakateko	15014. (100mg 400,100)			STREET STREET,	3	3
PRESSURE INJECTION	MERCONE 2 CHECKE	13-95-219-15-12-13	Francisco (1980)	Charlest Selection of the Control		1	ATTRIBUTE TO SOUTH EM	3	3
BUSTIBLE GAS CONT-DIL	Chestelland Lancescentia	2	200	A AND THE RESERVE	70 8 A T		(1) なりにいいてはなりにはます。	2	2
FEEDWATER SYSTEM	Althought allowed an authorise	hander on the		TOP TOP TOP TO		33333	a william erecting	2	2
TOR COOLANT	de same a l'appendig e pres	1		11 10 general 10 10 10 10 10 10 10 10 10 10 10 10 10	- Michael Com	1	CAN TELEVISION CANSSISSION	2	2
ICAL & VOLUME CHTRL	19362 Pales 1 6288 Joseph		1				のでは、これのでは、	1	1
	William Conference							2	1
		ACRES AND ADDRESS OF THE PARTY		9,000					
S:	15	10	6	3	1	5	1	41	40
NTAGES:	37.50%	25.00%	15.00%	7.50%	2.50%	12.50%	2.50%	102.50%	

PERCENTAGE OF FAILURES* AS A FUNCTION OF VALVE SIZE



* 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

- O 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

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

Distribution: Mary Pax 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:

- Letter, Sebrosky to McIntyre, "Request for withholding proprietary information for Westinghouse letters dated December 14, 1992, and December 17, 1992," dated July 10, 1998.
- Letter, Huffman to McIntyre, "Request for withholding information from public disclosure of Westinghouse AP600 design letters of December 15, 1992," dated July 14, 1998.
- 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.
- 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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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 assess nent was that the material was similar to material that exists in the current (1998) nonproprietary value on of the AP600 probabilistic risk assessment and AP600 standard safety analysis report. In addithe staff indicated the material was used by the staff in the development of the AP600 draft safety aluation 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. Roc - NRC/NRR/DRPM

J. M. Sebrosky - NRC/NRR/DRPM

W. C. Huffman - NRC/NRR/DRPM

H. A. Sepp - Westinghouse

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