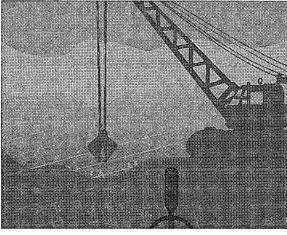
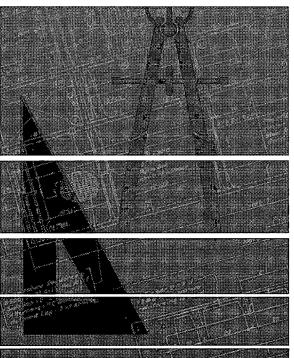


Final Safety Evaluation Report

Related to Certification of the AP600 Standard Design



Volume 3



U.S. Nuclear Regulatory Commission Office of Nuclear Reactor Regulation

September 1998



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Appendices

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ABSTRACT

This final safety evaluation report (FSER) documents the technical review of the AP600 standard nuclear reactor design by the U.S. Nuclear Regulatory Commission (NRC). The application for the AP600 design was submitted on June 26, 1992 by Westinghouse Electric Corporation in accordance with Subpart B, "Standard Design Certifications," of Part 52 of Title 10 of the <u>Code of Federal Regulations</u> (10 CFR Part 52), and Appendix O, "Standardization of Design: Staff Review of Standard Designs."

The AP600 nuclear reactor design is a pressurized water reactor with a power rating of 1933 MWt with an electrical output of at least 600 MWe. The AP600 design contains many features that are not found in current operating reactor designs. For example, a variety of engineering and operational improvements provide additional safety margins and address the Commission's severe accident, safety goal, and standardization policy statements. The most significant improvement to the design is the use of safety systems that use passive means (such as gravity, natural circulation, condensation and evaporation, and stored energy) for accident prevention and mitigation. These passive safety systems perform safety injection, residual heat removal, and containment cooling functions.

Unique features of the AP600 design include an enhanced reactor core design, larger reactor vessel, larger pressurizer, an in-containment refueling water storage tank, automatic depressurization system, revised main control room design with a digital microprocessor-based instrumentation and control system, hermetically-sealed canned reactor coolant pump motors mounted to the steam generator, and increased battery capacity. In addition, the facility is designed for a 60-year life, and employs modular construction techniques in its design.

On the basis of its evaluation and independent analyses, the NRC staff concludes that Westinghouse's application for design certification meets the requirements of Subpart B of 10 CFR Part 52 that are applicable and technically relevant to the AP600 standard design. A copy of the report by the Advisory Committee on Reactor Safeguards required by 10 CFR 52.53 is provided in Appendix G.

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CONTENTS

	Page
ABSTRACT	iii
1 INTRODUCTION AND GENERAL DISCUSSION	1-1
1.1 Introduction	1-1
 1.1.1 Metrication	1-2 1-3 1-4
1.2 General Design Description	1-4
1.2.1 Scope of the AP600 Design 1.2.2 Summary of the AP600 Design	
1.3 Comparison With Similar Facility Designs	1-14
1.4 Identification of Agents and Contractors	1-16
1.5 Summary of Principal Review Matters	1-16
1.6 Index of Exemptions	1-18
1.7 Index of Tier 2* Information	1-19
1.8 COL Action Items	1-20
1.9 Summary of Confirmatory Items	1-20
2 SITE ENVELOPE CHARACTERISTICS	2-1
2.1 Geography and Demography	2-1
2.1.1 Site and Location Description2.1.2 Exclusion Area Authority and Control2.1.3 Population Distribution	2-1

2.2 Nearby Industrial, Transportation, and Military Facilities	2-2
2.2.1 Aircraft Hazards2.2.2 Transportation2.2.3 Other Hazards	2-2
2.3 Meteorology	2-2
 2.3.1 Regional Climatology 2.3.2 Local Meteorology 2.3.3 Onsite Meteorological Measurements Program 2.3.4 Short-Term (Accident) Atmospheric Relative Concentration 2.3.5 Long-Term (Routine) Diffusion Estimates 2.3.6 Onsite Control Room Atmospheric Relative Concentrations 	2-3 2-4 2-5 2-5
2.4 Hydrologic Engineering	2-7
 2.4.1 Hydrologic Description 2.4.2 Floods 2.4.3 Probable Maximum Flood on Streams and Rivers 2.4.4 Potential Dam Failures 2.4.5 Probable Maximum Surge and Seiche Flooding 2.4.6 Probable Maximum Tsunami Loading 2.4.7 Ice Effects 2.4.8 Cooling Water Canals and Reservoirs 2.4.9 Channel Diversions 2.4.10 Flood Protection Requirements 2.4.11 Cooling Water Supply 2.4.12 Groundwater 2.4.13 Accidental Release of Liquid Effluents in Ground and Surface Water 2.4.14 Technical Specification and Emergency Operation Requirement 	2-7 2-8 2-8 2-8 2-8 2-8 2-8 2-9 2-9 2-9 2-9 2-9
2.4. 14 Technical Specification and Emergency Operation Requirement	
 2.5.1 Basic Geologic and Seismic Information 2.5.2 Vibratory Ground Motion 2.5.3 Surface Faulting 2.5.4 Stability of Subsurface Materials and Foundations 2.5.5 Stability of Slopes 2.5.6 Embankments and Dams 	2-10 2-10 2-12 2-12 2-23

3	DESIGN	OF STR	UCTURES, COMPONENTS, EQUIPMENT, AND SYSTEMS	3-1
	3.1	General		3-1
		3.1.1	Elimination of Operating Basis Earthquake from Design Consideration	3-1
	3.2	Classific	ation of Structures, Systems, and Components	3-2
			Seismic Classification	
	3.3	Wind and	d Tornado Loadings	3-9
		3.3.1	Wind Design Criteria	3-9
	3.4	Water Le	evel (Flood) Design	3-15
			Flood Protection	
	3.5	Missile F	Protection	3-28
•		3.5.2	Missile Selection and Description Protection From Externally-Generated Missiles Barrier Design Procedures	3-41
	3.6		on Against the Dynamic Effects Associated with the Postulated of Piping	3-44
			Plant Design for Protection Against Postulated Piping Failures in Fluid Systems Outside Containment Determination of Rupture Locations and Dynamic Effects	
		3.6.3	Associated With the Postulated Rupture of Piping	
	3.7	Seismic	Design	3-74
		3.7.2 3.7.3	Seismic Input	3-83 3-121

3.8 Design	of Category I Structures	3-127
3.8.2 3.8.3	Concrete Containment Steel Containment Concrete and Steel Internal Structures of Steel Containment Other Category I Structures	3-127 3-142
	Foundations	
3.9 Mechan	ical Systems and Components	3-217
	Special Topics for Mechanical Components	3-218
3.9.2	Dynamic Testing and Analysis of Systems, Components, and Equipment	3-220
3.9.3	ASME Code Class 1, 2, and 3 Components, Component	
3.9.4	Supports, and Core Support Structures	
	Reactor Pressure Vessel Internals	
	Testing of Pumps and Valves	
3.9.7	Integrated Head Package	3-261
	c and Dynamic Qualification of Mechanical and Electrical	3-263
3.11 Enviror	nmental Qualification of Mechanical and Electrical Equipment	3-268
3.11.	1 Introduction	3-268
	2 Background	
3.11.	3 Staff Evaluation	3-270
3.12 Piping	Design	3-273
	1 Introduction	
	2 Codes and Standards	
	3 Analysis Methods	
	4 Piping Methodology	
	5 Pipe Stress Analysis Criteria	
	6 Pipe Support Criteria	
3.12.	7 Overall Conclusions	3-320
Appendix 3A	Evaluation of Pumps and Valves Inservice Testing Plan (AP600	3-332

4 REACTO	DR	i-1
4.1	Introduction	↓ −1
4.2	Fuel System Design	i-1
	4.2.1 Fuel Design Description44.2.2 Fuel Rod Description44.2.3 Burnable Absorber Rod Description44.2.4 Rod Cluster Control Assembly Description44.2.5 Design Bases44.2.6 Design Evaluations44.2.7 Testing and Inspection Plan44.2.8 Conclusion4	1-2 1-3 1-3 1-4 1-4
4.3	Nuclear Design	I-5
	4.3.1 Design Bases44.3.2 Nuclear Design Description44.3.3 Analytical Methods44.3.4 Summary of Evaluation Findings4	1-6 1-10
4.4	Thermal-Hydraulic Design	I-12
	4.4.1 Thermal-Hydraulic Design Bases44.4.2 Thermal-Hydraulic Design Methodology44.4.3 Instrumentation Requirements44.4.4 Conclusion and Summary4	I-15 I-17
4.5	Reactor Materials	-18
	4.5.1 Control Rod Drive System Structural Materials	
\4.6	Functional Design of Reactivity Control Systems	-28
5 REACTO	OR COOLANT SYSTEM AND CONNECTED SYSTEMS	j -1
5.1	Summary Description	j -1
	5.1.1 Design Bases55.1.2 Design Description55.1.3 System Components55.1.4 System Performance Characteristics5	5-2 5-3

5.2 Integrity of Reactor Coolant Pressure Boundary	5-7
 5.2.1 Compliance With Code and Code Cases 5.2.2 Overpressure Protection 5.2.3 Pressure Boundary Materials 5.2.4 RCS Pressure Boundary Inservice Inspection and Testing 5.2.5 Reactor Coolant Pressure Boundary Leakage Detection 	5-12 5-15 5-23
5.3 Reactor Vessel	5-32
 5.3.1 Reactor Vessel Design	5-32 5-38 5-41
5.4 Component and Subsystem Design	5-44
 5.4.1 Reactor Coolant Pump Assembly 5.4.2 Steam Generators 5.4.3 RCS Piping 5.4.4 Main Steamline Flow Restriction 5.4.5 Pressurizer 5.4.6 Automatic Depressurization System Valves 5.4.7 Normal Residual Heat Removal System 5.4.8 Valves 5.4.9 Reactor Coolant System Pressure Relief Devices 5.4.10 RCS Component Supports 5.4.11 Pressurizer Relief Discharge 5.4.12 Reactor Coolant System High Point Vents 5.4.13 Core Makeup Tank 5.4.14 Passive Residual Heat Removal Heat Exchanger 	5-49 5-63 5-63 5-65 5-65 5-75 5-75 5-76 5-76 5-76 5-80 5-83
6 ENGINEERED SAFETY FEATURES	6-1
6.1 Engineered Safety Features Materials	6-1
6.1.1 Structural Materials	
6.2 Containment Systems	6-10
6.2.1 Primary Containment Functional Design	

			Shield Building Functional Design Containment Isolation System	
		6.2.5	Containment Combustible Gas Control	6-67
		6.2.6	Containment Leakage Testing	6-75
		6.2.7	Fracture Prevention of Containment Pressure Boundary	6-80
		6.2.8	In-Containment Refueling Water Storage Tank	6-80
	6.3	Passive	Core Cooling System	6-84
			Design Bases	
			System Design	
			Post-72 Hour Actions	
			Limits on System Parameters	
			Conclusion	
		0.3.0		0-102
	6.4	Control F	Room Habitability Systems	6-103
	6.5	Engineer	red Safety Features	6-114
		6.5.1	Engineered Safety Feature (ESF) Filter Systems	6-114
			Containment Spray as a Fission Product Cleanup System	
		6.5.3	Fission Product Control Systems	6-114
	6.6	Inservice	Inspection of Class 2 and 3 Components	6-115
7 INS	TRU	MENTAT		7-1
	7.1	Introduct	ion	7-1
		7.1.1	Acceptance Criteria	7-1
			Basis and Method of Review	
		7.1.3	General Findings	7-2
			Tier 1 Material	
		7.1.5	I&C System Architecture	7-8
		7.1.6	Defense-in-Depth and Diversity Assessment of the AP600 Protection System	70
		7.1.7	Commercial-Grade Item Dedication	
	7. 2	Reactor	Trip System	7-13
		7.2.1	General System Description	7-13
			Protection and Safety Monitoring System Description	
			Assessment of IEEE 796 Bus in the AP600 Design	

 7.2.4 Review of the AP600 Global Trip Subsyste 7.2.5 Review of the Bypass Logic in the Protecti 7.2.6 Review of the AP600 Software System Arc 7.2.7 Protection Systems Setpoint Methodology 7.2.8 Hardware and Software Qualification 7.2.9 RTS Evaluation Findings and Conclusions 	on System 7-22 chitecture 7-23
7.3 Engineered Safety Features Actuation Systems	
 7.3.1 System Description 7.3.2 Blocks, Permissives, and Interlocks for Eng Features Actuation 	gineered Safety
 7.3.3 System Level Manual Input to the Enginee Actuation System	red Safety Features
7.4 Systems Required for Safe Shutdown	
7.4.1 System Description7.4.2 Safe Shutdown From Outside the Main Co7.4.3 Evaluation Findings and Conclusions	ntrol Room 7-49
7.5 Safety-Related Display Information	
 7.5.1 System Description 7.5.2 Alarm System 7.5.3 Plant Information System 7.5.4 Operation and Control Centers System 7.5.5 The Qualified Data Processing System 7.5.6 Bypass and Inoperable Status Information 7.5.7 Incore Instrumentation System 7.5.8 Special Monitoring System 7.5.9 Evaluation Findings and Conclusions 	7-52 7-53 7-54 7-54 7-54 7-55 7-55 7-55 7-55 7-57
7.6 Interlock Systems Important to Safety	
 7.6.1 Normal Residual Heat Removal Isolation V 7.6.2 Accumulator Isolation Valves 7.6.3 IRWST Motor-Operated Discharge Valves 7.6.4 Passive Residual Heat Removal Heat Exch Valve 	
4 Cl 4 C · · · · · · · · · · · · · · · · · ·	

7.6.5 Core Makeup Tank Cold-Leg Balance Line Isolation Valves 7.6.6 Evaluation Findings and Conclusions	
7.7 Control and Instrumentation Systems	7-63
 7.7.1 System Description 7.7.2 Diverse Actuation System 7.7.3 RTNSS Review of Other Systems 7.7.4 Signal Selector 7.7.5 Evaluation Findings and Conclusions 	7-67 7-71 7-71
8 ELECTRIC POWER SYSTEMS	8-1
8.1 Introduction	8-1
8.2 Offsite Electric Power System	8-1
 8.2.1 Offsite Circuits Outside the AP600 Scope of Design 8.2.2 Offsite Circuits Within the AP600 Scope of Design 8.2.3 Offsite Power System Interfaces 8.2.4 Lack of a Second Offsite Power Supply Circuit 8.2.5 Grounding and Lightning Protection 8.2.6 Conclusion 	8-1 8-2 8-6 8-7
8.3 Onsite Power Systems	8-10
8.3.1 Onsite ac Power System	
8.4 Other Electrical Features and Requirements for Safety	8-32
 8.4.1 Containment Electrical Penetrations 8.4.2 RCP Breakers 8.4.3 Thermal Overload Protection Bypass 8.4.4 Power Lockout to Motor-Operated Valves 8.4.5 Submerged Class 1E Electrical Equipment as a Result of a LOCA 	8-33 8-34 8-34
8.5 SSAR Documentation of Responses to Requests for Additional Information	8-35
8.6 Compliance With Regulatory Issues	8-36
8.6.1 Generic Issues and Operational Experience	

9	9 AUXILIARY SYSTEMS	9-1
	9.1 Fuel Storage and Handling	9-1
	 9.1.1 New Fuel Storage 9.1.2 Spent Fuel Storage 9.1.3 Spent Fuel Pool Cooling and Pool Purification 9.1.4 Light Load Handling System (Related To Refueling) 9.1.5 Overhead Heavy Load Handling Systems 	
	9.2 Water Systems	9-15
	 9.2.1 Service Water System 9.2.2 Component Cooling Water System 9.2.3 Demineralized Water Treatment System 9.2.4 Demineralized Water Transfer and Storage System 9.2.5 Potable Water System 9.2.6 Sanitary Drainage System 9.2.7 Central Chilled Water System 9.2.8 Turbine Building Closed Cooling System 9.2.9 Waste Water System 9.2.10 Hot Water Heating System 	9-20 9-24 9-24 9-26 9-26 9-27 9-27 9-27 9-27 9-30 9-30 9-31
	9.3 Process Auxiliaries	9-34
	9.3.1 Compressed and Instrument Air System9.3.2 Plant Gas System9.3.3 Primary Sampling System9.3.4 Secondary Sampling System9.3.5 Equipment and Floor Drainage System9.3.6 Chemical and Volume Control System	9-39 9-39 9-44
	9.4 Air-Conditioning, Heating, Cooling, and Ventilation System	9-51
	 9.4.1 Nuclear Island Nonradioactive Ventilation System 9.4.2 Annex/Auxiliary Buildings Nonradioactive HVAC System 9.4.3 Radiologically Controlled Area Ventilation System 9.4.4 Balance of Plant Interfaces 9.4.5 Engineered Safety Features Ventilation System 9.4.6 Containment Recirculation Cooling System 9.4.7 Containment Air Filtration System 9.4.8 Radwaste Building HVAC System 9.4.9 Turbine Building Ventilation System 	9-62 9-70 9-76 9-76 9-76 9-76 9-79 9-79 9-84

9.4.10 Diesel Generator Building Heating and Ventilation System 9 9.4.11 Health Physics and Hot Machine Shop HVAC System	
9.5 Other Auxiliary Systems 9	9-96
9.5.1Fire Protection Program99.5.2Communication System99.5.3Plant Lighting System99.5.4Diesel Generator Fuel Oil Storage and Transfer System99.5.5Standby Diesel Engine Cooling System99.5.6Standby Diesel Engine Starting System99.5.7Standby Diesel Lubricating Oil System99.5.8Standby Diesel Combustion Air Intake and Exhaust System9	9-119 9-121 9-124 9-133 9-135 9-136
10 STEAM AND POWER CONVERSION SYSTEM)-1
10.1 Introduction)-1
10.2 Turbine Generator)-2
10.2.1Overspeed Protection1010.2.2Digital Electrohydraulic Control System1010.2.3Automatic Turbine Control1010.2.4Turbine Protective Trips1010.2.5Valve Control1010.2.6Turbine Missiles1010.2.7Inservice Inspection1010.2.8Access to Turbine Areas1010.2.9Turbine Rotor Integrity1010.2.10Conclusion10)-3)-4)-5)-6)-6)-7)-8
10.3 Main Steam Supply System)-12
10.3.1 Steam and Feedwater System Materials)-17
10.4 Other Features)-20
10.4.1Main Condenser1010.4.2Main Condenser Evacuation System1010.4.3Gland Seal System1010.4.4Turbine Bypass System1010.4.5Circulating Water System1010.4.6Condensate Polishing System1010.4.7Condensate and Feedwater System10)-22)-24)-26)-28)-31

10.4.8 Steam Generator Blowdown System 10.4.9 Startup Feedwater System 10.4.10 Auxiliary Steam System	10-40
11 RADIOACTIVE WASTE MANAGEMENT	11-1
11.1 Summary Description/Source Terms	11-1
11.2 Liquid Waste Management System	11-4
11.2.1 System Description and Review Discussion 11.2.2 Conclusion	
11.3 Gaseous Waste Management System	11-12
11.3.1 System Description and Review Discussion 11.3.2 Conclusion	
11.4 Solid Waste Management System	11-20
11.4.1 System Description and Review Discussion 11.4.2 Conclusion	
11.5 Process and Effluent Radiological Monitoring and Sampling System	11-28
11.5.1 System Description and Review Discussion 11.5.2 Conclusion	
12 RADIATION PROTECTION	12-1
12.1 Introduction	12-1
12.2 Ensuring that Occupational Radiation Doses Are As Low As Is Reasonably Achievable	12-2
12.2.1 Policy Considerations12.2.2 Design Considerations12.2.3 Operational Considerations	12-3
12.3 Radiation Sources	12-6
12.3.1 Contained Sources 12.3.2 Airborne Radioactive Material Sources 12.3.3 Sources Used in Post-Accident Shielding Review	12-7

1

12.4 Radiation Protection Design 12.4.1 Facility Design Features 12.4.2 Shielding 12.4.3 Ventilation 12.4.4 Area Radiation and Airborne Radioactivity Monitoring Instrumentation	12-8 12-12 12-13
12.5 Dose Assessment	12-10
12.6 Health Physics Facilities Design	12-18
13 CONDUCT OF OPERATIONS	13-1
13.1 Organizational Structure of the Applicant	13-1
13.2 Training	13-1
13.3 Emergency Planning	13-1
13.4 Operational Review	13-5
13.5 Plant Procedures	13-5
13.6 Security	13-6
 13.6.1 Preliminary Planning 13.6.2 Security Plan 13.6.3 Plant Protection System 13.6.4 Physical Security Organization 13.6.5 Physical Barriers 13.6.6 Access Requirements 13.6.7 Detection Aids 13.6.8 Security Lighting 13.6.9 Security Power Supply System 13.6.10 Communications 13.6.11 Testing and Maintenance 13.6.12 Response Requirements 13.6.13 Combined License Information Item 	13-7 13-7 13-8 13-9 13-11 13-12 13-13 13-13 13-13 13-13
13.7 References	13-15

14 V	/ERIFIC	ATION F	PROGRAMS	14-1
	14.1	Prelimin	ary Safety Analysis Report Information	14-1
	14.2	Initial Te	est Program	14-1
		14.2.2 14.2.3 14.2.4 14.2.5 14.2.6 14.2.7 14.2.8 14.2.9 14.2.1	Summary of Test Program and Objectives . Organization, Staffing, and Responsibilities . Test Specifications and Test Procedures . Compliance of Test Program With Regulatory Guides . Utilization of Reactor Operating and Testing Experience . Use of Plant Operating and Emergency Procedures . Initial Fuel Loading and Initial Criticality . Test Program Schedule . Preoperational Test Descriptions . O ITP Combined License Applicant Responsibilities . 1 Conclusions .	14-6 14-7 14-9 14-16 14-19 14-20 14-23 14-24 14-41
	14.3	Tier 1 In	formation	14-48
		14.3.2 14.3.3 14.3.4	Introduction System-Based Design Descriptions and ITAAC Nonsystem-Based Design Descriptions and ITAAC Other Tier 1 Information Conclusions	14-49 14-50 14-54
15 T	RANSI			15-1
	15.1	Introduct	tion	15-1
		15.1.2 15.1.3	Event Categorization Non-Safety-Related Systems Assumed in the Analysis Chapter 15 Loss-of-Offsite-Power Assumptions Analytical Methods	15-2 15-4
	15.2	Transien	t and Accident Analyses	15-7
		15.2.2	Increase in Heat Removal from the Primary System Decrease in Heat Removal by the Secondary System (SSAR Section 15.2) Decrease in Reactor Coolant System Flow Rate (SSAR Section 15.3)	15-13
		15.2.4	Reactivity and Power Distribution Anomalies (SSAR Section 15.4)	

xviii

Page 、

15.2.5 Increase in Reactor Coolant System Inventory (SSAR	15 20
Section 15.5)	
15.2.7 Post-LOCA Long-Term Cooling	
15.2.8 Deboration during SBLOCAs	
15.2.9 Anticipated Transients Without Scram (SSAR Section 15.8)	
15.3 Radiological Consequences of Accidents	15-58
15.3.1 Radiological Consequences of a Main Steamline Break	
15.3.2 Reactor Primary Coolant Pump Seizure (Locked Rotor)	15-68
Ejection	15-69
15.3.4 Radiological Consequences of the Failure of Small Lines	45 70
Carrying Primary Coolant Outside Containment	
15.3.6 Radiological Consequences of Loss-of-Coolant Accidents	10-72
(LOCAs)	15-72
15.3.7 Radiological Consequences of Fuel Handling Accident	15-74
15.3.8 Offsite Radiological Consequences of Liquid Tank Failure	15-76
16 TECHNICAL SPECIFICATIONS	16-1
16.1 Introduction	16-1
16.2 Evaluation	16-1
16.3 Conclusion	16-8
17 QUALITY ASSURANCE	17-1
17.1 Quality Assurance During the Design and Construction Phase	17-1
17.2 Quality Assurance During the Operations Phase	17-1
17.3 Quality Assurance During the Design Phase	17-1
17.3.1 General	17-1
17.3.2 Organization	
17.3.3 Quality Assurance Program	17-3
17.3.4 Quality Assurance Program For Design Certification Testing	47 4
Activities	
17.3.5 Quality Assurance Program Implementation	17-4

17.4 Reliability Assurance Program During the Design Phase	17 - 7
 17.4.1 General 17.4.2 Scope 17.4.3 Design Considerations 17.4.4 Relationship to Other Administrative Programs 17.4.5 The AP600 Design Organization 17.4.6 Objective 17.4.6 Objective 17.4.7 D-RAP, Phase I 17.4.8 Glossary of Terms 17.4.9 Evaluation of DSER Items for COL Activities O-RAP 17.4.10 COL Action Items 17.4.11 Conclusions 	17-11 17-13 17-13 17-14 17-16 17-17 17-23 17-23 17-24
18 HUMAN FACTORS ENGINEERING	18-1
18.1 Review Methodology	18-1
18.1.1 HFE Review Objective18.1.2 Review Criteria18.1.3 Procedure for Reviewing AP600 Human Factors Engineering	18-2
18.2 Element 1: Human Factors Engineering Program Management	18-4
 18.2.1 Objectives 18.2.2 Methodology 18.2.3 Results 18.2.4 Conclusions 	18-5 18-6
18.3 Element 2: Operating Experience Review	18-34
18.3.1 Objectives18.3.2 Methodology18.3.3 Results18.3.4 Conclusions	18-34 18-35
18.4 Element 3: Functional Requirements Analysis and Allocation	18-48
18.4.1 Objectives18.4.2 Methodology18.4.3 Results18.4.4 Conclusions	18-48

18.5 Element 4: Task Analysis	18-66
18.5.1 Objectives 18.5.2 Methodology 18.5.3 Results 18.5.4 Conclusions	18-67 18-67
18.6 Element 5: Staffing	18-77
18.6.1 Objectives 18.6.2 Methodology 18.6.3 Results 18.6.4 Conclusions	18-77 18-78
18.7 Element 6: Human Reliability Analysis	18-85
18.7.1 Objectives18.7.2 Methodology18.7.3 Results18.7.4 Conclusions	18-85 18-86
18.8 Element 7: Human-System Interface Design	18-94
18.8.1 HSI Design Process 18.8.2 Safety Parameter Display System	
18.9 Element 8: Procedure Development	18-125
 18.9.1 Objectives 18.9.2 Methodology 18.9.3 Results 18.9.4 Conclusions 	18-125 18-126
18.10 Element 9: Training Program Development	18-139
18.10.1 Objectives 18.10.2 Methodology 18.10.3 Results 18.10.4 Conclusions	18-140 18-140
18.11 Element 10: Human Factors Verification & Validation	18-151
18.11.1 Objectives	

	<u>Page</u>
18.11.3 Results	
18.12 Minimum Inventory	18-169
18.12.1 Objectives 18.12.2 Methodology 18.12.3 Results 18.12.4 Conclusions	18-170 18-171
18.13 Summary and Conclusions	18-181
18.14 Tier 2* Information:	18-181
19 SEVERE ACCIDENTS	19-1
19.1 Probabilistic Risk Assessment	19-7
19.1.1 Introduction	
(Operation at Power)	19-18
 19.1.4 Safety Insights from the Internal Events Risk Analysis for Shutdown Operation 19.1.5 Safety Insights from the External Events Risk Analysis 19.1.6 Use of PRA in the Design Process 19.1.7 PRA Input to the "Regulatory Treatment of Non-Safety-Related 	
Systems" (RTNSS) Process 19.1.8 PRA Input to the Design Certification Process 19.1.9 Conclusions and Findings 19.1.10 Resolution of DSER Open Items	19-103
19.2 Severe Accident Performance	19-142
19.2.1 Introduction19.2.2 Deterministic Assessment of Severe Accident Prevention19.2.3 Deterministic Assessment of Severe Accident Mitigation19.2.4 Containment Performance Goal19.2.5 Accident Management19.2.6 Ultimate Pressure Capacity of the Containment	19-142 19-146 19-191 19-194

I.

	19.3	Shutdov	vn Evaluation	19-215
		19.3.2 19.3.3 19.3.4 19.3.5 19.3.6 19.3.7 19.3.8 19.3.9	Introduction Design Features That Minimize Shutdown Risk Temporary RCS Boundaries Instrumentation and Control During Shutdown Operation Technical Specifications Transient and Accident Analysis Fire Protection Flood Protection Outage Planning and Control	19-216 19-221 19-222 19-224 19-226 19-236 19-238 19-241
	19.4		ration of Potential Design Improvements Under Requirements R 50.34(f)	19-242
		19.4.2 19.4.3 19.4.4 19.4.5 19.4.6 19.4.7	Introduction Estimate of Risk for AP600 Identification of Potential Design Improvements Risk Reduction Potential of Design Improvements Cost Impacts of Candidate Design Improvements Cost-Benefit Comparison Further Considerations Conclusions	19-242 19-244 19-249 19-250 19-251 19-253
	Appe	ndix 19A	: Seismic Margin Assessment	19-276
		19A.2 19A.3 19A.4	Introduction	19-276 19-290 19-291
20	GENERI	C ISSUE	S	20-1
	20.1	Overviev	w of Staff Conclusion	20-1
		20.1.2 20.1.3	Compliance With 10 CFR 52.47(a)(1)(iv) Compliance with 10 CFR 52.47(a)(1)(ii) Incorporation of Operating Experience Resolution of Issues Relevant to the AP600 Design	20-2 20-2
	20.2	Task Act	tion Plan Items	20-7

	Page
20.3 New Generic Issues	20-35
20.4 Three Mile Island Action Plan Items	20-69
20.5 Human Factors Issues	20-114
20.6 Three Mile Island Action Plan Requirements	20-117
20.7 Incorporation of Operating Experience	20-119
20.7.1Background20.7.2Application Content Review20.7.3Regulatory Review20.7.4Conclusion	
21 TESTING AND COMPUTER CODE EVALUATION	
21.1 Introduction	21-1
 21.1.1 Passive Emergency Injection Systems 21.1.2 Ultimate Heat Sink 21.1.3 Passive Residual Heat Removal System 21.1.4 Automatic Depressurization System 21.1.5 Unique Characteristics of the Passive Design 	
21.2 Issues of Concern	21-4
21.2.1 Core Makeup Tanks21.2.2 Automatic Depressurization System21.2.3 Passive Residual Heat Removal System21.2.4 Check Valves21.2.5 Interdependency of Systems21.2.6 Containment Performance21.2.7 Application of Existing Models and Correlations21.2.8 Summary	21-5 21-5 21-6 21-6 21-6 21-6 21-7 3 21-7
21.3 Overview of Westinghouse Testing Programs	
 21.3.1 Core Makeup Tank Test Program 21.3.2 Automatic Depressurization System Test Progr 21.3.3 Passive Residual Heat Removal Heat Exchang 21.3.4 Departure From Nucleate Boiling Test Program 21.3.5 Oregon State University Advanced Plant Exper Program 	am 21-10 ler Test Program . 21-12 l 21-14 liment Test

NUREG-1512

Program	16
21.3.8 Large-Scale Passive Containment Cooling System (PCS) Test Program	
Test Program 21	-18
21.3.9 Water Distribution Testing Program	-36
21.4 Overview of NRC Activities	-38
21.4.1 Core Makeup Tank Test Program	-39
21.4.2 Automatic Depressurization System Test Program	-39
21.4.3 Passive Residual Heat Removal Heat Exchanger Test	
Program	
21.4.4 Departure From Nucleate Boiling Test Program	
21.4.5 OSU/APEX Test Program	-40
21.4.6 SPES-2 High-Pressure, Full-Height Integral Systems Test Program	_40
21.4.7 Wind Tunnel Test Programs	
21.4.7 Wind Fullier rest Programs	
21.4.9 Water Distribution Test Program	
21.5 Evaluation of Vendor Testing Programs	
21.5.1 Core Makeup Tank Test Program	-45
	47
21.5.2 Automatic Depressurization System Test Program	-47
21.5.2 Automatic Depressurization System Test Program	
21.5.2 Automatic Depressurization System Test Program 21 21.5.3 Passive Residual Heat Removal Heat Exchanger Test Program 21	-49
21.5.2 Automatic Depressurization System Test Program 21 21.5.3 Passive Residual Heat Removal Heat Exchanger Test 21 Program 21 21.5.4 Departure from Nucleate Boiling Test Program 21 21.5.5 Oregon State University/Advanced Plant Experiment Test	-49 -51
21.5.2 Automatic Depressurization System Test Program 21 21.5.3 Passive Residual Heat Removal Heat Exchanger Test 21 Program 21 21.5.4 Departure from Nucleate Boiling Test Program 21 21.5.5 Oregon State University/Advanced Plant Experiment Test 21 Program 21	-49 -51
21.5.2 Automatic Depressurization System Test Program 21 21.5.3 Passive Residual Heat Removal Heat Exchanger Test 21 Program 21 21.5.4 Departure from Nucleate Boiling Test Program 21 21.5.5 Oregon State University/Advanced Plant Experiment Test 21 Program 21 21.5.6 SPES-2 High-Pressure, Full-Height Integral Systems Test	-49 -51 -52
21.5.2 Automatic Depressurization System Test Program 21 21.5.3 Passive Residual Heat Removal Heat Exchanger Test 21 Program 21 21.5.4 Departure from Nucleate Boiling Test Program 21 21.5.5 Oregon State University/Advanced Plant Experiment Test 21 Program 21 21.5.6 SPES-2 High-Pressure, Full-Height Integral Systems Test 21 Program 21	-49 -51 -52 -55
21.5.2 Automatic Depressurization System Test Program 21 21.5.3 Passive Residual Heat Removal Heat Exchanger Test Program 21.5.4 Departure from Nucleate Boiling Test Program 21 21.5.5 Oregon State University/Advanced Plant Experiment Test 21 21.5.6 SPES-2 High-Pressure, Full-Height Integral Systems Test 21 21.5.7 Wind Tunnel Test Program 21	-49 -51 -52 -55 -58
21.5.2 Automatic Depressurization System Test Program 21 21.5.3 Passive Residual Heat Removal Heat Exchanger Test Program 21.5.4 Departure from Nucleate Boiling Test Program 21 21.5.5 Oregon State University/Advanced Plant Experiment Test 21 21.5.6 SPES-2 High-Pressure, Full-Height Integral Systems Test 21 21.5.7 Wind Tunnel Test Program 21 21.5.8 PCS Test Program 21	-49 -51 -52 -55 -58 -60
21.5.2 Automatic Depressurization System Test Program 21 21.5.3 Passive Residual Heat Removal Heat Exchanger Test 21 21.5.4 Departure from Nucleate Boiling Test Program 21 21.5.5 Oregon State University/Advanced Plant Experiment Test 21 21.5.6 SPES-2 High-Pressure, Full-Height Integral Systems Test 21 21.5.7 Wind Tunnel Test Program 21 21.5.8 PCS Test Program 21 21.5.9 Water Distribution Test Program 21	-49 -51 -52 -55 -58 -60 -67
21.5.2 Automatic Depressurization System Test Program 21 21.5.3 Passive Residual Heat Removal Heat Exchanger Test Program 21.5.4 Departure from Nucleate Boiling Test Program 21 21.5.5 Oregon State University/Advanced Plant Experiment Test Program 21.5.6 SPES-2 High-Pressure, Full-Height Integral Systems Test 21 21.5.7 Wind Tunnel Test Program 21 21.5.8 PCS Test Program 21 21.5.9 Water Distribution Test Program 21 21.5.10 AP600 Scaling Issues 21	-49 -51 -52 -55 -58 -60 -67 -71
21.5.2 Automatic Depressurization System Test Program 21 21.5.3 Passive Residual Heat Removal Heat Exchanger Test 21 21.5.4 Departure from Nucleate Boiling Test Program 21 21.5.5 Oregon State University/Advanced Plant Experiment Test 21 21.5.6 SPES-2 High-Pressure, Full-Height Integral Systems Test 21 21.5.7 Wind Tunnel Test Program 21 21.5.8 PCS Test Program 21 21.5.9 Water Distribution Test Program 21	-49 -51 -52 -55 -58 -60 -67 -71
21.5.2 Automatic Depressurization System Test Program 21 21.5.3 Passive Residual Heat Removal Heat Exchanger Test Program 21.5.4 Departure from Nucleate Boiling Test Program 21 21.5.5 Oregon State University/Advanced Plant Experiment Test Program 21.5.6 SPES-2 High-Pressure, Full-Height Integral Systems Test 21 21.5.7 Wind Tunnel Test Program 21 21.5.8 PCS Test Program 21 21.5.9 Water Distribution Test Program 21 21.5.10 AP600 Scaling Issues 21	-49 -51 -52 -55 -58 -60 -67 -71 -73
21.5.2 Automatic Depressurization System Test Program 21 21.5.3 Passive Residual Heat Removal Heat Exchanger Test 21 21.5.4 Departure from Nucleate Boiling Test Program 21 21.5.5 Oregon State University/Advanced Plant Experiment Test 21 21.5.6 SPES-2 High-Pressure, Full-Height Integral Systems Test 21 21.5.7 Wind Tunnel Test Program 21 21.5.8 PCS Test Program 21 21.5.9 Water Distribution Test Program 21 21.5.10 AP600 Scaling Issues 21 21.5.11 Compliance With 10 CFR 52.47(b)(2) 21 21.6.1 LOFTRAN/LOFTTR2 Computer Code for non-LOCA 21	-49 -51 -52 -55 -58 -60 -67 -71 -73 -74
21.5.2 Automatic Depressurization System Test Program 21 21.5.3 Passive Residual Heat Removal Heat Exchanger Test Program 21.5.4 Departure from Nucleate Boiling Test Program 21 21.5.5 Oregon State University/Advanced Plant Experiment Test Program 21.5.6 SPES-2 High-Pressure, Full-Height Integral Systems Test 21 21.5.7 Wind Tunnel Test Program 21 21.5.8 PCS Test Program 21 21.5.9 Water Distribution Test Program 21 21.5.10 AP600 Scaling Issues 21 21.5.11 Compliance With 10 CFR 52.47(b)(2) 21 21.6.1 LOFTRAN/LOFTTR2 Computer Code for non-LOCA 21 21.6.1 LOFTRAN/LOFTTR2 Computer Code for non-LOCA 21	-49 -51 -52 -55 -58 -60 -67 -71 -73 -74
21.5.2 Automatic Depressurization System Test Program 21 21.5.3 Passive Residual Heat Removal Heat Exchanger Test 21 21.5.4 Departure from Nucleate Boiling Test Program 21 21.5.5 Oregon State University/Advanced Plant Experiment Test 21 21.5.6 SPES-2 High-Pressure, Full-Height Integral Systems Test 21 21.5.7 Wind Tunnel Test Program 21 21.5.8 PCS Test Program 21 21.5.9 Water Distribution Test Program 21 21.5.10 AP600 Scaling Issues 21 21.5.11 Compliance With 10 CFR 52.47(b)(2) 21 21.6.1 LOFTRAN/LOFTTR2 Computer Code for non-LOCA 21	-49 -51 -52 -55 -58 -60 -67 -71 -73 -74 -75 -84

.

•

xxv

Page

			WCOBRA/TRAC Computer Code for Long-Term Cooling	
	21.7	Quality A	Assurance Inspections	21-318
		21.7.1	QA Requirements for AP600 Design Certification Testing	
			Activities	21-318
		21.7.2	Summary	
22	REGUL	ATORY T	REATMENT OF NON-SAFETY SYSTEMS	22-1
	22.1	Introduct	ion	22-1
	22.2	Scope a	nd Criteria for the RTNSS Process	22-4
	22.3	Specific	Steps in the RTNSS Process	22-5
		22.3.1	Comprehensive Baseline Probabilistic Risk Assessment	22-5
			Search for Adverse Systems Interactions	
			Focused PRA	
			Selection of Important Non-Safety-Related Systems	
			Non-Safety-Related System Reliability/Availability Missions	
			Regulatory Oversight Evaluation	
			NRC/Vendor Interaction	
	22.4	Other Iss	sues Related to RTNSS Resolution	22-8
	22.5	NRC Rev	view of Westinghouse's Approach to Evaluation of Systems	
				22-8
		22.5.1	Initial Evaluation	22-8
			Evaluation of Adverse Systems Interactions	
			Post-72-Hour Actions and Equipment	
			Focused PRA and Passive System Thermal-Hydraulic	
			Performance Reliability	22-12
	22.6	Quality A	ssurance	22-20
23	REVIEW	BY THE	ADVISORY COMMITTEE ON REACTOR SAFEGUARDS	23-1
24	CONCLU	JSIONS		24-1

APPENDIX A	CHRONOLOGY A-1
APPENDIX B	REFERENCES B-1
APPENDIX C	ACRONYMS
APPENDIX D	PRINCIPAL CONTRIBUTORS D-1
APPENDIX E	CHRONOLOGY OF NRC'S REQUESTS FOR ADDITIONAL INFORMATION

LIST OF TABLES

		Page
Table 3.9-1	Margins for Straight Pipe	. 3-327
Table 6.2-1	Comparison of Westinghouse Containment Design Features	. 6-12
Table 6.2-2	Containment Initial Condition	. 6-20
Table 6.2-3	PCS Flow Rates and Area Coverage	. 6-20
Table 6.2-4	Summary of Calculated Pressures and Temperatures for LOCA and MSLB using <u>W</u> GOTHIC 4.2	. 6-22
Table 6.2-5	WGOTHIC Comparisons	. 6-29
Table 6.2-6	Peak Containment Pressures	. 6-29
Table 6.2-7	Postulated Breaks and Subcompartment Design Pressures	6-37
Table 9.4-1	HVAC System Components	9-140
Table 9.5-1	Conformance To NUREG/CR-0660 Recommendations for Diesel Generator Auxiliary Support Systems	9-141
Table 13.6-1	COL Action Item Cross-Reference	13-16
Table 15.3-1	Radiological Consequences of Design-Basis Accidents (rem TEDE)	15-78
Table 15.3-2	Assumptions Used in Computing Main Steamline Break Accident and Outside Containment and Steam Generator Tube Rupture Accident Dose	15-79
Table 15.3-3	Assumptions Used to Evaluate the Reactor Coolant Pump Shaft Seizure Accident	15-80
Table 15.3-4	Assumptions Used in Computing Rod Ejection Accident Doses	15-81
Table 15.3-5	Assumptions Used in Computing Small Line Failure Accident Doses	15-82
Table 15.3-6	Assumptions Used to Evaluate the Loss-of-Coolant Accident	15-83
Table 15.3-7	Aerosol Removal Rates Used to Evaluate Loss-of-Coolant Accident	15-84

Table	15.3-8	Assumptions and Estimates of the Radiological Consequences to Control Room Operators Following a LOCA	15-85
Table	15.3-9	Assumptions and Estimates of the Radiological Consequences to Personnel in Main Control Room and Technical Support Center Following a LOCA (for operation with VBS)	15-86
Table	15.3-10	Assumptions Used in Computing Fuel Handling Accident Doses	15-87
Table	18.1-1	Level of HFE Review	18-184
Table	18.3-1	Summary of Review of AP600 Applicable Issues from Westinghouse Draft OER Report (WCAP-14645)	18-185
Table	18.4-1	Relationship of NUREG-0711 Criteria, DSER Open Items, and New Open Items	18-186
Table	19.1-1	Comparison of Core Damage Frequency Contributions by Initiating Event	19-260
Table		Level 1 Accident Class Functional Definitions and Core Damage Frequencies	19-261
Table	19.1-3	Conditional Containment Failure Probability by Accident Class	19-262
Table	19.1-4	Containment Release Categories and Associated Frequencies	19-262
Table	19.1-5	Contribution to Risk from Various Release Categories, as Reported by Westinghouse (72 Hour Mission Time)	19-263
Table	19.2-1	Treatment of Intangible Parameters for AP600	19-263
Table	19.2 - 2	Input Parameters for Westinghouse TEXAS Calculations	19-264
Table		Peak Impulse and Pressure from Westinghouse's Assessment of AP600 Ex-Vessel Steam Explosions	19-265
Table		Maximum Pressure from Staff's Assessment of AP600 Ex-Vessel Steam Explosions	19-266
Table	19.2-5	Meridional and Hoop Stresses at the Knuckle Region	19-267
Table	19.4-1	Comparison of Estimated Benefits from Averted Offsite Exposure	19-268

12

Page

		<u>Page</u>
Table 19.4-2	Key Differences between Westinghouse and NUREG/BR-0058	19-269
Table 19.4-3	Key Parameters Used in Evaluating Maximum SAMDA Benefits	19-270
Table 19.4-4	Design Alternative Benefits Accounting for Uncertainties and External Events Effects (Benefits, 1996\$)	19-271
Table 20.1-1	USIs/GSIs in NUREG-0933 (Supplement 14) relevant to the AP600 Design	20-4
Table 20.6-1	10 CFR 52.47(a)(1)(ii) TMI Action Plan Items	20-118
Table 20.7-1	Resolution of Applicable Bulletins Issued Between January 1,1980, and December 31, 1997, for the Westinghouse AP600 Design	20-124
Table 20.7-2	Resolution of Applicable Generic Letters Issued Between January 1, 1980, and December 31, 1997, for the Westinghouse AP600 Design	20-138
Table 21.3-1	Wind Tunnel Test Phases 1 and 2 Matrix	21-20
Table 21.3-2	Wind Tunnel Test Phase 4A matrix	21-21
Table 21.3-3	Large-Scale Test (LST) Facility Instrumentation	21-26
Table 21.3-4	Large-Scale Test (LST) Tests and Target Conditions	21-27
Table 21.3-5	Summary of Phases 1 through 3 Water Distribution Tests	21-38
Table 21.6-1	Phenomena Identification and Ranking Table for AP600 Non-LOCA and Steam Generator Tube Rupture Design Basis Analyses	21-331
Table 21.6-2	Westinghouse Final PIRT For AP600 SBLOCA	21-334
Table 21.6-3	NOTRUMP AP600 SBLOCA Component Separate Effects Assessment Tests	21-338
Table 21.6-4	NOTRUMP AP600 SBLOCA Two-Phase Level Swell Assessment	21-339
Table 21.6-5	NOTRUMP AP600 SBLOCA Integral Systems Assessment Tests	21-340
Table 21.6-6	Westinghouse AP600 LBLOCA PIRT with Comparisons to the CSAU LBLOCA PIRT and Westinghouse's Three- and Four-Loop Plant LBLOCA PIRT	21-341

		<u>Page</u>
Table 21.6-7	Comparison of Containment Codes	21-345
	Comparison Between WGOTHIC and CONTEMPT Interfacial Heat and Mass Transfer for Lumped-parameter Modeling	21-346
	Comparison of Correlations for Heat Transfer, Condensation and Evaporation Implemented in <u>W</u> GOTHIC and CONTEMPT-LT/028	21-347
Table 21.6-10	Clime Heat Transfer Correlations	21-348
Table 21.6-11	Simplified Summary of PCS Flow Rates and Coverage Area Characterization (Data from SSAR Table 6.2.2-1)	21-349
Table 21.6-12	Evaluation of Conservatism in Evaporated-flow Model	21-350
Table 21.6-13	Phenomena Identification and Ranking According to Effect on Containment Pressure	21-351
Table 21.6-14	Summary and References for Treatment of High/Medium Ranked Phenomena	21-355
Table 21.6-15	Expected Operating Range for the AP600 Heat and Mass Transfer Parameters	21-360
Table 21.6-16	WGOTHIC Analyses of LST Using Lumped-parameter Modeling Approach	21-361
Table 21.6-17	Conservative Input Values for EM for Environmental (Outside Containment) Initial Conditions	21-362
Table 21.6-18	Conservative Input Values for EM for Inside Containment Initial Conditions	21-363
Table 21.6-19	Conservative Input Values for EM for Primary System and Secondary System Conditions	21-364
Table 21.6-20	Conservative Input Values for EM for Primary PCS Characteristics	21-365
Table 21.6-21	Conservative Input Values for EM for Geometry and Flow Characteristics	21-366

L

• -

ı.

LIST OF FIGURES

.

		Page
Figure 1.2-1	AP600 Reactor Coolant System	1-21
Figure 1.2-2	AP600 Passive Safety Injection System Post-LOCA, Long Term Cooling	1-22
Figure 1.2-3	AP600 Passive Containment Cooling System	1-23
Figure 1.2-4	AP600 Safety Injection Systems	1-24
Figure 1.2-5	AP600 Plant Layout	1-25
Figure 2.5-1	Results of Staff's Analysis for the Horizontal Component of Ground Motion	2-24
Figure 3.7-1	Horizontal Design Response Spectra Safe Shutdown Earthquake	3-328
Figure 3.7-2	Vertical Design Response Spectra Safe Shutdown Earthquake	3-329
Figure 3.7-3	Free-Field Motions at Foundation Level (40 ft. Depth) Envelope of Horizontal Motions	3-330
Figure 3.7-4	Free-Field Motions at Foundation Level (40 ft. Depth) Envelope of Vertical Motions	3-331
Figure 19.1-1	Comparison of AP600 Containment Release Frequency based on the Original and Updated Level 2 PRA Results Reported by Westinghouse (Baseline PRA, Internal Events)	9-273
Figure 19.1-2	Breakdown of AP600 Containment Release Modes by Contributor, as Reported by Westinghouse	9-274
Figure 19.1-3	Overall Dose Risk, Site Boundary Whole Body EDE, 24 Hour Dose 1	9-275
Figure 21.6-1	AP600 Peak Cladding Temperature Transient for the AP600 C _D = 0.8 DECLG Break	21-367
Figure 21.6-2	$C_{D} = 0.8$ DECLG Transient, Accumulator Flow Rate From One Tank 2	21-368
Figure 21.6-3	CCTF Run 58, Medium-Powered Rod, Clad Temperature Comparison at 6 ft	21-369
Figure 21.6-4	CCTF Run 58, Medium-Powered Rod, Clad Temperature Comparison at 8 ft	21-369

-	CCTF Run 58, Medium-Powered Rod, Clad Temperature Comparison at 10 ft	21-370
-	CCTF Run 58, High-Powered Rod, Clad Temperature Comparison at 6 ft	21-370
Figure 21.6-7	CCTF Run 58, High-Powered Rod, Clad Temperature Comparison at 8 ft	21-371
-	CCTF Run 58, High-Powered Rod, Clad Temperature Comparison at 10 ft	21-371
Figure 21.6-9	CCTF Run 58, Quench Envelope Comparison - Low-Powered Rod	21-372
Figure 21.6-10	CCTF Run 58, Quench Envelope Comparison - Medium-Powered Rod	21-372
Figure 21.6-11	CCTF Run 58, Quench Envelope Comparison - High-Powered Rod	21-373
Figure 21.6-12	CCTF Run 58, Upper Plenum Pressure Comparison	21-374
Figure 21.6-13	CCTF Run 58, Downcomer Differential Pressure Comparison	21-375
Figure 21.6-14	CCTF Run 58, Core Differential Pressure Comparison	21-376
Figure 21.6-15	CCTF Run 58, Loop 1 Cold Leg Steam Mass Flow Comparison	21-377
Figure 21.6-16	CCTF Run 58, Loop 1 Hot Leg Water Mass Flow Comparison	21-378
Figure 21.6-17	CCTF Run 58, Loop 1 Hot Leg Steam Mass Flow Comparison	21-379
Figure 21.6-18	CCTF Run 58, Loop 4 Hot Leg Water Mass Flow Comparison	21-380
Figure 21.6-19	CCTF Run 58, Loop 4 Hot Leg Steam Mass Flow Comparison	21-381
Figure 21.6-20	Breakdown of Westinghouse's Uncertainty Parameters	21-382
Figure 21.6-21	Flow Chart of Monte Carlo Procedure (AP600)	21-383
Figure 21.6-22	AP600 Containment	21-384
Figure 21.6-23	Historic Development of the GOTHIC Code	21-385

	<u>Page</u>
Figure 21.6-24 Development of <u>W</u> GOTHIC	21-386
Figure 21.6-25 Simplified Representation of a Clime Heat Structure	21-387
Figure 21.6-26 LOCA Time Phases	21-388

APPENDIX A CHRONOLOGY

This appendix contains a chronological listing of routine licensing correspondence between the U.S. Nuclear Regulatory Commission (NRC) staff and Westinghouse regarding the review of the AP600 under Project No. 676 and Docket No. 52-003.

Rev.	Date	Rev.	Date	Rev.	Date
0	June 26, 1992	1	January 13, 1994	2	April 3, 1995
3	June 1, 1995	4	June 30, 1995	5	February 29, 1996
6	April 2, 1996	7	May 1, 1996	8	July 1, 1996
9	August 9, 1996	10	December 19, 1996	11	March 4, 1997
12	May 6, 1997	13	June 12, 1997	14	June 27, 1997
15	August 13, 1997	16	September 3, 1997	17	November 7, 1997
18	December 5, 1997	19	January 9, 1998	20	February 9, 1998
21	March 13, 1998	22	April 2, 1998	23	May 18, 1998
24	August 7, 1998	25	August 19, 1998		

Revisions to AP600 SSAR

Revisions to AP600 PRA

Rev.	Date	Rev.	Date	Rev.	Date
0	June 26, 1992	1	July 22, 1994	2	January 31, 1995
3	May 1, 1995	4.	July 14, 1995	5	July 21, 1995
6	November 17, 1995	7	June 28, 1996	8	September 30, 1996
9	April 11, 1997	10	June 30, 1997	11	March 16, 1998
12	July 24, 1998	13	August 13, 1998		

Rev.	Date	Rev.	Date	Rev.	Date
1	December 15, 1992	2	November 7, 1996	3	May 19, 1997
4	April 3, 1998	5	May 11, 1998	6	July 30, 1998
7	August 13, 1998				

Revisions to AP600 Tier 1 Material

September 11, 1998 NRC letter (from B. Huffman) discussing redirection of previously considered proprietary material into public domain. Enclosures 1 & 2 originally submitted with Westinghouse letter NSD-NRC-96-4848 dated 961016. acn: 9809150241

September 9, 1998 NRC letter (from B. Huffman) discussing redirection of material previously considered proprietary to PDR. acn: 9809150222

- September 8, 1998 NRC letter (from J. Sebrosky) forwarding determination that WCAP-14132 enclosure in Westinghouse letter NTD-NRC-94-4244 dated 940729 & marked as proprietary will be withheld from public disclosure per to 10 CFR 2.790(b)(5) & Section 103(b) of Atomic Energy Act of 1954. acn: 9809140177
- September 8, 1998 NRC letter (from D. Scaletti) advising that information regarding Westinghouse AP600 SSAR through Revision 4 and PRA through Revision 5 will be withheld from public disclosure per 10 CFR 2.790(b)(5). acn: 9809140131
- September 3, 1998 NRC letter (from B. Huffman) advising that information marked as proprietary regarding Westinghouse AP600 design letters concerning PXS scaling and PIRT closure report, WCAP-14727, will be withheld from public disclosure per 10 CFR 2.790(b)(5). acn: 9809090118
- September 3, 1998 NRC letter (from J. Roe) forwarding copy of final SER which summarizes staff safety review of AP600 design against requirements of Subpart b of 10 CFR 52 and delineates scope of technical details considered in evaluating proposed design. acn: 9809080390
- September 3, 1998 <u>Federal Register</u> Notice (T. Quay) of issuance of final design approval and final SER for Westinghouse Electric Company's AP600 standard design. acn: 9809080274

- September 3, 1998 NRC letter (S. Collins) forwarding final design approval and final SER for the AP600. acn: 9809080268
- September 3, 1998 Staff Requirements Memorandum (J. Hoyle) informing that Commission has approved staff intention to publish FSER and issue FDA for AP600 design. acn: 9809080244
- September 2, 1998 NRC letter (from W. Huffman) stating that Westinghouse 980814 letter (DCP-NRC1414) states that WCAP-13957 is no longer considered proprietary by Westinghouse. acn: 9809110009

September 1, 1998 Westinghouse letter (from B. McIntyre) informing that Westinghouse determined that AP600 FSER contains no proprietary information acn: 9809110021

- August 31, 1998 NRC letter (from W. Huffman) advising that AP600 RAI responses in Westinghouse letters NTD-NRC-95-4598, dated 951117, as modified by NSD-NRC-98-5776, dated 980826, marked proprietary will be withheld from public disclosure per 10 CFR 2.790(b)(5). acn: 9809030272 Fiche: A4919:079-A4919:081
- August 31, 1998 NRC letter (from J. Sebrosky) informing that EPRI documents "GOTHIC Containment Analysis Package Qualification Report," "GOTHIC Containment Analysis Qualification Manual," and listed documents dated September 1993 will be withheld from public disclosure. acn: 9809140174
- August 28, 1998 Memorandum (L. Callan) notifying Commission of staff's intent to publish FSER for Westinghouse Electric Company's AP600 standard plant design. acn: 9809080042
- August 28, 1998Westinghouse letter (from B. McIntyre) forwarding non-proprietary
Revision 2 to WCAP-14989, "Accident Specification and Phenomena
Evaluation for AP600 Passive Containment Cooling System."
acn: 9809030375Fiche: A4934:001-A4934:265

August 28, 1998Westinghouse letter (from B. McIntyre) forwarding corrected pages 4-28
through 4-32 to be inserted in Revision 2 to non-proprietary
WCAP-14953, "AP600 PXS Scaling and PIRT Closure Report."
acn: 9809040143Fiche: A4954:277-A4954:289

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August 27, 1998	NRC letter (from L. Callan) acknowledging receipt of 980723 ACRS le regarding safety aspects of Westinghouse Electric Company's applica for certification of AP600 passive plant design. acn: 9809040007 Fiche: A4952:337-A4952:360	
August 27, 1998	Westinghouse letter (from B. McIntyre) committing to include requeste changes into AP600 Design Control Document. acn: 9809040268Fiche: A4959:352-A4959:357	d
August 27, 1998	NRC letter (from J. Wilson) Advising that information contained in lette DCP-NRC-0985, dated 970821, sought to be withheld will be withheld from public disclosure per 10 CFR 2.790(b)(5) and Section 103(b) of Atomic Energy Act of 1954, as amended. acn: 9808310281 Fiche: A4854:078-A4854:080	
August 26, 1998	NRC letter (from T. Quay) advising that information in WCAP-14812, Revisions 1 and 2, "Accident Specification and Phenomena Evaluation AP600 PCS," will be withheld from public disclosure. acn: 9808280235 Fiche: A4836:249-A4836:250	ı for
August 26, 1998	Westinghouse letter (from B. McIntyre) requesting that proprietary revi Westinghouse response to NRC letters regarding requests for withhold information be withheld from public disclosure in accordance with 10 C 2.790. acn: 9809040331 Fiche: A4959:319-A4959:327	ding
August 26, 1998	Westinghouse letter (from B. McIntyre) forwarding revised proprietary response to NRC letter regarding Westinghouse requests for withholdi information for design certification test program - NOTRUMP computer code, WCOBRA-TRAC computer code, and LOFTRAN computer code acn: 9809040328 Fiche: A4959:316-A4959:327	r
August 26, 1998	Westinghouse letter (from B. McIntyre) providing revised response to NRC letter regarding Westinghouse requests for withholding informatic regarding AP600 PCS final data reports WCAP-14135 and WCAP-141 acn: 9809040272 Fiche: A4954:275-A4954:276	
August 24, 1998	Westinghouse letter (from B. McIntyre) informing that Westinghouse far the last response regarding AFSER open item 1.1-1 to NRC on 98082. The last of attachments supporting several of responses faxed to NRC over past several days were express-mailed to NRC on 980821. acn: 9808280043	1.
August 21, 1998	Westinghouse letter (from B. McIntyre) transmitting results of AP600 FOAKE design assurance review, as requested in NRC 971003 letter. The information is being provided to close unresolved item identified in Inspection Report 99900404-97-01. acn: 9809020250 Fiche: A4905:097-A4905:115	

August 21, 1998	Westinghouse letter (from B. McIntyre) forwarding non-proprietary resultsof AP600 design assurance review that was committed to inWestinghouse response dated 980227 to NRC inspection report99900404-97-02.acn:9809010186Fiche:A4880:309-A4880:338
August 21, 1998	Westinghouse letter (from B. McIntyre) responding to questions raised in NRC 971022 and 980701 letters regarding proprietary information contained in 970930 summary of meeting held on 970804-15 concerning structural design of AP600. acn: 9808280040
August 21, 1998	Westinghouse letter (from B. McIntyre) requesting that Westinghouse response to NRC letters regarding requests for withholding information be withheld from public disclosure per 10 CFR 2.790. acn: 9808260020 Fiche: A4813:073-A4813:099
August 21, 1998	Westinghouse letter (from B. McIntyre) forwarding non-proprietary and proprietary information in response to NRC letters regarding Westinghouse requests for withholding information. acn: 9808260018 Fiche: A4813:071-A4813:099
August 21, 1998	Westinghouse letter (from B. McIntyre) responding to NRC letters regarding Westinghouse requests for withholding information. acn: 9808260001 Fiche: A4813:100-A4813:101
August 21, 1998	Westinghouse letter (from B. McIntyre) forwarding non-proprietary Revision 2 to WCAP-14138, "Final Data Report for PCS Large-Scale Tests Phase 2 and Phase 3." acn: 9808250289 Fiche: A4799:307-A4800:348
August 20, 1998	Westinghouse letter (from B. McIntyre) responding to NRC letters regarding requests for withholding information from public disclosure for Westinghouse AP600 design letter dated 960229. acn: 9808260008 Fiche: A4813:102-A4813:103
August 20, 1998	Westinghouse letter (from B. McIntyre) responding to NRC letters regarding Westinghouse requests for withholding information. acn: 9808260006 Fiche: A4813:104-A4813:105
August 20, 1998	Westinghouse letter (from B. McIntyre) requesting that proprietary information regarding Westinghouse response to NRC letters regarding requests for withholding information concerning AP600 PXS scaling and PIRT closure report, WCAP-14727, be withheld from public disclosure in accordance with 10 CFR 2.790. acn: 9808260089 Fiche: A4877:006-A4877:015

August 20, 1998		McIntyre) forwarding proprietary change VCAP-14727 in response to NRC letter dated
	acn: 9808260086 F	Fiche: A4877:001-A4880:075
August 20, 1998	regarding Westinghouse requ Westinghouse withdraws AP6 Makeup Tank Preliminary Vali required by NRC to make safe	McIntyre) responding to NRC letters ests for withholding information. 300 report entitled "WCOBRA-TRAC Core idation Report, " since report was not ety determination of AP600. Fiche: A4780:287-A4780:288
August 20, 1998	telcon regarding Westinghous to determine what information WCAP-14812.	McIntyre) providing summary of 980813 e's explanation of rationale which was used was considered to be proprietary in Fiche: A4780:290-A4780:292
August 20, 1998	disclosure per 10 CFR 2.790(I Act of 1954, as amended, pre- meeting.	informing that staff will withhold from public b)(5) and Section 103(b) of Atomic Energy sentation material from 970212-14 ACRS Tiche: A4710:358-A4710:360
August 19, 1998	Westinghouse letter (from B. I SSAR. acn: 9809030346	McIntyre) forwarding Revision 25 to AP600
August 19, 1998	identified figure is not consider	McIntyre) providing written confirmation that red proprietary by Westinghouse. iche: A4813:069-A4813:070
August 18, 1998	and Westinghouse regarding s	onfirming phone conversation between NRC submittal of final portions of documentation. iche: A4801:296-A4801:299
August 18, 1998	informal correspondence be w 2.790.	McIntyre) requesting that proprietary /ithheld from public disclosure per 10 CFR iche: A4781:307-A4781:325
August 18, 1998	Westinghouse letter originally proprietary and non-proprietar	McIntyre) submitting Revision1 of submitted on 970917, which transmitted y informal correspondence. iche: A4781:304-A4781:325
August 17, 1998	letters regarding request for w	McIntyre) submitting response to NRC ithholding information. iche: A4780:241-A4780:243

August 17, 1998		 McIntyre) forwarding addenda to Revision 3 gn Vulnerability Analysis Report.
August 14, 1998		 McIntyre) responding to NRC letters olding proprietary information regarding
	acn: 9808200168	Fiche: A4725:259-A4725:262
August 14, 1998	21 letters regarding reques	B. McIntyre) responding to NRC 980714 and t for withholding proprietary information that her than being marked "Westinghouse Fiche: A4725:263-A4725:265
	acii. 9000200104	FICHE. A4723.203-A4723.203
August 13, 1998	•	3. McIntyre) forwarding Revision 7 to e Light Water Réactor Plant Program AP600
	acn: 9808200187	Fiche: A4747:081-A4747:138
August 13, 1998	contained in 980501 AFSEI	B. McIntyre) responding to open item 1.1-2 R for AP600, requesting update of comparison version of ALWR EPRI Utility Requirements
	acn: 9808200183	Fiche: A4725:310-A4725:310
August 13, 1998	– ·	3. McIntyre) responding to NRC letters and ing request for withholding proprietary 0 design. Fiche: A4725:305-A4725:307
August 13, 1998	PRA for Simplified Passive represents final version of A	
	acn: 9808180036	Fiche: A4697:001-A4697:097
August 12, 1998	letters regarding request for	3. McIntyre) forwarding response to NRC r withholding information. Information does not is no longer considered proprietary by
	acn: 9808180357	Fiche: A4742:303-A4742:304
August 11, 1998	÷ ,	 McIntyre) forwarding Revision 6 to the port and Revision 3 to the AP600 Security is Report.
August 7, 1998	Westinghouse letter (from E SSAR.	3. McIntyre) forwarding Revision 24 to AP600
	acn: 9809030045	Fiche: A4933:338-A4933:348

August 3, 1998	views of ACRS regarding safe	cknowledging receipt of 980615 letter on ety aspects of AP600 design. Fiche: A4510:013-A4510:026
July 31, 1998		McIntyre) forwarding table which compares items identified in AP600 design certification
	• •	Fiche: A4584:356-A4584:362
July 30, 1998	Westinghouse letter dated 98	informing that proprietary information in 0713 will be withheld from public disclosure Section 103(b) of Atomic Energy Act of 1954,
	acn: 9808040251 F	Fiche: A4498:176-A4498:178
July 30, 1998	WCAP-14601 (Revision 2) su 980616 and marked proprieta) advising that information contained in Ibmitted in Westinghouse letter dated ary will be withheld from public disclosure per ion 103(b) of Atomic Energy Act of 1954 as
	acn: 9808040129 F	Fiche: A4492:231-A4492:233
July 29, 1998	transient analysis enclosed in dated 960808 and NSD-NRC proprietary will be withheld fro) informing that AP600 boron dilution Westinghouse letters NSD-NRC-96-4792 -98-5739 dated 980720 and marked as om public disclosure per 10 CFR 2.790. Fiche: A4476:349-A4476:351
July 29, 1998	"Steam Condensation Events NSD-NRC-96-4661 dated 960 from public disclosure per 10 Atomic Energy Act.) advising that WCAP-14471 Revision 0 at OSU AP600 Facility," submitted in letter 0306 and marked proprietary will be withheld CFR 2.790(b)(5) and Section 103(b) of Fiche: A4430:348-A4430:350
July 29, 1998	will require prior NRC approva	ming that certain information in AP600 SSAR al before proposed change can be
	acn: 9807310060 F	Fiche: A4430:354-A4430:358
July 29, 1998	"AP600 Integral System Test NSD-NRC-98-5718 dated 980 from public disclosure per 10 Atomic Energy Act.) advising that WCAP-14270, Revision 1, Facility Scaling Report," enclosed in letter 0619 and marked proprietary will be withheld CFR 2.790(b)(5) and Section 103(b) of Fiche: A4430:351-A4430:353
July 28, 1998	•	discussing return of proprietary material to er AP600 design review. Proprietary

documents listed in Enclosure 1 removed from AP600 file and returned for disposition or retention. Westinghouse letter (from B. McIntyre) forwarding Revision 6 to "Simplified Passive Advanced Light Water Reactor Plant Program AP600 Tier 1 Material." which incorporates comments received from NRC

Fiche: A4612:001-A4613:191

July 24, 1998 Westinghouse letter (from B. McIntyre) forwarding Revision 12 to "AP600 PRA Report." acn: 9808060045 Fiche: A4567:075-A4567:110

technical staff as of July 22, 1998.

acn: 9808110228

July 23, 1998 ACRS letter (from R. Seale) informing that during 454th meeting of ACRS on 980708-10, ACRS completed safety review of AP600 design certification application for certification of AP600 passive plant design. acn: 9807280362 Fiche: A4462:344-A4462:355

July 22, 1998 Westinghouse letter (from B. McIntyre) forwarding response to NRC 950823 letter regarding request for withholding information in design certification application for AP600 submitted on 920626. acn: 9807280203 Fiche: A4427:353-A4427:358

July 22, 1998 NRC letter (from D. Scaletti) informing that information related to WGOTHIC lumped-parameter and distributed parameter nodalization of AP600 and WGOTHIC heat sink and flow path description including areas thickness and evaluations will be withheld per 10 CFR 2.790(b)(5) and 103(b).

acn: 9807280166 Fiche: A4398:255-A4398:257

July 22, 1998 NRC letter (from W. Huffman) discussing Westinghouse 941031 submittal by letter (NTD-NRC-94-4330) of "AP600 NOTRUMP Core Makeup Tank Preliminary Validation Report," and requesting that information be

July 27, 1998

withheld from public disclosure. Staff determined that information is proprietary and will be withheld from public. acn: 9807280106 Fiche: A4398:220-A4398:222v

July 22, 1998 NRC letter (from J. Sebrosky) advising that proprietary material enclosed in NSD-NRC-96-4700 will be withheld from public disclosure per 10 CFR 2.790(b)5) and Section 103(b) of Atomic Energy Act of 1954 as amended. acn: 9807270474 Fiche: A4393:037-A4393:039

July 22, 1998 NRC letter (from W. Huffman) advising that information contained in WCAP-12945-P-A and WCAP-14747 submitted in letter NTD-NRC-95-4406 will be withheld from public disclosure per 10 CFR 2.790(b)(5) and Section 103(b) of Atomic Energy Act of 1954 as amended. acn: 9807270455 Fiche: A4388:326-A4388:328

July 22, 1998	NRC letter (from D. Scaletti) informing that staff plans to return NSD-NRC-96-4762, NSD-NRC-96-4763, and NSD-NRC-96-4790 due to information being provided in documents. acn: 9807270400 Fiche: A4392:353-A4392:355
July 22, 1998	NRC letter (from D. Scaletti) informing that staff plans to return NSD-NRC-94-4246, NSD-NRC-94-4327, and NSD-NRC-94-4318 transmittals to Westinghouse without proprietary determination due to information being provided in documents. acn: 9807270354 Fiche: A4392:356-A4392:357
July 22, 1998	NRC letter (from D. Scaletti) advising that information in 971111 letter NSD-NRC-97-5424 on AP600 passive containment cooling system will be withheld from public disclosure per 10 CFR 2.790. acn: 9807270346 Fiche: A4393:016-A4393:018
July 22, 1998	NRC letter (from D. Scaletti) advising that information in 931220 letter on AP600 large scale test facility will be withheld from public disclosure per 10 CFR 2.790. acn: 9807270326 Fiche: A4392:358-A4392:360
July 22, 1998	NRC letter (from W. Huffman) informing that WCAP-14776 (Revision 2) enclosed in Westinghouse letter NSD-NRC-97-5202 dated 970620 will be withheld from public disclosure pursuant to 10 CFR 2.790(b)(5) and Section 103(b) of Atomic Energy Act of 1954 as amended. acn: 9807270312 Fiche: A4380:347-A4380:349
July 22, 1998	NRC letter (from J. Sebrosky) informing that enclosed table associated with Westinghouse AP600 letters will be marked as proprietary and will be withheld from public disclosure pursuant to 10 CFR 2.790(b)(5) and Section 103(b) of atomic energy act of 1954 as amended. acn: 9807240160 Fiche: A4370:315-A4370:319
July 22, 1998	NRC letter (from J. Sebrosky) informing that material enclosed in NTD-NRC-94-4215 and NTD-NRC-95-4436 marked as proprietary will be withheld from public disclosure pursuant to 10 CFR 2.790(b)(5) and Section 103(b) of Atomic Energy Act of 1954 as amended. acn: 9807240156 Fiche: A4370:320-A4370:323
July 22, 1998	NRC letter (from W. Huffman) informing that Westinghouse AP600 design letters will be marked as proprietary and will be withheld from public disclosure pursuant 10 CFR 2.790(b)(5) and Section 103(b) of Atomic Energy Act of 1954 as amended. acn: 9807240152 Fiche: A4370:324-A4370:327
July 22, 1998	NRC letter (from J. Sebrosky) informing that materials documented in enclosed table associated with Westinghouse AP600 WCAPs submitted in 920320 letter will be withheld from public disclosure pursuant to 10 CFR

	amended.	b) of Atomic Energy Act of 1954 as Fiche: A4370:328-A4370:334
July 21, 1998	with Westinghouse AP600 let and will be withheld from publ and Section 103(b) of the Ato) informing that enclosed table associated ter of 930927 will be marked as proprietary lic disclosure pursuant to 10 CFR 2.790(b)(5) mic Energy Act. Fiche: A4370:240-A4370:243
July 21, 1998	dated 920304, 0914, and 103 pursuant to 10 CFR 2.790(b)(of 1954 as amended.) informing that Westinghouse AP600 letters 30 will be withheld from public disclosure (5) and Section 103(b) of Atomic Energy Act Fiche: A4370:247-A4370:250
July 21, 1998	report "Westinghouse GOTH Containment Transients."	forwarding copy of technical evaluation IIC Computer Code for Analysis of Fiche: A4367:001-A4367:356
July 21, 1998	NTD-NRC-94-4178 dated 940 program and marked as propr per 10 CFR 2.790(b)(5) and S as amended.) advising that information contained in letter 0606 documenting aspects of AP600 rietary will be withheld from public disclosure Section 103(b) of Atomic Energy Act of 1954 Fiche: A4372:146-A4372:148
July 21, 1998	which contain material that ha proprietary information. Appli NRC if material considered to) submitting list of Westinghouse letters as been treated by staff as containing icant requested to review letters and notify be proprietary. Fiche: A4372:141-A4372:142
July 21, 1998	e-mail from T. Kenyon regard	McIntyre) forwarding response to 980717 ling RAIs without apparent responses. Fiche: A4429:013-A4429:015
July 20, 1998	"Analysis of Boron Dilution Tradisclosure per 10 CFR 2.790.	McIntyre) requesting that proprietary report ansients in AP600," be withheld from public Fiche: A4409:006-A4409:012
July 20, 1998	proprietary versions of "Analy final report in response to 980	McIntyre) forwarding non-proprietary and rsis of Boron Dilution Transients in AP600," 0714 letter. Fiche: A4409:001-A4409:283

July 20, 1998	NRC letter (from J. Sebrosk enclosed table when submi 10 CFR 2.790(b)(5).	tted marked as pro	prietary will be withheld per
	acn: 9807220282	Fiche: A4362:268	B-A4362:272
July 20, 1998	NRC letter (from D. Scaletti withholding information from Revision 1.	n public disclosure	egarding WCAP-14135
	acn: 9807210195	Fiche: A4362:008	-A4362:010
July 17, 1998	NRC letter (from W. Huffma proprietary determination of dated 950228 "WCOBRA-T Validation Report."	Westinghouse lette	er NTD-NRC-95-4411
	acn: 9807220174	Fiche: A4362:265	-A4362:267
July 17, 1998	NRC letter (from J. Sebrosk information from public disc WCAPs. Staff has determin withheld pursuant to 10 CFF acn: 9807220152	losure associated v ned that material m	with Westinghouse AP600 arked as proprietary will be
July 17, 1998	NRC letter (from W. Huffma proprietary in WCAP-14807 Revision 2, dated 970701; N and NSD-NRC-97-4960, Re public disclosure per 10 CFI acn: 9807210414	(submitted in letter NSD-NRC-97-4960, evision 0, dated 961	s NSD-NRC-97-5217, Revision 1, dated 970131; 218) will be withheld from
July 17, 1998	NRC letter (from W. Huffma "AP600 RCS Mass Inventor contain trade secrets or pro meet requirements of 10 CF acn: 9807210400	y: Function-Based prietary commercia	Task Analysis," does not I information and does not
July 16, 1998	NRC letter (from J. Sebrosk WCAP-10054 submitted by determined information to be disclosure. acn: 9807220336	Westinghouse on 9	30402. Staff has ill be withheld from public
	ach. 9007220330	FICHE. A4302.310	-74302.312
July 16, 1998	NRC letter (from W. Huffma and 1, submitted in 941130 2.790(b)(5) and Section 103 acn: 9807220288	and 970821 letter v	vill be withheld per 10 CFR gy Act of 1954.
July 16, 1998	NRC letter (from J. Sebrosk on enclosed table associate		

	and 0316 will be withheld from public disclosure per 10 CFR 2.790(b)(5) and Section 103(b) of Atomic Energy Act of 1954 as amended. acn: 9807210217 Fiche: A4362:004-A4362:007
July 15, 1998	NRC letter (from D. Scaletti) informing that proprietary information WCAP-14967 "Assessment of Effects of WGOTHIC Solver Upgrade from Version 1.2 to 4.1," will be withheld from public disclosure per 10 CFR 2.790(b) (5). acn: 9807200337 Fiche: A4218:086-A4218:088
July 15, 1998	NRC letter (from W. Huffman) informing that information contained in Westinghouse letter NTD-NRC-95-4486 dated 950612 "AP600 NOTRUMP Core Makeup Tank Preliminary Validation Report for 500-Series Natural Circulation Tests," will be withheld from public disclosure per 10 CFR 2.790. acn: 9807200331 Fiche: A4218:049-A4218:051
July 15, 1998	NRC letter (from J.N. Wilson) informing that information submitted by 970821 letter regarding QA program will not be withheld from public disclosure per applicant request. No specific portions of applicant response have been marked as proprietary; therefore request denied. acn: 9807200317 Fiche: A4218:094-A4218:095
July 15, 1998	NRC letter (from J. Sebrosky) informing that staff unable to determine which portions of Westinghouse letter NTD-NRC-95-44400 dated 950418 to withhold from public disclosure. Claim should be reviewed and staff should be notified as to what portion still considered proprietary. acn: 9807200312 Fiche: A4218:052-A4218:053
July 15, 1998	NRC letter (from D. Scaletti) informing that Appendix 4.b of WCAP-14407, Revision 3, submitted on 980501 will be withheld from public disclosure pursuant to 10 CFR 2.790(b)(5) and Section 103(b) of Atomic Energy Act of 1954 as amended. acn: 9807200278 Fiche: A4218:054-A4218:056
July 15, 1998	NRC letter (from D. Scaletti) informing that fire protection system drawings identified in enclosure to NSD-NRC-97-4951 letter dated 970123 will be withheld from public disclosure pursuant to 10 CFR 2.790(b)(5) and Section 103(b) of Atomic Energy Act of 1954 as amended. acn: 9807200274 Fiche: A4218:060-A4218:063
July 15, 1998	NRC letter (from W. Huffman) informing that information submitted in Westinghouse NSD-NRC-97-5287 dated 970821 "AP600 LOFTRAN-AP and Lofttr2-AP Final Validation Report." WCAP-14307, Revision 1 will be withheld from public disclosure per 10 CFR 2.790(b)(5) and Section 103(b) of Atomic Energy Act. acn: 9807170205 Fiche: A4193:300-A4193:302

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July 15, 1998	and 0) enclosed in Westinghou and NTD-NRC-94-4122 dated withheld from public disclosure	informing that WCAP-14053 (Revisions 2 use letter NTD-NRC-95-4458 dated 950508 940504 marked as proprietary will be pursuant to 10 CFR 2.790(b)(5). iche: A4218:057-A4218:059
July 15, 1998	480.392, and 480.394 on AP6 pursuant to 10 CFR 2.790(b)(5 of 1954 as amended.	oforming that responses to RAI 470.30, 00 will be withheld from public disclosure 5) and Section 103(b) of Atomic Energy Act iche: A4218:001-A4218:003
July 15, 1998	contained in WCAP-14845, Re disclosure pursuant to 10 CFR Energy Act of 1954 as amende	forming that bracketed information evision 3, will be withheld from public 2.790(b)(5) and Section 103(b) of Atomic ed. che: A4218:022-A4218:024
July 14, 1998	proprietary information regardi 940729.	discussing request for withholding ng Westinghouse letters dated 920214 and che: A4362:328-A4362:330
July 14, 1998	enclosed in Westinghouse lette marked as proprietary will be v 10 CFR 2.709(b)(5) and Section amended.	informing that WCAP-14371 (Revision 0) er NTD-NRC-95-4470 dated 950531 vithheld from public disclosure pursuant to on 103(b) of Atomic Energy Act of 1954 as che: A4363:055-A4363:057
July 14, 1998	information listed in enclosed t proprietary information.	informing that NRC determined that able does not contain trade secrets or che: A4363:051-A4363:054
July 14, 1998	listed in enclosed table contain withheld from public disclosure	informing of determination that information is proprietary information and will be per 10 CFR 2.790. che: A4298:221-A4298:224
July 14, 1998	that Chapter 12 of WCAP-1440 Westinghouse due to being su	forming that Westinghouse 970314 request , 07, "Clime noding study," will be returned to perseded by Chapter 12, Revision 3. che: A4298:057-A4298:058
July 14, 1998	pages 3-15 and 3-16 to Volum Application to AP600."	IcIntyre) forwarding proprietary errata e 1 of WCAP-14407 «WGOTHIC che: A4343:316-A4343:316

July 14, 1998	WCAP-14472 "Steam Con	3. McIntyre) forwarding non-proprietary densation Events at OSU AP600 Test Facility." ietary version of WCAP-14471, which was Fiche: A4342:294-A4342:342
	acii. 3007 170 135	1 ICHE. A-3-2.234-A-3-2.3-2
July 14, 1998		an) forwarding table of Westinghouse letters ntain proprietary material in support of AP600 Fiche: A4217:063-A4217:067
July 14, 1998	information from public disc	n) responds to request for withholding losure regarding WCAP-12980 "AP600 noval Heat Exchanger Test Final Report," Fiche: A4217:010-A4217:012
July 14, 1998	information from public disc	n) responds to request for withholding losure regarding RAI 440.576 (Revision 1) etter NSD-NRC-98-5594 dated 980302. Fiche: A4217:007-A4217:009
July 14, 1998		n) denying request for withholding proprietary nse to inspection reports 99900404-97-01 and Fiche: A4216:353-A4216:354
July 13, 1998	Revision 1 to WCAP-13594	B. McIntyre) forwarding request that proprietary "FMEA of Advanced Passive Plant Protection public disclosure per 10 CFR 2.790. Fiche: A4343:005-A4343:012
July 10, 1998	submitted which contain pro used during presentations to	ay) forwarding list of Westinghouse letters oprietary meeting slides that Westinghouse o staff on 921209-14. Letter requests of slides, if any, are still considered
	acn: 9807150129	Fiche: A4179:068-A4179:070
July 10, 1998	request for withholding infor AP600 denied because mat	ty) informing that 930920, 940121, and 0203 mation from public disclosure regarding terial similar to that exists in current In addition, material used by staff in Fiche: A4178:317-A4178:320

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July 2, 1998	responses to five ACRS cor issues in AP600 design.	8. McIntyre) forwarding Westinghouse written neerns regarding reactor coolant system	
	acn: 9807140093	Fiche: A4310:081-A4310:107	
July 1, 1998	Westinghouse letter (from B discharge coefficient studies	8. McIntyre) forwarding copy of AP600 DVI 5.	
	acn: 9807140019	Fiche: A4354:027-A4354:037	
July 1, 1998	proprietary claims in preparation of the preparatio	y) informing that staff in process of reviewing ation for issuing final safety evaluation report	
	acn: 9807100029	Fiche: A4171:332-A4171:334	
July 1, 1998	Westinghouse letter (from B previously sent informally ov acn: 9807070345	8. McIntyre) forwarding correspondence ver period of 980309-0629. Fiche: A4194:001-A4195:045	
June 30, 1998	request for withholding prop	requesting rereview of claim regarding rietary information and notification of staff the	;
	acn: 9807060096	l considered company proprietary. Fiche: A4037:345-A4037:346	
June 30, 1998	NRC letter (from K. Campe) thermal-hydraulic performan		nt
	acn: 9807270348	Fiche: A4387:001-A4387:138	
June 30, 1998		. McIntyre) forwarding cover sheets omitted Emergency Response Guidelines," sent on	
	acn: 9807070380	Fiche: A4238:338-A4238:340	
June 26, 1998	– (. McIntyre) requesting confirmation that n 23 of SSAR addresses open and AFSER.	
	acn: 9807020277	Fiche: A4186:350-A4186:354	
June 24, 1998	Emergency Response Guide	McIntyre) forwarding Revision 6 to "AP600 elines," including guidelines SDG-1, SDG-2, for background documents AE-1, SDF-0.1,	
	acn: 9807020285	Fiche: A4187:131-A4187:196	
June 23, 1998	develop records retention pl		
	acn: 9807090253	Fiche: A4216:151-A4216:152	
June 22, 1998		advising that listed documents contains trade ercial information and will be withheld from	e

	public disclosure per 10 CFI Energy Act of 1954 as amer acn: 9806240320	R 2.790(b)(5) and Section 103(b) of Atomic nded. Fiche: A3924:349-A3924:351
June 22, 1998	NRC letter (from J. Sebrosk enclosed table submitted to	y) advising that proprietary materials listed in NRC where marked proprietary will be ure per 10 CFR 2.790(b)(5) and Section
June 22, 1998	documented in enclosed tak	y) advising that proprietary materials ble submitted to NRC marked proprietary will losure per 10 CFR 2.790(b)(5) and Section t of 1954 as amended. Fiche: A3924:300-A3924:303
June 22, 1998	•	y) advising that proprietary information listed to NRC marked proprietary will be withheld 1954 as amended. Fiche: A3949:334-A3949:339
June 22, 1998	table where marked propriet	y) advising that materials listed in enclosed tary will be withheld from public disclosure per ction 103(b) of Atomic Energy Act of 1954 as Fiche: A3949:330-A3949:333
June 22, 1998	NSD-NRC-98-5662 dated 98	n) advising that information submitted in letter 80407 will be withheld from public disclosure d Section 103(b) of Atomic Energy Act. Fiche: A3945:331-A3945:333
June 22, 1998	WCAP-14326, Revisions 1,) advising that proprietary information in 2, and 3, will be withheld from public 0(b)(5) and Section 103(b) of Atomic Energy Fiche: A3945:328-A3945:330
June 22, 1998	•	n) advising that information listed in table will losure per 10 CFR 2.790(b)(5) and Section t of 1954 as amended. Fiche: A3945:321-A3945:325
June 22, 1998	and 0) enclosed in Westingh	n) advising that WCAP-14601 (Revisions 1 house 970714 and 960320 letters marked as from public disclosure per 10 CFR 2.790. Fiche: A3924:316-A3924:318

June 22, 1998	NRC letter (from W. Huffman) advising that WCAP-12980 (Revision 2) enclosed in Westinghouse 961105 letter and associated 4mm data tape enclosed in letter marked as proprietary will be withheld from public disclosure per 10 CFR 2.790. acn: 9806240141 Fiche: A3945:357-A3945:359
June 19, 1998	Westinghouse letter (from B. McIntyre) requesting that proprietaryRevision 1 to WCAP-14270 "AP600 Low-Pressure Integral System TestFacility Scaling Report," be withheld from public disclosure.acn: 9806300381Fiche: A4079:003-A4079:012
June 19, 1998	Westinghouse letter (from B. McIntyre) forwarding non-proprietary Revision 1 to WCAP-14271 "Low Pressure Integral System Test Facility Scaling Report," and proprietary Revision 1 to WCAP-14270 "AP600 Low-Pressure Integral System Test Facility Scaling Report." acn: 9806300379 Fiche: A4079:001-A4080:132
June 19, 1998	Westinghouse letter (from B. McIntyre) forwarding updated list of request for exemption from regulations for AP600. acn: 9806290100 Fiche: A4045:166-A4045:170
June 19, 1998	NRC letter (from J. Sebrosky) advising that proprietary materials documented In enclosed table will be withheld from public disclosure per 10 CFR 2.790. acn: 9806240059 Fiche: A3950:183-A3950:188
June 19, 1998	NRC letter (from W. Huffman) forwarding list of Westinghouse letters which were marked as proprietary when submitted to NRC will be withheld from public disclosure. acn: 9806230150 Fiche: A3911:061-A3911:065
June 19, 1998	NRC letter (from W. Huffman) responds to 980408 and 961106 requesting to withhold certain information in WCAP-14776 that was considered proprietary. Determined that submitted information contains proprietary information and will be withheld from public disclosure. acn: 9806230133 Fiche: A3911:079-A3911:081
June 19, 1998	NRC letter (from W. Huffman) advising that WCAP-14171, Revision 2, enclosed in Westinghouse 980324 letter; WCAP-14171, Revision 1, enclosed in Westinghouse 961030 letter; and WCAP-14171, Revision 0, enclosed in Westinghouse 940928 letter marked as proprietary will be withheld from public disclosure. acn: 9806230093 Fiche: A3911:054-A3911:056
June 19, 1998	NRC letter (from J. Sebrosky) advising that information contained in Westinghouse letter will be withheld from public disclosure per 10 CFR 2.790(b)(5) and section Atomic Energy Act of 1954 as amended. acn: 9806230128 Fiche: A3915:128-A3915:132

June 18, 1998	NRC letter (from D. Scaletti) informing that 961213 and 980506 submittals regarding AP600 air-conditioning, heating, cooling, and ventilation system P&IDs will be withheld from public disclosure pursuant to 10 CFR 2.790(b)(5) and Section 103(b). acn: 9806230280 Fiche: A3911:048-A3911:053
June 18, 1998	NRC letter (from J. Sebrosky) advising that staff has determined that information in letter NTD-NRC-94-4041 dated 940117 marked as proprietary does not contain trade secrets or proprietary commercial information. acn: 9806230171 Fiche: A3909:343-A3909:345
June 18, 1998	NRC letter (from J. Sebrosky) informing that NRC has determined that information identified in letters listed in enclosed table does not contain trade secrets or proprietary acn: 9806230095 Fiche: A3924:235-A3924:239
June 18, 1998	NRC letter (from D. Scaletti) requesting that Westinghouse rereview claim in 970609 and 980407 affidavits that information contained in WCAP-14812. Revisions 1 and 2, are proprietary and notify NRC what portions of WCAP-14812, if any, still are considered company proprietary. acn: 9806230089 Fiche: A3911:057-A3911:059
June 18, 1998	NRC letter (from J. Sebrosky) informing that information identified in Westinghouse 931020 letter (ET-NRC-93-3990) as proprietary will be withheld from public disclosure per 10 CFR 2.790. acn: 9806230087 Fiche: A3911:076-A3911:078
June 16, 1998	Summary of 980611 appeal meeting with Westinghouse regarding appeal of NRC position on use of AP600 building figures in Section 3.3 of AP600 Tier 1 material. acn: 9806180142 Fiche: A3858:221-A3858:254
June 16, 1998	Westinghouse letter (from B. McIntyre) forwarding non-proprietary Revision 2 to WCAP-15062 and proprietary Revision 2 to WCAP-14601 "AP600 Accident Analyses - Evaluation Models." acn: 9806220303 Fiche: A3982:254-A3982:307
June 15, 1998	ACRS letter (R. Seale) discussing 453rd meeting of ACRS held on 980603-05 regarding safety aspects of Westinghouse application for certification of AP600 plant design. acn: 9806180275 Fiche: A3943:291-A3943:297
June 11, 1998	Meeting notice (from J.N. Wilson) providing notification of AP600 ITAAC appeal meeting on 980611 to resolve use of building figures in ITAAC for AP600 design. acn: 9806120250 Fiche: A3822:217-A3822:219

Appendix A		
June 9, 1998	Westinghouse letters NSD NSD-NRC-97-5225, dated	ti) advising that information regarding -NRC-96-4816, dated 960910; 970728; and NSD-NRC-98-5661, dated 14407, Revision 1 and Revision 2, will be sure. Fiche: A3770:303-A3770:305
June 9, 1998	proprietary versions of erra	B. McIntyre) forwarding non-proprietary and ata to Revision 3 of WCAP-14845 "Scaling nment Pressure During Design Basis Fiche: A3897:114-A3897:121
June 8, 1998	Westinghouse letter (from I	B. McIntyre) requesting that Revision 2 to cident Analyses - Evaluation Models," be
June 8, 1998		
June 5, 1998		B. McIntyre) informing that correspondence e regarding AP600 should be addressed to B. Fiche: A3840:059-A3840:059
June 5, 1998	certification reactor system	an) informing that information on AP600 desig test program and computer analyses codes A-TRAC) will be withheld from public disclosure Fiche: A3721:330-A3721:334
June 3, 1998		B. McIntyre) forwarding written responses to issues presented in R. Seale 980219 letter. Fiche: A3819:155-A3819:174
June 2, 1998		B. McIntyre) forwarding non-proprietary * "AP600 Compliance with SRP Acceptance Fiche: A3797:020-A3797:334
June 1, 1998	derivation and explanation of	B. McIntyre) submitting more detailed of momentum equation used by Westinghouse juest by ACRS subcommittee during Fiche: A3766:228-A3766:234
	aon. 3000000173	1 1010. AUT 00.220 AUT 00.204

June 1, 1998	information for Westinghous NRC has determined that p NSD-97-5195 letters will be	
	acn: 9806040048	Fiche: A3684:247-A3684:249
June 1, 1998	information for Westinghous	xy) discussing request for withholding se AP600 design per 971209 letter. NRC has material enclosed in NSD-NRC-97-5476 letter eld. Fiche: A3681:351-A3681:353
May 31, 1998	NRC letter forwarding adva certification of AP600 desig	nce final safety evaluation report regarding
	•	fiche: A3931:004-A3937:249
May 27, 1998		 McIntyre) forwarding formal transmittal of use previously sent to NRC informally over
May 27, 1998	on safety aspects of AP600 offered comments and reco) forwarding second interim letter from ACRS design (dated 980409) in which Committee mmendations regarding concerns raised meeting of ACRS full committee. Fiche: A3603:272-A3603:278
May 20, 1998	letter of 980409 on views of Westinghouse Electric Com design.	expressing appreciation for second interim ACRS regarding safety aspects of pany application for certification of AP600
	acn: 9805270289	Fiche: A3563:058-A3563:068
May 20, 1998	headlined "Parting Gift." Inf	iscussing news feature in 980508 edition forms that article is incorrect concerning status NRC and that NRC has not granted final
	acn: 9805260253	Fiche: A3547:064-A3547:065
May 18, 1998	Westinghouse letter (from E AP600 SSAR.	8. McIntyre) forwarding Revision 23 to the
	acn: 9805210438	Fiche: A3615:001-A3620:023
May 15, 1998	responses to ITAAC meetin	8. McIntyre) forwarding Westinghouse g open items 6800, 6801, 6806, 6808, and iments from NRC on Revision 4 of AP600
	acn: 9805280097	Fiche: A3680:053-A3680:068

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May 15, 1998	Westinghouse letter (from B. McIntyre) forwarding markup of AP600 technical specifications for review.	
	acn: 9805210264	Fiche: A3566:001-A3568:143
May 14, 1998	versions of Revision 4 to We Long-Term Cooling Final Va WCAP-14172, "WCOBRA- LOCA.	8. McIntyre) forwarding non-proprietary CAP-14777, "WCOBRA-TRAC OSU alidation report," and Revision 2 to TRAC Applicability to AP600 Large-break
	acn: 9805210112	Fiche: A3587:181-A3589:273
May 14, 1998	of Revision 3 to WCAP-143	8. McIntyre) forwarding non-proprietary version 27, "Experimental Basis for AP600 nd Mass Transfer Correlations. Fiche: A3586:136-A3586:261
May 14, 1998		noticing 980521 meeting with Westinghouse ssues on inspections, tests, analyses, and 00 design. Fiche: A3473:019-A3473:021
May 11, 1998	Simplified Passive ALWR Pl comment.	. McIntyre) forwarding Revision 5 to the ant Program AP600 Tier 1 Material " for
	acn: 9805210406	Fiche: A3601:001-A3602:193
May 11, 1998	response to Q640.185, which	 McIntyre) forwarding Westinghouse h describes treatment of heat sinks in luation model and verification of modeled heat
	acn: 9805190326	Fiche: A3548:327-A3548:330
May 9, 1998	Westinghouse letter (from B inspection report 99900404- acn: 9806110093	. McIntyre) submitting response to NRC 97-02.
May 6, 1998		. McIntyre) forwarding non-proprietary version 08 "WGOTHIC Application to AP600, " dated
	acn: 9805210386	Fiche: A3608:001-A3610:036
May 6, 1998	disclosure proprietary versio "Experimental Basis for AP6 Transfer Correlations."	. McIntyre) requesting withholding from public in of Revision 3 to WCAP-14326, 00 Containment Vessel Heat and Mass
	acn: 9805190174	Fiche: A3582:311-A3582:317

May 6, 1998	proprietary report WCAP-14 Containment Vessel Heat a	3. McIntyre) forwarding Revision 3 to 4326 "Experimental Basis for AP600 and Mass Transfer Correlations " incorporating ges to Section 3.10 and Figure 3.10-1. Fiche: A3582:307-A3582:317
May 6, 1998	HVAC drawings regarding of disclosure per 10 CFR 2.79	
	acn: 9805140057	Fiche: A3562:054-A3562:061
May 6, 1998		3. McIntyre) forwarding 50 proprietary HVAC request on HVAC open items. Fiche: A3562:047-A3562:061
	ach. 9605140052	Fiche. A5562.047-A5562.061
May 6, 1998	responds to 980428 letter r	acknowledging receipt of 980501 letter which equesting additional information necessary for ues documented in inspection report
	acn: 9805110119	Fiche: A3390:222-A3390:224
May 4, 1998		3. McIntyre) requesting that proprietary 80511 and 12 ACRS meeting be withheld per
	acn: 9805180189	Fiche: A3545:185-A3545:191
May 4, 1998	– ,	B. McIntyre) forwarding proprietary copy of Westinghouse at 980511-12 ACRS mittee meeting. Fiche: A3545:182-A3545:191
May 1, 1998		 McIntyre) forwarding responses to ITAAC 786 regarding comments from NRC staff on ed design material.
May 1, 1998		 McIntyre) requesting withholding of Revision P-14407 "WGOTHIC Application to AP600."
May 1, 1998		3. McIntyre) forwarding three copies of o Revision 3 of WCAP-14407 "WGOTHIC
May 1, 1998	•	3. McIntyre) forwarding formal responses to
	AP600 open items. acn: 9805200051	Fiche: A3523:325-A3523:347

Appendix A	
May 1, 1998	Westinghouse letter (from B. McIntyre) providing additional information supporting closure of nonconformance and unresolved issue associated with inspection report 99900404-97-02. acn: 9805190101 Fiche: A3550:083-A3550:084
April 29, 1998	Westinghouse letter (from B. McIntyre) stating that Westinghouse is in process of incorporating responses to over one hundred comments received from NRC on Revision 4 of AP600 certified design material provided to NRC on 980406. acn: 9805080163 Fiche: A3443:151-A3443:151
April 29, 1998	Westinghouse letter (from B. McIntyre) forwarding Revision 1 of response to Q410.413f. acn: 9805070296 Fiche: A3422:060-A3422:062
April 29, 1998	Westinghouse letter (from B. McIntyre) forwarding non-proprietary version of Revision 3 to WCAP-14846 "Scaling Analysis for AP600 Containment Pressure During Design Basis Accidents." acn: 9805050029 Fiche: A3369:001-A3369:227
April 29, 1998	Westinghouse letter (from B. McIntyre) forwarding Revision 2 to WCAP-14327, "Experimental Basis for AP600 Containment Vessel Heat and Mass Transfer Correlations. acn: 9805040476 Fiche: A3384:002-A3384:124
April 28, 1998	Westinghouse letter (from B. McIntyre) forwarding revised response to Q440.796F (part e) on NOTRUMP final validation report. acn: 9805060173 Fiche: A3404:329-A3404:350
April 28, 1998	NRC letter (from W. Huffman) forwarding summary of 980416 meeting with Westinghouse to discuss AP600 technical specification issues. acn: 9805040045 Fiche: A3297:271-A3297:290
April 24, 1998	NRC letter (from J. Sebrosky) forwarding report "Review of In-vessel Coolability and Retention of Core Melt DOE-ID-10460," July 1995. acn: 9806040071 Fiche: A3682:271-A3682:323
April 24, 1998	Westinghouse letter (from B. McIntyre) forwarding Westinghouse response to Q640.185, Revision 2, which describes treatment of heat sinks in WGOTHIC containment evaluation model and verification of modeled heat sinks with ITAAC. acn: 9805040479 Fiche: A3385:304-A3385:340
April 23, 1998	Westinghouse letter (from B. McIntyre) submitting response to 980408letter regarding fire pump installation within turbine bldg.acn: 9805050019Fiche: A3389:108-A3389:143

April 14, 1998	Westinghouse letter (from B. McIntyre) forwarding Westinghouseresponse to Q640.155, Revision 1 regarding basis for concrete-to-steelgap assumed in AP600 WGOTHIC evaluation model.acn: 9804200326Fiche: A3137:240-A3137:248
April 14, 1998	NRC letter (from W. Huffman) issuing notification of 980416 meeting with Westinghouse to discuss comments from NRC letter dated 980409 and to reach final resolution on AP600 technical specification issues. acn: 9804160309 Fiche: A3007:222-A3007:224
April 9, 1998	NRC letter (from J. Sebrosky) forwarding contractor reports associated review of Chapter 3 of AP600 standard safety analysis report. acn: 9805260221 Fiche: A3542:001-A3543:205
April 9, 1998	ACRS interim letter (from R. Seale) discussing results of 451st meeting of ACRS on 980402. acn: 9804140386 Fiche: A3057:029-A3057:032
April 9, 1998	NRC letter (from T. Quay) informing that staff completed review of markup of AP600 technical specifications which contained compilation of over 100 commitments made in resolution of open items submitted on 980313. acn: 9804140334 Fiche: A2989:289-A2989:344
April 8, 1998	Westinghouse letter (from B. McIntyre) requesting that proprietary Revision 4 to WCAP-14776, "WCOBRA-TRAC OSU Long-Term Cooling Final Validation Report," be withheld from public disclosure per 10 CFR 2.790. acn: 9804140453 Fiche: A3107:114-A3107:120
April 8, 1998	Westinghouse letter (from B. McIntyre) forwarding proprietary Revision 4 to WCAP-14776 "WCOBRA-TRAC OSU Long-term Cooling Final Validation Report." acn: 9804140449 Fiche: A3107:110-A3107:120
April 8, 1998	Westinghouse letter (from B. McIntyre) forwarding Revision 3 to WCAP-14837, "AP600 Shutdown Evaluation Report, " dated 3/19/1998. acn: 9804130415 Fiche: A3042:008-A3042:293
April 8, 1998	NRC letter (from J. Roe) informing Westinghouse that after further management review of the AP600 fire protection design, the staff determined that certain aspects of design may not meet intent of Commission policy identified in SECY-93-087. acn: 9804130055 Fiche: A2983:299-A2983:301
April 7, 1998	Westinghouse letter (from B. McIntyre) requesting that proprietary Revision 3 to WCAP-14305, "AP600 Test Program ADS Phase B1 Test Analysis Report," be withheld per 10 CFR 2.790. acn: 9804140089 Fiche: A3103:103-A3103:109

Appendix A		
April 7, 1998	proprietary Revision 2 to W	B. McIntyre) forwarding non-proprietary and CAP-14306 and Revision 3 to WCAP-14305 Phase B1 Test Analysis Report. Fiche: A3103:098-A3103:237
April 7, 1998	Revision 3 to "Hydrodynam	 McIntyre) requesting that proprietary ic Loads on Vessel Head Support Column and S Blowdown " be withheld per 10 CFR 2.790. Fiche: A3069:255-A3069:266
April 7, 1998		B. McIntyre) forwarding non-proprietary and lydrodynamic Loads on Vessel Head Support duced by ADS Blowdown." Fiche: A3069:250-A3069:322
April 7, 1998	with Westinghouse to contin	(y) forwarding summary of 980212 meeting nue discussion on Level 1 PRA insights. on 980217 due to unresolved issues during Fiche: A2979:001-A2979:052
April 6, 1998		 McIntyre) requesting that proprietary "WGOTHIC application to AP600," be 2.790). Fiche: A3172:161-A3172:167
April 6, 1998	Westinghouse letter (from E to WCAP-14407, "WGOTH acn: 9804220376	3. McIntyre) forwarding proprietary Revision 2 IC application to AP600. Fiche: A3172:157-A3172:167
April 6, 1998	Revision 2 to WCAP-14812	B. McIntyre) requesting that proprietary , "Accident Specification and Phenomena ve Containment Cooling System," be withheld Fiche: A3033:355-A3033:361
April 6, 1998	. .	B. McIntyre) forwarding proprietary Revision 2 Specification and Phenomena Evaluation for the Cooling System. Fiche: A3033:351-A3033:361
April 6, 1998	Revision 2 to WCAP-14326	3. McIntyre) requesting that proprietary "Experimental Basis for AP600 Containment asfer Correlations," be withheld per 10 CFR Fiche: A3064:338-A3064:344

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April 6, 1998	Westinghouse letter (from B. McIntyre) forwarding proprietary Revision 2 to WCAP-14326, "Experimental Basis for AP600 Containment Vessel Heat and Mass Transfer Correlations. acn: 9804130475 Fiche: A3064:334-A3064:344
April 3, 1998	Westinghouse letter (from B. McIntyre) requesting that proprietary report, "Westinghouse AP600 Design Assurance Review of AP600 Safety Analysis Documentation Pertaining to Chapter 15 and Containment Analysis Portion of SSAR," be withheld from public disclosure per 10 CFR 2.790. acn: 9806090235
April 3, 1998	Westinghouse letter (from B. McIntyre) forwarding proprietary results of AP600 design assurance review per commitment contained in Westinghouse 980227 letter response to violations noted in inspection report 99900404-97-02. acn: 9806090230
April 3, 1998	Westinghouse letter (from B. McIntyre) forwarding Revision 4 of AP600 certified design material including design descriptions and ITAAC. acn: 9804130492 Fiche: A3065:003-A3066:188
April 3, 1998	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to ITAAC meeting open items 6649, 6653, 6654, and 6657. acn: 9804130477 Fiche: A3102:237-A3102:249
April 3, 1998	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to ITAAC meeting open items 6644 and 6656 regarding comments on steam generator system and main and startup feedwater system on Revision 3 of AP600 certified design material. acn: 9804130430 Fiche: A3069:336-A3069:342
April 3, 1998	Westinghouse letter (from B. McIntyre) forwarding three copies of Westinghouse responses to ITAAC meeting open items 6659, 6665, 6666, 6667, 6669, and 6670 related to comments on chilled water system (VWS) HVAC system on Revision 3 of AP600 certified design material. acn: 9804130425 Fiche: A3067:353-A3067:359
April 3, 1998	Westinghouse letter (from B. McIntyre) forwarding responses to ITAAC meeting open items 6645, 6646, 6647, and 6664 related to comments on spent fuel pool cooling system component cooling water system and liquid gaseous and solid radwaste system. acn: 9804130412 Fiche: A3102:273-A3102:280
April 3, 1998	Westinghouse letter (from B. McIntyre) forwarding three copies of Westinghouse revised response to RAI 640.160 related to comments on

	section 3.5, "Radiation Mor design material.	nitoring," of Revision 3 of AP600 certified
	acn: 9804130406	Fiche: A3102:281-A3102:283
April 3, 1998	meeting open item 6668 re	B. McIntyre) forwarding responses to ITAAC lated to comments on main control room tem (VES) on Revision 3 of AP600 certified
	acn: 9804130396	Fiche: A3068:358-A3068:360
April 3, 1998		acknowledging receipt of 980227 letter in onformance and unresolved item regarding I-97-02 issued on 980128. Fiche: A2937:002-A2940:180
April 3, 1998		ky) forwarding summary of 980211 meeting ng safety classification of coatings inside or of containment shell. Fiche: A2919:155-A2919:169
April 2, 1998	Westinghouse letter (from I SSAR.	3. McIntyre) forwarding Revision 22 to AP600
	acn: 9804170072	Fiche: A3271:001-A3284:024
April 2, 1998	Section 2.6, "Electric Powe dated 980406.	B. McIntyre) forwarding Revision 4 of r Systems," of AP600 certified design materials Fiche: A3037:280-A3037:335
	acn: 9804130449	
April 2, 1998	• ·	 McIntyre) forwarding Revision 4 to y Systems" of AP600 certified design material
	acn: 9804130443	Fiche: A3044:027-A3044:129
April 1, 1998		 McIntyre) forwarding revised responses to garding comments on scope of AP600 design ces.
	acn: 9804090214	Fiche: A3009:058-A3009:071
April 1, 1998	Section 2.5, "Instrumentation design material.	B. McIntyre) transmitting Revision 4 of on and Control Systems," of AP600 certified
	acn: 9804090210	Fiche: A3008:194-A3008:241
April 1, 1998	Westinghouse letter (from I open items regarding AP60	 McIntyre) forwarding responses to FSER 0.
	acn: 9804090205	Fiche: A3009:092-A3009:109

March 31, 1998 Westinghouse letter (from B. McIntyre) forwarding Revision 4 of Section 2.1 of AP600 certified design material dated 980406 for staff review. acn: 9804100033 Fiche: A3012:284-A3012:335 March 31, 1998 Westinghouse letter (from B. McIntyre) submitting response to RAI 640.187 related to comments on AP600 design scope in Revision 3 of AP600 certified design material. acn: 9804070410 Fiche: A2936:001-A2936:005 March 31, 1998 Westinghouse letter (from B. McIntyre) submitting responses to RAI 640.70 and 640.179 and meeting open items 6662 and 6623 related to comments from staff on Revision 3 of AP600 certified design material. acn: 9804070380 Fiche: A2949:145-A2949:155 March 30, 1998 Westinghouse letter (from B. McIntyre) transmitting Revision 4 of Section 3.0, "Non-system-Based Design Descriptions and ITAAC" and Section 5.0, "Site parameters," of AP600 certified design material. Fiche: A3017:208-A3017:312 acn: 9804100065 March 30, 1998 NRC letter (from J. Wilson) announcing 980406 meeting with Westinghouse in which Wéstinghouse will present overview of Revision 4 and discuss building ITAAC for AP600 design. Fiche: A2895:051-A2895:053 acn: 9804030393 March 27, 1998 Westinghouse letter (from B. McIntyre) forwarding advance copy of Chapter 3 of AP600 standardized safety analysis report, Revision 22. Fiche: A2937:001-A2940:180 acn: 9804070401 March 27, 1998 Westinghouse letter (from B. McIntyre) forwarding copies of Revision 3 to WCAP-13054, "AP600 Compliance with SRP Acceptance Criteria," and Revision 2 to WCAP-13559, "Operational Assessment for AP600," which includes changes promised to resolve comments from NRC reviewers. acn: 9804070367 Fiche: A2999:167-A3000:316 March 26, 1998 Westinghouse letter (from B. McIntyre) forwarding response to OITS item 6642 regarding comments on Revision 3 of AP600 certified design material. acn: 9804060245 Fiche: A2931:224-A2931:247 March 25, 1998 Westinghouse letter (from B. McIntyre) transmitting results of evaluation performed by Westinghouse to quantify and compare volumetric Froude numbers for limiting DECLG LOCA and smaller break LOCAs. Fiche: A2972:157-A2972:163 acn: 9804020399 March 25, 1998 Westinghouse letter (from B. McIntyre) forwarding formal documentation of correspondence previously sent informally over period 980106-0227. Fiche: A2891:001-A2891:206 acn: 9803310061

Appendix A		·
March 24, 1998	WCAP-14845, "Scaling Ana	B. McIntyre) requesting that Revision 3 to alysis for AP600 Containment Pressure During e withheld from public disclosure per 10 CFR
	acn: 9803300391	Fiche: A2905:081-A2905:087
March 24, 1998	to WCAP-14845, "Scaling A During Design Basis Accide	
	acn: 9803300390	Fiche: A2905:077-A2905:087
March 24, 1998	Revision 2 to WCAP-14171	 McIntyre) requesting that proprietary , "WCOBRA-TRAC Applicability to AP600 hheld from public disclosure per 10 CFR 2.790 Fiche: A2922:005-A2922:011
March 24, 1998		B. McIntyre) forwarding proprietary Revision 2 A-TRAC Applicability to AP600 Large Break Fiche: A2922:001-A2922:011
March 23, 1998	, , ,	issuing notification of 980416-17 meeting with w of ITAAC for AP600 design. Notification Fiche: A2847:351-A2847:353
March 23, 1998	Westinghouse regarding re	issuing notification of 980413 meeting with sults of design assessment review presented ire of QA inspection report dated 980128. Fiche: A2771:219-A2771:221
March 23, 1998	•	3. McIntyre) forwarding revised responses to 40.140 regarding comments on Revision 3 of erial. Fiche: A2844:352-A2844:361
March 23, 1998	meeting with task group to	issuing notification of 980402 and 0403 perform task group review of inspections, ance criteria for AP600 design. Fiche: A2764:357-A2764:359
March 23, 1998		xy) submitting documentation of AP600 Westinghouse regarding items related to Fiche: A2764:293-A2764:300

March 23, 1998	position regarding containm 980227 letter.	y) providing Westinghouse comments on their ent coatings that was transmitted to staff in
	acn: 9803270186	Fiche: A2764:289-A2764:292
March 23, 1998		y) discussing documentation of AP600 Westinghouse regarding PRA and external
	acn: 9803270165	Fiche: A2764:282-A2764:288
March 23, 1998	980219 regarding views of A for certification of AP600 de	V
	acn: 9803270001	Fiche: A2764:332-A2764:338
March 20, 1998	responses to FSER open ite	
	acn: 9803300020	Fiche: A2889:224-A2889:250
March 19, 1998	responses to two RAIs rega	8. McIntyre) forwarding Westinghouse rding comments on Revision 3 of AP600 esponses to ITAAC open items on AP600 also
	acn: 9803270384	Fiche: A2844:332-A2844:337
March 19, 1998		8. McIntyre) forwarding Westinghouse eeting open items regarding comments on d design material. Fiche: A2844:338-A2844:349
March 19, 1998	from NRC dated 980313 reg	8. McIntyre) forwarding response to facsimile garding application of coatings inside and on sponse related to ITAAC open item 640.186. Fiche: A2845:262-A2845:278
March 18, 1998	response to RAI 640.185 re	8. McIntyre) forwarding Westinghouse garding comments on passive containment 3 of AP600 certified design material as f dated 980306. Fiche: A2845:256-A2845:261
March 18, 1998	Westinghouse letter (from B questions regarding IST, inc acn: 9803270330	8. McIntyre) submitting response to informal cluding 980309 facsimile. Fiche: A2847:231-A2847:242
March 18, 1998	AP600 certified design mate	B. McIntyre) forwarding draft Revision 4 of erial, Section 3.3, "Buildings." Fiche: A2847:170-A2847:230

March 17, 1998		n) issuing notification of 980327 meeting with view status and issues of mutual interest was canceled. Fiche: A2771:285-A2771:287
March 17, 1998	material Table 3.3.1 and as reflect changes resulting fro	3. McIntyre) informing that certified design sociated SSAR tables have been revised to om review of critical sections in SSAR Section t versions of CDM Table 3.3-1 enclosed. Fiche: A2858:337-A2858:359
March 17, 1998		8. McIntyre) forwarding responses to staff s, tests, analyses, and acceptance criteria. Fiche: A2835:305-A2835:312
March 17, 1998	Westinghouse letter (from B responses to FSER open ite acn: 9803260427	8. McIntyre) forwarding Westinghouse ems on AP600. Fiche: A2850:332-A2850:341
March 17, 1998		n) issuing notification of 980327 meeting with view status and issues of mutual interest plant. Fiche: A2696:359-A2696:361
March 17, 1998	Westinghouse to discuss iss) issuing notification of 980319 meeting with sues as appropriate resulting from staff review certification application of AP600 design. Fiche: A2676:358-A2676:360
March 16, 1998	PRA report which has been	8. McIntyre) forwarding Revision 11 of AP600 revised to incorporate commitments onse to RAIs and FSER open items. Fiche: A2836:001-A2837:191
March 16, 1998	response to ITAAC open ite	8. McIntyre) forwarding Westinghouse m regarding comments on equipment AP600 certified design material. Fiche: A2735:315-A2735:320
March 13, 1998	• •	B. McIntyre) forwarding Revision 21 of "AP600 ables of contents, change page instructions, Fiche: A2963:001-A2970:100
March 13, 1998	technical specifications, whi	8. McIntyre) forwarding markup of AP600 ch will be incorporated in SSAR Revision 22 which have been resolved to date for NRC
	acn: 9803230456	Fiche: A2701:001-A2703:144

March 13, 1998		8. McIntyre) forwarding proprietary errata AP-14807, "NOTRUMP Final Validation Report
	acn: 9803230267	Fiche: A2883:001-A2883:001
March 13, 1998	Westinghouse letter (from E responses to FSER open ite	8. McIntyre) forwarding Westinghouse ems on AP600.
	acn: 9803230136	Fiche: A2755:242-A2755:250
March 13, 1998	steam explosion for AP600.	
	acn: 9803190413	Fiche: A2675:348-A2675:350
March 12, 1998	Westinghouse regarding sta certification review of AP600	
	acn: 9803200053	Fiche: A2677:015-A2677:018
March 12, 1998	responses to FSER open ite	
	acn: 9803190418	Fiche: A2832:187-A2832:191
March 11, 1998	study performed by Westing containment evaluation mod	8. McIntyre) transmitting results of sensitivity house to quantify conservatism in AP600 lel when applied to LST facility.
	acn: 9803170194	Fiche: A2678:107-A2678:110
March 10, 1998	Westinghouse letter (from B open item on AP600.	. McIntyre) forwarding responses to FSER
	acn: 9803180315	Fiche: A2679:305-A2679:320
March 10, 1998		8. McIntyre) forwarding response to open item 0 SSAR Chapter 14, "Initial Test Program." Fiche: A2679:254-A2679:272
March 9, 1998	NPC latter (from 1 Sebrosk	y) forwarding open items associated with
	Chapter 19 of AP600 SER.	
	acn: 9803190236	Fiche: A2669:224-A2669:226
March 9, 1998		y) forwarding comments provided to egarding final SER open items for Level 1 PRA
	acn: 9803180177	Fiche: A2631:222-A2631:227
March 9, 1998	RAI 640.76 related to comm	B. McIntyre) forwarding revised response to nents on liquid radwaste system in Revision 3 aterial as requested in 970822 letter. Fiche: A2678:057-A2678:059

March 9, 1998	Westinghouse letter (from B. McIntyre) forwarding response to RAI 640.182 regarding comments on initial test program in Revision 3 of AP600 certified design material per 980223 request. acn: 9803170114 Fiche: A2678:030-A2678:032
March 9, 1998	Westinghouse letter (from B. McIntyre) forwarding response to ITAAC open item regarding comments on mechanical handling system in Revision 3 of AP600 certified design material. acn: 9803170109 Fiche: A2678:024-A2678:029
March 6, 1998	NRC letter (from D. Scaletti) issuing summary of 980224 meeting with Westinghouse to resolve issues regarding AP600 fire protection design. acn: 9803190409 Fiche: A2675:346-A2675:347
March 6, 1998	NRC letter (from J. Wilson) issuing notification of 980312 meeting with task group to discuss Tier I design descriptions for AP600 design. acn: 9803190241 Fiche: A2669:221-A2669:223
March 6, 1998	Westinghouse letter (from B. McIntyre) forwarding response to FSER open item on AP600 revisions to SSAR section 6.2 that supersedes package of markups. acn: 9803130129 Fiche: A2602:152-A2602:326
March 6, 1998	NRC letter (from T. Kenyon) issuing summary of 971218 meeting with Westinghouse regarding open issues remaining on analyses of radiological consequences of design basis accidents for AP600 design. acn: 9803120420 Fiche: A2550:150-A2550:164
March 6, 1998	NRC letter (from J. Wilson) forwarding request for additional information or corrections to Revision 3 of AP600 tier 1 information, including ITAAC. acn: 9803120417 Fiche: A2560:113-A2560:115
March 6, 1998	NRC letter (from T. Kenyon) issuing summary of 980122 meeting with Westinghouse regarding status of open issues resulting from design certification review of AP600. acn: 9803120414 Fiche: A2567:033-A2567:036
March 5, 1998	ACRS letter (from R. Seale) providing summary of ACRS 448th meeting on 980205-07. acn: 9803250276 Fiche: A2756:263-A2756:273
March 5, 1998	Westinghouse letter (from B. McIntyre) forwarding non-proprietary Westinghouse class 3 responses to NRC RAIs pertaining to AP600 scaling and PIRT closure topic. acn: 9803130124 Fiche: A2604:260-A2604:289
March 5, 1998	Westinghouse letter (from B. McIntyre) documenting resolution of what Westinghouse understands to be last of FSER open items regarding

	structural design and analysis. Open items addressed include Q220.120F, 220.124F, and 220.128F.	
	acn: 9803100291	Fiche: A2572:001-A2572:079
March 5, 1998	Westinghouse letter (from B open items on AP600.	8. McIntyre) forwarding responses to FSER
	acn: 9803100259	Fiche: A2587:235-A2587:249
March 5, 1998	RAI 640.78 regarding comm	8. McIntyre) forwarding revised response to nents on main turbine system and main turbine of AP600 certified design 970822 letter. Fiche: A2554:249-A2554:251
March 4, 1998	640.184 related to comment of AP600 certified design ma	• •
	acn: 9803100227	Fiche: A2573:357-A2573:359
March 3, 1998	· · · · ·	forwarding status report on AP600 initial test ling review of design certification application. Fiche: A2500:321-A2500:336
March 2, 1998	NRC letter (from T. Collins) acn: 9803240087	forwarding FSER Chapter 20 generic issues. Fiche: A2718:094-A2718:121
March 2, 1998	proprietary to Westinghouse	B. McIntyre) requesting that information be withheld from public disclosure regarding AP600 test and analysis program - OSU FDR is.
	acn: 9803100357	Fiche: A2554:302-A2554:308
March 2, 1998	responses to RAI 440.576 re	8. McIntyre) forwarding proprietary revised egarding comments on WCAP-14252, "OSU AP-14292, "OSU Test Analysis Report," NRC letter dated 970328. Fiche: A2554:298-A2554:308
March 2, 1998	information regarding report	McIntyre) requesting that proprietary entitled "AP600 PXS Scaling and PIRT responses for Appendix A be withheld from Fiche: A2554:291-A2554:297
March 2, 1998	U	8. McIntyre) forwarding proprietary sections for 727, "AP600 PXS Scaling and PIRT Closure

	Report," Revision 2 containing RAI responses previously transmitted in Westinghouse letters dated 980220 and 0302. acn: 9803100333 Fiche: A2554:287-A2554:297
March 2, 1998	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items on AP600. acn: 9803090027 Fiche: A2569:039-A2569:051
February 27, 1998	Westinghouse letter (from B. McIntyre) forwarding response to FSER open item Q440.890F and proprietary Revision 2 to WCAP-14727, "AP600 Scaling and PIRT Closure Report." acn: 9803100315 Fiche: A2554:309-A2554:319
February 27, 1998	Westinghouse letter (from B. McIntyre) responding to 980128 letter regarding violations noted in inspection report 99900404-97-02. acn: 9803100075 Fiche: A2549:336-A2549:359
February 27, 1998	Westinghouse letter (from B. McIntyre) requesting that proprietary Revision 2 to WCAP-14305, "AP600 Test Program Phase B1 Test Analysis Report," be withheld per 10 CFR 2.790. acn: 9803090188 Fiche: A2550:237-A2550:243
February 27, 1998	Westinghouse letter (from B. McIntyre) forwarding proprietary Revision 2 to WCAP-14305, "AP600 Test Program ADS Phase B1 Test Analysis Report." acn: 9803090181 Fiche: A2550:233-A2550:243
February 27, 1998	Westinghouse letter (from B. McIntyre) requesting that proprietary version of AP600 report, "ADS Discharge Investigation and IRWST Hydrodynamic Global Analysis," be withheld from public disclosure per 10 CFR 2.790. acn: 9803090151 Fiche: A2547:299-A2547:353
February 27, 1998	Westinghouse letter (from B. McIntyre) forwarding proprietary and non-proprietary versions of AP600 report on hydrodynamic loads in IRWST. Report supports responses to FSER open items 480.1105F through 480.1110F. acn: 9803090144 Fiche: A2547:287-A2547:353
February 27, 1998	Westinghouse letter (from B. McIntyre) requesting that change pages to WCAP-14808, "NOTRUMP Final Validation Report for AP600," Revision 4 be withheld from public disclosure per 10 CFR 2.790. acn: 9803090102 Fiche: A2542:350-A2542:356
February 27, 1998	Westinghouse letter (from B. McIntyre) forwarding proprietary change pages to WCAP-14808, "NOTRUMP Final Validation Report for AP600." acn: 9803090097 Fiche: A2542:345-A2542:356

February 27, 1998 Westinghouse letter (from B. McIntyre) requesting that proprietary AP600 report on hydrodynamic loads in IRWST be withheld per 10 CFR 2.790. Fiche: A2548:173-A2548:302 acn: 9803090073 Westinghouse letter (from B. McIntyre) forwarding proprietary and February 27, 1998 non-proprietary responses to FSER open items on AP600. acn: 9803090070 Fiche: A2548:168-A2548:302 February 27, 1998 Westinghouse letter (from B. McIntyre) forwarding responses to RAIs 640.166 and 640.170 through 640.172 regarding comments in design description reports and functional arrangement drawings regarding Revision 3 of AP600 certified design material. acn: 9803090036 Fiche: A2568:324-A2568:351 NRC letter (from S. Magruder) forwarding open items associated with February 26, 1998 Chapter 20 of AP600 safety evaluation report which need to be corrected prior to issuing final FSER. acn: 9804160316 Fiche: A3007:218-A3007:221 February 25, 1998 Westinghouse letter (from B. McIntyre) forwarding additional changes for Chapter 15 of AP600 SSAR. acn: 9803030290 Fiche: A2445:354-A2445:358 February 24, 1998 Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items on AP600 for review. acn: 9803020299 Fiche: A2424:337-A2424:345 February 23, 1998 NRC letter (from J. Wilson) forwarding RAI or corrections to Revision 3 of AP600 Tier 1 information including ITAAC. acn: 9803030276 Fiche: A2416:274-A2416:277 February 23, 1998 NRC letter (from J. Sebrosky) discussing removal of contractor report entitled "Assessment of Ex-vessel Steam Explosions in AP600 Advanced Pressurized Water Reactor," from AP600 docket. acn: 9803030272 Fiche: A2416:221-A2416:224 February 23, 1998 Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items on AP600. acn: 9803020037 Fiche: A2426:276-A2426:282 February 23, 1998 Westinghouse letter (from B. McIntyre) forwarding Westinghouse response to FSER open item 720.434F regarding AP600 level 1 PRA analysis. acn: 9802270225 Fiche: A2399:192-A2399:251 February 20, 1998 Westinghouse letter (from B. McIntyre) forwarding revisions to SSAR Section 6.2 resulting from reanalysis of containment pressure DBA and to

describe changes to AP600 containment evaluation model used for reanalysis. acn: 9802260243 Fiche: A2372:256-A2372:345 February 20, 1998 Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items on AP600. acn: 9802260229 Fiche: A2373:233-A2373:239 February 20, 1998 Westinghouse letter (from B. McIntyre) forwarding proprietary revised Westinghouse response to request for additional information item 440.580 pertaining to AP600 PRHR OSU TAR. acn: 9802260212 Fiche: A2373:136-A2373:151 February 19, 1998 NRC letter (from D. Scaletti) issuing notification of 980224 meeting to discuss fire protection issues related to review of design certification application of AP600 design. acn: 9803090368 Fiche: A2512:330-A2512:332 February 19, 1998 NRC letter (from W. Huffman) forwarding SER accepting applicability of WCOBRA-TRAC computer code for large break LOCA analyses of AP600. acn: 9803090315 Fiche: A2513:029-A2513:032 February 19, 1998 NRC letter (from J. Sebrosky) discussing documentation of AP600 informal correspondence to Westinghouse regarding FSER open items for level 2 PRA issued on 980218. acn: 9803060344 Fiche: A2491:296-A2491:299 February 19, 1998 NRC letter (from J. Wilson) forwarding summary of 980211 meeting with Westinghouse regarding Westinghouse opportunity to respond to NRC inspection report 99900404-97-02 dated 980128. acn: 9803030347 Fiche: A2416:091-A2416:106 February 19, 1998 ACRS letter (from R. Seale) informing that during 448th meeting of ACRS on 980205-07 ACRS reviewed AP600 SSAR. acn: 9802260064 Fiche: A2366:132-A2366:139 February 18, 1998 Westinghouse letter (from B. McIntyre) forwarding updated list of requests for exemption for AP600. Summary of requests for exemptions have been revised as result of comments and requests in letter from NRC dated 980130. acn: 9802240418 Fiche: A2355:340-A2355:343 February 18, 1998 Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items on AP600. acn: 9802240189 Fiche: A2416:001-A2416:062

February 17, 1998 Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items on AP600. acn: 9802240408 Fiche: A2355:344-A2355:349 February 13, 1998 Westinghouse letter (from B. McIntyre) requesting that proprietary Westinghouse response to FSER open item 440.739F be withheld from public disclosure per 10 CFR 2.790. acn: 9802230042 Fiche: A2283:326-A2283:342 February 13, 1998 Westinghouse letter (from B. McIntyre) forwarding proprietary and non-proprietary Westinghouse response to FSER open item 440.739F on AP600. acn: 9802230036 Fiche: A2283:322-A2283:342 February 13, 1998 Westinghouse letter (from B. McIntyre) forwarding proprietary change page to Westinghouse response to FSER open item 480.1085F, which corrects subscripts. acn: 9802230027 Fiche: A2283:343-A2283:345 February 13, 1998 Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items on AP600. acn: 9802200327 Fiche: A2319:283-A2319:316 February 12, 1998 Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items on AP600. Fiche: A2250:341-A2250:351 acn: 9802190140 February 11, 1998 NRC letter (from J. Sebrosky) Notification of 980212 meeting with Westinghouse to discuss AP600 level 1 PRA insights found in Westinghouse letter of 980115. acn: 9802240185 Fiche: A2325:257-A2325:259 February 11, 1998 NRC letter (from J. Sebrosky) forwarding summary of 980120 and 21 meeting with Westinghouse to discuss AP600 structural calculations to resolve FSER open items. acn: 9802240145 Fiche: A2287:221-A2287:267 Westinghouse letter (from B. McIntyre) forwarding Westinghouse February 11, 1998 responses to FSER open items on AP600. acn: 9802200316 Fiche: A2290:271-A2290:300 February 10, 1998 Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items on AP600. Fiche: A2290:128-A2290:169 acn: 9802200322 Westinghouse letter (from B. McIntyre) responds to questions related to February 10, 1998 use of nonsafety-related coatings inside containment and on exterior of

Appendix A

	containment shell to support 980211 meeting to discuss paint and other coatings in AP600 containment. acn: 9802200195 Fiche: A2319:255-A2319:278
February 9, 1998	NRC letter (from J. Sebrosky) issuing notification of 980211 meeting with Westinghouse to discuss classification of AP600 containment coatings. acn: 9803090343 Fiche: A2513:037-A2513:040
February 9, 1998	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items on AP600. acn: 9802200318 Fiche: A2290:301-A2290:324
February 9, 1998	Westinghouse letter (from B. McIntyre) forwarding Revision 20 to "AP600 SSAR " Volumes 1-11. acn: 9802170014 Fiche: A2275:001-A2279:014
February 6, 1998	Westinghouse letter (from B. McIntyre) requesting that proprietary SSAR Section 6.2 markup and evaluation model changes be withheld. acn: 9802260249 Fiche: A2372:258-A2372:345
February 6, 1998	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items on AP600. acn: 9802200325 Fiche: A2290:001-A2290:076
February 5, 1998	NRC letter (from W. Huffman) notification of 980211 meeting to discuss Westinghouse response to AP600 QA Inspection report dated 980128. acn: 9802230338 Fiche: A2258:324-A2258:326
February 5, 1998	Westinghouse letter (from B. McIntyre) forwarding Westinghouse response to FSER open items on AP600. acn: 9802120320 Fiche: A2231:014-A2231:049
February 4, 1998	NRC letter (from W. Huffman) notification of 980211 meeting with Westinghouse to discuss process of AP600 design certification review. acn: 9802240039 Fiche: A2333:348-A2333:350
February 4, 1998	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items on AP600. acn: 9802120232 Fiche: A2230:210-A2230:234
February 3, 1998	Westinghouse letter (from B. McIntyre) requesting meeting with NRCmanagement to resolve outstanding AP600 fire protection issues.acn: 9802110037Fiche: A2212:286-A2212:287
February 2, 1998	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items on AP600. acn: 9802110021 Fiche: A2198:330-A2198:347

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January 30, 1998 Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items on AP600. acn: 9802060199 Fiche: A2096:001-A2097:077 January 30, 1998 Westinghouse letter (from B. McIntyre) forwarding updated request for exemption for AP600 and Westinghouse response to FSER open item 650.35F. acn: 9802060170 Fiche: A2151:355-A2151:360 January 30, 1998 Westinghouse letter (from B. McIntyre) forwarding response to RAI 640.174 regarding comments on fuel assembly and control rod drive mechanism from Reactor Systems Branch regarding Revision 3 of AP600 certified design material including ITAAC. acn: 9802060152 Fiche: A2152:347-A2152:352 January 30, 1998 Westinghouse letter (from B. McIntyre) forwarding revision to Table 5.0-1 of AP600 certified design material Section 5 "Site parameters " per request by civil engineering and geosciences branch at ITAAC task group 971205 meeting. acn: 9802060151 Fiche: A2153:358-A2153:361 January 30, 1998 NRC letter (from J. Sebrosky) forwarding list of items that Westinghouse needs to address during appeal of issue regarding AP600 containment coatings. acn: 9802060083 Fiche: A2027:271-A2027:273 January 30, 1998 NRC letter (from T. Quay) forwarding NRC positions on requested exemptions for AP600 design. acn: 9802060003 Fiche: A2027:280-A2027:284 January 29, 1998 Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items on AP600. Fiche: A2151:313-A2151:354 acn: 9802060202 January 29, 1998 Westinghouse letter (from H. Sepp) requesting that proprietary responses to followon questions regarding AP600 test and analysis program of OSU final data report and OSU test analysis report be withheld from public disclosure per 10 CFR 2.790. acn: 9802060198 Fiche: A2089:260-A2089:278 January 29, 1998 Westinghouse letter (from B. McIntyre) forwarding proprietary and non-proprietary Westinghouse revised responses to RAI 440.573 and 440.575 regarding comments from Reactor Systems Branch on OSU final data report and OSU test analysis report. acn: 9802060197 Fiche: A2089:256-A2089:278

January 29, 1998	response to FSER open iten AP600 condensate and feed	. McIntyre) forwarding Westinghouse n 410.30F on testing for water hammer in Iwater system. Fiche: A2138:291-A2138:295
January 29, 1998	provided additional informati open item 410.308F on testi compressed and instrument	. McIntyre) informing that Westinghouse has on to supplement previous response to FSER ng of air-operated valves supplied by air from air system. Fiche: A2138:357-A2138:357
January 29, 1998	Westinghouse responses to RXS internals prototype test	McIntyre) forwarding three copies of followon questions regarding AP600 ITAAC Fiche: A2135:356-A2135:358
January 28, 1998	response to RAI 640.173 reg letter.	. McIntyre) forwarding Westinghouse garding AP600 ITAAC as requested in 980109 Fiche: A2057:352-A2057:358
January 28, 1998	responses to open item Q26 "Initial test program," per 980	McIntyre) forwarding Westinghouse 0.93 regarding AP600 SSAR Chapter 14 0107 request. Fiche: A2020:211-A2020:229
January 28, 1998	responses to FSER open ite	. McIntyre) forwarding Westinghouse ms on AP600. Fiche: A2048:277-A2048:338
January 28, 1998	Areas inspected: Quality As	97-02 ON 971117-21. Noncompliance noted. surance Program of record in AP600 SSAR. Fiche: A1978:194-A1978:197
January 28, 1998	Nonconformance noted: insp calculations Westinghouse fa establish acceptability of AP6	om inspection on 971117-21. Dection team found that for listed AP600 ailed to perform adequate design review to 600 design analyses. Fiche: A1978:191-A1978:223
January 28, 1998	99900404-97-02 ON 971117	Black) forwarding Inspection report -21 and notice of nonconformance. Fiche: A1978:198-A1978:223
January 27, 1998	responses to FSER open iter	McIntyre) providing Westinghouse ms on AP600. Fiche: A2027:164-A2027:196

January 27, 1998 NRC letter (from W. Huffman) notification of meeting with Westinghouse on 980128-29 to discuss and resolve TS issues related to review of Westinghouse AP600 design certification application. acn: 9802030122 Fiche: A1976:078-A1976:080 January 26, 1998 Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items on AP600. acn: 9802040131 Fiche: A2034:150-A2034:203 January 23, 1998 Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to five open items regarding AP600 SSAR Chapter 14 "Initial test program," as requested in letter from staff dated 980107. acn: 9801300047 Fiche: A1975:149-A1975:168 Westinghouse letter (from B. McIntyre) providing Westinghouse January 23, 1998 responses to FSER open items on AP600. acn: 9801300041 Fiche: A1973:254-A1973:356 January 22, 1998 Westinghouse letter (from B. McIntyre) forwarding revised response to FSER open item 480.1084F related to comments on passive containment cooling system from containment system branch regarding Revision 3 of AP600 certified design material including ITAAC. Fiche: A1966:326-A1966:347 acn: 9801280108 January 22, 1998 Westinghouse letter (from B. McIntyre) providing Westinghouse responses to FSER open items on AP600. acn: 9801280063 Fiche: A1967:279-A1967:299 January 21, 1998 Westinghouse letter (from B. McIntyre) forwarding revision to AP600 certified design material, Section 2.2.4, "Steam Generator System." acn: 9801280203 Fiche: A1968:068-A1968:071 January 21, 1998 NRC letter (from W. Huffman) notification of 980122 meeting to discuss and resolve issues related to review of Westinghouse AP600 design certification application on AP600 SSAR Chapters 6, 15, and 19. acn: 9801270229 Fiche: A1934:219-A1934:221 January 21, 1998 Westinghouse letter (from B. McIntyre) forwarding correspondence previously sent informally over period 971027-980108. acn: 9801270107 Fiche: A1930:001-A1930:244 January 21, 1998 Westinghouse letter (from B. McIntyre) forwarding three copies of Westinghouse response to RAI 640.156 related to comments on radiologically controlled area ventilation system from radiation branch regarding Revision 3 of AP600 certified design material including ITAAC. acn: 9801270062 Fiche: A1932:325-A1932:337

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January 20, 1998	Westinghouse letter (from B. McIntyre) forwarding Westinghouse response to NRC FSER open item 480.1114F related to WGOTHIC evaluation model. acn: 9801280205 Fiche: A1968:072-A1968:075
January 20, 1998	Westinghouse letter (from B. McIntyre) forwarding RAI 480.945, Revision 1, which clarifies accumulator modeling in calculation of mass and energy release to containment during large break LOCAs. acn: 9801280194 Fiche: A1968:034-A1968:037
January 20, 1998	NRC letter (from D. Scaletti) requesting additional information regarding Figures 1.2-18 and 1.2.2-20 of Section 9.1.4 of SSAR (figures related to light load handling equipment). acn: 9801270203 Fiche: A1924:347-A1924:348
January 20, 1998	Westinghouse letter (from B. McIntyre) forwarding Volume 3 of DOE report entitled "Addenda to DOE-ID-10503 -10504," dated 971225. Enclosure provided to support NRC review of in-vessel steam explosion topic for AP600. acn: 9801260077 Fiche: A1924:148-A1924:233
January 20, 1998	Westinghouse letter (from B. McIntyre) forwarding Revision 4 to WCAP-12600, "AP600 QA Program Plan," which has been updated to reflect current project position on QA requirements for system structures and components to which regulatory treatment on non-safety system criteria apply. acn: 9801230153 Fiche: A1900:159-A1900:188
January 19, 1998	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items regarding AP600. acn: 9801230006 Fiche: A1900:286-A1900:312
January 16, 1998	NRC letter (from W. Huffman) forwarding reports of test observations at SPES-2, OSU-APEX, and CMT test facilities that were prepared as internal NRC memo during AP600 design certification test program but were never placed on AP600 docket or in PDR. acn: 9803270038 Fiche: A2768:279-A2768:337
January 16, 1998	NRC letter (from W. Huffman) forwarding open items associated with AP600 SER on AP600 containment design and accident analyses. acn: 9801260241 Fiche: A1902:187-A1902:194
January 16, 1998	NRC letter (from T. Quay) forwarding RAI associated with review of AP600 TSs shutdown conditions. acn: 9801230249 Fiche: A1890:332-A1890:342
January 16, 1998	Westinghouse letter (from D. Alsing) forwarding "AP600 Quality Assurance Program Plan," Revision 4. acn: 9801230193 Fiche: A1900:092-A1900:158

January 16, 1998	response to FSER open item	. Sepp) requesting that proprietary AP600 ns be withheld per 10 CFR 2.790. Fiche: A1902:063-A1902:120
January 16, 1998	Westinghouse responses to 6187) and 480.1086F (OITS model.	. McIntyre) providing proprietary NRC FSER open items 480.1085F (OITS 6188) regarding WGOTHIC evaluation Fiche: A1902:059-A1902:120
	2011. 300 1200 100	Tione. 7(1002.000 7(1002.120
January 16, 1998	responses to FSER open ite	. McIntyre) providing Westinghouse ms on AP600. Fiche: A1898:250-A1898:293
	acn: 9801230138	Fiche: A1898.250-A1898.295
January 16, 1998	applicant to discuss progress	y) notification of 980122 meeting with s of AP600 design certification review. Fiche: A1879:355-A1879:357
January 15, 1998	Westinghouse to discuss an Westinghouse AP600 SSAR	notification of 980115-16 meeting with d resolve issues regarding review of Chapter 3, 5, 6, 9, 10, 11, and 20. Fiche: A1902:245-A1902:247
January 15, 1998	responses to FSER open ite	. McIntyre) providing Westinghouse ms on AP600. Fiche: A1900:002-A1900:158
January 14, 1998	pressure isolation valve leak	
	acn: 9801230244	Fiche: A1891:323-A1891:326
January 14, 1998	Westinghouse letter (from B. responses to FSER open ite	. McIntyre) providing Westinghouse ms on AP600.
	acn: 9801230160	Fiche: A1895:295-A1895:351
January 14, 1998	designated FSER open item WCOBRA-TRAC for long ter	n) forwarding issue extracted from SER and associated with AP600 SER on validation of m cooling analyses. Fiche: A1900:358-A1900:360
January 13; 1998	responses to FSER open ite	. McIntyre) providing Westinghouse ms on AP600. Fiche: A1899:351-A1899:360
	aun. 3001200140	
January 13, 1998	with Westinghouse regarding configuration of shear stirrup	y) forwarding summary of 971104 meeting g AP600 nuclear island basemat design os and shear capacity of deep slabs. Fiche: A1889:268-A1889:339

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January 13, 1998	on 980120-22 to review cal	ky) notification of meeting with Westinghouse culations for structural modules for seismic ler to resolve final SER report open items sent letter. Fiche: A1879:358-A1879:360
January 13, 1998		an) forwarding open items on piping mical and volume control system. Fiche: A1860:253-A1860:257
January 12, 1998	Westinghouse letter (from E responses to FSER open ite acn: 9801230223	3. McIntyre) providing Westinghouse ems on AP600. Fiche: A1899:213-A1899:236
January 9, 1998		forwarding request for additional information 600 Tier 1 information including ITAAC. Fiche: A1860:309-A1860:315
January 9, 1998		5. Black) forwarding Westinghouse AP600 and Computer Code Validation," Section 21.7, on." Fiche: A1830:084-A1830:096
January 9, 1998	Westinghouse letter (from E to FSER open items on AP6 acn: 9801150055	3. McIntyre) providing Westinghouse response 500. Fiche: A1823:110-A1823:235
January 9, 1998		B. McIntyre) forwarding Revision 19 to "AP600 ent sections to be inserted into SSAR binders es per 10 CFR 50.30(b). Fiche: A1863:001-A1865:186
January 8, 1998	NRC letter (from J. Sebrosk AP600 SER regarding Chap acn: 9803090373	xy) forwarding open items associated with oter 3. Fiche: A2512:258-A2512:261
January 8, 1998	Westinghouse letter (from E responses to FSER open ite acn: 9801140157	8. McIntyre) forwarding Westinghouse ems regarding AP600. Fiche: A1800:229-A1800:300
January 7, 1998	NRC letter (from J. Sebrosk AP600 Retention Through E acn: 9803050228	y) forwarding report entitled "Potential for Ex-vessel Flooding. Fiche: A2439:001-A2439:129
January 7, 1998	•	y) forwarding documentation of AP600 Westinghouse regarding shutdown PRA and Fiche: A1818:104-A1818:129

January 7, 1998 NRC letter (from J. Sebrosky) forwarding summary of 971218 meeting with Westinghouse to discuss design certification schedule for AP600 review. Fiche: A1795:335-A1795:351 acn: 9801130339 January 7, 1998 NRC letter (from J. Wilson) forwarding status report on AP600 initial test program. Report identifies nine open items and one confirmatory item that require resolution by Westinghouse before NRC can complete review of AP600 design certification application. acn: 9801130336 Fiche: A1801:066-A1801:101 January 7, 1998 Westinghouse letter (from B. McIntyre) forwarding Westinghouse response to RAI 640.159 regarding comments on AP600 ITAAC. Fiche: A1807:349-A1807:351 acn: 9801130223 January 7, 1998 Westinghouse letter (from B. McIntyre) providing responses to FSER open items on AP600 and Westinghouse response to FSER open item 720.431F. acn: 9801130177 Fiche: A1794:001-A1794:298 January 6, 1998 Westinghouse letter (from B. McIntyre) forwarding Revision 1 to WCAP-13856, "AP600 Implementation of Regulatory Treatment of Nonsafety-Related Systems Process. acn: 9801130166 Fiche: A1795:144-A1795:248

January 6, 1998 Westinghouse letter (from B. McIntyre) forwarding response to letter dated 970620 requesting update of 921215 comparison of AP600 design to NRC reviewed version of ALWR URD for passive plants. acn: 9801130120 Fiche: A1819:013-A1819:020

January 6, 1998 Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items on AP600. acn: 9801130110 Fiche: A1793:008-A1793:013

January 6, 1998 Westinghouse letter (from B. McIntyre) forwarding responses prepared for clarification of five RAIs specified in NRC letter dated 971208 regarding technical adequacy of AP600 PCS heat and mass transfer correlations and evaporated flow calculation procedure. acn: 9801130053 Fiche: A1793:003-A1793:007

January 5, 1998 Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items on AP600. acn: 9801140124 Fiche: A1799:138-A1799:247

December 30, 1997 Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items regarding AP600. acn: 9801140047 Fiche: A1799:339-A1799:350

December 30, 1997	on AP600 TSs for containm	
	acn: 9801140031	Fiche: A1830:040-A1830:042
December 30, 1997	•	n) discussing open item on AP600 design of ntation and controls in 971202 letter staff documenting concern. Fiche: A1790:268-A1790:271
December 29, 1997	Westinghouse letter (from E responses to FSER open ite acn: 9801140150	8. McIntyre) forwarding Westinghouse ems regarding AP600. Fiche: A1801:214-A1801:256
December 24, 1997	• • •	providing commission with revised schedule sign certification application. Fiche: A1809:029-A1809:035
December 23, 1997	with AP600 shutdown TSs.	y) forwarding list of open items associated
	acn: 9802040206	Fiche: A2000:355-A2000:357
December 23, 1997	Westinghouse letter (from E responses to FSER open ite	 McIntyre) forwarding Westinghouse and AP600.
	acn: 9801140182	Fiche: A1800:301-A1800:340
December 22, 1997	Westinghouse letter (from E responses to FSER open ite	 McIntyre) forwarding Westinghouse regarding AP600.
	acn: 9801140042	Fiche: A1799:314-A1799:338
December 22, 1997	NRC letter (from D. Scaletti design certification review.) submits RAI regarding open items in AP600
	acn: 9801140033	Fiche: A1796:355-A1796:357
December 22, 1997		n) forwarding open items associated with reatment of nonsafety related system. Fiche: A1790:342-A1790:345
December 19, 1997	NRC letter (from J. Sebrosk Chapter 20 of AP600 SER.	y) forwarding open items associated with
	acn: 9802030089	Fiche: A1980:351-A1980:354
December 19, 1997	U (8. McIntyre) forwarding Westinghouse revised 640.139, 640.140, and 640.148. Fiche: A1824:281-A1824:308
December 19, 1997	Westinghouse letter (from E responses to FSER open ite	8. McIntyre) forwarding Westinghouse
	acn: 9712290061	Fiche: A1628:291-A1628:343

December 19, 1997	AP600 certified design mater resolve NRC comments recommenting on 971212.	B. McIntyre) forwarding markup of changes to erial and related SSAR Chapter 18 sections to ceived during human factors ITAAC task-group
	acn: 9712290052	Fiche: A1640:336-A1640:352
December 18, 1997	NRC letter (from J. Sebrosk Chapter 3.8.5 of AP600 SE	(y) forwarding open items associated with R.
	acn: 9802040017	Fiche: A2006:284-A2006:290
December 18, 1997		(y) forwarding request for additional 1992 application for design certification of
		ysis for shutdown conditions.
	acn: 9802030132	Fiche: A1987:027-A1987:031
December 18, 1997		B. McIntyre) forwarding proprietary revisions
		-scaling closure 970916 meeting.
	acn: 9801140081	Fiche: A1820:355-A1820:358
December 18, 1997	•	n) forwarding input of SER open items and applicability of NOTRUMP for analyses of
	acn: 9801050331	Fiche: A1663:300-A1663:304
December 18, 1997		y) forwarding summary of 971117 meeting
		ng design certification schedule for AP600.
	acn: 9801050305	Fiche: A1662:314-A1662:340
December 18, 1997	NRC letter (from W. Huffma forwarding with AP600 ERG	n) providing input of open items associated
	acn: 9801050284	Fiche: A1663:169-A1663:171
December 18, 1997	NRC letter (from W. Huffma applicability of WCOBRA-TI LOCAs.	n) forwarding open items associated with RAC for analyses of AP600 large break
	acn: 9801050272	Fiche: A1663:164-A1663:168
December 18, 1997	information regarding open	n) forwarding request for additional items associated with AP600 SER on reactor
	system test program. acn: 9712300321	Fiche: A1595:055-A1595:058
December 18, 1997	•	n) providing open items associated with aluation of AP600 passive core cooling
	acn: 9712300315	Fiche: A1595:059-A1595:061

December 18, 1997	NRC letter (from D. Scaletti) forwarding request for additional information regarding open items in AP600 design certification review. acn: 9712300218 Fiche: A1595:064-A1595:070
December 18, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items on AP600. acn: 9712290058 Fiche: A1641:087-A1641:121
December 18, 1997	Westinghouse letter (from B. McIntyre) forwarding revised responses to RAIs 640.127, 640.129, 640.131, and 640.134 related to comments on AP600 normal RHR system from reactor system branch. acn: 9712240216 Fiche: A1628:152-A1628:160
December 17, 1997	NRC letter (from J. Sebrosky) forwarding open items associated with AP600 SER Section 3.6.1, "Piping Failures Outside Containment. acn: 9802040013 Fiche: A2006:291-A2006:295
December 17, 1997	NRC letter (from J. Wilson) informing of cancellation of 980106 task group meetings for AP600 in Rockville, Maryland. acn: 9801140316 Fiche: A1809:356-A1809:358
December 17, 1997	NRC letter (from J. Wilson) issuing notification of 980116 meeting with task group to perform task group review of ITAAC. Meeting was rescheduled from 980106 to 980116. acn: 9801130280 Fiche: A1790:272-A1790:274
December 17, 1997	Westinghouse letter (from B. McIntyre) requesting that proprietary presentation materials from 971209-12 ACRS meeting be withheld from public disclosure. acn: 9801080321Fiche: A1787:145-A1788:275
December 17, 1997	Westinghouse letter (from B. McIntyre) forwarding non proprietary and proprietary versions of presentation materials from 971209-12 ACRS meeting. acn: 9801080315 Fiche: A1787:141-A1788:275
December 17, 1997	NRC letter (from W. Huffman) forwarding partial SER open item associated with AP600 TS on main control room habitability. acn: 9801050300 Fiche: A1663:172-A1663:185
December 17, 1997	NRC letter (from T. Quay) forwarding RAI associated with technical issues identified during AP600 QA inspection during week of 971117-21. acn: 9801050259 Fiche: A1663:157-A1663:163
December 17, 1997	NRC letter (from J. Wilson) issuing notification of 980106 meeting with Westinghouse to perform task group review of ITAAC. acn: 9801050256 Fiche: A1663:135-A1663:137

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December 17, 1997	NRC letter (from J. Wilson) issuing notification of 980106 meeting with Westinghouse to perform task group review of ITAAC for AP600 design. acn: 9801050254 Fiche: A1663:132-A1663:134
December 17, 1997	NRC letter (from W. Huffman) forwarding evaluation with open items that have been extracted and designated as final SER open items. Open items pertain to pH adjustment and passive autocatalytic recombiner TSs. acn: 9801050178 Fiche: A1663:283-A1663:285
December 17, 1997	Westinghouse letter (from B. McIntyre) forwarding responses to FSER open items on AP600. acn: 9712240222 Fiche: A1621:338-A1621:356
December 17, 1997	Westinghouse letter (from B. McIntyre) forwarding responses to RAIs 640.100, 640.151, 640.153, and 640.165 related to general comments on Revision 3 of AP600 certified design material as requested in 970916 letter. acn: 9712240221 Fiche: A1628:164-A1628:173
December 17, 1997	Westinghouse letter (from B. McIntyre) forwarding response to RAI 640.150 related to comments on seismic monitoring system in Revision 3 of AP600 certified design material as requested in 971003 letter. acn: 9712240211 Fiche: A1625:358-A1625:360
December 16, 1997	NRC letter (from W. Huffman) forwarding Reactor Systems Branch SER input which has open items that have been extracted and designated as final SER open items. acn: 9801050175 Fiche: A1663:277-A1663:282
December 16, 1997	Westinghouse letter (from B. McIntyre) forwarding responses to Westinghouse FSER open items on AP600. acn: 9712230154 Fiche: A1600:138-A1600:151
December 15, 1997	NRC letter (from T. Kenyon) forwarding RAI regarding open items on AP600. acn: 9802030117 Fiche: A1985:335-A1985:334
December 15, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items on AP600. acn: 9712230355 Fiche: A1595:328-A1595:357
December 12, 1997	NRC letter (from J. Sebrosky) forwarding open items associated with Chapter 20 of AP600 SER. acn: 9801260261 Fiche: A1934:192-A1934:205
December 12, 1997	NRC letter (from J. Sebrosky) forwarding open items associated with AP600 SER Section 3.5.1. acn: 9801230293 Fiche: A1902:039-A1902:044

December 12, 1997	open items on AP600.	3. McIntyre) forwarding responses to FSER
	acn: 9712230390	Fiche: A1598:001-A1598:143
December 12, 1997	responses to RAIs 640.69 a from staff on Revision 3 of A	8. McIntyre) forwarding Westinghouse and 640.164 related to comments received AP600 certified design material including rs from staff dated 970822 and 1106. Fiche: A1600:250-A1600:254
December 12, 1997	response to RAI 480.1079 r	8. McIntyre) forwarding Westinghouse revised elated to 15 comments received from staff rculation screens during AP600 ITAAC task Fiche: A1680:293-A1680:300
December 12, 1997	responses to RAIs 640.143	8. McIntyre) forwarding Westinghouse revised through 640.146 regarding comments P600 ITAAC task group 971205 meeting. Fiche: A1599:317-A1599:337
December 11, 1997	NRC letter (from J. Sebrosk seismic margins SER. acn: 9801230288	y) forwarding open items associated with Fiche: A1901:219-A1901:229
December 11, 1997	responses to RAI regarding	. McIntyre) forwarding Westinghouse comments on reactor internals testing in d design material as requested in letter from Fiche: A1580:072-A1580:076
December 11, 1997		McIntyre) providing completed pipe rupture o show that analysis of dynamic loads would piping design. Fiche: A1575:311-A1575:312
December 11, 1997	NRC letter (from T. Kenyon) Westinghouse to discuss so acn: 9712180436	issuing notification of 971218 meeting with urce term issues on AP600. Fiche: A1498:076-A1498:078
December 11, 1997	Westinghouse letter (from B responses to FSER open ite acn: 9712180389	. McIntyre) forwarding Westinghouse ms on AP600. Fiche: A1532:242-A1532:295
December 11, 1997	DSER on AP600 shutdown	n) forwarding open items associated with risk safety. Fiche: A1483:302-A1483:307

December 10, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items on AP600. acn: 9712190062 Fiche: A1580:139-A1580:173
December 10, 1997	NRC letter (from W. Huffman) forwarding SER open item on restrictions associated with application of WCOBRA-TRAC computer code for long term cooling analyses. acn: 9712160381 Fiche: A1471:353-A1471:355
December 10, 1997	NRC letter (from W. Huffman) forwarding input containing open items associated with AP600 SER on reactor coolant system. acn: 9712160177 Fiche: A1472:205-A1472:207
December 9, 1997	NRC letter (from J. Sebrosky) forwarding open items associated with AP600 SER Section 3.4.1.
	acn: 9801260106 Fiche: A1902:145-A1902:149
December 9, 1997	NRC letter (from J. Sebrosky) forwarding open items associated with Chapter 3.7.2, 3.8.2, 3.8.3, and 3.8.4 of AP600 SER.
	acn: 9801260075 Fiche: A1902:121-A1902:135
December 9, 1997	NRC letter (from W. Huffman) discussing open item associated with AP600 SER on boron dilution.
	acn: 9712160209 Fiche: A1476:016-A1476:018
December 9, 1997	Westinghouse letter (from H. Sepp) requesting that proprietary AP600 response to FSER open items and markup of PRA be withheld per 10 CFR 2.790.
	acn: 9712160196 Fiche: A1572:005-A1572:029
December 9, 1997	Westinghouse letter (from B. McIntyre) forwarding proprietary Westinghouse response to FSER open items 720.418F and 720.419F. acn: 9712160186 Fiche: A1572:001-A1572:029
December 9, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to FSER open items on AP600. acn: 9712160161 Fiche: A1469:353-A1469:360
December 9, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to RAI 640.160 regarding comments on Section 3.5 of Revision 3 of AP600 certified design material as requested in letter from staff dated 971009.
	acn: 9712160148 Fiche: A1476:345-A1476:348
December 9, 1997	Westinghouse letter (from B. McIntyre) forwarding response to RAI regarding comments on radiation monitoring in Revision 3 of AP600
	certified design material. acn: 9712160077 Fiche: A1469:257-A1469:262

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December 9, 1997	NRC letter (from W. Huffman) discussing open items associated with AP600 safety evaluation report on AP600 long term cooling analyses using WCOBRA-TRAC. acn: 9712150339 Fiche: A1450:308-A1450:310
December 9, 1997	NRC letter (from D. Scaletti) forwarding request for additional information regarding open items in AP600 design certification review. FSER identifies 27 open items needing resolution by Westinghouse before staff can complete review of SSAR section. acn: 9712150329 Fiche: A1460:227-A1460:236
December 8, 1997	NRC letter (from J. Sebrosky) forwarding open items associated with exvessel steam explosion for AP600. acn: 9801260256 Fiche: A1934:187-A1934:191
December 8, 1997	NRC letter (from J. Sebrosky) forwarding open items associated with Chapter 2.5 of AP600 SER. acn: 9801260092 Fiche: A1902:140-A1902:144
December 8, 1997	NRC letter (from J. Sebrosky) forwarding open items associated with external reactor vessel cooling SER for AP600. acn: 9801260083 Fiche: A1902:136-A1902:139
December 8, 1997	NRC letter (from J. Wilson) issuing notification of 980115 meeting with task group for AP600 to perform task group review of inspection tests analyses and acceptance criteria for reactor system for AP600. acn: 9801130272 Fiche: A1790:265-A1790:267
December 8, 1997	Westinghouse letter (from B. McIntyre) forwarding responses to FSER open items. acn: 9712160184 Fiche: A1470:001-A1470:009
December 8, 1997	NRC letter (from W. Huffman) informing that NRC has provided SER input on AP600 reactor system testing program as part of SER Chapter 21. acn: 9712150298 Fiche: A1460:200-A1460:202
December 8, 1997	NRC letter (from T. Quay) forwarding request for additional information to complete input for AP600 SER Section 6.2.8 related to hydrodynamic loads experienced by IRWST as result of ADS 1, 2, and 3 discharge. acn: 9712150295 Fiche: A1451:357-A1451:360
December 8, 1997	NRC letter (from J. Sebrosky) issuing notification of 971218 meeting with Westinghouse to discuss progress of AP600 design certification review. acn: 9712150289 Fiche: A1451:354-A1451:356
December 8, 1997	NRC letter (from D. Scaletti) requesting clarification of certain request for additional information regarding review of AP600 WGOTHIC power control system model. acn: 9712150283 Fiche: A1451:351-A1451:353

NRC letter (from J. Wilson) issuing notification of 980105 meeting with December 8, 1997 task group to perform task group review of ITAAC for reactor systems for AP600. acn: 9712150277 Fiche: A1460:001-A1460:003 December 8, 1997 NRC letter (from W. Huffman) forwarding SER Section 6.4 open items associated with AP600 main control room habitability system. Fiche: A1424:216-A1424:223 acn: 9712120340 December 5, 1997 Westinghouse letter (from B. McIntyre) forwarding Revision 18 to "AP600 SSAR," Volumes 1-11. acn: 9712090292 Fiche: A1448:001-A1450:123 December 4, 1997 NRC letter (from J. Sebrosky) forwarding open items associated with Chapter 3.2 of AP600 safety evaluation report. acn: 9801200167 Fiche: A1860:262-A1860:266 Westinghouse letter (from B. McIntyre) forwarding Westinghouse December 4, 1997 responses to RAIs 640.138 through 640.141, 640.148, 640.149, and 640.158. acn: 9712160096 Fiche: A1469:163-A1469:186 Westinghouse letter (from B. McIntyre) forwarding responses to FSER December 4, 1997 open items 720.424F through 720.426F and 720.428F regarding AP600 PRA in-vessel steam explosion topic. acn: 9712160055 Fiche: A1469:317-A1469:323 Westinghouse letter (from B. McIntyre) forwarding Westinghouse December 4, 1997 responses to RAI 640.72 and RAIs 640.143 through 640.147 regarding comments on Revision 3 of AP600 certified design material as requested in letters from staff dated 970822 and 971006. acn: 9712160027 Fiche: A1469:120-A1469:162 December 4, 1997 NRC letter (from W. Huffman) forwarding partial SER input to Chapter 15 open items associated with AP600 transient and accident analyses. acn: 9712120371 Fiche: A1421:356-A1421:360 Westinghouse letter (from B. McIntyre) forwarding Westinghouse December 3, 1997 responses to RAIs 640.153 and 640.154 regarding comments on passive containment cooling system in Revision 3 of AP600 certified design material as requested in 971009 letter from staff. acn: 9712160217 Fiche: A1469:235-A1469:256 Westinghouse letter (from B. McIntyre) forwarding Westinghouse December 3, 1997 response to RAI 640.137 on comments on containment system in Revision 3 of AP600 certified design material as requested in 971003 letter from staff. acn: 9712160214 Fiche: A1470:198-A1470:201

Appendix A	
December 3, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouse response to RAI 640.97 regarding comments on design reliability assurance program in Revision 3 of AP600 certified design material as requested in letter from staff dated 970916. acn: 9712160061 Fiche: A1470:026-A1470:057
December 3, 1997	Westinghouse letter (from B. McIntyre) forwarding responses to FSER open item 410.309F regarding air dryers and FSER open item 410.322 regarding standby diesel and auxiliary boiler fuel oil system. acn: 9712160038 Fiche: A1470:021-A1470:023
December 3, 1997	NRC letter (from J. Wilson) issuing notification of 971218-19 meeting with task group to perform task group review of ITAAC for containment and severe accident system for AP600. acn: 9712110032 Fiche: A1386:334-A1386:336
December 3, 1997	NRC letter (from J. Wilson) issuing notification of 971211 meeting with task group to perform task group review of selected ITAAC for AP600 design, including reliability assurance and human factors. acn: 9712110016 Fiche: A1386:349-A1386:351
December 3, 1997	Westinghouse letter (from H. Sepp) requesting that additional change pages to Revision 3 to WCAP-14807 "NOTRUMP final validation report for AP600 dated November 1997 be withheld from public disclosure per 10 CFR 2.790. acn: 9712100040Fiche: A1410:353-A1410:359
December 3, 1997	Westinghouse letter (from B. McIntyre) forwarding proprietary changepages to Revision 3 to WCAP-14807.acn: 9712100038Fiche: A1410:349-A1410:359
December 2, 1997	NRC letter (from T. Kenyon) forwarding RAI regarding instrumentation and controls for AP600. acn: 9801150181 Fiche: A1817:345-A1817:348
December 2, 1997	NRC letter (from T. Kenyon) forwarding RAI regarding control room habitability on AP600. acn: 9801150176 Fiche: A1820:255-A1820:258
December 2, 1997	Westinghouse letter (from B. McIntyre) discussing SSAR revision proposing supplemental criteria that would require minimum shear reinforcement at most locations of AP600 basemat. acn: 9712150005 Fiche: A1467:285-A1467:288
December 1, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouse revisedresponses to RAIs 640.98 and 640.99 reflecting agreements made withNRC during 971110 telecon.acn: 9712160221Fiche: A1470:241-A1470:250

December 1, 1997	Sections 3.1, 3.2, 2.5.2, 2.5. related SSAR Chapter 18 se NRC human factors enginee letter dated 970828.	McIntyre) forwarding draft revision to 4, and 2.5.7 of Tier 1 information and to ections resulting primarily from resolution of ering ITAAC review comments documented in Fiche: A1470:058-A1470:095
December 1, 1997	Westinghouse to discuss res which AP600 initiating events analyses.	n) issuing notification of 971203 meeting with sults of probabilistic approach for selecting s will be subject to full ATWS deterministic Fiche: A1320:350-A1320:352
December 1, 1997	items 440.736F and 440.737	. McIntyre) forwarding responses to open ′F. Fiche: A1358:326-A1358:330
December 1, 1997	item related to nonsafety-rela	. McIntyre) forwarding responses for open ated containment spray. Fiche: A1358:331-A1358:333
December 1, 1997	items related to NRC bulletin	McIntyre) forwarding responses for open is and generic letters. Fiche: A1358:354-A1358:357
December 1, 1997	building roof DSER open iter changed to respond to staff of	McIntyre) forwarding response to shield m 3.8.4.4-2. The shear reinforcement comments. Fiche: A1358:334-A1358:351
November 26, 1997	SERs on AP600 TSs.	n) forwarding open items associated with Fiche: A1323:188-A1323:198
November 26, 1997	previously sent informally to	McIntyre) forwarding correspondence NRC over period of 970625-1029. Fiche: A1361:001-A1362:090
November 26, 1997	(e) of 970917 response to NI verification and validation.	McIntyre) forwarding corrected copy of Part RC RAI 440.721 on AP600 NOTRUMP Fiche: A1323:158-A1323:161
November 26, 1997	open items 410.308 and 410 SSAR.	McIntyre) forwarding responses for FSER 310 regarding information in section 9.3 of
	acn: 9712050146	Fiche: A1323:046-A1323:048

November 21, 1997	Westinghouse letter (from B. McIntyre) forwarding responses to questions regarding pressure isolation valves and safety classification of portions of chemical and volume control system and FSER open item 720.429F. acn: 9712030021 Fiche: A1349:053-A1349:096
November 21, 1997	Westinghouse letter (from B. McIntyre) forwarding responses to questions related to plugging of screens and safety classification of paint and draft SSAR changes.
	acn: 9712030020 Fiche: A1343:330-A1343:353
November 21, 1997	Westinghouse letter (from B. McIntyre) forwarding Revision 2 to WCAP-14837, "AP600 Shutdown Evaluation Report, " which reflects responses to RAIs 440.684 through 440.720. acn: 9712010048 Fiche: A1280:001-A1280:288
November 21, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouse response to FSER open item 720.429F regarding AP600 PRA in-vessel steam explosion topic.
	acn: 9712010030 Fiche: A1297:273-A1297:281
November 20, 1997	Westinghouse letter (from B. McIntyre) submitting changes to identified inconsistencies and resolutions regarding TS 3.3.1-3.3.2 changes to reflect SSAR Chapter 15 analyses setpoints. acn: 9712030103 Fiche: A1366:057-A1366:064
November 20, 1997	Westinghouse letter (from B. McIntyre) forwarding floppy disk containing AP600 site meteorological data for use in ARCON96 code and table containing summary of calculated dispersion factors resulting from data. acn: 9712010286 Fiche: A1297:271-A1297:272
November 20, 1997	NRC letter (from D. Scaletti) forwarding document that identifies issues that need resolution by Westinghouse before staff can complete review of passive containment cooling system and WGOTHIC code. acn: 9711250284 Fiche: A1227:333-A1227:335
November 19, 1997	NRC letter (from J. Sebrosky) forwarding open items associated with Chapter 19 of AP600 SER. acn: 9801210157 Fiche: A1866:247-A1866:257
November 19, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouse response to RAI 640.101 on Revision 3 of AP600 certified design material as requested in letter from staff dated 970916.
	acn: 9711250234 Fiche: A1269:332-A1269:347
November 19, 1997	Westinghouse letter (from B. McIntyre) forwarding revised responses to RAIs 640.80 through 640.83, 640.87, 640.92, 640.95, and 640.96 regarding comments received from electrical system branch during ITAAC

	task group meeting on Rev on 971028.	rision 3 of AP600 certified design material held
	acn: 9711250199	Fiche: A1270:001-A1270:017
November 19, 1997	proposes supplemental crit	B. McIntyre) providing SSAR revision that eria that would require minimum shear tions of basemat below auxiliary building. Fiche: A1267:291-A1267:293
November 19, 1997	questions regarding AP600 program.	B. McIntyre) forwarding response to followon SSAR section 14.2 on AP600 initial test
	acn: 9711250173	Fiche: A1268:317-A1268:319
November 19, 1997	•	B. McIntyre) forwarding response to roof slab meetings between NRC and Westinghouse
	acn: 9711250102	Fiche: A1268:320-A1268:322
November 18, 1997		issuing notification of revised 971205 meeting perform task group review of ITAAC for AP600
	acn: 9711240195	Fiche: A1227:185-A1227:187
November 18, 1997	task group to perform task severe accident system for	
	acn: 9711200147	Fiche: A1181:330-A1181:332
November 18, 1997		issuing notification of 971205 task group to perform task group review of ITAAC for s and piping system.
	acn: 9711200133	Fiche: A1194:001-A1194:003
November 17, 1997	NRC letter (from J. Sebrosl with Chapter 3.9.3 of AP60 acn: 9801200165	ky) discussing confirmatory items associated 0 safety evaluation report. Fiche: A1850:341-A1850:344
November 17, 1997		H. Sepp) requesting that Revision 3 to PFinal Validation Report for AP600," be sure.
	acn: 9711250256	Fiche: A1257:048-A1257:056
November 17, 1997	pages to WCAP-14807, "N	B. McIntyre) forwarding proprietary change IOTRUMP Final Validation Report for AP600," at ACRS meeting on NOTRUMP held in
	acn: 9711250250	Fiche: A1257:046-A1257:056

November 17, 1997	Westinghouse letter (from B. McIntyre) forwarding 3 copies of Westinghouse responses to NRC RAIs 440.731-440.734 relating to AP600 TS 3.7.2.
	acn: 9711250068 Fiche: A1270:239-A1270:264
November 17, 1997	NRC letter (from T. Quay) discussing AP600 PCS concerns regarding Westinghouse position on water coverage testing for AP600 PCS and use of information to support WGOTHIC computer program design certification. Item identified as open item 480.1084F. acn: 9711200321 Fiche: A1181:327-A1181:329
November 13, 1997	Westinghouse letter (from B. McIntyre) forwarding response to followonquestion regarding AP600 SSAR Section 14.3 and AP600 ITAAC.acn: 9711190203Fiche: A1192:220-A1192:250
November 12, 1997	ACRS letter (from J. Larkins) forwarding proposed ACRS schedule for reviewing AP600 design. acn: 9803250356 Fiche: A2762:175-A2762:180
November 12, 1997	NRC letter (from J. Sebrosky) issuing notification of 971117 meeting with Westinghouse discuss progress of AP600 design certification review. acn: 9711190304 Fiche: A1163:290-A1163:292
November 12, 1997	Westinghouse letter (from B. McIntyre) forwarding proprietary contractor report ERI-NRC 95-211, "Assessment of Ex-vessel Steam Explosions in AP600 Advanced Pressurized Water Reactor." acn: 9711190212 Fiche: A1192:355-A1192:360
November 12, 1997	Westinghouse letter (from B. McIntyre) requesting that proprietary response to RAI regarding AP600 NOTRUMP verification and validation (RAI 440.721) be withheld from public disclosure per 10 CFR 2.790. acn: 9711190149 Fiche: A1248:065-A1248:125
November 12, 1997	Westinghouse letter (from B. McIntyre) forwarding proprietary and non-proprietary response to RAI regarding AP600 NOTRUMP verification and validation (parts d and g of RAI 440.721). acn: 9711190148 Fiche: A1248:061-A1248:125
November 12, 1997	Westinghouse letter (from B. McIntyre) forwarding response to NRC RAI on AP600 solid waste storage capacity. acn: 9711190093 Fiche: A1180:359-A1180:361
November 12, 1997	Westinghouse letter (from B. McIntyre) forwarding Volumes 1, "Appendices to DOE-ID-10541," and 2, "Addenda to DOE-ID-10541 -10503 -10504," of DOE report dated October 1997 and white paper "Effects of containment spray on AP600 level 2 PRA hydrogen analysis. acn: 9711180191 Fiche: A1176:010-A1177:331

November 11, 1997	presentation from ACRS the	3. McIntyre) requesting that proprietary ermal-hydraulic phenomena subcommittee 600 passive containment cooling system be ure per 10 CFR 2.790. Fiche: A1250:014-A1250:243
November 11, 1997	proprietary versions of pres thermal-hydraulic phenome	B. McIntyre) forwarding non-proprietary and entations used during 970929-30 ACRS na subcommittee meeting regarding ive containment system TAP. Fiche: A1250:010-A1250:243
November 11, 1997	related to missile protection 971024.	B. McIntyre) forwarding response to questions that were included in letter from NRC dated Fiche: A1189:346-A1189:354
	acn: 9711190300	Fiche. A1169.546-A1169.554
November 11, 1997		B. McIntyre) forwarding listed page changes to CAP- 14776 "WCOBRA-TRAC OSU lidation Report." Fiche: A1193:300-A1193:303
November 11, 1997		B. McIntyre) forwarding responses to followon SSAR Section 14.3 and AP600 ITAAC. Fiche: A1180:345-A1180:353
November 11, 1997		3. McIntyre) forwarding non-proprietary iple SG Tube Rupture Analysis Report," and NRC RAI 440.683. Fiche: A1189:107-A1189:292
November 11, 1997		B. McIntyre) forwarding responses to followon SSAR section 14.3 and AP600 ITAAC. Fiche: A1189:001-A1189:106
November 11, 1997	640.161 regarding design s SSAR.	3. McIntyre) forwarding responses to RAI cope boundaries and interfaces in AP600
	acn: 9711190141	Fiche: A1191:356-A1191:359
November 11, 1997		8. McIntyre) forwarding responses to followon SSAR section 14.3 and AP600 ITAAC. Fiche: A1181:164-A1181:168
November 7, 1997	NRC letter (from J. Sebrosk Chapter 20 of AP600 SER. acn: 9801200184	xy) forwarding open items associated with Fiche: A1860:287-A1860:290

November 7, 1997	NRC letter (from J. Sebrosk Chapter 19 of AP600 SER.	(y) forwarding open items associated with
	acn: 9712120332	Fiche: A1424:077-A1424:101
November 7, 1997	Westinghouse letter (from E	3. McIntyre) forwarding Westinghouse
	responses to remaining NR	C RAIs 440.713, 440.714, and 440.719.
	acn: 9711140114	Fiche: A1175:263-A1175:274
November 7, 1997	Westinghouse letter (from E SSAR.	8. McIntyre) forwarding Revision 17 OF AP600
	acn: 9711130416	Fiche: A1169:006-A1173:335
November 6, 1997	•	y) forwarding updated version of report vessel Steam Explosions in AP600 Advanced "
	acn: 9801150164	Fiche: A1829:113-A1830:039
November 6, 1997	NRC letter (from T. Quay) for AP600.	orwarding RAI regarding open items on
	acn: 9712150274	Fiche: A1460:186-A1460:199
November 6, 1997		y) forwarding updated proprietary version of essel Steam Explosions in AP600 Advanced "
	acn: 9711190222	Fiche: A1192:358-A1192:360
November 6, 1997		n) forwarding summary of 971029 meeting ss problems and progress affecting AP600
	acn: 9711180223	Fiche: A1155:288-A1155:292
November 6, 1997	inspection of AP600 design	informing that NRC will be conducting control activities at Westinghouse Energy 17-21. Inspection will focus primarily on veloped by Westinghouse. Fiche: A1159:315-A1159:319
November 6, 1997	· · · · · ·	forwarding request for additional information i00 Tier 1 information including ITAAC. Fiche: A1155:293-A1155:295
November 6, 1997	(Revision 2 to report WCAP	•
	acn: 9711140108	Fiche: A1151:094-A1151:315
November 5, 1997		McIntyre) forwarding AP600 TS 3.3.1 and nments resolved during 971027 telecon. Fiche: A1168:060-A1168:111

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November 5, 1997	that Westinghouse provide	B. McIntyre) forwarding response to request information on interfaces between safety r NSSS and PCS computer codes during Fiche: A1175:275-A1175:276
November 4, 1997	NRC letter (from T. Kenyon AP600 on SSAR.) forwarding RAI regarding open items on
	acn: 9712150281	Fiche: A1460:182-A1460:185
November 4, 1997	Chapter 19 of AP600 SER.	y) discussing open items associated with
	acn: 9712120329	Fiche: A1422:352-A1422:360
November 4, 1997		y) forwarding proprietary report "Assessment ons in AP600 Advanced Pressurized Water uded in staff"s final SER.
	acn: 9711190219	Fiche: A1192:357-A1192:357
November 4, 1997		ting that staff remains committed to
	completing AP600 review w acn: 9711180321	ith resources currently available. Fiche: A1154:356-A1154:361
November 4, 1997	· · · ·	issuing notification of 971124 meeting with group review of ITAAC for reactor systems for
	acn: 9711120167	Fiche: A1069:317-A1069:319
November 4, 1997		notifies of 971125 meeting with task group to of ITAAC for AP600 design for radiation planning.
	acn: 9711120153	Fiche: A1099:349-A1099:351
November 4, 1997		8. McIntyre) responds to RAI regarding on 3 of AP600 certified design material ed in 970916 letter. Fiche: A1134:339-A1134:345
November 4, 1997	regarding comments on AP	8. McIntyre) forwarding responses to RAIs 600 normal RHRS from Reactor Systems 600 certified design material including ITAAC er. Fiche: A1134:327-A1134:338
November 3, 1997	open items 410.311F and 4	8. McIntyre) forwarding responses to FSER 10.312F regarding equipment and floor drain
	system. acn: 9711140113	Fiche: A1160:267-A1160:269

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November 3, 1997) forwarding copy of 971010 letter from H. S. Collins of NRR regarding reassignments
	acn: 9711130346	Fiche: A1112:249-A1112:252
October 31, 1997		B. McIntyre) forwarding markups of Section P600 SSAR to show changes made to resolve ection. Fiche: A1067:257-A1068:154
October 31, 1997	Westinghouse letter (from E Chapter 15 of AP600 SSAR acn: 9711060186	B. McIntyre) forwarding response to RAI on R. Fiche: A1112:046-A1112:052
October 30, 1997		y) forwarding summary of 971009 meeting g design certification schedule for AP600. Fiche: A1112:310-A1112:326
October 30, 1997) requesting additional information to complete regarding 18 open items needing resolution by Fiche: A1112:338-A1112:343
October 30, 1997		n) forwarding summary of 971109 telcon with Al responses related to TS and system level Fiche: A1112:327-A1112:333
October 30, 1997	applicant to discuss analyse	y) issuing notification of 971104 meeting with es contained in 971017 letter from 2600 nuclear island basemat design. Fiche: A1117:355-A1117:357
October 30, 1997		8. McIntyre) forwarding responses to f AP600 SSAR dated 970121. Fiche: A1112:139-A1112:156
October 30, 1997	responses to RAIs 640.98 a factors assessment branch	8. McIntyre) forwarding Westinghouse and 640.99 regarding comments from human on Revision 3 of AP600 certified design requested in letter from staff dated 970916. Fiche: A1062:026-A1062:050
October 29, 1997	responses to NRC requests 440.712, 440.715 through 4	8. McIntyre) forwarding Westinghouse for additional information 440.684 through 40.718, and 440. 720. Fiche: A1011:315-A1011:360

October 29, 1997	U	B. McIntyre) forwarding response to FSER monitoring of in plant radiation. Fiche: A1006:263-A1006:264
October 27, 1997	•) forwarding request for additional information 00 design certification review of Section 15.7.3
	acn: 9711130331	Fiche: A1108:184-A1108:186
October 27, 1997	resolution of two human fac	8. McIntyre) forwarding documentation of stors engineering issues regarding specifying workstations in ITAAC and SSAR statement be. Fiche: A0995:335-A0995:339
October 27, 1997		8. McIntyre) summarizing breaks that need to result of LBB evaluations performed ysis. Fiche: A0986:348-A0986:355
October 27, 1997		8. McIntyre) forwarding additional response to MP in range of 10-inch breaks. Fiche: A0946:352-A0946:355
October 24, 1997	NRC letter (from J. Sebrosk protection for AP600 needs acn: 9712080149	y) informing that questions regarding missile additional information. Fiche: A1334:337-A1334:340
October 24, 1997	response to RAI regarding A	B. McIntyre) requesting that proprietary AP600 NOTRUMP verification and validation withheld from public disclosure per 10 CFR
	acn: 9710300015	Fiche: A0989:121-A0989:147
October 24, 1997		8. McIntyre) forwarding proprietary and to RAI regarding AP600 NOTRUMP part f of RAI 440.721). Fiche: A0989:117-A0989:147
October 24, 1997	•	8. McIntyre) forwarding fault tree ADASD and e used in AP600 shutdown PRA analysis. Fiche: A0965:305-A0965:317
October 23, 1997	of WCAP-14327, Revision 1	B. McIntyre) forwarding non-proprietary version I, entitled "Experimental Basis for AP600 nd Mass Transfer Correlations." Fiche: A1061:001-A1061:124

October 23, 1997		B. McIntyre) forwarding non-proprietary version ng Study," of WCAP-14407, Revision 0. Fiche: A1061:125-A1061:178
October 23, 1997	U (8. McIntyre) forwarding non-proprietary , "WGOTHIC Application to AP600. Fiche: A1047:001-A1048:341
October 23, 1997	WCAP-14968, "Assessmen Version 1.2 to 4.1.	B. McIntyre) forwarding non-proprietary t of Effects of WGOTHIC Solver Upgrade from
	acn: 9711050087	Fiche: A1052:267-A1052:349
October 23, 1997	Revision 1 to WCAP-14989	8. McIntyre) forwarding non-proprietary "Accident Specification and Phenomena ve Containment Cooling System. Fiche: A1052:001-A1052:265
October 23, 1997		8. McIntyre) forwarding non-proprietary "Scaling Analysis for AP600 Containment
	acn: 9711050049	Fiche: A1030:001-A1030:221
October 23, 1997	NRC letter (from T. Quay) c protection review.	onfirming 971020 discussions of fire
	acn: 9711040243	Fiche: A1007:265-A1007:266
October 23, 1997	identified submittals and oth AP600 review per 971015 re	
	acn: 9710290260	Fiche: A0945:355-A0945:359
October 23, 1997		. McIntyre) forwarding response to 970625 nd DSER open items on AP600 SSAR gram.
	acn: 9710290201	Fiche: A0946:143-A0946:212
October 22, 1997	documents regarding 97093 AP600 Meeting to Review S	y) requesting that individuals that receive 0 meeting summary entitled "Summary of tructural Design of Nuclear Island Structures," ument prematurely released to public. Fiche: A2447:151-A2447:151 Fiche: A2439:255-A2439:255 Fiche: A2424:055-A2424:055 Fiche: A2424:039-A2424:039
October 22, 1997	•	y) documenting that staff has taken measures release of proprietary material contained in

	meeting summary dated 970930 entitled "Summary of AP600 Meeting to Review Structural Design of Nuclear Island Structures. acn: 9803040347 Fiche: A2420:360-A2420:361
October 22, 1997	NRC letter (from J. Sebrosky) forwarding list of open items associated with Chapter 19 of AP600 SER. acn: 9712080086 Fiche: A1334:296-A1334:301
October 22, 1997	NRC letter (from W. Huffman) forwarding open items associated with AP600 SER on containment combustible gas control. acn: 9711040229 Fiche: A1007:238-A1007:240
October 22, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouse response to NRC requests for additional information pertaining to AP600 multiple SG tube rupture topic. acn: 9710290257 Fiche: A0946:213-A0946:253
October 22, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouse revised responses to RAIs 640.61 and 640.62 regarding comments from instrumentation and control system branch on Revision 3 of AP600 certified design material. acn: 9710280207 Fiche: A0965:228-A0965:236
October 21, 1997	Westinghouse letter (from B. McIntyre) providing Westinghouse response to NRC comments regarding process which determines type of core makeup tank (CMT) level instrumentation. acn: 9710280280 Fiche: A0944:273-A0944:291
October 20, 1997	NRC letter (from J. Sebrosky) issuing notification of 971029 meeting with Westinghouse to discuss progress of AP600 design certification review. acn: 9710290254 Fiche: A0900:134-A0900:136
October 20, 1997	NRC letter (from D. Scaletti) forwarding request for additional information relative to open items in AP600 design certification review. acn: 9710290253 Fiche: A0900:137-A0900:140
October 20, 1997	NRC letter (from W. Huffman) forwarding summary of 971007 meeting with Westinghouse regarding AP600 general design features and safety philosophy. acn: 9710280191 Fiche: A0896:156-A0896:216
October 17, 1997	ActiveActiv
October 17, 1997	NRC letter (from T. Kenyon) forwarding summary of 970929 meeting with Westinghouse to discuss fire protection issues for AP600 design. acn: 9710290213 Fiche: A0921:271-A0921:305

Appendix A	
October 17, 1997	Westinghouse letter (from B. McIntyre) forwarding DOE report DOE-ID 10523 "Analysis of Melt Spreading in AP600-like Cavity." acn: 9710270094 Fiche: A0907:216-A0907:303
October 17, 1997	Westinghouse letter (from B. McIntyre) forwarding response to RAI regarding AP600 NOTRUMP verification and validation (parts h and I of RAI 440.721). Enclosed also contains response to RAI 440.226 regarding non-condensibles affect on PRHR. acn: 9710270040 Fiche: A0909:023-A0909:043
October 17, 1997	Westinghouse letter (from B. McIntyre) forwarding response to RAI on operability of pressurizer safety valves in Chapter 15 non-LOCA analyses. acn: 9710270024 Fiche: A0910:336-A0910:339
October 17, 1997	NRC letter (from W. Huffman) informing that NRC has provided SER input on AP600 design reliability assurance SER Section 16.2. acn: 9710230036 Fiche: A0882:061-A0882:063
October 16, 1997	Westinghouse letter (from B. McIntyre) requesting that proprietary response to RAI regarding AP600 WCOBRA-TRAC be withheld from public disclosure per 10 CFR 2.790. acn: 9710270172 Fiche: A0964:100-A0964:110
October 16, 1997	Westinghouse letter (from B. McIntyre) forwarding proprietary and non-proprietary response to RAI regarding AP600 WCOBRA-TRAC. acn: 9710270170 Fiche: A0964:096-A0964:110
October 16, 1997	Westinghouse letter (from B. McIntyre) forwarding new TS 3.79 regardingfuel storage pool makeup water sources created in response to open itemin 970911 NRC letter.acn: 9710270080Fiche: A0908:344-A0908:350
October 16, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to RAIs 640.80 through 640.96 regarding comments from electrical systems branch on Revision 3 of AP600 certified design material including ITAAC in response to 970916 letter. acn: 9710270037 Fiche: A0909:001-A0909:022
October 16, 1997	Westinghouse letter (from B. McIntyre) forwarding response to RAI regarding AP600 large break LOCA methodology. acn: 9710270022 Fiche: A0908:351-A0908:355
October 16, 1997	NRC letter (from W. Huffman) informing that NRC has provided SER input regarding LOFTRAN transient analysis computer code (Chapter 21). acn: 9710230016 Fiche: A0882:058-A0882:060
October 16, 1997	NRC letter (from W. Huffman) discussing open item associated with SER on external pressure analysis. acn: 9710220113 Fiche: A0837:356-A0837:358

October 16, 1997	•	an) discussing open item associated with reactor coolant pressure boundary. Fiche: A0827:052-A0827:054	
October 16, 1997	NRC letter (from W. Huffman) informing that NRC has provided SER which evaluates detection of leakage through reactor coolant pressure boundary for AP600 design. acn: 9710220064 Fiche: A0827:035-A0827:039		
October 15, 1997	NRC letter (from T. Quay) f	orwarding submittal dates for information of AP600 design per 970910 request. Fiche: A0827:259-A0827:261	
October 14, 1997		3. McIntyre) responds to letter dated 970529 e 1, 2, and 3 motor operated valves. Fiche: A0987:333-A0987:337	
October 14, 1997	Westinghouse letter (from B. McIntyre) forwarding responses and SSAR revisions to address FSER open items regarding environmental qualification of mechanical and electrical equipment. acn: 9710270020 Fiche: A0909:134-A0909:137		
October 14, 1997	Westinghouse letter (from E 1018, 2228, and 2229. acn: 9710270017	3. McIntyre) submitting reponse to open items Fiche: A0909:105-A0909:105	
October 14, 1997	WCAP-13914, "Framework	3. McIntyre) forwarding Revision 2 to for AP600 Severe Accident Management s use of nonsafety-related containment spray Fiche: A0823:232-A0823:298	
October 14, 1997	Westinghouse letter (from B. McIntyre) submitting AP600 response to loss-of-offsite power that was requested at 970904 meeting with NRC on fire protection acn: 9710200235 Fiche: A0855:304-A0855:309		
October 13, 1997		3. McIntyre) discussing completion of odules as requested in 970515 NRC structural Fiche: A0839:024-A0839:025	
October 13, 1997	Westinghouse letter (from E response to RAI 410.262 re piping.	B. McIntyre) forwarding completely revised garding seismic classification of chilled water	
	acn: 9710210102	Fiche: A0850:162-A0850:164	

October 13, 1997	. .	3. McIntyre) requesting that proprietary JMP verification and validation be withheld per Fiche: A0865:182-A0865:206
October 13, 1997		B. McIntyre) forwarding proprietary response to nation on AP600 NOTRUMP verification and Fiche: A0865:180-A0865:206
October 13, 1997	Westinghouse letter (from E	 McIntyre) forwarding SSAR markup of n level free field response spectra and new
October 10, 1997	•	H. Bruschi) informing that he has been Westinghouse Science and Technology Fiche: A1112:251-A1112:252
October 10, 1997	•) requesting additional information to complete regarding four open items in AP600 needing Fiche: A0777:357-A0777:360
October 10, 1997	AP600 design changes whi	 McIntyre) forwarding responses regarding ch address post-72 hour actions and draft ismic and wind protection for spent fuel pool. Fiche: A0820:001-A0820:136
October 10, 1997	options for normal residual SSAR changes regarding n	8. McIntyre) discussing additional cooling heat removal system. Enclosure contains uclear island fire area. Fiche: A0782:086-A0782:131
October 10, 1997		8. McIntyre) discussing Service Level C ssel, which is covered under open items 708, Fiche: A0813:155-A0813:157
October 10, 1997	÷ .	8. McIntyre) forwarding response to RAI on assumptions in AP600 SSAR LOCA Fiche: A0782:357-A0782:359
October 9, 1997		y) forwarding list of open items associated

NRC letter (from J. Wilson) issuing notification of 971028 meeting with October 9, 1997 Westinghouse to discuss ITAAC for electrical system for AP600. Fiche: A0785:227-A0785:229 acn: 9710200232 October 9, 1997 NRC letter (from J. Wilson) forwarding request for additional information or corrections regarding Revision 3 of AP600 Tier 1 information. Fiche: A0785:203-A0785:207 acn: 9710200152 Westinghouse letter (from B. McIntyre) forwarding response to RAI on October 8, 1997 relationship of OSU experiments to AP600. acn: 9710150192 Fiche: A0765:356-A0765:357 October 8, 1997 Westinghouse letter (from B. McIntyre) forwarding responses to NRC RAIs 480.291, 480.292, and 480.294 regarding WGOTHIC model flow resistances and velocities contained within OITS item 2485. Fiche: A0772:264-A0772:270 acn: 9710150165 Westinghouse letter (from B. McIntyre) forwarding revised draft of AP600 October 8, 1997 PRA, Attachment 54B, "Surge Line Flooding Effect on Shutdown PRA" per 971001 telcon. acn: 9710150112 Fiche: A0766:001-A0766:224 October 7, 1997 NRC letter (from J. Sebrosky) forwarding list of open items associated with Chapter 2 and 20 of AP600 SER. acn: 9712080143 Fiche: A1335:213-A1335:216 NRC letter (from W. Huffman) forwarding summary of 970923 meeting October 7, 1997 with Westinghouse regarding status of completion of AP600 design documentation in several review areas in order to support final QA inspection. acn: 9710100151 Fiche: A0715:136-A0715:148 October 6, 1997 NRC letter (from J. Sebrosky) forwarding list of open items associated with Chapter 20 of AP600 SER. Open items involves review of bulletin issued after Revision 1 to WCAP-13559, "Operational Assessment for AP600," submitted to staff for review. acn: 9712080153 Fiche: A1334:265-A1334:272 October 6, 1997 Westinghouse letter (from B. McIntyre) responding to issue regarding containment design transients associated with passive containment function. acn: 9710150180 Fiche: A0772:300-A0772:300 Westinghouse letter (from B. McIntyre) forwarding Westinghouse October 6, 1997 responses to 15 RAIs regarding comments from civil engineering and geosciences branch on Revision 3 of AP600 certified design material as requested in 970822 letter... acn: 9710100327 Fiche: A0748:288-A0748:302

October 3, 1997		3. McIntyre) providing argument as to why g inoperable MSIV should be 8 hours for ours per 970829 letter. Fiche: A0772:271-A0772:285	
October 3, 1997	NRC letter (from W. Huffma main steam isolation valves acn: 9710080116	n) forwarding RAI related to AP600 TS on Fiche: A0684:233-A0684:236	
October 3, 1997	NRC letter (from J. Wilson) acn: 9710080121	forwarding RAI regarding AP600 ITAAC. Fiche: A0684:224-A0684:232	
October 2, 1997	scope and results of sensitiv NRC review.	8. McIntyre) forwarding description of analysis vity study regarding IRWST stratification for	
	acn: 9710100323	Fiche: A0761:028-A0761:034	
October 2, 1997	nonsafety-related system to	oviding staff with insights on importance of overall safety of AP600 design and assist in nal regulatory controls should be applied to	
	acn: 9710070374	Fiche: A0677:301-A0677:307	
October 2, 1997		n) issuing notification of 971007 meeting with P600 general design features and safety Fiche: A0675:341-A0675:343	
October 2, 1997) forwarding summary of 970911 meeting with e protection issues for AP600 design. Fiche: A0675:356-A0675:360	
October 2, 1997	NRC letter (from J. Wilson) forwarding summary of 970925 meeting with Westinghouse regarding first interdisciplinary review of ITAAC for AP600 design.		
	acn: 9710070224	Fiche: A0669:335-A0669:338	
October 2, 1997	650.1 through 650.8 regardi	8. McIntyre) forwarding responses to RAIs ing generic issues and generic sting and valve qualification. Fiche: A0719:289-A0719:298	
October 1, 1997	– ,	B. McIntyre) forwarding response to RAI P verification and validation (part (b) of RAI Fiche: A0719:299-A0719:302	
	aun. 31 10010122	1 1011C. AV/ 13.233 AV/ 13.3VZ	

October 1, 1997	Westinghouse letter (from B. McIntyre) forwarding response to RAI regarding mixing in downcomer and lower plenum during post-RCP trip natural circulation for small break LOCAs. acn: 9710070118 Fiche: A0719:303-A0719:308	
September 30, 1997	Westinghouse letter (from B. McIntyre) forwarding additional information on limiting location for large break LOCA that was requested in with NRC telcon.	
	acn: 9710080008	Fiche: A0721:320-A0721:323
September 30, 1997	method of using truncated of analysis as requested by 97	
	acn: 9710080007	Fiche: A0704:350-A0704:354
September 30, 1997	•	y) issuing summary of 970804-15 meeting tructural design of nuclear island structures. Fiche: A0855:095-A0855:261
September 29, 1997	970627 letter regarding AP6	McIntyre) submitting response to NRC 500 fire protection configuration modeled in 50 pendix 9A of SSAR Revision 1. Fiche: A0621:324-A0621:353
September 26, 1997		. McIntyre) providing Westinghouse AP600 review schedule as agreed at NRC- 70910. Fiche: A1204:348-A1204:349
September 26, 1997	•	y) issuing notification of 971009 meeting with ogress of AP600 design certificate. Fiche: A0630:210-A0630:212
September 26, 1997		. McIntyre) forwarding assessment on surge ower and shutdown risk in response to 970905
	acn: 9710010398	Fiche: A0638:174-A0638:317
September 25, 1997	Westinghouse letter (from B of AP600 SSAR.	. McIntyre) forwarding markup of Chapter 17
	acn: 9710010115	Fiche: A0609:266-A0609:271
September 24, 1997		issuing notification of 970929 meeting with e protection issues related to review of design P600 design. Fiche: A0668:058-A0668:061

September 23, 1997	NRC letter (from J. Sebrosky) forwarding summary of 970910 meeting with Westinghouse regarding design certification schedule for AP600. acn: 9710020179 Fiche: A0600:025-A0600:045	
September 23, 1997	Westinghouse letter (from B. McIntyre) forwarding markup of SSAR Chapter 18 page changes resulting primarily from resolution of NRC human factors engineering ITAAC review comments discussed during 970825 telcon.	
	acn: 9710010142 Fiche: A0608:303-A0608:315	
September 23, 1997	Westinghouse letter (from B. McIntyre) forwarding draft of Figure 5.3-5 of AP600 SSAR, providing dimensions of flow restrictor inside direct vessel injection nozzle as requested in recent telcon. acn: 9710010137 Fiche: A0609:360-A0609:361	
September 23, 1997	Westinghouse letter (from B. McIntyre) forwarding Revision 1 to response to RAI 440.670 provided in 970827 letter which corrects end mode for TS 3.5.4.	
	acn: 9710010129 Fiche: A0609:321-A0609:327	
September 23, 1997	Westinghouse letter (from B. McIntyre) forwarding revised Westinghouse response to NRC RAI regarding AP600 ex-vessel fuel coolant interactions.	
	acn: 9710010095 Fiche: A0608:328-A0608:341	
September 23, 1997	Westinghouse letter (from B. McIntyre) informing that Westinghouse reviewed information within brackets in WCAP-14138, "Final Data Report for PCS Large-Scale Test Phase 2 and Phase 3," non-proprietary class and determined information no longer proprietary. acn: 9709250258 Fiche: A0548:194-A0548:194	
September 23, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouse response to NRC RAI regarding WGOTHIC solver upgrade from version 1.2 to 4.1.	
	acn: 9709250222 Fiche: A0533:310-A0533:339	
September 22, 1997	Westinghouse letter (from B. McIntyre) documents resolution of PCS PIRT and scaling issues discussed during 970916 meeting between NRC and Westinghouse.	
	acn: 9709300080 Fiche: A0593:286-A0593:311	
September 22, 1997	Westinghouse letter (from B. McIntyre) forwarding response to RAI onAP600 NOTRUMP verification and validation.acn: 9709300072Fiche: A0587:340-A0587:348	
September 22, 1997	Westinghouse letter (from B. McIntyre) forwarding non-proprietary versions of topical reports Revision 1 to WCAP-14235, "LOFTRAN and	

.

LOFTTR2 AP600 Code Applicability Document," and Revision 1 to "AP600 LOFTRAN-AP Final Verification and Validation Report." acn: 9709290167 Fiche: A0564:001-A0566:160

September 22, 1997 Westinghouse letter (from B. McIntyre) requesting that proprietary version of material presented at 970313 NOTRUMP meeting be withheld from public disclosure. acn: 9709250223 Fiche: A0561:004-A0561:126

September 22, 1997 Westinghouse letter (from B. McIntyre) forwarding non-proprietary and proprietary presentation material from 970313 NOTRUMP meeting. acn: 9709250217 Fiche: A0561:001-A0561:126

September 19, 1997 Westinghouse letter (from B. McIntyre) providing Westinghouse response to NRC 970521 letter and justifies AP600 difference from NUREG-1431 Section 5.5.5 component cyclic or transient limit program. acn: 9710010103 Fiche: A0609:276-A0609:279

September 19, 1997 Westinghouse letter (from B. McIntyre) advising NRC of implementation of AP600 design change regarding pressurizer heater control logic. acn: 9709290107 Fiche: A0567:343-A0567:344

- September 19, 1997 Westinghouse letter (from B. McIntyre) forwarding response to NRC comment on TS 3.4.10. acn: 9709250149 Fiche: A0559:338-A0559:341
- September 19, 1997 Westinghouse letter (from B. McIntyre) forwarding correspondence previously sent informally over period of 970725-0908. acn: 9709250145 Fiche: A0532:001-A0532:345

September 19, 1997 Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to RAI 640.60 regarding SSAR Section 14.3 and RAIs 640.61 through 640.63 regarding comments on Revision 3 of AP600 certified design material as requested in 970813 letter. acn: 9709250133 Fiche: A0533:001-A0533:207

September 18, 1997 NRC letter (from T. Quay) discussing identification of apparent weak elements in ultimate capacity of AP600 containment equipment hatch covers which form portion of containment boundary. acn: 9709290277 Fiche: A0545:284-A0545:286

September 18, 1997 NRC letter (from J. Wilson) issuing notification of 970925 meeting with listed attendees to perform task group review of ITAAC for instrumentation and control system. acn: 9709290144 Fiche: A0541:358-A0541:360

September 18, 1997Westinghouse letter (from B. McIntyre) forwarding response to comment
41 on AP600 SSAR Chapter 15, "Accident Analyses."
acn: 9709290080Fiche: A0566:345-A0566:350

September 18, 1997 Westinghouse letter (from B. McIntyre) forwarding additional information regarding AP600 large break LOCA WCOBRA-TRAC methodology requested in recent telecons. acn: 9709290040 Fiche: A0567:267-A0567:271

September 18, 1997 NRC letter (from J. Sebrosky) forwarding summary of 970717 0805 0905 and 0911 telecons between Westinghouse and staff members regarding severe accident and PRA issues. acn: 9709260224 Fiche: A0540:308-A0540:320

September 18, 1997 Westinghouse letter (from B. McIntyre) submitting additional information to support AP600 passive RHR heat exchanger heat transfer correlations analyses. acn: 9709250141 Fiche: A0531:359-A0531:361

September 17, 1997 NRC letter (from W. Huffman) discussing 970916 telcon with Westinghouse regarding AP600 design features which help mitigate containment bypass due to multiple SG tube rupture event. acn: 9709290164 Fiche: A0544:280-A0544:283

September 17, 1997 NRC letter (from D. Jackson) advising that AP600 design certification application regarding operation of plant fuel leakage to support review of AP600 radwaste system per Westinghouse 970617 letter (NSD-NRC-97-5118) will be withheld from public disclosure. acn: 9709260215 Fiche: A0540:321-A0540:323

September 17, 1997 Westinghouse letter (from B. McIntyre) forwarding markup of AP600 SSAR reflecting design of containment spray system. acn: 9709230302 Fiche: A0531:307-A0531:344

September 17, 1997 Westinghouse letter (from B. McIntyre) forwarding draft revision of SSAR Section 5.2 to address concern regarding ASME Code Addenda. acn: 9709230300 Fiche: A0529:357-A0529:359

September 17, 1997 Westinghouse letter (from B. McIntyre) forwarding response to request for additional information on AP600 NOTRUMP verification and validation for part (e) of RAI 440.721. acn: 9709230297 Fiche: A0530:068-A0530:071

September 17, 1997 Westinghouse letter (from B. McIntyre) forwarding AP600 level 2 shutdown PRA evaluation calculating shutdown large release frequency using containment event tree methodology from Revision 8 of AP600 at-power PRA. acn: 9709230295 Fiche: A0529:339-A0529:356

September 17, 1997 Westinghouse letter (from B. McIntyre) requesting that proprietary informal correspondence submitted by Westinghouse be withheld from public disclosure. acn: 9709230227 Fiche: A0537:273-A0537:279 September 17, 1997 Westinghouse letter (from B. McIntyre) forwarding proprietary and nonproprietary informal correspondence submitted on 970321. acn: 9709230223 Fiche: A0537:268-A0537:279 September 16, 1997 NRC letter (from J. Wilson) forwarding request for additional information or corrections regarding Revision 3 of AP600 certified design material including ITAAC. acn: 9712080090 Fiche: A1334:286-A1334:295 September 16, 1997 NRC letter (from J. Roe) documenting that staff, as part of continuing review of AP600 ITAAC, has identified two listed policy-level issues. acn: 9709260208 Fiche: A0540:339-A0540:341 NRC letter (from W. Huffman) forwarding request for additional September 16, 1997 information regarding AP600 SSAR Chapter 15 accident analyses and application of WCOBRA-TRAC. acn: 9709250008 Fiche: A0525:349-A0525:352 September 16, 1997 NRC letter (from D. Scaletti) issuing notification of meeting with Westinghouse on 970916-17 to resolve PIRT and scaling issues regarding review of design certification application of AP600 design. acn: 9709230262 Fiche: A0489:346-A0489:357 NRC letter (from W. Huffman) issuing notification of 970923 and 24 September 12, 1997 AP600 design QA and NRC final inspection readiness review to review select Westinghouse documents and/or information regarding AP600 design certification activities. acn: 9709240272 Fiche: A0522:218-A0522:221

September 12, 1997 Westinghouse letter (from B. McIntyre) submitting major issues resulting from NRC structural design review on 970804-15. acn: 9709230109 Fiche: A0507:007-A0507:011

September 12, 1997 Westinghouse letter (from B. McIntyre) requesting that proprietary response to RAI regarding AP600 NOTRUMP verification and validation be withheld from public disclosure per 10 CFR 2.790. acn: 9709230033 Fiche: A0522:029-A0522:043

September 12, 1997 Westinghouse letter (from B. McIntyre) forwarding proprietary and non-proprietary responses to RAI regarding AP600 NOTRUMP verification and validation. acn: 9709230031 Fiche: A0522:025-A0522:043

September 12, 1997	Westinghouse letter (from B. McIntyre) forwarding revised summary of AP600 design and operational features that require exemptions from regulations.	
	acn: 9709220222	Fiche: A0495:348-A0495:353
September 12, 1997		. McIntyre) forwarding revision copy of 961030 per 970603 NRC letter. Fiche: A0497:297-A0497:317
September 12, 1997		. McIntyre) documenting Westinghouse itional clarification made in inspection report 729. Fiche: A0482:351-A0482:355
September 12, 1997	AP600 Security Design Rep Vulnerability Analysis Repor features and other information	. McIntyre) forwarding copies of Revision 4 of ort and Revision 1 of AP600 Security Design t which submits details of physical protection on for NRC review. Fiche: A0441:344-A0441:345
September 11, 1997	equipment survivability for A FSER input and assigned nu NUREG-1465 source term a	y) forwarding open items associated with P600 SER which have been extracted from umbers. Open item regarding application of Ilso identified. Fiche: A0921:326-A0921:332
September 11, 1997	informal correspondence sul public disclosure IAW 10 CF	. McIntyre) requesting that proprietary bmitted by Westinghouse be withheld from R 2.790. Fiche: A0547:006-A0547:012
September 11, 1997		. McIntyre) forwarding non-proprietary and previously sent over period of 970604-0717. Fiche: A0547:001-A0547:012
September 11, 1997	nonsafety-related classificati system located inside contai	McIntyre) submitting justification of on for portion of chemical and volume control nment per 970825 request. Fiche: A0505:352-A0505:356
September 11, 1997	status update for items which	. McIntyre) requesting that NRC provide h impact AP600 TS by 970919. Fiche: A0505:332-A0505:347
September 11, 1997	Westinghouse regarding pro habitability system.	n) forwarding summary of 970828 telcon with posed design changes to AP600 MCR
·	acn: 9709190062	Fiche: A0468:287-A0468:293

September 10, 1997Westinghouse letter (from B. McIntyre) forwarding correspondence
previously sent informally over period of 970605-970724.
acn: 9709170017Fiche: A0442:012-A0442:222

September 10, 1997 NRC letter (from T. Kenyon) issuing notification of 970911 meeting with Westinghouse to discuss fire protection issues on AP600. acn: 9709160312 Fiche: A0414:197-A0414:199

September 10, 1997 Westinghouse letter (from B. McIntyre) forwarding proprietary WCAP-14967, "Assessment of Effects of WGOTHIC Solver Upgrade from Version 1.2 to 4.1," for September 1997. acn: 9709160216 Fiche: A0476:289-A0476:298

September 10, 1997 Westinghouse letter (from B. McIntyre) providing new SSAR Appendix 3G providing criteria for buckling evaluations and changes in Sections 3.8.2.2 and 3.8.2.4.1 required to implement commitment. acn: 9709150199 Fiche: A0429:269-A0429:283

September 10, 1997 Westinghouse letter (from B. McIntyre) forwarding response to request for additional information on Chapter 15.6.5 of AP600 SSAR. acn: 9709150180 Fiche: A0428:344-A0428:345

September 9, 1997 NRC letter (from D. Jackson) informing that 970501 submittal regarding Westinghouse AP600 will be withheld per 10 CFR 2.790(b)(5) and Section 103(b) of Atomic Energy Act of 1954. acn: 9709230237 Fiche: A0485:348-A0485:350

September 9, 1997 NRC letter (from W. Huffman) requesting additional information to complete review of AP600 SSAR Chapter 15 regarding accident analyses. acn: 9709230224 Fiche: A0507:167-A0507:169

September 9, 1997NRC letter (from J. Sebrosky) issuing notification of 970910 meeting with
Westinghouse to discuss schedule for completion of review for AP600.
acn: 9709160267Fiche: A0412:358-A0412:360

September 8, 1997 Westinghouse letter (from B. McIntyre) requesting that proprietary WCAP-14967, "Assessment of Effects of WGOTHIC Solver Upgrade from Version 1.2 to 4.1," be withheld per 10 CFR 2.790. acn: 9709160219 Fiche: A0476:292-A0476:298

September 8, 1997Westinghouse letter (from B. McIntyre) forwarding responses to RAI on
Chapter 15.6.5 of AP600 SSAR.
acn: 9709160151Fiche: A0434:337-A0434:345

September 5, 1997 Westinghouse letter (from B. McIntyre) requesting that proprietary version of presentation material presented by Westinghouse at 970728-29 ACRS meeting be withheld from public disclosure per 10 CFR 2.790. acn: 9709150204 Fiche: A0434:003-A0434:220

September 5, 1997	Westinghouse letter (from B. McIntyre) forwarding proprietary and non-proprietary versions of materials presented by Westinghouse at 970728-29 ACRS meeting.	
	acn: 9709150201	Fiche: A0434:001-A0434:220
September 3, 1997	Westinghouse letter (from E SSAR " Volumes 1-11.	3. McIntyre) forwarding Revision 16 to "AP600
	acn: 9709100064	Fiche: A0358:001-A0361:149
September 3, 1997	and Westinghouse positions Appendix 9A of AP600 SSA features of AP600 smoke co basis.	B. McIntyre) providing additional information s related to smoke control for AP600. R revised to more fully explain unique ontrol on fire area- zone by fire area-zone
	acn: 9709080255	Fiche: A0329:290-A0329:292
August 29, 1997	design review of AP600 adv	cussing major issues resulting from structural vanced reactor standard design regarding basemat and fire water tank designs. Fiche: A0372:250-A0372:256
August 29, 1997		8. McIntyre) responds to RAI regarding AP600 nsitivity and importance analyses. Fiche: A0344:279-A0344:298
August 29, 1997	Westinghouse letter (from E TS for review. acn: 9709090258	B. McIntyre) forwarding draft RCS PIV integrity Fiche: A0353:086-A0353:095
August 29, 1997		8. McIntyre) forwarding Westinghouse dditional information pertaining to AP600 core-concrete interactions. Fiche: A0353:012-A0353:023
August 29, 1997	response to NRC requests f	8. McIntyre) forwarding Westinghouse for additional information and DSER open sive containment cooling system. Fiche: A0351:178-A0351:261
August 29, 1997		8. McIntyre) providing response to NRC 0 SSAR Chapter 15 accident analysis dated Fiche: A0329:293-A0329:309
August 29, 1997	Westinghouse letter (from B address latest NRC review o acn: 9709080254	McIntyre) forwarding markup of TS 3.4.10 to comment. Fiche: A0324:358-A0324:360

August 28, 1997 Westinghouse letter (from B. McIntyre) forwarding supplemental information in response to open item 3.7.2.12-1 discussed during 970811-15 meetings. acn: 9709090273 Fiche: A0353:124-A0353:127 August 28, 1997 Westinghouse letter (from B. McIntyre) forwarding SSAR markup which shows draft changes section 2.3 and 2.4 to remove term site interface. acn: 9709090266 Fiche: A0353:109-A0353:112 August 28, 1997 Westinghouse letter (from B. McIntyre) forwarding advance markup of AP600 TS to modify SR 3.6.9.1 and SR 3.6.9.2 consistent with NRC example provided in question 68 and consistent with NUREG-1432. Fiche: A0353:100-A0353:108 acn: 9709090263 Westinghouse letter (from B. McIntyre) forwarding non-proprietary version August 28, 1997 of Revision 2 to WCAP-14808, "NOTRUMP Final Validation Report for AP600." acn: 9709050098 Fiche: A0291:001-A0295:294 August 28, 1997 NRC letter (from W. Huffman) discussing open issues regarding AP600 radiological consequence assessment at 970807 meeting. acn: 9709020178 Fiche: A0237:311-A0237:317 August 28, 1997 NRC letter (from J. Sebrosky) forwarding December 1996 - August 1997 documentation of AP600 telcon calls regarding details of AP600 human factors ITAAC. acn: 9709020149 Fiche: A0255:189-A0255:211 August 28, 1997 NRC letter (from W. Huffman) forwarding summary of 970826 telcon with Westinghouse regarding AP600 emergency response guidelines. acn: 9709020142 Fiche: A0255:185-A0255:188 Westinghouse letter (from B. McIntyre) forwarding Westinghouse August 27, 1997 response to RAI 440.647 regarding beyond-design-basis SG tube rupture scenarios. acn: 9709090078 Fiche: A0329:310-A0329:319 August 27, 1997 Westinghouse letter (from B. McIntyre) forwarding responses to NRC Reactor Systems Branch RAIs on AP600 TS including resultant SSAR TS markups. acn: 9709040170 Fiche: A0284:067-A0284:108 August 27, 1997 Westinghouse letter (from B. McIntyre) forwarding additional administrative control for AP600 TS "High Radiation Area" and markup of reporting requirement 5.6.1 to address informal questions from NRC radiation protection branch. acn: 9709040157 Fiche: A0285:025-A0285:027

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August 27, 1997	Westinghouse letter (from B. McIntyre) forwarding response to RAI on determination of peak cladding temperature in Chapter 15.6.5 of AP600 SSAR.	
	acn: 9709040139	Fiche: A0284:151-A0284:183
August 27, 1997		n) issuing notification of 970904 meeting with re protection issues on AP600. Fiche: A0251:331-A0251:334
August 26, 1997	WCAP-14073, Revision 1,	B. McIntyre) forwarding list of changes to "AP600 Design Certification Program SPES-2 " and replaces enclosure sent with tter. Fiche: A0285:042-A0285:044
August 26, 1997	of Revision 2 to WCAP-143	B. McIntyre) requesting that proprietary version 809, "AP600 Design Certification Program n Report," be withheld from public disclosure. Fiche: A0306:233-A0306:241
August 26, 1997	of Revision 2 to WCAP-143	B. McIntyre) forwarding non-proprietary version 10, and proprietary version of Revision 2 to ign Certification Program SPES-2 Tests Final Fiche: A0306:229-A0306:284
August 25, 1997	to 1989 addenda of ASME	requesting Westinghouse to remove reference Section III from SSAR or include statement t rely on portion of addenda that staff finds Fiche: A0232:358-A0232:360
August 25, 1997		discussing open item associated with AP600 nd volume control system RCPB piping. Fiche: A0233:357-A0233:359
August 22, 1997	· · ·) forwarding summary of 970808 meeting with e protection issues for AP600 design. Fiche: A0254:289-A0254:334
August 22, 1997) forwarding summary of 970807 meeting with oposed containment spray design for AP600 Fiche: A0228:267-A0228:289
August 22, 1997	-	3. McIntyre) forwarding revised TSs 3.3.1 and system and engineered safety features
	acn: 9708280079	Fiche: A0226:193-A0226:354

August 22, 1997	responses to NRC requests WCAP-14407, "WGOTHIC	••
	acn: 9708280072	Fiche: A0222:096-A0222:334
August 21, 1997	response to NRC RAI regain flooding.	B. McIntyre) forwarding Westinghouse revised rding AP600 shutdown PRA and surge line
	acn: 9709090025	Fiche: A0337:251-A0337:332
August 21, 1997	NRC letter (from T. Quay) f and strainers.	orwarding RAI on AP600 containment screens
	acn: 9708260384	Fiche: A0198:254-A0198:256
August 21, 1997	Revision 1 to WCAP-14234 Applicability Document" and	B. McIntyre) requesting that proprietary , "LOFTRAN and LOFTTR2 AP600 Code d Revision 1 to WCAP-14307, "AP600 R2-AP Final Verification and Validation Report," '90. Fiche: A0211:352-A0211:361
August 21, 1997	WCAP-14234, "LOFTRAN a	B. McIntyre) forwarding Revision 1 to and LOFTTR2 AP600 Code Applicability to WCAP-14307, "AP600 LOFTRAN-AP and tion Report." Fiche: A0211:351-A0211:361
August 21, 1997		B. McIntyre) application for withholding contains commercial strategic information e. Fiche: A0210:155-A0210:250
August 21, 1997	proprietary responses to ad	B. McIntyre) forwarding non-proprietary and Idress requests made in NRC response to r regarding inspection report 99900404-97-01. Fiche: A0210:152-A0210:250
August 21, 1997		B. McIntyre) forwarding Westinghouse revised or additional information pertaining to AP600 Fiche: A0207:281-A0207:289
August 21, 1997	Revision 1 to WCAP-14942 Models."	 McIntyre) forwarding non-proprietary "AP600 Accident Analyses - Evaluation
	acn: 9708250400	Fiche: A0210:059-A0210:151

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August 20, 1997		B. McIntyre) submitting information being estion by NRC staff regarding limited number urbine rotor for AP600. Fiche: A0207:290-A0207:290
August 19, 1997	Westinghouse letter (from l and 3.8.5 regarding electric acn: 9708270111	B. McIntyre) forwarding markup of TS 3.8.1 cal power system. Fiche: A0244:100-A0244:107
August 19, 1997		B. McIntyre) forwarding three copies of DRAI numbered 410.301 through 410.303 Fiche: A0243:330-A0243:334
August 19, 1997		3. McIntyre) forwarding Westinghouse AP600 TS regarding containment system. Fiche: A0224:112-A0224:204
August 19, 1997		B. McIntyre) requesting that proprietary e withheld from public disclosure per 10 CFR Fiche: A0217:003-A0217:259
August 19, 1997	Westinghouse letter (from I	B. McIntyre) forwarding non-proprietary and previously sent informally over period of Fiche: A0217:001-A0217:259
August 19, 1997	NRC letter (from W. Huffma with Westinghouse regardir Operational parameters of a	an) forwarding summary of 970807 meeting ang AP600 MCR habitability system. air flow rates, CO_2 levels, temperature, and h personnel "habitability" of design. Fiche: A0171:314-A0171:319
August 18, 1997		3. McIntyre) submitting proprietary change and PIRT Closure Report," WCAP-14727 Fiche: A0306:021-A0306:022
August 15, 1997	Westinghouse letter (from E	B. McIntyre) forwarding responses to requests Chapter 15.6.5 of AP600 SSAR. Fiche: A0181:259-A0181:292
August 15, 1997	NRC letter (from M. Slosson) informing that proposal in Westinghouse letter NSD-NRC-97-5780 regarding AP600 core makeup tank level instrumentation does not meet requirements of 10 CFR 52.47(a)(2) and is therefore unacceptable.	
	acn: 9708190219	Fiche: A0105:352-A0105:354

August 14, 1997	information in order to com accident analyses based or	an) forwarding request for additional plete review of AP600 SSAR Chapter 15 on n recent discussion with Westinghouse on loss ries transients and boron dilution events. Fiche: A0134:333-A0134:335
August 14, 1997		3. McIntyre) forwarding responses to 8 Chapter 15 accident analysis. Fiche: A0140:338-A0140:344
August 13, 1997	SSAR.	B. McIntyre) forwarding Revision 15 of AP600
	acn: 9708200185	Fiche: A0157:001-A0160:046
August 13, 1997	NRC letter (from T. Quay) forwarding RAI regarding validation of NOTRUMP small break LOCA code for AP600.	
	acn: 9708180040	Fiche: A0104:341-A0104:343
August 12, 1997	Westinghouse letter (from E 2434	3. McIntyre) submitting reponse to open item
	acn: 9708200106	Fiche: A0151:245-A0151:247
August 12, 1997	Westinghouse letter (from E attachment addressing RAI	 McIntyre) submitting revised letter and 480.408.
	acn: 9708180235	Fiche: A0140:345-A0140:352
August 12, 1997) forwarding summary of 970806 safeguards to discuss safeguards issues on AP600
	acn: 9708180044	Fiche: A0104:319-A0104:321
August 11, 1997	• · · ·	 McIntyre) forwarding Westinghouse or additional information pertaining to squib PRA.
	acn: 9708200097	Fiche: A0151:268-A0151:272
August 8, 1997	based on feedback provide	 McIntyre) providing revision to response by NRC during 970805 telcon regarding irveillance program to reflect impending
	acn: 9708200102	Fiche: A0151:248-A0151:250
August 8, 1997	- ·	8. McIntyre) forwarding responses to Chapter 15 accident analysis. Fiche: A0104:162-A0104:169

August 7, 1997		B. McIntyre) requesting that proprietary "AP600 Scaling and PIRT Closure Report " be sure per 10 CFR 2.790. Fiche: A0242:006-A0242:011
August 7, 1997	• •	3. McIntyre) forwarding proprietary "AP600 Scaling and PIRT Closure Report." Fiche: A0242:001-A0242:011
August 7, 1997		3. McIntyre) forwarding SSAR markup of hanges to address open items. Fiche: A0146:182-A0146:209
August 7, 1997	NRC letter (from W. Huffma Chapter 15 accident analys acn: 9708140307	an) forwarding RAI regarding AP600 SSAR is. Fiche: A0074:081-A0074:084
August 7, 1997	NRC letter (from T. Quay) f multiple SG tube rupture ar acn: 9708140298	orwarding RAI regarding Westinghouse AP600 nalysis report. Fiche: A0073:323-A0073:328
August 6, 1997	regarding effect of poisons	3. McIntyre) providing responses to items testing safety classification and conformance r PARS discussed in 970520 meeting. Fiche: A0146:210-A0146:255
August 6, 1997	presentation materials from	3. McIntyre) requesting that proprietary 970701 meeting at NRC on conduction and OTHIC code be withheld from public Fiche: A0103:005-A0103:080
August 6, 1997	non-proprietary presentation	3. McIntyre) forwarding proprietary and n materials used during 970701 meeting at onduction and use in conjunction with ssed. Fiche: A0103:001-A0103:080
August 6, 1997	Westinghouse letter (from E comments received on 970 acn: 9708130280	3. McIntyre) documents response to NRC 702 for SSAR Chapter 7. Fiche: A0068:341-A0068:348
August 5, 1997	. .	3. McIntyre) forwarding Westinghouse or additional information pertaining to AP600 Fiche: A0070:298-A0070:321

August 5, 1997		8. McIntyre) forwarding response to RAI /GOTHIC Application to AP600." Fiche: A0069:001-A0069:283
August 5, 1997	•	n) issuing notification of 970807 meeting with ain control room habitability system issues. Fiche: 94736:021-94736:024
August 4, 1997) issuing notification of 970807 meeting with oposed design for containment spray system Fiche: 94735:359-94735:361
August 4, 1997	•) issuing notification of 970804 meeting with rerview of application of WGOTHIC code to Fiche: 94725:325-94725:327
August 4, 1997	NRC letter (from T. Kenyon) issuing notification of 970806 meeting with estinghouse proposals to address safeguards
	acn: 9708070184	Fiche: 94725:331-94725:332
August 1, 1997	Supplement #1 to draft SEF	8. McIntyre) forwarding response to 8 open item 21.6.5-27 regarding applicability of line break mass and energy releases. Fiche: A0022:042-A0022:046
August 1, 1997	NRC letter (from W. Huffman) forwarding RAI to complete review of applicant submittal regarding Revision 1 of WCAP-14837, "AP600 Shutdown Evaluation Report."	
	acn: 9708070214	Fiche: 94736:041-94736:048
July 31, 1997		y) forwarding summary of 970708 meeting ss design certification issues for AP600. Fiche: A0000:001-A0000:061
July 31, 1997		8. McIntyre) submitting response to concerns of AP600 soil structure interaction. Fiche: A0004:284-A0004:285
July 31, 1997	Westinghouse to discuss 97 regarding site parameters.	y) forwarding summary of 970723 telcon with 70709 submittal of NSD-NRC-97-5227
	acn: 9708050212	Fiche: 94711:280-94711:299

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July 31, 1997	NRC letter (from J. Sebrosky) forwarding summary of 970709 meeting with Westinghouse regarding discuss design certification issues for AP600.	
	acn: 9708050196	Fiche: 94714:184-94714:236
July 30, 1997) issuing notification of 970808 meeting with re protection issues on AP600 including t. Fiche: 94711:196-94711:199
July 30, 1997	NRC letter (from M. Slosson Section 6.1 of AP600 SER. acn: 9708010225	n) discussing open item associated with Fiche: 93996:008-93996:011
July 30, 1997		xy) forwarding summary of 970708 AP600 use submittals concerning hydrogen diffusion Fiche: 93985:283-93985:286
		Tiche: 90900.200-90900.200
July 29, 1997		liscussing 970214 and 0606 request for relief sure vessel code section xi requirements. Fiche: 93985:287-93985:289
July 28, 1997	submit SSAR revisions to c	8. McIntyre) informing that applicant must ertified design material and revisions to PRA irmation IAW 10 CFR 52.45(d) and 10 CFR 521 letter. Fiche: 94736:182-94736:182
July 28, 1997	responses and effects on st requirements.	B. McIntyre) forwarding evaluation of seismic ructural design changes for post 72-hour
	acn: 9708010001	Fiche: 93994:285-93994:340
July 28, 1997		8. McIntyre) requesting that proprietary , "WGOTHIC Application to AP600," be ure per 10 CFR 2.790. Fiche: 93989:110-93989:116
July 28, 1997		8. McIntyre) forwarding proprietary Revision 1 C Application to AP600," dated July 1997. Fiche: 93989:106-93989:116
July 25, 1997	transmittal schedule for info certification application.) forwarding Westinghouse proposed rmation in support of AP600 design
	acn: 9707280125	Fiche: 93973:010-93973:277

July 25, 1997	NRC letter (from J. Sebrosky) issuing notification of 970804-0815 meeting with Westinghouse to discuss AP600 structural design of nuclear structures.	
	acn: 9707280154	Fiche: 93935:022-93935:025
July 25, 1997		n) forwarding requests for additional nced markup AP600 TS per Westinghouse
	acn: 9707280108	Fiche: 93935:059-93935:061
July 24, 1997		8. McIntyre) confirms Westinghouse position ort AP600 passive RHR heat exchanger heat
•	acn: 9708070090	Fiche: 94736:181-94736:181
July 24, 1997	during 970709 senior mgt m	8. McIntyre) responds to discussion conducted neeting with Westinghouse regarding AP600 ff site power and no pressurizer relief valve
	acn: 9708040129	Fiche: 94710:215-94710:216
July 24, 1997		8. McIntyre) forwarding Westinghouse revised AP600 seismic margin analysis. Fiche: 93971:242-93971:253
July 23, 1997	Westinghouse and NRC reg	iscussing 970627 meeting between arding assessment of atmospheric dispersion 600 control room habitability. Fiche: 93934:305-93934:343
July 22, 1997		8. McIntyre) forwarding SSAR markups in sed on telcon with NRC and additional leak Fiche: 93978:022-93978:053
July 22, 1997		B. McIntyre) forwarding corrected markup of
July 21, 1997	question regarding DSER of	B. McIntyre) forwarding response to NRC pen item 3.7.3.2-2 on equivalent static AI 720.391 on seismic margin for containment Fiche: 93949:057-93949:059
	· · · · · · · · · · · · · · · · · · ·	

July 18, 1997	of Westinghouse response	3. McIntyre) requesting that proprietary portion to open items on WCOBRA-TRAC applicability A be withheld from public disclosure. Fiche: 93957:304-93957:353
July 18, 1997	proprietary responses to list	3. McIntyre) forwarding non-proprietary and ted open items regarding WCOBRA-TRAC -break LOCA application for withholding affidavit. Fiche: 93957:302-93957:353
July 18, 1997	Westinghouse letter (from E on AP600 SSAR Chapter 19 acn: 9707250026	3. McIntyre) providing responses to comments 5. Fiche: 93951:311-93951:350
July 18, 1997	Westinghouse letter (from E provided by 970505 and 06 acn: 9707240353	3. McIntyre) responds to technical positions 03 NRC letters. Fiche: 93963:050-93963:286
July 17, 1997	Westinghouse letter (from E through 44.658 regarding sł acn: 9707250033	8. McIntyre) responds to NRC RAIs 44.648 hutdown ERGs. Fiche: 93950:350-93950:359
July 17, 1997		3. McIntyre) forwarding responses to on equipment qualification and equipment Fiche: 93952:163-93952:177
July 17, 1997	Westinghouse letter (from B Emergency Response Guid acn: 9707250010	8. McIntyre) forwarding Revision 4 to "AP600 elines." Fiche: 93952:145-93952:162
July 17, 1997		8. McIntyre) forwarding responses for RAIs g site characterization RAIs. Fiche: 93869:185-93869:189
July 16, 1997	-	8. McIntyre) forwarding SSAR section of ols for listed systems-functions under specified Fiche: 93868:143-93868:192
July 15, 1997		responding to 970617 letter conveying ACRS ff position that AP600 design should include Fiche: 93844:220-93844:228
July 15, 1997		8. McIntyre) forwarding Volumes 1 and 2 of Coolability and Retention of Core Melt." Fiche: 93822:001-93824:224

July 14, 1997	Westinghouse letter (from B. McIntyre) requesting that proprietary report WCAP-14601, "AP600 Accident Analysis - Evaluation Models," Revision 1, be withheld from public disclosure. acn: 9707220055 Fiche: 93869:200-93869:208
July 14, 1997	Westinghouse letter (from B. McIntyre) forwarding application for withholding information from public disclosure of WCAP-14601, "AP600 Accident Analysis - Evaluation Models," Revision 1. acn: 9707220049 Fiche: 93869:198-93869:208
July 11, 1997	Westinghouse letter (from H. Bruschi) expresses appreciation for 970710 letter confirming substantive progress in drafting AP600 final SER and belief that final design approval can be issued in 1998. acn: 9707290058 Fiche: 38260:001-38260:001
July 11, 1997	NRC letter (from D. Jackson) forwarding summary of 970711 meeting with applicant regarding SSAR Section 9.5.1 and Appendix 9A. acn: 9707170053 Fiche: 93810:273-93810:284
July 10, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to two NRC RAI on AP600 PRA. acn: 9707230216 Fiche: 93912:305-93912:309
July 10, 1997	Westinghouse letter (from B. McIntyre) forwarding formal transmittal of correspondence previously sent over period 970515-970605.acn: 9707220036Fiche: 93864:001-93864:173
July 10, 1997	Westinghouse letter (from B. McIntyre) submitting AP600 design certification in response to open item 2275. acn: 9707210164 Fiche: 93867:321-93867:330
July 10, 1997	Westinghouse letter (from B. McIntyre) forwarding Revision 14 to "AP600 Certification of Mechanical and Fluid System Components and Equipment." acn: 9707150374 Fiche: 93797:352-93797:360
July 10, 1997	Westinghouse letter (from S. Collins) informing that significant progress made regarding review of AP600 design certification review. He believes final design approval can be issued in 1998 acn: 9707150229 Fiche: 93739:342-93739:343
July 10, 1997	NRC letter (from W. Huffman) forwarding request for additional information and submits comments regarding 970618 and 06 letters on advanced markup of AP600 TS. acn: 9707150031 Fiche: 93740:013-93740:016
July 9, 1997	Westinghouse letter (from B. McIntyre) forwarding response to request for information regarding AP600 containment pressure to be evaluated with

Appendix A ASME Code Service Level C criteria in conformance with guidance on containment performance in SECY-93-087. acn: 9707160145 Fiche: 93813:315-93813:316 July 9, 1997 Westinghouse letter (from B. McIntyre) submitting response to site parameter questions and comments for key issue 5. acn: 9707150377 Fiche: 93794:304-93794:333 Westinghouse letter (from B. McIntyre) forwarding markup of portion of July 9, 1997 AP600 SSAR Section 10.2.2, which add commitment for mechanical turbine overspeed trip. acn: 9707150376 Fiche: 93806:220-93806:224 July 9, 1997 NRC letter (from J. Sebrosky) forwarding summary of 970630 telcon between NRC and Westinghouse to discuss calculations with MAAP4 and MELCOR 1.8.4. acn: 9707140280 Fiche: 93704:108-93704:140 NRC letter (from J. Sebrosky) forwarding summary of 970613 meeting July 9, 1997 with Westinghouse to discuss status of AP600 review. Fiche: 93704:077-93704:089 acn: 9707110095 July 8, 1997 Westinghouse letter (from B. McIntyre) forwarding Westinghouse response to NRC RAI regarding analysis of containment pressure. acn: 9707170129 Fiche: 93817:308-93817:309 July 7, 1997 NRC letter (from W. Huffman) forwarding RAI regarding AP600 SSAR Chapter 15. acn: 9707110085 Fiche: 93704:101-93704:104 NRC letter (from M. Slosson) discussing review of design changes to July 7, 1997 AP600 resulting from SRM on SECY-96-128, dated 970115, on post-72 hour actions. acn: 9707110046 Fiche: 93687:055-93687:058 July 2, 1997 Westinghouse letter (from B. McIntyre) responds to 970606 telecon regarding AP600 design certification additional level of detail for SSAR Section 9.4 and system diagrams key issue one. acn: 9707090031 Fiche: 93701:172-93701:299 July 1, 1997 Westinghouse letter (from B. McIntyre) requesting that proprietary WCAP-14807, Revision 1, "NOTRUMP Final Validation Report for AP600," be withheld from public disclosure per 10 CFR 2.790. acn: 9707100057 Fiche: 93740:248-93740:257 July 1, 1997 Westinghouse letter (from B. McIntyre) forwarding proprietary WCAP-14807, Revision 2, "NOTRUMP Final Validation Report for AP600," dated June 1997. acn: 9707100051 Fiche: 93740:243-93740:257

June 30, 1997	Staff requirements memo regarding SECY-97-044 "Policy and Key Technical Issues Regarding Westinghouse AP600 Standardized Passive Reactor Design."	
	acn: 9707090386	Fiche: 93691:322-93691:323
June 30, 1997	"AP600 Standard Safety Ar	• •
	acn: 9707070263	Fiche: 93664:002-93664:005
June 30, 1997	PRA report which incorpora	3. McIntyre) forwarding Revision 10 of AP600 tes commitments Westinghouse made in ate material that has previously been provided inclusion in next PRA rev. Fiche: 93664:001-93664:215
June 27, 1997	regarding description of me 2-dimensional conduction the	n) forwarding request for additional information thod to account for circumferential nrough steel containment shell for containment to complete review of AP600 passive CCS. Fiche: A0171:289-A0171:296
June 27, 1997		y) requesting additional information regarding analysis found in AP600 probabilistic risk Fiche: A0171:286-A0171:288
June 27, 1997	Westinghouse letter (from E SSAR. acn: 9707080228	B. McIntyre) forwarding Revision 14 of AP600
		Fiche: 93778:001-93780:307
June 27, 1997	•	3. McIntyre) requesting that proprietary AP600 be withheld from public disclosure per
	acn: 9707070292	Fiche: 93721:006-93721:121
June 27, 1997	Westinghouse letter (from E non-proprietary responses t acn: 9707070289	3. McIntyre) forwarding proprietary and to RAI regarding AP600. Fiche: 93721:001-93721:121
June 27, 1997	regarding AP600 PCS scali	8. McIntyre) forwarding response to RAI ng analysis. Fiche: 93644:001-93644:081
June 27, 1997	discrepancies exist between	n) informing that staff determined that n AP600 fp configuration described in R and fire protection configuration assessed in Fiche: 93586:110-93586:113

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Appendix A	
June 26, 1997	Westinghouse letter (from B. McIntyre) forwarding responses to RAI-470.38, RAI-470.39, and RAI-470.40 which provides additional information regarding aerosol removal mechanism in AP600 containment. acn: 9707030337 Fiche: 93646:346-93646:349
June 26, 1997	Westinghouse letter (from B. McIntyre) informing that Westinghouse has taken new position for creating AP600 design reliability assurance program list of risk-significant structures system and components. acn: 9707030180 Fiche: 93653:209-93653:239
June 25, 1997	Westinghouse letter (from B. McIntyre) submitting information regarding AP600 approach to software failure root cause analysis as requested by NRC at 970609 meeting. acn: 9707070026 Fiche: 93663:356-93663:359
June 25, 1997	NRC letter (from J. Sebrosky) forwarding staff update to DSER open items and requests for additional information regarding Westinghouse AP600 initial test program. acn: 9706300247 Fiche: 93566:199-93566:264
June 24, 1997	Westinghouse letter (from B. McIntyre) forwarding Revision 1 of WCAP-14690, "Designers Input to Procedure Development for AP600 " in response to NRC letter dated 970613 regarding use of AP600 computerized procedure system. acn: 9707140008 Fiche: 93742:036-93742:056
June 24, 1997	NRC letter (from J. Sebrosky) submitting time change for issuing notification of 970708 meeting with Westinghouse to discuss progress of AP600 design certification review in preparation for senior management meeting on 970709. acn: 9707100180 Fiche: 93686:315-93686:316
June 24, 1997	Westinghouse letter (from B. McIntyre) forwarding Revision 2 of Westinghouse response to RAI 410.263 on feedwater system design and testing in response to NRC letter dated 970603. acn: 9707020205 Fiche: 93652:207-93652:212
June 24, 1997	Westinghouse letter (from B. McIntyre) providing explanation as to why it would be inappropriate to include subsystem in TS and provide short term availability controls for hydrogen igniters as alternative. acn: 9707020171 Fiche: 93652:201-93652:206
June 24, 1997	Westinghouse letter (from B. McIntyre) requesting that proprietary Revision 2 to WCAP-14845, "Scaling Analysis for AP600 Containment Pressure During Design Basis Accidents " be withheld from public disclosure per 10 CFR 2.790. acn: 9706300259 Fiche: 93639:353-93639:361

June 24, 1997	Westinghouse letter (from B. McIntyre) forwarding proprietary Revision 2 to WCAP-14845, "Scaling Analysis for AP600 Containment Pressure During Design Basis Accidents." acn: 9706300254 Fiche: 93639:351-93639:361
June 24, 1997	NRC letter (from J. Sebrosky) issuing notification of 970708 meeting with Westinghouse to discuss progress of AP600 design certification review in preparation for senior management meeting on 970709. acn: 9706260331 Fiche: 93552:246-93552:248
June 24, 1997	NRC letter (from J. Sebrosky) issuing notification of senior management meeting with Westinghouse on 970709 to discuss progress of AP600 design certification review. acn: 9706260324 Fiche: 93552:249-93552:251
June 24, 1997	NRC letter (from W. Huffman) forwarding RAI on AP600 SSAR Chapter 15 accident analyses which has been revised by Revisions 12 and 13 of AP600 SSAR. acn: 9706260315 Fiche: 93550:356-93550:359
June 23, 1997	NRC letter (from W. Huffman) forwarding summary of 970425 meeting with Westinghouse regarding resolution of open items for reactor system AP600 PIRT-scaling closure report (WCAP-14727). acn: 9706270221 Fiche: 93554:009-93554:064
June 23, 1997	NRC letter (from W. Huffman) issuing notification of meeting with Westinghouse on 970627 to discuss concerns raised by staff on design of AP600 main control room habitability system and related concerns due to post 72 hour design changes. acn: 9706250266 Fiche: 93506:264-93506:267
June 23, 1997	NRC letter (from W. Huffman) forwarding summary of 970609 meeting with Westinghouse to discuss open item tracking system issues involving instrumentation and control section of AP600 TS Section 3.3. acn: 9706250259 Fiche: 93496:317-93496:322
June 20, 1997	Westinghouse letter (from B. McIntyre) forwarding SSAR markups for Tables 14.3-1 through 14.3-7 in response to 970304 RAI 640.27 concerning followon questions regarding AP600 ITAAC. acn: 9707020240 Fiche: 93651:260-93651:300
June 20, 1997	Westinghouse letter (from B. McIntyre) forwarding response to RAI 470.31 which includes detailed discussion of pH history that has been calculated for IRWST residual water volume following LOCA and impact of low pH in solution on LOCA doses. acn: 9707020224 Fiche: 93652:256-93652:265

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June 20, 1997		3. McIntyre) responds to NRC comment generator tube surveillance program. Fiche: 93652:195-93652:198
June 20, 1997	of Revision 2 to WCAP-147 Final Validation Report" be 2.790.	B. McIntyre) requesting that proprietary version 76, "WCOBRA-TRAC OSU Long-term Cooling withheld from public disclosure per 10 CFR
	acn: 9706300227	Fiche: 93639:344-93639:350
June 20, 1997	Revision 2 to WCAP-14776 Final Validation Report."	 McIntyre) forwarding proprietary version of , "WCOBRA-TRAC OSU Long-term Cooling
	acn: 9706300218	Fiche: 93639:340-93639:350
June 20, 1997	update to 921215 submittal	n) requesting that Westinghouse provide I providing comparison of AP600 design wed version of EPRI URD for passive plants. Fiche: 93499:233-93499:236
June 19, 1997		8. McIntyre) forwarding WCAP-14800, "AP600 ertainty Evaluation for Passive System
	acn: 9706260095	Fiche: 93581:001-93582:209
June 19, 1997	response to requests for ad	8. McIntyre) requesting that proprietary AP600 ditional information and supplemental es be withheld per 10 CFR 2.790. Fiche: 93558:296-93558:340
June 19, 1997	Westinghouse letter (from B NRC requests for additional acn: 9706240256	McIntyre) forwarding proprietary response to information on AP600. Fiche: 93558:292-93558:340
June 19, 1997	Westinghouse letter (from B Emergency Response Guide acn: 9706240086	8. McIntyre) forwarding Revision 3 to "AP600 elines " for review. Fiche: 93548:103-93548:308
June 19, 1997	Applicant provided pages to Requests that applicant repr	iscussing Revision 13 of AP600 SSAR. SSAR where no changes were made. rint SSAR pages that were not modified with and sidebars associated with that revision. Fiche: 93488:329-93488:331
June 18, 1997	justification supporting inform	. McIntyre) submitting conclusion and nation outlined in response to open items and nation regarding containment screens and
	acn: 9706240326	Fiche: 93571:282-93571:297

June 18, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to NRC request for additional information RAIs 410.297, 410.298, and 410.300.	
	acn: 9706240277	Fiche: 93559:344-93559:356
June 18, 1997	meeting with Westinghouse computer code for AP600 re	n) revised issuing notification of 970618 to discuss passive CCS and WGOTHIC eactor design. Fiche: 93498:358-93498:360
	acn: 9706240179	FICHE: 93498:358-93498:360
June 18, 1997	Westinghouse letter (from E Section 16.1, marked up to acn: 9706230299	 McIntyre) forwarding AP600 TSs, SSAR reflect resolution of NRC comments received. Fiche: 93568:003-93570:035
June 18, 1997	NRC letter (from D. Jackson Westinghouse to discuss pa WGOTHIC computer code f acn: 9706200277	n) issuing notification of 970701 meeting with assive containment cooling system and for AP600 reactor design. Fiche: 93452:357-93452:359
June 18, 1997		n) issuing notification of 970623 meeting with sues related to fire protection analysis for Fiche: 93422:004-93422:006
June 17, 1997	position regarding inclusion	e) informing of discussion of proposed staff of containment spray system in AP600 design on 970611-14. Staff contention that addition n system is appropriate. Fiche: 93667:276-93667:278
June 17, 1997		3. McIntyre) requesting that proprietary survey ge for review radwaste systems be withheld Fiche: 93639:313-93639:320
June 17, 1997	non-proprietary surveys of c radwaste systems.	B. McIntyre) forwarding proprietary and operating plant fuel leakage for review
	acn: 9706260084	Fiche: 93639:308-93639:320
June 17, 1997		B. McIntyre) requesting that proprietary version g WCAP-14807, "NOTRUMP Final Validation ablic disclosure. Fiche: 93557:268-93558:068

June 17, 1997	Westinghouse letter (from B. McIntyre) forwarding proprietary and non-proprietary responses to RAI regarding WCAP-14807, "NOTRUMP Final Validation Report."
	acn: 9706230288 Fiche: 93557:266-93558:068
June 16, 1997	NRC letter (from D. Jackson) forwarding summary of 970416-18 meeting with Westinghouse regarding AP600 piping design analysis. acn: 9707280120 Fiche: 93977:059-93977:120
June 16, 1997	Westinghouse letter (from B. McIntyre) forwarding responses to RAI 640.1 through 640.58 regarding AP600 certified design material. acn: 9706200035 Fiche: 93468:196-93468:278
June 13, 1997	Westinghouse letter (from B. McIntyre) forwarding AP600 Level 2 PRA insights and responses to RAIs 492.8 and 230.112. acn: 9706200216 Fiche: 93548:081-93548:087
June 13, 1997	Westinghouse letter (from B. McIntyre) forwarding responses to NRC comments and peer review comments on DOE reports DOE-ID-10541, DOE-ID-10503, and DOE-ID-10504. acn: 9706200170 Fiche: 93469:001-93469:307
June 13, 1997	NRC letter (from M. Slosson) discussing reasons that Westinghouse computerized procedure system throughout AP600 SSAR unacceptable and submits options to correct problem. acn: 9706190227 Fiche: 93435:174-93435:177
June 12, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to RAI regarding AP600 subcompartment pressurization analysis and containment external pressure analysis. acn: 9706250077 Fiche: 93561:340-93561:354
June 12, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouse response to NRC RAI regarding core makeup tank level instrumentation roadmap which closes two open items related to Chapters 21 and 14 of SER.
	acn: 9706200222 Fiche: 93492:283-93492:286
June 12, 1997	Westinghouse letter (from B. McIntyre) forwarding additional page to Enclosure 3 of 970509 letter regarding Westinghouse responses to NRC follow up on questions regarding AP600 initial test program. acn: 9706200033 Fiche: 93470:279-93470:280
June 12, 1997	Westinghouse letter (from B. McIntyre) forwarding Revision 13 to AP600 SSAR (Volume 1-11). acn: 9706190245 Fiche: 93475:001-93482:225

June 12, 1997	NRC letter (from W. Huffman) notifies of 970626 meeting with Westinghouse to discuss final revision of AP600 reactor system PIRT-scaling closure report.	
	acn: 9706160293	Fiche: 93381:327-93381:330
June 12, 1997	with Westinghouse regardir system.	xy) forwarding summary of 970520 meeting ng AP600 containment hydrogen control
	acn: 9706160252	Fiche: 93381:331-93381:337
June 11, 1997	NRC letter (from J. Sebrosky) informing of completed review of AP600 SSAR, Section 1.9 thru Revision 12, and WCAP-13559 "Operational Assessment Report."	
	acn: 9707280231	Fiche: 93935:001-93935:006
June 11, 1997	methodology included in SF results compared to results	
	acn: 9706250086	Fiche: 93574:307-93574:310
June 11, 1997	RAI regarding containment to AP600 initial test program	
	acn: 9706250072	Fiche: 93561:277-93561:316
June 11, 1997	e (8. McIntyre) forwarding responses to DSER I for 220.106 through 220.110. Fiche: 93468:279-93468:293
June 11, 1997	•	xy) issuing notification of 970613 meeting with esign certification issues for AP600. Fiche: 93381:357-93381:359
June 10, 1997	Revision 1 to WCAP-14073	 McIntyre) requesting that proprietary "AP600 Design Certification Program Report," be withheld from public disclosure
	acn: 9706250146	Fiche: 93639:003-93639:011
June 10, 1997		 McIntyre) forwarding proprietary and nonproprietary WCAP-14074, Revision 1,
	acn: 9706250141	Fiche: 93639:001-93639:243
June 10, 1997	– ,	8. McIntyre) requesting that proprietary BRA-TRAC applicability to AP600 large-break lic disclosure. Fiche: 93397:009-93397:063

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June 10, 1997	non-proprietary responses t WCAP-14171, "WCOBRA-T LOCA."	B. McIntyre) forwarding proprietary and to open items regarding Revision 1 to FRAC Application to AP600 Large-Break
	acn: 9706170064	Fiche: 93397:007-93397:063
June 10, 1997		 McIntyre) informing that application of and larger piping using existing bounding 3B of SSAR acceptable. Fiche: 93398:357-93398:359
June 9, 1997		3. McIntyre) responding to 970502 letter n inspection report 99900404-97-01 on
	acn: 9706230162	Fiche: 93570:101-93570:111
June 9, 1997	Revision 1 to WCAP-14812 Evaluation for AP600 Passi from public disclosure per 1	8. McIntyre) requesting that proprietary , "Accident Specification and Phenomena ve Containment Cooling System," be withheld 0 CFR 2.790. Fiche: 93392:224-93392:231
June 9, 1997		8. McIntyre) forwarding proprietary Revision 1 Specification and Phenomena Evaluation for at Cooling System." Fiche: 93392:220-93392:231
June 9, 1997	AP600 regulatory treatment Westinghouse requested to	n) discussing 960506 meeting regarding on non-safety related systems. identify specific system which plans to place Is and provide detailed availability controls. Fiche: 93319:307-93319:309
June 6, 1997	request for exemption from	8. McIntyre) recommending that Westinghouse requirement that automatic depressurization very three months be approved. Fiche: 93399:037-93399:039
June 6, 1997	WCAP-14837, "AP600 Shut	 McIntyre) forwarding Revision 1 of down Evaluation Report," and response to nent question received on 970121. Fiche: 93387:001-93387:292
June 6, 1997	of Inhibitors and Poisons on Recombiners (PARS) for Co	McIntyre) forwarding EPRI Report "Effects Performance of Passive Autocatalytic ombustible Gas Control in ALWRs," requested en control meeting on 970520. Fiche: 93327:192-93327:326

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June 6, 1997	regarding AP600 TS co partial completion of W review.	om B. McIntyre) responds to 970327 letter ompletion times and surveillance frequencies and /estinghouse action for key licensing issue #26 TS
	acn: 9706090279	Fiche: 93332:010-93332:179
June 6, 1997	•	osson) forwarding technical position regarding sign of AP600 to achieve safe shutdown following
	acn: 9706090249	Fiche: 93311:304-93311:307
June 6, 1997	•	uffman) forwarding request for additional eview of AP600 containment design basis analysis
	acn: 9706090248	Fiche: 93311:319-93311:321
June 5, 1997		e to NRC comments on AP600 design changes to ection policy. Fiche: 93312:336-93312:346
June 5, 1997	Westinghouse letter (from to RAI 440.17. acn: 9706090266	om B. McIntyre) forwarding Revision 2 to response Fiche: 93333:198-93333:280
June 5, 1997		om B. McIntyre) forwarding responses to RAIs 1.42 related to site parameters transmitted by Fiche: 93334:291-93334:295
June 5, 1997		affman) submitting comments on AP600 SG tube TS to be incorporated into next revision to AP600
	acn: 9706090244	Fiche: 93311:322-93311:324
June 4, 1997	Westinghouse letter (from B. McIntyre) requesting that Westinghous response to RAI on AP600 be withheld from public disclosure per 10 2.790.	
	acn: 9706100214	Fiche: 93356:214-93356:237
June 4, 1997	-	om B. McIntyre) forwarding proprietary and ses to NRC RAI 440.584, Revision 1, on OSU test
	acn: 9706100211	Fiche: 93356:212-93356:237
June 4, 1997		om B. McIntyre) submitting changes to e to open item that requested information on

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	critical sections that comminut nuclear island basemat. acn: 9706100169	tted to providing design summary report for Fiche: 93357:286-93357:288
June 4, 1997	certification fire protection c	B. McIntyre) resubmits AP600 design open items marked up to reflect resolution of RC during joint fire protection meetings. Fiche: 93357:127-93357:141
June 4, 1997	NRC letter (from T. Kenyon Westinghouse regarding AF acn: 9706060209) forwarding summary of 970519 meeting with P600 fire protection issues. Fiche: 93297:337-93297:341
June 3, 1997	meeting with Westinghouse review.	(y) canceled 970613 senior management to discuss status of AP600 design certification
	acn: 9706160373	Fiche: 93381:341-93381:343
June 3, 1997	accident analysis found in A	
	acn: 9706130370	Fiche: 93346:180-93346:183
June 3, 1997	231.35, 231.36, 231.37, 23 included in 970425 letter.	 McIntyre) providing responses to RAIs 38, and 231.39 related to site requirements
	acn: 9706100096	Fiche: 93354:178-93354:230
June 3, 1997		n) referring to 961206 NRC letter regarding list les for design certification review for AP600. Fiche: 93292:352-93292:354
June 3, 1997	•	n) discussing Westinghouse decision not to eedwater system waterhammer occurrence in decision unacceptable. Fiche: 93292:349-93292:351
June 3, 1997	•	n) discussing potential critical path issues for or AP600. Letter forwards list of specific fire h SECY-90-016. Fiche: 93292:344-93292:348
June 3, 1997	NRC letter (from W. Huffma for Westinghouse response acn: 9706060277	n) forwarding RAI on AP600 shutdown ERGs Fiche: 93297:318-93297:321
June 3, 1997		xy) issuing notification of 970613 meeting with of AP600 design certification review. Fiche: 93292:125-93292:127

June 3, 1997	NRC letter (from D. Jackson) informing that 961030 submittal regarding Westinghouse AP600 design letter of 961030 will be withheld from public disclosure per 10 CFR 2.790.		
	acn: 9706050256	Fiche: 93290:319-93290:322	
June 2, 1997	NRC letter (from T. Kenyon) forwarding RAI of AP600 in order to complete review of design certification regarding seismic margin factor for rigid components with non-ductile supports. acn: 9707110061 Fiche: 93699:213-93699:217		
June 2, 1997	Westinghouse letter (from B. McIntyre) providing responses to open items regarding structural issues. Monitoring of passive containment CW storage tank membrane forces in shear walls and types of stirrups used in basemat slab addressed.		
	acn: 9706100059	Fiche: 93357:338-93357:346	
June 2, 1997		8. McIntyre) forwarding Revision 1 To RAI hich discusses pressurizer safety valve sizing on of Chapter 5 FSER. Fiche: 93334:296-93334:302	
June 2, 1997		8. McIntyre) informing that listed reports issues have been sent to Rockville office for Fiche: 93334:290-93334:290	
	acii. 9700090192	FICILE. 93334.290-93334.290	
June 2, 1997	NRC letter (from W. Huffman) issuing notification of 970609 meeting with Westinghouse to discuss open item tracking system issues. acn: 9706060269 Fiche: 93292:358-93292:360		
May 30, 1997	NRC letter (from T. Kenyon) forwarding report "AP600 Nuclear Islan Confirmatory Analysis of Soil-structure Interaction Effects," which discusses results of staff analysis.		
	acn: 9707110081	Fiche: 93704:105-93704:140	
May 30, 1997 Westinghouse letter (from B. McIntyre) forwarding We response to NRC requests for additional information r thermal-hydraulic uncertainty topic and response to que 970513 telcon.		or additional information regarding AP600	
	acn: 9706090224	Fiche: 93334:157-93334:184	
May 30, 1997	NRC letter (from T. Kenyon) issuing notification of 970612 meeting withWestinghouse to discuss fire protection issues on AP600 design.acn: 9706020265Fiche: 93172:348-93172:350		
May 29, 1997	NRC letter (from J. Sebrosky) forwarding RAI regarding level 2 PRA treatment of anticipated transients without scram transients. acn: 9708040160 Fiche: 93996:326-93996:331		

Appendix A NRC letter (from M. Slosson) informing that after further review on May 29, 1997 Westinghouse AP600 request to change ADS valve test frequency, staff has determined that additional information needed and request denied at this time. acn: 9706020262 Fiche: 93174:091-93174:093 May 28, 1997 NRC letter (from J. Sebrosky) forwarding RAI regarding risk-based seismic margins analysis found in AP600 probabilistic risk assessment. Fiche: 93996:343-93996:346 acn: 9708040151 NRC letter (from W. Huffman) forwarding RAI regarding AP600 adverse May 28, 1997 system interactions for beyond design basis accident scenarios involving SG tube rupture with failure of one or more rector coolant pumps to trip when required. acn: 9706020058 Fiche: 93175:324-93175:327 May 28, 1997 NRC letter (from W. Huffman) providing comments on AP600 TS included with Revision 9 to AP600 SSAR. acn: 9705300237 Fiche: 93157:310-93157:312 May 27, 1997 Westinghouse letter (from B. McIntyre) forwarding formal transmittal of correspondence previously sent informally over period of 970423-0512. Fiche: 93177:001-93177:260 acn: 9706020003 May 23, 1997 Westinghouse letter (from B. McIntyre) forwarding additional information regarding SSAR markup indicating additional changes to passive containment cooling system and revised SSAR figures indicating results of revised WGOTHIC containment pressure analyses. acn: 9706090268 Fiche: 93331:319-93331:360 May 23, 1997 Westinghouse letter (from B. McIntyre) submitting response to RAI 220.111 provided in 970509 letter. acn: 9706090148 Fiche: 93328:217-93328:220 Westinghouse letter (from B. McIntyre) forwarding Westinghouse May 23, 1997 responses to NRC RAI regarding AP600 level 1 PRA. acn: 9706020115 Fiche: 93184:311-93184:322 Westinghouse letter (from B. McIntyre) requesting that response to NRC May 23, 1997 RAI regarding AP600 be withheld from public disclosure per 10 CFR 2.790. acn: 9706020028 Fiche: 93178:248-93178:355 Westinghouse letter (from B. McIntyre) forwarding proprietary and May 23, 1997 non-proprietary responses to RAI 440.339 on NOTRUMP nodalization studies regarding AP600. acn: 9706020024 Fiche: 93178:244-93178:355

May 21, 1997	NRC letter (from T. Quay) providing comments on AP600 TS included with Revision 9 to AP600 SSAR related to administrative controls. acn: 9705300250 Fiche: 93157:257-93157:260
May 21, 1997	NRC letter (from T. Quay) informing that next revision to Westinghouse SSAR be submitted under oath and affirmation to comply with regulations in 10 CFR 52. To correct problem for past revisions to SSAR not submitted under oath and affirmation, letter recommends actions. acn: 9705280432 Fiche: 93136:327-93136:329
May 21, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to NRC RAIs 720.375, 720.377, 720.378, 720.379, 720.382, and 720.388 per AP600 level PRA. acn: 9705280350 Fiche: 93145:351-93145:360
May 21, 1997	Westinghouse letter (from B. McIntyre) forwarding formal transmittal of correspondence previously sent informally over period of 970508-0514. acn: 9705280094 Fiche: 93149:110-93149:287
May 21, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to NRC requests for additional information DSER open items and meeting action items regarding heat and mass transfer aspects of AP600 passive containment cooling system. acn: 9705280033 Fiche: 93139:277-93139:327
May 20, 1997	Westinghouse letter (from B. McIntyre) forwarding formal transmittal of correspondence previously sent informally over period of 970416-30. acn: 9705280325 Fiche: 93138:197-93138:324
May 20, 1997	Westinghouse letter (from B. McIntyre) forwarding markup of SSAR Section 15.6.5.4c "Post-LOCA long- term cooling." acn: 9705280252 Fiche: 93159:024-93159:280
May 20, 1997	Westinghouse letter (from B. McIntyre) requesting that responses to NRC RAI be withheld from public disclosure per 10 CFR 2.790. acn: 9705280210 Fiche: 93162:020-93162:053
May 20, 1997	Westinghouse letter (from B. McIntyre) forwarding non-proprietary and proprietary responses to RAI on WCOBRA-TRAC analysis of OSU test program. acn: 9705280208 Fiche: 93162:016-93162:053
May 19, 1997	Westinghouse letter (from B. McIntyre) forwarding revised AP600 TS 3.7.6 regarding main control room habitability system. acn: 9705280412 Fiche: 93152:280-93152:290
May 19, 1997	Westinghouse letter (from B. McIntyre) forwarding Revision 2 to WCAP-14651, Revision 1 to WCAP-14701, Revision 3 to WCAP-14401,

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	and SSAR Chapter 18 markups to resolve comments received in 970424 letter. acn: 9705280348 Fiche: 93144:001-93144:187	
May 19, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouse response to NRC RAI to open item on AP600 RCPB leak detection instrumentation from SSAR Chapter 16. acn: 9705280344 Fiche: 93152:212-93152:235	
May 19, 1997	Westinghouse letter (from B. McIntyre) forwarding Revision 3 to "Simplified Passive Advanced LWR Plant Program AP600 Certified Design Material." acn: 9705230205 Fiche: 93142:002-93143:105	
May 16, 1997	NRC letter (from W. Huffman) informing that staff evaluating Westinghouse containment analysis in Section 6.2 of AP600 SSAR. acn: 9706200207 Fiche: 93485:335-93485:339	
May 16, 1997	Westinghouse letter (from B. McIntyre) forwarding non-proprietary versions of material provided by Westinghouse letter dated 961028 regarding open items for SSAR. acn: 9705270229 Fiche: 93136:001-93136:073	
May 16, 1997	Westinghouse letter (from N. Liparulo) requesting that proprietary draft report "Preliminary Description of WGOTHIC Evaluation Model " be withheld (reference 10 CFR 2.790). acn: 9705270131 Fiche: 93126:016-93126:027	
May 16, 1997	Westinghouse letter (from B. McIntyre) forwarding proprietary draft report "Preliminary Description of WGOTHIC Evaluation Model." acn: 9705270124 Fiche: 93126:012-93126:027	
May 15, 1997	Westinghouse letter (from B. McIntyre) forwarding formal transmittal of correspondence previously sent informally sent over period of 970314-0411. acn: 9705280359 Fiche: 93145:001-93145:228	
May 15, 1997	Westinghouse letter (from B. McIntyre) forwarding formal transmittal of correspondence previously sent informally over period 970416-0502.acn: 9705280314Fiche: 93141:001-93141:197	
May 15, 1997	Westinghouse letter (from B. McIntyre) transmits correspondence previously sent to NRC over period of 970410-23. acn: 9705280191 Fiche: 93139:001-93139:258	
May 15, 1997	Westinghouse letter (from B. McIntyre) forwarding draft of SSAR Section 15.6.5.4b.1.0 "Small-break LOCA Analysis Methodology." acn: 9705270141 Fiche: 93125:149-93125:279	

May 15, 1997 NRC letter (from J. Sebrosky) forwarding summary of 970422 meeting with Westinghouse to discuss design certification issues for AP600. Fiche: 93069:060-93069:103 acn: 9705220406 May 15, 1997 Westinghouse letter (from B. McIntyre) forwarding two tables showing masses regarding seismic models of AP600 nuclear island. acn: 9705220364 Fiche: 93123:064-93123:066 May 15, 1997 NRC letter (from D. Jackson) forwarding summary of 970414-18 meeting with Westinghouse to discuss Westinghouse SSAR sections 3.7 and 3.8 regarding design and analysis of structural modules review structural design calculations and resolve remaining DSER open items. Fiche: 93067:272-93067:336 acn: 9705220340 May 15, 1997 NRC letter (from W. Huffman) forwarding comments on AP600 TS included with Revision 9 to AP600 standard safety analysis report. Fiche: 93067:337-93067:353 acn: 9705220272 May 15, 1997 NRC letter (from T. Kenyon) forwarding summary of 970513 meeting with Westinghouse to discuss safeguards issues on AP600 design. acn: 9705190303 Fiche: 93038:237-93038:239 May 14, 1997 NRC letter (from J. Sebrosky) forwarding followon questions regarding Westinghouse AP600 initial test program. Fiche: 93459:352-93459:358 acn: 9706200220 May 14, 1997 NRC letter (from D. Jackson) forwarding RAI on Section 12, "Clime Noding Study " of WCAP-14407, "WGOTHIC Application Report." acn: 9706200196 Fiche: 93459:327-93459:333 May 14, 1997 Westinghouse letter (from B. McIntyre) forwarding reissued revised response to RAI 440.120 regarding rapid boron dilution scenarios. acn: 9705270194 Fiche: 93135:330-93135:341 May 14, 1997 Westinghouse letter (from B. McIntyre) forwarding proposed SSAR changes to Appendix 1A regarding additional page to Enclosure 3. acn: 9705220360 Fiche: 93082:235-93082:236 May 14, 1997 Westinghouse letter (from B. McIntyre) forwarding revised response to RAI 440.120 regarding rapid boron dilution scenario. acn: 9705200249 Fiche: 93058:249-93058:260 May 14, 1997 NRC letter (from D. Jackson) forwarding summary of 970505 meeting with Westinghouse to discuss status review of SSAR Section 9.5.1 and Appendix 9A. acn: 9705150198 Fiche: 92964:262-92964:272

May 13, 1997	Westinghouse letter (from B. McIntyre) forwarding draft SSAR markups addressing questions recently raised by NRC staff on valve qualifications related issues.		
	acn: 9705210348	Fiche: 93067:196-93067:206	
May 13, 1997	Westinghouse letter (from B. McIntyre) providing documentation of final general action taken by Westinghouse to resolve key issue 1, "Content of SSAR."		
	acn: 9705210020	Fiche: 93067:245-93067:245	
May 13, 1997		8. McIntyre) providing update on post 72-hr al and seismic analyses to shield building roof. Fiche: 93058:245-93058:248	
May 13, 1997	Westinghouse letter (from B. McIntyre) forwarding draft SSAR markupsregarding structural related issues.acn: 9705200247Fiche: 93058:238-93058:244		
May 13, 1997	NRC letter (from J. Sebrosky) issuing notification of 970520 meeting with Westinghouse to discuss issues associated with AP600 containment hydrogen control system found in Chapter 6.2.4 of SSAR. acn: 9705150205 Fiche: 92963:355-92963:357		
May 13, 1997		y) forwarding summary of 970415 meeting ss issues associated with AP600 PRA. Fiche: 92962:321-92962:355	
May 12, 1997	NRC letter (from D. Jackson) ack receipt of applicant response to key issue 14, "Turbine Overspeed Trip." acn: 9705140347 Fiche: 92887:302-92887:303		
May 9, 1997	NRC letter (from W. Huffman) informing that portions of information submitted in June 1992 application for design certification being withheld from public disclosure pending staff final determination. acn: 9706160305 Fiche: 93381:304-93381:316		
May 9, 1997	• ·	. McIntyre) forwarding responses to NRC staff P600 passive core cooling system. Fiche: 93061:153-93061:158	
May 9, 1997	Westinghouse letter (from B. McIntyre) forwarding AP600 TS LCO 3.0.2 and 3.0.3 reflecting compliance with NRC staff position of letter dated 970403.		
	acn: 9705190156	Fiche: 93040:354-93040:360	
May 9, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouseresponses for additional information regarding AP600 initial test programas requested in NRC 970320 letter.acn: 9705150292Fiche: 93014:005-93014:280		

May 9, 1997		8. McIntyre) forwarding non-proprietary , "AP600 Adverse System Interactions
	acn: 9705150227	Fiche: 93021:249-93021:350
May 9, 1997		8. McIntyre) submitting Westinghouse on regulations on safe shutdown capability 00 new plant. Fiche: 92966:140-92966:142
May 9, 1997	with Westinghouse regardin WGOTHIC computer code f	y) forwarding summary of 970417-18 meeting g passive containment cooling system and or AP600 reactor design. Fiche: 92887:016-92887:101
May 9, 1997	NRC letter (from D. Jacksor Westinghouse AP600 SSAF acn: 9705130358	a) forwarding RAI 460.27 regarding R. Fiche: 92885:304-92885:306
May 9, 1997	finite element model of shiel	a) requesting revised design drawings of 3-d d building roof structures and revised 3-d nuclear island structures for AP600 design to es by end of May. Fiche: 92885:286-92885:288
May 9, 1997		y) forwarding summary of 970415 meeting ing issues associated with lower head integrity ision loads for AP600. Fiche: 92885:183-92885:191
May 9, 1997 May 8, 1997	with listed attendees regard under in-vessel steam explo acn: 9705130282 NRC letter (from J. Sebrosk	ing issues associated with lower head integrity sion loads for AP600.
· •	with listed attendees regarding under in-vessel steam explore acn: 9705130282 NRC letter (from J. Sebrosk regarding deterministic calculation acn: 9706160108 NRC letter (from D. Jackson	ing issues associated with lower head integrity sion loads for AP600. Fiche: 92885:183-92885:191 y) forwarding AP600 PRA review RAI ulations of ex-vessel phenomena.
May 8, 1997	with listed attendees regards under in-vessel steam explo- acn: 9705130282 NRC letter (from J. Sebrosk regarding deterministic calcu- acn: 9706160108 NRC letter (from D. Jackson regarding AP600 advanced geosciences branch area. acn: 9706130372 Westinghouse letter (from B	ing issues associated with lower head integrity sion loads for AP600. Fiche: 92885:183-92885:191 y) forwarding AP600 PRA review RAI ulations of ex-vessel phenomena. Fiche: 93368:352-93368:355 a) forwarding RAIs #230.133 - 230.188 reactor design in civil engineering and Fiche: 93346:175-93346:179 . McIntyre) forwarding Westinghouse meeting action items regarding AP600 PRA
May 8, 1997 May 8, 1997	with listed attendees regarding under in-vessel steam explo- acn: 9705130282 NRC letter (from J. Sebrosk regarding deterministic calculation acn: 9706160108 NRC letter (from D. Jackson regarding AP600 advanced geosciences branch area. acn: 9706130372 Westinghouse letter (from B responses to NRC RAI and modeling of SG tube rupture acn: 9705130367 NRC letter (from D. Jackson	ing issues associated with lower head integrity ision loads for AP600. Fiche: 92885:183-92885:191 y) forwarding AP600 PRA review RAI ulations of ex-vessel phenomena. Fiche: 93368:352-93368:355 a) forwarding RAIs #230.133 - 230.188 reactor design in civil engineering and Fiche: 93346:175-93346:179 . McIntyre) forwarding Westinghouse meeting action items regarding AP600 PRA e events.

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May 7, 1997	NRC letter (from D. Jackson) forwarding RAI regarding WC scaling analysis for AP600 containment pressure during DB acn: 9706130373 Fiche: 93346:170-93346:174	
May 7, 1997	Westinghouse letter (from B. McIntyre) requesting that prop Revision 3 to WCAP-12980, "AP600 Passive RHR Heat Exe Final Report" be withheld from public disclosure per 10 CFF acn: 9705280201 Fiche: 93138:006-93138:013	changer Test
May 7, 1997	Westinghouse letter (from B. McIntyre) forwarding proprieta WCAP-12980 and nonproprietary WCAP-13573 "AP600 Pa Test Final Report, " which incorporates comments from 970 acn: 9705280198 Fiche: 93138:001-93138:180	ssive RHR HX
May 7, 1997	Westinghouse letter (from B. McIntyre) forwarding Westingh responses to RAIs 410.244, 245, 246, 247, and 248, and R acn: 9705280194 Fiche: 93145:265-93145:287	
May 7, 1997	Westinghouse letter (from B. McIntyre) forwarding set of SS for Section 3.6.3 and Appendix 3B to address open items re leak-before-break. acn: 9705280187 Fiche: 93140:351-93140:358	
May 7, 1997	Westinghouse letter (from B. McIntyre) requesting that prop Revision 1 to WCAP-14326, "Experimental Basis for AP600 Vessel Heat and Mass Transfer Correlations," be withheld (CFR 2.790). acn: 9705280132 Fiche: 93138:185-93138:191	Containment
May 7, 1997	Westinghouse letter (from B. McIntyre) forwarding proprieta to WCAP-14326, "Experimental Basis for AP600 Containme Heat and Mass Transfer Correlations." acn: 9705280120 Fiche: 93138:181-93138:191	
May 7, 1997	Westinghouse letter (from B. McIntyre) forwarding response regarding AP600 RTNSS initiating event evaluation. acn: 9705130316 Fiche: 92899:042-92899:047	to RAI
May 7, 1997	NRC letter (from T. Kenyon) forwarding summary of 970418 regarding schedule for AP600 design. acn: 9705130258 Fiche: 92885:032-92885:070	3 meeting
May 6, 1997	Westinghouse letter (from B. McIntyre) providing NRC with documentation of technical corrective actions taken related independent review of AP600 plant basemat design calculat acn: 9705140338 Fiche: 92944:356-92945:052	to

May 6, 1997	Westinghouse letter (from E SSAR (Volumes 1-11)." acn: 9705090097	3. McIntyre) forwarding Revision 12 to AP600 Fiche: 92952:001-92956:277
	ach. 9705090097	Fiche: 92952.001-92956.277
May 5, 1997		n) forwarding list of staff technical positions olving acceptability of Westinghouse approach
	acn: 9705070368	Fiche: 92789:132-92789:138
May 2, 1997		 McIntyre) forwarding dates for completion of ajor submittals identified on draft activity plan 6.
	acn: 9705280204	Fiche: 93145:288-93145:293
May 2, 1997	Westinghouse letter (from E 3.7.2.12-1 included in 9703	 McIntyre) responding to DSER open item 04 letter.
	acn: 9705140053	Fiche: 92963:175-92963:195
May 1, 1997		 McIntyre) requesting that portions of 970416-18 meetings with NRC be withheld 0 CFR 2 790
	acn: 9709020245	Fiche: A0234:082-A0234:111
May 1, 1997	nonproprietary versions of p	B. McIntyre) forwarding proprietary and presentation materials from 970416-18 g open items associated with
	acn: 9709020237	Fiche: A0234:079-A0234:111
May 1, 1997		8. McIntyre) forwarding Revision 1 to npact of Diffusion Flames on AP600 etrations." Fiche: 92859:251-92859:334
May 1, 1997		B. McIntyre) requesting that proprietary re of leak-before- break open items be Fiche: 92850:355-92850:362
May 1, 1997	nonproprietary versions of p	8. McIntyre) forwarding proprietary and presentation materials from 970418 meeting ems associated with leak-before-break piping. Fiche: 92850:343-92850:362
May 1, 1997	•	n) forwarding staff evaluation regarding r live load in AP600 seismic model. Fiche: 92776:121-92776:123

May 1, 1997	NRC letter (from D. Jackson) forwarding RAI on AP600 advanced reactor design. acn: 9705050270 Fiche: 92759:175-92759:177
May 1, 1997	NRC letter (from W. Huffman) forwarding RAI regarding AP600 containment pressure analysis in Section 6.2 of SSAR. acn: 9705050265 Fiche: 92759:187-92759:190
April 30, 1997	Westinghouse letter (from B. McIntyre) forwarding three copies of responses to RAI regarding automatic ADS testing performed in support of AP600 design provided to close open items. acn: 9705140018 Fiche: 92948:312-92948:326
April 30, 1997	Westinghouse letter (from B. McIntyre) forwarding three copies ofresponse to open item regarding AP600 DSER item 21.6.2.4-4.acn: 9705140013Fiche: 92938:357-92938:360
April 30, 1997	Westinghouse letter (from B. McIntyre) forwarding response to NRC RAI on preoperational testing of AP600 passive safety system during initial test programs and proposes two additional tests. acn: 9705140002 Fiche: 92963:153-92963:164
April 30, 1997	Westinghouse letter (from B. McIntyre) forwarding discussion of GDC-2 design bases. Westinghouse has adopted as appropriate for equipment added to AP600 design. acn: 9705130262 Fiche: 92935:213-92935:214
April 30, 1997	Westinghouse letter (from B. McIntyre) forwarding response to 970423 RAI regarding AP600 ADS valves. acn: 9705120259 Fiche: 92883:023-92883:026
April 30, 1997	Westinghouse letter (from B. McIntyre) forwarding three copies of non-proprietary Westinghouse report WCAP-14407, "WGOTHIC Application to AP600." acn: 9705090182 Fiche: 92861:001-92861:318
April 30, 1997	Westinghouse letter (from H. Bruschi) responding to 970306 letter transmitting SECY-97-051 "Schedule for Staff Review of AP600 Design Certification Application." acn: 9705070163 Fiche: 92822:357-92822:359
April 30, 1997	NRC letter (from D. Jackson) forwarding summary of 970421 meeting with Westinghouse regarding status of review of SSAR fire protection analysis. acn: 9705020208 Fiche: 92700:168-92700:171
April 29, 1997	NRC letter (from W. Huffman) forwarding summary of 970313 meeting with Westinghouse regarding overall conclusions from AP600 NOTRUMP computer code final V and V. acn: 9705020186 Fiche: 92699:316-92699:356

April 28, 1997	Westinghouse letter (from B. McIntyre) requesting that proprietary version of Revision 1 to WCAP-14135 be withheld from public disclosure per 10 CFR 2.790.	
	acn: 9705050119	Fiche: 92759:242-92759:334
April 28, 1997	non-proprietary versions of	3. McIntyre) forwarding proprietary and Revision 1 to "Final Data Report for PCS and Phase 3," WCAP-14135 and
	acn: 9705050112	Fiche: 92759:228-92759:334
April 25, 1997		3. McIntyre) forwarding summary of key issue beed trip and description of AP600 design. Fiche: 92853:345-92853:350
April 25, 1997		3. McIntyre) forwarding AP600 PRA data iscussions of 970415 PRA meeting including 10 and 19.1.3.1-13. Fiche: 92730:001-92730:030
April 25, 1997	Westinghouse letter (from E resolutions of items associa acn: 9705010124	8. McIntyre) consolidates responses and ited with SSAR section 9.4. Fiche: 92726:289-92726:345
April 25, 1997		n) forwarding RAI regarding Westinghouse n items on AP600 advanced reactor design on 11. Fiche: 92671:347-92671:353
April 25, 1997	NRC letter (from W. Huffma Westinghouse to have follow	n) issuing notification of 970502 meeting with wup discussions from 970403 RTNSS meeting ence margins for focused PRA and related
April 25, 1997) issuing notification of 970513 meeting with oposed safeguards approach for AP600. Fiche: 92679:056-92679:057
April 24, 1997	•	n) forwarding RAI on WCAP-14848, "Scaling ment Pressure During Design Basis Fiche: 93205:154-93205:169
April 24, 1997	NRC letter (from W. Huffma omissions or misplaced info	nn) informing of editorial type inconsistencies rmation in Chapter 18 of AP600 standard elated WCAP on human factors engineering. Fiche: 92673:338-92673:341

Appendix A		
April 24, 1997	WCOBRA-TRAC for long terr) forwarding RAI regarding application of m cooling analyses of AP600. Fiche: 92622:248-92622:250
April 23, 1997	resolution of AP600 design co SSAR.	McIntyre) submitting information regarding ertification key issue #1 and content of Fiche: 92730:148-92730:150
	acn: 9705010159	FICHE: 92730.146-92730.130
April 23, 1997	-	McIntyre) requesting that proprietary 0328 ACRS meeting be withheld per 10
	acn: 9704290314	Fiche: 92681:227-92681:322
April 23, 1997		McIntyre) forwarding proprietary and sentation materials from 970328 ACRS
	-	Fiche: 92681:224-92681:322
April 23, 1997	•	McIntyre) requesting that proprietary '0312 meeting regarding long term cooling 0.
	acn: 9704290299	Fiche: 92687:004-92687:086
April 23, 1997	presentation material from 97 cooling.	McIntyre) forwarding proprietary 0312 meeting with staff regarding long term
	acn: 9704290290 F	Fiche: 92687:001-92687:086
April 23, 1997		McIntyre) submitting Westinghouse and comments regarding AP600 TS for
		Fiche: 92693:255-92693:266
April 23, 1997	-	informing that staff removed proprietary and Summary Report Nuclear Island
	•	Fiche: 92623:328-92623:330
April 23, 1997	• •	issuing notification of 970505 meeting with 600 fire protection analysis and related open
	acn: 9704250175 F	Fiche: 92622:295-92622:297
April 22, 1997	that identify changes required normal residual heat removal	McIntyre) forwarding AP600 SSAR markups to implement isolation requirements for system. Fiche: 92719:178-92719:192

April 22, 1997	NRC letter (from T. Quay) discussing review of Westinghouse letter NSD-NRC-97-4986 dated 970214 which requested relief under 10 CFR 50.12, "Specific Exemptions, " from section XI test frequency requirements for ADS stage 1, 2, 3 valves.
	acn: 9704240138 Fiche: 92614:320-92614:322
April 22, 1997	NRC letter (from D. Jackson) forwarding summary of 970407 meeting with Westinghouse to provide Westinghouse feedback on status of review of SSAR Sections 9.5.1, 9A, and fire protection analysis. acn: 9704240131 Fiche: 92601:348-92601:351
April 21, 1997	Westinghouse letter (from B. McIntyre) requesting that proprietary Westinghouse output for ex-vessel fuel coolant interactions analysis for AP600 be withheld per 10 CFR 2.790. acn: 9704280132 Fiche: 92669:005-92669:045
April 21, 1997	Westinghouse letter (from B. McIntyre) forwarding proprietary Westinghouse output for ex-vessel fuel coolant interactions analysis for AP600.
	acn: 9704280126 Fiche: 92669:001-92669:045
April 21, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouse response to NRC RAI regarding to AP600 hydrogen diffusion flame topic. acn: 9704280011 Fiche: 92671:209-92671:232
April 18, 1997	NRC letter (from J. Sebrosky) forwarding followon questions regarding AP600 ITAAC resulting from review done by containment system and severe accident branch.
	acn: 9705280425 Fiche: 93136:273-93136:281
April 17, 1997	Westinghouse letter (from B. McIntyre) requesting that proprietary responses to NOTRUMP request for additional information be withheld per 10 CFR 2.790.
	acn: 9704250171 Fiche: 92636:199-92636:206
April 17, 1997	Westinghouse letter (from B. McIntyre) forwarding proprietary responses to NRC requests for additional information 440.335, 336, 338, 342, 441, 442, 443, 444, and 446 on NOTRUMP computer code. acn: 9704250157 Fiche: 92636:195-92636:206
April 17, 1997	Westinghouse letter (from B. McIntyre) providing documentation of information provided in telcon regarding input assumptions for calculation of aerosol removal coefficients in AP600 containment. acn: 9704220037 Fiche: 92593:280-92593:283

April 17, 1997	· · · ·	equesting that revised dates for items listed in complete NRC review of AP600 design
	acn: 9704210155	Fiche: 92575:285-92575:289
April 16, 1997	Revision 0 to WCAP-14869	McIntyre) forwarding non-proprietary "MAAP4-NOTRUMP Benchmarking to AP600 PRA Success Criteria Analyses. Fiche: 92588:001-92589:096
April 15, 1997	.	McIntyre) providing Westinghouse for additional information pertaining to AP600 core debris topic. Fiche: 92720:001-92720:163
April 15, 1997	Westinghouse letter (from B related to SSAR Sections 3. acn: 9704230182	. McIntyre) forwarding responses for items 7 and 3.8. Fiche: 92622:073-92622:078
April 15, 1997	Westinghouse letter (from B initial comments on AP600 r acn: 9704230172	. McIntyre) forwarding responses to listed revised TSs dated 961224. Fiche: 92621:150-92621:168
April 15, 1997		McIntyre) responding to NRC request to own test data for use in TRAC code validation. Fiche: 92622:071-92622:072
April 15, 1997	from two ROSA tests AP-BC pressure PRHR flow PRHR	. McIntyre) requesting that staff provide data D-01 and AP-CL-04 which includes system inlet and outlet fluid temps PRHR tubes emps as function of time for completion of
	acn: 9704230131	Fiche: 92597:351-92597:352
April 15, 1997	WCAP-14837, "AP600 Shut	. McIntyre) forwarding Revision 0 to down Evaluation Report " which provides utline defined in 970205 letter for inclusion in
	acn: 9704220147	Fiche: 92580:001-92580:262
April 11, 1997	resolutions of items associa	. McIntyre) consolidates responses and ted with SSAR Section 3.8.2 and confirms hal documentation related to SSAR Section 00 design certification. Fiche: 92622:153-92622:164
April 11, 1997		. McIntyre) confirms completion of submittal ding SSAR Section 3.6.2, "Determination of

	Break Locations and Dyna of Piping," for AP600 desig acn: 9704240048	mic Effects Associated with Postulated Rupture n certification. Fiche: 92622:108-92622:109
April 11, 1997		B. McIntyre) forwarding markups of SSAR 2 that address open items associated with ave been closed. Fiche: 92622:086-92622:099
April 11, 1997	PRA.	B. McIntyre) forwarding Revision 9 of AP600
	acn: 9704180108	Fiche: 92559:001-92561:302
April 11, 1997	•	n) forwarding summary of 970325 meeting with P600 design review on PCS and WGOTHIC
	acn: 9704170004	Fiche: 92523:153-92523:221
April 11, 1997	Westinghouse to discuss c	ky) issuing notification of 970415 meeting with omments that were sent in 970325 letter ad Integrity under In-vessel Steam Explosion
	acn: 9704160225	Fiche: 92515:350-92515:352
April 11, 1997		discussing 961206 letter regarding list of in design certification process of AP600. Fiche: 92483:325-92483:327
April 10, 1997		n) issuing notification of 970421 meeting with /estinghouse AP600 fire protection analysis
	acn: 9704180071	Fiche: 92532:118-92532:120
April 10, 1997		an) forwarding summary of 970312 meeting isultants regarding AP600 application of ies. Fiche: 92518:214-92518:294
April 10, 1997	Westinghouse in Rockville I and related open items.	n) issuing notification of 970421 meeting with Md to discuss AP600 fire protection analysis
	acn: 9704110161	Fiche: 92460:176-92460:178
April 9, 1997	•	n) forwarding summary of 970324 meeting Immer events observed during AP600 testing. Fiche: 92460:172-92460:175

April 9, 1997	NRC letter (from W. Huffma passive safety system termi acn: 9704100125	n) forwarding comments on AP600 ERG ination guidance. Fiche: 92418:350-92418:357
April 8, 1997		8. McIntyre) forwarding responses for number I module design and analysis. Fiche: 92496:353-92496:360
April 8, 1997	Westinghouse letter (from E content of AP600 SSAR. acn: 9704150216	B. McIntyre) discussing key issue #1 regarding Fiche: 92511:136-92511:136
April 8, 1997	NRC letter (from T. Kenyon) management meeting with \) issuing notification of 970422 senior Westinghouse to discuss progress of AP600 nd status of key technical issues for AP600. Fiche: 92418:341-92418:343
April 8, 1997	Westinghouse to discuss iss 970403 letter.	y) issuing notification of 970415 meeting with sues associated with AP600 PRA detailed in
	acn: 9704100134	Fiche: 92418:278-92418:280
April 8, 1997		onfirms NRC inspection regarding nced reactor design quality control activities on
	acn: 9704100111	Fiche: 92418:338-92418:340
April 8, 1997) issuing notification of 970418 meeting with atus of key technical issues on AP600. Fiche: 92418:324-92418:326
April 7, 1997	main control room dose ana boiling.	. McIntyre) forwarding results of offsite and lysis considering AP600 spent fuel pool
	acn: 9704240042	Fiche: 92622:100-92622:107
April 7, 1997		y) forwarding summary of 970401 telecon to nent of Westinghouse on approach for
	acn: 9704100163	Fiche: 92416:302-92416:336
April 7, 1997	•	a) forwarding summary of 970305 meeting with house to discuss improved means for closure le and PCS design review. Fiche: 92389:096-92389:098

April 7, 1997	NRC letter (from d. Jackson) forwarding summary of 970311 telecon with listed participants to discuss resolution paths for open issues in AP600 structural and seismic analyses design review. acn: 9704080238 Fiche: 92389:087-92389:089
April 4, 1997	ACRS letter (from R. Seale) forwarding summary of 439th meeting of ACRS on 970306-08 regarding release of AP600 test data from ROSA test facility report.
	acn: 9705130186 Fiche: 92946:036-92946:045
April 4, 1997	Westinghouse letter (from B. McIntyre) providing responses to questions, comments, and discussion items regarding Westinghouse "AP600 Adverse Systems Interaction Report," WCAP-14477. acn: 9704160049 Fiche: 92512:350-92512:361
April 3, 1997	Westinghouse letter (from B. McIntyre) confirming completion of submittal of final documentation related to SSAR Chapter 17. acn: 9704100226 Fiche: 92461:333-92461:334
April 3, 1997	Westinghouse letter (from B. McIntyre) confirms completion of submittal of final documentation regarding SSAR Chapter 13. acn: 9704100050 Fiche: 92461:347-92461:348
April 3, 1997	NRC letter (from T. Martin) discussing key issue #11 involving system reliability of hydrogen mitigation system for design-basis accidents and severe accidents. acn: 9704070248 Fiche: 92358:309-92358:311
April 3, 1997	NRC letter (from T. Martin) discussing key issue #19 involving Westinghouse proposed modification to STS LCO 3.0.3. acn: 9704070243 Fiche: 92358:305-92358:308
April 3, 1997	NRC letter (from T. Martin) discussing schedule for level 1 AP600 PRA. acn: 9704070233 Fiche: 92358:312-92358:314
Ápril 3, 1997	NRC letter (from W. Huffman) forwarding RAI on "NOTRUMP Validation Report," WCAP-14807. acn: 9704040192 Fiche: 92331:342-92331:350
April 3, 1997	NRC letter (from W. Huffman) issuing notification of 970425 meeting with Westinghouse to discuss how Westinghouse intends to address remaining open items associated with reactor system PIRT-scaling closure report and related concerns raised by ACRS T-H subcommittee. acn: 9704040184 Fiche: 92333:155-92333:158
April 2, 1997	Westinghouse letter (from B. McIntyre) confirms completion of submittal of final documentation regarding SSAR Section 3.2 classification of

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• •	structures components and systems for application for AP600 design certification.
	acn: 9704100233 Fiche: 92461:343-92461:344
April 2, 1997	Westinghouse letter (from B. McIntyre) confirms completion of submittal of final documentation regarding SSAR Chapter 8. acn: 9704100067 Fiche: 92461:330-92461:331
April 2, 1997	Westinghouse letter (from B. McIntyre) confirms completion of submittalof final documentation regarding SSAR Section 6.5.acn: 9704080401Fiche: 92390:312-92390:313
April 2, 1997	Westinghouse letter (from B. McIntyre) confirms completion of submittalof final documentation regarding SSAR Section 6.1.acn: 9704080400Fiche: 92390:310-92390:311
April 2, 1997	Westinghouse letter (from B. McIntyre) consolidates responses and resolutions of items associated with SSAR Chapter 18 to confirm completion of submittal of final documentation regarding SSAR Chapter 18.
	acn: 9704080399 Fiche: 92390:287-92390:309
April 2, 1997	NRC letter (from J. Sebrosky) forwarding summary of 970205 meeting with Westinghouse to discuss issues associated with AP600 ITAAC. acn: 9704080233 Fiche: 92388:274-92388:315
April 2, 1997	NRC letter (from D. Jackson) issuing notification of 970407 meeting with Westinghouse to discuss Westinghouse AP600 fire protection analysis and related open items. acn: 9704040170 Fiche: 92332:346-92332:349
April 2, 1997	NRC letter (from D. Jackson) issuing notification of 970417 and 18 meeting with Westinghouse to discuss Westinghouse reports on phenomena identification and ranking table and scaling. acn: 9704040167 Fiche: 92331:356-92331:359
April 2, 1997	NRC letter (from D. Jackson) forwarding staff review of Westinghouse 970128 and 0210 letters regarding two key AP600 issues nuclear island foundation mat adequacy and site parameters for seismic design. acn: 9704030142 Fiche: 92329:351-92329:357
April 1, 1997	Westinghouse letter (from B. McIntyre) forwarding formal transmittal of mark-up SSAR Sections open items and draft responses to NRC questions previously submitted informally. acn: 9704150193 Fiche: 92490:120-92491:005

April 1, 1997	Westinghouse letter (from B. McIntyre) consolidating responses and resolutions of items associated with SSAR Chapter 7 for application for AP600 design certification.	
	acn: 9704100228	Fiche: 92461:335-92461:342
April 1, 1997		8. McIntyre) forwarding WCAP-14846, "Scaling ment Pressure During Design Basis
	acn: 9704080195	Fiche: 92390:001-92390:206
April 1, 1997		discussing 961206 letter transmitting list of in design certification process for AP600. Fiche: 92330:091-92330:095
March 31, 1997		B. McIntyre) providing draft AP600 PRA change impact on low-power and shutdown
	acn: 9704070082	Fiche: 92364:001-92364:162
March 28, 1997	•	n) forwarding updated status of RAI open ponses where staff needs additional details
	acn: 9704010479	Fiche: 92312:115-92312:118
March 28, 1997		n) issuing notification of 970403 meeting with P600 RTNSS and thermal hydraulic
	acn: 9704010169	Fiche: 92291:270-92291:272
March 28, 1997	•	n) requesting additional information on AP600 mal-hydraulic uncertainty in PRA success
	acn: 9704010066	Fiche: 92291:259-92291:265
March 27, 1997	961224 letter regarding TS	
	acn: 9704010571	Fiche: 92307:324-92307:350
March 27, 1997	meetings with Westinghous open items related to SSAR	
	acn: 9704010472	Fiche: 92292:280-92292:319
March 27, 1997	stated that 27 key licensing	Collins) responding to 970306 letter which issues associated with AP600 design be resolved to maintain review schedule of
	acn: 9704010184	Fiche: 92322:216-92322:218

March 27, 1997	NRC letter (from T. Martin) informing that staff determined that overall quality of system drawings and piping and instrumentation drawings inadequate to support review.	
	acn: 9704010058	Fiche: 92291:255-92291:258
March 27, 1997	•	n) issuing notification of 970414-18 meeting to supporting documents for structural modules 00 standard plant. Fiche: 92291:250-92291:253
March 27, 1997	with Westinghouse to revie	n) issuing notification of 970416-18 meeting w design calculations and supporting of LBB methodology to AP600 standard plant. Fiche: 92291:245-92291:249
March 26, 1997	of final documentation rega	B. McIntyre) confirms completion of submittal arding SSAR Section 6.6 on ISI of Class 2 and on for AP600 design certification. Fiche: 92385:349-92385:350
March 26, 1997		 McIntyre) forwarding responses for open proposed changes to SSAR Section 2.5 and
	acn: 9704030251	Fiche: 92363:164-92363:236
March 25, 1997	entitled "Lower Head Integ	ky) forwarding comments regarding report rity under In-vessel Steam Explosion Loads," or currently unscheduled telecon. Fiche: 92827:186-92827:196
March 25, 1997		3. McIntyre) consolidates responses and ated with SSAR Section 3.10. Fiche: 92499:346-92499:360
March 25, 1997	of final documentation rega AP600 design certification.	B. McIntyre) confirming completion of submittal rding SSAR Section 6.1 for application for
	acn: 9704150072	Fiche: 92505:298-92505:298
March 25, 1997	•	3. McIntyre) confirming completion of submittal rding SSAR Chapter 13 for application for
	acn: 9704150069	Fiche: 92505:297-92505:297
March 25, 1997		n) forwarding summary of 970303 meeting with ting of AP600 on shallow soil sites and design
	acn: 9703280434	Fiche: 92275:228-92275:324

March 25, 1997	Westinghouse to discuss re	n) forwarding summary of 970306 meeting with evised WCAP-14845, 14812, and WGOTHIC esign issue closure process. Fiche: 92276:005-92276:045
March 24, 1997	of final documentation rega	3. McIntyre) confirms completion of submittal rding PRA Chapter 42 conditional containment n for application for AP600 design certification. Fiche: 92504:359-92504:360
March 24, 1997	• •	8. McIntyre) forwarding "AP600 Multiple SG ort" in response to NRC"s containment bypass 93-087. Fiche: 92305:153-92305:319
March 24, 1997		n) forwarding summary of telecon on 970313 ss staff comments WGOTHIC computer code poling system report. Fiche: 92236:282-92236:292
March 21, 1997	Westinghouse letter (from E SSAR Chapter 18 on minim acn: 9704010552	3. McIntyre) forwarding response to AP600 um inventory. Fiche: 92307:351-92307:355
March 21, 1997	– ,	8. McIntyre) submitting formal transmittal of sent informally covering period 970205-0316. Fiche: 92279:012-92279:355
March 21, 1997		8. McIntyre) requesting withdrawal of Chapter view of WGOTHIC computer code. Fiche: 92268:129-92268:129
March 21, 1997		y) forwarding summary of 970321 telecon stinghouse regarding exvessel severe Fiche: 92236:343-92236:344
March 20, 1997	•	y) requesting additional information regarding esign certification of AP600 and initial test Fiche: 92623:164-92623:213
March 20, 1997	NRC letter (from W. Huffma	n) forwarding comments and RAI regarding tate University long term cooling final Fiche: 92231:026-92231:030

March 19, 1997		8. McIntyre) submitting revised response and 3.0.3 and bases for NRC review. Fiche: 92251:229-92251:237
March 19, 1997		8. McIntyre) forwarding number of responses AI responses on valve design qualification and
	acn: 9703250075	Fiche: 92251:023-92251:043
March 18, 1997		n) forwarding summary of 970114-16 meeting ss Westinghouse AP600 structural modules. Fiche: 92218:045-92218:079
March 18, 1997		8. McIntyre) forwarding draft seismic margin and responses to requests for additional
	acn: 9703240074	Fiche: 92234:001-92235:028
March 18, 1997	Westinghouse to discuss W	a) issuing notification of 970325 meeting with estinghouse "WGOTHIC Application to king and stratification (Section 9) and water
	acn: 9703200247	Fiche: 92189:353-92189:356
March 17, 1997	NRC letter (from J. Sebrosk AP600.	y) forwarding RAI regarding PRA review for
	acn: 9704250185	Fiche: 92622:238-92622:242
March 14, 1997		. McIntyre) submitting formal consolidated f items discussed in 960411 telecon regarding
	acn: 9703270313	Fiche: 92267:297-92267:313
March 14, 1997	responses to items discusse	. McIntyre) providing Westinghouse ed in NRC letter dated 970218.
	acn: 9703250086	Fiche: 92251:206-92251:223
March 14, 1997	NRC letter (from J. Sebrosk regarding issues related to A acn: 9703190275	y) forwarding summary of 970211-12 meeting \P600 source term. Fiche: 92177:239-92177:344
March 14, 1997	U (McIntyre) transmits Chapter 12, "Clime 407, "WGOTHIC Application to AP600 " for
	acn: 9703190046	Fiche: 92201:124-92201:134

March 14, 1997		an) issuing notification of 970324 meeting with otential water hammer events observed during plicability to AP600. Fiche: 92130:353-92130:356
March 13, 1997		B. McIntyre) providing formal response to NRC bitions on antimony in reactor coolant in RCP er 12 of SSAR. Fiche: 92252:038-92252:038
March 13, 1997		 McIntyre) responding to NRC phone request monitor regarding AP600 design certification m. Fiche: 92252:083-92252:083
March 13, 1997		8. McIntyre) forwarding three copies of o open items on AP600 topics including SSAR Fiche: 92218:337-92218:347
March 13, 1997	SECY-97-044, "Policy and I	8. McIntyre) forwarding comments on Key Technical Issues Pertaining to Jard Pressurized Reactor Design." Fiche: 92205:336-92205:342
March 13, 1997	NRC letter (from W. Huffma comparison of AP600 ERGs acn: 9703170201	n) forwarding additional comments on s to ASI evaluation report. Fiche: 92131:313-92131:316
March 13, 1997		8. McIntyre) submitting responses to four NRC identified as action Westinghouse in ' letter. Fiche: 92153:340-92153:358
March 12, 1997	NRC letter (from J. Sebrosk June 1992 application for de acn: 9704170005	y) requesting additional information regarding esign certification of AP600. Fiche: 92520:316-92520:323
March 12, 1997	-	8. McIntyre) forwarding responses to listed partial completion of open item 4970. Fiche: 92153:321-92153:339
March 11, 1997	•	8. McIntyre) forwarding recommended esolution meetings which provides date, time, Fiche: 92200:355-92200:361

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March 11, 1997	. .	McIntyre) forwarding markup of Section ng change regarding break exclusion area
		Fiche: 92177:032-92177:034
March 11, 1997	Westinghouse to discuss dra 19.1.3.1-9 on Westinghouse	 /) forwarding summary of 970130 telecon with aft safety evaluation report open item updating shutdown PRA model. Fiche: 92115:262-92115:271
March 11, 1997	Benchmark Problems for We) discussing NUREG/CR-6414 "Piping estinghouse AP600 Standardized Plant." Fiche: 92115:159-92115:160
March 10, 1997	information regarding externa	 i) forwarding request for additional al reactor vessel cooling for AP600. Fiche: 92614:299-92614:303
March 10, 1997	regarding report "Assessme AP600 Containment Wall and	 v) submitting comments and questions nt of Potential Impact of Diffusion Flames on d Penetrations." Fiche: 92608:337-92608:345
March 10, 1997	Long Term Cooling Summar material presented in WCOB (WCAP-14776).	McIntyre) forwarding WCAP-14857, "AP600 y Report," which provides overview of RA-TRAC long-term cooling validation report Fiche: 92200:052-92200:084
March 10, 1997	Validation for AP600 Long Te 10 CFR 2.790).	McIntyre) requesting that proprietary "WC-T erm Cooling Report" be withheld (reference Fiche: 92157:339-92157:346
March 10, 1997	proprietary "WC-T Validation	McIntyre) forwarding non-proprietary and for AP600 Long Term Cooling Report." Fiche: 92157:335-92157:352
March 7, 1997	between listed members of V Westinghouse retraction of re methodology to AP600 feedw) forwarding summary of 970130 telecon Vestinghouse and NRC regarding equest to apply leak-before-break vater line. Fiche: 92107:282-92107:336
March 6, 1997	review of AP600 design certil	liscussing Westinghouse support of NRC fication review. Fiche: 92079:192-92079:210

March 5, 1997		. Novendstern) submitting partially complete RAIS for NOTRUMP issues. Fiche: 92279:255-92279:345
March 5, 1997	withholding, requesting prop	 McIntyre) submitting application for prietary Westinghouse responses to NRC per provisions of paragraph (b)(1) of Section
	acn: 9703190056	Fiche: 92201:128-92201:134
March 5, 1997		8. McIntyre) responding to RAI 410.295 lechanical and fluid systems. Fiche: 92124:316-92124:322
March 5, 1997	questions on carbon dioxide main CR emergency habital	
	acn: 9703120451	Fiche: 92121:358-92121:360
March 5, 1997		n) issuing notification of 970312 meeting with e of WCOBRA-TRAC for long term cooling
	acn: 9703060356	Fiche: 91999:187-91999:193
March 4, 1997	NRC letter (from J. Sebrosk AP600 ITAAC.	y) forwarding followon questions regarding
	acn: 9704160286	Fiche: 92520:267-92520:282
March 4, 1997	posed by staff in 970117 to	B. McIntyre) submitting response to question clarify basis for AP600 passive containment /CAP-14811 Revision 0 submitted to NRC. Fiche: 92035:359-92035:360
March 4, 1997		roviding staff comments on three key reports: 2, and WCAP-14407 regarding AP600 PCS ode. Fiche: 92020:350-92020:361
March 4, 1997	with Westinghouse regardin	a) forwarding summary of 961209-13 meeting g audit of Westinghouse calculations and ems related to SSAR Sections 3.7 and 3.8 on Fiche: 91997:001-91997:198
March 4, 1997	•	n) forwarding summary of 961220, ons with Westinghouse regarding "AP600 Report," WCAP-14477. Fiche: 92006:132-92006:145

March 4, 1997	Westinghouse letter (from E SSAR.	3. McIntyre) forwarding Revision 11 to AP600
	acn: 9703060402	Fiche: 92057:001-92062:224
March 4, 1997	Westinghouse to discuss fir	n) issuing notification of 970313 meeting with nal AP600 NOTRUMP validation report results d OSU. NOTRUMP related items to be also be reviewed. Fiche: 91991:336-91991:339
March 4, 1997		n) requesting additional information regarding ge break LOCA analysis computer code for performance of AP600. Fiche: 91961:200-91961:203
March 3, 1997		8. McIntyre) forwarding non-proprietary copies MP Final Validation Report for AP600." Fiche: 92040:001-92042:071
March 3, 1997		y) forwarding summary of 970121-22 meeting ss issues associated with insights from AP600
	acn: 9703060170	Fiche: 91999:234-91999:253
February 28, 1997	Westinghouse letter (from E 59-30 on AP600 PRA-based acn: 9703060280	8. McIntyre) forwarding draft AP600 PRA Table d insights. Fiche: 92000:323-92000:339
February 28, 1997		8. McIntyre) requesting that WCAP-14845. Containment Pressure during DBA," be Fiche: 92012:217-92012:241
February 28, 1997	Analysis for AP600 Contain	8. McIntyre) forwarding WCAP-14845, "Scaling ment Pressure During Design Basis s supporting NRC review of WCAP-14845. Fiche: 92012:212-92012:241
February 28, 1997	Westinghouse to discuss co	a) issuing notification of 970305 meeting with mpletion of Westinghouse reports for AP600 g system and resolution paths for open items. Fiche: 91990:035-91990:037
February 27, 1997	Westinghouse letter (from D support senior management acn: 9703280186	D. Lindgren) submitting draft SSAR changes to temperature to the meeting. Fiche: 92279:213-92279:244

February 27, 1997	Westinghouse letter (from B. McIntyre) forwarding three copies of Westinghouse response to open items on AP600 topics. acn: 9703070057 Fiche: 92015:352-92015:355
February 26, 1997	NRC Commission paper (from J. Callan) providing Commission with schedule for staff review of AP600 design certification application. acn: 9703040329 Fiche: 92108:253-92108:265
February 26, 1997	Westinghouse letter (from B. McIntyre) submitting references and changes for SSAR Chapter 7. acn: 9703040309 Fiche: 91979:078-91979:136
February 26, 1997	NRC letter (from W. Huffman) forwarding questions and comments related to Revision 1 to WCAP-14171, "WCOBRA-TRAC Applicability to AP600 Large-Break LOCA. acn: 9703030037 Fiche: 91932:241-91932:245
February 26, 1997	NRC letter (from D. Jackson) issuing notification of 970307 meeting to discuss issues related to fire protection analysis for AP600 reactor design. acn: 9702270332 Fiche: 91913:118-91913:120
February 25, 1997	Westinghouse letter (from B. McIntyre) forwarding informal correspondence previously sent to NRC regarding SSAR. acn: 9703030334 Fiche: 91954:097-91954:312
February 25, 1997	Westinghouse letter (from B. McIntyre) forwarding response to NRC RAI regarding open items associated with leak before break evaluation for Revision 11 to SSAR. acn: 9703030058 Fiche: 91958:054-91958:058
February 25, 1997	NRC letter (from W. Huffman) forwarding summary of 970210 telecon with listed participants regarding staff comparison of SCDAP-RELAP analysis with MAAP results for AP600 3BE core damage sequence. acn: 9702260318 Fiche: 91906:244-91906:249
February 24, 1997	NRC letter (from J. Sebrosky) forwarding AP600 external reactor vessel cooling RAI for June 1992 application for design certification. acn: 9703060151 Fiche: 91999:209-91999:212
February 24, 1997	Westinghouse letter (from B. McIntyre) forwarding diskette that contains AP600 MAAP4 file called 3be.tab. acn: 9703060092 Fiche: 92016:247-92016:247
February 24, 1997	Westinghouse letter (from B. McIntyre) forwarding non-proprietary Revision 0 to WCAP-14822, "AP600 QA Procedures Supporting NRC Review of AP600, SSAR Section 18.2 and 18.8." acn: 9703050513 Fiche: 91987:001-91987:183

February 21, 1997	Westinghouse letter (from B. McIntyre) responding to RAI 100.10 - revised to address NRC concerns regarding unavailability of technical support center.	
	acn: 9703060143	Fiche: 92016:261-92016:269
February 21, 1997	responses to 9 RAIS regard 3 of SSAR.	B. McIntyre) submitting Westinghouse ding open items on AP600 topics from Section
	acn: 9703040125	Fiche: 91960:001-91960:012
February 21, 1997	. .	B. McIntyre) submitting Westinghouse garding AP600 internal fire shutdown analysis of AP600 PRA report.
	acn: 9703040118	Fiche: 91960:053-91960:064
February 21, 1997		B. McIntyre) requesting that Westinghouse AP600 be withheld from public disclosure per
	acn: 9703030474	Fiche: 91972:212-91972:228
February 21, 1997	•	•
	acn: 9703030472	Fiche: 91972:209-91972:228
February 20, 1997	- ·	 McIntyre) requesting that Westinghouse be withheld from public disclosure per 10
	acn: 9703030011	Fiche: 91957:306-91957:324
February 20, 1997	proprietary versions of resp	B. McIntyre) forwarding non-proprietary and onse to RAI dated 970103, which presents R heat exchanger under limiting accident
	acn: 9703030009	Fiche: 91957:304-91957:324
February 20, 1997	•	B. McIntyre) discussing Westinghouse position isolation valves in normal RHR system. Fiche: 91930:290-91930:292
February 20, 1997	with Westinghouse regardir	an) forwarding summary of 970204 meeting ng proposed design changes in response to Y-96-128 on post-72 hour actions. Fiche: 91938:191-91938:256
February 20, 1997	NRC letter (from T. Martin) reflect listed information. acn: 9702250461	requesting that Westinghouse revise SSAR to Fiche: 91877:350-91877:360

NRC letter (from D. Jackson) issuing notification of 970303 meeting with February 20, 1997 Westinghouse to discuss certain key issues regarding design certification of AP600 reactor design. acn: 9702250084 Fiche: 91869:342-91869:345 February 19, 1997 Westinghouse letter (from B. McIntyre) requesting responses to NRC request for additional information and updates of status for several areas being reviewed by ECGB for AP600. acn: 9702260304 Fiche: 91931:264-91931:318 February 19, 1997 NRC letter (from D. Jackson) issuing notification of 970306 meeting with Westinghouse to discuss Westinghouse revised reports on scaling and accident specification and phenomena identification for AP600 passive containment cooling system. acn: 9702240283 Fiche: 91868:353-91868:357 February 19, 1997 NRC letter (from D. Jackson) informing that proprietary material enclosed with 961028 letter regarding AP600 design will be withheld from public disclosure as requested. acn: 9702240278 Fiche: 91869:077-91869:081 February 19, 1997 NRC letter (from D. Jackson) informing of determination that information submitted with 961211 letter regarding staff presentation material from 950620-22 meeting on AP600 containment test and analysis program will be withheld from public disclosure. acn: 9702240276 Fiche: 91869:088-91869:090 February 19, 1997 NRC letter (from W. Huffman) informing of inappropriateness to mandate source of data for Westinghouse to use in heat correlations. Selection of data should be justified and provided to staff for review and approval prior to performing analyses. acn: 9702240273 Fiche: 91869:095-91869:097 February 18, 1997 Commission paper (from H. Thompson) providing Commission with additional information regarding type of nonsafety related system that would achieve appropriate balance between prevention and mitigation of severe accidents for AP600 standardized passive reactor design. Fiche: 91945:280-91945:285 acn: 9702270097 February 18, 1997 NRC letter (from T. Martin) forwarding staff comments on proposed AP600 design changes to address post-72 hour action policy. acn: 9702200270 Fiche: 91822:331-91822:338 February 14, 1997 Westinghouse letter (from B. McIntyre) forwarding description of AP600 approach to protection of fire main fire pumps and high-pressure breathing compressor in turbine building. Fiche: 91912:353-91912:358 acn: 9702260211

February 14, 1997	design and operational feature	8. McIntyre) forwarding summary of AP600 ures that require exemptions from current 0, and 100 per DSER open item 1.8-1. Fiche: 91886:261-91886:269
February 13, 1997	Westinghouse letter (from E LCO 3.0.3.	. McIntyre) forwarding response to AP600 TS
	acn: 9702270061	Fiche: 91920:274-91920:281
February 12, 1997	with Westinghouse to discust and pipe support design oper AP600 DSER.	a) forwarding summary of 961205-06 meeting as and resolve remaining unresolved piping an items identified in section 3.12 of NRC
	acn: 9702200227	Fiche: 91819:106-91819:243
February 12, 1997		. McIntyre) forwarding informal
	correspondence sent in Jan acn: 9702190031	uary 1997 per request. Fiche: 91812:029-91812:269
	acii. 3702130031	Tione. 51012.020-51012.203
February 11, 1997		. McIntyre) forwarding responses to resolve I telecon item regarding AP600 containment
	acn: 9702180185	Fiche: 91802:020-91802:029
February 10, 1997	dated 961104 regarding stru	McIntyre) submitting response to NRC letter ictural key issues on site parameters for island foundation mat adequacy. Fiche: 91886:182-91886:185
February 10, 1997	•	. McIntyre) addresses item 2(f) regarding tment of non-safety related system from Fiche: 91902:358-91902:360
	ach. 9702200209	Tiche. 31902.330-31902.300
February 7, 1997	Westinghouse letter (from E agenda for 970313 NOTRU acn: 9703280183	. Novendstern) forwarding proposed draft MP meeting. Fiche: 92279:196-92279:212
February 7, 1997	NOTRUMP agenda for 9703 meeting on 970313.	. Novendstern) submitting revised 312 meeting and proposed agenda for WC-T
	acn: 9703280152	Fiche: 92279:017-92279:148
February 7, 1997	tracking system items considered assurance program complete	
	acn: 9702260206	Fiche: 91912:239-91912:242

February 7, 1997	Westinghouse letter (from B. McIntyre) requesting that proprietary Westinghouse responses to NRC requests for additional information on AP600 design certification topics be withheld per 10 CFR 2.790. acn: 9702130280 Fiche: 91781:294-91781:324
February 7, 1997	Westinghouse letter (from B. McIntyre) forwarding proprietary Westinghouse responses to NRC requests for additional information on AP600 design certification topics. acn: 9702130270 Fiche: 91781:292-91781:324
February 7, 1997	Westinghouse letter (from B. McIntyre) submitting position paper in support of assumption of complete mixing of aerosols in AP600 containment atmosphere following loss of coolant accident. acn: 9702130145Fiche: 91797:347-91797:357
February 7, 1997	NRC letter (from D. Jackson) requesting additional information for review of Westinghouse AP600 advanced reactor design and forwarding RAI 231.34 and 210.227-210.231 regarding standard safety analysis report descriptions and updates to open items. acn: 9702120005 Fiche: 91736:161-91736:189
February 6, 1997	Westinghouse letter (from B. McIntyre) forwarding responses to listed TSRAIS per 961212 letter.acn: 9702190016Fiche: 91822:260-91822:274
February 6, 1997	NRC letter (from D. Jackson) forwarding summary of 970107 meeting with Westinghouse to discuss Westinghouse AP600 fire protection analysis. acn: 9702110342 Fiche: 91725:197-91725:237
February 6, 1997	NRC letter (from W. Huffman) submitting staff comments on comparison between adverse system interaction report and emergency response guidelines. acn: 9702110225 Fiche: 91725:331-91725:335
February 5, 1997	Westinghouse letter (from B. McIntyre) forwarding "AP600 Shutdown Evaluation Report" outline. acn: 9702130015 Fiche: 91769:167-91769:181
February 5, 1997	NRC letter (from T. Kenyon) issuing notification of 970211-12 meeting with Westinghouse to discuss source term issues related to AP600. acn: 9702110228 Fiche: 91725:336-91725:339
February 3, 1997	Westinghouse letter (from B. McIntyre) forwarding non-proprietary Westinghouse WCAP-14812, "Accident Specification and Phenomena Evaluation for AP600 Passive Containment Cooling System." acn: 9702100072 Fiche: 91733:213-91733:325

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February 3, 1997	and analysis documents that data to AP600 plant IRWST	
	acn: 9702060276	Fiche: 91711:159-91711:163
January 31, 1997		3. McIntyre) forwarding formally nally over period 961211-31. Fiche: 91754:001-91754:198
January 31, 1997	– ,	3. McIntyre) requesting that WCAP-14807 be ure per 10 CFR 2.790(B)(1). Fiche: 91753:147-91753:158
January 31, 1997		3. McIntyre) forwarding proprietary version of Final Validation Report for AP600." Fiche: 91753:145-91753:158
January 31, 1997		3. McIntyre) forwarding written responses and b address discussion items in 961219 letter. Fiche: 91738:340-91738:356
January 31, 1997		8. McIntyre) forwarding non-proprietary CAP-14777, "WCOBRA-TRAC OSU lidation Report." Fiche: 91740:001-91740:147
January 31, 1997		8. McIntyre) submitting AP600 passive design basis analysis reports. Fiche: 91742:118-91742:123
January 31, 1997	Westinghouse letter (from E previously sent informally or acn: 9702060287	8. McIntyre) forwarding correspondence ver period 970101-970117. Fiche: 91660:001-91660:041
January 31, 1997		informing that on 961104 NRC identified three h seismic and structural review of nced reactor design. Fiche: 91608:230-91608:232
January 30, 1997	RAI on AP600 for NRC revi	8. McIntyre) transmitting responses to 9 NRC ew. Fiche: 91714:100-91714:120
	acn: 9702070298	Fiche. 917 14.100-917 14.120
January 30, 1997	÷ .	 McIntyre) responding to fire protection e wet standpipe) regarding AP600 design
	acn: 9702070014	Fiche: 91714:293-91714:294

January 30, 1997	Westinghouse letter (from B. McIntyre) forwarding Revision 2 of WCAP-14401, "Programmatic Level Description of AP600 Human Factors V and V Plan " to address DSER open item 18.11.3.4-1 and Revision 2 to WCAP-14396 "Man-in-the-Loop Test Plan Description." acn: 9702060336 Fiche: 91660:112-91660:181
January 30, 1997	NRC letter (from D. Jackson) forwarding update of NRC status for both Action-W and Action-N open items identified in NRC letter dated 960724. acn: 9702030182 Fiche: 91604:055-91604:067
January 29, 1997	NRC letter (from D. Jackson) forwarding RAI on WCAP-14407, "WGOTHIC Application to AP600." acn: 9702040297 Fiche: 91619:001-91619:041
	ach. 9702040297 Fiche. 97019.001-97019.041
January 29, 1997	NRC letter (from W. Huffman) issuing notification of 970204 meeting to discuss implementation of SECY-96-128 on post-72 hour actions. acn: 9701310310 Fiche: 91591:112-91591:113
January 29, 1997	NRC letter (from W. Huffman) informing that NRC reviewing AP600 TS included with Revision 9 to AP600 SSAR. acn: 9701310079 Fiche: 91586:071-91586:077
January 29, 1997	NRC letter (from J. Sebrosky) forwarding summary of 961218 meeting with Westinghouse regarding issues associated with fire PRA for AP600. acn: 9701310045 Fiche: 91586:092-91586:111
January 28, 1997	NRC letter (from J. Sebrosky) informing that additional information needed to complete review of June 1992 application for design certification of AP600 and portions of information submitted will be withheld from public disclosure per request. acn: 9702130103 Fiche: 91753:348-91753:353
January 28, 1997	Westinghouse letter (from B. McIntyre) informing that Westinghouse findsIssue 1 site conditions at shallow soil site acceptable.acn: 9702040251Fiche: 91650:271-91650:275
January 28, 1997	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to NRC RAI regarding AP600 internal fire analysis which is documented in Chapter 57 of AP600 PRA report. acn: 9702040049 Fiche: 91618:336-91618:342
January 28, 1997	NRC letter (from D. Jackson) forwarding summary of 970109 meeting with Westinghouse to review Westinghouse preliminary calculations and discuss pertinent open items related to AP600 seismic margins analysis. acn: 9701310071 Fiche: 91591:070-91591:074

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January 28, 1997	NRC letter (from D. Jackson) issuing notification of 970210 meeting with Westinghouse to discuss issues regarding fire protection analysis for AP600 reactor design and related open items. acn: 9701310021 Fiche: 91586:135-91586:136
January 27, 1997	NRC letter (from J. Sebrosky) issuing notification of meeting with Westinghouse on 970205 to discuss Westinghouse ITAAC submittal including issues identified in 961126 letter to Westinghouse and items identified during last ITAAC meeting and documented in 961217. acn: 9701300100 Fiche: 91551:306-91551:308
January 24, 1997	NRC letter (T. Martin) discussing application of leak-before-break methodology to feedwater line in Westinghouse AP600 advanced reactor design. acn: 9701300063 Fiche: 91551:048-91551:050
January 24, 1997	Westinghouse letter (from B. McIntyre) forwarding action items discussed in 961113 meeting regarding AP600 ITAAC. acn: 9701290362 Fiche: 91568:250-91568:264
January 23, 1997	Westinghouse letter (from B. McIntyre) forwarding one page statement of intent to be filed in copy of emergency response guidelines between cover page and table of contents. acn: 9701290382 Fiche: 91566:349-91566:350
January 23, 1997	Westinghouse letter (from B. McIntyre) requesting that proprietary version of drawings in response to NRC questions regarding fire protection be withheld from public disclosure per 10 CFR 2.790. acn: 9701290377 Fiche: 91628:154-91628:164
January 23, 1997	Westinghouse letter (from B. McIntyre) forwarding proprietary drawings which provide information on piping and valve layout, separation for AP600 automatic depressurization system, and water suppression coverage for buildings in response to NRC questions regarding fire protection. acn: 9701290372 Fiche: 91628:152-91628:164
January 21, 1997	NRC letter (from W. Huffman) forwarding comments on AP600 SSAR Chapter 15 accident analyses and formal RAI 440.588 regarding staff review of multiple steam generator tube rupture analyses. acn: 9701230258 Fiche: 91499:348-91499:359
January 21, 1997	NRC letter (from J. Sebrosky) informing of determination that proprietary material enclosed in NSD-NRC-96-4828 dated 960930 will be withheld from public disclosure. acn: 9701230236 Fiche: 91500:069-91500:071
January 20, 1997	Westinghouse letter (from B. McIntyre) forwarding proprietary corrections to several reference numbers identified in Appendix A of WCAP-14811,

	"Accident Specification and Phenomena Evaluation for AP600 Passive Containment Cooling System." corrections withheld. acn: 9701290025 Fiche: 91582:318-91582:318	
January 20, 1997	Westinghouse letter (from B. McIntyre) forwarding pertinent information from ongoing revision to containment scaling analysis in support of review of revised phenomena identification and ranking table and in advance of WCAP-14813. acn: 9701280316 Fiche: 91562:347-91562:356	
January 17, 1997	NRC letter (from W. Huffman) forwarding comments on AP600 minimum inventory of fixed-position controls displays and alarms. acn: 9701230339 Fiche: 91500:224-91500:236	
January 16, 1997	NRC letter (from T. Kenyon) forwarding summary of 961120-21 meeting with Westinghouse regarding review milestones for AP600 design certification.	
	acn: 9701230227 Fiche: 91500:001-91500:040	
January 16, 1997	NRC letter (from W. Huffman) requesting that Westinghouse revise DRAP section of AP600 standard safety analysis report to be consistent with NUMARC 93-01 guidelines for using PRA to identify risk significant SSCS. acn: 9701220439 Fiche: 91497:292-91497:295	
January 16, 1997	NRC letter (from W. Huffman) informing of staff need for additional analyses from Westinghouse in support of heat transfer correlations being used for PRHR heat exchanger in AP600 standard safety analysis report Chapter 15.	
	acn: 9701210497 Fiche: 91492:355-91492:356	
January 16, 1997	NRC letter (from W. Huffman) forwarding RAI regarding AP600 implementation of regulatory treatment of nonsafety related system. acn: 9701210346 Fiche: 91488:356-91488:360	
January 15, 1997	Westinghouse letter (from B. McIntyre) addresses DSER Chapter 18 open items for NUREG-0711, Elements 1 and 7, which are related to information from WCAP-12601, Revision 19, "AP600 Program Operating Procedures."	
	acn: 9701280349 Fiche: 91562:001-91562:116	
January 15, 1997	Staff requirements memo regarding SECY-96-128, "Policy and Key Technical Issues Pertaining to Westinghouse AP600 Standardized Passive Reactor Design."	
	acn: 9701170229 Fiche: 91473:281-91473:282	
January 14, 1997	Westinghouse letter (from B. McIntyre) forwarding three copies of Westinghouse response to NRC RAI 630.10 regarding AP600 topics. acn: 9701230285 Fiche: 91526:089-91526:101	

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January 14, 1997	314 regarding seismic stand	3. McIntyre) providing position on open item dpipe fire water supply system for atory requirements. Changing design would looding. Fiche: 91518:238-91518:239
January 14, 1997	Westinghouse letter (from E regarding AP600 internal fir acn: 9701220301	3. McIntyre) forwarding response to RAI e analysis. Fiche: 91493:027-91493:055
January 14, 1997	and provide detailed justific "Accident Specification and	n) requesting that Westinghouse review claim ation as to why information in WCAP-14811, Phenomena Evaluation of AP600 Passive m," considered to be proprietary within 30 Fiche: 91444:121-91444:123
	ach. 9701100200	1 IGHC. 3 (1774, 12 173 (1774, 123
January 13, 1997	NRC letter (from T. Kenyon Westinghouse regarding sc acn: 9701150209) forwarding summary of 961209 meeting with hedule for AP600 design. Fiche: 91444:093-91444:099
January 10, 1997		
January 10, 1997	emergency response guidel	
	acn: 9701230207	Fiche: 91505:294-91509:311
January 10, 1997		3. McIntyre) forwarding draft AP600 SSAR to RAI regarding severe accident mitigation Fiche: 91473:283-91473:343
	ach. 9701170116	FICHE. 91473.203-91473.343
January 10, 1997	proprietary documents listed will return documents to We	y) informing that NRC has removed d in Enclosure 1 from AP600 docket file and estinghouse for disposition or retention as the NTD-NRC-95-4556 letter. Fiche: 91456:325-91456:328
January 10, 1997		n) discussing NRC review of human system m, Section 18.11, Revision 9 of AP600 SSAR. Fiche: 91444:232-91444:247
January 10, 1997	Westinghouse regarding qu	n) forwarding summary of 961223 telecon with estions NRC issued to Westinghouse in ling and PIRT closure report WCAP-14627. Fiche: 91444:226-91444:231

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January 9, 1997	AP600 emergency respons	-
	acn: 9701150313	Fiche: 91469:333-91469:343
January 9, 1997	÷ ,	B. McIntyre) forwarding documents which response to issues in NRC 960701 letter module. Fiche: 91454:008-91454:060
January 9, 1997	to discuss insights and imp AP600 PRA.	(y) issuing notification of 970121-23 meetings ortant assumptions that will be included in
	acn: 9701130097	Fiche: 91398:352-91398:355
January 9, 1997	human factors review of AP	an) forwarding update on current status of 2600 design certification related to element ineering program review model. Fiche: 91400:001-91400:011
January 8, 1997		Г. Butler) forwarding DOE-ID-10541 "Lower sel Steam Explosion Loads." Fiche: 92720:089-92720:094
January 8, 1997		3. McIntyre) responding to RAI regarding basis bing in evaluation of fuel assembly seismic
	acn: 9701150214	Fiche: 91452:246-91452:250
January 8, 1997	telephone conference regar	n) forwarding summary of 961231 and 970103 ding certain unresolved open items involving port Section 9.5.1 and Appendix 9A. Fiche: 91400:351-91400:358
January 8, 1997	Westinghouse to discuss A	
	acn: 9701100238	Fiche: 91402:007-91402:037
January 7, 1997	•	3. McIntyre) responding to 961217 telephone in response to open item 293. Fiche: 91473:350-91473:356
January 7, 1997	design.	3. McIntyre) responding to RAI on AP600 plant
	acn: 9701150069	Fiche: 91469:360-91469:360

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Appendix	А
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January 7, 1997	Westinghouse letter (from B. McIntyre) forwarding results of AP600 passive RHR heat transfer sensitivity calculations performed in response to 961125 telecon.	
	acn: 9701130145	Fiche: 91420:292-91420:304
January 6, 1997		B. McIntyre) forwarding five copies of 'Human Factors Engineering Operating for AP600 NPP." Fiche: 91402:217-91402:312
January 6, 1997		n) issuing notification of 970107 meeting to 00 fire protection analysis and related open
	acn: 9701080082	Fiche: 91308:350-91308:352
January 3, 1997	WCOBRA-TRAC applicabili	an) forwarding comments on revised report on ity to AP600 large-break loss-of-coolant stinghouse letter NSD-NRC-96-4871 dated
	acn: 9701160209	Fiche: 91456:329-91456:343
January 3, 1997	NRC letter (from W. Huffma passive residual heat remov acn: 9701070098	an) forwarding comments on revised AP600 val HX final test report. Fiche: 91301:346-91301:350
January 3, 1997	with Westinghouse to discu University long term cooling	an) forwarding summary of 961122 meeting ss how WCOBRA-TRAC Oregon State final validation report (WCAP-14776) ing computer code for AP600 long term Fiche: 91301:319-91301:335
January 3, 1997	NRC letter (from D. Jackson regarding applicant AP600 t acn: 9701070090	n) forwarding summary of 961119 meeting fire protection analysis. Fiche: 91301:342-91301:345
January 2, 1997		3. McIntyre) requesting responses to NRC nation on AP600 PRA report. Fiche: 91347:307-91347:313
January 2, 1997	"Resolution of T-H Uncertai Reliability."	8. McIntyre) forwarding draft report, nty Issues for AP600 Passive System
	acn: 9701060251	Fiche: 91292:185-91292:260
December 31, 1996		n) forwarding RAI regarding Sections 1, 2, 3, 5, 07 "WGOTHIC Application to AP600. Fiche: 91551:001-91551:019

December 31, 1996	NRC letter (from D. Jackson) forwarding summary of 950620-22 meeting with Westinghouse regarding passive containment cooling system of AP600 design.	
	acn: 9701080156	Fiche: 91308:096-91308:319
December 24, 1996	NRC letter (from W. Huffma AP600 SSAR which include acn: 9612310056	an) submitting comments on Revision 9 to ed revision to AP600 TS. Fiche: 91242:343-91242:360
December 20, 1996		an) forwarding comments on AP600 related Element 1 of human factors engineering
	acn: 9612240284	Fiche: 91193:298-91193:322
December 19, 1996	regarding AP600 initial test	
	acn: 9701300061	Fiche: 91551:040-91551:047
December 19, 1996	"Accident Specification and	 B. McIntyre) requesting that WCAP-14811, Phenomena Evaluation for AP600 Passive m " be withheld from public disclosure. Fiche: 91453:352-91453:360
December 19, 1996	Westinghouse letter (from B. McIntyre) forwarding proprietary version of WCAP-14811, "Accident Specification and Phenomena Evaluation for AP600 Passive Containment Cooling System." acn: 9701150071 Fiche: 91453:348-91453:360	
December 19, 1996	Westinghouse letter (from B. McIntyre) forwarding Revision 10 to "AP600 SSAR."	
	acn: 9612270013	Fiche: 91243:001-91246:176
December 19, 1996 NRC letter (from W. Huffman) forwarding comments on AP60 open items associated with Element 6 of human factors engir program review model.		
	acn: 9612230210	Fiche: 91194:142-91194:152
December 19, 1996	•	an) forwarding comments on open items ety parameter display system. Fiche: 91194:153-91194:166
December 19, 1996		an) forwarding comments on AP600 sign implementation plan regarding Element 7 Fiche: 91194:173-91194:192

December 18, 1996 Westinghouse letter (from N. Liparulo) requesting that Revision 0 to WCAP-14807 "NOTRUMP Final Validation Report for AP600 " be withheld per 10 CFR 2.790. acn: 9612270005 Fiche: 91258:311-91258:317 December 18, 1996 Westinghouse letter (from B. McIntyre) forwarding proprietary WCAP-14807 Revision 0 "NOTRUMP Final Validation Report for AP600." acn: 9612270004 Fiche: 91258:307-91258:317 December 18, 1996 Westinghouse letter (from B. McIntyre) forwarding responses to AP600 DSER open item 3.8.2.3-1 for NRC review. Fiche: 91205:340-91205:343 acn: 9612240227 December 18, 1996 Westinghouse letter (from B. McIntyre) submitting revisions to criteria for piping functional capability to be included in AP600 SSAR. Fiche: 91227:130-91227:133 acn: 9612240095 NRC letter (from D. Jackson) issuing notification of canceled 970107 December 17, 1996 meeting with Westinghouse to discuss Westinghouse AP600 water hammer loads on feedwater lines and applicability of leak-before-break. Fiche: 91193:323-91193:325 acn: 9612240288 December 17, 1996 Westinghouse letter (from B. McIntyre) forwarding responses to open items regarding inservice testing. acn: 9612240089 Fiche: 91660:042-91660:085 NRC letter (from D. Jackson) issuing notification of 970109 meeting with December 17, 1996 Westinghouse to discuss seismic margins analysis for AP600 reactor design. acn: 9612190310 Fiche: 91137:010-91137:012 December 17, 1996 NRC letter (from J. Sebrosky) forwarding summary of 961113 meeting with Westinghouse regarding AP600 ITAAC. acn: 9612190266 Fiche: 91148:120-91148:156 NRC letter (from D. Jackson) issuing notification of 970107 meeting with December 17, 1996 Westinghouse to discuss water hammer loads on feedwater lines and AP600 reactor design. acn: 9612190238 Fiche: 91136:357-91136:359 December 16, 1996 Westinghouse letter (from B. McIntyre) discussing return of basemat summary report due to proprietary information. Fiche: 91229:222-91229:222 acn: 9612260018 Westinghouse letter (from B. McIntyre) forwarding copies of design issues December 16, 1996 tracking reports for human factors issues and makeup of AP600 SSAR Chapter 18 to reflect resolution of listed DSER open item tracking system items for NUREG-0711 elements 2 and 4. acn: 9612200152 Fiche: 91192:259-91192:285

December 16, 1996	Westinghouse letter (from B. McIntyre) forwarding outline of plan to address uncertainty of temp profiles for thermal stratification and methods to be used for review.	
	acn: 9612200145	Fiche: 91192:255-91192:258
December 16, 1996	NRC letter (from J. Sebrosky) discussing clarification of AP600 DSER open item 19.1.3.1-9. Westinghouse should verify that PRA models are representative of AP600 design.	
	acn: 9612170324	Fiche: 91131:358-91131:359
December 13, 1996	•	 McIntyre) requesting that Westinghouse withheld from public disclosure per 10 CFR
	acn: 9701070025	Fiche: 91317:046-91317:052
December 13, 1996	piping and instrumentation staff review of AP600 SSA	B. McIntyre) forwarding set of full size current diagrams for AP600 HVAC system to aid NRC R Section 9.4.
· · · · · · · · · · · · · · · · · · ·	acn: 9701070018	Fiche: 91317:041-91317:052
December 13, 1996		 McIntyre) forwarding informal inghouse regarding information discussed at
	acn: 9612200225	Fiche: 91177:019-91177:245
December 13, 1996	responses to NRC RAI reg	B. McIntyre) forwarding Westinghouse arding in-vessel retention of molten core debris est made at 960624-26 with NRC AP600 PRA
	acn: 9612200159	Fiche: 91177:246-91177:297
December 12, 1996	Westinghouse letter (from B. McIntyre) requesting that information regarding proprietary documents including general arrangement drawings and piping and instrumentation diagrams be withheld from public disclosure.	
	acn: 9701020249	Fiche: 91444:004-91444:010
December 12, 1996	Westinghouse letter (from I aid in review of AP600 per	B. McIntyre) providing information to NRC to request.
· · · · · · · · · · · · · · · · · · ·	acn: 9701020245	Fiche: 91444:001-91444:010
December 12, 1996		B. McIntyre) responding to item 6.a(9) of NRC planation of why VBS does not isolate on
	acn: 9612200187	Fiche: 91192:331-91192:331

December 12, 1996	Westinghouse letter (from B. McIntyre) forwarding draft copy of AP600 PRA Appendix B. Results of deterministic evaluations of consequences of ex-vessel severe accident phenomena for AP600 design enclosed. acn: 9612190079 Fiche: 91162:319-91162:348
December 12, 1996	NRC letter (from T. Quay) requesting additional information on Westinghouse AP600 TS optimization methodology. acn: 9612160350 Fiche: 91101:124-91101:127
December 11, 1996	Westinghouse letter (from B. McIntyre) requesting that proprietary presentation materials from 950620 meeting be withheld from public disclosure per 10 CFR 2.790. acn: 9612190097 Fiche: 91191:230-91191:236
December 11, 1996	Westinghouse letter (from B. McIntyre) informing that Westinghouse has reviewed presentation materials used by NRC and contractors during 950620-22 meetings. acn: 9612190085Fiche: 91191:226-91191:236
December 11, 1996	NRC letter (from J. Sebrosky) forwarding open issues related to ITP and staff evaluation of open issues. acn: 9612160418 Fiche: 91099:289-91099:320
December 11, 1996	NRC letter (from W. Huffman) forwarding summary of 961112 meeting with Westinghouse to discuss AP600 scaling and PIRT closure report. acn: 9612160371 Fiche: 91121:215-91121:241
December 10, 1996	Westinghouse letter (from B. McIntyre) forwarding copies of Westinghouse responses to NRC request for additional information on AP600 topics. Responses to open RAI on SSAR including 280.20, 440.585, 440.586, and 440.587. acn: 9706230035 Fiche: 93487:344-93487:359
December 10, 1996	NRC letter (from J. Sebrosky) submitting RAI regarding AP600 scaling and PIRT closure report. acn: 9701150223 Fiche: 91444:100-91444:108
December 10, 1996	Westinghouse letter (from B. McIntyre) forwarding response to NRC request for additional information on AP600 topics. acn: 9612190080 Fiche: 91191:294-91191:297
December 10, 1996	NRC letter (from J. Sebrosky) issuing notification of 961218 meeting with Westinghouse to discuss AP600 fire PRA. acn: 9612160090 Fiche: 91101:026-91101:029
December 9, 1996	Westinghouse letter (from B. McIntyre) forwarding revised information regarding status of regulatory treatment of nonsafety systems.

	Westinghouse submitted WCAP-13856 providing results of application of probabilistic and deterministic evaluation to AP600. acn: 9612190216 Fiche: 91184:316-91184:321		
December 9, 1996	Westinghouse letter (from B. McIntyre) forwarding response to 961120 request regarding AP600 main control room radiological consequence modeling.		
	acn: 9612180422	Fiche: 91159:354-91159:358	
December 9, 1996	Westinghouse letter (from B. McIntyre) forwarding response to RAI regarding conditional containment failure probability distribution in Chapter 42 of AP600 PRA.		
	acn: 9612180411	Fiche: 91153:147-91153:188	
December 9, 1996	complete review of certain of	n) requesting additional information to draft safety evaluation report open item and d staff evaluations of certain open issues. Fiche: 91121:052-91121:209	
December 6, 1996	Westinghouse letter (from E Overview " per ACRS reque acn: 9612190416	8. McIntyre) forwarding "AP600 Test Program est. Fiche: 91165:001-91165:354	
December 6, 1996	Westinghouse letter (from E comments on AP600 test pr acn: 9612180424	3. McIntyre) forwarding response to staff rogram. Fiche: 91153:085-91153:142	
December 6, 1996		forwarding list of key licensing issues on evelopment of common list to be used to esolution in months ahead. Fiche: 91040:001-91040:012	
December 5, 1996	open items on saturated de	8. McIntyre) submitting AP600 responses to nsities and consideration of live loads to SER input for listed sections. Fiche: 91077:355-91077:359	
December 4, 1996	AP600 task analysis activitie	n) providing comments on draft version of es as part of review of human factors 00 standard safety analysis report. Fiche: 91031:076-91031:087	
December 4, 1996	selection criteria used to ide	n) forwarding summary of telecon on PRA entify risk significant structures, systems, and e AP600 RAP conducted on 961125. Fiche: 91031:073-91031:075	

Appendix A		
December 4, 1996	•	an) forwarding comments on AP600 related Element 2 of human factors engineering
	acn: 9612060021	Fiche: 91028:287-91028:302
December 3, 1996		B. McIntyre) requesting additional information etic removal of containment aerosols in AP600. Fiche: 91056:298-91056:300
December 3, 1996	· · · ·	requesting that annual report and briefing rtification be discontinued to avoid duplicating
	acn: 9612060094	Fiche: 91031:152-91031:153
December 3, 1996		n) issuing notification of 970114-16 meeting ss design of structural modules and other actor design.
	acn: 9612050102	Fiche: 91019:219-91019:222
December 2, 1996	internal fire risk analysis to certification of AP600.	(y) forwarding RAI regarding AP600 shutdown support June 1992 application for design
	acn: 9701150185	Fiche: 91442:350-91442:354
December 2, 1996	Westinghouse letter (from E regarding SSAR Section 3.2 acn: 9612110282	3. McIntyre) forwarding response to RAI 2 open items. Fiche: 91083:283-91083:309
December 2, 1996	-	B. McIntyre) forwarding status of regulatory em (RTNSS) subissues. RTNSS program ven required attention. Fiche: 91062:027-91062:030
December 2, 1996	compliance with all application design certification rule.	nforming that application does not demonstrate ble regulations regarding exemption to AP600
	acn: 9612060045	Fiche: 91028:271-91028:272
November 27, 1996	. .	3. McIntyre) requesting that proprietary gn Approach and Summary Report Nuclear ld per 10 CFR 2.790. Fiche: 91081:331-91081:339
November 27, 1996	AP600 basemat design sun	 McIntyre) forwarding proprietary version of mary report of extensive calculation formance of basemat design criteria. Fiche: 91081:329-91081:339

November 27, 1996	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to NRC RAI regarding AP600 PRA and "Assessment of Potential Impact of Diffusion Flames on AP600 Containment Wall and Penetrations," for review. acn: 9612090209 Fiche: 91051:265-91051:342
	ach: 5012030203 116he: 51001.203-51031.342
November 27, 1996	Westinghouse letter (from B. McIntyre) discussing 961125 telecon between NRC and Westinghouse to discuss proposed AP600 RAP. acn: 9612060328 Fiche: 91031:074-91031:075
November 27, 1996	NRC letter (from J. Sebrosky) issuing notification of 961209 meeting with Westinghouse to discuss AP600 design certification schedule. acn: 9611290394 Fiche: 90972:349-90972:351
November 26, 1996	NRC letter (from W. Huffman) submitting NRC comments related to review of SSAR concerning AP600 detection of reactor coolant pressure boundary leakage.
	acn: 9611290371 Fiche: 90972:147-90972:149
November 26, 1996	NRC letter (from D. Jackson) discussing feedwater line water hammer issue for applicant AP600 advanced reactor design. acn: 9611290315 Fiche: 90971:358-90971:360
November 26, 1996	NRC letter (from T. Martin) requesting that Westinghouse revise and supplement ITAAC to ensure that regulations are met and recommends that Westinghouse reconsider approach to minimize schedule and staff resource impacts.
	acn: 9611270248 Fiche: 90933:061-90933:066
November 26, 1996	NRC letter (from D. Jackson) forwarding staff comments on ASME code case N-284, Revision 1, in AP600 application. acn: 9611270217 Fiche: 90933:076-90933:082
November 20, 1996	NRC letter (from W. Huffman) forwarding summary of 961027 meeting to discuss details and effectiveness of revised design of pH control system which uses chemical baskets of TSP. acn: 9611220173 Fiche: 90903:019-90903:036
November 19, 1996	NRC letter (from W. Huffman) issuing notification of 961122 meeting with Westinghouse to discuss AP600 WCOBRA-TRAC OSU long term
	validation report. acn: 9611210248 Fiche: 90902:209-90902:212
November 19, 1996	NRC letter (from D. Jackson) advising that WCAP-14761, "AP600 Reactor Internals Flow-induced Vibration Assessment Program," marked as proprietary will be withheld per 10 CFR 2.790. acn: 9611200285 Fiche: 90871:356-90871:358

November 19, 1996	•	n) issuing notification of 961120 and 21 e to discuss staff review schedule for nced reactor design. Fiche: 90873:334-90873:336	
November 18, 1996	NRC letter (from D. Jackson) issuing notification of 961119 meeting with Westinghouse to discuss AP600 fire protection analysis and related oper items.		
	acn: 9611200286	Fiche: 90887:315-90887:317	
November 18, 1996	with Westinghouse to discu	n) issuing notification of 961209-10 meeting ss Westinghouse AP600 seismic analysis and ing and geosciences branch review areas. Fiche: 90873:346-90873:349	
November 14, 1996	WCAP-14255, Revision 1, " WCAP-14408, "WGOTHIC	B. McIntyre) forwarding topical reports AP600 Spes-2 Test Analysis Report;" Application to AP600;" and WCAP-14172, AC Applicability to AP600 LB LOCA," D0. Fiche: 90982:340-90983:299	
November 14, 1996		n) providing errata related to AP600 scaling juested during 961112 meeting between NRC Fiche: 90819:358-90819:360	
November 13, 1996		n) forwarding RAIs to complete review of draft en items regarding Westinghouse AP600 Fiche: 90821:323-90821:342	
November 13, 1996		n) informing that applicant 961009 request to to AP600 shield building roof structure from R 2.790 granted. Fiche: 90821:066-90821:068	
November 12, 1996		n) summarizing 961025 meeting with view areas for AP600 advanced reactor Fiche: 90716:121-90716:127	
November 11, 1996	•	 McIntyre) forwarding responses to DSER 12.3-1 regarding pipe rupture hazard analysis 	
	acn: 9611190120	Fiche: 90878:350-90878:357	

November 8, 1996	review area in order to com	n) forwarding RAI regarding AP600 WGOTHIC plete review of Westinghouse AP600 passive and WGOTHIC computer code. Fiche: 91129:332-91129:356
November 8, 1996	`	y) forwarding questions and comments of review of 960813 letter regarding AP600
	acn: 9611180226	Fiche: 90820:317-90820:338
November 8, 1996	•	n) issuing notification of 961112 meeting with P600 test program report scaling report and
	acn: 9611130417	Fiche: 90714:177-90714:179
November 8, 1996	Westinghouse letter (from B AP600 design certification p	. McIntyre) responding to RAI regarding rogram.
	acn: 9611130346	Fiche: 90723:108-90723:168
November 7, 1996	certified design material incl	•
	acn: 9611140190	Fiche: 90818:002-90818:273
November 7, 1996		n) issuing notification of 961204-06 meeting to 00 LBB and high energy line break analyses. Fiche: 90714:185-90714:189
November 7, 1996	•	y) submitting followon questions regarding g severe accident core melts.
	acn: 9611130306	Fiche: 90713:337-90713:355
November 6, 1996	Revision 0 to topical report V Long-term Cooling Final Val	. McIntyre) requesting that proprietary WCAP-14776, "WCOBRA-TRAC OSU idation Report," be withheld (reference 10
	CFR 2.790). acn: 9611150353	Fiche: 90816:274-90816:280
November 6, 1996	to topical report WCAP-147 Final Validation Report."	. McIntyre) forwarding proprietary Revision 0 76, "WCOBRA-TRAC OSU Long-term Cooling
	acn: 9611150351	Fiche: 90816:270-90816:280
November 6, 1996	reports entitled, "Study of St "Premixing of Steam Explos "Propagation of Steam Expl	B. McIntyre) forwarding 3 DOE-supported team Explosions in Nuclear System," ions: PM-Alpha Verification Studies," and osions: ESPROSE.M Verification Studies," for
· · · ·	NRC review. acn: 9611140114	Fiche: 90752:001-90754:135

November 6, 1996	Westinghouse letter (from B. McIntyre) summarizing what Westinghouse has chosen to do regarding updating AP600 HCLPF values for seismic margins assessment. acn: 9611130356 Fiche: 90724:356-90724:357
November 6, 1996	Westinghouse letter (from B. McIntyre) discussing 960813-14 meeting which described power supply to AP600 hydrogen igniters. acn: 9611130349 Fiche: 90725:037-90725:043
November 5, 1996	Westinghouse letter (from B. McIntyre) requesting that proprietary Revision 2 to WCAP-12980, "AP600 Passive RHR Heat Exchanger Test Final Report," be withheld (reference 10 CFR 2.790). acn: 9611180139 Fiche: 90874:173-90874:341
November 5, 1996	Westinghouse letter (from B. McIntyre) forwarding non-proprietary Revision 1 to WCAP-13573 and proprietary Revision 2 to WCAP-12980, "AP600 Passive RHR Heat Exchanger Test Final Report." acn: 9611180135 Fiche: 90874:162-90874:341
November 5, 1996	NRC letter (from J. Sebrosky) issuing notification of 961113 meeting with Westinghouse to discuss ITAAC submittal including identifying where ITAAC are different from evolutionary plant ITAACs and why those differences exist.
November 4, 1996	acn: 9611070118Fiche: 90647:274-90647:276Westinghouse letter (from B. McIntyre) forwarding advanced copy of revised Section 2 of focused PRA study of WCAP-13856, "AP600 Implementation of Regulatory Treatment of Nonsafety-related System Process." acn: 9611140007Fiche: 90756:356-90756:359
November 4, 1996	NRC letter (from W. Huffman) forwarding summary of 960926 meeting with Westinghouse to discuss status of AP600 NOTRUMP level swell and benchmark validation calculations. acn: 9611130387 Fiche: 90713:194-90713:247
November 4, 1996	NRC letter (from D. Jackson) submitting staff response to several request for additional information responses in Westinghouse letter NSD-NRC-96-4823 dated 960920. acn: 9611060204 Fiche: 90636:062-90636:065
November 4, 1996	NRC letter (from T. Quay) submitting technical staff positions on three major issues resulting from civil engineering and geosciences branch review of Westinghouse AP600 advanced reactor design. acn: 9611060199 Fiche: 90636:058-90636:061
November 1, 1996	Westinghouse letter (from B. McIntyre) forwarding tables identifying documents which form licensing basis for passive containment cooling

	system design basis analysis containment pressure-temperature transient calculations using WGOTHIC computer code. acn: 9611130555 Fiche: 90724:285-90724:290
November 1, 1996	NRC letter (from W. Huffman) issuing notification of 961112 meeting with Westinghouse to discuss AP600 design certification schedule for completing final design approval in fiscal year 1997. acn: 9611050285 Fiche: 90626:147-90626:149
October 30, 1996	Westinghouse letter (from B. McIntyre) forwarding responses to open items to leak-before-break open items in DSER Section 3.6.4. acn: 9611060295 Fiche: 90658:317-90658:356
October 30, 1996	Westinghouse letter (from B. McIntyre) requesting that proprietary Westinghouse responses to NRC RAI on AP600 be withheld (reference 10 CFR 2.790). acn: 9611060105 Fiche: 90679:152-90679:175
October 30, 1996	Westinghouse letter (from B. McIntyre) forwarding proprietary Westinghouse responses to NRC requests for additional information on AP600. acn: 9611060104 Fiche: 90679:148-90679:175
October 30, 1996	Westinghouse letter (from B. McIntyre) requesting that proprietary Revision 1 to WCAP-14171, "WCOBRA-TRAC Applicability to AP600 Large-break Loss of Coolant Accident," be withheld (reference 10 CFR 2.790). acn: 9611010286 Fiche: 90625:272-90625:278
October 30, 1996	Westinghouse letter (from B. McIntyre) forwarding proprietary Revision 1 to topical report WCAP-14171, "WCOBRA-TRAC Applicability to AP600 Large-break Loss of Coolant Accident." acn: 9611010281 Fiche: 90625:268-90625:278
October 30, 1996	NRC letter (from D. Jackson) requesting that information in AP600 draft submittal regarding WGOTHIC computer code be reviewed by 961230 and any proprietary information contained in document be identified. acn: 9611010234 Fiche: 90600:337-90600:338
October 28, 1996	Westinghouse letter (from B. McIntyre) requesting for proprietary information from Westinghouse to NRC for time period of 960923-1024 to be withheld per 10 CFR 2.790. acn: 9611070062 Fiche: 90727:229-90727:303
October 28, 1996	Westinghouse letter (from B. McIntyre) forwarding proprietary material faxed from Westinghouse to NRC for time period of 960923-1024. acn: 9611070052 Fiche: 90727:225-90727:303

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Appendix A	
October 28, 1996	Westinghouse letter (from B. McIntyre) forwarding responses to NRC DSER section 3.12 open items. acn: 9611040098 Fiche: 90644:124-90644:134
October 28, 1996	Westinghouse letter (from B. McIntyre) requesting that information regarding draft Sections 5 and 6 of NOTRUMP verification and validation report be withheld from public disclosure per 10 CFR 2.790. acn: 9611010235 Fiche: 90625:051-90625:267
October 28, 1996	Westinghouse letter (from B. McIntyre) forwarding proprietary and nonproprietary versions of draft Sections 5 and 6 of NOTRUMP verification and validation report scheduled for completion by 961017. acn: 9611010232 Fiche: 90625:049-90625:267
October 28, 1996	Westinghouse letter (from B. McIntyre) forwarding Revision 2 to Volumes 1-4 to WCAP-13275 "AP600 PRA Fault Trees." acn: 9610310127 Fiche: 90830:002-90837:116
October 28, 1996	NRC letter (from W. Huffman) forwarding summary of 961015 telecon to discuss thermal-hydraulic uncertainty RAI responses. Questions on RAI responses summary of Westinghouse responses based on results of telecon. acn: 9610300301 Fiche: 90591:264-90591:271
October 25, 1996	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to NRC requests for additional information on AP600 topics. acn: 9611050363 Fiche: 90647:326-90647:330
October 25, 1996	Westinghouse letter (from B. McIntyre) forwarding responses to NRC questions regarding Chapter 6 of AP600 SSAR. acn: 9611050332 Fiche: 90645:236-90645:240
October 25, 1996	Westinghouse letter (from B. McIntyre) forwarding draft section of NOTRUMP verification and validation report (scheduled for completion by 961217). acn: 9610310292 Fiche: 90610:024-90610:188
October 23, 1996	Westinghouse letter (from B. McIntyre) forwarding supplementary information on AP600 radioactive waste management system design. acn: 9610310083 Fiche: 90603:298-90603:343
October 23, 1996	Westinghouse letter (from B. McIntyre) responding to RAI on AP600 design certification program. acn: 9610310081 Fiche: 90606:275-90606:294
October 23, 1996	Westinghouse letter (from B. McIntyre) forwarding responses to NRC mechanical engineering branch questions including high-energy line break. acn: 9610310080 Fiche: 90606:309-90606:320

October 23, 1996	NRC letter (from D. Jackson) forwarding AP600 open item tracking system database for Chapter 20.
	acn: 9610250242 Fiche: 90520:196-90520:220
October 22, 1996	Westinghouse letter (from B. McIntyre) informing that Westinghouse review of NRC adverse system interactions material for proprietary information complete. Review indicates identified material contains no information which Westinghouse considers to be proprietary. acn: 9611040181 Fiche: 91825:001-91825:001
October 21, 1996	Westinghouse letter (from B. McIntyre) requesting that information regarding WCAP-14761 report be withheld from public disclosure. acn: 9610290113 Fiche: 90593:140-90593:221
October 21, 1996	Westinghouse letter (from B. McIntyre) forwarding proprietary WCAP-14761 and nonproprietary WCAP-14762 "AP600 Reactor Internals Flow-induced Vibration Assessment Program." acn: 9610290089 Fiche: 90593:129-90593:221
October 18, 1996	Westinghouse letter (from B. McIntyre) submitting application for withholding proprietary information from public disclosure regarding AP600 NOTRUMP verification and validation report draft Section 3. acn: 9610280145 Fiche: 90587:120-90587:248
October 18, 1996	Westinghouse letter (from B. McIntyre) submitting non-proprietary and proprietary drafts of Section 3.0 of AP600 NOTRUMP verification and validation report. acn: 9610280136 Fiche: 90587:109-90587:248
October 17, 1996	NRC letter (from T. Quay) informing that NRC Plant Systems Branch has determined that additional information is needed in Westinghouse AP600 SSAR. acn: 9611290388 Fiche: 90972:178-90972:194
October 17, 1996	Westinghouse letter (from B. McIntyre) forwarding non-proprietary Revision 1 to WCAP-14645, "Human Factors Engineering Operating Experience Review Report for AP600 Nuclear Power Plant." acn: 9610280169 Fiche: 90578:239-90578:335
October 17, 1996	Westinghouse letter (from B. McIntyre) forwarding three copies of Westinghouse responses to NRC RAI on AP600 topics. acn: 9610240028 Fiche: 90535:309-90535:331
October 17, 1996	Westinghouse letter (from B. McIntyre) providing status report for open items identified in 960724 NRC letter. acn: 9610240005 Fiche: 90538:303-90538:315

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October 17, 1996	NRC letter (from D. Scalett RAI.	i) responding to 960718 letter submitted per
	acn: 9610220024	Fiche: 90472:352-90472:354
October 16, 1996	considered proprietary to V	B. McIntyre) requesting that information Vestinghouse regarding updated AP600 fission ons and fission product source rates be sure IAW 10 CFR 2.790. Fiche: 90549:238-90549:244
October 16, 1996	regarding AP600 fission pro source rates.	B. McIntyre) forwarding proprietary information oduct transport calculations and fission product
	acn: 9610240050	Fiche: 90549:234-90549:244
October 15, 1996	•	i) responding to 960912 letter resubmitting RAI on AP600 NOTRUMP computer code. Fiche: 90402:358-90402:360
October 15, 1996	schedule chapter-by-chapter	B. McIntyre) forwarding comprehensive activity er summary of AP600 open item tracking g open items and list of recent AP600 design 960926 request. Fiche: 90417:208-90417:328
October 14, 1996	telecon regarding NRC me	B. McIntyre) submitting responses to 961003 chanical engineering branch questions related al vibration CRDMs and equipment seismic Fiche: 90506:280-90506:288
October 14, 1996	Section 3 initiating event fre	B. McIntyre) forwarding copy of revised equency evaluation of WCAP-13856, "AP600 ory Treatment of Nonsafety-related System Fiche: 90426:166-90426:182
October 11, 1996	• ·	B. McIntyre) forwarding roadmap for content of 1, and description of general or overall ns apply to multiple TSs. Fiche: 90460:001-90460:080
October 11, 1996	- · ·	3. McIntyre) forwarding corrected markups of 5.23-1 to Chapter 6 of SSAR. Fiche: 90445:308-90445:312
October 11, 1996	Westinghouse letter (from E Westinghouse responses to acn: 9610170108	3. McIntyre) forwarding three copies of RAI on AP600 topics. Fiche: 90617:010-90617:021

October 11, 1996 Westinghouse letter (from B. McIntyre) informing that Westinghouse has developed schedule and process that will result in final design approval being issued for AP600 in 1997. acn: 9610170072 Fiche: 90441:356-90441:356 October 11, 1996 NRC letter (from D. Jackson) summarizing 960905 and 1008 telecons with listed individuals to discuss status of staff review of IST program. acn: 9610160373 Fiche: 90402:339-90402:339 October 11, 1996 NRC letter (from W. Huffman) issuing notification of 961017 meeting with Westinghouse to discuss design details and functional analysis of Westinghouse pH control system. acn: 9610160311 Fiche: 90402:341-90402:344 October 10, 1996 Westinghouse letter (from B. McIntyre) forwarding responses to NRC questions regarding Chapter 6 of AP600 SSAR. acn: 9610110351 Fiche: 90356:330-90356:345 October 9, 1996 Westinghouse letter (from B. McIntyre) forwarding non-proprietary Revision 0 to WCAP-14644, "AP600 Functional Requirements Analysis and Function Allocation" and non-proprietary Revision 1 to WCAP-14651, "Integration of Human Reliability Analysis with Human Factors Engineering Design...." acn: 9610210277 Fiche: 90500:097-90500:241 October 9, 1996 NRC letter (from W. Huffman) forwarding summary of gas phase mass and heat transfer equations used for AP600 containment aerosol removal calculations per request. acn: 9610150119 Fiche: 90356:027-90356:031 October 9, 1996 Westinghouse letter (from B. McIntyre) forwarding proprietary information regarding shield building roof structure analysis results. Fiche: 90415:206-90415:222 acn: 9610110356 October 9, 1996 Westinghouse letter (from B. McIntyre) responding to RAI 220.105 for shield building roof structure analysis results for comparison with results from NRC confirmatory analysis. acn: 9610110352 Fiche: 90415:202-90415:222 October 4, 1996 Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to NRC RAI on AP600 SSAR Section 9.51, "Fire Protection." acn: 9610100164 Fiche: 90354:241-90354:246 NRC letter (from W. Huffman) forwarding questions, comments, and October 3, 1996 discussion items regarding Westinghouse AP600 adverse system interaction report. Fiche: 90714:090-90714:103 acn: 9611130099 .3

Appendix A		
October 3, 1996	Westinghouse regarding cri	n) summarizing 960827 meeting with teria used for determining which PRA v margin cases and which scenarios are H analyses. Fiche: 89992:238-89992:266
October 3, 1996		8. McIntyre) submitting pages missing from Applications to AP600," transmitted via Fiche: 90326:306-90326:306
October 3, 1996	reliability assurance program	8. McIntyre) forwarding markup of AP600 n in SSAR Section 16.2. Fiche: 90326:156-90326:176
October 2, 1996	assurance and maintenance	n) forwarding staff open item status for quality e branch review of SSAR Chapter 14 and vere accident branch review of SSAR Section ding AP600. Fiche: 89999:134-89999:140
October 1, 1996	submittal of AP600 design le	y) informing that Westinghouse 960911 etter identified as proprietary will be withheld 0 CFR 2.790(b)(5) and Section 103(b) as Fiche: 89911:101-89911:103
September 30, 1996	Westinghouse letter (from B Probabilistic Risk Assessme acn: 9610030234	8. McIntyre) forwarding Revision 8 to " AP600 ent." Fiche: 89933:001-89941:014
September 30, 1996	Westinghouse letter (from B withheld from public disclose acn: 9610020170	McIntyre) requesting that WCAP-14729 be ure per 10 CFR 2.790. Fiche: 89907:012-89907:020
September 30, 1996	Westinghouse letter (from B supporting Revision 8 of AP acn: 9610020164	. McIntyre) forwarding listed WCAPs 600 PRA. Fiche: 89907:001-89908:046
September 26, 1996	· · ·	discussing review of 960726 letter providing nformation needed for review of AP600 design Fiche: 89848:349-89848:352
September 25, 1996	Ū į	. McIntyre) forwarding responses for ting on seismic analysis from 960617-20. Fiche: 89908:346-89908:358

September 24, 1996NRC letter (from D. Jackson) submitting RAI in order to complete review
of Westinghouse AP600 shield building roof structure.
acn: 9610300250Fiche: 90591:261-90591:263

September 24, 1996 NRC letter (from D. Jackson) requesting that enclosed report entitled, "Piping Benchmark Problems for Westinghouse AP600 Standardized Plant," be reviewed and that proprietary information therein be identified. acn: 9609300095 Fiche: 89850:359-89850:360

September 24, 1996 Westinghouse letter (from B. McIntyre) requesting that information regarding AP600 NOTRUMP computer code meeting material be withheld from public disclosure. acn: 9609300026 Fiche: 89852:005-89852:011

September 24, 1996 Westinghouse letter (from B. McIntyre) forwarding draft material addressing aspects of verification and validation activities for NOTRUMP computer code for AP600. acn: 9609300022 Fiche: 89852:001-89852:011

September 24, 1996 NRC letter (from W. Huffman) responding to 960718 Westinghouse letter regarding original RAI concerning 440.120 on boron dilution events for AP600 and forwarding additional questions to be addressed by Westinghouse. acn: 9609260229 Fiche: 89782:355-89782:357

September 23, 1996 NRC letter (from D. Jackson) informing that additional information needed to complete review regarding SFP in AP600 SSAR per 960910 telecon. acn: 9610300296 Fiche: 90591:303-90591:306

September 23, 1996 Westinghouse letter (from B. McIntyre) forwarding copies of material faxed from Westinghouse to NRC for time period 960827-0920. acn: 9610040153 Fiche: 89951:152-89951:152

September 23, 1996 NRC letter (from D. Jackson) forwarding summary of 960827-28 telecon with Westinghouse regarding status of open items related to LBB and high energy line break analyses. acn: 9609260219 Fiche: 89782:202-89782:223

September 20, 1996 Westinghouse letter (from B. McIntyre) forwarding three copies of Westinghouse responses to NRC RAI on AP600 topics. acn: 9609300015 Fiche: 89848:317-89848:332

September 19, 1996 NRC letter (from D. Jackson) forwarding summary of 960912 telecon regarding use of concentric bracing system for AP600 turbine building. acn: 9609230162 Fiche: 89749:343-89749:345

- September 18, 1996 NRC letter (from J. Sebrosky) requesting additional information regarding internal fire risk analysis for AP600. acn: 9611140198 Fiche: 90716:192-90716:199
- September 18, 1996 Westinghouse letter (from B. McIntyre) requesting that proprietary Westinghouse report WCAP-14727, "AP600 Scaling and PIRT Closure Report," be withheld per 10 CFR 2.790. acn: 9609240365 Fiche: 89784:342-89784:350
- September 18, 1996 Westinghouse letter (from B. McIntyre) forwarding proprietary Westinghouse report WCAP-14727, "AP600 Scaling and PIRT Closure Report." acn: 9609240354 Fiche: 89784:340-89784:350

September 18, 1996 NRC letter (from T. Kenyon) forwarding summary of 960718 telecon regarding aerosol behavior in AP600 containment. acn: 9609240320 Fiche: 89763:298-89763:300

September 18, 1996 NRC letter (from W. Huffman) issuing notification of 960926 meeting with Westinghouse to discuss progress and results on level swell calculations and benchmark comparisons for NOTRUMP small break LOCA computer code. acn: 9609200352 Fiche: 89729:315-89729:317

September 16, 1996 NRC letter (from D. Jackson) forwarding reports reviewing buckling performance and structural design of AP600 containment vessel for review and identification of any proprietary information. acn: 9609190052 Fiche: 89720:253-89720:254

- September 13, 1996 Westinghouse letter (from B. McIntyre) forwarding binder tabs for section of background information for AP600 shutdown emergency response guidelines SDF-0.1 AND SGD-1 through SDG-6 that were not transmitted with report dated 960808. acn: 9609240273 Fiche: 89859:057-89859:061
- September 13, 1996 NRC letter (from J. Taylor) expressing appreciation for ACRS views on SECY-96-128, "Policy and Key Technical Issues Pertaining to Westinghouse AP600 Standardized Passive Reactor Design." acn: 9609180136 Fiche: 89709:355-89709:359
- September 12, 1996 Westinghouse letter (from B. McIntyre) forwarding non-proprietary Revision 1 to WCAP-13559, "Operational Assessment for AP600." acn: 9609170606 Fiche: 89712:019-89712:210
- September 12, 1996 Westinghouse letter (from B. McIntyre) submitting application for withholding proprietary information from public disclosure regarding retransmittal of Westinghouse response to NRC RAIs on NOTRUMP computer code. acn: 9609170402 Fiche: 89745:221-89745:273

September 12, 1996 Westinghouse letter (from B. McIntyre) forwarding retransmittal of Westinghouse response to NRC RAIs on NOTRUMP computer code. acn: 9609170391 Fiche: 89745:219-89745:273 September 11, 1996 Westinghouse letter (from B. McIntyre) requesting that Westinghouse response to NRC meeting action item on AP600 be withheld from public disclosure IAW 10 CFR 2.790 of commissions regulations. acn: 9609190002 Fiche: 89901:054-89901:114 September 11, 1996 Westinghouse letter (from B. McIntyre) forwarding proprietary and non-proprietary drawings per NRC request during 960813 and 14 meeting regarding hydrogen control for AP600. acn: 9609190001 Fiche: 89901:049-89901:114 September 11, 1996 Westinghouse letter (from B. McIntyre) forwarding Westinghouse figures and tables. Permission is granted to use materials in NUREG on modular construction. acn: 9609180133 Fiche: 89736:147-89736:148 September 10, 1996 Westinghouse letter (from B. McIntyre) forwarding three copies of Westinghouse responses to NRC RAI on AP600 topics. acn: 9609170317 Fiche: 89716:250-89716:256 September 10, 1996 Westinghouse letter (from B. McIntyre) requesting that proprietary Revision 0 to topical report WCAP-14407, "WGOTHIC Applications to AP600," be withheld per 10 CFR 2.790. acn: 9609130078 Fiche: 89687:301-89687:309 September 10, 1996 Westinghouse letter (from B. McIntyre) forwarding proprietary Revision 0 to topical report WCAP-14407, "WGOTHIC Application to AP600." acn: 9609130075 Fiche: 89687:297-89687:309

September 5, 1996 Westinghouse letter (from B. McIntyre) forwarding WCAP-13054, Revision 2, "AP600 Compliance with SRP Acceptance Criteria," developed to assist NRC with AP600 design certification review of SSAR. acn: 9609120255 Fiche: 89661:004-89661:319

September 5, 1996 Westinghouse letter (from B. McIntyre) forwarding responses to NRC supplemental draft safety evaluation report open items regarding LOFTRAN computer code and application to AP600 safety analyses. acn: 9609120139 Fiche: 89666:123-89666:204

September 5, 1996 NRC letter (from D. Jackson) forwarding staff evaluations of update to DSER open items regarding Westinghouse AP600 advanced reactor design. acn: 9609110034 Fiche: 89610:209-89610:284

September 5, 1996	NRC letter (from J. Sebrosky) responding to 950918 letter regarding status report on proprietary material submitted to NRC to support AP600 design review effort.	
	acn: 9609100343	Fiche: 89609:310-89609:312
September 5, 1996	Westinghouse regarding W sent to Westinghouse 9605	
	acn: 9609090072	Fiche: 89590:174-89590:178
September 4, 1996		3. McIntyre) responding to telecon questions n emergency habitability system. Fiche: 89657:306-89657:308
September 4, 1996		y) forwarding summary of 960813-14 meeting g issues associated with hydrogen control for
	acn: 9609090069	Fiche: 89590:179-89590:197
September 4, 1996	emergency habitability system	n) submitting comments on AP600 room em air tank ASME code specification. Fiche: 89586:233-89586:235
August 31, 1996	Westinghouse letter (from E "Operational Assessment fo acn: 9609170607	8. McIntyre) forwarding non-proprietary or AP600." Fiche: 89712:020-89712:210
August 31, 1996	NRC letter (from D. Jacksor regarding WGOTHIC and P acn: 9609040297	n) forwarding NRC discussion items for telecon CS draft reports. Fiche: 89557:216-89557:262
August 30, 1996	Westinghouse letter (from E on AP600 design certification acn: 9609110120	8. McIntyre) forwarding responses to NRC RAI on program. Fiche: 89660:001-89660:050
August 30, 1996		8. McIntyre) forwarding responses to NRC ydrogen control system from 960401 letter from 960308 letter. Fiche: 89658:330-89658:345
August 30, 1996	information for AP600 emer	8. McIntyre) forwarding revised background gency response guidelines including on 1A TO AES-1.1, Revision 1A TO AES-1.2, Fiche: 89653:174-89653:322

August 29, 1996	Westinghouse letter (from B. McIntyre) forwarding WCAP-14701, "Methodology and Results of Defining Evaluation Issues for AP600 Human System Interface Design Test Program. acn: 9609090074 Fiche: 89649:181-89649:292	
August 29, 1996	regarding surface areas in a aerosol sedimentation colle	
	acn: 9609040148	Fiche: 89583:212-89583:215
August 28, 1996	with representatives of Wes	n) forwarding summary of 960816 meeting stinghouse to discuss NRC comments on revision to reliability assurance program
	acn: 9609030035	Fiche: 89544:258-89544:263
August 27, 1996		discussing policy issues pertaining to AP600 request for policy decision considered
	acn: 9610090109	Fiche: 89999:322-89999:324
August 26, 1996	magnitude of site specific se	3. McIntyre) discussing NRC policy on eismic analyses ground motion in response to ghouse-NRC AP600 meeting. Fiche: 89558:350-89558:354
August 26, 1996	Westinghouse letter (from E RAIs on AP600 design certi acn: 9609030055	8. McIntyre) forwarding responses to NRC fication program. Fiche: 89550:272-89550:307
August 26, 1996) informing that applicant 951211 request to 600 SPES-2 Test Analysis Report," losure accepted. Fiche: 89515:342-89515:344
August 23, 1996	sample problems for computers vessel design for AP600.	3. McIntyre) providing response to second of ter code validation regarding containment
	acn: 9609030070	Fiche: 89558:328-89558:343
August 23, 1996		n) issuing notification of 960827 meeting with sues regarding AP600 thermal hydraulic
	acn: 9608270468	Fiche: 89484:318-89484:320

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August 22, 1996	NRC open items staff follow- review meetings with staff for	McIntyre) forwarding information addressing on questions and questions identified during r inservice testing. Fiche: 89609:334-89609:340
August 22, 1996	Revision 0 to WCAP-14694, Revision 1 to WCAP-14655, DSER Chapter 18 and NURE	McIntyre) forwarding WCAP-14695, Revision 1 to WCAP-14396, WCAP-14690, and Revision 1 to WCAP-14401 regarding GG-0711 elements. Fiche: 89569:070-89569:200
August 21, 1996	AP600 spent fuel storage rac	McIntyre) responding to RAI regarding k seismic and dynamic analysis. Fiche: 89544:141-89544:141
August 20, 1996	update to draft SER open iter advanced reactor design.	providing followon questions and staff ns regarding Westinghouse AP600 Fiche: 89567:310-89567:338
August 19, 1996	relied upon in ERG, but not in) forwarding examples of instrumentation ncluded in Chapter 7 of SSAR. Fiche: 89432:041-89432:049
August 19, 1996	by 961031 and identify any pr	requesting review of presentation material roprietary information. Fiche: 89432:037-89432:040
August 16, 1996	with Westinghouse regarding analysis.	forwarding summary of 960625-26 meeting Westinghouse AP600 piping design Fiche: 89487:188-89487:262
August 16, 1996	Cycling and Striping," be result withheld specifically identified	requesting that report "Thermal Stratification Ibmitted with requested material to be I. Fiche: 89432:057-89432:060
August 16, 1996	NRC letter (from J. Sebrosky) containing updated AP600 inp injection line break case comp withheld contains proprietary) informing that review of 960805 submittal put file which describes direct vessel pleted. Submitted information sought to be
August 16, 1996	960805 letter will be withheld	nforming that information submitted by from public disclosure per 10 CFR 2.790. Fiche: 89382:250-89382:252

August 16, 1996	NRC letter (from D. Scaletti) advising that information submitted in 960320-22 material will be withheld from public disclosure per 10 CFR 2.790.	
	acn: 9608190162	Fiche: 89382:247-89382:249
August 15, 1996	addressing listed policy issu	endorsing position recommended by staff in les regarding SECY-96-128, "Policy and Key to Westinghouse AP600 Passive Reactor
	acn: 9609180144	Fiche: 89709:358-89709:359
August 15, 1996	960802 by Westinghouse "A) advising that information submitted on AP600 Automatic Depressurization System v Test," WCAP-14676, will be withheld from
	acn: 9608190136	Fiche: 89382:205-89382:207
August 15, 1996	on 960808-10 regarding SE	forwarding summary of ACRS 433rd meeting ECY 96-128, "Policy and Key Technical Issues P600 Standardized Passive Reactor Design." Fiche: 89431:064-89431:065
August 15, 1996	•	n) requesting for additional information in order iew of DSER for AP600 advanced reactor Fiche: 89376:226-89376:230
August 14, 1996		8. McIntyre) responding to RAI regarding
August 13, 1996	– ,	8. McIntyre) informing that comments provided pment of remaining AP600 ITAAC. Fiche: 89440:325-89440:334
August 13, 1996	Westinghouse letter (from B open items contained in dra acn: 9608190262	8. McIntyre) forwarding responses to RAI and ft SER on AP600. Fiche: 89392:225-89392:316
August 13, 1996) informing that presentation material used at HC computer code will be withheld from public 0 per 960729 letter. Fiche: 89382:228-89382:231
August 13, 1996	submitting information in res) informing of review of 951102 letter sponse to staff RAI on AP600 NOTRUMP for portions to be withheld from public

	disclosure. Insufficient bas not identified.	sis for withholding provided as specific portions
	acn: 9608190209	Fiche: 89382:253-89382:254
August 13, 1996	Westinghouse letter (from lacn: 9608190180	B. McIntyre) responding to RAI on AP600. Fiche: 89414:187-89414:191
August 12, 1996	`	an) forwarding completed review of AP600 ating Experience Review Report," provided by er NSD-NRC-96-4722. Fiche: 89362:256-89362:270
August 12, 1996		ky) forwarding summary of 960717 meeting uss review of AP600 design. Fiche: 89362:172-89362:219
August 12, 1996	regarding DNB test data of	i) advising that certain parts of information modified Vantage 5H fuel with IFM grids at low held from public disclosure per 960624 Fiche: 89371:004-89371:006
August 12, 1996	. •	ky) forwarding page 38 of report prepared by essel retention issues during severe core melt
	acn: 9608150138	Fiche: 89371:001-89371:003
August 9, 1996	SSAR.	B. McIntyre) forwarding Revision 9 of AP600
	acn: 9608260352	Fiche: 89561:001-89567:212
August 9, 1996		B. McIntyre) forwarding draft markup of covering internal fire analysis. Fiche: 89380:001-89380:158
August 9, 1996	with listed attendees to disc design review status.	n) forwarding summary of 960605-06 meeting cuss WGOTHIC computer code and PCS
	acn: 9608150143	Fiche: 89362:015-89362:107
August 9, 1996	reliability roadmap. Roadm	B. McIntyre) forwarding AP600 passive system hap provides overview of types of design and contribute to passive system reliability and uments related to activity. Fiche: 89375:220-89375:240
August 8, 1996	NRC letter (from T. Kenyor radiation environments for acn: 9609190031	n) requesting additional information in area of equipment qualification. Fiche: 89720:230-89720:236

August 8, 1996	Westinghouse letter (from B. McIntyre) submitting application for withholding proprietary information from public disclosure regarding analysis of boron dilution transients in AP600. acn: 9609030381 Fiche: 89574:211-89574:217
August 8, 1996	Westinghouse letter (from B. McIntyre) forwarding proprietary report addressing analysis of boron dilution transient in AP600. acn: 9609030375 Fiche: 89574:206-89574:217
August 8, 1996	Westinghouse letter (from B. McIntyre) forwarding report "Scaling Analysis for AP600 Containment Pressure During Design Basis Accidents." acn: 9608150024 Fiche: 89375:001-89375:003
August 8, 1996	Westinghouse letter (from B. McIntyre) forwarding Revision 2 of AP600 shutdown-low power emergency response guidelines which replace shutdown-low power emergency response guidelines in letter dated 950809.
	acn: 9608140097 Fiche: 89346:194-89346:251
August 8, 1996	NRC letter (from J. Sebrosky) forwarding preliminary comments on AP600 pilot ITAAC regarding passive containment cooling system (Section 3.2.3), normal residual heat removal system (Section 3.3.7), and non-Class 1E dc and UPS system (Section 3.6.2). acn: 9608130003 Fiche: 89376:001-89376:007
August 8, 1996	NRC letter (from W. Huffman) forwarding comments on draft AP600 functional requirements analysis and function allocation document (WCAP-14644) regarding human factors review of AP600 design certification application. acn: 9608120289 Fiche: 89318:323-89318:334
August 5, 1996	Westinghouse letter (from B. McIntyre) forwarding position paper which discusses methodology and assumptions used for determination of aerosol removal coefficients of 0.63 hour for first two hours after onset of core damage and 081 hour for remainder of first 24 hours of accident. acn: 9608130074 Fiche: 89338:340-89338:351
August 5, 1996	NRC letter (from D. Jackson) forwarding marked up draft standard safety analysis report providing open items.
	acn: 9608080148 Fiche: 89290:208-89290:277
August 5, 1996	NRC letter (from D. Scaletti) advising that information submitted 960701 regarding WGOTHIC computer code for design basis analysis of AP600 containment pressure-temperature response will be withheld from public disclosure ref 10 CFR 2.790 per 960701 request. acn: 9608080145 Fiche: 89290:205-89290:207

Appendix A August 5, 1996 Westinghouse letter (from B. McIntyre) requesting that proprietary AP600 PRA information on description of DVI line break cases be withheld per 10 CFR 2.790. acn: 9608080136 Fiche: 89332:355-89332:361 August 5, 1996 Westinghouse letter (from B. McIntyre) forwarding AP600 PRA information on description of DVI line break cases. acn: 9608080129 Fiche: 89332:351-89332:361 Westinghouse letter (from B. McIntyre) requesting that proprietary August 5, 1996 information regarding Westinghouse responses to NRC RAI on AP600 be withheld from public disclosure. acn: 9608070046 Fiche: 89295:321-89295:337 August 5, 1996 Westinghouse letter (from B. McIntyre) forwarding three copies of response to NRC RAI 410.283 and 288 on Section 9 of SSAR, RAI 440.434 addressing NOTRUMP ADS and WGOTHIC, RAI 480.280, and RAIs 480.347 through 480.351. acn: 9608070043 Fiche: 89295:317-89295:337 August 2, 1996 Westinghouse letter (from B. McIntyre) requesting that proprietary information regarding presentation material from 950620-22 meeting be withheld from public disclosure. acn: 9608070021 Fiche: 89310:115-89310:242 August 2, 1996 Westinghouse letter (from B. McIntyre) forwarding presentation material used by Westinghouse at 950620-22 meeting on WGOTHIC computer code. acn: 9608070016 Fiche: 89310:111-89310:242 August 2, 1996 Westinghouse letter (from B. McIntyre) requesting that proprietary report WCAP-14676, "AP600 Automatic Depressurization System Stage 1, 2, and 3 Cold Flow Test," be withheld from public disclosure IAW 10 CFR 2.790. acn: 9608070014 Fiche: 89297:204-89297:210 August 2, 1996 Westinghouse letter (from B. McIntyre) forwarding documentation of cold flow tests performed at AP600 automatic depressurization system test facility in Casaccia, Italy and proprietary WCAP-14676 and nonproprietary WCAP-14706. acn: 9608070013 Fiche: 89297:200-89297:273 August 2, 1996 NRC letter (from J. Sebrosky) issuing notification of 960813-14 meeting with Westinghouse to discuss issues associated with severe hydrogen control for AP600. acn: 9608050166 Fiche: 89254:355-89254:357 NRC letter (from D. Scaletti) informing of review of 960104 letter and August 2, 1996 subject information IAW requirements of 10 CFR 2.790. Staff has

		nformation sought to be withheld contains commercial information and will be withheld Fiche: 89252:299-89252:301
August 1, 1996		n) requesting additional information regarding s 9, 10, and 11 from 960517 letter resubmitted RAIs, as agreed. Fiche: 89720:224-89720:229
August 1, 1996		y) forwarding summary of 960624-26 meeting g issue associated with PRA for AP600. Fiche: 89252:186-89252:214
August 1, 1996		n) issuing notification of 960816 meeting with P600 reliability assurance program as SAR. Fiche: 89246:238-89246:240
August 1, 1996	Westinghouse dated 96061	n) advising that information submitted by 8 regarding test data for Oregon State t SB06 will be withheld from public disclosure Fiche: 89226:310-89226:312
July 31, 1996	•	8. McIntyre) forwarding response to open item egarding COLR treatment for AP600 design Fiche: 89289:358-89289:359
July 31, 1996	NRC letter (from J. Sebrosk pilot ITAAC. acn: 9608020223	y) providing preliminary comments on AP600 Fiche: 89226:277-89226:283
July 31, 1996	additional information in response outline) responding to 950508 letter submitting ponse to staff RAI 440-251 and requested d be withheld from public disclosure. NRC uld be withheld from public disclosure. Fiche: 89226:270-89226:272
July 31, 1996	subject report IAW 10 CFR) informing of review of 960215 letter and 2.790 and determined that submitted hheld contains trade secrets or proprietary will be withheld from public. Fiche: 89226:274-89226:276

July 29, 1996		3. McIntyre) forwarding Westinghouse Resolution Process for AP600 Passive System
	acn: 9608050154	Fiche: 89265:171-89265:197
July 29, 1996		 McIntyre) requesting that proprietary 60606 meeting be withheld per 10 CFR
	acn: 9608020364	Fiche: 89266:005-89266:062
July 29, 1996	•	 McIntyre) forwarding proprietary by Westinghouse at 960606 meeting on
	acn: 9608020362	Fiche: 89266:001-89266:062
July 29, 1996	withholding information from submitted information sough	n) responding to 960701 letter requesting n public disclosure. Staff has determined that nt to be withheld contains trade secrets or rmation and will be withheld from public. Fiche: 89226:245-89226:247
July 29, 1996	•	n) advising that information submitted in RC-96-4643 dated 960212 will be withheld 0 CFR 2.790. Fiche: 89210:278-89210:280
July 26, 1996		8. McIntyre) providing requested status of g several other key items Westinghouse has Fiche: 89277:347-89277:350
July 26, 1996	Westinghouse letter (from B applicant responses to NRC acn: 9608010081	8. McIntyre) forwarding three copies of 5 RAI on AP600. Fiche: 89219:342-89219:352
July 26, 1996		8. McIntyre) forwarding response to request for ding AP600 leak-before-break questions. Fiche: 89220:297-89220:301
July 26, 1996	regarding NRC confirmatory related open items.	n) forwarding summary of 960711 meeting v study of nuclear island foundation mat and
	acn: 9607290176	Fiche: 89162:061-89162:075
July 24, 1996	several Plant Systems Bran	n) forwarding open item status regarding ch review areas for AP600 advanced reactor ted in Revision 6 of SSAR that need to be as.
	acn: 9607290137	Fiche: 89161:327-89161:353

July 23, 1996	•	n) issuing notification of canceled 960827 and use to discuss Westinghouse AP600 LBB and uses
	acn: 9609030016	Fiche: 89544:357-89544:358
July 23, 1996	÷ .	8. McIntyre) forwarding DOE supported ccident program report entitled, "Lower Head eam Explosion Loads." Fiche: 89212:001-89212:278
July 23, 1996	with Westinghouse to discus	n) issuing notification of 960827-28 meeting ss AP600 LBB and high energy line break ing and geosciences branch. Fiche: 89146:163-89146:164
July 19, 1996	PRA key assumptions and i	8. McIntyre) forwarding examples of AP600 nsights provided for passive residual heat idual heat removal system, and system. Fiche: 89142:326-89142:346
July 18, 1996	NRC letter (from D. Jackson AP600 SSAR. acn: 9607220202	n) forwarding Westinghouse draft markups of Fiche: 89110:073-89110:158
July 18, 1996	•	n) forwarding summary of 960617-20 meeting smic analysis documentation and calculations. Fiche: 89102:001-89102:092
July 18, 1996	NRC letter (from W. Huffma issue resolution concerning acn: 9607230276	n) commenting on AP600 electrical system items still requiring action. Fiche: 89099:137-89099:139
July 18, 1996		8. McIntyre) providing application for mation from public disclosure regarding opics. Fiche: 89125:250-89125:268
July 18, 1996		8. McIntyre) forwarding three copies of NRC RAI on AP600 design certification topics. Fiche: 89125:246-89125:268
July 18, 1996	•	n) forwarding staff position on consideration of or seismic category I structures for applicant sign. Fiche: 89099:113-89099:122

Appendix A	
July 17, 1996	NRC letter (from T. Kenyon) forwarding advance copy of technical evaluation report "Monte Carlo Uncertainty Analysis of Aerosol Behavior in AP600 Reactor Containment " acn: 9607260125 Fiche: 89161:001-89161:232
July 17, 1996	NRC letter (from J. Sebrosky) forwarding RAI regarding accident management strategies and actions for AP600. acn: 9607240215 Fiche: 89124:312-89124:316
July 16, 1996	Westinghouse letter (from B. McIntyre) forwarding draft revision toSection 14.2 of AP600 SSAR addressing AP600 initial test program.acn: 9607260094Fiche: 89142:032-89142:158
July 15, 1996	NRC letter (from J. Sebrosky) issuing notification of canceled 960807 meeting with Westinghouse to discuss issues associated with AP600 thermal-hydraulic uncertainty resolution plan. acn: 9608080153 Fiche: 89290:278-89290:280
July 15, 1996	NRC letter (from D. Jackson) submitting update to DSER open items regarding Westinghouse AP600 advanced reactor design. acn: 9607170191 Fiche: 89043:342-89043:346
July 12, 1996	Westinghouse letter (from B. McIntyre) forwarding draft of Chapter 51 of AP600 PRA covering level 1 PRA uncertainty analysis. acn: 9607180273Fiche: 89060:339-89060:361
July 11, 1996	NRC letter (from J. Sebrosky) issuing notification of 960717 meeting with Westinghouse to discuss design certification issues for AP600. acn: 9607150204 Fiche: 89003:330-89003:333
July 8, 1996	Westinghouse letter (from B. McIntyre) responding to NRC position on damping values to be used in piping analyses when system model includes flexible equipment. acn: 9607160115 Fiche: 89057:256-89057:265
July 8, 1996	Westinghouse letter (from B. McIntyre) forwarding revision of AP600 Security Design Report and Revision 0 of AP600 Security Design Vulnerability Analysis Report. acn: 9607120257 Fiche: 89019:095-89019:096
July 3, 1996	NRC letter (from D. Jackson) requesting additional information regarding AP600 shield building roof structure in order to complete review. acn: 9608150161 Fiche: 89362:113-89362:121
July 3, 1996	NRC letter (from D. Jackson) issuing notification of 960711-12 meeting to discuss Westinghouse AP600 nuclear island foundation mat design and NRC confirmatory analysis results. acn: 9607080357 Fiche: 88906:336-88906:339

July 1, 1996	Westinghouse letter (from B. McIntyre) requesting that proprietary AP600 WGOTHIC computer code model input be withheld per 10 CFR 2.790. acn: 9607120242 Fiche: 89037:325-89037:331
July 1, 1996	Westinghouse letter (from B. McIntyre) forwarding proprietary current model input to WGOTHIC computer code for design basis analysis of AP600 containment pressure and temperature response. acn: 9607120241 Fiche: 89037:321-89037:331
July 1, 1996	NRC letter (from T. Quay) forwarding comments on Revision 7 of AP600 SSAR Section 16.2 regarding reliability assurance plan. acn: 9607110277 Fiche: 88983:192-88983:224
July 1, 1996	Westinghouse letter (from B. McIntyre) requesting that proprietary information on AP600 regarding OSU scaling report long term cooling analysis and SSAR be withheld from public disclosure. acn: 9607090035 Fiche: 88960:077-88960:107
July 1, 1996	Westinghouse letter (from B. McIntyre) providing three copies of Westinghouse responses to NRC RAI on AP600 regarding OSU scaling report on long term cooling analysis. acn: 9607090033 Fiche: 88960:072-88960:107
July 1, 1996	Westinghouse letter (from B. McIntyre) submitting application for withholding proprietary information from public disclosure regarding scaling analysis for AP600 containment pressure during design basis accidents per 10 CFR 2.790. acn: 9607080276 Fiche: 88909:307-88909:313
July 1, 1996	Westinghouse letter (from B. McIntyre) forwarding proprietary report providing scaling analysis for AP600 containment pressure during design basis accident conditions. Report supersedes WCAP-14190. acn: 9607080267 Fiche: 88909:303-88909:313
July 1, 1996	Westinghouse letter (from B. McIntyre) requesting that proprietary assessment of mixing and stratification effects on AP600 containment be withheld per 10 CFR 2.790. acn: 9607080245Fiche: 88909:296-88909:302
July 1, 1996	Westinghouse letter (from B. McIntyre) forwarding proprietary draft chapter to WGOTHIC Applications report. acn: 9607080234 Fiche: 88909:292-88909:302
July 1, 1996	NRC letter (from D. Jackson) forwarding summary of 960522-23 meeting regarding review analysis methods and design criteria for structural modules inside and outside containment. acn: 9607050291 Fiche: 88884:263-88884:334

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July 1, 1996	Westinghouse letter (from E SSAR.	3. McIntyre) forwarding Revision 8 to AP600
	acn: 9607050106	Fiche: 88935:176-88935:178
July 1, 1996	· · ·) forwarding Westinghouse draft markups of ft information provided to staff on 960613-18. Fiche: 88889:086-88889:102
June 28, 1996	request) draft of Sections 1. material.	8. McIntyre) forwarding (per 960627 phone 0 4.0 and 5.0 of AP600 Tier 1 certified design
	acn: 9608200018	Fiche: 89422:341-89422:354
June 28, 1996	Westinghouse letter (from B PRA."	8. McIntyre) forwarding Revision 7 to "AP600
	acn: 9607020098	Fiche: 88865:001-88870:091
June 27, 1996	Stratification Cycling and St items 3.12.5.9-1 and 3.12.5	8. McIntyre) transmitting EPRI report, "Thermal riping," in partial response to DSER open .10-1. Fiche: 88949:191-88949:196
	acn: 9607090007	FICHE. 00949.191-00949.190
June 27, 1996	pilot ITAAC submitted in 960	
	acn: 9607020231	Fiche: 88848:284-88848:286
June 26, 1996		n) forwarding summary of 960612 meeting g AP600 NOTRUMP level swell benchmark
	acn: 9607020230	Fiche: 88848:167-88848:236
June 26, 1996	Ŷ,	a. McIntyre) forwarding completed review of mark problems for piping analysis documented
	acn: 9607010338	Fiche: 88872:003-88878:283
June 26, 1996		n) forwarding summary of 960612 meeting as flow oscillations observed during AP600 est facilities.
	acn: 9607010299	Fiche: 88822:313-88822:337
June 26, 1996	SECY-96-128, "Policy and k	forwarding AP600 policy paper Key Technical Issues Regarding lardized Passive Reactor Design," dated da for meeting. Fiche: 88805:260-88805:283
June 26, 1996	•	n) forwarding report entitled "Large-break nenomena Identification and Ranking

	Tabulation," dated August 1995 and "TR/ Double-ended Cold-leg Break for AP600 acn: 9607010219 Fiche: 88843	
June 25, 1996	NRC letter (from D. Jackson) issuing noti with Westinghouse to discuss AP600 PR high-confidence, low-probability of failure Meeting canceled.	A seismic margin
	acn: 9607030179 Fiche: 88864	1:294-88864:295
June 25, 1996	NRC letter (from W. Huffman) advising th Westinghouse AP600 design letter NSD- from public disclosure ref 10 CFR 2.790 p acn: 9606270322 Fiche: 88759	NRC-96-4721 will be withheld
June 25, 1996	NRC letter (from D. Jackson) issuing noti meetings with Westinghouse to discuss s AP600 reactor design.	
	acn: 9606270278 Fiche: 88759	9:187-88759:188
June 25, 1996	NRC letter (from D. Jackson) issuing noti meetings with Westinghouse to discuss L design.	
	•	9:185-88759:186
June 24, 1996	NRC letter (from D. Jackson) informing the provided status review for fire protection acn: 9607010321 Fiche: 88845	
June 24, 1996	Westinghouse letter (from B. McIntyre) re evaluation of low DNB data of modified V withheld per 10 CFR 2.790.	5H-IFM fuel for AP600 be
	acn: 9607010200 Fiche: 88857	7:240-88857:257
June 24, 1996	Westinghouse letter (from B. McIntyre) for proprietary evaluation of low flow DNB date AP600.	• • • •
	acn: 9607010193 Fiche: 88857	7:236-88857:257
June 21, 1996	Westinghouse letter (from B. McIntyre) for responses to NRC requests for additiona acn: 9606280254 Fiche: 88822	
June 21, 1996	NRC letter (from D. Jackson) advising inf Westinghouse letter dated 960521 "Meth Coverage Input for AP600 Containment I withheld from public disclosure ref 10 CF acn: 9606280080 Fiche: 88788	od for Calculating PCS Film DBA Evaluation Model " will be

Appendix A	
June 20, 1996	Westinghouse letter (from B. McIntyre) forwarding three copies of Westinghouse responses to NRC RAI on AP600 topics. acn: 9606260249 Fiche: 88785:134-88785:165
June 20, 1996	Westinghouse letter (from B. McIntyre) forwarding Westinghouse responses to open items on AP600. acn: 9606250258 Fiche: 88775:025-88775:045
June 20, 1996	NRC letter (from W. Huffman) forwarding comments regarding AP600 draft implementation plan for integrating human reliability analysis with human factors engineering design. acn: 9606250236 Fiche: 88718:184-88718:192
June 19, 1996	NRC letter (from W. Huffman) forwarding summary of 960521 and 22 meetings with Westinghouse regarding issues related to AP600 human-factors engineering program. acn: 9606280239 Fiche: 88786:230-88786:326
June 18, 1996	Westinghouse letter (from B. McIntyre) requesting that information regarding electronic data for AP600 integral system test at OSU: Matrix Test SB6, be withheld from public disclosure. acn: 9607010134 Fiche: 88848:354-88848:361
June 18, 1996	Westinghouse letter (from B. McIntyre) providing electronic data for AP600 integral system test at OSU: Matrix Test SB6. acn: 9607010129 Fiche: 88848:350-88848:361
June 18, 1996	Westinghouse letter (from B. McIntyre) forwarding draft SSAR Section 18.5 AP600 task analysis activities. acn: 9606250251 Fiche: 88775:109-88775:116
June 17, 1996	Westinghouse letter (from B. McIntyre) forwarding WCAP-13383,Revision 1, describing AP600 instrumentation and control hardware andsoftware validation and process.acn: 9606210004Fiche: 88684:286-88684:327
June 17, 1996	NRC letter (from D. Jackson) grants applicant request to withhold from public disclosure letter report of 960131 "AP600 Containment DBA Evaluation Model (Water Coverage Model)," on grounds that report contains trade secrets or proprietary information. acn: 9606200312 Fiche: 88677:314-88677:316
June 14, 1996	Westinghouse letter (from B. McIntyre) forwarding draft copy ofChapter 57 of AP600 PRA covering at- power internal fire analysis.acn: 9606240096Fiche: 88698:261-88698:344
June 14, 1996	Westinghouse letter (from B. McIntyre) forwarding revised drafts of SSARChapter 18 Table of Contents, Section 18.12, and Section 18.2.4.acn: 9606180698Fiche: 88652:332-88652:344

June 13, 1996		n) forwarding Westinghouse draft markups of responses provided to staff via facsimile on
	acn: 9606200021	Fiche: 88722:278-88722:319
June 12, 1996	on effect of diffusion flame storage tank on containmer	
	acn: 9607240219	Fiche: 89124:308-89124:311
June 12, 1996	•	an) forwarding request for withholding losure for Westinghouse AP600 design. Fiche: 88676:359-88676:361
June 12, 1996		n) issuing notification of 960625-26 meeting ss piping design analysis for AP600 reactor
	acn: 9606180744	Fiche: 88646:314-88646:317
June 12, 1996		3. McIntyre) providing information required for DSER open items regarding piping analysis. Fiche: 88655:227-88655:239
June 12, 1996	NRC letter (from J. Sebrosk regarding issues associated acn: 9606180013	y) forwarding summary of 960508 meeting with PRA for AP600. Fiche: 88650:303-88650:308
June 11, 1996	closure regarding status of break.	 McIntyre) forwarding information required for DSER open items and RAIs to leak-before-
	acn: 9606180380	Fiche: 88632:307-88632:318
June 11, 1996	NRC letter (from D. Jackson AP600 standard safety and acn: 9606130115	n) forwarding Westinghouse draft-markups of lysis report. Fiche: 88595:001-88595:182
June 11, 1996		y) advising that information submitted in RC-96-4687 dated 960404 will be withheld 0 CFR 2.790 per request. Fiche: 88595:285-88595:287
June 11, 1996		n) issuing notification of 960612 meeting with SU and SPES facility flow oscillations ing. Fiche: 88593:134-88593:136

June 11, 1996		an) issuing notification of 960612 meeting to ary level swell calculations for NOTRUMP Fiche: 88592:353-88592:356
June 7, 1996		3. McIntyre) forwarding Westinghouse or additional information on AP600. Fiche: 88636:054-88636:206
June 6, 1996	discrepancy in flow data from	an) forwarding RAI concerning possible m Test SB5 conducted by Westinghouse garding June 1992 application for design Fiche: 89040:325-89040:328
June 6, 1996		n) forwarding RAI regarding AP600 T-H nchmarking based on 960503 meeting. Fiche: 89034:352-89034:357
June 6, 1996	v .	8. McIntyre) forwarding draft mark up of covering low power and shutdown PRA Fiche: 88519:206-88519:361
June 6, 1996	NRC letter (from T. Quay) re Westinghouse AP600 TS or results of methodology rega	esponding to 960503 letter regarding otimization methodology. Staff will review arding whether AP600 design and PRA insights from STS for Westinghouse plants. Fiche: 88517:220-88517:225
June 5, 1996	NRC letter (from W. Huffma with Westinghouse to discus acn: 9606180341	n) forwarding summary of 960508 meeting ss review of AP600 design. Fiche: 88637:169-88637:205
June 5, 1996	•	n) forwarding staff evaluation of response onclusions regarding Westinghouse letter 00 sample problems. Fiche: 88562:354-88562:357
June 5, 1996	Westinghouse letter (from B status of DSER open items acn: 9606100155	8. McIntyre) forwarding information required for in Chapter 2. Fiche: 88517:342-88517:346
June 4, 1996	Westinghouse letter (from B. McIntyre) forwarding pilot ITAAC for AP600 passive CCS, normal RHR system, and non-Class 1E dc and UPS system.	
	acn: 9606110400	Fiche: 88543:285-88543:313

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June 3, 1996	NRC letter (from J. Sebrosky) issuing notification of 960624-26 meetings with Westinghouse in listed locations to discuss issues associated with Westinghouse level 1 PRA for AP600. acn: 9606060077 Fiche: 88465:001-88465:003	
June 3, 1996	withhold table that defines tr best estimate methodology public disclosure per 10 CFF	n) informing that applicant 960404 request to reatment of uncertainty for AP600 LBLOCA using WCOBRA-TRAC computer code from R 2.790 granted. Fiche: 88474:005-88474:311
June 3, 1996	NRC letter (from T. Quay) a TSs. acn: 9606050165	dvising that staff still requires complete set of Fiche: 88458:159-88458:161
	ach. 9606050165	FICHE. 00430. 139-00430. 101
May 31, 1996		McIntyre) informing review of final design clear island structures and foundation t 960617-21 meeting. Fiche: 88486:349-88486:353
May 31, 1996	– .	. McIntyre) providing development of rate of or scaling AP600 containment. Fiche: 88487:318-88487:334
May 30, 1996	NRC letter (from D. Jackson engineering design of AP600 acn: 9607170284) forwarding RAI pertaining to civil-structural 0. Fiche: 89040:318-89040:322
May 30, 1996		. McIntyre) requesting that proprietary surge line be withheld per 10 CFR 2.790. Fiche: 88749:116-88749:122
May 30, 1996	Westinghouse letter (from B drawing for AP600 surge line acn: 9606060105	. McIntyre) forwarding proprietary isometric e. Fiche: 88749:112-88749:122
	ach. 900000103	Ficile: 00749, 112-00749, 122
May 30, 1996	÷ .	. McIntyre) providing design information on n independent analyses being performed by
	acn: 9606060099	Fiche: 88483:198-88483:303
May 30, 1996	to discuss Westinghouse se) issuing notification of 960617-20 meetings ismic analysis for AP600 design. Fiche: 88400:336-88400:338

Appendix A	
May 29, 1996	NRC letter (from B. Grimes) requesting Westinghouse provide NRC with revised schedule for submittal of information and identify actions to be taken to resolve concerns in writing. acn: 9605310038 Fiche: 88395:291-88395:297
May 24, 1996	Westinghouse letter (from B. McIntyre) forwarding additional information regarding AP600 instrumentation and control software architecture and operation description. acn: 9605310095 Fiche: 88418:328-88418:330
May 24, 1996	NRC letter (from W. Huffman) notice of 960605-06 meeting with Westinghouse to discuss issues related to AP600 containment SDSER open items and containment water coverage model. acn: 9605300123 Fiche: 88390:069-88390:070
May 22, 1996	NRC letter (from W. Huffman) forwarding reports prepared by INEL regarding AP600 in-vessel retention issues during severe core melt accidents. acn: 9608140225 Fiche: 89357:287-89357:347
May 22, 1996	Westinghouse letter (from B. McIntyre) providing clarification on topical reports supporting NRC review of WGOTHIC computer code as part of AP600 review. acn: 9605280065 Fiche: 88386:267-88386:267
May 21, 1996	Westinghouse letter (from B. McIntyre) requesting that proprietary version of preliminary draft chapter to WGOTHIC applications report regarding AP600 PCS film coverage model be withheld from public disclosure per 10 CFR 2.790. acn: 9605280196 Fiche: 88378:044-88378:050
May 21, 1996	Westinghouse letter (from B. McIntyre) forwarding nonproprietary and proprietary versions of draft chapter to WGOTHIC applications report. acn: 9605280193 Fiche: 88378:040-88378:107
May 21, 1996	NRC letter (from W. Huffman) summarizing 960419 meeting with Westinghouse to discuss proposed resolution of AP600 TS issues identified in 950707 letter. acn: 9605240185 Fiche: 88343:287-88343:333
May 21, 1996	Ach: 9605240185Fiche: 86545.267-86545.555NRC letter (from T. Quay) forwarding request for additional information regarding Westinghouse plan for MAAP4 benchmarking and thermal-hydraulic uncertainty. acn: 9605230200Fiche: 88342:154-88342:158
May 21, 1996	NRC letter (from W. Huffman) forwarding comments on draft revision to AP600 standard safety analysis report regarding determination of staffing. acn: 9605230184 Fiche: 88342:139-88342:153

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May 20, 1996	Westinghouse letter (from B. McIntyre) forwarding three copies of Westinghouse response to NRC RAI on AP600 topics. acn: 9605280085 Fiche: 88380:072-88380:124
May 17, 1996	NRC letter (from W. Huffman) requesting additional information on WCOBRA-TRAC code applicability for LBLOCAs. acn: 9606270293 Fiche: 88759:190-88759:202
May 15, 1996	NRC letter (from W. Huffman) issuing notification of 960516 meeting with Westinghouse to discuss issues regarding AP600 level 1 PRA which was subsequently rescheduled for 960528, 29, and 30. Meeting canceled. acn: 9605280285 Fiche: 88374:318-88374:320
May 15, 1996	Westinghouse letter (from B. McIntyre) acknowledging receipt of test matrix of NRC sponsored tests of passive autocatalytic recombiners at SNL.
	acn: 9605220490 Fiche: 88369:326-88369:326
May 15, 1996	NRC letter (from W. Huffman) issuing notification of 960521-22 meeting with Westinghouse to discuss issues regarding AP600 level 1 PRA. Meeting rescheduled for 960528, 29, and 30. acn: 9605220295 Fiche: 88324:334-88324:336
May 15, 1996	Westinghouse letter (from B. McIntyre) submitting AP600 sample problems on benchmarking pipe stress code during meeting with NRC week of 960603.
	acn: 9605210211 Fiche: 88353:024-88353:025
May 15, 1996	NRC letter (from W. Huffman) issuing notification of 960521-22 meeting with Westinghouse to discuss issues regarding AP600 level 1 PRA. acn: 9605170258 Fiche: 88298:324-88298:326
May 14, 1996	Westinghouse letter (from B. McIntyre) forwarding listed documents in support of 960521-22 meeting with Human Factors Branch regarding SSAR Chapter 18.
	acn: 9605210323 Fiche: 88347:001-88347:228
May 14, 1996	NRC letter (from R. Architzel) forwarding summary of 960503 meeting with Westinghouse to discuss progress Westinghouse made in MAAP4 benchmarking and refinement of key phenomena identification for benchmarking process regarding resolution of AP600 T-H uncertainty. acn: 9605210292 Fiche: 88308:113-88308:177
May 13, 1996	Westinghouse letter (from B. McIntyre) requesting that proprietary responses to NRC requests for additional information on AP600 topics and LOFTRAN computer code be withheld per 10 CFR 2.790. acn: 9605210318 Fiche: 88372:253-88372:276

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May 13, 1996	proprietary versions of respo	8. McIntyre) forwarding non-proprietary and onses to NRC requests for additional s and LOFTRAN computer code. Fiche: 88372:249-88372:276
May 13, 1996		B. McIntyre) providing three copies of applicant P600 topics, including LOFTRAN computer Fiche: 88370:070-88370:103
May 9, 1996	Westinghouse letter (from J. additional information regard acn: 9606250040	. Winters) responding to NRC request for ding monitoring system. Fiche: 88722:315-88722:319
May 9, 1996		McIntyre) requesting that proprietary "Westinghouse Setpoint for AP600 Protection CFR 2.790. Fiche: 88391:008-88391:018
May 9, 1996	Revision 0 to WCAP-14606 "Westinghouse Setpoint Met	. McIntyre) forwarding non-proprietary and proprietary Revision 0 to WCAP-14605, thodology for AP600 Protection System." Fiche: 88391:005-88391:089
May 9, 1996	Westinghouse affidavit AW-s regarding 10 CFR 2.790 per	advising that material submitted with 96-927 will be withheld from public disclosure 960215 request. Fiche: 88297:336-88297:338
May 8, 1996	feedwater system.	Winters) forwarding information on startup Fiche: 88722:306-88722:314
May 8, 1996	Westinghouse letter (from J. feedwater system. acn: 9606250034	Winters) forwarding sheets of backup startup Fiche: 88722:302-88722:305
May 8, 1996	background for phone call re	Winters) forwarding last installment of egarding WCAP-13054. Fiche: 88722:297-88722:301
May 7, 1996	for call regarding potential for	forwarding 960507 installment of information or water hammer in feedwater lines. Fiche: 88722:290-88722:296
May 7, 1996	Westinghouse to better answ	y) transmits information to enable ver one of RAI in 960422 letter. Fiche: 88201:348-88201:359

May 6, 1996		. Winters) forwarding first installment of garding response to open RAIs. Fiche: 88722:279-88722:289
May 6, 1996		. McIntyre) requesting that proprietary AP600 be withheld from public disclosure per
	acn: 9605150162	Fiche: 88323:292-88323:311
May 6, 1996	proprietary versions of respo	8. McIntyre) forwarding nonproprietary and onses to NRC RAI 440.258 on AP600 design cluding revised drawings used to build
	acn: 9605150158	Fiche: 88323:288-88323:311
May 6, 1996	DSER open item 17.1.3-1 b AP600 SSAR QA criteria int	n) requesting specific response for closure of y including or referencing in Chapter 17 of ending to apply to RTNSS-identified SSCs struction phase of AP600 plant. Fiche: 88174:357-88174:359
May 6, 1996		n) forwarding preliminary test matrix to be erformance of passive autocatalytic Fiche: 88175:182-88175:184
May 3, 1996	response to NRC requests f certification program.	8. McIntyre) forwarding Westinghouse for additional information on AP600 design
	acn: 9605130220	Fiche: 88257:192-88257:273
May 3, 1996	regarding Westinghouse AP	8. McIntyre) responding to NRC 950707 letter 600 TS documenting Westinghouse approach r discussion during 960419 meeting with NRC. Fiche: 88248:325-88248:334
May 3, 1996	•	McIntyre) forwarding material presented to 03 at meeting to further discuss thermal-
	acn: 9605130207	Fiche: 88257:274-88257:335
May 3, 1996	design.	forwarding Supplement to DSER for AP600
	acn: 9605090038	Fiche: 88474:001-88474:311
May 3, 1996	NRC letter (from J. Sebrosk Westinghouse to discuss AF	y) summarizing 960418 meeting with 9600 initial test program.
	acn: 9605070189	Fiche: 88117:315-88117:346

Appendix A	· · ·
May 3, 1996	Westinghouse letter (from B. McIntyre) forwarding draft marked-up sections to AP600 PRA. acn: 9605060118 Fiche: 88149:001-88153:060
May 2, 1996	Westinghouse letter (from B. McIntyre) requesting that proprietary AP600 design certification program leak-before-break information be withheld from public disclosure per 10 CFR 2.790. acn: 9605200491 Fiche: 88341:235-88341:267
May 2, 1996	Westinghouse letter (from B. McIntyre) submitting information updating aspects of AP600 LBB analysis program which supports confirmatory analysis being performed for NRC including bounding analysis curves and input parameters. acn: 9605170491 Fiche: 88368:345-88368:360
May 2, 1996	Westinghouse letter (from D. Jackson) forwarding summary of 960422-23 meeting with Westinghouse to discus WGOTHIC computer code and PCS design review status. acn: 9605060239 Fiche: 88104:107-88104:116
May 2, 1996	NRC letter (from D. Jackson) informing of 960617-21 meeting to review final design and seismic analysis for nuclear island structures and foundation mat. acn: 9605060230 Fiche: 88104:117-88104:119
May 2, 1996	NRC letter (from D. Jackson) responding to applicant letter dated 951113 regarding reduced staff review effort for AP600 advanced reactor design. acn: 9605060214 Fiche: 88104:126-88104:129
May 2, 1996	NRC letter (from W. Huffman) issuing notification of 960508 meeting with Westinghouse to discuss design certification issues for AP600. acn: 9605060170 Fiche: 88111:345-88111:348
May 2, 1996	NRC letter (from W. Huffman) issuing notification of 960521 and 22 meeting with Westinghouse to discuss Westinghouse proposed resolution to issues regarding AP600 human factors engineering program. acn: 9605030296 Fiche: 88104:001-88104:004
May 1, 1996	Westinghouse letter (from B. McIntyre) forwarding Revision 7 of AP600 SSAR. acn: 9701290113 Fiche: 91572:202-91577:261
May 1, 1996	Westinghouse letter (from B. McIntyre) forwarding draft TSs 5.1 5.2 and 5.3 for use in preliminary review of SSAR Section 18.7. acn: 9605140155 Fiche: 88272:029-88272:033

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May 1, 1996	NRC letter (from D. Scaletti) forwarding summary of 9 to discuss topics related to QA practices of ANSALDO AP600 and SBWR designs. acn: 9605030188 Fiche: 88100:284-88100:332	•
May 1, 1996	NRC letter (from J. Sebrosky) issuing notification of 9 Westinghouse to discuss level 1 PRA for AP600. acn: 9605030023 Fiche: 88104:005-88104	-
May 1, 1996	NRC letter (from W. Huffman) forwarding Westinghou AP600 SSAR Section 18.7. acn: 9605030014 Fiche: 88104:010-88104	•
May 1, 1996	NRC letter (from W. Huffman) issuing notification of 9 Westinghouse to discuss AP600 MAAP4 benchmarkin acn: 9605020144 Fiche: 88079:359-88079	ng progress.
April 29, 1996	NRC letter (from J. Taylor) forwarding Supplement to computer codes and testing program. acn: 9605020400 Fiche: 88093:358-88093	
April 26, 1996	NRC letter (from W. Huffman) forwarding RAI regardi design certification of AP600. acn: 9605290024 Fiche: 88375:237-88375	
April 26, 1996	Westinghouse letter (from B. McIntyre) submitting appreciation from public disclose Westinghouse responses to NRC RAI on AP600 per acn: 9605070059 Fiche: 88174:145-88174	sure regarding 10 CFR 2.790(B)(1).
April 26, 1996	Westinghouse letter (from B. McIntyre) forwarding no proprietary Westinghouse responses to NRC RAI on certification program. acn: 9605070041 Fiche: 88174:141-88174	AP600 design
April 26, 1996	NRC letter (from D. Jackson) forwarding status of EC items for AP600 in SSAR Chapter 2. acn: 9604300258 Fiche: 88053:262-88053	GB remaining open
April 25, 1996	NRC letter (from D. Jackson) forwarding draft report Problems for Westinghouse AP600 Standardized Plan results of NRC independent confirmatory piping stress acn: 9605020332 Fiche: 88098:001-88098	nt " documenting s analyses.
April 25, 1996	NRC letter (from W. Huffman) forwarding summary of representatives of Westinghouse to address discussion AP600 Oregon State University TAR. acn: 9604300123 Fiche: 88053:236-880533	on items regarding

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April 25, 1996	NRC letter (from D. Jackson) issuing notification of 960522-23 applicant meeting to discuss Westinghouse AP600 design for containment air baffle.
	acn: 9604290105 Fiche: 88036:353-88036:354
April 24, 1996	NRC letter (from W. Huffman) informing that applicant 960131 request to withhold information related to AP600 design certification test program and LOFTRAN, NOTRUMP, and WCOBRA-TRAC computer codes from public disclosure per 10 CFR 2.790 granted. acn: 9604300265 Fiche: 88053:292-88053:295
April 23, 1996	NRC letter (from W. Huffman) requesting for additional information regarding June 1992 application for design certificate of AP600 to complete review.
	acn: 9605290043 Fiche: 88375:275-88375:282
April 22, 1996	NRC letter (from J. Sebrosky) forwarding request for additional information regarding AP600 PRA concerning Westinghouse responses documented in 960308 letter NSD-NRC-96-4662. acn: 9606120244 Fiche: 88593:137-88593:144
April 22, 1996	Westinghouse letter (from B. McIntyre) forwarding responses to NRCRAIs on AP600 topics.acn: 9604300350Fiche: 88067:167-88067:171
April 18, 1996	NRC letter (from D. Jackson) issuing notification of 960422 and 23 meeting with Westinghouse to review Westinghouse AP600 design and approach for issues associated with passive containment cooling system. acn: 9604230362 Fiche: 87971:329-87971:330
April 17, 1996	Westinghouse letter (from B. McIntyre) forwarding floor response spectrabased on current seismic models and design soil cases.acn: 9604260102Fiche: 88030:340-88030:355
April 16, 1996	NRC letter (from W. Huffman) advising that information regarding AP600 design certification test program NOTRUMP computer code and with GOTHIC computer code will be withheld from public disclosure per 10 CFR 2.790 per 951130 request. acn: 9604230081 Fiche: 87971:166-87971:168
April 16, 1996	Westinghouse letter (from B. McIntyre) forwarding draft revision to portions of AP600 initial test program (SSAR Chapter 4). acn: 9604220248 Fiche: 87962:282-87962:325
April 12, 1996	Westinghouse letter (from B. McIntyre) requesting return of materialdocketed under AP600 design review.acn: 9604180145Fiche: 87941:356-87941:356

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April 12, 1996	Westinghouse letter (from B. McIntyre) submitting summary of 960229 meeting regarding AP600 thermal-hydraulic uncertainty and MAAP4 benchmarking plan.
	acn: 9604180072 Fiche: 87936:316-87936:335
April 12, 1996	Westinghouse letter (from B. McIntyre) forwarding non-proprietary Revision 0 to WCAP-14401, "Programmatic Level Description of AP600 Human Factors Verification and Validation Plan," and non-proprietary Revision 0 to WCAP-14396, "Man-in-the-Loop Test Plan Description." acn: 9604170510 Fiche: 87928:155-87928:211
April 11, 1996	NRC letter (from D. Jackson) forwarding DSER open items in SSAR Sections 3.6.3 and 3.12 for review of AP600 reactor design. acn: 9604170185 Fiche: 87911:275-87911:289
April 11, 1996	NRC letter (from J. Sebrosky) informing of 960418 meeting with Westinghouse to discuss initial test program for AP600. acn: 9604160454 Fiche: 87900:308-87900:309
April 10, 1996	NRC letter (from D. Jackson) informing NRC completed review in mechanical engineering area of AP600 SSAR through Revision 5. acn: 9604170164 Fiche: 87911:256-87911:274
April 10, 1996	NRC letter (from W. Huffman) informing of 960419 meeting with Westinghouse to discuss proposed resolution to AP600 TS issues. acn: 9604160334 Fiche: 87899:205-87899:207
April 9, 1996	NRC letter (from T. Kenyon) summarizing 960319 senior management meeting on AP600, focusing particularly on schedule for completion of design review and contingency on submissions of necessary information by Westinghouse. acn: 9604150135 Fiche: 87888:016-87888:081
April 5, 1996	NRC letter (from T. Quay) discussing open issues in SSAR Sections 3.7 and 3.8 for AP600 design. acn: 9604100115 Fiche: 87835:230-87835:287
April 5, 1996	NRC letter (from W. Huffman) advising that proprietary materials encl in NSD-NRC-96-4649 for Westinghouse AP600 design letter of 960216 will be withheld from public disclosure per 10 CFR 2.790(b)(5) and Section 103(b) of Atomic Energy Act. acn: 9604100110 Fiche: 87835:347-87835:349
April 4, 1996	NRC letter (from D. Jackson) forwarding request for additional information related to AP600 PRA Chapter 42 and SSAR Section 3.8.2. acn: 9605290025 Fiche: 88375:241-88375:247

Appendix A	
April 4, 1996	Westinghouse letter (from B. McIntyre) forwarding responses to NRC follow-on questions provided in 950907 1018 and 960122 letters regarding I&C modeling in AP600 PRA. acn: 9604110174 Fiche: 87856:001-87856:101
April 4, 1996	Westinghouse letter (from B. McIntyre) requesting that proprietary updated AP600 MAAP4 parameter file and PRA information on description of DVI line break cases be withheld per 10 CFR 2.790. acn: 9604110141 Fiche: 87860:325-87860:331
April 4, 1996	Westinghouse letter (from B. McIntyre) forwarding proprietary diskette containing updated AP600 MAAP4 parameter file used for AP600 level 2 PRA and proprietary information regarding modeling of AP600 PRA DVI line break case 3BE. acn: 9604110137 Fiche: 87860:321-87860:331
April 4, 1996	Westinghouse letter (from B. McIntyre) requesting that proprietary table defining treatment of uncertainty for AP600 large break LOCA analysis methodology be withheld per 10 CFR 2.790. acn: 9604110036 Fiche: 87860:311-87860:320
April 4, 1996	Westinghouse letter (from B. McIntyre) forwarding proprietary and nonproprietary versions of table defining treatment of uncertainty for AP600 large break LOCA analysis methodology. acn: 9604110030 Fiche: 87860:307-87860:320
April 4, 1996	Westinghouse letter (from B. McIntyre) forwarding phenomena identification and ranking table for AP600 large break LOCA. acn: 9604100269 Fiche: 87941:342-87941:346
April 4, 1996	NRC letter (from J. Sebrosky) forwarding summary of 960227 meeting with Westinghouse and EPRI regarding data in support of use of passive autocatalytic recombiners for AP600. acn: 9604100120 Fiche: 87824:303-87824:345
April 3, 1996	Westinghouse letter (from A. Levin) discussing 960305-13 trip to Switzerland, Italy, and Netherlands regarding QA inspection and technical discussions on PANDA test program, AP600 VAPORE program, and in-plant testing related to natural circulation BWR stability. acn: 9604160147 Fiche: 87890:001-87890:077
April 3, 1996	Westinghouse letter (from B. McIntyre) forwarding information in responseto NRC 950525 RAIs on AP600 post-72 hour support actions.acn: 9604080176Fiche: 87817:210-87817:217
April 3, 1996	Westinghouse letter (from B. McIntyre) informing that Westinghouse review of material enclosed with NRC 960401 RAI regarding AP600 hydrogen recombination subsystem for proprietary information indicates

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	that identified materials con considers proprietary. acn: 9604080169	ntain no information that Westinghouse Fiche: 87811:355-87811:355
April 3, 1996	NRC letter (from J. Sebros with Westinghouse regardi related to AP600 design.	ky) forwarding summary of 960320-21 meeting ng risk-oriented accident analysis methodology
April 2, 1996	of Revision 6 to AP600 SS	Fiche: 87770:070-87770:104 B. McIntyre) requesting that proprietary version AR be withheld per 10 CFR 2.790(B)(1). : 87836:005-87836:009
April 2, 1996	Westinghouse letter (from	B. McIntyre) forwarding proprietary and Revision 6 to AP600 SSAR. Fiche: 87836:001-87838:340
April 1, 1996	NRC letter (from J. Sebros	ky) requesting that portions of information parding application for design certification be
April 1, 1996	Westinghouse letter (from AP600 design certification acn: 9604080179	B. McIntyre) providing responses to RAI on program. Fiche: 87803:262-87803:341
April 1, 1996	Westinghouse letter (from design basis LOCA analysi acn: 9604080125	B. McIntyre) submitting AP600 source term for s. Fiche: 87814:299-87814:308
April 1, 1996	responses to NRC request coolers.	B. McIntyre) forwarding Westinghouse s for additional information on AP600 fan
April 1, 1996		Fiche: 87814:195-87814:208 Taylor) providing Commission with status of
	staff review of advanced re MHTGR. acn: 9604080059	actor designs, including AP600, SBWR, and Fiche: 87771:026-87771:040
March 29, 1996	withholding proprietary info flow-induced vibration asse CFR 2.790.	B. McIntyre) submitting application for rmation regarding AP600 reactor internals essment report from public disclosure per 10
	acn: 9604090135	Fiche: 87829:048-87829:054

March 29, 1996	. .	B. McIntyre) forwarding non-proprietary and 600 Reactor Internals Flow-induced Vibration sion 2. Fiche: 87829:044-87829:131
March 28, 1996	· · ·	a) forwarding copy of faxed 960322 letter from to W. Russell of NRR on AP600. Fiche: 87722:001-87722:011
March 28, 1996	with Westinghouse regarding	an) forwarding summary of 960229 meeting ng NRC comments on Westinghouse MAAP4 -hydraulic uncertainty issue resolution plan for Fiche: 87708:322-87708:360
March 27, 1996	NRC letter (from J. Sebrosl 1992 application for design acn: 9605060200	ky) forwarding RAI to complete review of June certification of AP600. Fiche: 88104:037-88104:041
March 27, 1996	•	 B. McIntyre) informing that Vantage-5H grid -induced vibration problems identified in DSER -1). Fiche: 87807:346-87807:347
March 27, 1996		an) forwarding summary of 960315 meeting iss WCOBRA-TRAC application to AP600 Fiche: 87722:012-87722:046
March 27, 1996	Westinghouse letter NTD-N	an) advising that information submitted in IRC-95-4610 dated 951215 will be withheld I0 CFR 2.790(b)(5) and Section 103(b) of Fiche: 87723:359-87723:361
March 27, 1996	loss-of-coolant accident pho	an) forwarding AP600 large-break enomena identification and raking tabulation s of 80% double-ended cold-leg break for Fiche: 87669:121-87669:123
March 26, 1996	•	n) forwarding updates to open items and g various SSAR Sections in Chapters 9 and Revision 4. Fiche: 88095:278-88095:286

March 26, 1996	NRC letter (from T. Kenyon) requesting for additional information to complete review of June 1992 application for design certification of AP600.
	acn: 9605020162 Fiche: 88095:316-88095:319
March 26, 1996	Westinghouse letter (from B. McIntyre) forwarding response to NRC RAI 440.515 (Revision 1) regarding NOTRUMP computer code. acn: 9604010230 Fiche: 87696:317-87696:337
March 26, 1996	Westinghouse letter (from B. McIntyre) forwarding "QA Program Requirements for RTNSS System Structures and Components," per GL 85-06. acn: 9603290364 Fiche: 87693:292-87693:294
	ach: 9603290364 Fiche: 67693.292-67693.294
March 26, 1996	NRC letter (from W. Huffman) forwarding Westinghouse draft which discusses HFE subcontractor compliance with requirements of AP600 HFE program.
	acn: 9603280121 Fiche: 87659:191-87659:194
March 22, 1996	Westinghouse letter (from H. Bruschi) informing of growing concern about closure of issues and management of schedule to reach FDA. acn: 9604010325 Fiche: 87722:002-87722:003
March 22, 1996	NRC letter (from W. Huffman) informing that NRC staff has recently completed review of draft standard safety analysis report revision concerning AP600 man-machine interface system design team. acn: 9603270248 Fiche: 87632:001-87632:024
March 21, 1996	Westinghouse letter (from B. McIntyre) providing justification for AP600 separation criteria to RG 1.75. acn: 9603290130 Fiche: 87669:189-87669:192
March 21, 1996	NRC letter (from D. Jackson) forwarding summary of 960307 meeting with Westinghouse regarding AP600 structures. acn: 9603260024 Fiche: 87619:181-87619:220
March 20, 1996	NRC letter (from D. Jackson) submitting RAI regarding AP600 reports on PCS. acn: 9605020223 Fiche: 88095:335-88095:339
March 20, 1996	Westinghouse letter (from B. McIntyre) requesting that proprietary Revision 0 to WCAP-14601, "AP600 Accident Analyses Evaluation Models," be withheld (reference 10 CFR 2.790). acn: 9603280155 Fiche: 87682:252-87682:258
March 20, 1996	Westinghouse letter (from B. McIntyre) forwarding proprietary Revision 0 to WCAP-14601, "AP600 Accident Analyses - Evaluation Models." acn: 9603280151 Fiche: 87682:248-87682:258

Appendix A		
March 20, 1996	with Westinghouse to addre request for separate effects	an) forwarding summary of 960222 meeting ess Westinghouse concerns about staff test assessments for AP600 NOTRUMP code already proposed by Westinghouse. Fiche: 87565:349-87565:352
March 19, 1996	ACRS on 960307-09 regard	forwarding summary of 429th meeting of ding NRC program on adequacy assessment r simulation of AP600 passive plant behavior. Fiche: 87664:047-87664:059
March 18, 1996	additional information on Al reactor system analysis cor	n) advising that 951221 letter requesting 2600 design certification test program and nputer codes LOFTRAN and NOTRUMP will closure (ref 10 CFR 2.790) per request. Fiche: 87552:254-87552:256
March 15, 1996	- · ·	3. McIntyre) informing that Westinghouse In to AP600 certification review of severe Fiche: 88016:355-88016:355
March 14, 1996		8. McIntyre) forwarding report on impact of fan aerosol removal rates and post-LOCA aerosol in support of RAI 470.25. Fiche: 87588:290-87588:299
March 13, 1996	· · · · · · · · · · · · · · · · · · ·) issuing notification of 960319 senior Westinghouse to discuss design certification Fiche: 87508:320-87508:323
March 13, 1996	NRC letter (from J. Sebrosk with Westinghouse to discus acn: 9603180002	y) issuing notification of 960320-21 meeting ss ROAAM. Fiche: 87507:357-87507:359
March 11, 1996		n) submitting questions, comments, and Westinghouse AP600 OSU test analysis Fiche: 87971:310-87971:316
March 11, 1996) forwarding summary of 960223 meeting with hedule and design certification issues for
	acn: 9603150202	Fiche: 87489:184-87489:237

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March 11, 1996	NRC letter (from W. Huffman) submitting comments regarding AP600 draft standard safety analysis report section on plant procedure development.	
	acn: 9603140362	Fiche: 87486:330-87486:345
March 8, 1996		 McIntyre) forwarding table providing target mation on AP600 in response to NRC 960220
	acn: 9603180158	Fiche: 87537:294-87537:305
March 8, 1996	requests for additional inform	8. McIntyre) submitting response to NRC mation on AP600 design certification program, tions regarding level 1 PRA topics and 2 ng accident management. Fiche: 87526:260-87526:275
March 8, 1996	NRC letter (from T. Kenyon June 1992 application for de acn: 9603130291) requesting additional information regarding esign certificate of AP600. Fiche: 87459:309-87459:311
March 7, 1996	NRC letter (from J. Sebrosk application for design certific acn: 9605020165	y) forwarding RAI regarding June 1992 cation of AP600. Fiche: 88081:355-88081:359
March 7, 1996	Westinghouse to discuss un to AP600 SSAR Chapter 15 analysis.	n) issuing notification of 960315 meeting with ique aspects of WCOBRA-TRAC application large break LOCA and long term cooling Fiche: 87436:353-87436:357
	acn: 9603120436	
March 7, 1996		y) forwarding summary of 960201 meeting nd control portion of AP600 PRA model. Fiche: 87458:197-87458:201
March 6, 1996	Westinghouse report WCAF	8. McIntyre) requesting that proprietary P-14471, "Steam Condensation Events at OSU hheld (reference 10 CFR 2.790). Fiche: 87520:355-87520:361
March 6, 1996	Westinghouse report WCAF AP600 Test Facility."	8. McIntyre) forwarding proprietary P-14471, "Steam Condensation Events at OSU
	acn: 9603180207	Fiche: 87520:351-87520:361
March 6, 1996	U ,	3. McIntyre) requesting that proprietary AP600 passive RHR HX be withheld per 10
	acn: 9603180175	Fiche: 87519:326-87519:354

Appendix A	
March 6, 1996	Westinghouse letter (from B. McIntyre) forwarding nonproprietary response to RAI 952.94 (Revision 1) and proprietary response to DSER open item 21.3.3-1 regarding AP600 passive RHR HX. acn: 9603180169 Fiche: 87519:322-87519:354
March 5, 1996	Westinghouse letter (from B. McIntyre) forwarding non-proprietary Revision 0 to topical report WCAP-14477, "AP600 Adverse System Interactions Evaluation Report." acn: 9603120254 Fiche: 87507:178-87507:264
March 5, 1996	NRC letter (from D. Jackson) informing NRC reduced staff review effort for AP600 advanced reactor design to include only previously submitted documents. acn: 9603110177 Fiche: 87424:188-87424:191
March 4, 1996	NRC letter (from W. Huffman) forwarding request for additional information regarding AP600 testing program. acn: 9604160037 Fiche: 87894:275-87894:278
March 4, 1996	NRC letter (from D. Jackson) forwarding questions on Westinghouse report "Basis for Use of Forced Convection Heat Transfer Correlations in AP600 PCS Natural Circulation Driven Air Cooling Path." acn: 9604090442 Fiche: 87809:347-87809:351
March 1, 1996	NRC letter (from W. Huffman) forwarding summary of 950124 meeting with Westinghouse regarding progress and review status for AP600 application. acn: 9603110132 Fiche: 87424:208-87424:211
March 1, 1996	NRC letter (from D. Jackson) informing that NRC evaluated "AP600 WGOTHIC Noding Convergence Studies" and determined that report does not contain sufficient information to complete review regarding noding convergence for WGOTHIC computer code. acn: 9603060028 Fiche: 87384:177-87384:180
February 29, 1996	NRC letter (from W. Huffman) informing that 951117 response to NRC request for additional information regarding AP600 design certification test program and reactor system analysis computer codes LOFTRAN and NOTRUMP will be withheld from public disclosure per 10 CFR 2.790(B)(5). acn: 9603060513 Fiche: 87384:030-87384:033
February 29, 1996	NRC letter (from W. Huffman) advising that AP600 draft SSAR markups to Appendix 15D enclosed in NTD-NRC-95-4503 will be withheld from public disclosure per 10 CFR 2.790(b)(5) and Section 103(b) of Atomic Energy Act of 1954 as amended. acn: 9603060287 Fiche: 87384:250-87384:252

February 29, 1996	NRC letter (from W. Huffman) advising that AP600 draft SSAR markups to Section 15.6.5.4a.4.1 and Appendices 15B, C, and D enclosed in letter NTD-NRC-95-4480 will be withheld from public disclosure per 10 CFR 2.790(b)(5) and Section 103(b) of Atomic Energy Act of 1954 as amended. acn: 9603060259 Fiche: 87384:247-87384:249
February 29, 1996	NRC letter (from D. Jackson) issuing notification of 960307 meeting with Westinghouse to discuss Westinghouse AP600 model for shield building roof structures. acn: 9603060227 Fiche: 87384:245-87384:246
February 29, 1996	Westinghouse letter (from B. McIntyre) requesting that Revision 5 toAP600 SSAR be withheld (reference 10 CFR 2.790).acn: 9603040114Fiche: 87359:305-87359:315
February 29, 1996	Westinghouse letter (from B. McIntyre) forwarding Revision 5 to AP600 SSAR. acn: 9603040112 Fiche: 87359:301-87359:315
February 27, 1996	NRC letter (from D. Jackson) discussing NRC Civil Engineering and Geosciences Branch review of current submittals regarding Westinghouse 951113 request to slow AP600 review. To assist in regaining momentum for review, overview of five major issues and list of open items enclosed. acn: 9603060042 Fiche: 87384:181-87384:195
February 26, 1996	Westinghouse letter (from B. McIntyre) responding to NRC RAIs 480.304 and 480.307 on WGOTHIC computer code. acn: 9603010079 Fiche: 87318:337-87318:339
February 21, 1996	NRC letter (from W. Huffman) issuing notification of rescheduled 960229 meeting with Westinghouse to discuss thermal-hydraulic issues regarding AP600 design. acn: 9602290185 Fiche: 87302:343-87302:346
February 21, 1996	NRC letter (from W. Huffman) forwarding summary of 960123-24 meeting with Westinghouse regarding AP600 testing issues. acn: 9602270193 Fiche: 87266:090-87266:157
February 21, 1996	NRC letter (from W. Huffman) issuing notification of 960227 meeting with Westinghouse to perform in-depth review and audit of EPRI supplied data to support performance capabilities of PARS for AP600 containment hydrogen control during design basis accident. acn: 9602260338 Fiche: 87243:307-87243:309

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February 21, 1996	NRC letter (from W. Huffman) issuing notification of 960222 meeting with Westinghouse to discuss AP600 separate effects tests for benchmarking NOTRUMP level swell calculations. acn: 9602260205 Fiche: 87261:141-87261:143
February 21, 1996	NRC letter (from W. Huffman) issuing notification of 960227 meeting to discuss thermal-hydraulic uncertainty issues regarding AP600 design. acn: 9602260018 Fiche: 87234:347-87234:350
February 20, 1996	NRC letter (from D. Jackson) forwarding summary of 951027 telecon with Westinghouse to discuss several open items regarding inservice testing described in AP600 SSAR. acn: 9602260286 Fiche: 87261:153-87261:185
February 20, 1996	NRC letter (from J. Sebrosky) forwarding summary of 960118 meeting with Westinghouse regarding PRA for AP600 design. acn: 9602230266 Fiche: 87233:322-87233:343
February 20, 1996	NRC letter (from D. Jackson) discussing major issues for resolution Engineering and Geoscience Branch review of AP600 reactor design. acn: 9602220352 Fiche: 87211:349-87211:351
February 20, 1996	NRC letter (from D. Scaletti) confirms visit by NRR staff to ANSALDO offices on 960311-12. acn: 9602220339 Fiche: 87216:220-87216:221
February 20, 1996	NRC letter (from T. Quay) forwarding list of key items to be submitted by Westinghouse in support of AP600 design certification review. acn: 9602220325 Fiche: 87212:357-87212:360
February 20, 1996	NRC letter (from D. Scaletti) confirms NRC inspection regarding SBWR testing activities at PANDA test facility on 960305-08. acn: 9602220315 Fiche: 87212:354-87212:356
February 16, 1996	Westinghouse letter (from B. McIntyre) requesting that proprietary version of responses to NRC RAIs on AP600 design certification test program and with GOTHIC computer code be withheld (reference 10 CFR 2.790). acn: 9602230195 Fiche: 87270:230-87270:281
February 16, 1996	Westinghouse letter (from B. McIntyre) forwarding nonproprietary and proprietary versions of responses to NRC RAIs on AP600 design certification test program and with GOTHIC computer code. acn: 9602230188 Fiche: 87270:226-87270:281
February 15, 1996	Westinghouse letter (from B. McIntyre) requesting that conservatism in modeling of PCS film in DBA evaluation model and comparison of range of films parameters in PCS test data with AP600. acn: 9602230258 Fiche: 87270:184-87270:225

February 15, 1996Westinghouse letter (from B. McIntyre) forwarding proprietary information
on conservative modeling of AP600 PCS film in DBA evaluation.
acn: 9602230248Fiche: 87270:180-87270:225

February 13, 1996 NRC letter (from W. Huffman) requesting for additional information regarding review of AP600. acn: 9603180176 Fiche: 87508:336-87508:343

February 12, 1996 Westinghouse letter (from B. McIntyre) requesting that AP600 WGOTHIC containment model information in support of response to RAI 480.276 be withheld (reference 10 CFR 2.790). acn: 9602230301 Fiche: 87270:290-87270:296

February 12, 1996 Westinghouse letter (from B. McIntyre) forwarding proprietary information in support of response to RAI 480.276 on AP600 WGOTHIC containment model. acn: 9602230295 Fiche: 87270:286-87270:296

February 12, 1996Westinghouse letter (from B. McIntyre) requesting proprietary accident
specification and phenomena evaluation for AP600 passive containment
cooling system be withheld (reference 10 CFR 2.790).
acn: 9602210134Fiche: 87243:341-87243:347

February 12, 1996 Westinghouse letter (from B. McIntyre) forwarding proprietary information on accident specification and phenomena evaluation for AP600 passive containment cooling system. acn: 9602210124 Fiche: 87243:337-87243:347

February 12, 1996 Westinghouse letter (from B. McIntyre) requesting that proprietary electronic of AP600 PRA ,Revision 6, be withheld (reference 10 CFR 2.790). acn: 9602200245 Fiche: 87222:020-87222:026

February 12, 1996 Westinghouse letter (from B. McIntyre) forwarding proprietary CD containing WordPerfect files for Revision 6 of AP600 PRA. acn: 9602200236 Fiche: 87222:018-87222:026

February 12, 1996Westinghouse letter (from B. McIntyre) forwarding comparison of use of
ASME Code Section VIII criteria versus ASME Code Section III for
construction of air storage tanks for main control room habitability system.
acn: 9602200192Fiche: 87158:358-87158:360

February 12, 1996 Westinghouse letter (from B. McIntyre) forwarding response to request for additional information for use of ASME boiler and pressure vessel Code Case N-284, Revision 1, on AP600 design. acn: 9602200187 Fiche: 87158:352-87158:357

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February 12, 1996	Westinghouse letter (from B. McIntyre) providing response to sample problem for computer validation regarding containment vessel design for AP600.		
	acn: 9602200183	Fiche: 87158:341-87158:351	
February 12, 1996	NRC letter (from D. Crutchi AP600 design certification acn: 9602150419	field) discussing reinitiation of review effort for review. Fiche: 87125:210-87125:212	
February 8, 1996	ACRS on 950608-10 regard) correcting summary of 422nd meeting of ding proposed Commission paper on staff es pertaining to Westinghouse AP600 or design. Fiche: 87410:278-87410:302	
February 8, 1996		i) issuing notification of 960223 senior scuss schedule and certain design certification Fiche: 87126:267-87126:270	
	acii. 9002 150540		
February 8, 1996	in NTD-NRC-95-4467 will b	n) informing that proprietary material enclosed e withheld from public disclosure per 10 CFR 3 (b) of Atomic Energy Act of 1954 as	
	acn: 9602140299	Fiche: 87120:355-87120:357	
February 8, 1996		e) notifies of 960223 meeting with Chedule and certain design certification issues	
	acn: 9602120241	Fiche: 87086:091-87086:094	
February 7, 1996	NRC letter (from W. Huffman)summary of 951205-06 meeting with Westinghouse to discuss ongoing AP600 design certification efforts in reactor system area. acn: 9602090135 Fiche: 87081:089-87081:100		
January 31, 1996	Westinghouse letter (from B. McIntyre) requesting that proprietary summary of applicability of Zuber-Staub film stability model and method to address water coverage in AP600 PCS evaluation model be withheld from public disclosure per 10 CFR 2.790. acn: 9602070263 Fiche: 87062:277-87062:292		
January 31, 1996	nonproprietary summary of	3. McIntyre) forwarding proprietary and applicability of Zuber-Staub film stability model er coverage in AP600 PCS evaluation model. Fiche: 87062:273-87062:292	

- January 31, 1996 Westinghouse letter (from B. McIntyre) requesting that proprietary responses to NRC RAIs on AP600 be withheld from public disclosure per 10 CFR 2.790. acn: 9602070141 Fiche: 87062:264-87062:271
- January 31, 1996 Westinghouse letter (from B. McIntyre) forwarding proprietary responses to NRC RAIs on AP600 design certification test program, including LOFTRAN, NOTRUMP, and WCOBRA-TRAC computer codes; SPES-2 Final Data Report and Test Analysis Report; and OSU Scaling Report. acn: 9602070134 Fiche: 87062:260-87062:271
- January 31, 1996 Westinghouse letter (from B. McIntyre) providing report on WGOTHIC computer code noding and convergence studies performed in support of AP600 PCS design basis analysis methodology. acn: 9602070103 Fiche: 87042:268-87042:295
- January 30, 1996 Westinghouse letter (from B. McIntyre) responding to request for additional information on AP600 design certification program. acn: 9602070024 Fiche: 87039:349-87039:355
- January 29, 1996 Westinghouse letter (from B. McIntyre) requesting that proprietary responses to NRC RAIs on AP600 design certification test program NOTRUMP computer code LOFTRAN computer code and SPES-2 testing be withheld from public disclosure per 10 CFR 2.790. acn: 9602020088 Fiche: 86989:005-86989:082
- January 29, 1996 Westinghouse letter (from B. McIntyre) forwarding nonproprietary and proprietary responses to NRC RAIs on AP600 design certification test program NOTRUMP computer code, LOFTRAN computer code, and SPES-2 testing. acn: 9602020084 Fiche: 86989:001-86989:082
- January 29, 1996 NRC letter (from J. Sebrosky) issuing notification of 960201-0202 meeting with Westinghouse to discuss PRA for AP600 design. acn: 9601310230 Fiche: 86948:160-86948:163
- January 26, 1996 Westinghouse letter (from B. McIntyre) forwarding responses to NRC RAIs on AP600 design certification test program. acn: 9601310239 Fiche: 86961:240-86961:275
- January 23, 1996 NRC letter (from D. Jackson) advising that information contained in EPRI report, "GOTHIC Design Review Final Report," dated 930930, will be withheld from public disclosure ref 10 CFR 2.790 per 951215 request. acn: 9601290483 Fiche: 86912:052-86912:055
- January 23, 1996 Westinghouse letter (from B. McIntyre) providing document that describes Westinghouse position on resolution of in-vessel retention of molten core

debris and related severe accident issues for AP600 design certification program. acn: 9601260123 Fiche: 86890:310-86890:347 January 23, 1996 Westinghouse letter (from B. McIntyre) providing tables identifying key elements of AP600 WGOTHIC PCS design basis analysis approach. acn: 9601260115 Fiche: 86888:340-86888:357 January 22, 1996 NRC letter (from J. Sebrosky) forwarding RAI regarding instrumentation and control PRA models concerning review of June 1992 application for AP600 design certification. acn: 9602290019 Fiche: 87294:300-87294:305 NRC letter (from D. Jackson) advising that information in Westinghouse January 22, 1996 report "Large-scale Test Data Evaluation," will be withheld from public disclosure ref 10 CFR 2.790 per 950515 letter. Fiche: 86890:173-86890:175 acn: 9601290024 January 19, 1996 Westinghouse letter (from B. McIntyre) responding to NRC RAI on AP600 design certification program. acn: 9601250201 Fiche: 86893:328-86893:359 January 19, 1996 NRC letter (from W. Huffman) issuing notification of 960124 and 960125 meeting with Westinghouse to discuss Westinghouse progress and findings in RAI responses for AP600 NOTRUMP computer code. Fiche: 86831:329-86831:331 acn: 9601230463 January 18, 1996 NRC letter (from T. Quay) forwarding comments on Westinghouse plan to resolve AP600 PRA MAAP4 success criteria issues. Fiche: 86835:281-86835:350 acn: 9601230290 January 17, 1996 Westinghouse letter (from B. McIntyre) submitting Westinghouse responses to open items presented in NRC meeting minutes for audit. Fiche: 86898:309-86898:330 acn: 9601260126 January 17, 1996 NRC letter (from W. Huffman) issuing notification of 960123-27 meeting with Westinghouse to discuss problems with PRHR testing program and other general reactor system testing concerns. Fiche: 86831:279-86831:282 acn: 9601230169 NRC letter (from W. Huffman) submitting comments regarding January 17, 1996 Westinghouse AP600 core makeup tank level instrument test data and evaluation report. acn: 9601220320 Fiche: 86828:230-86828:231 NRC letter (from D. Jackson) issuing notification of 950118 meeting with January 17, 1996 Westinghouse to discuss shutdown risk and human reliability analysis and Westinghouse approach for issues associated with AP600 PRA. acn: 9601220288 Fiche: 86827:355-86827:357

	n) forwarding questions, comments, and meeting on miscellaneous testing issues. Fiche: 87111:003-87111:021
	n) informing that proprietary document Report: Preliminary Copy," has been et file. Fiche: 86831:297-86831:299
	8. McIntyre) forwarding revised pages 1-3 and SPES-2 Test Analysis Report. Fiche: 86848:345-86848:346
. .	8. McIntyre) forwarding Westinghouse for additional information on AP600 design Fiche: 86817:175-86817:221
Westinghouse letter (from B Section 6.2.4. acn: 9601220359	B. McIntyre) forwarding draft of AP600 SSAR Fiche: 86831:089-86831:241
	n) advising that information contained in withheld from public disclosure (reference 10 uest. Fiche: 86827:358-86827:360
Westinghouse responses to AP600 design certification to 2.790).	8. McIntyre) requesting that proprietary NRC requests for additional information on est program be withheld (reference 10 CFR Fiche: 86822:260-86822:286
Westinghouse letter (from B	. McIntyre) forwarding proprietary NRC requests for additional information on
address NRC open issues revision of Section 3.8.2 of S	McIntyre) forwarding information provided to elated to AP600 steel containment. Draft SSAR, draft revision of Chapter 42 of AP600 C requests for additional information also Fiche: 86786:090-86786:152
	discussion items for AP600 acn: 9602140213 NRC letter (from W. Huffma "AP600 OSU Test Analysis removed from AP600 docket acn: 9601230200 Westinghouse letter (from E 1-4 to Revision 1 of AP600 acn: 9601230225 Westinghouse letter (from E responses to NRC requests certification test program. acn: 9601180466 Westinghouse letter (from E Section 6.2.4. acn: 9601220359 NRC letter (from D. Jackson presentation material will be CFR 2.790) per 951211 req acn: 9601220305 Westinghouse letter (from E Westinghouse letter (from E Westinghouse responses to AP600 design certification to 2.790). acn: 9601190121 Westinghouse letter (from E Westinghouse letter (from E AP600 design certification to acn: 9601190114

Appendix A

January 3, 1996	Westinghouse letter (from B. McIntyre) requesting that proprietary Westinghouse responses to NRC requests for additional information on AP600 be withheld (reference 10 CFR 2.790). acn: 9603110501 Fiche: 87470:028-87470:039	
January 3, 1996	Westinghouse letter (from B. McIntyre) forwarding proprietary Westinghouse responses to NRC requests for additional information AP600.	
	acn: 9603110493	Fiche: 87470:024-87470:039
January 3, 1996	NRC letter (from J. Sebrosky) forwarding summary of 951218 meeting with Westinghouse to discuss application of WCOBRA-TRAC long term cooling analysis.	
	acn: 9601050328	Fiche: 86740:353-86740:356
December 28, 1995	NRC letter (from W. Huffman) forwarding RAI regarding AP600 WCOBRA-TRAC long term cooling analysis concerning June 1992 application for design certification of AP600.	
	acn: 9601300117	Fiche: 86935:352-86935:357
December 27, 1995	design review meeting rega	n) forwarding summary of 951206-07 AP600 arding design issues related to AP600 passive and WGOTHIC computer code. Fiche: 86776:011-86776:207
December 22, 1995	NRC letter (from D. Jackson acn: 9601290007	n) forwarding RAI regarding AP600 PRA. Fiche: 86881:353-86881:358
December 21, 1995	Westinghouse letter (from E AP600 design certificate pro acn: 9601020091	3. McIntyre) submitting responses to RAI on ogram. Fiche: 86679:268-86679:314
December 21, 1995		 B. McIntyre) requesting that proprietary NRC requests for additional information on CFR 2.790. Fiche: 86761:221-86761:249
December 21, 1995		 McIntyre) forwarding proprietary NRC requests for additional information on computer codes.
	acn: 9512290100	Fiche: 86761:219-86761:249
December 18, 1995	• •	 McIntyre) submitting Westinghouse plan and RUMP separate effects test simulations and assessments. Fiche: 86638:189-86638:202

December 15, 1995 NRC letter (from W. Huffman) forwarding request for additional information regarding June 1992 application for AP600 design certification. acn: 9601300110 Fiche: 86935:324-86935:329 December 15, 1995 Westinghouse letter (from B. McIntyre) forwarding information investigating AP600 containment peak pressure response for spectrum of primary system break sizes. acn: 9512210234 Fiche: 86641:272-86641:278 Westinghouse letter (from B. McIntyre) requesting that proprietary December 15, 1995 responses to NRC RAIs on AP600 design certification test program NOTRUMP computer code, WCOBRA-TRAC computer code, and LOFTRAN computer code be withheld from public disclosure per 10 CFR 2.790. acn: 9512210115 Fiche: 86651:155-86651:284 Westinghouse letter (from B. McIntyre) forwarding nonproprietary and December 15, 1995 proprietary responses to NRC RAIs on AP600 design certification test program, NOTRUMP computer code, WCOBRA-TRAC computer code, and LOFTRAN computer code. acn: 9512210113 Fiche: 86651:151-86651:284 NRC letter (from J. Sebrosky) issuing notification of 951218 meeting with December 14, 1995 Westinghouse to discuss WCOBRA-TRAC/OSU long-term cooling preliminary validation report as relates to AP600 design. acn: 9512220170 Fiche: 86615:359-86615:361 December 12, 1995 NRC letter (from W. Huffman) issuing notification of 951219 meeting with Westinghouse to discuss proposed Westinghouse MAAP4 benchmarking plan in support of thermal-hydraulic uncertainty issue resolution regarding AP600. acn: 9512150015 Fiche: 86538:055-86538:057 December 11, 1995 Westinghouse letter (from B. McIntyre) requesting that proprietary presentation materials from 951206 meeting on AP600 containment test and analysis program be withheld from public disclosure per 10 CFR 2.790 acn: 9601050265 Fiche: 86768:005-86768:068 December 11, 1995 Westinghouse letter (from B. McIntyre) forwarding nonproprietary and proprietary presentation materials from 951206 meeting on AP600 containment test and analysis program activities. Fiche: 86768:001-86768:068 acn: 9601050261

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December 11, 1995	Westinghouse letter (from B. McIntyre) requesting that Revision 1 to WCAP-14254, "AP600 SPES-2 Test Analysis Report," be withheld from public disclosure per 10 CFR 2.790. acn: 9512190046 Fiche: 86597:346-86597:352	
December 11, 1995	Westinghouse letter (from E WCAP-14254, "AP600 SPE acn: 9512190037	8. McIntyre) forwarding Revision 1 to S-2 Test Analysis Report." Fiche: 86597:342-86597:352
December 8, 1995	Westinghouse letter (from E benchmarking plan. acn: 9512180079	3. McIntyre) forwarding AP600 MAAP4 Fiche: 86553:048-86553:065
December 8, 1995		8. McIntyre) providing three copies of applicant COBRA-TRAC computer code. Fiche: 86553:298-86553:302
December 5, 1995	NRC letter (from W. Huffman) advising that information submitted in Westinghouse letter NTD-NRC-95-4551 dated 950912 will be withheld from public disclosure per 10 CFR 2.790(b)(5) and Section 103(b) of Atomic Energy Act of 1954.	
·	acn: 9512110240	Fiche: 86489:141-86489:143
December 5, 1995	NRC letter (from W. Huffman) advising that proprietary materials enclosed in NTD-NRC-95-4594 letter dated 951110 will be withheld from public disclosure per 10 CFR 2.790(b)(5) and Section 103(b) of Atomic Energy Act of 1954.	
	acn: 9512070070	Fiche: 86441:348-86441:350
December 1, 1995	NRC letter (from W. Huffman) forwarding summary of 951024-25 meeting with Westinghouse regarding details and limitations of use of MAAP4 code in analysis of AP600 level 1 PRA accident sequence success criteria.	
	acn: 9512070011	Fiche: 86442:001-86442:130
November 30, 1995	responses to NRC RAIs on	 McIntyre) requesting that proprietary AP600 design certification test program, and WGOTHIC computer code be withheld
	acn: 9512110399	Fiche: 86493:005-86493:155
November 30, 1995	proprietary responses to NR	. McIntyre) forwarding nonproprietary and C RAIs on AP600 design certification test uter code, and WGOTHIC computer code. Fiche: 86493:001-86493:155

November 30, 1995 NRC letter (from W. Huffman) forwarding summary of 950710-11 meeting with Westinghouse to discuss items regarding AP600 reactor system design. acr: 9512070267 Fiche: 86442:137-86442:179

November 30, 1995 NRC letter (from D. Jackson) informing EPRI of Westinghouse letter dated 950515 requesting that EPRI proprietary information be withheld from public disclosure. Staff requests EPRI to review claim and provide detailed justification as to why information is proprietary within 30 days. acn: 9512050190 Fiche: 86424:027-86424:056

November 30, 1995 NRC letter (from W. Huffman) issuing notification of 951205-06 meetings to discuss AP600 NOTRUMP computer code and schedules, and milestone goals for Supplement to DSER and FSER related to code validation verification and testing. acn: 9512050126 Fiche: 86411:346-86411:349

November 30, 1995 NRC letter (from W. Huffman) advising that information preliminary report "Addendum to NOTRUMP Preliminary Validation Report for SPES-2 Tests," Revision 0, will be withheld from public disclosure ref 10 CFR 2.790 per 950912 request. acr: 9512040298 Fiche: 86395:197-86395:199

November 28, 1995 NRC memo (from J. Taylor) discussing revised review schedule for AP600 design certification application. acn: 9512010240 Fiche: 86891:300-86891:304

November 28, 1995 NRC letter (from D. Jackson) informing of Westinghouse 950921 request to withhold listed EPRI documents from public disclosure. acn: 9512050051 Fiche: 86411:303-86411:306

November 27, 1995 NRC letter (from W. Huffman) forwarding questions regarding AP600 PRA success criteria used in low-power and shutdown risk assessment. acn: 9601180240 Fiche: 86806:314-86806:318

November 27, 1995 NRC letter (from R. Architzel) forwarding summary of 950427 meeting with Westinghouse to discuss issues regarding long term safety (post-72 hour) for AP600. acn: 9511290211 Fiche: 86353:105-86353:119

November 22, 1995 NRC letter (from W. Huffman) discussing Westinghouse letter NTD-NRC-95-4528 dated 950811 regarding test data for Blind Test SB09 for AP600 final data report on WCAP-14252, and Westinghouse request that report be treated as proprietary and withheld. Request granted. acn: 9511290210 Fiche: 86361:352-86361:354

November 22, 1995 NRC letter (from W. Huffman) discussing Westinghouse letter NTD-NRC-95-4538 dated 950828 regarding report on AP600 design

	certification program SPES-2 preoperational Test H-06, and Westinghouse request that certain submitted information be withheld. Request granted. acn: 9511290206 Fiche: 86362:034-86362:036
November 21, 1995	NRC letter (from D. Jackson) forwarding RAI regarding AP600 PRA human reliability analysis. acn: 9601040311 Fiche: 86727:342-86727:349
November 21, 1995	NRC letter (from W. Huffman) comments on AP600 draft training program. acn: 9511270372 Fiche: 86320:324-86320:345
November 21, 1995	NRC letter (from W. Huffman) advising that information submitted in WCAP-14252, "AP600 Low Pressure Integral System Test at Oregon State University Test Analysis Report, " will be withheld from public disclosure per 10 CFR 2.790 per 950929 letter. acn: 9511270183 Fiche: 86333:244-86333:246
November 20, 1995	NRC letter (from D. Jackson) informing that material enclosed in NTD-NRC-95-4422 letter dated 950327 will be held from public disclosure per 10 CFR 2.790(b)(5) and Section 103(b) of Atomic Energy Act of 1954. acn: 9511270279 Fiche: 86333:222-86333:225
November 17, 1995	Westinghouse letter (from B. McIntyre) requesting that proprietary responses to NRC RAIs on AP600 be withheld per 10 CFR 2.790. acn: 9511270454 Fiche: 86374:133-86374:343
November 17, 1995	Westinghouse letter (from B. McIntyre) forwarding proprietary and nonproprietary responses to NRC RAIs on AP600 design certification test program, NOTRUMP computer code, WCOBRA-TRAC computer code, and LOFTRAN computer code. acn: 9511270453 Fiche: 86374:129-86374:343
November 17, 1995	Westinghouse letter (from B. McIntyre) forwarding Revision 6 to AP600 PRA. acn: 9511270064 Fiche: 86341:139-86341:288
November 16, 1995	NRC letter (from D. Jackson) informing that applicant 950420 request to withhold WCAP-14382 "WGOTHIC Code Description and Validation," from public disclosure per 10 CFR 2.790 granted. acn: 9511270221 Fiche: 86335:358-86335:360
November 15, 1995	NRC letter (from W. Huffman) forwarding followon questions regarding MAAP4 analysis of AP600 PRA success criteria used to support thermal-hydraulic reliability review. acn: 9601180232 Fiche: 86806:310-86806:313

November 14, 1995	submitted revised mass and containment Test 220.1 will 2.790 per 950508 request.	n) advising that information regarding d energy tables for AP600 large scale be withheld from public disclosure ref 10 CFR
	acn: 9511200166	Fiche: 86279:359-86279:361
November 14, 1995	resolving concerns regardin Accident Mitigation Design / January 1996) requesting that schedule consistent with g AP600 SSAR Appendix 1B "Severe Alternatives " be provided by middle of 86278:354-86278:358
November 13, 1995		B. McIntyre) submitting priorities that will result f resources for AP600 design certification
	acn: 9511270225	Fiche: 86351:332-86351:333
Nevember 12, 1005	Mastinghouse letter (from E	Maintura) providing information regarding
November 13, 1995	•	8. McIntyre) providing information regarding WGOTHIC containment integrity analysis
	acn: 9511200096	Fiche: 86283:307-86283:309
November 13, 1995	Westinghouse letter (from B	8. McIntyre) providing information to assist
	staff review of WGOTHIC co	
	acn: 9511200092	Fiche: 86296:337-86296:347
November 13, 1995	•	n) issuing notification of 951206-07 meetings v passive containment cooling system for
	acn: 9511170097	Fiche: 86251:222-86251:225
November 10, 1995	Westinghouse responses to	B. McIntyre) requesting proprietary NRC requests for additional information on est program be withheld (reference 10 CFR)
	acn: 9511140402	Fiche: 86247:068-86247:154
November 10, 1995	Westinghouse responses to AP600 design certification to	
	acn: 9511140399	Fiche: 86247:064-86247:154
November 9, 1995	•	n) forwarding RAI in response to DSER open given existing level of information in revised
	acn: 9601040315	Fiche: 86730:094-86730:099

November 9, 1995	response to violations note 99900404-95-01 dated 951	 B. McIntyre) forwarding Westinghouse d in nonconformance inspection report 006. Corrective actions: Westinghouse o resolve issue with ANSALDO. Fiche: 86263:110-86263:115
November 7, 1995	WGOTHIC containment inte	B. McIntyre) providing comparison between egrity analysis model and more traditional "few i initial blowdown portion of containment Fiche: 86211:339-86211:340
November 6, 1995		n) summarizing 951004 telecon with P600 design issues involving open items in Fiche: 86184:317-86184:325
November 6, 1995	NRC letter (from W. Huffman) advising that information in WCAP-14252, "AP600 Low Pressure Integral System Test at Oregon State University Final Data Report," will be withheld from public disclosure (reference 10 CFR 2.790) per 950613.	
November 6, 1995	report "NOTRUMP Prelimin	Fiche: 86142:177-86142:179 an) advising that information in preliminary ary Validation Report for SPES-2 tests," will be sure (reference 10 CFR 2.790) per 950707 Fiche: 86142:169-86142:171
November 3, 1995	NRC letter (from T. Kenyon improvements to existing a) submitting RAI regarding AP600 potential nd additional features that could reduce radioactive aerosol following severe accident. Fiche: 86117:294-86117:296
November 2, 1995	. .	B. McIntyre) requesting that proprietary NRC requests for additional information on CFR 2.790. Fiche: 86176:322-86176:328
November 2, 1995		 B. McIntyre) forwarding proprietary NRC requests for additional information P computer code. Fiche: 86176:318-86176:328
October 30, 1995	•	3. McIntyre) providing areas where near-term AP600 design certification review as followup Fiche: 86095:334-86095:335

October 27, 1995	NRC letter (from W. Huffman) forwarding summary of 951012 meeting with Westinghouse to discuss staff questions regarding modification of NOTRUMP small break LOCA computer code made for validating AP600 test results.		
	acn: 9511020101	Fiche: 86067:249-86067:307	
October 25, 1995	NTD-NRC-95-4502 will be	an) advising that report enclosed in withheld from public disclosure per 10 CFR 3(b) of Atomic Energy Act of 1954. Fiche: 86033:143-86033:145	
October 25, 1995	NTD-NRC-95-4493 will be	an) advising that WCAP-14307 enclosed in withheld from public disclosure per 10 CFR 3(b) of Atomic Energy Act of 1954. Fiche: 86017:334-86017:336	
October 24, 1995	NRC letter (from D. Jackso analysis for AP600 nuclear acn: 9511010251	n) discussing results of NRC SSI confirmatory island structure. Fiche: 86042:234-86042:248	
October 24, 1995		an) forwarding summary of 950425-26 meeting ess items regarding AP600 reactor system Fiche: 86030:284-86030:350	
October 20, 1995	NRC letter (from R. Architz	el) forwarding summary of 951013 meeting ng materials issues involving design of AP600. Fiche: 86086:120-86086:168	
October 20, 1995	Westinghouse letter (from B. McIntyre) forwarding WCAP-14293, Revision 1, "AP600 Low Pressure Integral System Test at Oregon State University Test Analysis Report." acn: 9510270126 Fiche: 86036:003-86037:341		
October 19, 1995	NRC letter (from W. Huffman) issuing notification of 951024-25 meeting with Westinghouse to discuss thermal-hydraulic uncertainty concerns regarding application of MAAP4 computer code to analysis of AP600 accident sequence.		
	acn: 9510260271	Fiche: 85947:323-85947:326	
October 18, 1995	NRC letter (from W. Huffman) forwarding summary of 950912-14 meeting with Westinghouse regarding thermal-hydraulic uncertainties in various multiple failure accident sequences as presented in Appendix A of AP600 PRA.		
	acn: 9510250072	Fiche: 85943:245-85943:289	

October 18, 1995	Westinghouse letter (from M. Franovich) forwarding RAI to complete review regarding level 1 PRA for internal events and power flooding analysis.	
	acn: 9510240055	Fiche: 85910:351-85910:356
October 18, 1995	Westinghouse to discuss st) forwarding summary of 951012 meeting with atus of review of AP600. Staff provided f each technical review area. Fiche: 85904:355-85904:357
October 17, 1995	Westinghouse letter (from E PRA sensitivity study electro acn: 9510300254	3. McIntyre) forwarding AP600 RTNSS focused onic computer files. Fiche: 86052:356-86052:361
October 16, 1995	Westinghouse to validate C	n) forwarding sample problem for hicago Bridge and Iron Company in-house which involves axisymmetric model for internal s. Fiche: 85899:091-85899:097
October 12, 1995	identified through compariso GOTHIC S, version 1.2 and	8. McIntyre) forwarding summary of differences on of currently configured version of QA-reviewed EPRI version of GOTHIC S, IIC S models not used in analysis of AP600. Fiche: 85911:275-85911:281
October 10, 1995	RAIs on AP600 from NRC 9	8. McIntyre) forwarding responses to NRC 950213 and 0705 letters and responses to PES-2 Final Data Report and Test Analysis etter. Fiche: 85893:177-85893:225
October 10, 1995		a) issuing notification of 951013 meeting with ben item resolutions regarding materials lesign. Fiche: 85778:335-85778:336
October 9, 1995		8. McIntyre) forwarding justification for use of construction of air storage tanks in em per request. Fiche: 85900:248-85900:250
October 6, 1995	•	n) issuing notification of 951012 meeting with DTRUMP computer code issues regarding to Fiche: 85813:008-85813:010
October 6, 1995	•	n) issuing notification of 951016, 17, and 18 e to discuss thermal-hydraulic uncertainty

	concerns regarding applica AP600 accident sequences acn: 9510130188	ation of MAAP4 computer code to analysis of s. Fiche: 85778:359-85778:361
October 6, 1995	on 950724-26. Noncompli	B. McIntyre) inspection report 99900404-95-02 ance noted. Major areas inspected: automatic at Ente Nazionale Energia E Ambiente
	acn: 9510120335	Fiche: 85767:201-85767:208
October 6, 1995		from inspection on 950724-26. s-built drawings not generated for AP600 ADS E.
		Fiche: 85767:196-85767:208
October 6, 1995	on 950724-26 and notice o	forwarding inspection report 99900404-95-02 f nonconformance. Inspection to determine if 00 conducted under provisions of WCAP-8370,
	acn: 9510120282	Fiche: 85767:200-85767:200
October 6, 1995	NRC letter (from W. Huffm SPES-2 Test Analysis Rep (reference 10 CFR 2.790) acn: 9510120191	an) advising that WCAP-14254, "AP600 ort," will be withheld from public disclosure per 950605 request. Fiche: 85766:337-85766:339
October 5, 1995	"AP600 ADS Test Specifica	an) advising that Revision 1 to WCAP-14112, ation Report" will be withheld from public FR 2.790) in response to 950927 request. Fiche: 85766:340-85766:342
October 5, 1995		II) informing that staff developing revised 00 design certification application as discussed Fiche: 85762:346-85762:348
October 3, 1995		an) providing comments on AP600 draft egrating human reliability analysis with human Fiche: 85722:053-85722:062
October 3, 1995	NRC letter (from D. Jackso with Westinghouse to discu Chapter 9.	on) forwarding summary of telecon on 950918 uss listed draft DSER open items in SSAR
	acn: 9510050248	Fiche: 85722:217-85722:224

October 3, 1995		n) advising that information submitted in RC-95-4534 dated 950818 will be withheld 0 CFR 2.790. Fiche: 85722:106-85722:108
October 3, 1995	complete review regarding to Case N-284, Revision 1.	n) requesting additional information to use of ASME Boiler and Pressure Vessel Code
	acn: 9510050216	Fiche: 85722:011-85722:013
October 2, 1995	NRC letter (from W. Huffman) advising that information submitted in Westinghouse report, "WCOBRA-TRAC OSU Long Term Cooling Preliminary Validation Report," to be withheld from public disclosure per 10 CFR 2.790.	
	acn: 9510050064	Fiche: 85722:159-85722:161
September 29, 1995	with listed attendees to disc	n) forwarding summary of 950830-31 meeting uss analysis and design of Westinghouse and review related DSER open items. Fiche: 85721:001-85721:199
September 29, 1995	WCAP-14292, "AP600 Low-	B. McIntyre) requesting that Revision 1 to pressure Integral System Test at Oregon sis Report," be withheld per 10 CFR 2.790. Fiche: 85683:272-85683:278
September 29, 1995		8. McIntyre) forwarding proprietary Revision 1 ow- Pressure Integral System Test at Oregon sis Report." Fiche: 85683:268-85683:278
September 28, 1995	950915 regarding two "as bi	n)advises that information submitted on uilt" drawing of AP600 automatic ase B test facility will be held from public Fiche: 85722:352-85722:354
September 28, 1995	NRC letter (from W. Huffma item regarding requirements	n) discussing status of AP600 DSER open s for SPDS.
•	acn: 9510050084	Fiche: 85722:340-85722:351
September 28, 1995		n) informing that draft documents enclosed in proprietary and will be placed in PDR in 790(C). Fiche: 85722:165-85722:167
September 28, 1995	Westinghouse letter (from B "In-vessel Coolability and Re acn: 9510030237	. McIntyre) forwarding DOE-ID-10460, etention of Core Melt." Fiche: 85694:001-85696:124

September 28, 1995Westinghouse letter (from B. McIntyre) providing list of material that
contain no information that applicant considers proprietary.
acn: 9510030114Fiche: 85688:334-85688:334

September 28, 1995 Westinghouse letter (from B. McIntyre) providing discussion on bases for mass transfer correlation biases used for AP600 containment design basis analyses. acr: 9510030028 Fiche: 85688:320-85688:325

September 27, 1995 NRC letter (from D. Jackson) forwarding summary of 950816 meeting with Westinghouse to discuss proposed closure paths for issues associated with PCCS program approach. acn: 9510040261 Fiche: 85693:226-85693:263

September 27, 1995 Westinghouse letter (from B. McIntyre) requests that proprietary Revision 1 to WCAP-14112 "ADS Test Specification," be withheld from public disclosure per 10 CFR 2.790. acn: 9510030246 Fiche: 85691:286-85691:292

September 27, 1995 Westinghouse letter (from B. McIntyre) forwarding proprietary Revision 1 to WCAP-14112, "ADS Test Specification." acn: 9510030245 Fiche: 85691:282-85691:292

September 27, 1995 NRC letter (from D. Jackson) advising that information submitted by Westinghouse letter NTD-NRC-95-4437 will be withheld from public disclosure (reference 10 CFR 2.790). acn: 9510020276 Fiche: 85673:340-85673:342

September 26, 1995 Westinghouse letter (from B. McIntyre) forwarding evaluation regarding probability of pipe break in main FW line within turbine building and load combinations for leak-before- break in AP600 plant. acn: 9510020358 Fiche: 85690:144-85690:150

September 26, 1995 NRC letter (from W. Huffman) forwarding report, "Evaluation of Westinghouse PRHR Test Facility and Test Matrix for RELAP5-MOD3 Code Assessment." acn: 9510020347 Fiche: 85673:343-85673:345

September 22, 1995 NRC letter (from W. Huffman) forwarding questions and comments on three test program final reports, "OSU Final Data Report," "OSU Test Analysis Report," and "SPES-2 Test Analysis Report." acn: 9510040270 Fiche: 85713:184-85713:192

September 22, 1995 NRC letter (from W. Huffman) forwarding questions and comments on NOTRUMP preliminary validation report for OSU tests and NOTRUMP preliminary validation report for SPES-2 tests. acn: 9510040226 Fiche: 85713:157-85713:173

September 22, 1995	NRC letter (from D. Jackson) forwarding summary of 950914 telecon between Westinghouse and NRC regarding several DSER open items in SSAR Chapter 11.
	acn: 9509260224 Fiche: 85601:154-85601:161
September 22, 1995	NRC letter (from D. Jackson) forwarding summary of 950911 and 19 meeting regarding several DSER open items in Chapters 4 5 and 6. acn: 9509260209 Fiche: 85636:274-85636:283
September 21, 1995	Westinghouse letter (from B. McIntyre) requesting that proprietary version of MACCS input file for AP600 be withheld from public disclosure per 10 CFR 2.790. acn: 9509260124 Fiche: 85608:301-85608:316
September 21, 1995	Westinghouse letter (from B. McIntyre) forwarding proprietary and nonproprietary versions of MACCS input file for AP600. acn: 9509260120 Fiche: 85608:297-85608:316
September 21, 1995	Westinghouse letter (from J. Donohew) forwarding generic issues to bedeleted from FSER review for Westinghouse AP600 design.acn:9509250304Fiche:85578:289-85578:292
September 19, 1995	Westinghouse letter (from B. McIntyre) forwarding requested informationregarding scaling role in AP600 PCS DBA analysis.acn:9509250345Fiche:85599:328-85599:336
September 19, 1995	NRC letter (from W. Huffman) forwarding summary of 950824 senior management meeting regarding review of AP600. acn: 9509250298 Fiche: 85577:261-85577:329
September 18, 1995	Westinghouse letter (from B. McIntyre) forwarding status of review of AP600 proprietary submittals. acn: 9509250340 Fiche: 85599:337-85599:357
September 15, 1995	Westinghouse letter (from B. McIntyre) requesting that proprietary AP600 automatic depressurization system test facility regarding supplemental as-built drawings be withheld (reference 10 CFR 2.790). acn: 9509200341 Fiche: 85606:003-85606:013
September 15, 1995	Westinghouse letter (from B. McIntyre) forwarding proprietary "as-built" drawings of AP600 automatic depressurization system Phase B test facility in Cassacia, Italy. acn: 9509200332 Fiche: 85606:001-85606:013
September 15, 1995	Westinghouse letter (from B. McIntyre) discussing rationale for use of SATAN computer code for AP600. acn: 9509200300 Fiche: 85554:294-85554:295

- September 15, 1995 Westinghouse letter (from B. McIntyre) forwarding WCAP-14253, "AP600 Low-pressure Integral System Test at Oregon State University Final Data Report." acn: 9509190267 Fiche: 85528:003-85530:096
- September 14, 1995 NRC letter (from D. Jackson) advising that information submitted in June 1992 application for design certification will be withheld from public disclosure pending NRC final determination. acn: 9510040295 Fiche: 85713:242-85713:248
- September 14, 1995NRC letter (from S. Magruder) advising that information designated
proprietary in WCAP-14425 in accordance with requirements of 10 CFR
2.790 will not be withheld from public disclosure per 950713 request.
acn: 9509210090Fiche: 85562:334-85562:336

September 14, 1995 NRC letter (from M. Franovich) advising that information regarding AP600 reactor vessel insulation design to permit external reactor vessel cooling during severe accident will be withheld from public disclosure ref 10 CFR 2.790. acn: 9509200310 Fiche: 85525:351-85525:353

- September 14, 1995 Westinghouse letter (from B. McIntyre) informing that Westinghouse estimates for determining and reaching agreement on task details and logic can be completed by mid to late October 1995. acn: 9509140233 Fiche: 85476:334-85476:334
- September 13, 1995 Westinghouse letter (from B. McIntyre) requesting approval of use of ASME B and PV Code Case N-284, Revision 1, for construction of components in nuclear power facility. acn: 9509200201 Fiche: 85554:196-85554:196
- September 13, 1995 Westinghouse letter (from B. McIntyre) informing that applicant has reviewed proprietary material and review indicates that identified materials contain no information that applicant considers proprietary. acn: 9509200016 Fiche: 85543:356-85543:356
- September 12, 1995 NRC letter (from S. Magruder) informing that revision pages and instructions to WCAP-14309, "AP600 Design Certification Program SPES-2 Tests Final Data Report," will be withheld from public disclosure (reference 10 CFR 2.790). acn: 9509190314 Fiche: 85524:164-85524:166
- September 12, 1995 Westinghouse letter (from B. McIntyre) requesting that proprietary AP600 design certification program leak-before-break information be withheld from public disclosure per 10 CFR 2.790. acn: 9509190274 Fiche: 85537:186-85537:233

September 12, 1995	proprietary version of listed leak-before-break analysis	
	acn: 9509190272	Fiche: 85537:182-85537:233
September 12, 1995		B. McIntyre) requesting that proprietary Preliminary Validation Report for OSU Tests," closure per 10 CFR 2.790. Fiche: 85491:021-85491:028
September 12, 1995	. .	8. McIntyre) forwarding proprietary "Addendum /alidation Report for OSU Tests." Fiche: 85491:017-85491:028
September 12, 1995	"Addendum to NOTRUMP	3. McIntyre) requesting that proprietary Preliminary Validation Report for SPES-2 blic disclosure per 10 CFR 2.790. Fiche: 85491:033-85491:039
September 12, 1995	• •	I. Liparulo) forwarding proprietary "Addendum /alidation Report for SPES-2 Tests." Fiche: 85491:029-85491:039
September 11, 1995		n) forwarding summary of 950817 meeting to acking system and other topics. Fiche: 85505:141-85505:146
September 11, 1995		. Boyce) forwarding summary of 950824 to discuss pilot certified design material for Fiche: 85472:206-85472:233
September 8, 1995		8. McIntyre) appreciates opportunity to review eliability for Passive Advanced LWRs " for tinghouse. Fiche: 85476:335-85476:336
September 7, 1995	AP600 PRA.	I. Franovich) forwarding staff comments on
	acn: 9509110295	Fiche: 85385:346-85385:350
September 6, 1995	Westinghouse letter (from B. McIntyre) forwarding listed material regarding AP600 containment vessel as requested during meeting on 950830 and 31.	
	acn: 9509120083	Fiche: 85435:191-85435:196

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September 5, 1995	NRC letter (from D. Jackson) lists items needing clarification or discussion with Westinghouse as result of NRC review of Revisions 3 and 4 to SSAR.
	acn: 9511090265 Fiche: 86184:322-86184:325
September 5, 1995	NRC letter (from D. Jackson) submitting list of items needing clarification or discussion with Westinghouse as result of review of SSAR Revisions 3 and 4.
	acn: 9510050262 Fiche: 85722:221-85722:224
September 5, 1995	NRC letter (from W. Huffman) discussing status of AP600 DSER open items regarding Element 4 of HFEPRM.
	acn: 9509080030 Fiche: 85398:347-85398:356
September 1, 1995	Westinghouse letter (from B. McIntyre) requesting that "WCOBRA-TRAC OSU Long-term Cooling Preliminary Validation Report," be withheld per 10 CFR 2.790.
	acn: 9509110129 Fiche: 85449:274-85449:280
September 1, 1995	Westinghouse letter (from B. McIntyre) forwarding proprietary WCOBRA-TRAC OSU Long-term Cooling Preliminary Validation Report." acn: 9509110123 Fiche: 85449:270-85449:280
September 1, 1995	NRC letter (from W. Huffman) issuing notification of 950912-14 meeting with Westinghouse to perform detailed review of how numerous MAAP4 probablistic risk assessment event trees analyses into four bounding cases for AP600 thermal-hydraulic studies. acn: 9509070047 Fiche: 85373:275-85373:277
September 1, 1995	NRC letter (from T. Kenyon) forwarding summary of 950222-23 meeting with Westinghouse regarding design of plant system in AP600 design. acn: 9509060367 Fiche: 85314:309-85314:341
August 31, 1995	NRC letter (from W. Huffman) forwarding RAI regarding AP600 design. acn: 9510040302 Fiche: 85713:253-85713:257
August 31, 1995	Westinghouse letter (from B. McIntyre) forwarding tables developed to assist ongoing review of AP600 passive containment cooling system DBA. Tables outline PCS DBA methodology and have been revised to reflect items discussed in recent meetings with NRC. acn: 9509060132 Fiche: 85332:273-85332:312
August 31, 1995	Westinghouse letter (from B. McIntyre) forwarding discussion of design considerations for ADS and IRWST. acn: 9509060127 Fiche: 85367:322-85367:327

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August 31, 1995	NRC letter (from T. Kenyon) forwarding summary of 950427 meeting with Westinghouse to discuss issues regarding in-vessel retention capability of AP600 following severe accident. acn: 9509050349 Fiche: 85314:108-85314:117
August 30, 1995	Westinghouse letter (from B. McIntyre) forwarding disk containing WordPerfect files for Revision 4 of AP600 SSAR. acn: 9509070095 Fiche: 85373:356-85373:358
August 30, 1995	Westinghouse letter (from M. Franovich) forwarding summary of 950817 meeting with Westinghouse regarding external reactor vessel cooling for Westinghouse AP600 design. acn: 9509070015 Fiche: 85325:271-85325:292
August 29, 1995	NRC letter (from T. Kenyon) forwarding summary of 950214-15 meeting with Westinghouse regarding leak-before-break for AP600 design. acn: 9509070017 Fiche: 85325:180-85325:270
August 29, 1995	NRC letter (from T. Kenyon) forwarding summary of 950410-11 meeting with Westinghouse regarding containment and hydrogen issues on AP600. acn: 9509060305 Fiche: 85314:246-85314:256
August 29, 1995	Westinghouse letter (from B. McIntyre) forwarding nonproprietary WCAP-14443, "AP600 Core Makeup Tank Level Instrument Test Data and Evaluation Report," and WCAP-14293, "AP600 Low Pressure Integral System Test at OSU Test Analysis Report." acn: 9508310112 Fiche: 85301:061-85302:050
August 28, 1995	NRC letter (from T. Quay) discussing revised schedule for review of AP600 design advising that working level meetings be held with Westinghouse over next 30 days and that schedules for completing 8-10 critical milestones of review be identified during meetings. acn: 9508310273 Fiche: 85289:356-85289:357
August 28, 1995	NRC letter (from T. Kenyon) forwarding summary of 950412 meeting with Westinghouse regarding issues concerning safeguards for AP600 design. acn: 9508310256 Fiche: 85290:033-85290:035
August 28, 1995	Westinghouse letter (from B. McIntyre) requesting that "SPES-2 Hot Preoperational Test H-06 Inadvertent ADS Stage 1 Actuation (With No ADS Stage 4)," be withheld per 10 CFR 2.790. acn: 9508300156 Fiche: 85283:158-85283:179
August 28, 1995	Westinghouse letter (from B. McIntyre) forwarding non-proprietary and proprietary "SPES-2 Hot Preoperational Test H-06 Inadvertent ADS Stage 1 Actuation (With No ADS Stage 4)." acn: 9508300140 Fiche: 85283:147-85283:179

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August 24, 1995	NRC letter (from D. Jackson) forwarding summary of 950725-26 meeting with Westinghouse regarding AP600 leak-before-break analysis and mechanical issues.	
	acn: 9508300340	Fiche: 85289:195-85289:218
August 23, 1995	portions of AP600 SSAR ar 2.790. Requests that applic	discussing 920626 request for withholding ad PRA from public disclosure per 10 CFR cant reevaluate SSAR and PRA materials to rmation to be withheld meets 10 CFR 2.790 Fiche: 85156:356-85156:360
August 22, 1995	•	an) advising that AP600 preliminary validations be withheld from public disclosure, and complete review. Fiche: 85713:275-85713:281
August 22, 1995	Westinghouse letter (from N multiple SG tube rupture ev acn: 9509050197	N. Liparulo) providing revision to analyses of rents for AP600 design. Fiche: 85349:001-85349:138
August 22, 1995) forwarding summary of 940915 meeting with sue of passive system reliability for design of Fiche: 85289:001-85289:055
August 22, 1995) forwarding summary of 950329-30 meeting
August 22, 1995		n) discussing 941024 letter regarding NRC ory treatment of nonsafety-related system Fiche: 85174:295-85174:297
August 22, 1995) forwarding summary of 950815 meeting ent performance after DBA or severe accident. Fiche: 85168:259-85168:297
August 21, 1995	Westinghouse letter (from E NRC interest in AP600 desi acn: 9508290062	3. McIntyre) expressing appreciation regarding gn. Fiche: 85279:330-85279:331
August 21, 1995		orwarding "Methodology for Resolving AP600 y of Fixed-position Controls Displays Alarms Fiche: 85153:244-85153:248
	uun. 3000200101	

August 21, 1995	NTD-NRC-95-4520 letter d	an) informing that materials enclosed in ated 950801 will be withheld from public 0(b)(5) and Section 103(b) of Atomic Energy
	acn: 9508240245	Fiche: 85144:334-85144:336
August 20, 1995		B. McIntyre) forwarding Revision 1 of AP600 10 CFR 73.2 and 10 CFR 73.21(b). Fiche: 85150:358-85150:358
August 18, 1995	WCAP-14442, "AP600 Cor	N. Liparulo) requesting that proprietary e Makeup Tank Level Instrument Test Data withheld from public disclosure per 10 CFR
	acn: 9508280150	Fiche: 85234:330-85234:336
August 18, 1995		N. Liparulo) forwarding proprietary e Makeup Tank Level Instrument Test Data
	acn: 9508280143	Fiche: 85234:326-85234:336
August 18, 1995	of SSAR Section 18.9.8.	N. Liparulo) forwarding proposed draft-markup
	acn: 9508230312	Fiche: 85149:230-85149:306
August 17, 1995	from 950817 meeting in AP (reference 10 CFR 2.790)	N. Liparulo) requesting that proprietary material 600 reactor vessel insulation be withheld
	acn: 9508240159	Fiche: 85176:237-85176:260
August 17, 1995	presentation material from	N. Liparulo) forwarding proprietary 950817 meeting to discuss AP600 reactor
	vessel insulation. acn: 9508240145	Fiche: 85176:233-85176:260
August 16, 1995		an) forwarding summary of 950612-16 meeting of nuclear island structures and audit design
	acn: 9508240230	Fiche: 85145:001-85145:246
August 15, 1995	NRC letter (from W. Huffma submitted in 950801 letter f acn: 9508250075	an) forwarding two data tapes containing data rom Westinghouse. Fiche: 85153:267-85153:269
August 14, 1995	•	an) advising that information submitted in nping ratio form AP600 fuel assembly eference 10 CFR 2.790). Fiche: 85086:261-85086:263

August 14, 1995	NRC letter (from W. Huffman) issuing notification of 950824 senior management meeting with Westinghouse to discuss design of AP600. acn: 9508180348 Fiche: 85090:351-85090:354
August 14, 1995	NRC letter (from W. Huffman) forwarding summary of 950727 meeting with Westinghouse to review and assess general methodology and basis for demonstrating AP600 passive safety system sensitivity to T-H uncertainties as regarding PRA success criteria. acn: 9508170072 Fiche: 85084:200-85084:241
August 11, 1995	Westinghouse letter (from T. Boyce) issuing notification of 950823 meeting with Westinghouse to discuss Westinghouse pilot certified design material submittal for AP600 design. acn: 9508180355 Fiche: 85086:196-85086:198
August 11, 1995	Westinghouse letter (from N. Liparulo) requesting that AP600 low pressure integral system test at Oregon State University test data for Blind Test SB09 be withheld from public disclosure per 10 CFR 2.790. acn: 9508180245 Fiche: 85103:261-85103:267
August 11, 1995	Westinghouse letter (from N. Liparulo) forwarding update pages to WCAP-14252 describing Blind Test SB09. acn: 9508180240 Fiche: 85103:257-85103:267
August 11, 1995	NRC letter (from W. Huffman) forwarding summary of 950620 meeting with Westinghouse regarding AP600 containment water pH control during and following design basis accidents. acn: 9508180091 Fiche: 85086:199-85086:224
August 11, 1995	NRC letter (from T. Quay) requesting for withholding of information in design certification application for AP600. acn: 9508180081 Fiche: 85086:225-85086:260
August 11, 1995	Westinghouse letter (from M. Franovich) issuing notification of 950817 meeting to discuss reactor vessel insulation and ex-vessel cooling for AP600 design. acn: 9508160250 Fiche: 85058:334-85058:337
August 10, 1995	Westinghouse letter (from N. Liparulo) providing information regarding pH controls for AP600 containment. acn: 9508210096 Fiche: 85114:262-85114:268
August 10, 1995	NRC letter (from T. Quay) forwarding tables identifying branch review responsibility of generic issue and operational experience for Westinghouse AP600 design. acn: 9508160244 Fiche: 85058:309-85058:333

August 10, 1995	NRC letter (from D. Jackson) issuing notification of 950830-31 meeting to discuss analysis and design of AP600 containment vessel as a Category structure.	
	acn: 9508160134	Fiche: 85054:351-85054:354
August 10, 1995		n) issuing notification of meeting on 950816 to nt cooling for AP600 design. Fiche: 85033:289-85033:292
August 10, 1995		
August 9, 1995		N. Liparulo) forwarding draft markup of SSAR esign changes occurred since original issue of
	acn: 9508150360	Fiche: 85050:269-85050:308
August 8, 1995		responding to 950615 letter which transmitted nmission paper on technical issues pertaining sign. Fiche: 85004:130-85004:139
August 7, 1995	NRC letter (from D. Jackson Westinghouse to discuss st acn: 9508100161	n) issuing notification of 950817 meeting with atus of AP600 open item. Fiche: 85002:271-85002:273
August 4, 1995	on several areas evaluated	I. Franovich) forwarding NRC staff comments in AP600 PRA and RAI regarding structural ditional containment failure probability
	acn: 9509250379	Fiche: 85578:128-85578:156
August 4, 1995	e .	K. Coyne) forwarding summary of 950727 regarding proposed Westinghouse path to PCCS program approach. Fiche: 85004:005-85004:102
August 4, 1995	• •) issuing notification of 950815 meeting with bility of AP600 containment to mitigate cident. Fiche: 84983:243-84983:245
August 2, 1995	•	arger) requesting for additional information to 92 application for design certification of
	acn: 9508070413	Fiche: 84943:187-84943:190

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August 2, 1995	ALWR Passive System Rel) forwarding SAND92-1231 "Assessment of iability: Phase I: Methodology Development antification," and proprietary appendices. Fiche: 84957:001-84957:182
August 1, 1995	Westinghouse letter (from N. Liparulo) requesting that proprietary portion of presentation material from 950620 meeting on AP600 assessment of pH of containment water pools during severe accidents be withheld ref 10 CFR 2.790.	
	acn: 9508110196	Fiche: 85027:317-85027:343
August 1, 1995	proprietary version of prese	N. Liparulo) forwarding nonproprietary and intation material from 950620 meeting on f containment water pools during severe
	acn: 9508110194	Fiche: 85027:313-85027:343
August 1, 1995	Revision 1 to WCAP-14309	N. Liparulo) requesting that proprietary , "AP600 Design Certification Program Spes-2 e withheld from public disclosure per 10 CFR
	acn: 9508090324	Fiche: 85025:005-85025:011
August 1, 1995	nonproprietary Revision 1 to	N. Liparulo) forwarding proprietary and o "AP600 Design Certification Program Spes-2 NCAP-14309 and WCAP-14310, respectively. Fiche: 85025:001-85025:163
August 1, 1995	Westinghouse letter (from N. Liparulo) requesting that Revision 0 to "Low-pressure Integral System Test at OSU Test Analysis Report," be withheld (reference 10 CFR 2.790). acn: 9508080174 Fiche: 84971:343-84971:349	
August 1, 1995	Westinghouse letter (from N. Liparulo) forwarding proprietary Revision 0 to "Low-pressure Integral System Test at OSU Test Analysis Report," Revision 0.	
	acn: 9508080168	Fiche: 84971:339-84971:349
August 1, 1995	Enclosure 1 requested to be	w) advising that designated information in e withheld from public disclosure regarding resented at 940115-17 meeting will be placed Fiche: 84940:348-84940:351
August 1, 1995	· · ·) forwarding data tape of final revised data program that was submitted in Westinghouse
	acn: 9508070281	Fiche: 84957:271-84957:273

Appendix A		
July 28, 1995	with Westinghouse regardir audits and to update piping	orwarding summary of 950410-11 meeting ng open items from DSER and previous piping confirmation analyses and benchmark ows at containment penetrations under severe
	acn: 9508070275	Fiche: 84942:280-84942:338
July 28, 1995	Westinghouse letter (from N radiological sections of Cha acn: 9508020318	N. Liparulo) forwarding preliminary marked up opter 15 of AP600 SSAR. Fiche: 84924:280-84924:340
July 25, 1995		requesting additional information regarding esign certification of AP600. Fiche: 85578:217-85578:219
July 25, 1995	Westinghouse regarding AF	n) forwarding summary of 950621 meeting with 2600 control room and technical support center afety-related and nonsafety-related ventilation Fiche: 84939:093-84939:236
July 25, 1995	Westinghouse letter (from E	 McIntyre) forwarding 950718 letter to J. y sent to Westinghouse prior to completion of
July 25, 1995	NRC letter (from T. Quay) d during 950629 senior mana acn: 9507280289	liscussing completion of commitments made gement meeting on AP600. Fiche: 84856:354-84856:361
July 25, 1995		n) discussing status of AP600 draft safety s regarding Element 7 of human factors / model. Fiche: 84845:034-84845:051
July 25, 1995	Westinghouse regarding sta internally-generated missile	orwarding summary of 950412-13 meeting with atus of open issues regarding s generated by natural phenomena and es pipe breaks outside of containment. Fiche: 84842:300-84842:343
July 25, 1995	· · · · · · · · · · · · · · · · · · ·	submitting notice of 950727 meeting with posed applicant path to closure for issues S program approach. Fiche: 84843:332-84843:335
July 24, 1995	NRC letter (from T. Kenyon) Westinghouse regarding rev acn: 9508040219) forwarding summary of 950629 meeting with view of AP600 design. Fiche: 84939:001-84939:092

July 24, 1995	Westinghouse letter (from N. Liparulo) informing that listed materials contain no information considered to be proprietary. acn: 9507310053 Fiche: 84903:314-84903:315
July 24, 1995	Westinghouse letter (from N. Liparulo) requesting that proprietary errata and amended pages to "Final Data Report for ADS Phase B1 Tests," be withheld from public disclosure per 10 CFR 2.790. acn: 9507270371 Fiche: 84871:349-84871:355
July 24, 1995	Westinghouse letter (from N. Liparulo) forwarding proprietary errata and revised pages for "Final Data Report for ADS Phase B1 Tests," (WCAP-14324) transmitted via 950413 letter. acn: 9507270368 Fiche: 84871:345-84871:355
July 21, 1995	Westinghouse letter (from N. Liparulo) forwarding Revision 5 to simplified passive advanced light water reactor plant program AP600 PRA. acn: 9507260063 Fiche: 84837:006-84837:209
July 20, 1995	Westinghouse letter (from N. Liparulo) providing results of AP600 LBLOCA calculations using WCOBRA-TRAC computer code. acn: 9507270022 Fiche: 84843:174-84843:249
July 19, 1995	Westinghouse letter (from N. Liparulo) forwarding nonproprietary WCAP-14308 "AP600 LOFTRAN-AP and Lofttr2-AP Final Verification and Validation Report." acn: 9507250050 Fiche: 84827:002-84827:178
July 19, 1995	NRC letter (from W. Huffman) issuing notification of 950727 meeting with Westinghouse to review general methodology and basis for demonstrating AP600 thermal-hydraulic reliability computer code applicability and specific staff issues. acn: 9507240428 Fiche: 84778:358-84778:361
July 14, 199 5	ACRS letter (from W. Lindblad) forwarding summary of ACRS Westinghouse standard plant designs subcommittee 950531 meeting regarding draft Commission paper on status of technical issues associated with AP600 design review. acn: 9605210031 Fiche: 88370:052-88370:059
July 14, 1995	NRC letter (from K. Coyne) forwarding preliminary comments on SPES-2 final data report and test analysis report. acn: 9508030033 Fiche: 84910:345-84910:355
July 14, 1995	NRC letter (from D. Jackson) forwarding report reviewed by contractor of reliability of important valves in General Electric and Westinghouse advance passive LWR designs. Requests that applicant review and

	identify by letter any proprietary information contained in report by 950831.	
	acn: 9507210183	Fiche: 84764:097-84764:099
July 14, 1995	Westinghouse letter (from PRA."	N. Liparulo) forwarding Revision 4 to "AP600
	acn: 9507180113	Fiche: 84774:007-84775:248
July 13, 1995	•	on) issuing notification of 950713 meeting with ollowup audit of AP600 design regarding pipe ik. Fiche: 84728:152-84728:155
July 13, 1995	WCAP-14425, "Evaluation of	N. Liparulo) requesting that proprietary of AP600 Conformance to Inter-System LOCA ithheld from public disclosure per 10 CFR Fiche: 84765:264-84765:270
July 13, 1995	WCAP-14425 "Evaluation	N. Liparulo) forwarding proprietary of AP600 Conformance to Inter-System LOCA iscussions held at 950327, 0425, and 0710 Fiche: 84765:260-84765:270
L.b. 44, 4005		
July 11, 1995	Preliminary Validation Rep acn: 9507130058	N. Liparulo) forwarding proprietary "NOTRUMP ort for OSU Tests." Fiche: 84736:099-84736:109
July 10, 1995		N. Liparulo) requesting that proprietary aft-markups of SSAR Sections 6.2 and 6.4 be R 2.790). Fiche: 84929:069-84929:339
July 10, 1995	of SSAR Sections 6.2 and	
	acn: 9508030114	Fiche: 84929:058-84929:339
July 10, 1995		N. Liparulo) requesting that preliminary marked ter 15 be withheld from public disclosure per 10 Fiche: 84732:350-84732:356
July 10, 1995	Westinghouse letter (from I marked up sections of SSA acn: 9507130078	N. Liparulo) forwarding proprietary preliminary R Chapter 15. Fiche: 84732:346-84732:356

July 10, 1995	Westinghouse letter (from N. Liparulo) requesting that proprietary "NOTRUMP Preliminary Validation Report for OSU Tests," be withheld from public disclosure per 10 CFR 2.790.	
	ach: 9507130060	Fiche: 84736:103-84736:109
July 7, 1995		ubmitting understanding of agreements 7 meeting and 950523 telecon. Fiche: 84673:347-84673:351
July 7, 1995	with Westinghouse to discust analyses, adverse system in Branch DSER open items.	n) issuing notification of 950710-11 meeting ss status of AP600 intersystem LOCA nteractions analyses, and Reactor Systems
	acn: 9507170309	Fiche: 84669:349-84669:352
July 7, 1995	÷ (I. Liparulo) requesting that "AP600 NOTRUMP rt for SPES-2 Tests," be withheld. Fiche: 84728:291-84728:297
July 7, 1995	Westinghouse letter (from N preliminary validation report acn: 9507120204	l. Liparulo) forwarding proprietary NOTRUMP for SPES-2 tests. Fiche: 84728:287-84728:297
July 5, 1995		forwarding results of NRC review of June certification of AP600 which determined need Fiche: 84914:328-84914:338
hune 20, 4005	NDO letter (frame Taular)	
June 30, 1995	appropriate staff positions o	nforming of proposed resolutions and where n key technical issues pertaining to ardized passive reactor design certification. Fiche: 84796:115-84796:147
June 30, 1995		I. Liparulo) requesting that proprietary portion vithheld from public disclosure per 10 CFR
		84790:231-84790:240
June 30, 1995	Westinghouse letter (from N SSAR.	Liparulo) forwarding Revision 4 of AP600
	acn: 9507190186	Fiche: 84790:219-84790:240
June 30, 1995	of SSAR Section 18.4 and s	
	acn: 9507050453	Fiche: 84566:297-84566:333

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Appendix A

June 29, 1995 É	NRC letter (from M. Franovich) forwarding comments on results of completion of Task 4 of AP600 passive system thermal-hydraulic uncertainty evaluation.	
	acn: 9507070418	Fiche: 84559:284-84559:290
June 29, 1995	discuss regulatory treatmen	el) forwarding summary of 950113 meeting to t of nonsafety RHRS for AP600 design. 84559:161-84559:199
June 28, 1995	defining and assessing risk engineering program to sup	•
	acn: 9507060280	Fiche: 84536:120-84536:124
June 27, 1995		I. Liparulo) requesting proprietary Revision 0 nd LOFTTR2-AP Final Verification and
	acn: 9507050279	Fiche: 84569:321-84569:327
June 27, 1995	– ,	I. Liparulo) forwarding proprietary Revision 0 nd LOFTTR2-AP Final Verification and
	acn: 9507050276	Fiche: 84569:316-84569:327
June 26, 1995	NRC letter (from T. Boyce) Westinghouse AP600 SSAF	forwarding followon questions on [,] R Chapter 14.
	acn: 9508030019	Fiche: 84914:322-84914:327
June 26, 1995	•	I. Liparulo) forwarding information requested urve for 4 inch diameter ADS line. Fiche: 84570:299-84570:304
June 23, 1995		n) forwarding summary of 950516-17 meeting g questions on AP600 thermal-hydraulic RUMP. Fiche: 84511:231-84511:251
June 23, 1995		I. Liparulo) requesting that WCAP-14305, Phase B1 Test Analysis Report ," be withheld
	acn: 9506300052	Fiche: 84537:322-84537:328
June 23, 1995	- · ·	l. Liparulo) forwarding proprietary Program ADS Phase B1 Test Analysis
	acn: 9506300049	Fiche: 84537:318-84537:328

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June 22, 1995		an) forwarding summary of 950510 meeting stinghouse to address issues regarding AP600
	acn: 9507050225	Fiche: 84530:134-84530:181
June 22, 1995	NRC letter (from T. Kenyon regarding issues concerning) issuing notification of 950629 meeting g AP600 design.
	acn: 9506280566	Fiche: 84471:287-84471:290
June 20, 1995		N. Liparulo) requesting that Westinghouse OTHIC Description and Validation," be withheld 0 CFR 2.790. Fiche: 84735:063-84735:069
1 00 1005		
June 20, 1995	WCAP-14383, "WGOTHIC	I. Liparulo) forwarding Westinghouse report Code Description and Validation," nghouse report WCAP-14382, "WGOTHIC
	Code Description and Validation Code Description and Validation (2007)	ation," (proprietary). Fiche: 84735:059-84736:048
June 20, 1995	NRC letter (from W. Huffma	n) forwarding summary of 950515-16 meeting
,		tinghouse regarding AP600 I&C DSER open
	acn: 9506280083	Fiche: 84471:173-84471:207
June 19, 1995	NRC letter (from J. Donoher listed reports from public dis acn: 9506300275	w) responding to 950413 request to withhold sclosure. Fiche: 84493:272-84493:275
huma 10, 1005		
June 19, 1995	withhold listed diskettes reg	w) responding to 950403 and 0523 requests to arding direct vessel injection and ORGIEN disclosure. Request granted.
	acn: 9506300245	Fiche: 84488:356-84488:360
June 19, 1995		n) summarizing 950512 telecon with SER open items involving AP600 electrical
	acn: 9506290399	Fiche: 84474:024-84474:035
June 19, 1995	placed copy of procurement	8. McIntyre) advising that Westinghouse has specification used in an actual Delta 75 SG se Rockville nuclear licensing center. Fiche: 84498:082-84498:082
June 15, 1995	NRC letter (from K. Coyne) June 1992 application for de acn: 9508030224	submitting questions and comments regarding esign certification of AP600. Fiche: 84915:281-84915:317

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June 15, 1995		w) forwarding staff comments on results of 8 for Westinghouse evaluation to resolve e reliability issue on AP600. Fiche: 84487:224-84487:234
June 15, 1995	NRC letter (from J. Donohew) forwarding summary of 950615 meeting with Westinghouse regarding accident dose calculations for AP600 design.	
	acn: 9506280456	Fiche: 84448:312-84448:335
June 15, 1995	ACRS on 950608-10 regard) forwarding summary of 422nd meeting of ding proposed Commission paper on staff es regarding Westinghouse AP600 or design. Fiche: 84436:217-84436:221
June 14, 1995	÷ .	l. Liparulo) forwarding AP600 y deliverables for Tasks 1 and 4. Fiche: 84436:304-84436:320
June 13, 1995	•	n) submitting followon questions concerning and informs that followon questions will not be ure. Fiche: 84926:347-84926:353
June 13, 1995	of WCAP-14252, "AP600 Lo	Liparulo) requesting that proprietary portions w-pressure Integral System Test at Oregon Report," be withheld from public disclosure Fiche: 84728:005-84728:011
June 13, 1995		l. Liparulo) forwarding proprietary 52, "AP600 Low-pressure Integral System sity Final Data Report." Fiche: 84728:001-84728:011
June 13, 1995	report, "AP600 NOTRUMP (Liparulo) requesting that Westinghouse Core Makeup Tank Preliminary Validation al Circulation Tests," be withheld from public). Fiche: 84439:351-84439:357
June 13, 1995	Westinghouse letter (from N Emergency Response Guide acn: 9506160533	. Liparulo) forwarding Revision 0 to "AP600 elines." Fiche: 84367:002-84367:250
June 12, 1995	NRC letter (from K. Coyne) discuss passive containmen acn: 9506280439	notifies of meeting with Westinghouse to t cooling for AP600 design. Fiche: 84449:346-84449:350

June 12, 1995	Westinghouse letter (from N. Liparulo) forwarding Westinghouse proprietary report "AP600 NOTRUMP Core Makeup Tank Preliminary Validation Report for 500-series Natural Circulation Tests." acn: 9506220097 Fiche: 84439:347-84439:357	
June 9, 1995	NRC letter (from D. Crutchf DCD for Westinghouse AP6 acn: 9506230197	ield) providing guidance on preparation of 600 design. Fiche: 84422:267-84422:276
June 9, 1995	NRC letter (from D. Crutchf of AP600 issues. acn: 9506230188	ield) providing guidance on process for closure Fiche: 84421:356-84421:359
June 9, 1995	comments on draft policy pa	3. McIntyre) forwarding Westinghouse aper regarding technical issues regarding lard pressurized reactor design. Fiche: 84413:106-84413:117
June 8, 1995		n) issuing notification of 950621 meeting with chnical support center and control room Fiche: 84329:357-84329:360
June 7, 1995	– ,	I. Rempe) forwarding information discussing buse quantified Level 2 human actions in Fiche: 85578:134-85578:156
June 7, 1995	•	ield) informing that NRC unable to support uss advanced PWR fire protection and issues. Fiche: 84409:307-84409:309
June 6, 1995		el) forwarding summary of 950329 meeting ng RTNSS for AP600 design. Fiche: 84378:341-84378:344
June 6, 1995	input for confirmatory SASS per 10 CFR 2.790.	N. Liparulo) requesting that proprietary listing of I analysis be withheld from public disclosure
	acn: 9506150081	Fiche: 84364:016-84364:022
June 6, 1995	input required for confirmate lumped mass stick model of for soft-to-medium profile.	J. Liparulo) forwarding proprietary listing of ory SASSI analysis, including update of 3D f nuclear island structures and soil properties
	acn: 9506150076	Fiche: 84364:012-84364:022

June 5, 1995	"AP600 SPES-2 Test Analy	N. Liparulo) requesting that WCAP-14254, sis Report," be withheld per 10 CFR 2.790. Fiche: 85105:005-85105:011
June 5, 1995	WCAP-14255, and proprieta Analysis Report.".	N. Liparulo) forwarding nonproprietary ary WCAP-14254, "AP600 SPES-2 Test
	acn: 9508170001	Fiche: 85105:001-85106:019
June 5, 1995	NRC letter (from W. Huffma with Westinghouse regardir acn: 9506120468	n) forwarding summary of 950503-04 meeting ng AP600 I&C TSs. Fiche: 84266:278-84266:289
	ach: 9506120466	FICHE. 64200.276-64200.269
June 2, 1995		n) forwarding Westinghouse draft documents P600 human factors engineering program. Fiche: 84403:178-84403:193
June 2, 1995	NRC letter (from W. Huffma Westinghouse and INEL reg acn: 9506220065	n) forwarding summary of 950515 telecon with garding AP600 PRA issues. Fiche: 84404:183-84404:188
June 2, 1995		w) forwarding NRC comments on descriptions use program to resolve issue of passive ity. Fiche: 84379:353-84379:356
June 2, 1995		I. Liparulo) forwarding draft Revision 4 of for discussion at meeting on seismic and k of 950612-16. Fiche: 84370:091-84370:194
June 2, 1995		I. Liparulo) requesting that proprietary version Tunnel Testing for PCS Heat Removal," be ure per 10 CFR 2.790. Fiche: 84364:027-84364:033
June 2, 1995		I. Liparulo) forwarding proprietary and Analysis of AP600 Wind Tunnel Testing for Fiche: 84364:023-84364:071
	ach, 5000100100	1 IGHE, 04004.020-04004.07 1
June 2, 1995	computer files requested by Revision 3 PRA model.	I. Liparulo) forwarding AP600 PRA electronic NRC during 941020 meeting. Files represent
	acn: 9506150068	Fiche: 84352:348-84352:350

June 2, 1995	Westinghouse letter (from N. Liparulo) requesting that proprietary portions of preliminary markups of AP600 SSAR Chapter 15 be withheld from public disclosure per 10 CFR 2.790.	
	acn: 9506130107	Fiche: 84317:319-84319:283
June 2, 1995	sections of AP600 SSAR C	
	acn: 9506130102	Fiche: 84317:315-84319:283
June 1, 1995		J. Liparulo) requesting that proprietary held from public disclosure per 10 CFR 2.790. Fiche: 84404:249-84404:257
June 1, 1995	Westinghouse letter (from Nof SSAR.	I. Liparulo) forwarding proprietary Revision 3
	acn: 9506210095	Fiche: 84404:245-84404:257
June 1, 1995	reactor vessel internals vibr meeting with NRC staff.	N. Liparulo) providing information regarding ations in response to NRC RAI during 950510
	acn: 9506140118	Fiche: 84339:021-84339:023
May 31 <u>,</u> 1995	which requested that report	w) informing that Westinghouse 941213 letter WCAP-14215, "AP600 Core Makeup Tank from public disclosure granted. 84404:173-84404:176
May 31, 1995	WCAP-14270, "AP600 Low	w) informing that NRC has determined that Pressure Integral Systems Test at Oregon aling Report " is proprietary and will be ure. Fiche: 84360:352-84360:355
May 31, 1995	Westinghouse letter (from N	I. Liparulo) requesting that proprietary version
	•	/ Critical Heat Flux Test Data," be withheld
	acn: 9506120358	Fiche: 84311:005-84311:011
May 31, 1995	• ·	I. Liparulo) forwarding proprietary rietary WCAP-14372, "AP600 Low Flow Analysis."
	acn: 9506120356	Fiche: 84311:001-84311:041
May 31, 1995	Thermal-hydraulic Uncertain	I. Liparulo) forwarding "Assessing Impact of nty on AP600 PRA Success Criteria," and sis to Success Criteria," of Revision 2 of
	acn: 9506090183	Fiche: 84275:041-84275:123

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May 31, 1995	Westinghouse letter (from N. Liparulo) forwarding report providing current Westinghouse status of open items in DSER on AP600 in response to commitment to respond to all DSER open items by 950531. acn: 9506020506 Fiche: 84209:003-84209:253	
May 26, 1995	NRC letter (from K. Shembarger) forwarding summary of 950523 teleconference with Westinghouse regarding issues pertaining to AP600 TSs.	
	acn: 9506020370	Fiche: 84146:103-84146:113
May 25, 1995	NRC letter (from W. Huffman) forwarding followon questions regarding AP600 design changes. Information will enable staff to update containment models based on revisions to AP600 design as reflected within WGOTHIC code.	
	acn: 9508070416	Fiche: 84943:179-84943:182
May 25, 1995	NRC letter (from W. Huffman) discussing followon questions regarding AP600 post-72 hour support action aspects of regulatory treatment of non-safety system.	
	acn: 9508070405	Fiche: 84943:183-84943:186
May 25, 1995	Basis for AP600 Containme Correlations," will be withhe 2.790) per 950413 request.	w) advising that WCAP-14326, "Experimental nt Vessel Heat and Mass Transfer ld from public disclosure (reference 10 CFR
	acn: 9506020401	Fiche: 84146:117-84146:119
May 25, 1995	NRC letter (from J. Donohew) issuing notice of 950620 meeting with Westinghouse to discuss design changes to chemical addition system for pH control and pH calculations.	
	acn: 9506020395	Fiche: 84146:114-84146:116
May 25, 1995	NRC letter (from J. Donohew) responding to 950324 request for NRC to withhold information in WCAP-14303 from public disclosure (reference 10 CFR 2.790).	
	acn: 9506020228	Fiche: 84165:333-84165:335
May 23, 1995	NRC letter (from J. Donohew) accepting 950324 and 31 letters requesting that proprietary information in WCAP-14309, "AP600 Design Certification Program SPES-2 Tests Final Data Report," be withheld from public disclosure.	
	acn: 9506200355	Fiche: 84375:357-84375:359
May 23, 1995	Westinghouse letter (from N. Liparulo) requesting that diskette containing file with ORIGEN code output for AP600 be withheld from public disclosure per 10 CFR 2.790.	
	acn: 9506010300	Fiche: 84184:010-84184:016

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May 23, 1995	Westinghouse letter (from N. Liparulo) forwarding diskette containing filewith ORIGEN code output for AP600 requested by RAI 470.22.acn: 9506010291Fiche:84184:006-84184:016
May 22, 1995	NRC letter (from J. Monninger) forwarding Westinghouse submittals "Report on Stratification and Mixing Effects on AP600 Passive CCS DBA," dated 950508, and WCAP-14326-7, "Experimental Basis for AP600 Containment Vessel Heat and Mass Transfer Correlations," dated 950413.
	acn: 9505260072 Fiche: 84082:359-84082:359
May 22, 1995	NRC letter (from J. Donohew) issuing notification of 950523 meeting with Westinghouse to discuss methodology assumptions and parameters of accident dose calculations by Westinghouse for AP600 design. acn: 9505240415 Fiche: 84048:349-84048:352
May 19, 1995	NRC letter (from K. Shembarger) forwarding proprietary Revision 1 to "AP600 MELCOR Input Data Validation Notebook," which compares MELCOR input parameters to values used by Westinghouse in MAAP code and values within Westinghouse AP600 SSAR. acn: 9505260407 Fiche: 84106:337-84106:339
May 18, 1995	NRC letter (from J. Monninger) forwarding Westinghouse 950403 submittal, "Requested AP600 PRA Information on Description of DVI Line Break Cases," and Westinghouse 950426 presentation "AP600 Changes." acn: 9505240293 Fiche: 84039:320-84039:320
May 18, 1995	NRC letter (from D. Crutchfield) forwarding draft Commission paper on NRC position on technical issues regarding Westinghouse AP600 standardized passive reactor design for review and comment. acn: 9505220082 Fiche: 84033:290-84033:310
May 17, 1995	NRC letter (from J. Donohew) forwarding summary of 950420 meeting with Westinghouse regarding passive system reliability for AP600 design. acn: 9505250216 Fiche: 84075:227-84075:262
May 17, 1995	NRC letter (from R. Architzel) forwarding summary of 950228-0302 meeting with Westinghouse AP600 to discuss SSI and seismic analyses for AP600.
	acn: 9505240416 Fiche: 84059:001-84059:190
May 15, 1995	NRC letter (from W. Huffman) discussing 950308-10 meeting with Westinghouse concerning AP600 open item 2064. acn: 9508030260 Fiche: 84927:330-84927:361

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Appendix A		
May 15, 1995	. .	I. Liparulo) requesting that proprietary AP600 le-scale Test Data Evaluation," be withheld 0 CFR 2.790. Fiche: 84133:289-84133:295
May 15, 1995		Liparulo) forwarding proprietary and P600 testing program report, "Large-scale Fiche: 84133:285-84133:326
May 15, 1995	Westinghouse letter (from N "GOTHIC Design Review Fin acn: 9505250167	. Liparulo) forwarding proprietary EPRI report nal Report." Fiche: 84085:356-84085:361
May 15, 1995		rger) forwarding summary of 950503 meeting g status of NRC review of AP600 application t Commission paper. Fiche: 84050:280-84051:006
May 15, 1995		v) forwarding summary of 950515 meeting g adverse system interactions for AP600 Fiche: 84059:302-84059:335
May 15, 1995	950329-30 advisory commit phenomena subcommittee n primary CCS test and analys	er) forwarding copy of transcript from tee on reactor safeguards thermal-hydraulic neeting addressing Westinghouse AP600 sis program. Fiche: 84015:232-84015:232
May 15, 1995	forthcoming Commission pa	orwarding advance information copy of per on NRC positions on technical issues 600 standardized passive reactor design. Fiche: 84033:293-84033:310
May 12, 1995		responding to AP600 key licensing issue role of operator in passive plant design. Fiche: 83991:336-83991:338
May 12, 1995	meeting with Westinghouse on AP600 design.	n) issuing notification of 950515 and 16 to discuss instrumentation and control issues Fiche: 83988:277-83988:279
May 10, 1995	presentation materials from	. Liparulo) letter requests that proprietary 950510 meeting on AP600 reactor vessel lic disclosure (reference 10 CFR 2.790). Fiche: 86319:271-86319:278

May 10, 1995	Westinghouse letter (from N. Liparulo) letter forwarding proprietary and nonproprietary presentation materials from 950510 meeting on AP600 reactor vessel issues.	
	acn: 9511210115	Fiche: 86319:258-86319:278
May 10, 1995	code cases plus two additio	arger) forwarding status of NRC review of eight nal code cases included in Table 5.2-3 to 29 letter requesting approval for use of ASME gn. Fiche: 83984:184-83984:189
May 10, 1995	· · · ·	forwarding summary of 950425-27 meeting uss modular construction for AP600 design. Fiche: 83984:032-83984:180
May 9, 1995	meetings with Westinghous	n) issuing notification of 950516 and 17 e to discuss use and applicability of for AP600 design and to discuss SG tube Fiche: 83948:271-83948:274
May 9, 1995		w) forwarding summary of 950330 meeting g passive SR system for AP600 design. Fiche: 83948:213-83948:270
May 8, 1995	additional information in sup	I. Liparulo) requesting that proprietary oport of Westinghouse response to RAI be withheld from public disclosure per 10 CFR Fiche: 84071:335-84071:346
May 8, 1995	•	I. Liparulo) forwarding nonproprietary and mation in support of NRC RAI 440.251 on Fiche: 84071:331-84071:346
May 8, 1995		I. Liparulo) providing Westinghouse updated at represent resolution path for AP600 passive Fiche: 84038:299-84038:305
May 8, 1995	• •	I. Liparulo) requesting that proprietary revised AP600 large scale containment Test 220.1 be ure per 10 CFR 2.790. Fiche: 84015:331-84015:341

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May 8, 1995	Westinghouse letter (from N. Liparulo) forwarding nonproprietary and proprietary versions of revised mass and energy information for AP600 LSY Test 220.1 performed at AP600 PCS large scale test facility. acn: 9505180538 Fiche: 84015:327-84015:341
May 8, 1995	Westinghouse letter (from N. Liparulo) requesting that proprietary report, WCAP-14053, Revision 2, "AP600 FHFP Integral System Test Specification," be withheld from public disclosure per 10 CFR 2.790. acn: 9505150266 Fiche: 83978:226-83978:232
May 8, 1995	Westinghouse letter (from N. Liparulo) forwarding proprietary and nonproprietary versions of report "AP600 FHFP Integral System Test Specification," reflecting revisions to test matrix for AP600 testing at SPES-2 facility in Casaccia, Italy. acn: 9505150263 Fiche: 83978:222-83978:309
May 8, 1995	Westinghouse letter (from N. Liparulo) forwarding "Effects of Internal Containment Stratification and Mixing on AP600 Passive Containment Cooling System Design Basis Analysis Evaluation Models." acn: 9505150130 Fiche: 83945:306-83945:337
May 5, 1995	ACRS letter (from I. Catton) forwarding summary of ACRS Thermal- hydraulic Phenomena Subcommittee 950329-30 meeting regarding Westinghouse AP600 PCS test and analysis program. acn: 9508170081 Fiche: 85098:172-85098:178
May 5, 1995	NRC letter (from K. Coyne) request additional information to complete review of 1992 application regarding AP600 design certification. acn: 9508030176 Fiche: 84915:351-84915:360
May 5, 1995	Westinghouse letter (from B. McIntyre) forwarding notes taken byWestinghouse during 950505 NRC senior management meeting.acn: 9505150011Fiche: 83899:047-83899:053
May 4, 1995	Summary of 420 ACRS meeting on 950406-07 regarding Westinghouse test and analysis program associated with AP600 passive containment system and proposed final rulemaking to define scope of TSs. Fiche: 88368:349-88368:360
May 3, 1995	NRC letter (from W. Huffman) forwarding draft changes to standard safety analysis report by D. Lingren to facilitate discussion of open issues on AP600. acn: 9505090190 Fiche: 83856:110-83856:119
May 2, 1995	NRC letter (from D. Crutchfield) forwarding draft Commission paper on policy and technical issues associated with RTNSS in passive plant design. Document redistributed due to missing pages. acn: 9506010465 Fiche: 84146:001-84146:036

May 2, 1995	NRC letter (from D. Crutchfield) forwarding draft Commission paper on policy and technical issues associated with regulatory treatment of non-safety system in passive plant design. acn: 9505050213 Fiche: 83813:308-83813:341	
May 1, 1995	Westinghouse letter (from N. Liparulo) requesting that proprietary presentation materials from 950427 meeting on AP600 in-vessel retention severe accident topics be withheld from public disclosure per 10 CFR 2.790.	
	acn: 9505240232	Fiche: 84083:262-84083:317
May 1, 1995	proprietary presentation ma	I. Liparulo) forwarding nonproprietary and terials used during 950427 meeting with NRC retention severe accident topics. Fiche: 84083:258-84083:317
May 1, 1995		I. Liparulo) requesting that meetings to protection and electrical design issues. Fiche: 83943:310-83943:324
May 1, 1995		I. Liparulo) forwarding advance copy of 00 probabilistic risk assessment. Fiche: 83934:003-83935:291
May 1, 1995	submitted in Westinghouse provides final SPES-2 test d	
	acn: 9505050303	Fiche: 83813:358-83813:359
April 28, 1995	NRC letter (from W. Huffman) issuing notification of 950612 and 13-16 meeting to discuss seismic analysis and structural design of AP600 nuclear island structures.	
·	acn: 9505110275	Fiche: 83938:151-83938:152
April 28, 1995	950321 letter and RAIs on V	I. Liparulo) providing response based on NRC VCOBRA-TRAC code and best-estimate by and code applicability document for AP600. Fiche: 83936:173-83936:180
April 28, 1995	• • •) forwarding summary of 950404 meeting ew of AP600 application and several key final design. Fiche: 83827:225-83827:328
April 25, 1995	NRC letter (from K. Shembarger) issuing notification of 950503 meeting with Westinghouse to discuss status of staff review of Westinghouse AP600 design.	
	acn: 9504280275	Fiche: 83671:346-83671:350

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Appendix A	
April 25, 1995	NRC letter (from K. Shembarger) informing of 950510 meeting with Westinghouse regarding reactor vessel internals for AP600 design. acn: 9504280082 Fiche: 83681:004-83681:006
April 24, 1995	Westinghouse letter (from N. Liparulo) providing "AP600 Long Term Cooling Test Facility Scaling Report." acn: 9505040055 Fiche: 83803:344-83803:348
April 24, 1995	NRC letter (from D. Crutchfield) discussing NRC staff concerns regarding difficulty in submission of materials necessary for review of Westinghouse AP600 design certification application as outlined. acn: 9504280280 Fiche: 83684:358-83684:361
April 24, 1995	NRC letter (from T. Kenyon) informing of 950427 meeting with Westinghouse regarding in-vessel retention issues on AP600. acn: 9504280073 Fiche: 83681:001-83681:003
April 21, 1995	Westinghouse letter (from N. Liparulo) providing information in response to request that applicant decouple surge line and mainsteam line from RCL in piping analysis, models and provide deadweight and seismic analyses for surge line. acn: 9505090048 Fiche: 83841:001-83842:021
April 21, 1995	NRC letter (from S. Ninh) forwarding summary of 950317 meeting with Westinghouse regarding passive containment cooling system test and analysis for AP600 design. acn: 9504270110 Fiche: 83661:059-83661:084
April 20, 1995	NRC letter (from D. Crutchfield) proposing that Westinghouse initiate preparation of DCD for Westinghouse AP600 design. acn: 9504260077 Fiche: 83652:199-83652:201
April 19, 1995	NRC letter (from T. Kenyon) forwarding request for additional information regarding WCAP-14171 concerning applicability of WCOBRA-TRAC to AP600 design. acn: 9508040274 Fiche: 84940:104-84940:115
April 19, 1995	NRC letter (from T. Kenyon) requesting additional information to complete review of June 1992 application for design certification of AP600. acn: 9508030273 Fiche: 84915:277-84915:280
April 19, 1995	NRC letter (from T. Kenyon) requesting additional information in order to complete review of SPES-2 test program and OSU-APEX test program at Oregon State University. acn: 9508030165 Fiche: 84926:333-84926:339
April 19, 1995	NRC letter (from T. Kenyon) requesting additional information to complete review of June 1992 application for design certification of AP600. acn: 9508030155 Fiche: 84927:306-84927:329

April 19, 1995	NRC letter (from T. Kenyon) informing that NRC has ruled WCAP-14303, "Facility Description Report on AP600 Automatic Depressurization System Phase B1 Tests."	
	acn: 9504240336	Fiche: 83626:059-83626:061
April 19, 1995		n) issuing notification of 950425 and 26 to discuss design of AP600. Fiche: 83626:004-83626:006
April 18, 1995	Revision 3 of Appendix 2B or regarding design soil profile	
	acn: 9505110240	Fiche: 83933:002-83933:116
April 18, 1995	presentation materials from	I. Liparulo) requesting that proprietary 950410 and 11 meetings on AP600 hydrogen on AP600 PCS Test and Analysis Program be ure per 10 CFR 2.790. Fiche: 83790:254-83791:006
April 18, 1995	proprietary versions of pres	I. Liparulo) forwarding nonproprietary and entation materials from 950410 and 11 en topics and 950410 meeting on AP600 PCS Fiche: 83790:250-83791:006
April 18, 1995		I. Liparulo) requesting that proprietary MAAP4 n public disclosure per 10 CFR 2.790. Fiche: 83706:353-83706:361
April 18, 1995		I. Liparulo) forwarding proprietary MAAP4 g 950329 NRC AP600 PRA overview meeting AP4 and RELAP. Fiche: 83706:351-83706:361
April 13, 1995	preliminary Revision 0 of "Q	I. Liparulo) requesting that proprietary wick Look Report for OSU Matrix Test SB23 withheld from public disclosure (reference 10 Fiche: 86335:341-86335:347
April 13, 1995		I. Liparulo) forwarding proprietary preliminary Report for OSU Matrix Test SB23 AP600 Test
	acn: 9511210085	Fiche: 86335:337-86335:347

April 13, 1995	Westinghouse letter (from N. Liparulo) requesting that Westinghouse topical reports WCAP-14324 be withheld from public disclosure per 10 CFR 2.790.
•	acn: 9505100104 Fiche: 83906:131-83906:247
April 13, 1995	Westinghouse letter (from N. Liparulo) forwarding proprietary Westinghouse topical report WCAP-14324, "AP600 Design Certification ADS Phase B1 Tests Final Data Report," and non-proprietary Westinghouse topical report WCAP-14325, "AP600 Design Certification ADS Phase B1 Tests Final."
	acn: 9505100095 Fiche: 83906:120-83906:247
April 13, 1995	Westinghouse letter (from N. Liparulo) requesting that proprietary Revision 0 to WCAP-14326, "Experimental Basis for AP600 Containment Vessel Heat and Mass Transfer Correlations," be withheld (reference 10 CFR 2.790).
	acn: 9504280329 Fiche: 83719:175-83719:272
April 13, 1995	Westinghouse letter (from N. Liparulo) forwarding non-proprietary WCAP-14327, and proprietary Revision 0 to WCAP-14326, "Experimental Basis for AP600 Containment Vessel Heat and Mass Transfer Correlations."
	acn: 9504280323 Fiche: 83719:164-83719:272
April 13, 1995	Westinghouse letter (from N. Liparulo) requesting that proprietary report "AP600 NOTRUMP ADS Preliminary Validation Report," be withheld from public disclosure per 10 CFR 2.790. acn: 9504260132 Fiche: 83671:294-83671:300
April 13, 1995	Westinghouse letter (from N. Liparulo) forwarding proprietary report "AP600 NOTRUMP ADS Preliminary Validation Report." acn: 9504260125 Fiche: 83671:290-83671:300
April 13, 1995	Westinghouse letter (from N. Liparulo) requesting that proprietary "AP600 Test Program Preliminary ADS Phase B1 Test Analysis Report," be withheld from public disclosure per 10 CFR 2.790. acn: 9504240224 Fiche: 83624:091-83624:097
April 13, 1995	Westinghouse letter (from N. Liparulo) forwarding proprietary "AP600 Test Program Preliminary ADS Phase B1 Test Analysis Report," acn: 9504240216 Fiche: 83624:087-83624:097
April 13, 1995	Westinghouse letter (from N. Liparulo) requesting that proprietary report "LOFTRAN Preliminary Validation Report for SPES-2 Tests," be withheld per 10 CFR 2.790.
	acn: 9504200075 Fiche: 83589:186-83589:192

April 13, 1995		N. Liparulo) forwarding proprietary report idation Report for SPES-2 Tests." Fiche: 83589:182-83589:192
April 13, 1995		w) issuing notification of 950420 meeting with assive safety system reliability for AP600
	acn: 9504190249	Fiche: 83581:286-83581:288
April 12, 1995	ACRS on 950406-07 regard) forwarding summary of 420th meeting of ding NRC test and analysis program in support ater passive plant design review. Fiche: 83783:339-83783:341
April 12, 1995	presentation materials from	N. Liparulo) requesting that proprietary 950317 meeting on AP600 containment test ithheld (reference 10 CFR 2.790). Fiche: 83694:288-83694:308
April 12, 1995	proprietary presentation of the stand analysis program.	N. Liparulo) forwarding nonproprietary and materials from 950317 on AP600 containment 83694:276-83694:308
April 12, 1995		el) issuing notification of 950419 meeting to adverse systems interactions for AP600. Fiche: 83554:354-83554:356
April 11, 1995		arger) issuing notification of 950412 meeting ss security program (Section 13.6 of AP600
	acn: 9504140118	Fiche: 83512:261-83512:263
April 11, 1995		el) issuing notification of 950427 meeting with sues involved with long term safety (post-72
	acn: 9504140097	Fiche: 83512:204-83512:206
April 10, 1995		advising that listed quick look reports submitted nghouse will be withheld from public disclosure
	acn: 9504130293	Fiche: 83503:343-83503:350
April 7, 1995	•	N. Liparulo) forwarding information regarding cts in containment following loss-of-coolant
	acn: 9504140203	Fiche: 83554:320-83554:324

Appendix A		
April 7, 1995	input parameters used by V	N. Liparulo) forwarding information regarding Vestinghouse in determination of aerosol ainment following postulated loss-of-coolant
	acn: 9504140195	Fiche: 83534:343-83534:356
April 6, 1995		N. Liparulo) forwarding revision to analyses of be rupture events for AP600 design. Fiche: 83530:253-83530:338
April 6, 1995	Westinghouse to discuss de issues.) issuing notification of 950410 meeting with esign of AP600 containment and hydrogen
	acn: 9504120326	Fiche: 83467:341-83467:343
April 4, 1995	regarding ITP contained in	arger) requesting additional information Chapter 14 of SSAR. 84914:289-84914:297
April 4, 1995	with Westinghouse to discu design of AP600.	suing notification of 950412 and 13 meetings ss fire protection and pipe break issues on Fiche: 83491:280-83491:282
	acn: 9504120376	
April 3, 1995	•	
	acn: 9505080098	Fiche: 83827:356-83827:359
April 3, 1995	. .	N. Liparulo) requesting that proprietary the withheld per 10 CFR 2.790.
		Fiche: 83719:277-83719:283
April 3, 1995	Westinghouse letter (from Nto AP600 SSAR.	N. Liparulo) forwarding proprietary Revision 2
	acn: 9504280244	Fiche: 83719:273-83719:283
April 3, 1995	•	N. Liparulo) requesting that proprietary AP600 tion of DVI line break cases be withheld from R 2.790. Fiche: 83469:028-83469:036
April 3, 1995	Westinghouse letter (from N information on description of acn: 9504120134	N. Liparulo) forwarding requested AP600 PRA of DVI line break cases. Fiche: 83469:026-83469:036

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April 3, 1995	NRC letter (from K. Shembarger) issuing notification of 950503, 04, and 05 meetings with Westinghouse to discuss TSs pertaining to I&C systems for AP600 design.	
	•	Fiche: 83468:133-83468:136
March 31, 1995		I. Liparulo) forwarding final data report for ure integral systems tests performed at Italy. Fiche: 83665:001-83666:283
March 31, 1995	Westinghouse letter (from N AP600 safety-related and ne acn: 9504100072	l. Liparulo) forwarding proposed criteria for on-safety related testing. Fiche: 83478:246-83478:254
March 31, 1995		erg) forwarding summary of 950327 meeting g several issues identified by staff in review of
	acn: 9504050220	Fiche: 83391:001-83391:030
March 30, 1995	. .	l. Liparulo) forwarding isometric drawings for deadweight analysis results. Fiche: 83507:295-83507:295
March 30, 1995	proprietary document "Inform	arger) granting Westinghouse request that mation Needed for NRC Confirmatory SASSI public disclosure per 10 CFR 2.790(B). Fiche: 83491:284-83491:286
March 30, 1995		arger) informing that Westinghouse 940527 ion to support independent soil-structure per 10 CFR 2.790(B). Fiche: 83480:357-83480:359
March 30, 1995	supporting independent soil	arger) informing that 940504 submittal -structure interaction analysis report C Confirmatory Analysis" to be withheld from R 2.790. Fiche: 83462:341-83462:343
March 30, 1995	•	arger) informing that 940425 submittal of nteraction analysis will be withheld from public). Fiche: 83468:205-83468:207
March 27, 1995	Westinghouse letter (from N	l. Liparulo) requesting that proprietary mass) large scale containment Test 220.1 be

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March 27, 1995	Westinghouse letter (from N. Liparulo) forwarding prop containing mass and energy information from Test 220 AP600 PCS large scale test facility. acn: 9504050159 Fiche: 83400:350-83400:	0.1 performed at
March 24, 1995	Westinghouse letter (from N. Liparulo) requesting NR(proprietary report WCAP-14309 from public disclosure acn: 9504270003 Fiche: 83665:005-83665:011	
March 24, 1995	Westinghouse letter (from N. Liparulo) requesting that Description Report AP600 ADS Phase B1 Tests," WC withheld from public disclosure per 10 CFR 2.790. acn: 9504050137 Fiche: 83406:186-83406:	AP-14303, be
March 24, 1995	Westinghouse letter (from N. Liparulo) forwarding non proprietary versions of "Facility Description Report AP Tests," performed at VAPORE facility in Casaccia, Ital acn: 9504050132 Fiche: 83406:184-83406:2	600 ADS Phase B1 y.
March 24, 1995	NRC letter (from R. Architzel) issuing notification of 95 Westinghouse to discuss regulatory treatment of non-s AP600. acn: 9503290283 Fiche: 83307:295-83307:2	safety systems for
March 24, 1995	NRC letter (from F. Hasselberg) issuing notification of discuss design of reactor system for the AP600, includ generator tube rupture issues. acn: 9503290261 Fiche: 83307:288-83307:2	ling steam
March 24, 1995	NRC letter (from F. Hasselberg) issuing notification of management meeting with Westinghouse to discuss so of Westinghouse AP600 design. acn: 9503290246 Fiche: 83307:285-83307:2	tatus of staff review
March 24, 1995	NRC letter (from T. Kenyon) forwarding summary of 98 with Westinghouse regarding design of plant systems acn: 9503280394 Fiche: 83298:169-83298	in AP600 design.
March 24, 1995	NRC letter (from T. Kenyon) forwarding summary of 99 with Westinghouse regarding human factors engineeridesign. acn: 9503280363 Fiche: 83301:301-83301:3	ng for AP600
March 23, 1995	NRC letter (from K. Shembarger) forwarding summary meeting with Westinghouse to discuss TSs for AP600 acn: 9503290272 Fiche: 83328:226-83328:2	of 950214-17 design.

NRC letter (from K. Shembarger) forwarding summary of 950323 meeting March 23, 1995 with Westinghouse regarding IST program for AP600 design. Fiche: 83301:070-83301:120 acn: 9503280401 March 23, 1995 NRC letter (from K. Shembarger) issuing notification of 950425-27 meeting with Westinghouse to discuss modular construction for AP600 design. acn: 9503280206 Fiche: 83302:155-83302:158 March 22, 1995 NRC letter (from K. Shembarger) forwarding summary of 950315 meeting with Westinghouse to discuss LBB for AP600 design. acn: 9503280238 Fiche: 83300:234-83300:323 March 21, 1995 NRC letter (from T. Kenyon) forwarding summary of 941213-14 meeting with Westinghouse to discuss design of plant system in AP600 design. including equipment qualification, compressed and instrument air system, turbine generator, and HVAC system. acn: 9503280043 Fiche: 83301:216-83301:256 March 21, 1995 NRC letter (from D. Crutchfield) submitting amended target schedule for reviews of WCOBRA-TRAC LOCA methodology for AP600 reactor design. Scheduler impacts of amended target schedule on AP600 LOFTRAN and NOTRUMP programs also discussed. acn: 9503270055 Fiche: 83284:281-83284:283 March 21, 1995 NRC letter (from F. Hasselberg) forwarding summary of 950307 meeting with listed individuals regarding viability of proposed change to AP600 security plan. acn: 9503240231 Fiche: 83238:295-83238:297 March 21, 1995 NRC letter (from T. Kenvon) issuing notification of 950329-30 meeting with Westinghouse to discuss changes made to PRA, including instrumentation and control aspects of PRA and passive system reliability as it relates to AP600 design. acn: 9503240019 Fiche: 83241:157-83241:159 March 21, 1995 NRC letter (from D. Crutchfield) forwarding list of key issues on AP600 design serving to clarify issue descriptions and believed by staff to be potential critical path design issues. acn: 9503230266 Fiche: 83241:332-83241:350 NRC letter (from S. Ninh) forwarding summary of 941206-08 audit of March 20, 1995 modular construction design for Westinghouse AP600. Fiche: 83283:212-83283:278 acn: 9503270187

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March 17, 1995	NRC letter (from T. Kenyon) issuing notification of 950322-23 with Westinghouse to discuss fire protection and pipe break issues on design of AP600. acn: 9503220139 Fiche: 83212:320-83212:322
March 16, 1995	NRC letter (from F. Hasselberg) forwarding request for additional information regarding SPES-2 and OSU-APEX quick-look reports and sump modeling and long-term cooling behavior in OSU-APEX facility. acn: 9508030182 Fiche: 84914:298-84914:313
March 15, 1995	NRC letter (from T. Kenyon) requesting additional information to complete review of WCAP-14206 regarding applicability of NOTRUMP to AP600 design and applicability of LOFTRAN and LOFTTR2 to AP600 design. acn: 9508020248 Fiche: 84910:317-84910:344
March 15, 1995	Westinghouse letter (from N. Liparulo) requesting that proprietary version of advance copy of Revision 3 to AP600 PRA be withheld per 10 CFR 2.790. acn: 9503220434 Fiche: 83227:073-83232:065
March 15, 1995	Westinghouse letter (from N. Liparulo) forwarding nonproprietary and proprietary versions of advance copy of Revision 3 to AP600 PRA. acn: 9503220425 Fiche: 83227:062-83232:065
March 15, 1995	Westinghouse letter (from N. Liparulo) advising that Westinghouse review for proprietary material in listed documentation has indicated that materials contain no proprietary information. acn: 9503220098 Fiche: 83212:120-83212:120
March 15, 1995	NRC letter (from R. Borchardt) issuing notification of 950317 meeting with Westinghouse to obtain additional design information for staff and contractors working on AP600 thermodynamic computer models. acn: 9503170289 Fiche: 83177:359-83177:361
March 13, 1995	Westinghouse letter (from N. Liparulo) forwarding three copies of Westinghouse responses to NRC open items on AP600 from 940818 and 940829 letters. acn: 9503200240 Fiche: 83188:160-83188:171
March 7, 1995	NRC letter (from K. Shembarger) issuing notification of 950410-12 meeting with Westinghouse to discuss DSER open and confirmatory items piping confirmatory analyses and benchmark and design of bellows at piping penetration at containment. acn: 9503160264 Fiche: 83117:332-83117:333
March 7, 1995	Westinghouse letter (from N. Liparulo) forwarding responses to request for additional information on AP600. acn: 9503090082 Fiche: 83018:275-83018:327

- March 6, 1995 NRC letter (from K. Shembarger) forwarding summary of 950208-09 audit regarding seismic margins calculations. acn: 9503100397 Fiche: 83038:283-83038:299
- March 6, 1995 NRC letter (from K. Shembarger) forwarding summary of 950228 meeting with Westinghouse regarding initial test program for AP600 design. acn: 9503100389 Fiche: 83038:272-83038:282
- March 6, 1995 NRC letter (from K. Shembarger) issuing notification of 950315 meeting with Westinghouse to discuss leak-before-break issues for AP600 design. acn: 9503090054 Fiche: 83010:354-83010:356
- March 3, 1995 Westinghouse letter (from N. Liparulo) providing analyses of multiple steam generator tube rupture events for AP600 design. Analyses performed using MAAP4 computer code and provided in support of Westinghouse response to NRC RAIs 440.27 and 440.170. acr. 9503140270 Fiche: 83094:001-83094:075
- March 2, 1995 NRC letter (from T. Kenyon) forwarding report regarding ACHILLES unballooned cluster experiments. acn: 9503060255 Fiche: 82977:360-82977:361
- March 1, 1995 Westinghouse letter (from R. Hasselberg) issuing notification of 950308 meeting with Westinghouse to discuss computer code modeling. acn: 9503060218 Fiche: 82973:192-82973:195
- February 28, 1995 NRC letter (from F. Hasselberg) forwarding summary of 950209 meeting regarding status of staff review of AP600 application and key issues which must be addressed prior to final design approval of AP600 design. acn: 9503140198 Fiche: 83115:292-83115:331
- February 28, 1995 Westinghouse letter (from N. Liparulo) requesting that proprietary Revision 0 to "WCOBRA-TRAC Core Makeup Tank Preliminary Validation Report, " be withheld (reference 10 CFR 2.790). acn: 9503080412 Fiche: 83041:275-83041:281
- February 28, 1995Westinghouse letter (from N. Liparulo) forwarding proprietary Revision 0
to "WCOBRA-TRAC Core Makeup Tank Preliminary Validation Report."
acn: 9503080410Fiche: 83041:271-83041:281

February 28, 1995Westinghouse letter (from N. Liparulo) forwarding Y-12 technical data
sheet 2.2.10, "U-2 Molybdenum Alloy," in response to RAI 210.121 of
NRC 940902 letter.
acn: 9503080129Fiche: 83019:358-83019:361

Appendix A	
February 28, 1995	NRC letter (from T. Kenyon) issuing notification of 950308-09 meeting with Westinghouse to discuss human factors engineering issues for AP600.
	acn: 9503060257 Fiche: 82973:169-82973:171
February 28, 1995	NRC letter (from T. Kenyon) issuing notification of 950307 meeting with Westinghouse to discuss proposed security plan for AP600. acn: 9503030080 Fiche: 82929:192-82929:194
February 27, 1995	Westinghouse letter (from B. McIntyre) informing of Westinghouse support of NRC review activities plan for design certification of AP600 reactor. Responds to concerns regarding PRA revision structural issues and test reports raised in NRC 950120 letter and 950209 meeting. acn: 9503080050 Fiche: 82969:177-82969:179
February 23, 1995	NRC letter (from T. Kenyon) forwarding four data tapes and one diskette containing test data submitted in listed Westinghouse letters. acn: 9503010183 Fiche: 82884:355-82884:356
February 22, 1995	Westinghouse letter (from N. Liparulo) reporting impact of changes or error in ECCS evaluation models used by applicant. acn: 9503010111 Fiche: 82931:247-82931:263
February 22, 1995	NRC letter (from T. Kenyon) issuing notification of 950222-23 meetings with Westinghouse to discuss plant system design for AP600, including fire protection habitability system, fluid systems, and main condenser. acn: 9502270439 Fiche: 82856:164-82856:249
February 16, 1995	Westinghouse letter (from N. Liparulo) forwarding preliminary "Basis for Use of Forced Convection Heat Transfer Correlations in AP600 PCS Natural Circulation Driven Air Cooling Path," in response to action item from 941115 meeting between NRC and Westinghouse. acn: 9502270210 Fiche: 82867:279-82867:292
February 15, 1995	Westinghouse letter (from N. Liparulo) forwarding response to NRC 950112 letter regarding nonconformance noted in inspection report 99900404-94-01. acn: 9502270146 Fiche: 82866:347-82866:350
February 14, 1995	NRC letter (from R. Borchardt) forwarding proposed audit plan regarding new Westinghouse Delta 75 SGs used in AP600 design. acn: 9502160338 Fiche: 82754:243-82754:247
February 13, 1995	NRC letter (from F. Hasselberg) forwarding staff comments and followon questions on AP600 test reports. Informs that additional information needed in areas of core makeup tank test data and test analysis reports in order to complete review. acn: 9503280086 Fiche: 83302:104-83302:114

February 13, 1995 NRC letter (from K. Shembarger) issuing notification of 950228 meeting with Westinghouse to discuss initial test program for AP600 design. Fiche: 82766:357-82766:359 acn: 9502170111 February 13, 1995 NRC letter (from T. Kenyon) forwarding technical report "Human Factors Engineering Insights for Advanced Reactors Based upon Operating Experience." acn: 9502170029 Fiche: 82767:001-82767:039 February 10, 1995 Westinghouse letter (from N. Liparulo) forwarding proprietary responses to staff questions on WCOBRA-TRAC computer code in support of 950215-16 meeting with ACRS Thermal-hydraulic Phenomena Subcommittee. acn: 9502210323 Fiche: 82839:223-82839:227 February 9, 1995 Westinghouse letter (from N. Liparulo) requesting that AP600 main steam line PS CAEPIPE time history analysis results be withheld from public disclosure per 10 CFR 2.790. acn: 9502210344 Fiche: 82803:336-82803:342 February 9, 1995 Westinghouse letter (from N. Liparulo) forwarding description of forcing functions generated from postulation of mainsteam line break and MSIV closure transient and PS CAEPIPE time history structural analysis results. acn: 9502210343 Fiche: 82803:332-82803:342 February 9, 1995 NRC letter (from F. Orr) forwarding proprietary document regarding NRC best estimate of Westinghouse LOCA WCAP-12945-P. Document reflects concerns regarding status of resolution of issues in conventional NPGSS and AP600 experimental reactor. acn: 9502170222 Fiche: 82776:286-82776:288 February 7, 1995 Westinghouse letter (from N. Liparulo) forwarding responses to NRC RAIs on AP600 from letters of 940818 and 0902. acn: 9502150100 Fiche: 82761:292-82761:313 NRC letter (from F. Hasselberg) providing results of review regarding February 6, 1995 Westinghouse design certification test programs for AP600. Additional information needed in area of aerosol deposition calculations for AP600 containment. acn: 9503270244 Fiche: 83284:185-83284:188 NRC letter (from R. Borchardt) advising that Westinghouse AP600 long February 6, 1995 term cooling test facility drawings, and piping and instrumentation diagrams will be withheld (reference 10 CFR 2.790) per 950112 request. Fiche: 82711:198-82711:200 acn: 9502100005

February 2, 1995	licensing issues on AP600 de	eld) forwarding staff preliminary list of key esign per 941214 letter. Fiche: 82715:210-82715:217
February 1, 1995	with Westinghouse to discus activities of AP600 design.	erg) issuing notification of 950209 meeting as status of design certification review
	acn: 9502060052	Fiche: 82624:343-82624:346
January 31, 1995	WCAP-13963, "Scaling Logi	. Liparulo) forwarding Revision 1 to ic for Core Makeup Tank Test." Fiche: 82727:012-82727:189
January 31, 1995	WCAP-14270, "AP600 Low I Scaling Report, " be withheld	. Liparulo) requesting that proprietary Pressure Integral System Test at OSU Facility d (reference 10 CFR 2.790). Fiche: 82725:040-82725:047
January 31, 1995	WCAP-14271 and proprietar Integral System Test at OSU	. Liparulo) forwarding non-proprietary y WCAP-14270, "AP600 Low Pressure J Facility Scaling Report." Fiche: 82725:036-82726:159
January 31, 1995	of Revision 2 of AP600 PRA 10 CFR 2.790.	Liparulo) requesting that proprietary figures report be withheld from public disclosure per Fiche: 82653:005-82653:011
January 31, 1995	PRA report.	Liparulo) forwarding Revision 2 of AP600 Fiche: 82653:001-82657:262
January 30, 1995	Westinghouse letter (from N.	Liparulo) non-proprietary WCAP-14271, al System Test at OSU Facility Scaling
	acn: 9502080277	Fiche: 82725:048-82726:159
January 27, 1995		rger) issuing notification of 950228-0302 ertaining to soil-structure interaction for
		Fiche: 82625:318-82625:320
January 26, 1995	AP600 issues for enclosure i	eld) requesting review and comment on in upcoming SECY paper. Fiche: 85300:289-85300:293

January 26, 1995		erg) canceled issuing notification of 950210 to discuss source term-related open issues
	acn: 9502100177	Fiche: 82704:034-82704:038
January 26, 1995	N N	dt) summarizing 941017-18 pre-inspection Program implementation for Westinghouse 0 design. Fiche: 82575:280-82575:284
	ach. 9502010120	FICHE. 02373.200-02373.204
January 26, 1995		erg) issuing notification of 950210 meeting ss source term-related open issues for AP600
	acn: 9501310449	Fiche: 82548:057-82548:060
January 26, 1995		arger) issuing notification of meeting with service testing program for AP600 design. Fiche: 82558:252-82558:255
January 25, 1995	meeting with Westinghouse	arger) issuing notification of 950208-09 revised to discuss seismic margins analysis and esign and audit calculation of HCLPF values. Fiche: 82624:347-82624:348
January 25, 1995		I. Liparulo) forwarding Addendum 3 to ntitled, "Addendum 3 to Steam Generator ry Report." Fiche: 82587:113-82587:153
January 25, 1995		erg) issuing notification of 950125 meeting tus of AP600 emergency response guidelines. Fiche: 82562:059-82562:063
January 25, 1995		arger) issuing notification of 950214-15 scuss and resolve open items in draft SER in r AP600 design. Fiche: 82561:358-82561:360
January 25, 1995	meeting with applicant to dis	arger) issuing notification of 950214-16 scuss TSs for AP600 design. 82561:355-82561:357
January 25, 1995	meeting with applicant to dis	arger) issuing notification of 950207-08 scuss seismic margins analysis and high of failure values for AP600 design and audit s. Fiche: 82561:353-82561:354

January 20, 1995	NRC letter (from T. Kenyon) requesting additional information needed to complete staff evaluation of Level 2 and 3 portions of AP600 PRA. acn: 9503270249 Fiche: 83283:321-83283:341
January 20, 1995	NRC letter (from D. Crutchfield) expresses concern with delay in important submittals and scheduled meetings regarding review of AP600 design certification application. acn: 9501260295 Fiche: 82500:001-82500:004
January 20, 1995	NRC letter (from K. Shembarger) forwarding NRC 941215 letter regarding position on 1994 Addenda to Section III of ASME Code. acn: 9501260284 Fiche: 82500:005-82500:008
January 20, 1995	NRC letter (from T. Kenyon) issuing notification of 950125-26 meeting with Westinghouse to discuss plant system design for AP600 regarding flood protection, reactor coolant pressure boundary leakage, pressurizer relief discharge, and new and spent fuel storage. acn: 9501250238 Fiche: 82485:284-82485:286
January 16, 1995	Westinghouse letter (from N. Liparulo) requesting that proprietary "Quick Look Report for SPES-2 Matrix Test S01703 AP600 Program " be withheld (reference 10 CFR 2.790). acn: 9501260106 Fiche: 82523:174-82523:180
January 16, 1995	Westinghouse letter (from N. Liparulo) forwarding proprietary "Quick Look Report for SPES-2 Matrix Test S01703 AP600 program." acn: 9501260101 Fiche: 82523:170-82523:180
January 13, 1995	Westinghouse letter (from N. Liparulo) requesting that proprietary presentation from 941220 meeting on AP600 test and analysis program be withheld per 10 CFR 2.790. acn: 9501260203 Fiche: 82519:074-82519:178
January 13, 1995	Westinghouse letter (from N. Liparulo) forwarding nonproprietary and proprietary presentation materials from 941220 meeting on AP600 test and analysis program. acn: 9501260197 Fiche: 82519:070-82519:178
January 12, 1995	Westinghouse letter (from N. Liparulo) requesting that proprietary "Quick Look Report for SPES-2 Matrix Test S01613 AP600 Program," be withheld (reference 10 CFR 2.790). acn: 9501240399 Fiche: 82513:020-82513:026
January 12, 1995	Westinghouse letter (from N. Liparulo) forwarding "Quick Look Report for SPES- 2 Matrix Test S01613 AP600 Program." acn: 9501240394 Fiche: 82513:017-82513:026

January 12, 1995 NRC letter (from T. Kenyon) issuing notification of 950119 meeting to address severe accident issues with AP600 design. acn: 9501200113 Fiche: 82420:342-82420:344 January 12, 1995 Notice of nonconformance from inspections on 940830-0901 and 1011-14 at Oregon State University and SIET SPES-2 facilities. Nonconformance noted: Activities not IAW WCAP-8370, Revision 12A, as accepted by NRC regarding AP600 development and testing. Fiche: 82392:097-82392:130 January 12, 1995 NRC letter (from R. Borchardt) forwarding inspection report 99900404-94-01 on 940830-0901 at Oregon State University, and 941011-14 at SIET SPES-2 and notice of nonconformance. Inspection to determine if development and testing activities for AP600 conducted IAW Revision 12A of WCAP-8370. acn: 9501230161 Fiche: 82392:102-82392:103 NRC letter (from R. Architzel) forwarding summary of 941115-17 meeting January 12, 1995 with Westinghouse regarding AP600 PCS analysis program. Fiche: 82486:001-82487:068 acn: 9501230014 January 12, 1995 Westinghouse letter (from N. Liparulo) requesting that "Westinghouse AP600 Long Term Cooling Test at Oregon State University Facility Drawings, Piping, and Instrumentation Diagrams," be withheld (reference 10 CFR 2.790). acn: 9501180240 Fiche: 82393:084-82393:090 January 12, 1995 Westinghouse letter (from N. Liparulo) forwarding proprietary "Westinghouse AP600 Long Term Cooling Test at Oregon State University Facility Drawings, Piping, and Investigation Diagrams." acn: 9501180234 Fiche: 82393:080-82393:090 January 10, 1995 Westinghouse letter (from B. McIntyre) inspection report 99900404-94-01 on 940830-0901 and 1011-14 at Oregon State University and SIET SPES-2 sites, respectively, to determine if design activities and testing of AP600 development IAW WCAP-8370, Revision 12a, as approved by NRC. Fiche: 82392:104-82392:130 acn: 9501230166 Westinghouse letter (from N. Liparulo) forwarding draft paper "In-vessel January 6, 1995 Coolability and Retention of Core Melt." Westinghouse plans to use paper to support in-vessel retention decomposition event tree analysis provided in Revision 1 of AP600 PRA. acn: 9501130215 Fiche: 82366:155-82366:155

January 3, 1995	NRC letter (from R. Architzel) issuing notification of 950113 meeting with Westinghouse to discuss regulatory treatment of non-safety system for AP600 with focus on RHR system.	
	acn: 9501100048 Fiche: 82271:031-82271:034	
December 27, 1994	Westinghouse letter (from N. Liparulo) advising that Westinghouse has reviewed listed materials for proprietary information. acn: 9501200101 Fiche: 82471:360-82471:360	
December 23, 1994	Westinghouse letter (from N. Liparulo) requesting that "Quick Look Data Report for Series 300 Supplement," and "Quick Look Data Report for Series 500 Matrix Tests," be withheld. acn: 9501170220 Fiche: 82378:245-82378:251	
December 23, 1994	Westinghouse letter (from N. Liparulo) forwarding proprietary "AP600 CMT Quick Look Report for Series 300 Supplement," and "AP600 CMT Quick Look Report for Series 500 Matrix Tests," proprietary reports withheld (reference 10 CFR 2.790). acn: 9501170215 Fiche: 82378:241-82378:251	
December 20, 1994	Westinghouse letter (from N. Liparulo) forwarding detailed comments on NRC 941024 letter regarding review approach for regulatory treatment of nonsafety-related system review for AP600. acn: 9412270334 Fiche: 82137:338-82137:341	
December 19, 1994	NRC letter (from K. Shembarger) forwarding followon questions on AP600 for design certification review requesting list of proposed AP600 TS requirements that deviate from NUREG-1431 based either partially or fully on PRA.	
	acn: 9503270097 Fiche: 83284:181-83284:184	
December 14, 1994	NRC letter (from D. Crutchfield) requesting that Westinghouse independently develop list of issues that applicant believes potential critical path issues for AP600 design and submit to staff by 950131. acn: 9412190112 Fiche: 82061:360-82061:361	
December 13, 1994	Westinghouse letter (from N. Liparulo) requesting that WCAP-14215, "AP600 Core Makeup Tank Test Analysis," be withheld per 10 CFR 2.790. acn: 9501190238 Fiche: 82393:102-82393:260	
December 13, 1994	Westinghouse letter (from N. Liparulo) forwarding WCAP-14216 and WCAP-14215, "AP600 Core Makeup Tank Test Analysis," and request for withholding WCAP-14215 from public disclosure. acn: 9501190221Fiche: 82393:091-82393:260	
December 12, 1994	NRC letter (from J. Taylor) forwarding draft NUREG-1512, entitled "DSER Regarding Certification of AP600 Design." acn: 9501190272 Fiche: 82353:003-82353:005	

December 12, 1994 Westinghouse letter (from F. Hassleberg) issuing notification of 941220 meeting with Westinghouse to discuss content of vendor test program reports and AP600 program proprietary features. acn: 9412200137 Fiche: 82068:148-82068:152 December 12, 1994 NRC letter (from T. Kenyon) issuing notification of 941213-14 meeting with Westinghouse to discuss design of plant systems of AP600, including equipment qualification, compressed and instrument air system, heating ventilating and air conditioning system, and DG auxiliary systems. acn: 9412150132 Fiche: 82054:121-82054:123 December 9, 1994 Westinghouse letter (from N. Liparulo) requesting that information to support independent soil-structure interaction analysis be withheld from public disclosure in accordance with 10 CFR 2.790. acn: 9412230059 Fiche: 82081:179-82081:185 December 9, 1994 Westinghouse letter (from N. Liparulo) forwarding information to support independent soil-structure interaction analysis for AP600. Fiche: 82081:175-82081:185 acn: 9412230050 December 9, 1994 Westinghouse letter (from N. Liparulo) requesting that proprietary "Quick Look Report for SPES-2 Matrix Test S01512 (Blind Test) AP600 Program," be withheld (reference 10 CFR 2.790). acn: 9412210196 Fiche: 82090:186-82090:192 December 9, 1994 Westinghouse letter (from N. Liparulo) forwarding proprietary "Quick Look Report for SPES-2 Matrix Test S01512 (Blind Test) AP600 Program." Fiche: 82090:182-82090:192 acn: 9412210195 December 7, 1994 NRC letter (from K. Shembarger) requesting additional information on inservice testing plan for AP600 design. acn: 9508020110 Fiche: 84908:345-84908:355 December 6, 1994 NRC letter (from T. Kenyon) forwarding comments and questions to be used as agenda for meeting on AP600. acn: 9502030100 Fiche: 82631:279-82631:292 December 6, 1994 NRC letter (from S. Magruder) forwarding summary of 941115 meeting with Westinghouse regarding passive systems reliability for AP600 design. acn: 9412140241 Fiche: 82030:128-82030:176 NRC letter (from T. Kenvon) forwarding report, "Assessment of ALWR December 2, 1994 Passive System Reliability: Phase 1: Methodology Development and Component Failure Quantification." acn: 9503270264 Fiche: 83283:001-83283:211

November 30, 1994	NRC letter (from W. Russell) forwarding draft NUREG-1512 entitled, "DSER Regarding Certification of AP600 Design." Letter lists major issues that have global impact on entire review. acn: 9501190294 Fiche: 82353:006-82358:202	
November 30, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary WCAP-14217, "Core Makeup Tank Test Data Report, " be withheld (reference 10 CFR 2.790). acn: 9501060260 Fiche: 82284:012-82284:281	
November 30, 1994	Westinghouse letter (from N. Liparulo) forwarding nonproprietary WCAP-14218 and proprietary WCAP-14217, "Core Makeup Tank Test Data Report."	
	acn: 9501060249 Fiche: 82284:001-82284:281	
November 30, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary report WCAP-14234, "LOFTRAN and LOFTTR2 AP600 Code Applicability Document," be withheld from public disclosure per 10 CFR 2.790. acn: 9412090177 Fiche: 82011:116-82011:122	
November 30, 1994	Westinghouse letter (from N. Liparulo) forwarding nonproprietary report WCAP-14235 and proprietary report WCAP-14234, "LOFTRAN and LOFTTR2 AP600 Code Applicability Document." acn: 9412090175 Fiche: 82011:112-82011:195	
November 30, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary "LOFTRAN-AP Core Makeup Tank Preliminary Validation Report," be withheld from public disclosure per 10 CFR 2.790. acn: 9412090153 Fiche: 82011:307-82011:315	
November 30, 1994	Westinghouse letter (from N. Liparulo) forwarding proprietary "LOFTRAN-AP Core Makeup Tank Preliminary Validation Report," acn: 9412090147 Fiche: 82011:305-82011:315	
November 30, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary WCAP-14206, "Applicability of NOTRUMP Computer Code to AP600 SSAR Small-Break LOCA Analyses," be withheld (reference 10 CFR 2.790). acn: 9412020262 Fiche: 81965:005-81965:011	
November 30, 1994	Westinghouse letter (from N. Liparulo) forwarding non-proprietary WCAP-14207 and proprietary WCAP-14206, "Applicability of NOTRUMP Computer Code to AP600 SSAR Small-Break LOCA Analyses." proprietary WCAP-14206 withheld (reference 10 CFR 2.790). acn: 9412020261 Fiche: 81965:001-81965:073	
November 22, 1994	NRC letter (from S. Ninh) forwarding summary of 941031-1103 meeting regarding audit of seismic model for Westinghouse AP600 design. acn: 9411280211 Fiche: 81853:051-81853:057	

November 21, 1994Westinghouse letter (from N. Liparulo) requesting that presentation
materials from 941115-17 meeting on AP600 passive containment cooling
system analyses be withheld per 10 CFR 2.790.
acn: 9412020139Fiche: 81953:006-81953:290

November 21, 1994 Westinghouse letter (from N. Liparulo) forwarding nonproprietary and proprietary presentation materials used at Westinghouse 941115-17 meeting to discuss AP600 passive containment cooling system analyses. acn: 9412020134 Fiche: 81953:001-81953:290

November 21, 1994 NRC letter (from J. Taylor) informing of NRC staff intent to submit results of reexamination of fee recovery of NRC advanced reactor research costs currently charged to licensees in response to applicant 941031 submittal. acn: 9411280129 Fiche: 81903:079-81903:084

November 11, 1994 Westinghouse letter (from N. Liparulo) informing that material received in 941107 letter has no information that Westinghouse considers proprietary. acn: 9411230059 Fiche: 81864:257-81864:257

November 10, 1994 ACRS letter (from T. Kress) forwarding summary of 414th and 415th meetings of ACRS on 941006-07 and 1103-04 regarding NRC test and analysis programs in support of AP600 and SBWR advance LWR passive plant design certification reviews. acn: 9411210074 Fiche: 81864:010-81864:014

November 10, 1994 NRC letter (from S. Magruder) issuing notification of 941115 meeting with Westinghouse to discuss results of NRC working meeting. Westinghouse recently completed analyses regarding passive system reliability for AP600 design. acn: 9411170168 Fiche: 81776:356-81776:359

November 9, 1994 NRC letter (from S. Ninh) forwarding summary of 941012-13 meeting regarding open issues regarding SSI analysis models and results. acn: 9411170302 Fiche: 81776:001-81776:092

November 7, 1994 NRC letter (from T. Kenyon) requesting additional information to complete review of 940923 letter regarding AP600 fission product transport analysis. acn: 9412060284 Fiche: 81960:010-81960:013

November 7, 1994 Westinghouse letter (from N. Liparulo) forwarding responses to NRC requests for additional information on AP600 from NRC letters of 940429, 0714, 0818, and 0902. acr: 9411140043 Fiche: 81745:272-81745:349

November 4, 1994 Westinghouse letter (from N. Liparulo) requesting that Errata to Revision 1 to AP600 SSAR be withheld (reference 10 CFR 2.790). acn: 9411280172 Fiche: 81922:186-81922:192

November 4, 1994	Westinghouse letter (from N Westinghouse AP600 SSAF	I. Liparulo) forwarding Errata to Revision 1 to R.	
	acn: 9411280164	Fiche: 81922:182-81922:192	
November 3, 1994	NRC letter (from F. Hasselberg) issuing notification of 941115-17 meeting with Westinghouse to discuss Westinghouse plans, schedules, and methodology for delivery of AP600 containment test program analysis information.		
	acn: 9411090108	Fiche: 81667:301-81667:305	
November 2, 1994		l. Liparulo) forwarding position paper on physically-based source term. Fiche: 81720:332-81720:348	
November 1, 1994		ch) forwarding summary of 941020 meeting ss latest update of AP600 Level 2 PRA. Fiche: 81724:244-81724:321	
October 31, 1994	comments regarding propos	I. Liparulo) documents 941027 telecon ed revision to control room habitability section d Technical Issues Associated with Regulatory tem in Passive Designs." Fiche: 81780:293-81780:294	
October 31, 1994	Westinghouse letter (from N should be considered invalid acn: 9411100193	. Liparulo) advising that listed channels for 3 tests. Fiche: 81720:330-81720:331	
October 31, 1994		rger) forwarding summary of 941024 meeting radwaste building for AP600 design. Fiche: 81658:130-81658:156	
October 31, 1994	•	Liparulo) requesting that proprietary "AP600 ank Preliminary Validation Report," erence 10 CFR 2.790). Fiche: 81663:119-81663:125	
October 31, 1994	•	. Liparulo) forwarding proprietary "AP600 ank Preliminary Validation Report," Fiche: 81663:115-81663:125	
October 31, 1994		forwarding summary of 941025 meeting to	

October 27, 1994	Westinghouse letter (from N. Liparulo) requesting that "AP600 Passive Containment Cooling System Scaling Report," be withheld per 10 CFR 2.790.	
	acn: 9411080043	Fiche: 81677:079-81677:087
October 27, 1994	WCAP-14191, "Scaling Ana	I. Liparulo) forwarding non-proprietary lysis for AP600 Passive Containment Cooling CAP-14190, "Scaling Analysis for AP600 ng System." Fiche: 81677:077-81677:182
October 27, 1994		I. Liparulo) forwarding draft outlines for AP600
	test and analysis reports.	Fiche: 81641:315-81641:358
	acn: 9411030232	Fiche. 61641.313-61641.336
October 25, 1994	NRC letter (from K. Shemba seismic model for Westingh	arger) informing of 941101-04 audit regarding ouse AP600 design.
	acn: 9410280011	Fiche: 81522:332-81522:336
October 24, 1994		eld) forwarding review approach in use by ed as important through process addressing
	acn: 9410280009	Fiche: 81522:317-81522:325
October 21, 1994	"Experimental Basis for Mas	I. Liparulo) requesting that Revision 0 to as Transfer Correlations Selected for Modeling ion on AP600 Containment Vessel," be 2.790). Fiche: 81587:030-81587:037
October 21, 1994	to "Experimental Basis for N	I. Liparulo) forwarding proprietary Revision 0 lass Transfer Correlations Selected for Evaporation on AP600 Containment Vessel." Fiche: 81587:026-81587:037
October 21, 1994		l. Liparulo) forwarding Westinghouse for additional information on AP600 from ters. Fiche: 81579:261-81579:271
October 20, 1994	U .	l. Liparulo) informing that review of RAI on contains no proprietary information. Fiche: 81556:299-81556:299
October 20, 1994	– ,	l. Liparulo) requesting that proprietary Quick Look Report for Series 400 Matrix Test

	CMT Draindown During Depressurization Tests," be withheld per 10 CFR 2.790.	
	acn: 9410280219	Fiche: 81524:354-81524:360
October 20, 1994		N. Liparulo) forwarding proprietary Revision 0 k Report for Series 400 Matrix Test CMT surization Tests." Fiche: 81524:350-81524:360
October 20, 1994		arger) issuing notification of 941025 meeting iss security for AP600 design. Fiche: 81444:222-81444:224
October 19, 1994	· ·	n) forwarding comments and questions to be g on plant systems of AP600. Fiche: 81454:197-81454:247
October 19, 1994	containing test data that ha letters.	a) forwarding twelve data tapes and 4 diskettes d been submitted in listed Westinghouse
	acn: 9410240108	Fiche: 81420:316-81420:318
October 19, 1994	•	arger) issuing notification of 941024 meeting iss modifications made to radioactive waste
	acn: 9410210021	Fiche: 81405:171-81405:173
October 18, 1994	NRC letter (from T. Kenyor Westinghouse regarding Pl acn: 9410240114	a) forwarding summary of 940801 meeting with RA for AP600 design. Fiche: 81420:223-81420:266
October 17, 1994	NRC letter (from M. Franovich) issuing notification of 941020 meeting with Westinghouse to discuss Westinghouse revision and update of Level 2 PRA for AP600 reactor design. acn: 9410210070 Fiche: 81405:010-81405:014	
October 14, 1994	obtained from AP600 test p	N. Liparulo) requesting plots showing results erformed at SPES-2 test facility in Piacenza, I (reference 10 CFR 2.790). Fiche: 81500:203-81500:211
October 14, 1994		N. Liparulo) forwarding two plots showing 0 test performed at SPES-2 test facility in
	acn: 9410270113	Fiche: 81500:201-81500:211

October 14, 1994		I. Liparulo) requesting that proprietary ok Report for OSU Matrix Test LTC21 AP600 (10 CFR 2.790). Fiche: 81446:322-81446:329
October 14, 1994	report "Quick Look Report fo Program."	I. Liparulo) forwarding proprietary preliminary or OSU Matrix Test LTC21 AP600 Test
	acn: 9410240088	Fiche: 81446:318-81446:329
October 14, 1994	Revision 0 to "Quick Look F	I. Liparulo) requesting that proprietary Report for SPES-2 Matrix Test S01211 (Blind vithheld (reference 10 CFR 2.790). Fiche: 81438:232-81438:240
October 14, 1994		I. Liparulo) forwarding proprietary Revision 0 PES-2 Matrix Test S01211 (Blind Test) AP600
	acn: 9410210275	Fiche: 81438:230-81438:240
October 13, 1994	· · · · ·) informing that additional information needed Vestinghouse June 1992 application for). Fiche: 81939:260-81939:264
October 13, 1994		forwarding summary of 940810 meeting with e and flood PRA for AP600 design. Fiche: 81368:312-81368:323
October 12, 1994		I. Liparulo) forwarding presentation materials P600 Passive Containment Cooling System
	acn: 9410140184	Fiche: 81339:226-81339:303
October 12, 1994		I. Liparulo) requesting that proprietary e B Matrix," be withheld (reference 10 CFR
	acn: 9410140154	Fiche: 81357:351-81357:357
October 12, 1994		I. Liparulo) forwarding proprietary "Revised omatic depressurization system tests currently ty in Cassacia, Italy. Fiche: 81357:347-81357:357
October 11, 1994	meeting with Westinghouse	arger) forwarding summary of 940927-29 regarding TSs for AP600 design. Fiche: 81357:155-81357:198

October 10, 1994	Westinghouse letter (from N. Liparulo) forwarding Errata to proprieta "AP600 Testing Program Report," WCAP-14135, adding listed sente to end of first paragraph on page 3-6.	
		he: 81467:354-81467:355
October 10, 1994	Quick Look Report errata.	parulo) submitting AP600 SPES-2 Test
	acn: 9410140140 Fic	he: 81371:059-81371:060
October 4, 1994	Thermal-Hydraulic Phenomena of RES confirmatory test progra certification effort for AP600 and	warding summary of 940825-26 ACRS Subcommittee meeting regarding status ms being conducted in support of SBWR passive plant designs. he: 85151:246-85151:291
October 4, 1994	bases and conduct of performin for control room as described in SECY-94-084, clarify staff positi	advising that NRC staff believes that g periodic pressurization surveillance tests enclosures, including text revisions of ion addressing Westinghouse comments. he: 81238:348-81238:356
September 30, 1994	and open items on AP600 from 0830 letters.	barulo) forwarding responses to NRC RAIs NRC 940516, 0815, 0818, 0829, and he: 81215:194-81215:228
September 29, 1994	temperature distribution plot reg public disclosure (per 10 CFR 2	parulo) requesting that APWR reflector parding RAI 440.256 be withheld from .790). he: 81276:319-81276:326
September 29, 1994	temperature distribution plot reg	parulo) forwarding PWR reflector jarding RAI 440.256. he: 81276:315-81276:326
September 28, 1994	WCAP-14171, "WCOBRA-TRAC withheld from public disclosure p	parulo) requesting that proprietary report C Applicability to AP600 LBLOCA," be per 10 CFR 2.790. he: 81252:102-81252:108
September 28, 1994	Applicability to AP600 LBLOCA.	ry WCAP-14172, "WCOBRA-TRAC
September 27, 1994	Westinghouse presentation entit Cooling System Analysis Progra 10183/4448#2181	tled, "AP600 Passive Containment am," made to NRC on 940927.
		he: 81339:224-81339:303

September 26, 1994	NRC letter (from F. Hasselberg) submitting daily highlight regarding 940927 meeting with Westinghouse to discuss AP600 containment testing program open issues.		
	acn: 9409290325	Fiche: 81081:195-81081:198	
September 23, 1994	fission product transport cale 2.790).	I. Liparulo) requesting that proprietary AP60 culations be withheld (reference 10 CFR	0
	acn: 9410050211	Fiche: 81229:141-81229:158	
September 23, 1994		I. Liparulo) forwarding proprietary requested n product transport calculations. Fiche: 81229:139-81229:158	
September 21, 1994	Revision 0 to "Quick Look F Program," and Revision 0 to SB19 AP600 Test Program,"	I. Liparulo) requesting that proprietary Report for OSU Matrix Test SB11 AP600 Test "Quick Look Report for OSU Matrix Test " be withheld (reference 10 CFR 2.790). Fiche: 81249:003-81249:011	st
September 21, 1994	to "Quick Look Report for OS	I. Liparulo) forwarding proprietary Revision 0 SU Matrix Test SB11 AP600 Test Program,' ok Report for OSU Matrix Test SB19 AP600 Fiche: 81249:001-81249:011	17
September 21, 1994) forwarding summary of 940829 meeting wi orts of staff and Westinghouse to develop n. Fiche: 81084:024-81084:175	th
September 21, 1994		I. Liparulo) requesting that Revision 0 to J Matrix Test SB9 (Blind Test) AP600 Test rence 10 CFR 2.790). Fiche: 81194:271-81194:279	
September 21, 1994	Revision 0 to WCAP-14170, Westinghouse AP600 React Look Report for OSU Matrix	I. Liparulo) forwarding non-proprietary , "Phase IVa Wind Tunnel Testing for tor - Supplemental Report," proprietary "Quic x Test," and Revision 0 to WCAP-14169. 81194:258-81194:285	ck
September 19, 1994	proprietary Revisions 0 to W Wind Tunnel Testing for We Report," documenting aspec	I. Liparulo) forwarding non-proprietary and /CAP-14170 and WCAP-14169, "Phase IVa estinghouse AP600 Reactor Supplementary cts of AP600 testing program. Fiche: 81194:269-81194:270	

September 19, 1994	Westinghouse letter (from N. Liparulo) requesting that Revision 0 to "Quick Look Report for OSU Matrix Test SB9 (Blind Test) AP600 Test Program," and Revision 0 to WCAP-14170, "Phase IVa Tunnel Testing for Westinghouse AP600 Reactor Supplementary Report," be withheld (reference 10 CFR 2.790). acn: 9409280214 Fiche: 81194:260-81194:268
September 19, 1994	Westinghouse letter (from N. Liparulo) forwarding Westinghouse responses to NRC requests for additional information on AP600 from letters of 940429, 0523, 0524, 0615, and 0815. acn: 9409230252 Fiche: 81016:309-81016:340
September 19, 1994	NRC letter (from K. Shembarger) informing of 941012-13 meeting with Westinghouse regarding soil-structure interaction for AP600 design. acn: 9409220056 Fiche: 80988:353-80988:355
September 16, 1994	Westinghouse letter (from N. Liparulo) forwarding Revision 2 to WCAP-13234, "Test Specification for Long-term Cooling Test." acn: 9409260220 Fiche: 81066:287-81066:317
September 15, 1994	Westinghouse letter (from N. Liparulo) requesting that additional information in support of Westinghouse response to PRHR test data be withheld (reference 10 CFR 2.790). acn: 9410060167 Fiche: 81269:350-81269:359
September 15, 1994	Westinghouse letter (from N. Liparulo) forwarding proprietary information in support of NRC request for additional information on AP600 design. acn: 9410060160 Fiche: 81269:348-81269:359
September 15, 1994	Westinghouse letter (from N. Liparulo) informing that review of NRC RAI on AP600 received in 940914 letter indicates that letter and enclosure contain no information that Westinghouse considers proprietary. acn: 9410060057 Fiche: 81234:006-81234:006
September 15, 1994	Westinghouse letter (from N. Liparulo) providing information in support of NRC request for additional information on AP600 design. Attachment documents sensitivity study to assess effects of uncertainty in critical flow models used to represent flow through AP600 fourth stage ADS valves.

acn: 9409220243 Westinghouse letter (from N. Liparulo) forwarding proprietary Revision 0 September 15, 1994 to "Quick Look Report AP600 Core Makeup Tank (CMT) Test Program -

Series 100 Matrix Tests."

acn: 9409210342

September 14, 1994 NRC letter (from T. Kenyon) requesting additional information be provided to complete review of June 1992 application for design certification of AP600. Fiche: 81420:296-81420:300 acn: 9410240218

Fiche: 81021:132-81021:153

Fiche: 80993:331-80993:342

NUREG-1512

A-264

September 14, 1994) issuing notification of 940915 meeting with atus of Westinghouse efforts on passive
	system reliability for design	of AP600.
	acn: 9409200144	Fiche: 80955:335-80955:337

September 14, 1994 NRC letter (from D. Crutchfield) advising that NRC in process of reviewing fee billing practices regarding technical assistance and confirmatory research activities supporting design certification applications to determine if changes to current practices warranted. acn: 9409200021 Fiche: 80950:345-80950:346

September 13, 1994 Westinghouse letter (from N. Liparulo) informing that Westinghouse has reviewed for proprietary material NRC 940902 letter regarding request for additional information on AP600. Review indicates that letter and enclosure contain no information that Westinghouse considers proprietary. acn: 9409220133 Fiche: 80984:003-80984:003

September 13, 1994 NRC letter (from F. Hasselberg) forwarding summary of 940817 meeting with Westinghouse regarding status of staff review of AP600 design certification application and major issues and concerns. acn: 9409210329 Fiche: 80991:203-80991:238

September 12, 1994 NRC letter (from F. Hasselberg) forwarding summary of 940907 meeting to discuss regulatory treatment of non-safety system in AP600 design. acn: 9409190039 Fiche: 80928:278-80928:298

September 9, 1994Westinghouse letter (from N. Liparulo) forwarding Revision 2 to topical
report WCAP-12600, " AP600 ALWR Design QA Program Plan," in
support of response to NRC RAI 260.33.
acn: 9409190051Fiche: 80986:193-80986:303

September 9, 1994 NRC letter (from F. Hasselberg) confirms agreement reached on 940610 between Westinghouse and NRC staff regarding tests for which blind test analyses to be performed and informs of correction to NRC 940829 letter on AP600 test program issues. acn: 9409140275 Fiche: 80870:125-80870:126

September 9, 1994NRC letter (from K. Shembarger) informing of 940927-29 meetings with
Westinghouse regarding AP600 design.
acn: 9409140265Fiche: 80870:123-80870:124

September 9, 1994 NRC letter (from F. Hasselberg) issuing notification of 940906 meeting with Westinghouse to discuss regulatory treatment of non-safety system for Westinghouse AP600 design. acn: 9409140182 Fiche: 80865:328-80865:330

September 2, 1994	NRC letter (from K. Shembarger) requesting additional information be provided on WCAP-13734, "Structural Analysis Summary for AP600 Reactor Coolant Pump High Inertia Flywheel. acn: 9410240213 Fiche: 81420:286-81420:295
September 2, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary preliminary Quick Look Data Reports for AP600 long term cooling tests at Oregon State University for Matrix Tests SB7, SB14, AND SB15 be withheld from public disclosure (reference 10 CFR 2.790). acn: 9409200079 Fiche: 80989:338-80989:344
September 2, 1994	Westinghouse letter (from N. Liparulo) forwarding proprietary preliminaryQuick Look Data Reports for AP600 long term cooling tests at OregonState University.acn: 9409200076Fiche: 80989:334-80989:344
September 2, 1994	Westinghouse letter (from N. Liparulo) forwarding responses to NRC RAIs on AP600 from NRC 940415, 0523, 0601, 0608, and 0615 letters. acn: 9409150223 Fiche: 80924:249-80924:283
September 2, 1994	Westinghouse letter (from N. Liparulo) advising that 940830 requests for additional information on AP600 do not contain proprietary information. acn: 9409130266 Fiche: 80883:294-80883:294
September 2, 1994	NRC letter (from K. Shembarger) forwarding summary of 940726-28 meeting with NRC consultants and Westinghouse to discuss AP600 containment test program scaling and code validation programs. acn: 9409130132 Fiche: 80842:006-80842:199
September 1, 1994	Westinghouse letter (from N. Liparulo) forwarding report WCAP-14168, "Condensation in Presence of Noncondensible Gases: AP600 Containment Simulation." acn: 9409150205 Fiche: 80924:001-80924:116
September 1, 1994	Westinghouse letter (from N. Liparulo) forwarding responses to NRC RAIson AP600 from NRC 940502, 0505, 0523, 0601, 0608, and 0714 letters.acn: 9409130119Fiche: 80880:177-80880:239
August 31, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietaryRevision 0 to "Quick Look Report AP600 Core Makeup Tank (CMT) TestProgram - Series 100 Matrix Tests " be withheld (reference 10 CFR2.790).acn: 9409210344Fiche: 80993:335-80993:342
August 31, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary additional information in support of Westinghouse response to RAI 952.92 be withheld from public disclosure per 10 CFR 2.790. acn: 9409150251 Fiche: 80914:351-80914:360

August 31, 1994	information on AP600 testir	N. Liparulo) forwarding proprietary additional ng being performed at AP600 low pressure I in support of Westinghouse response to RAI
	acn: 9409150239	Fiche: 80914:349-80914:360
August 31, 1994	"Experimental Basis for Con for Modeling Heat Transfer	N. Liparulo) forwarding letter report nvective Heat Transfer Correlations Selected from AP600 Containment Vessel. Fiche: 80924:300-80924:346
August 31, 1994	Westinghouse letter (from N on AP600 PCS film flow cov acn: 9409120094	* •
August 31, 1994		N. Liparulo) requesting that proprietary acility Description Report AP600 ADS Phase A e 10 CFR 2.790). Fiche: 80842:205-80842:211
August 31, 1994	WCAP-14149 and nonprop Description Report AP600 A	N. Liparulo) forwarding proprietary rietary WCAP-14150, "VAPORE Facility ADS Phase A Test." Fiche: 80842:201-80842:272
August 31, 1994		N. Liparulo) requesting that proprietary "Quick Makeup Tank (CMT) Test Program Series 300 reference 10 CFR 2.790). Fiche: 80883:299-80883:305
August 31, 1994		J. Liparulo) forwarding proprietary "Quick Look up Tank (CMT) Test Program Series 300 Fiche: 80883:295-80883:305
August 30, 1994	NRC letter (from T. Kenyon) forwarding RAI on June 1992 application for 0 needed to complete review. Fiche: 80929:008-80929:013
August 29, 1994	regarding resolution of outs	ield) discussing 931210-940407 meetings tanding AP600 test program issues and program issues and concerns. Fiche: 80789:347-80789:355
August 26, 1994		I. Liparulo) forwarding Westinghouse for additional information on AP600, including Fiche: 80797:113-80797:232

August 25, 1994		ield) concluding that review of ERGs for support design certification. Fiche: 80721:355-80721:361
August 24, 1994		N. Liparulo) forwarding nonproprietary Revision report WCAP-13345, "AP600 Core Makeup ions." Fiche: 80860:014-80860:059
August 24, 1994	WCAP-14134, "AP600 Pass	J. Liparulo) requesting that proprietary sive Containment Cooling System Integral neld (reference 10 CFR 2.790). Fiche: 80902:021-80902:028
August 24, 1994		I. Liparulo) forwarding proprietary ietary WCAP-14317, "Final Test Report for Fiche: 80902:017-80902:085
August 24, 1994		arger) forwarding summary of 940711-14 ng audit of structural design of AP600 reactor Fiche: 80789:109-80789:334
August 24, 1994		I. Liparulo) forwarding security information for design per 10 CFR 50.34(c). Fiche: 80760:330-80760:331
August 23, 1994	on AP600 received in letters	I. Liparulo) informing that review of NRC RAIs s dated 940818 for proprietary information no information Westinghouse considers
	acn: 9409010171	Fiche: 80755:357-80755:357
August 23, 1994	on AP600 received in 94081	I. Liparulo) informing that review of NRC RAIs 17 letter for proprietary information indicates nation Westinghouse considers proprietary. Fiche: 80738:359-80738:359
August 23, 1994	•	arger) forwarding summary of 940705-06 nent performance for AP600 reactor design. Fiche: 80693:091-80693:206
August 22, 1994	LTCT-T2R-025, and LTCT- 2.790).	l. Liparulo) requesting that LTCT-T2R-023, I2R-032 be withheld (reference 10 CFR
	acn: 9409130152	Fiche: 80985:346-80985:352

August 22, 1994	providing NRC with information to enable early evaluation and	Liparulo) forwarding proprietary reports n on AP600 matrix tests of sufficient depth l analysis of test results. iche: 80985:342-80985:352
August 22, 1994	with Westinghouse to discuss accident source term and desig Chapter 15 of AP600 SSAR.	g) issuing notification of 940829-30 meeting areas of mutual interest regarding new ign basis dose calculation methodology in iche: 80661:343-80661:349
August 19, 1994	on AP600 received on 940815 RAIs contains no information V	Liparulo) informing that review of NRC RAIs for proprietary information indicates that Westinghouse considers proprietary. iche: 80738:316-80738:316
August 19, 1994	information on WGOTHIC lump large scale test be withheld (re	iparulo) requesting that proprietary ped parameter input definition for AP600 ference 10 CFR 2.790). iche: 80729:284-80729:290
August 19, 1994	proprietary information on WG for AP600 large scale test.	iparulo) forwarding nonproprietary and OTHIC lumped parameter input definition iche: 80729:253-80729:290
August 19, 1994	NUREG-1465, "Accident Source preparation for meeting regard	g) forwarding copy of draft final ce Terms for Light Water NPPs," in ling AP600 source term. iche: 80668:165-80668:217
August 18, 1994	· · · ·	
August 17, 1994	for additional information regar certification of AP600.	orwarding questions regarding NRC request rding review of 1992 application for design iche: 80801:356-80801:359
August 16, 1994	with Westinghouse to discuss activities of Westinghouse AP6	g) issuing notification of 940817 meeting status of design certification review 600 design. iche: 80642:170-80642:174

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acn: 9409020091Fiche: 80752:348-80752:352August 15, 1994Westinghouse letter (from N. Liparulo) forwarding "AP600 Design Certification Test Program Overview," Revision 7. acn: 9408230090August 12, 1994Westinghouse letter (from N. Liparulo) forwarding table identifying F	
Certification Test Program Overview," Revision 7. acn: 9408230090 Fiche: 80645:002-80645:053	
August 12, 1994 Westinghouse letter (from N. Liparulo) forwarding table identifying F	
issued since revision of SSAR that impact one or more SSAR section fulfillment of commitment made in 940805 letter. acn: 9408190163 Fiche: 80636:239-80636:243	
August 12, 1994Westinghouse letter (from N. Liparulo) forwarding Westinghouse responses to NRC requests for additional information on AP600 from letters of 940415, 0505, 0516, and 0608. acn: 9408180290Fiche: 80636:150-80636:196	n
August 12, 1994 NRC letter (from R. Borchardt) informing that Westinghouse propose alternative piping design not acceptable based in part on complexity remaining concerns and no apparent major benefit for use with AP6 design. acn: 9408180068 Fiche: 80618:341-80618:346	of
August 12, 1994NRC letter (from J. Taylor) informing commission of staff plans and schedules to carry out exam to distinguish among CANDU 3 applica AP600 application, and General Electric SBWR application for purpor recovering confirmatory research costs per COMIS94-005 directive. acn: 9408170182Fiche: 80591:347-80591:360	ose of
August 11, 1994NRC letter (from R. Borchardt) informing that applicants for standard design certifications must address relevant generic issues in 10 CFF 50.34(f) and in applicable supplement of NUREG-0933. acn: 9408170108Fiche: 80594:338-80594:350	
August 10, 1994 Westinghouse letter (from N. Liparulo) forwarding Westinghouse responses to NRC requests for additional information on AP600 for 230.63. acn: 9408180168 Fiche: 80626:182-80626:204	RAI
August 9, 1994 Westinghouse letter (from N. Liparulo) supports ABB-CE position and rationale that NRC review fees for standard plant design cease to ad to design certification application upon issuance of FDA by NRC, as provided in ABB-CE 940720 letter. acn: 9408180250 Fiche: 80635:346-80635:346	crue
August 9, 1994NRC letter (from T. Kenyon) issuing notification of 940810 meeting westinghouse to discuss PRA of design AP600. acn: 9408150178Fiche: 80561:333-80561:335	vith

August 8, 1994	Westinghouse letter (from N. Liparulo) forwarding Westinghouse responses to NRC requests for additional information on AP600 from letters of 940415, 0429, 0502, 0505, 0518, 0523, 0524, 0526, and 0608. acn: 9408160144 Fiche: 80591:149-80591:221	
August 8, 1994		perg) forwarding summary of 940630 meeting ss applicability of Westinghouse analyses
	acn: 9408150199	Fiche: 80561:320-80561:327
August 5, 1994		forwarding for review by ACRS proposed final Accident Source Terms for Light Water NPPs,"
	acn: 9408250133	Fiche: 80668:167-80668:217
August 5, 1994	Westinghouse letter (from N draft SER for AP600.	N. Liparulo) forwarding information to support
	acn: 9408180192	Fiche: 80626:288-80626:291
August 5, 1994	Performance in Operating E Design," and WCAP-14115 Experience and Application	N. Liparulo) forwarding WCAP-14114, "Human Events: Lessons Learned for AP600 M-MIS 5, "Review of Nuclear Plant Operating to AP600 Design." Fiche: 80592:257-80592:315
August 3, 1994	Westinghouse letter (from N request for additional inform acn: 9408110157	
August 3, 1994		arger) forwarding summary of 940727-28 to discuss issues pertaining to reactor vessel Fiche: 80493:346-80493:348
August 2, 1994		N. Liparulo) forwarding results of analysis using models per NRC request made in 940531, Fiche: 80551:277-80551:294
August 2, 1994	of AP600 basemat analyses	N. Liparulo) confirms that independent review s will be performed and identifies scope of de during closeout of NRC audit of structural 1. Fiche: 80551:272-80551:273

Appendix A August 2, 1994 Westinghouse letter (from N. Liparulo) requesting that "Quick Look Report for AP600 Critical Heat Flux Test Data Report, " be withheld (reference 10 CFR 2.790). acn: 9408110172 Fiche: 80551:314-80551:320 August 2, 1994 Westinghouse letter (from N. Liparulo) forwarding proprietary "Quick Look Report for AP600 Critical Heat Flux Test Data Report." acn: 9408110169 Fiche: 80551:310-80551:320 July 29, 1994 Westinghouse letter (from N. Liparulo) requesting WCAP-14124, "AP600 Low Pressure Integral System Test at Oregon State University Facility Description Report," be withheld (reference 10 CFR 2.790). acn: 9408160064 Fiche: 80612:126-80612:132 July 29, 1994 Westinghouse letter (from N. Liparulo) forwarding proprietary WCAP-14124 and nonproprietary WCAP-14136, "AP600 Low Pressure Integral System Test at Oregon State University Facility Description Report." acn: 9408160060 Fiche: 80612:122-80612:271 July 29, 1994 Westinghouse letter (from N. Liparulo) forwarding results of a sensitivity analysis performed to investigate sensitivity of AP600 LOCA analysis results to containment pressure. acn: 9408150115 Fiche: 80570:274-80570:291 July 29, 1994 Westinghouse letter (from N. Liparulo) requesting that WCAP-14132, "Facility Description Report for AP600 Core Makeup Test Program," be withheld (reference 10 CFR 2.790). acn: 9408150069 Fiche: 80586:222-80586:256 July 29, 1994 Westinghouse letter (from N. Liparulo) forwarding proprietary WCAP-14132 and nonproprietary WCAP-14133, "Facility Description Report for AP600 Core Makeup Test Program." Fiche: 80586:211-80586:256 acn: 9408150062 July 29, 1994 Westinghouse letter (from N. Liparulo) requesting that "Quick Look Report for SPES-2 Matrix Test S00504," be withheld (reference 10 CFR 2.790). acn: 9408150055 Fiche: 80581:346-80581:352 July 29, 1994 Westinghouse letter (from N. Liparulo) requesting that "Quick Look Report for AP600 Core Makeup Tank Test Program Cold Preoperational Test," be withheld (reference 10 CFR 2.790). acn: 9408150050 Fiche: 80582:346-80582:352 July 29, 1994 Westinghouse letter (from N. Liparulo) forwarding "Quick Look Report for AP600 Core Makeup Tank Test Program Cold Preoperational Test." acn: 9408150047 Fiche: 80582:342-80582:352

July 29, 1994	Westinghouse letter (from l SPES-2 Matrix Test S0050	N. Liparulo) forwarding "Quick Look Report for 4."
	acn: 9408150034	Fiche: 80581:342-80581:352
July 29, 1994		N. Liparulo) requesting that "Quick Look Report OSU-HS-02," be withheld (reference 10 CFR
	acn: 9408150010	Fiche: 80569:271-80569:277
July 29, 1994	Hot Functional Testing OSI	
	acn: 9408150008	Fiche: 80569:267-80569:277
July 29, 1994	presentation materials from	N. Liparulo) requesting that proprietary 940726-28 meetings on AP600 passive n analysis be withheld from public disclosure
	acn: 9408120103	Fiche: 80577:009-80577:147
July 29, 1994	Westinghouse letter (from I Report for AP600 SPES-2 disclosure (reference 10 CF	N. Liparulo) requesting that "Quick Look Data Test S00706, " be withheld from public FR 2.790).
	acn: 9408120088	Fiche: 80558:329-80558:335
July 29, 1994	Westinghouse letter (from I nonproprietary presentatior AP600 passive containmen acn: 9408120086	N. Liparulo) forwarding proprietary and materials from 940726-28 meetings on t cooling system analyses. Fiche: 80577:001-80577:147
July 29, 1994	Westinghouse letter (from I Data Report for AP600 SPE acn: 9408120084	N. Liparulo) forwarding proprietary "Quick Look ES-2 Test S00706." Fiche: 80558:325-80558:335
July 29, 1994		N. Liparulo) requesting that proprietary "Quick atrix Test S01110 AP600 Program," be 2.2.790). Fiche: 80586:329-80586:335
July 29, 1994	– (N. Liparulo) forwarding proprietary "Quick Look ES-2 Test S01110 AP600 Program." Fiche: 80586:325-80586:335
July 29, 1994	"AP600 Long Term Cooling Resistance Determination,"	N. Liparulo) requesting that Revision 0 to Quick Look Report for Flow Test-line be withheld (reference 10 CFR 2.790). Fiche: 80539:334-80539:340

Appendix A		
July 29, 1994	Long Term Cooling Quick L Determination."	N. Liparulo) forwarding Revision 0 to "AP600 ook Report for Flow Test-line Resistance
	acn: 9408110196	Fiche: 80539:330-80539:340
July 29, 1994		N. Liparulo) requesting that "AP600 Long Term for OSU Component Volume Determinations," FR 2.790). Fiche: 80551:325-80551:331
July 29, 1994		N. Liparulo) forwarding "AP600 Long Term for OSU Component Volume Determinations." Fiche: 80551:321-80551:331
July 29, 1994		J. Liparulo) requesting that "Quick Look Report J-HS-01," be withheld (reference 10 CFR
	acn: 9408100289	Fiche: 80531:113-80531:119
July 29, 1994	Westinghouse letter (from N Report for Hot Functional Te	I. Liparulo) forwarding proprietary "Quick Look est OSU-HS-01."
	acn: 9408100287	Fiche: 80531:109-80531:119
July 29, 1994		I. Liparulo) requesting that "Quick Look Report Test Program Hot Preoperational Tests," be 2.790) Fiche: 80531:102-80531:108
July 29, 1994	– (I. Liparulo) forwarding proprietary "Quick Look o Tank Test Program Hot Preoperational
	acn: 9408100274	Fiche: 80531:098-80531:108
July 29, 1994		I. Liparulo) requesting that "Quick Look Report 908 (Blind Test)," be withheld (reference 10
	acn: 9408100264	Fiche: 80531:147-80531:153
July 29, 1994	Westinghouse letter (from N Report for SPES-2 Matrix T acn: 9408100259	I. Liparulo) forwarding proprietary "Quick Look est S00908 (Blind Test)." Fiche: 80531:143-80531:153
July 29, 1994	Revision 0 to "Quick Look D Tests at Oregon State Unive (reference 10 CFR 2.790).	I. Liparulo) requesting that proprietary Data Report for AP600 Long Term Cooling Persity: Matrix Test SB13," be withheld
	acn: 9408100248	Fiche: 80531:124-80531:130

July 29, 1994	to "Quick Look Report for O	l. Liparulo) forwarding proprietary Revision 0 SU Matrix Test SBb13 AP600 Test Program." Fiche: 80531:120-80531:130
July 29, 1994	Revision 0 to "Quick Look F Program," be withheld (refer	Liparulo) requesting that proprietary Report for OSU Matrix Test SB4 AP600 Test rence 10 CFR 2.790). Fiche: 80547:315-80547:323
July 29, 1994	to "Quick Look Report for Os	. Liparulo) forwarding proprietary Revision 0 SU Matrix Test SB4 AP600 Test Program." Fiche: 80547:313-80547:323
July 29, 1994	Revision 0 to "Quick Look D Tests at Oregon State Unive (reference 10 CFR 2.790).	Liparulo) requesting that proprietary Data Report for AP600 Long Term Cooling ersity: Matrix Tests SB10)," be withheld Fiche: 80507:340-80507:346
July 29, 1994	to "Quick Look Report for OS	. Liparulo) forwarding proprietary Revision 0 SU Matrix Test SB10 AP600 Test Program." Fiche: 80507:336-80507:346
July 29, 1994	for SPES-2 Matrix Test S006	. Liparulo) requesting that "Quick Look Report 605," be withheld (reference 10 CFR 2.790). Fiche: 80510:353-80510:361
Julý 29, 1994	Report for SPES-2 Matrix Te	. Liparulo) forwarding proprietary "Quick Look est S00605." Fiche: 80510:351-80510:361
July 29, 1994	for SPES-2 Matrix Test S010	. Liparulo) requesting that "Quick Look Report 007," be withheld (reference 10 CFR 2.790). Fiche: 80507:351-80507:357
July 29, 1994	– ,	. Liparulo) requesting that Revision 0 to Matrix Test SB1," be withheld (reference 10
	acn: 9408100080	Fiche: 80529:330-80529:337
July 29, 1994	Report for SPES-2 Matrix Te	. Liparulo) forwarding proprietary "Quick Look est S01007." Fiche: 80507:347-80507:357
	aun. 34001000/4	Tione. 00007.047-00007.007
July 29, 1994	Westinghouse letter (from N Report for OSU Matrix Test	. Liparulo) forwarding proprietary "Quick Look SB1 " Revision 0
		Fiche: 80529:327-80529:337

Appendix A	,	
July 29, 1994	•	N. Liparulo) requesting that Revision 0 to U Hot Shakedown Test HS03," be withheld
	acn: 9408100046	Fiche: 80531:160-80531:166
July 29, 1994		N. Liparulo) forwarding proprietary "Quick Look down Test HS03," Revision 0. Fiche: 80531:156-80531:166
July 29, 1994	NRC letter (from T. Kenyon Westinghouse to discuss I7 acn: 9408040411	n) issuing notification of 940808 meeting with TAAC for AP600 design. Fiche: 80461:353-80461:355
July 29, 1994	responses to NRC requests	N. Liparulo) forwarding Westinghouse s for additional information on AP600 from , 0505, 0511, 0516, 0523, and 0608. Fiche: 80484:085-80484:165
July 29, 1994	Look Data Report for AP60	N. Liparulo) requesting that proprietary "Quick 0 SPES-2 Tests: Hot Preoperational Tests," closure (reference 10 CFR 2.790). Fiche: 80457:325-80457:331
July 29, 1994		N. Liparulo) forwarding "Quick Look Data Tests: Hot Preoperational Tests." Fiche: 80457:321-80457:331
July 29, 1994	Look Data Report for AP60	N. Liparulo) requesting that proprietary "Quick 0 SPES-2 Test S00401 (Matrix Test)," be sure (reference 10 CFR 2.790). Fiche: 80457:334-80457:342
July 29, 1994		N. Liparulo) forwarding proprietary preliminary ook Report for SPES-2 Matrix Test S00401." Fiche: 80457:332-80457:342
July 28, 1994	of letter report "Method for	N. Liparulo) requesting that proprietary version r Determining Film Flow Coverage for AP600 ng System," be withheld from public disclosure Fiche: 80566:311-80566:329
July 28, 1994		N. Liparulo) forwarding nonproprietary and r report "Method for Determining Film Flow
	acn: 9408120173	Fiche: 80566:299-80566:329

July 28, 1994	NRC letter (from K. Shembarger) forwarding summary of 940719-21 followup piping audit regarding open issues identified during initial piping audit on 940412-14.	
	acn: 9408050020	Fiche: 80473:172-80473:233
July 28, 1994		N. Liparulo) requesting that "AP600 Integrated the Resolution for Passive Containment Cooling O CFR 2.790. Fiche: 80459:287-80459:295
July 28, 1994	Structure for Technical Issu System."	N. Liparulo) forwarding "AP600 Integrated le Resolution for Passive Containment Cooling 80459:285-80459:295
July 27, 1994		N. Liparulo) forwarding responses to NRC RAIs 0428, 0429, 0502, 0505, 0516, and 0526. Fiche: 80446:214-80446:315
July 26, 1994	additional information in sup	I. Liparulo) requesting that proprietary oport of Westinghouse response to RAI 952.27 closure (reference 10 CFR 2.790). Fiche: 80557:349-80557:357
July 26, 1994	proprietary additional inform	J. Liparulo) forwarding nonproprietary and nation in support of Westinghouse response to design relative to AP600 testing being ity in Cassacia, Italy. Fiche: 80557:340-80557:357
July 25, 1994		I. Liparulo) forwarding responses to NRC RAIs 0526, 0601, and 0608 RAIs on AP600. 80405:284-80405:337
July 22, 1994		J. Liparulo) requesting that proprietary be withheld per 10 CFR 2.790. Fiche: 80578:016-80581:020
July 22, 1994	Westinghouse letter (from N proprietary Revision 1 to AF acn: 9408120126	N. Liparulo) forwarding non-proprietary and 2600 PRA. Fiche: 80578:001-80581:020
July 22, 1994	u ,	I. Liparulo) requesting that "Quick Look Data est S00303," be withheld (reference 10 CFR Fiche: 80558:316-80558:324
	aun. 3700120003	

Appendix A		
July 22, 1994	Westinghouse letter (from N Report for SPES-2 Matrix T acn: 9408120049	N. Liparulo) forwarding proprietary "Quick Look Test S00303." Fiche: 80558:314-80558:324
July 22, 1994		perg) issuing notification of 940726-28 meeting ss AP600 containment test program scaling n. Fiche: 80385:336-80385:341
July 22, 1994	responses to requests for a	N. Liparulo) forwarding Westinghouse dditional information on AP600 from letters of 0511, 0516, 0518, 0523, 0524, 0526, 0601, Fiche: 80361:113-80361:216
July 22, 1994	schedule for submittal of ou	ield) requesting that applicant identify Itstanding information regarding AP600 design d review schedule for AP600 design proposed. Fiche: 80365:348-80365:350
July 21, 1994) forwarding summary of 940712 meeting with Ss proposed for AP600 design. Fiche: 80385:175-80385:294
July 20, 1994		J. Liparulo) forwarding instructions for AP600 thermal-hydraulic testing and code Fiche: 80423:119-80423:126
July 20, 1994	conditions for containment	J. Liparulo) providing clarification of design vessel with regards to polar crane. Information ident analyses of containment vessel Fiche: 80416:236-80416:237
July 20, 1994	•	I. Liparulo) providing Advance Reactor group report on piping initiatives, Appendix G, rs Guide." Fiche: 80416:001-80416:117
July 20, 1994	•	arger) forwarding summary of 940531-0602 ion about soil-structure interaction for AP600 Fiche: 80365:118-80365:218

July 19, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary Revision 0 to WCAP-14091, "Phase IVb Wind Tunnel Testing for Westinghouse AP600 Reactor," be withheld per 10 CFR 2.790. acn: 9408030156 Fiche: 80457:292-80457:300
July 19, 1994	Westinghouse letter (from N. Liparulo) forwarding WCAP-14091, Revision 0, "Phase IVb Wind Tunnel Testing for Westinghouse AP600 reactor," and WCAP-14092, Revision 0, "Phase IVb Wind Tunnel Testing for Westinghouse AP600 Reactor." acn: 9408030146 Fiche: 80457:290-80457:320
July 19, 1994	NRC letter (from T. Kenyon) forwarding summary of 940614 meeting with Westinghouse to discuss PRA for AP600 design. acn: 9407220173 Fiche: 80308:323-80308:337
July 18, 1994	Westinghouse letter (from N. Liparulo) advising that no proprietary information was found in 940714 request for additional information on AP600.
	acn: 9408090289 Fiche: 80546:308-80546:308
July 15, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary information to support independent piping analysis be withheld (reference 10 CFR 2.790).
	acn: 9408120153 Fiche: 80564:093-80564:101
July 15, 1994	Westinghouse letter (from N. Liparulo) forwarding listed information to support independent piping analysis of AP600 surge line by BNL. acn: 9408120151 Fiche: 80564:091-80564:101
July 15, 1994	Westinghouse letter (from N. Liparulo) forwarding responses to NRC RAI regarding AP600.
	acn: 9407250275 Fiche: 80340:281-80340:318
July 15, 1994	NRC letter (from T. Kenyon) issuing notification of 940801-02 meeting with Westinghouse to discuss PRA of design of AP600. acn: 9407210055 Fiche: 80291:335-80291:338
July 14, 1994	NRC letter (from T. Kenyon) requesting additional information on AP600 needed in areas of post-accident sampling and in-containment activity removal in AP600 to complete review. acn: 9408170237 Fiche: 80591:329-80591:332
July 14, 1994	NRC memorandum (from J. Taylor) informing of NRC staff completion of efforts to provide Commission with options to assist in expediting review schedules for AP600 design certification applications in response to 940429 meeting with Westinghouse regarding SECY 94-117. acn: 9407200237 Fiche: 80290:228-80290:237

Appendix A	• •	
July 13, 1994		arger) issuing notification of 940727-29 to discuss reactor vessel and internals for
	acn: 9407190125	Fiche: 80258:323-80258:324
July 13, 1994		arger) forwarding summary of 940609, 0610, stinghouse in Italy to observe DVI line break mbly. Fiche: 80250:359-80250:361
July 13, 1994	with Westinghouse and Ger	arger) forwarding summary of 940613 meeting neral Electric in Piacenza, Italy to discuss for AP600 and SBWR designs. Fiche: 80250:353-80250:355
July 13, 1994	with Westinghouse in Casa	arger) forwarding summary of 940615 meeting ccia, Italy to observe Westinghouse readiness surization system test assembly. Fiche: 80258:278-80258:280
July 13, 1994) forwarding two copies of NUREG/CR-6223, ials of Construction for Simplified BWR and " dated June 1994. Fiche: 80259:328-80259:329
July 12, 1994	Westinghouse letter (from N contains no proprietary info acn: 9407200041	I. Liparulo) advising that RAI reviewed mation regarding AP600. Fiche: 80291:355-80291:355
July 8, 1994	Westinghouse letter (from N requests for additional inform acn: 9407140216	I. Liparulo) forwarding responses to NRC nation regarding AP600. Fiche: 80243:001-80243:131
July 7, 1994	regarding reliability assuran designs.	ssuing notification of 940712 meeting ce program in relation to evolutionary reactor
	acn: 9407130258	Fiche: 80208:220-80208:225
July 7, 1994	NRC letter (from T. Kenyon) Westinghouse and NRC reg acn: 9407130099) forwarding summary of 940627 meeting with Jarding AP600 review. Fiche: 80205:350-80205:360
July 6, 1994	WCAP-14073, "SPES-2 Fac WCAP-14112, "AP600 ADS per 10 CFR 2.790.	I. Liparulo) requesting that Revision 0 to cility Description," and Revision 0 to Test Specification (Phase B1)," be withheld
	acn: 9408030251	Fiche: 80471:005-80471:011

July 6, 1994	Westinghouse letter (from N. Liparulo) forwarding AP600 testing program reports (proprietary) WCAP-14073, Revision 0; (non-proprietary) WCAP-14074, Revision 0; (proprietary) WCAP-14112, Revision 0; and (non-proprietary) WCAP-14113, Revision 0. acn: 9408030240 Fiche: 80471:001-80471:275
July 6, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary "AP600 Vortex Mitigator Development Test for RCS Mid-loop Operation," be withheld from public disclosure (reference 10 CFR 2.790). acn: 9407190052 Fiche: 80269:169-80269:177
July 6, 1994	Westinghouse letter (from N. Liparulo) forwarding "AP600 Vortex Mitigator Development Test for RCS Mid-loop Operation," and "AP600 Vortex Mitigator Development Test for RCS Mid-loop Operation." acn: 9407180243 Fiche: 80269:167-80269:266
July 6, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary Quick Look Report "SPES-2 Cold Pre-operational Test Results," be withheld from public disclosure (reference 10 CFR 2.790) acn: 9407150089 Fiche: 80250:338-80250:346
July 6, 1994	Westinghouse letter (from N. Liparulo) forwarding proprietary Quick Look Report "SPES-2 Cold Pre-operational Test Results." acn: 9407150085 Fiche: 80250:336-80250:346
July 5, 1994	NRC letter (from R. Borchardt) requesting that applicant inform staff of plans for use of proposed changes to ASME Boiler and Pressure Vessel Code Section III for safety-related piping system design in AP600 plant. acn: 9407110171 Fiche: 80173:246-80173:248
July 1, 1994	NRC letter (from T. Kenyon) forwarding request for additional information Q720.279, regarding comparison between MAAP computer code and best-estimate thermohydraulic codes. acn: 9407250304 Fiche: 80328:348-80328:352
July 1, 1994	Westinghouse letter (from N. Liparulo) application for withholding proprietary WCAP-13793 from public disclosure (reference 10 CFR 2.790(B)(1)). acn: 9407200337 Fiche: 80298:203-80298:211
July 1, 1994	Westinghouse letter (from N. Liparulo) forwarding nonproprietary Revision 0 to topical report WCAP-13793, "AP600 System-Event Matrix." acn: 9407200336 Fiche: 80298:201-80298:297
July 1, 1994	Westinghouse letter (from N. Liparulo) informing that review of NRC RAIs on AP600 received in letter dated 940627 for proprietary material

Appendix A		
	indicates that RAIs contains no information that Westinghouse considers proprietary. acn: 9407190427 Fiche: 80282:354-80282:354	
July 1, 1994	NRC letter (from T. Kenyon) issuing notification of 940713-14 meeting with Westinghouse to discuss status of testing program at ROSA-AP600 facility. acn: 9407190348 Fiche: 80269:079-80269:084	
July 1, 1994	Westinghouse letter (from N. Liparulo) application for withholding proprietary information from public disclosure per 10 CFR 2.790 regarding AP600 SSAR figures. acn: 9407140228 Fiche: 80309:264-80309:273	
July 1, 1994	Westinghouse letter (from N. Liparulo) forwarding application for withholding proprietary drawings regarding AP600 SSAR figures. acn: 9407140225 Fiche: 80309:259-80309:273	
July 1, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary report WCAP-14080, Revision 0, "AP600 Instrumentation and Control Software Architecture and Operation Description," be withheld from public disclosure (reference 10 CFR 2.790). acn: 9407120351 Fiche: 80229:012-80229:113	
July 1, 1994	Westinghouse letter (from N. Liparulo) forwarding proprietary and nonproprietary reports documenting aspects of AP600 instrumentation and control software architecture and operation description. acn: 9407120348 Fiche: 80229:001-80229:113	
July 1, 1994	Westinghouse letter (from N. Liparulo) forwarding responses to NRC RAIs on AP600 from letters of 940429, 0502, 0511, and 0523. acn: 9407120088 Fiche: 80219:294-80219:358	
July 1, 1994	NRC letter (from T. Kenyon) issuing notification of 940712 meeting with Westinghouse to discuss TSs for AP600. acn: 9407120044 Fiche: 80177:352-80177:356	
June 30, 1994	Letter (from J. Hoyle) directing staff to examine basis for distinguishing among CANDU-3 application, Westinghouse AP600 application, and General Electric SBWR application for purpose of recovering confirmatory research costs keeping in mind unique features not in present plants. acn: 9408170230 Fiche: 80591:360-80591:360	
June 30, 1994	Westinghouse letter (from N. Liparulo) requesting that "AP600 Design Change Description Report," be withheld from public disclosure (reference 10 CFR 2.790). acn: 9407190168 Fiche: 80272:139-80272:241	

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June 30, 1994		N. Liparulo) forwarding nonproprietary and Change Description Report." Fiche: 80272:128-80272:241
June 30, 1994	Westinghouse letter (from N. Liparulo) forwarding Revision 0 to "AP600 Passive Containment Cooling System Design Basis Analysis Model and Margin Assessment."	
	acn: 9407180162	Fiche: 80265:084-80265:129
June 30, 1994	on AP600 from NRC letters	
	acn: 9407070242	Fiche: 80193:001-80193:157
June 29, 1994	Westinghouse letter (from N. Liparulo) requesting approval for use of code cases of ASME Boiler and Pressure Vessel Code for construction components in nuclear power facility.	
	acn: 9407200068	Fiche: 80291:359-80291:360
June 29, 1994	NRC letter (from T. Kenyon) issuing notification of 940630 meeting wit Westinghouse to discuss applicability of Westinghouse analyses code AP600 design.	
	acn: 9407080025	Fiche: 80131:300-80131:302
June 27, 1994	NRC letter (from K. Shembarger) requesting additional information regarding mechanical engineering (Q210.111- Q10.112) to complete review.	
	acn: 9407200285	Fiche: 80296:030-80296:033
June 27, 1994	Westinghouse letter (from N. Liparulo) submitting responses to NRC requests for additional information regarding AP600.	
	acn: 9407070237	Fiche: 80125:001-80125:141
June 27, 1994	NRC letter (from J. Taylor) discussing proposed options and recommendations for Commission consideration to reduce review schedules for design certification applications in response to meeting with Westinghouse following SECY 94-117.	
	acn: 9406300060	Fiche: 80026:353-80026:359
June 22, 1994		arger) issuing notification of 940711 meeting to lesign of Westinghouse AP600 reactor design. Fiche: 79997:314-79997:316
June 21, 1994	meeting with applicant to dis criteria and sample analysis	
	acn: 9406280227	Fiche: 79998:345-79998:347

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June 21, 1994	NRC letter (from K. Shembarger) issuing notification of 940705-07 meeting with applicant to discuss containment performance for AP600 reactor design.		
	acn: 9406270382	Fiche: 79978:301-79978:303	
June 21, 1994	management meeting with V design.) submitting daily highlight of 940627 senior Nestinghouse to discuss review of AP600	
	acn: 9406230198	Fiche: 79892:247-79892:250	
June 20, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary WCAP-13891, Revision 0, "AP600 ADS Phase A Test Data Report," be withheld from public disclosure.		
	acn: 9407010142	Fiche: 80048:138-80048:177	
June 20, 1994		I. Liparulo) forwarding proprietary and nonproprietary WCAP-14095, Revision 0, Data Report." Fiche: 80048:126-80048:177	
June 20, 1994		I. Liparulo) informing that applicant's review dditional information on AP600 contains no onsiders proprietary. Fiche: 80020:314-80020:314	
June 16, 1994	with Westinghouse regardin	el) forwarding summary of 940607-08 meeting g implementation of AP600 QA program and ared to be adequately implementing QA Fiche: 79978:130-79978:183	
June 16, 1994	Westinghouse letter (from N 940316, 0429, 0505, 0511, 0	I. Liparulo) forwarding responses to NRC	
	acn: 9406240205	Fiche: 79977:154-79977:174	
June 16, 1994	Westinghouse letter (from N		
June 16, 1994	Westinghouse letter (from N certification review process	Fiche: 79977:154-79977:174 . Liparulo) discussing AP600 design	
June 16, 1994 June 16, 1994	Westinghouse letter (from N certification review process test in July 1994. acn: 9406220348 Westinghouse letter (from N AP600 design certification p	Fiche: 79977:154-79977:174 . Liparulo) discussing AP600 design and accepts NRC dates, except large scale	

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June 15, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary initial condition data for AP600 SPES-2 Matrix Test 4 be withheld. acn: 9406240256 Fiche: 79999:197-79999:205
June 15, 1994	Westinghouse letter (from N. Liparulo) forwarding proprietary information on SPES-2 initial conditions and facility response observed during Matrix Test 4 (2-inch cold leg break simulation with non-safety system operation). acn: 9406240255 Fiche: 79999:195-79999:205
June 14, 1994	Westinghouse letter (from N. Liparulo) informing that review of NRC RAIs on AP600 received in 940608 letter indicates that RAIs contain no information Westinghouse considers proprietary. acn: 9406240202 Fiche: 79987:305-79987:305
June 14, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary information to support independent soil-structure analysis be withheld (reference 10 CFR 2.790). acn: 9406230277 Fiche: 79982:327-79982:335
June 14, 1994	Westinghouse letter (from N. Liparulo) forwarding proprietary information to support independent analysis of soil-structure interaction for AP600 by NRC consultants. acn: 9406230272 Fiche: 79982:325-79982:335
June 10, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary version of "AP600 Containment Cooling Plume Investigation," letter report be withheld from public disclosure (reference 10 CFR 2.790). acn: 9406220366 Fiche: 79887:263-79887:280
June 10, 1994	Westinghouse letter (from N. Liparulo) forwarding nonproprietary and proprietary version of letter report addressing phenomenological topic for AP600 passive containment cooling system. acn: 9406220363 Fiche: 79887:259-79887:280
June 8, 1994	NRC letter (from T. Kenyon) requesting additional information regarding regulatory treatment of nonsafety-related system and PRA in response to review of June 1992 application for design certification of AP600. acn: 9406280082 Fiche: 79997:295-79997:313
June 8, 1994	Westinghouse letter (from N. Liparulo) forwarding Revision 0 to WCAP-14075, "AP600 Design Differences Document for Development of Emergency Operating Guidelines Report." acn: 9406150348 Fiche: 79816:183-79816:242
June 8, 1994	Westinghouse letter (from N. Liparulo) informing that analysis report for seismic design for basemat of AP600 nuclear island will be available for

NRC information in preparation for structural audit scheduled for 940711-15. acn: 9406140370 Fiche: 79768:347-79768:347 June 8, 1994 NRC letter (from F. Hasselberg) issuing notification of June - September 1994 NRC staff and contractor visits to Westinghouse test facilities to inspect and observe tests being performed in support of AP600 application for final design approval and design certification. acn: 9406130240 Fiche: 79733:345-79733:346 June 7, 1994 Westinghouse letter (from N. Liparulo) requesting that proprietary "Quick Look Report for Large Scale PCCS Tests 224.1 and 224.2 AP600 Program," be withheld (reference 10 CFR 2.790). acn: 9406160209 Fiche: 79818:227-79818:235 June 7, 1994 Westinghouse letter (from N. Liparulo) forwarding proprietary "Quick Look Report for Large Scale PCCS Tests 224.1 and 224.2 AP600 Program." acn: 9406160205 Fiche: 79818:225-79818:235 June 7, 1994 Westinghouse letter (from N. Liparulo) submitting responses to questions regarding loads and load combinations for independent analyses of AP600 containment vessel. acn: 9406140180 Fiche: 79762:219-79762:220 June 6, 1994 Westinghouse letter (from N. Liparulo) informing that RAIs contain no information that Westinghouse considers proprietary. acn: 9406140374 Fiche: 79776:359-79776:359 June 6, 1994 Westinghouse letter (from N. Liparulo) requesting that proprietary report WCAP-14068, "Phase IVa Wind Tunnel Testing for Westinghouse AP600 Reactor," be withheld from public disclosure (reference 10 CFR 2.790). acn: 9406130275 Fiche: 79763:016-79763:024 June 6, 1994 Westinghouse letter (from N. Liparulo) forwarding nonproprietary and proprietary version of "Phase IVa Wind Tunnel Testing for Westinghouse AP600 Reactor." acn: 9406130274 Fiche: 79763:014-79763:061 June 6, 1994 NRC letter (from D. Crutchfield) discussing 940525 meeting in which applicant proposed ways to improve review schedule of AP600 design certification application as follow-up to recent senior management meetina. acn: 9406100257 Fiche: 79732:353-79732:354 Westinghouse letter (from N. Liparulo) discussing AP600 design June 3, 1994 certification review schedule. acn: 9406090295 Fiche: 79714:275-79714:295

June 2, 1994		I. Liparulo) forwarding responses to NRC RAIs 1, 0316, 0318, and 0429 letters. Fiche: 79729:282-79729:302
June 2, 1994) issuing notification of 940614 meeting with uman reliability, containment bypass, and RA for design of AP600. Fiche: 79668:203-79668:205
June 1, 1994) requesting additional information regarding as result of review of June 1992 applicant cation of AP600. Fiche: 79883:337-79883:342
June 1, 1994	regarding shielding design of) forwarding summary of 940503 meeting of AP600 reactor. Fiche: 79763:171-79763:235
June 1, 1994	regarding status of design c AP600 design and to tour O Facility.	erg) forwarding summary of 940510 meeting ertification review activities of Westinghouse SU Advanced Passive Experimental Test
	acn: 9406100269	Fiche: 79752:053-79752:186
June 1, 1994	• ·	I. Liparulo) forwarding proprietary NRC requests for additional information on etter 940519. Fiche: 79696:358-79696:361
May 31, 1994		I. Liparulo) regarding review of the proposed the SBWR and AP600 advanced reactors. Fiche: 79836:215-79836:327
May 31, 1994	Westinghouse letter (from N. Liparulo) forwarding presentation materials from 940524 meeting on AP600 passive containment cooling system analyses.	
	acn: 9406130145	Fiche: 79776:134-79776:187
May 31, 1994	on AP600 received in 94052	I. Liparulo) informing that review of NRC RAIs 23, 0524, and 0526 letters indicates that RAIs Westinghouse considers proprietary. Fiche: 79706:358-79706:358
May 31, 1994	with Westinghouse to discus	berg) issuing notification of 940607-08 meeting ss QA related issues (SSAR Chapter 17) and branch inspection of AP600 test facilities. Fiche: 79668:146-79668:151

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May 31, 1994	proprietary information from	N. Liparulo) application for withholding n public disclosure per 10 CFR 2.790 regarding or AP600 PCCS Large Scale Phase 2 Tests: Fiche: 79696:331-79696:339
May 31, 1994		N. Liparulo) forwarding proprietary "Quick Look CS Large Scale Phase 2 Tests: Tests 223.1." Fiche: 79696:329-79696:339
May 27, 1994		arger) forwarding summary of 940412 piping estinghouse AP600 piping design. Fiche: 79686:111-79686:298
May 27, 1994	information to support indep	N. Liparulo) requesting that proprietary pendent soil-structure interaction analysis be sure (reference 10 CFR 2.790). Fiche: 79689:331-79689:337
May 27, 1994	information to support indep	N. Liparulo) forwarding listed proprietary pendent soil-structure interaction analysis. Fiche: 79689:327-79689:337
May 26, 1994		. Remick) requesting staff recommendations to Jules without sacrificing quality. Fiche: 80026:359-80026:359
May 26, 1994	NRC letter (from T. Kenyon design in area of shutdown acn: 9406130196) forwarding RAI on Westinghouse AP600 operations (Q440.168). Fiche: 79763:001-79763:004
May 26, 1994	NRC letter (from T. Kenyon respond to request on RSS acn: 9406100293) forwarding RAI requesting that applicant Fiche: 79732:344-79732:352
May 25, 1994	•	rson) providing guidance on preparation of rmal-hydraulic testing and code development Fiche: 80423:121-80423:126
May 25, 1994	Westinghouse letter (from N	I. Liparulo) requesting that information to analysis of AP600 surge line by NRC
May 25, 1994	- · ·	I. Liparulo) forwarding proprietary information ng analysis of AP600 surge line by NRC Fiche: 79678:324-79678:334

May 24, 1994	NRC letter (from T. Kenyon) acn: 9406100300	forwarding RAI in area of initial test program. Fiche: 79733:032-79733:043
May 24, 1994		l. Liparulo) advising that no information oprietary identified in 940516, 18, and 19 nation on AP600. Fiche: 79725:355-79725:355
May 24, 1994		forwarding listed NUREGs to assist in for additional information on instrumentation 00 design. Fiche: 79620:207-79620:208
May 24, 1994	comments on SECY-94-084	I. Liparulo) forwarding Westinghouse , "Policy and Technical Issues Associated of Non-Safety System in Passive Plant Fiche: 79599:358-79599:360
May 23, 1994		requesting additional information regarding Is as result of review of June 1992 applicant cation of AP600. Fiche: 79884:326-79884:351
May 23, 1994	NRC letter (from T. Kenyon) in area of compressed and i acn: 9406230015	forwarding request for additional information nstrument air system. Fiche: 79883:315-79883:321
May 23, 1994		issuing notification of 940525 meeting with ays to improve review schedule of AP600 on. Fiche: 79569:319-79569:321
May 20, 1994		nforming Commission of status of high pressure integral system testing. Fiche: 79787:155-79787:258
May 20, 1994	Westinghouse letter (from N on AP600 from letters 9403 acn: 9405270283	. Liparulo) forwarding responses to NRC RAIs 16, 0419, and 0429. Fiche: 79575:243-79575:294
May 20, 1994	•	rger) forwarding summary of 940511 meeting g resolution of certain issues on mechanical gn for AP600. Fiche: 79527:252-79527:274

May 19, 1994) forwarding RAI to complete review of AP600. ed in area of equipment qualification. Fiche: 79733:005-79733:010
May 19, 1994	additional information in sup	I. Liparulo) requesting that proprietary oport of Westinghouse response to NRC RAI withheld from public disclosure (reference 10 Fiche: 79547:309-79547:315
May 19, 1994	Westinghouse letter (from N	I. Liparulo) forwarding proprietary SSAR upport of response to NRC RAI 220.76 on Fiche: 79547:305-79547:315
May 19, 1994	•	erg) issuing notification of 940524 meeting ss AP600 containment testing analysis
	acn: 9405260256	Fiche: 79522:351-79522:354
May 19, 1994	940524 meeting with Westin schedules and methodology	erg) issuing notification of revised date for nghouse to discuss Westinghouse plans for delivery of AP600 containment test n. Meeting date changed to 940525. Fiche: 79522:356-79522:359
May 18, 1994	NRC letter (from T. Kenyon) system. acn: 9406100292	forwarding RAI in area of main steam supply Fiche: 79733:021-79733:025
May 18, 1994	NRC letter (from K. Shemba engineering. acn: 9406100290	rger) forwarding RAI in area of structural Fiche: 79733:016-79733:020
May 17, 1994		Liparulo) requesting that proprietary estinghouse response to RAI 952.44-952.46 FR 2.790). Fiche: 79627:214-79627:286
May 17, 1994	• •	. Liparulo) forwarding proprietary and ormation in support of Westinghouse 2-46. Fiche: 79627:212-79627:286
May 17, 1994	Design Certification Test Pro	. Liparulo) forwarding Revision 6 to "AP600 ogram Overview," Fiche: 79510:290-79510:352

May 16, 1994	NRC letter (from T. Kenyon) design in areas of reactor sy acn: 9406130203) forwarding RAI for Westinghouse AP600 /stem. Fiche: 79763:005-79763:011
May 16, 1994	NRC letter (from T. Kenyon) analysis.	forwarding RAI in area of human reliability
	acn: 9406100296	Fiche: 79733:026-79733:031
M ay 16, 1994		l. Liparulo) forwarding responses to requests AP600 from 940217, 0316, and 0507 letters. Fiche: 79493:093-79493:181
May 13, 1994		Liparulo) informing that applicant review dditional information contains no information
	acn: 9405230238	Fiche: 79488:344-79488:344
May 13, 1994		Liparulo) requesting that proprietary , "AP600 Core Makeup Tank Test (reference 10 CFR 2.790). Fiche: 79393:264-79393:270
May 13, 1994		. Liparulo) forwarding proprietary Revision 3 ore Markup Tank Test Specification." Fiche: 79393:260-79393:270
May 12, 1994	NRC letter (from T. Kenyon) information regarding radioa acn: 9406130181	discussing response to request for additional active waste management. Fiche: 79733:283-79733:297
May 12, 1994	presentation materials from	Liparulo) requesting that proprietary 940510 senior management meeting on eview activities be withheld (reference 10 CFR Fiche: 79488:005-79488:134
May 12, 1994	- ,	. Liparulo) forwarding nonproprietary and terials used during 940510 meeting regarding eview activities. Fiche: 79488:001-79488:134
May 12, 1994		Liparulo) informing that review of NRC RAIs prmation indicates that RAIs contains no se considers proprietary. Fiche: 79377:215-79377:215

Appendix A		
May 11, 1994		i) requesting for additional information tion for design certification of AP600. Fiche: 79733:273-79733:282
May 11, 1994		arger) issuing notification of 940531, 0601, and ghouse to discuss issues regarding AP600 design. Fiche: 79322:337-79322:339
May 11, 1994		N. Liparulo) responding to NRC requests for 0 from 940307 and 0316 letters. Fiche: 79358:196-79358:269
May 10, 1994	÷ ,	N. Liparulo) informing that review of proprietary 600 indicated RAIs contain no information oprietary. Fiche: 79444:358-79444:358
May 6, 1994		N. Liparulo) forwarding non-proprietary and nd WCAP-14053, "AP600 FHFP Integral Fiche: 79316:068-79316:131
May 5, 1994) forwarding request for additional information of fire protection water system and steam and Fiche: 79681:346-79681:359
May 5, 1994	on AP600 in order to compl) forwarding request for additional information ete review. Additional information needed to applicant best estimate loss-of-coolant o AP600 design. Fiche: 79682:256-79682:264
May 5, 1994	- ·	N. Liparulo) advising that NRC 940429 mation on AP600 does not contain information oprietary. Fiche: 79314:188-79314:188
May 4, 1994	additional information neede	I. Liparulo) requesting that proprietary ed for NRC confirmatory SASSI analysis ure interaction seismic design be withheld Fiche: 79433:330-79433:336
May 4, 1994	•	N. Liparulo) forwarding proprietary additional SASSI analysis regarding AP600 soil- c design. Fiche: 79433:326-79433:336

May 4, 1994		I. Liparulo) requesting that proprietary "Quick PCCS Tests 222.2, 222.3, and 222.4," be 2.790). Fiche: 79353:300-79353:306
May 4, 1994		I. Liparulo) forwarding proprietary report e Scale PCCS Tests 222.2, 222.3, and
	acn: 9405160087	Fiche: 79353:296-79353:306
May 4, 1994		l. Liparulo) requesting proprietary P Integral System Test Specification," be 2.790) Fiche: 79316:069-79316:078
May 3, 1994	testing program issues iden	L Liparulo) forwarding current status of AP600 tified in NRC 931104 letter, including g of mutual conclusions reached at 940407 Fiche: 79273:171-79273:184
May 3, 1994		erg) issuing notification of 940510 meeting to tification review activities for Westinghouse Fiche: 79224:114-79224:117
May 2, 1994	on AP600 design in area of	forwarding request for additional information reactor system, and requesting that applicant o-date piping and instrumentation diagrams. Fiche: 79682:241-79682:255
May 2, 1994		. Liparulo) requesting that proprietary reports W M1 001, GW-S1-001, and GW Sup 001 be 2.790). Fiche: 79355:333-79355:339
May 2, 1994	to GW C1 001, Revision 4 to	. Liparulo) forwarding proprietary Revision 0 GW-G1-001, Revision B to GW-S1-001, d Revision 0 to GW Sup 001 regarding AP600 Fiche: 79355:329-79355:339
May 2, 1994	NRC letter (from T. Kenyon)	forwarding summary of 940406 meeting with trumentation and control issues on AP600 Fiche: 79187:223-79187:326

Appendix A		
April 29, 1994	mechanical engineering in orde design certification of AP600.	equesting additional information regarding er to complete review of application for che: 79631:314-79631:346
April 29, 1994	reactor system in order to com certification of AP600.	equesting additional information regarding plete review of application for design che: 79631:260-79631:266
April 29, 1994	instrumentation and controls in design certification of AP600.	equesting additional information regarding order to complete review of application for che: 79631:267-79631:270
April 29, 1994	electrical system in order to con certification of AP600.	equesting additional information concerning mplete review of application for design che: 79639:105-79639:111
April 29, 1994	review of application for design containment system and reque	equesting additional information to complete a certification of AP600 concerning ests response by 940630. che: 79639:001-79639:104
April 29, 1994	material NRC RAI on AP600 re contains no information that We	iparulo) informing that review of proprietary eceived in 940428 letter indicates that RAI estinghouse considers proprietary. 284:358-79284:358
April 29, 1994	(reference 10 CFR 2.790).	iparulo) requesting that AP600 ocess block diagrams be withheld che: 79325:308-79325:314
April 29, 1994	and control system process blo cabinets and ESF actuation cat	iparulo) forwarding AP600 instrumentation ock diagrams for integrated protection binets. che: 79325:304-79325:314
April 29, 1994	additional information in suppor on AP600 design be withheld fr 2.790).	iparulo) requesting that proprietary rt of Westinghouse response to RAI 952.43 rom public disclosure (reference 10 CFR che: 79708:005-79708:017

NUREG-1512

April 29, 1994	Westinghouse letter (from N. Liparulo) forwarding nonproprietary and proprietary additional information in support of Westinghouse response to RAI 952.43 on AP600 design. acn: 9405110225 Fiche: 79708:001-79708:017	
April 29, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary additional information in support of Westinghouse response to RAI 952.64 on AP600 design be withheld from public disclosure (reference 10 CFR 2.790).	
	acn: 9405100109	Fiche: 79284:323-79284:329
April 29, 1994	design of Stage 4 of automa response to NRC RAI on Al	
	acn: 9405100105	Fiche: 79284:318-79284:329
April 28, 1994	shutdown analysis in order certification of AP600.) requesting additional information regarding to complete review of application for design
	acn: 9406030113	Fiche: 79632:357-79632:361
April 28, 1994	responses to NRC requests letters of 940126, 0127, and	
	acn: 9405040350	Fiche: 79130:304-79130:331
April 26, 1994	0614-17, and 0620 meeting	arger) issuing notification of 940607, 0609-11, s to discuss issues regarding passive plant and NRC applicant representatives, and to PANDA-PSI test facility. Fiche: 79619:310-79619:312
April 26, 1994		submitting comments regarding draft report actor activities under Energy Policy Act of
	1992. acn: 9405030173	Fiche: 79078:237-79078:287
	Mastinghouse latter (from b	
April 25, 1994	soil-structure interaction sei public disclosure (reference	
	acn: 9405100245	Fiche: 79314:191-79314:199
April 25, 1994	•	I. Liparulo) forwarding proprietary detail design nic analysis per request during 940413 and 14
	acn: 9405100240	Fiche: 79314:189-79314:199

April 25, 1994	additional information in su	N. Liparulo) requesting that proprietary pport of Westinghouse response to RAI 952.48 eld (reference 10 CFR 2.790). Fiche: 79212:346-79212:356
April 25, 1994	Westinghouse letter (from N. Liparulo) forwarding proprietary additional information in support of Westinghouse response to RAI 952.48 on AP600	
	design. acn: 9405060131	Fiche: 79212:342-79212:356
April 25, 1994	with Westinghouse to discu structured aspects of AP60	
	acn: 9405030258	Fiche: 79085:275-79085:277
April 21, 1994	· ·) notifies of 940503-04 audit of shielding leakage paths after design basis accident. Fiche: 78994:251-78994:254
April 21, 1994	• •	N. Liparulo) forwarding responses to NRC mation on AP600 from letters of 940118, 0126,
	acn: 9404250308	Fiche: 79013:261-79013:284
April 20, 1994		N. Liparulo) forwarding nonproprietary , "AP600 Phenomelogical Evaluation
	acn: 9405090160	Fiche: 79383:002-79383:112
April 20, 1994		N. Liparulo) advising that no proprietary Prequest for additional information regarding
	acn: 9405020040	Fiche: 79079:358-79079:358
April 19, 1994) forwarding request for additional information ation for design certification of AP600. Fiche: 79110:330-79110:336
April 19, 1994	•	arger) forwarding summary of 940328 and 29 ion of containment performance for AP600. Fiche: 78994:268-78994:303
April 18, 1994	Westinghouse AP600 letter in PCCS Air Gap," be withh	I. Liparulo) requesting that proprietary report "Radiation Heat Transfer Through Fog eld (reference 10 CFR 2.790). Fiche: 79052:224-79052:255

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April 18, 1994	v ,	I. Liparulo) forwarding non-proprietary and P600 letter reports, "Radiation Heat Transfer Sap." Fiche: 79052:213-79052:255
	ach. 9404290200	Fiche. 79032.213-79032.233
April 18, 1994		I. Liparulo) advising that 940415 request for 2600 does not contain proprietary information. Fiche: 79015:013-79015:053
April 15, 1994) forwarding request for additional information ation for design certification of AP600. Fiche: 79111:317-79111:324
April 15, 1994	· · · ·) forwarding summary of 940415 meeting with erall design features of AP600. Fiche: 78977:001-78977:226
April 15, 1994) forwarding summary of 940310 meeting with utdown events for AP600 design. Fiche: 78971:171-78971:235
April 14, 1994	-	I. Liparulo) requesting that proprietary AP600 e withheld from public disclosure per 10 CFR Fiche: 79108:163-79108:171
		Tione. 73100.103-73100.171
April 14, 1994	. .	I. Liparulo) forwarding detail design criteria 500 design calculations and analysis to enable design and analysis. Fiche: 79108:160-79108:171
April 14, 1994		I. Liparulo) forwarding Westinghouse for additional information on AP600 from Fiche: 78955:258-78955:281
April 13, 1994	continue review of test prog	nmittee meeting with Westinghouse to rams being conducted by Westinghouse in lant design certification review. Fiche: 82683:260-82683:273
April 13, 1994	Staff requirements memorar 940407 concerning AP-600 acn: 9404190129	ndum regarding briefing by Westinghouse on design certification. Fiche: 78914:358-78914:358

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Appendix A April 12, 1994 Westinghouse letter (from N. Liparulo) requesting that proprietary information on test conditions for AP600 testing performed at SPES-2 and OSU test facilities be withheld per 10 CFR 2.790. Fiche: 79025:148-79025:194 acn: 9404250270 April 12, 1994 Westinghouse letter (from N. Liparulo) forwarding nonproprietary and proprietary information on test conditions for AP600 testing performed at SPES-2 and OSU test facilities. acn: 9404250265 Fiche: 79025:144-79025:194 April 12, 1994 Westinghouse letter (from N. Liparulo) advising that 940407 request for additional information on AP600 contains no proprietary information. Fiche: 78941:329-78941:329 acn: 9404200135 NRC letter (from K. Shembarger) forwarding summary of 940407 meeting April 12, 1994 regarding AP600 modular const and application. acn: 9404190069 Fiche: 78925:279-78925:315 April 8, 1994 NRC letter (from K. Shembarger) forwarding summary of 940329 meeting with Westinghouse to discuss materials used in design of RCP flywheel for AP600 canned motor pump. acn: 9404140351 Fiche: 78856:244-78856:281 April 7, 1994 NRC letter (from T. Kenyon) forwarding request for additional information regarding June 1992 application for design certification of AP600. acn: 9405030304 Fiche: 79111:352-79111:355 April 7, 1994 Westinghouse letter (from N. Liparulo) requesting that proprietary AP600 containment vessel design information be withheld from public disclosure per 10 CFR 2.790. acn: 9404200132 Fiche: 78941:259-78941:268 April 7, 1994 Westinghouse letter (from N. Liparulo) forwarding proprietary detail design information taken from AP600 design calculations to provide NRC and consultants with information on AP600 containment of sufficient depth to enable independent analysis of containment performance. acn: 9404200127 Fiche: 78941:257-78941:268 April 7, 1994 Westinghouse letter (from N. Liparulo) forwarding SSAR Figures 3.7.1.3, 3.7.1.4, and 3.7.1.5 together with tables giving seismic input acceleration time histories in response to request during 940328 meeting on containment vessel. acn: 9404150075 Fiche: 78873:287-78873:305 NRC letter (from K. Shembarger) issuing notification of 940413 and 14 April 6, 1994 meeting to obtain information regarding Westinghouse soil-structure interaction analysis of nuclear island structures to allow NRC to perform confirmatory analysis.

acn: 9404150017 Fiche: 78869:278-78869:280

April 5, 1994	NRC letter (from F. Hasselberg) issuing notification of 940407 meeting with Westinghouse to discuss status of AP600 testing programs. acn: 9404140208 Fiche: 78862:326-78862:329	
April 4, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary version of "Quick Look Report for Large Scale PCCS Test 22.1 AP600 Program be withheld per 10 CFR 2.790. acn: 9404130084 Fiche: 78867:267-78867:275	
April 4, 1994	Westinghouse letter (from N. Liparulo) forwarding proprietary version of "Quick Look Report for Large Scale PCCS Test 222.1 AP600 Program." acn: 9404130081 Fiche: 78867:265-78867:275	
March 31, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary presentation materials from 940328 and 29 be withheld (reference 10 CFR 2.790).	
	acn: 9404200380 Fiche: 78943:253-78943:295	
March 31, 1994	Westinghouse letter (from N. Liparulo) forwarding proprietary presentation materials from 940328 and 29 meeting on AP600 containment. acn: 9404200373 Fiche: 78943:251-78943:295	ion
March 29, 1994	NRC letter (from T. Kenyon) issuing notification of 940406-07 meeting t discuss instrumentation and control issues on AP600 design. acn: 9404060155 Fiche: 78770:162-78770:168	Ö
March 29, 1994	NRC letter (from C. Poslusny) forwarding summary of 940314 meeting with General Electric and DOE to discuss progress of reviews for design certification of evolutionary and passive reactor designs. acn: 9404050004 Fiche: 78755:001-78755:085	n
March 28, 1994	Westinghouse letter (from N. Liparulo) forwarding Revision 5 to "AP600 Design Certification Test Program Overview." acn: 9403310172 Fiche: 78724:232-78724:274)
March 25, 1994	Westinghouse letter (from N. Liparulo) advising that no proprietary information contained in request for additional information on AP600. acn: 9404060102 Fiche: 78779:001-78779:001	·
March 24, 1994	NRC letter (from T. Kenyon) informing that applicant 940307 request regarding Revision 0 of WCAP-13963, "Scaling Logic for Core Makeup Tank Test, " will be withheld from public disclosure per 10 CFR 2.790. acn: 9405250327 Fiche: 79527:239-79527:241	×
March 24, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary report WCAP-14005, "Wind Tunnel Phase 4b Test Plan Investigation of Effect	

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	of Siting on Wind Behavior of Westinghouse AP600 System," be withheld per 10 CFR 2.790. acn: 9403310283 Fiche: 78757:300-78757:304
March 24, 1994	Westinghouse letter (from N. Liparulo) forwarding nonproprietary and proprietary versions of "Wind Tunnel Phase 4b Test Plan Investigation of Effects of Siting on Wind Behavior of Westinghouse AP600 System." proprietary version withheld per 10 CFR 2.790. acn: 9403310276 Fiche: 78757:289-78757:304
March 24, 1994	Westinghouse letter (from N. Liparulo) forwarding Westinghouse responses to NRC requests for additional information on AP600 from 940126. acn: 9403300115 Fiche: 78699:253-78699:306
March 24, 1994	NRC letter (from K. Shembarger) issuing notification of 940328 and 29 meeting to discuss evaluation of containment performance and buckling potential for AP600 and to obtain information needed for NRC confirmatory analysis. acn: 9403290298 Fiche: 78694:145-78694:148
March 21, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary version of presentation materials from 940317 meeting on AP600 passive containment cooling system design basis analyses be withheld from public disclosure per 10 CFR 2.790. acn: 9404150145 Fiche: 78873:169-78873:244
March 21, 1994	Westinghouse letter (from N. Liparulo) forwarding nonproprietary and proprietary versions of presentation materials from 940317 meeting on AP600 passive containment cooling system design basis analyses. acn: 9404150144 Fiche: 78873:165-78873:244
March 21, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary version of presentation materials from 940314 meeting on AP600 core makeup tank tests and analysis be withheld from public disclosure per 10 CFR 2.790. acn: 9404130149 Fiche: 78867:005-78867:205
March 21, 1994	Westinghouse letter (from N. Liparulo) forwarding nonproprietary and proprietary versions of presentation materials from 940314 meeting on AP600 core makeup tank tests and analysis. acn: 9404130144 Fiche: 78867:001-78867:205
March 21, 1994	Westinghouse letter (from N. Liparulo) advising that no proprietary information contained in 940316 request for additional information on AP600. acn: 9403290284 Fiche: 78725:267-78725:267

March 18, 1994		 forwarding RAI in order to complete review of y for performing risk-based seismic margins
	acn: 9404150218	Fiche: 78869:273-78869:277
March 16, 1994	information on June 1992 a order to continue review.	arger) forwarding request for additional application for design certification of AP600 in
	acn: 9404140249	Fiche: 78856:144-78856:166
March 16, 1994		ield) discussing cooperative exchange P regarding safety review of AP600 design. Fiche: 78566:308-78566:309
March 14, 1994	to complete review of AP60	
	acn: 9404140218	Fiche: 78856:132-78856:135
March 14, 1994	material NRC RAI on AP60	N. Liparulo) advising that review of proprietary 0 received in 940307 letter indicates that RAI stinghouse considers proprietary. Fiche: 78648:356-78648:356
March 14, 1994	NRC letter (from T. Kenyon) issuing notification of 940317 meeting with Westinghouse to discuss containment system issues on AP600 including accident analyses and phenomenological models. acn: 9403180005 Fiche: 78552:282-78552:284	
March 11, 1994	NRC letter (from T. Kenyon) issuing notification of 940323 meeting with Westinghouse to discuss plant system issues on AP600 design that have resulted from staff review to date. acn: 9403210191 Fiche: 78560:356-78560:357	
March 11, 1994	NRC letter (from T. Kenyon) issuing notification of 940322 meeting with Westinghouse to provide overview of AP600 design philosophy, key design features, and system functions, emphasizing areas AP600 differs from current PWR design. acn: 9403180004 Fiche: 78552:277-78552:281	
March 10, 1994) forwarding equipment to facilitate transfer of nformation submitted in support of AP600 Fiche: 78499:239-78499:240
March 9, 1994		
Walci 3, 1994	NRC letter (from K. Shembarger) issuing notification of 940329 meeting with Westinghouse to discuss reactor coolant pump flywheel materials for	
	AP600. acn: 9403140299	Fiche: 78499:261-78499:262

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March 8, 1994	review of AP600 testing prog and reporting on conduct of c	erg) forwarding NRC implementation plan for gram and staff guidance regarding monitoring design certification tests for information. Fiche: 78552:094-78552:212
March 8, 1994	Design Certification Test Pro	Liparulo) forwarding Revision 4 to "AP600 gram Overview." Fiche: 78565:287-78565:325
March 8, 1994	discuss status of AP600 core	erg) issuing notification of 940314 meeting to e makeup tank (CMT) testing. Fiche: 78475:354-78475:358
March 8, 1994	Westinghouse to discuss des ROSA-AP600 facilities.	issuing notification of 940311 meeting with signs of SPES-2 OSU-APEX and Fiche: 78454:327-78454:329
	acii. 9403110204	FICHE. 70404.327-70404.329
March 7, 1994	NRC letter (from T. Kenyon) to AP600 application for desi	forwarding requests for additional information
	• •	Fiche: 78675:296-78675:301
March 7, 1994	Westinghouse letter (from N. concludes RAI contain no pro	Liparulo) reviews NRC RAI on AP600 and
	acn: 9403170193	
March 7, 1994	NRC letter (from T. Kenyon) f Westinghouse to discuss PR/	forwarding summary of 940215 meeting with
		Fiche: 78424:108-78424:149
March 7, 1994	NRC letter (from K. Shembar discuss modular construction	rger) issuing notification of 940407 meeting to
		Fiche: 78411:308-78411:311
March 7, 1994	draft safety evaluation report	ld) discussing scheduling stages regarding for AP600. Requests Westinghouse to ifying significant testing milestones for
		Fiche: 78411:268-78411:270
March 7, 1994	Westinghouse piping design	ger) issuing notification of 940412-14 audit of criteria and sample analysis for AP600. Fiche: 78411:229-78411:232
March 4, 1994	AP600 core makeup tank test	Liparulo) responding to RAI regarding ts. Fiche: 78518:321-78518:332

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March 4, 1994	940126 RAI.	I. Liparulo) forwarding responses to NRC
	acn: 9403100027	Fiche: 78440:318-78440:353
March 2, 1994	NRC letter (from T. Kenyon) applicant to discuss shutdow) issuing notification of 940310 meeting with wn events for AP600.
	acn: 9403090261	Fiche: 78388:333-78388:335
March 1, 1994		dt) requesting for meeting and additional matory testing in ROSA-AP600 test facility. Fiche: 78675:290-78675:295
February 28, 1994	implementation plan for revi	forwarding for information copies of staff ew of SBWR testing program and staff ing and reporting on conduct of design Fiche: 78344:003-78344:121
February 24, 1994) forwarding RAI on SPES-2 test conditions to ions in ROSA-AP600 test facility. Fiche: 78916:247-78916:250
February 23, 1994	of presentation materials fro and analysis be withheld fro	I. Liparulo) requesting that proprietary version om 940223-24 meeting on AP600 PCCS tests m public disclosure per 10 CFR 2.790. Fiche: 78434:162-78434:261
February 23, 1994		I. Liparulo) forwarding nonproprietary and entation materials used during 940223-24 ests and analysis. Fiche: 78434:158-78434:261
February 22, 1994	940217 contains no propriet	I. Liparulo) stating that RAI on AP600 dated ary information. Fiche: 78438:360-78438:360
February 22, 1994	Westinghouse letter (from N of presentation materials from	I. Liparulo) requesting that proprietary version om 940222 meeting on AP600 design ublic disclosure per 10 CFR 2.790. Fiche: 78432:156-78432:275
February 22, 1994		I. Liparulo) forwarding nonproprietary and entation materials used during 940222 hanges. Fiche: 78432:152-78432:275

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February 22, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary Revision 0 to WCAP-13963, "Scaling Logic for Core Makeup Tank Test," be withheld from public disclosure per 10 CFR 2.790. acn: 9403080196 Fiche: 78435:003-78435:049
February 22, 1994	Westinghouse letter (from N. Liparulo) forwarding nonproprietary Revision 2 to WCAP-13345, nonproprietary Revision 0 to WCAP-13975, and proprietary Revision 0 to WCAP-13963 regarding AP600 testing program.
	acn: 9403080192 Fiche: 78435:001-78435:201
February 17, 1994	NRC letter (from T. Kenyon) requesting additional information to enable staff to set initial boundary conditions for ROSA facility. acn: 9403110298 Fiche: 78454:335-78454:337
February 15, 1994	Westinghouse letter (from N. Liparulo) application for withholding proprietary "AP600 Design Change Description Report," from public disclosure per 10 CFR 2.790.
	acn: 9402280162 Fiche: 78317:050-78317:187
February 15, 1994	Westinghouse letter (from N. Liparulo) forwarding proprietary and nonproprietary versions of "AP600 Design Change Description Report." acn: 9402280137 Fiche: 78317:039-78317:187
February 11, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary "Quick Look Report for Large Scale PCCS Test 221.1 AP600 Program," be withheld from public disclosure per 10 CFR 2.790. acn: 9402240312 Fiche: 78269:340-78269:346
February 11, 1994	Westinghouse letter (from N. Liparulo) forwarding proprietary "Quick Look Report for Large Scale PCCS Test 221.1 AP600 Program." acn: 9402240310 Fiche: 78269:336-78269:346
February 11, 1994	Westinghouse letter (from N. Liparulo) requesting that proprietary version of Addendum 2 to WCAP-8897, "Bypass Logic for Westinghouse Integrated Protection System AP600 Bypass Logic Implementation Description," be withheld per 10 CFR 2.790. acn: 9402220258 Fiche: 78239:335-78239:349
February 11, 1994	Westinghouse letter (from N. Liparulo) forwarding nonproprietary and proprietary versions of Addendum 2 to report entitled "Bypass Logic for Westinghouse Integrated Protection System AP600 Bypass Logic Implementation Description." acn: 9402220254 Fiche: 78239:324-78239:349
February 8, 1994	Westinghouse letter (from N. Liparulo) forwarding application for withholding proprietary information from public disclosure for

	WCAP-13957, "AP600 RCS Analysis." acn: 9402160135	S Mass Inventory: Function-Based Task Fiche: 78208:223-78208:256
February 8, 1994		N. Liparulo) forwarding nonproprietary ary WCAP-13957, "AP600 RCS Mass Task Analysis." Fiche: 78208:210-78208:256
February 4, 1994) forwarding summary of 940125 meeting with st plans for ADS for AP600. Fiche: 78090:165-78090:201
February 3, 1994	WCAP-13913, "Framework	N. Liparulo) requesting that proprietary for AP600 Severe Accident Management m public disclosure per 10 CFR 2.790. Fiche: 78316:338-78316:344
February 3, 1994		N. Liparulo) forwarding proprietary for AP600 Severe Accident Management Fiche: 78316:334-78316:344
February 3, 1994	NRC letter (from T. Kenyon Westinghouse to discuss P acn: 9402100131) issuing notification of 940215 meeting with RA for AP600. Fiche: 78101:186-78101:189
February 3, 1994		N. Liparulo) forwarding Westinghouse for additional information on AP600 from d 1130. Fiche: 78094:166-78094:280
February 2, 1994	withholding proprietary info	N. Liparulo) submitting application for ormation from public disclosure regarding program reports WCAP-13884 and 2.790. Fiche: 78220:186-78220:194
February 2, 1994	WCAP-13884, Revision 0, a	N. Liparulo) forwarding proprietary and WCAP-13960, Revision 0, and 85, Revision 0, and WCAP-13961, Revision 0. Fiche: 78220:184-78220:258
February 1, 1994		N. Liparulo) reviews RAI dated 940126-27 on nation and finds no proprietary information Fiche: 78137:356-78137:356

February 1, 1994	NRC letter (from T. Boyce) forwarding summary of 931214 meeting with DOE to discuss progress of reviews for design certification of next-generation reactor designs.	
	acn: 9402140161	Fiche: 78106:292-78106:326
January 31, 1994) forwarding draft copy of latest version of g Program Review Model for Advanced J. Fiche: 78081:056-78081:135
January 31, 1994	meeting with Westinghouse and structural design criteria	arger) forwarding summary of 940120-21 and contractors to discuss seismic analysis a for AP600 design. Fiche: 78080:122-78080:355
January 28, 1994	Westinghouse letter (from N	I. Liparulo) submitting application for
	withholding "Quick Look Dat	ta Report for Large Scale PCCS Test 219.1,"
	from public disclosure per 1 acn: 9402090233	Fiche: 78111:255-78111:263
January 28, 1994	Westinahouse letter (from N	I. Liparulo) forwarding "Quick Look Data
•	. .	S Test 219.1, * summarizing test conditions
	acn: 9402090222	Fiche: 78111:253-78111:263
January 27, 1994	NRC letter (from T. Kenyon) complete its update of REL4	requesting additional information for staff to P5 plant deck for AP600.
	acn: 9402140213	Fiche: 78136:348-78136:351
January 27, 1994) forwarding summary of 931222 meeting with f staff review of AP600 design certification
	acn: 9402040234	Fiche: 78043:004-78043:052
January 26, 1994	· · · ·	requesting additional information in areas of 0.24-Q220.50) and seismic design
	acn: 9402010254	Fiche: 77978:319-77978:337
January 25, 1994	presentation material from 9	Liparulo) requesting that proprietary 40125 meeting on ADS design certification public disclosure (reference 10 CFR 2.790). Fiche: 78067:243-78067:283
January 25, 1994	proprietary presentation mat	Liparulo) forwarding nonproprietary and terials from 940125 meeting with NRC to epressurization system test plans supporting rogram. Fiche: 78067:239-78067:283

NRC letter (from F. Hasselberg) issuing notification of 940125 meeting January 25, 1994 with Westinghouse to discuss plans and schedules regarding Phase B of AP600 ADS test program. acn: 9402010167 Fiche: 77978:287-77978:289 January 21, 1994 Westinghouse letter (from N. Liparulo) requesting that proprietary WCAP-13913, "Framework for AP600 Accident Management Guidance," be withheld from public disclosure (reference 10 CFR 2.790). Fiche: 78039:295-78039:333 acn: 9402020332 Westinghouse letter (from N. Liparulo) forwarding nonproprietary January 21, 1994 WCAP-13914 and proprietary WCAP-13913, "Framework for AP600 Severe Accident Management Guidance." Fiche: 78039:283-78039:333 acn: 9402020328 January 21, 1994 Westinghouse letter (from N. Liparulo) requesting that proprietary presentation materials from 940120 and 21 meeting with NRC on AP600 seismic and structural issues be withheld from public disclosure (reference 10 CFR 2.790). acn: 9402020309 Fiche: 78068:003-78068:089 January 21, 1994 Westinghouse letter (from N. Liparulo) forwarding meeting agenda and nonproprietary and proprietary presentation materials from 940120 and 21 meeting with NRC to discuss AP600 seismic and structural issues. acn: 9402020304 Fiche: 78068:001-78068:089 January 21, 1994 Westinghouse letter (from N. Liparulo) advising that request for additional information on AP600 dated 940118 contains no information Westinghouse considers proprietary. acn: 9402010194 Fiche: 78002:302-78002:302 NRC letter (from T. Kenyon) forwarding RAI on AP600 to assist staff in January 18, 1994 developing RELAP 5 model of OSU-APEX facility. Fiche: 78017:220-78017:223 acn: 9402030324 Westinghouse letter (from N. Liparulo) requesting that proprietary "Quick January 18, 1994 Look Report for Large Scale PCCS Tests 216.1," be withheld (reference 10 CFR 2.790). acn: 9401310361 Fiche: 77993:294-77993:300 January 18, 1994 Westinghouse letter (from N. Liparulo) forwarding proprietary "Quick Look Report for Large Scale PCCS Tests 216.1." Fiche: 77993:290-77993:300 acn: 9401310354 January 18, 1994 Westinghouse letter (from N. Liparulo) informing that review of RAIs on AP600 for proprietary material indicates that RAIs contain no information that Westinghouse considers proprietary. Fiche: 77998:334-77998:334 acn: 9401270268

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January 17, 1994		
January 17, 1994		N. Liparulo) forwarding proprietary proposed .7.1.11 in support of response to RAI 420.113. Fiche: 77973:221-77973:231
January 14, 1994	reporting on conduct of ther 10 CFR Part 52 on design of	rson) discussing guidance for monitoring and rmal-hydraulic experiments performed under certification testing. Fiche: 78344:106-78344:121
January 14, 1994	NRC letter (from T. Kenyon regarding AP600 design cer acn: 9402010393) requesting for additional information rtification. Fiche: 77993:187-77993:193
January 13, 1994		N. Liparulo) requesting that proprietary version AR be withheld per 10 CFR 2.790. Fiche: 77980:003-77980:011
January 13, 1994	proprietary version of Revis	I. Liparulo) forwarding nonproprietary and ion 1 of AP600 SSAR. Fiche: 77980:001-77989:239
January 12, 1994	Westinghouse letter (from N 931008 and 1102 RAIs on A acn: 9401270228	I. Liparulo) forwarding responses to NRC \P600. Fiche: 77962:197-77962:221
January 12, 1994	NRC letter (from T. Kenyon discuss matters pertaining t acn: 9401240264) issuing notification of 940120 meeting to o Westinghouse AP600. Fiche: 77884:356-77884:359
January 11, 1994		I. Liparulo) requesting that proprietary arding AP600 instrumentation and control ice 10 CFR 2.790). Fiche: 77920:257-77920:265
January 11, 1994		I. Liparulo) forwarding proprietary responses 600 instrumentation and control system. Fiche: 77920:255-77920:265
January 10, 1994) submitting daily highlight regarding meeting ismic analysis and structural design criteria Fiche: 77833:257-77833:263

January 7, 1994	Italian officials and NRC ap	issuing notification of 940121 meeting with plicants in Piacenza, Italy regarding test eneral Electric SBWR and Westinghouse Fiche: 77795:348-77795:353
January 6, 1994	of ALWR Passive System R	I. Liparulo) informing that report "Assessment Reliability: Phase 1: Methodology ent Failure Quantification," considered Fiche: 82497:266-82497:267
January 5, 1994	NRC letter (from T. Kenyon factors engineering review t) forwarding information regarding human opics and operating experience review issues on review per agreement in 931213 meeting. Fiche: 38260:001-38260:001
January 5, 1994) forwarding summary of 931213-14 meeting ss human factors engineering for AP600 Fiche: 77746:344-77746:347
January 4, 1994	NRC letter (from T. Kenyon Westinghouse to discuss R acn: 9401110031) forwarding summary of 931201 meeting with AP for AP600 design. Fiche: 77747:289-77747:313
December 22, 1993	proprietary information from	I. Liparulo) application for withholding public disclosure regarding presentation ng with NRC senior management on AP600 per 10 CFR 2.790. Fiche: 77679:157-77679:208
December 22, 1993	nonproprietary presentation	I. Liparulo) forwarding proprietary and materials from 931222 meeting with NRC 600 design certification program. Fiche: 77679:155-77679:208
December 20, 1993	ACRS Thermal-hydraulic Pl	forwarding summary of 931028 meeting of nenomena Subcommittee regarding NRC-RES gram being developed in support of ve plant design. Fiche: 78706:293-78706:333
December 20, 1993		J. Liparulo) requesting that proprietary "PCCS port for Test 220.1 (Blind Test)," be withheld Fiche: 77675:222-77675:228

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December 20, 1993	Westinghouse letter (from N. Liparulo) requesting proprietary final draft "Scaling Logic for Core Makeup Tank Test," be withheld from public disclosure per 10 CFR 2.790(B)(1).	
	acn: 9312290075	Fiche: 77671:063-77671:191
December 20, 1993	Westinghouse letter (from N For Core Makeup Tank Test	l. Liparulo) forwarding final draft "Scaling Logic t."
	acn: 9312290068	Fiche: 77648:339-77648:349
December 20, 1993		erg) issuing notification of 931222 meeting as status of review of AP600 design. Fiche: 77602:065-77602:068
December 16, 1993		Liparulo) forwarding proprietary and materials from 931210 meeting on AP600
	acn: 9312290062	Fiche: 77671:051-77671:191
December 15, 1993	withholding proprietary pres AP600 test program issues	Liparulo) submitting application for entation material form 931210 meeting on per 10 CFR 2.790. Fiche: 77671:053-77671:062
December 10, 1993	Non-proprietary presentation Westinghouse and NRC on	n material from 931210 meeting between AP600 test program. Fiche: 77648:341-77648:349
December 9, 1993	Westinghouse letter (from N AP600 from NRC 930923 le	. Liparulo) forwarding responses to RAIs on tter.
	acn: 9312150269	Fiche: 77503:026-77503:067
December 8, 1993	containing WordPerfect files	. Liparulo) forwarding 8mm data cartridge for listed AP600 documents.
	acn: 9312200126	Fiche: 77530:001-77530:003
December 7, 1993	completed preliminary review	Burtt) informing that Westinghouse has ws of Westinghouse transient computer codes regarding analysis of AP600 ALWR. Fiche: 80561:325-80561:327
December 3, 1993	information found in NRC red dated 931130.	. Liparulo) advising that no proprietary quest for additional information on AP600
	acn: 9312130234	Fiche: 77487:348-77487:348
December 1, 1993	meeting to discuss status of	Boyce) issuing notification of 931214 advanced reactor reviews. Fiche: 77422:333-77422:337

December 1, 1993	•	erg) issuing notification of 931210 meeting as outstanding AP600 test program issues. Fiche: 77433:150-77433:153
November 30, 1993		forwarding request for additional information sign as result of 931004 meeting with
	acn: 9312160199	Fiche: 77497:289-77497:294
November 30, 1993	930827 RAIs on AP600.	Liparulo) forwarding responses to NRC
	acn: 9312080227	Fiche: 77406:347-77406:358
November 29, 1993	AP600 RAI response regard access control drawings and	. Liparulo) forwarding drawings referenced in ling radiation piping area maps radiological I plant radiation zones. Fiche: 77373:010-77373:017
November 24, 1993		forwarding summary of 931110 meeting with aterials used in design of AP600. Fiche: 77388:302-77388:326
November 23, 1993	with Westinghouse to discus Q620.51 and clarify request	issuing notification of 931213-14 meeting s mapping matrix submitted in response to for additional information responses. Fiche: 77351:360-77351:361
November 23, 1993	response to NRC request fo of 930826.	. Liparulo) forwarding Westinghouse r additional information on AP600 from letter
	acn: 9312030203	Fiche: 77373:238-77373:241
November 22, 1993	Ų	n of 931201 meeting to discuss design and nee program for AP600, including example of ied to plant design. Fiche: 77342:110-77342:112
Nevershar 49, 4002		
November 18, 1993		s) forwarding summary of 403rd meeting of ing NRC confirmatory test program in support n.
	acn: 9312080010	Fiche: 77422:111-77422:113
November 16, 1993	•	. Liparulo) forwarding response to NRC al information regarding AP600. Fiche: 77296:049-77296:052

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November 12, 1993	U ,	N. Liparulo) requesting withholding of port for Large Scale PCCS, Tests 217.1 and 3)(1). Fiche: 77323:337-77323:345
November 12, 1993		N. Liparulo) forwarding proprietary "Quick Look CS, Tests 217.1 and 218.1." Fiche: 77323:335-77323:345
November 12, 1993	•	N. Liparulo) forwarding draft thesis entitled of Noncondensable Gas: Effect of Helium Fiche: 77282:047-77282:137
November 12, 1993	Westinghouse letter (from N	I. Liparulo) requesting that proprietary oping computer model of AP600 plant be
November 12, 1993		I. Liparulo) forwarding proprietary information
November 10, 1993		N. Liparulo) forwarding information presented meeting with NRC on AP600 material Fiche: 77238:250-77238:271
November 5, 1993	Westinghouse letter (from N proprietary material; no prop acn: 9311160124	I. Liparulo) reviews NRC 931102 RAI for prietary material found. Fiche: 77228:304-77228:304
November 5, 1993	regarding focused PRA and) forwarding summary of 931026 meeting proposed resolution to address regulatory ty-related system for AP600. Fiche: 77168:125-77168:145
November 4, 1993		eld) requesting that Westinghouse meet with insure that outstanding test program details d. Fiche: 77167:347-77167:350
November 4, 1993		I. Liparulo) forwarding Westinghouse or additional information on AP600 from letter Fiche: 77149:360-77149:361

- November 2, 1993NRC letter (from T. Kenyon) requesting additional information to continue
review of June 1992 application for design certification of AP600.
acn: 9312080120Fiche: 77365:303-77365:316
- October 29, 1993 Westinghouse letter (from N. Liparulo) requesting that proprietary "Quick Look Report for Large Scale PCCS Tests 214.1 and 215.1 AP600 program" be withheld per 10 CFR 2.790. acn: 9311050249 Fiche: 77143:306-77143:314
- October 29, 1993 Westinghouse letter (from N. Liparulo) forwarding proprietary "Quick Look Report for Large Scale PCCS Tests 214.1 and 215.1 AP600 program." acn: 9311050195 Fiche: 77143:304-77143:314
- October 27, 1993 Westinghouse letter (from N. Liparulo) informing that Westinghouse has reviewed for proprietary material NRC request for additional information on AP600 dated 931026. Review indicates that report contains no information that Westinghouse considers proprietary. acn: 9311040346 Fiche: 77107:065-77107:065
- October 27, 1993 Westinghouse letter (from N. Liparulo) requesting that proprietary piping diagrams for AP600 automatic depressurization system IRWST and core makeup tank be withheld per 10 CFR 2.790. acn: 9311010177 Fiche: 77039:323-77039:332
- October 27, 1993 Westinghouse letter (from N. Liparulo) forwarding proprietary piping diagrams for AP600 automatic depressurization system IRWST and core makeup tank as supplement to Westinghouse 930818 letter in response to NRC 930402 RAI regarding AP600 design. acr. 9311010176 Fiche: 77039:321-77039:332
- October 27, 1993 Westinghouse letter (from N. Liparulo) forwarding Westinghouse response to NRC request for additional information on AP600 from NRC letter of 930828. acn: 9311010047 Fiche: 77036:285-77036:287
- October 26, 1993 NRC letter (from T. Kenyon) requesting additional information on AP600 in area of radiation protection. acn: 9311170425 Fiche: 77230:021-77230:024

October 25, 1993 NRC letter (from T. Kenyon) issuing notification of 931108 meeting with Westinghouse to discuss focused PRA and Westinghouse proposed resolution to address issue of regulatory treatment for nonsafety system for AP600 design. acn: 9310280240 Fiche: 76926:341-76926:344

A-313

October 25, 1993	NRC letter (from T. Kenyon) issuing notification of 931110 meeting with Westinghouse to discuss staff questions regarding materials used in design of AP600.	
	acn: 9310280232	Fiche: 76926:334-76926:336
October 22, 1993		I. Liparulo) forwarding Westinghouse for additional information on AP600 from
	acn: 9310290135	Fiche: 76995:249-76995:251
October 22, 1993	-	I. Liparulo) forwarding proposed initial ion data for Test 220.1 of large scale Phase 2
	acn: 9310280084	Fiche: 76979:277-76979:282
October 21, 1993	- · ·	I. Liparulo) requesting that proprietary heat large scale Phase 2 test facility be withheld
	acn: 9311010008	Fiche: 77003:338-77003:349
October 21, 1993	proprietary heat sink data for facility in response to NRC r Testing at LST facility.	I. Liparulo) forwarding nonproprietary and or AP600 PCCS large scale Phase 2 test (LST) request during 931008 visit to witness Matrix
	acn: 9311010005	Fiche: 77003:336-77003:349
October 20, 1993	responses to NRC request f letters dated 930819 and 20	
	acn: 9310260341	Fiche: 76990:001-76990:207
October 20, 1993	response to NRC request for	I. Liparulo) requesting that proprietary or additional information regarding "AP600 " be withheld per 10 CFR 2.790. Fiche: 76912:302-76912:343
October 20, 1993	to NRC request for additional PRA Evaluation."	l. Liparulo) forwarding proprietary responses al information regarding "AP600 RCS Leak
	acn: 9310250230	Fiche: 76912:300-76912:343
October 15, 1993	-	Liparulo) requesting that proprietary "Quick PCCS Tests 212.1 and 213.1 AP600 0 CFR 2.790. Fiche: 76914:346-76914:352
October 15, 1993		Liparulo) forwarding proprietary "Quick Look ts 212.1 and 213.1 AP600 Program." Fiche: 76914:342-76914:352

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presentation material from 9	Liparulo) requesting that proprietary 30920 meeting on AP600 low pressure gon State University be withheld per 10 CFR
acn: 9310220186	Fiche: 76909:115-76909:190

October 15, 1993 Westinghouse letter (from N. Liparulo) forwarding nonproprietary and proprietary presentation materials from 930920 meeting on AP600 low pressure integral system tests at Oregon State University. acn: 9310220184 Fiche: 76909:113-76909:190

- October 15, 1993 Westinghouse letter (from N. Liparulo) informing that Westinghouse has reviewed for proprietary material NRC request for additional information on AP600 dated 931008 and its review indicates that material contain no information that Westinghouse considers proprietary. acn: 9310210202 Fiche: 76926:256-76926:256
- October 13, 1993 Westinghouse letter (from N. Liparulo) forwarding additional Westinghouse comments on draft Commission paper on regulatory treatment of non-safety systems issued by NRC on 930910. acn: 9310290210 Fiche: 76995:345-76995:347
- October 13, 1993 NRC letter (from T. Kenyon) issuing notification of 931026 meeting with Westinghouse to discuss focused PRA and Westinghouse proposed resolution to address issue of regulatory treatment for non-safety system for AP600 design. acr: 9310190224 Fiche: 76807:124-76807:126
- October 12, 1993 Westinghouse letter (from N. Liparulo) requesting exemption from metrication policy regarding AP600 application. acn: 9310250285 Fiche: 76914:316-76914:317
- October 11, 1993 Westinghouse letter (from N. Liparulo) forwarding AP600 integrated design certification schedule to meet SECY-93-097 FSER issuance date of November 1995. acn: 9310180094 Fiche: 76843:327-76843:355
- October 8, 1993 NRC letter (from T. Kenyon) forwarding RAI on AP600 instrumentation and control system design Q420.107-Q420.122. acn: 9310270242 Fiche: 76924:001-76924:061

October 8, 1993 Westinghouse letter (from N. Liparulo) requesting that proprietary information on test matrix for AP600 departure from nucleate boiling tests be withheld (reference 10 CFR 2.790). acn: 9310180134 Fiche: 76843:318-76843:326

October 8, 1993	NRC request for additional i	I. Liparulo) forwarding proprietary response to nformation regarding departure from nucleate e performing in support of AP600 design. Fiche: 76843:316-76843:326
October 8, 1993	responses to NRC requests from letters of 930708 and 1	
	acn: 9310140109	Fiche: 76787:289-76787:312
October 6, 1993	Westinghouse letter (from N. Liparulo) requesting that proprietary facility "as-built" drawings for AP600 PCCS large (1/8th) scale test facility be withheld per 10 CFR 2.790.	
	acn: 9310180161	Fiche: 76862:003-76862:013
October 6, 1993		. Liparulo) forwarding proprietary "as-built" PCCS large (1-8th) scale test facility. Fiche: 76862:001-76862:013
October 5, 1993	comments on draft Commiss non-safety system issued or	Liparulo) forwarding Westinghouse sion paper on regulatory treatment of 930910. Fiche: 76764:325-76764:329
October 4, 1993	Revision 0 to "Quick Look F 203.3 AP600 Program" be w	Liparulo) requesting that proprietary Report for Large Scale PCCS Tests 202.3 and <i>i</i> ithheld per 10 CFR 2.790. Fiche: 76761:306-76761:314
October 4, 1993	to "Quick Look Report for La AP600 Program." report with	. Liparulo) forwarding proprietary Revision 0 irge Scale PCCS Tests 202.3 and 203.3 held per 10 CFR 2.790. Fiche: 76761:304-76761:314
October 4, 1993	request for additional information (08, 14, 19 and, 27.	. Liparulo) forwarding response to NRC ation regarding AP600 from letters of 930701, Fiche: 76707:001-76707:084
September 29, 1993	reviewed NRC requests for a proprietary information.	. Liparulo) advising that Westinghouse has additional information on AP600 for Fiche: 76780:270-76780:270
September 27, 1993	computer code validation pro 930831 meeting for single bl	Liparulo) forwarding outline of AP600 ocess steps incorporating NRC request at ind test predictions. Fiche: 76707:237-76707:244

September 27, 1993	with Westinghouse to discus	perg) issuing notification of 931004 meeting ss input deck parameters for computer code ting AP600 application for final design ation. Fiche: 76606:269-76606:272
September 24, 1993		I. Liparulo) nonproprietary Revision 0 to ementation of Regulatory Treatment of Process. Fiche: 76593:111-76593:173
September 24, 1993	Revision 0 to WCAP-13856	I. Liparulo) requesting that proprietary 6 "AP600 Implementation Report for Insafety- Related System " be withheld per 10 Fiche: 76593:074-76593:110
September 24, 1993	proprietary Revision 0 to W0	I. Liparulo) forwarding nonproprietary and CAP-13856 "AP600 Implementation Report for insafety-related System Process." Fiche: 76593:072-76593:173
September 23, 1993	NRC letter (from T. Kenyon) regarding application for des acn: 9309280406) forwarding request for additional information sign certification of AP600. Fiche: 76569:290-76569:293
September 21, 1993		I. Liparulo) forwarding responses to NRC mation on AP600 in response to 930708,19, Fiche: 76550:147-76550:264
September 20, 1993		I. Liparulo) requesting that proprietary ertainty Analysis " be withheld per 10 CFR Fiche: 76764:003-76764:011
September 20, 1993		I. Liparulo) forwarding nonproprietary and nd WCAP-13796 respectively "AP600 Fiche: 76764:001-76764:071
September 17, 1993	proprietary information rega	I. Liparulo) submitting application to withhold rding facility drawings and piping and or AP600 long term cooling test facility at Fiche: 76545:322-76545:328

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September 17, 1993	Westinghouse letter (from N. Liparulo) forwarding proprietary facility drawings and piping and instrumentation diagrams for AP600 long term test facility at Oregon State University.	
	acn: 9309240032	Fiche: 76545:315-76545:328
September 15, 1993	- ,	A. Thadani) submitting Revision 2 of iew of vendor testing programs for AP600 and
	acn: 9403040354	Fiche: 78344:066-78344:105
September 10, 1993	regarding mechanistic corre site specific hazards fire cor	I. Liparulo) forwarding responses to NRC RAIs elations in WGOTHIC bounding analysis for mmon-cause instrumentation failures affect of _OCA and flow information for 4th stage ADS. Fiche: 76474:106-76474:143
September 9, 1993	ACRS thermal hydraulic phe	forwarding summary of 930722-23 meeting of enomena subcommittee regarding sis methodology and test programs. Fiche: 78707:025-78707:032
September 3, 1993	• •	I. Liparulo) requesting that proprietary n Phase 2 of 1/8-scale facility test matrix be Fiche: 76451:120-76451:133
September 3, 1993	proprietary rationale for test	I. Liparulo) forwarding nonproprietary and s included in Phase 2 of 1-8-scale facility test 30.12 received in NRC 930701 letter. Fiche: 76451:118-76451:133
September 3, 1993	•	I. Liparulo) forwarding responses to requests AP600 from letters dated 930701, 08, 14, Fiche: 76424:032-76424:104
September 1, 1993	· · · · · · · · · · · · · · · · · · ·) forwarding summary of 930810-11 meeting ss I&C system designs AP600. Fiche: 76435:253-76435:309
September 1, 1993		I. Liparulo) reviewing NRC RAI on AP600 ins no proprietary information. Fiche: 76393:354-76393:354
August 31, 1993	Westinghouse letter (from N responses to NRC RAI. acn: 9309080379	l. Liparulo) forwarding Westinghouse Fiche: 76393:259-76393:320

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August 30, 1993	NRC letter (from D. Crutchfie design certification applicatio acn: 9309100396	eld) discussing review schedule for AP600 on. Fiche: 76408:283-76408:286
August 27, 1993	NRC letter (from T. Kenyon) complete review of design c) requesting additional information in order to ertification testing for AP600. Fiche: 76499:148-76499:151
August 26, 1993		orwarding status report of advanced light over 930431-0731. Fiche: 82643:009-82643:051
August 26, 1993	of review of June 1992 appli	requesting for additional information as result ication for design certification of AP600. Fiche: 76499:152-76499:155
August 26, 1993	views regarding design cont design certification applicant	eld) forwarding presentation of current staff rol document in response to inquires from ts. Fiche: 76397:040-76397:048
August 26, 1993	with Westinghouse to discus design.	erg) issuing notification of 930920 meeting ss low-pressure integral testing of AP600 Fiche: 76388:164-76388:168
August 25, 1993	Westinghouse letter (from N to request for information on guillotine break for containm 2.790.	Liparulo) request that proprietary response AP600 design basis double-ended cold leg ent integrity analysis be withheld per 10 CFR Fiche: 76416:297-76416:303
August 25, 1993	request for information on Al guillotine break for containm	Liparulo) forwarding proprietary response to P600 design basis double-ended cold leg ent integrity analysis. Fiche: 76416:293-76416:303
August 19, 1993	WCAP-13816 "Phase 3 Pas Distribution Test," be withhe	Liparulo) requesting that proprietary report ssive Containment Cooling System Water ld per 10 CFR 2.790. Fiche: 76219:089-76219:094
August 19, 1993	proprietary versions of repor Cooling System Distribution	. Liparulo) forwarding nonproprietary and t entitled "Phase 3 Passive Containment Test." Fiche: 76219:078-76219:094

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August 19, 1993		l. Liparulo) determines that RAIs dated o information Westinghouse considers
	acn: 9308250218	Fiche: 76224:358-76224:358
August 18, 1993	Design and Design Certifica	Liparulo) forwarding Revision 3 of "AP600 tion Test Program Overview." Westinghouse lates of document on monthly basis. Fiche: 76199:005-76199:072
August 18, 1993	diagrams for AP600 automa makeup tank be withheld pe	Liparulo) requesting that proprietary piping tic depressurization system IRWST and core r 10 CFR 2.790. Fiche: 76215:280-76215:287
August 18, 1993	diagrams for AP600 automa makeup tank in response to information regarding AP600	. Liparulo) forwarding proprietary piping tic depressurization system IRWST and core 930402 and 0728 requests for additional) design. Fiche: 76215:276-76215:287
August 17, 1993	with General Electric, Comb	er) forwarding summary of 930802 meeting ustion Engineering, and Westinghouse ertification reviews for each revolutionary and Fiche: 76190:202-76190:245
August 16, 1993	meeting with DOE, GE, and reviews. Meeting canceled.	Boyce) issuing notification of 931005 ABB-CE to discuss design certification Fiche: 76610:352-76610:360
August 16, 1993	Westinghouse letter (from N general outline for quick look acn: 9308250403	. Liparulo) forwarding AP600 test program < reports. Fiche: 76218:269-76218:271
August 16, 1993	"Condensation in Presence of Orientation, " be withheld pe	. Liparulo) requesting that report of Noncondensable Gas: Effect of Surface r 10 CFR 2.790. Fiche: 76185:005-76185:013
August 16, 1993	proprietary references for ba performed in support of AP6	. Liparulo) forwarding nonproprietary and sic research tests on condensation 00 design. Fiche: 76185:001-76186:115

August 16, 1993	Westinghouse letter (from N. Liparulo) requesting that proprietary drawings of steam distributor for AP600 core makeup tank test facility be withheld (10 CFR 2.790).	
	acn: 9308200194	Fiche: 76181:197-76181:203
August 16, 1993		N. Liparulo) forwarding proprietary drawings listributor assembly being used in AP600 core
	acn: 9308200192	Fiche: 76181:193-76181:203
August 16, 1993	÷ .	F. Boyce) N. Liparulo) issuing notification of ing with DOE to discuss status of design
	acn: 9308190328	Fiche: 76184:041-76184:045
August 13, 1993	review of June 1992 applica) requesting additional information as result of ation for design certification of AP600 930225 930714 meeting on control room and TSC
	acn: 9309210261	Fiche: 76499:162-76499:166
August 13, 1993	information on AP600 SPES	N. Liparulo) responding to 930628 request for S-2 test facility. Revision 0 to "SPES Pump sion 1 to "SPES System Description" enclosed. Fiche: 76160:015-76160:246
August 9, 1993	•	perg) forwarding summary of 930714 meeting ntatives regarding AP600 main control room ability.
	acn: 9308260042	Fiche: 76217:273-76217:276
August 9, 1993		N. Liparulo) forwarding responses to NRC Iditional information on AP600 and revisions to mitted.
	acn: 9308130131	Fiche: 76113:026-76113:047
August 9, 1993	review of request for addition	N. Liparulo) informing that Westinghouse onal information on AP600 dated 930805 applicant considers proprietary. Fiche: 76094:344-76094:344
August 5, 1993) requesting additional information in order to 192 application for design certification of Fiche: 76288:091-76288:094
August 5, 1993		N. Liparulo) notifies that Westinghouse has
August 0, 1990		additional information on AP600 dated 930728.

	Westinghouse review indic information. acn: 9308110251	ates that material contains no proprietary Fiche: 76076:360-76076:360
August 4, 1993		berg) submitting daily highlights regarding e to discuss status of NRC requests for rding AP600 I&C system. Fiche: 76024:125-76024:129
August 3, 1993	•	berg) issuing notification of NRC staff and at test facilities during August 1993 to observe ies. Fiche: 76164:252-76164:254
July 28, 1993	complete review of June 19 AP600.	n) requesting additional information in order to 992 application for design certification of
	acn: 9308310269	Fiche: 76296:356-76296:359
July 28, 1993	÷ .	N. Liparulo) requesting that proprietary draft LAP- MOD3 input files for OSU-AP600 er 10 CFR 2.790. Fiche: 76038:340-76038:348
July 28, 1993	• ·	N. Liparulo) forwarding proprietary draft LAP5-MOD3 input files for listed OSU-AP600 Fiche: 76038:338-76038:348
July 28, 1993		N. Liparulo) requesting proprietary "Scaling tegral System and Long Term Cooling Test CFR 2.790. Fiche: 75990:195-75990:205
July 28, 1993	• ·	N. Liparulo) forwarding proprietary draft AP600 Integral System and Long Term Cooling on for withholding. Fiche: 75990:193-75990:205
July 26, 1993	•	N. Liparulo) advising that Westinghouse review ed 930719 and 20 indicates that RAIs contain Fiche: 75996:097-75996:097
July 26, 1993		N. Liparulo) requesting that proprietary Defense-in-Depth and Diversity Report " be Fiche: 75995:146-75995:275

July 26, 19937	Westinghouse letter (from N. Liparulo) forwarding nonproprietary WCAP-13634 and proprietary WCAP-13633 "AP600 I&C Defense-in-Depth and Diversity Report." acn: 9308030159 Fiche: 75995:135-75995:275
July 22, 1993	NRC letter (from D. Crutchfield) responding to 930623 letter which provided comments on SECY-93-097. acn: 9308110231 Fiche: 76063:342-76063:347
July 20, 1993	NRC letter (from T. Kenyon) forwarding request for additional information to continue review of applicant June 1992 application for design certification of AP600.
	acn: 9308190130 Fiche: 76153:073-76153:077
July 19, 1993	NRC letter (from T. Kenyon) forwarding request for additional information on Westinghouse AP600 design in area of PRA as result of review of June 1992 application.
	acn: 9308190072 Fiche: 76152:266-76152:306
July 19, 1993	Westinghouse letter (from N. Liparulo) submitting results of review of NRC 930714 requests for additional information on AP600; Review indicates that requests do not contain proprietary information. acn: 9307280036 Fiche: 75900:312-75900:312
July 16, 1993	Westinghouse letter (from N. Liparulo) forwarding responses to requestfor additional information on AP600 per NRC 930312 and 0413 letters.acn: 9307210079Fiche: 75728:299-75728:346
July 15, 1993	NRC letter (from D. Crutchfield) responding to Westinghouse request for formal staff approval of proposed testing plans in support of AP600 design certification application; Informs that several important details regarding test program remain to be addressed. acn: 9308040047 Fiche: 75979:100-75979:102
July 15, 1993	Westinghouse letter (from N. Liparulo) requesting that proprietary AP600 testing program reports WCAP-13413, WCAP-13415, WCAP-13419, and WCAP-13756 be withheld per 10 CFR 2.790. acn: 9307210295 Fiche: 75882:250-75882:258
July 15, 1993	Westinghouse letter (from N. Liparulo) forwarding nonproprietary and proprietary AP600 testing reports WCAP-13414, WCAP-13415, WCAP-13419, WCAP-13420, WCAP-13756, and WCAP-13757. acn: 9307210254 Fiche: 75882:216-75882:258
July 14, 1993	NRC letter (from T. Kenyon) forwarding request for additional information on AP600 design. NRC is in process of coupling together RELAP and

Appendix A	
	contain computer codes to provide with capability to analyze behavior of AP600 under design basis accident conditions. acn: 9308190053 Fiche: 76151:333-76151:336
July 14, 1993	NRC letter (from T. Kenyon) forwarding comments on scaling instrumentation and test matrices for OSU and SPES-2 test facilities. acn: 9307200331 Fiche: 75714:287-75714:300
July 14, 1993	Westinghouse letter (from N. Liparulo) requesting that proprietary presentation materials from 930714 meeting on AP600 CR habitability be withheld (reference 10 CFR 2.790). acn: 9307200232 Fiche: 75729:268-75729:317
July 14, 1993	Westinghouse letter (from N. Liparulo) forwarding nonproprietary and proprietary presentation materials used during 930714 meeting on AP600 CR habitability. acn: 9307200229 Fiche: 75729:266-75729:317
July 12, 1993	Westinghouse letter (from N. Liparulo) advising that NRC 930708 request for additional information regarding AP600 contains no information considered proprietary by vendor. acn: 9307220174 Fiche: 75774:357-75774:357
July 8, 1993	NRC letter (from T. Kenyon) requesting response to enclosed request for additional information regarding human factors. acn: 9308120036 Fiche: 76087:186-76087:190
July 7, 1993	Westinghouse letter (from N. Liparulo) providing results of review of RAIs on AP600 dated 930701 for proprietary information; Review indicates that RAIs contain no proprietary information. acn: 9307290021 Fiche: 75929:357-75929:357
July 7, 1993	Westinghouse letter (from N. Liparulo) requesting that proprietary WCAP-13759, "High Inertia Rotor Test Phase 3 Report " be withheld per 10 CFR 2.790. acn: 9307210231 Fiche: 75805:203-75805:259
July 7, 1993	Westinghouse letter (from N. Liparulo) forwarding nonproprietary and proprietary WCAP-13759 and WCAP-13758, "High Inertia Rotor Test Phase 3 Report." acn: 9307210219 Fiche: 75805:192-75805:259
July 7, 1993	Westinghouse letter (from N. Liparulo) forwarding Revision 2 to "AP600 Design and Design Certification Test Program Overview." acn: 9307140215 Fiche: 75679:226-75679:257
July 6, 1993	NRC letter (from F. Hasselberg) informing that NRC voted to exempt ABB-CE System 80+ design certification from NRC policy on metrification

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	and requests applicant to st responsibility for performing acn: 9307090283	ate whether or not to be relieved of unit conversions. Fiche: 75611:150-75611:151
July 2, 1993		I. Liparulo) providing response to request for ding AP600 containment buckling issue dated
	acn: 9307060369	Fiche: 75603:355-75603:355
July 1, 1993	information regarding areas accident mitigation.) requesting response to request for additional of containment system testing and severe
	acn: 9308120027	Fiche: 76087:175-76087:185
July 1, 1993	meeting with GE, ABB-CE, design review schedules se	5. Koenick) forwarding summary of 930603 Westinghouse and DOE regarding status of t forth in SECY-93-097, "Integrated Review and Advanced Light Water Reactor Projects." Fiche: 75674:114-75674:192
July 1, 1993	Westinghouse test facilities	erg) issuing notification of 930703 visit to to inspect AP600 test program activities in al design approval and design certification Fiche: 75623:010-75623:012
July 1, 1993	· · · · · · · · · · · · · · · · · · ·	orwarding summary of 930504 meeting with erized information management for AP600
	acn: 9307080361	Fiche: 75602:324-75602:326
July 1, 1993		l. Liparulo) forwarding responses to NRC ation on AP600 per 930413 and 28 letters. Fiche: 75588:001-75588:195
June 28, 1993		l. Liparulo) forwarding presentation materials g to discuss AP600 testing program. Fiche: 75901:237-75901:320
June 28, 1993		forwarding summary of 930618 meeting with ting program supporting application for final ation for AP600 design. Fiche: 75602:115-75602:205
June 28, 1993		forwarding comments and recommendations test program for AP600 based on evaluation Fiche: 75535:118-75535:122

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June 28, 1993 NRC letter (from T. Kenyon) forwarding summary of 930617 meeting with Westinghouse regarding computerized information management for AP600 design effort. acn: 9307010043 Fiche: 75540:209-75540:226 June 28, 1993 Westinghouse letter (from S. Koenick) providing issuing notification of 930802 meeting with DOE, ABB-CE, Westinghouse, and utilities to discuss status of different vendor design review schedules. Fiche: 75540:291-75540:295 acn: 9307010038 June 23, 1993 Westinghouse letter (from H. Bruschi) providing comments on SECY-93-097, "Integrated Review Schedules for Evolutionary and Advanced Light Water Reactor Projects." acn: 9308110235 Fiche: 76063:345-76063:347 June 17, 1993 Westinghouse letter (from N. Liparulo) forwarding responses to NRC 930218, 0312, 0413, and 0428 RAIs on AP600. acn: 9306240353 Fiche: 75506:212-75506:263 June 15, 1993 NRC letter (from F. Hasselberg) issuing notification of 930618 meeting with Westinghouse to discuss AP600 testing program status. Fiche: 75434:325-75434:329 acn: 9306210333 June 14, 1993 Westinghouse letter (from N. Liparulo) requesting withholding proprietary information from public disclosure under 10 CFR 2.790 regarding topical reports on HWR facility passive containment cooling system tests. acn: 9306180345 Fiche: 75433:155-75433:185 June 14, 1993 Westinghouse letter (from N. Liparulo) forwarding nonproprietary WCAP-13726, WCAP-13728, WCAP-13733, and WCAP-13743; and proprietary WCAP-13725, WCAP-13727, WCAP-13732, and WCAP-13742 regarding heavy water reactor facility passive containment cooling system tests. acn: 9306180297 Fiche: 75433:001-75433:185 June 10, 1993 Westinghouse letter (from N. Liparulo) requesting that proprietary drawings of Oregon State University long term cooling test facility be withheld per 10 CFR 2.790. acn: 9306160303 Fiche: 75417:321-75417:329 June 10, 1993 Westinghouse letter (from N. Liparulo) forwarding response to INEL. 930414 and 0512 requests for information regarding Oregon State University long term cooling test facility and list of test facility drawings. Fiche: 75417:313-75417:329 acn: 9306160292 June 8, 1993 NRC letter (from F. Hasselberg) issuing notification of 930617 meeting with Westinghouse to discuss and observe demonstrations of

	Westinghouse computerized information management system for AP600 project.	
	acn: 9306150080	Fiche: 75374:057-75374:060
June 7, 1993		om N. Liparulo) forwarding response to NRC itional information on AP600 QA program. Fiche: 75324:257-75324:259
June 1, 1993	presentation materials	om N. Liparulo) requesting that proprietary from 930526-27 meeting on AP600 automatic n tests be withheld per 10 CFR 2.790. Fiche: 75301:003-75301:269
June 1, 1993		om N. Liparulo) forwarding proprietary presentation 30526-27 meeting to discuss AP600 automatic n tests. Fiche: 75301:001-75301:269
May 28, 1993	meetings with Westingh additional information o considerations, and Al protection.	sig) forwarding summary of 930504 and 05 house regarding responses to staff request for n SSAR Chapter 12, new 10 CFR 20 P600 plant layout for purposes of radiation
	acn: 9306070252	Fiche: 75262:145-75262:194
May 28, 1993		om N. Liparulo) forwarding responses to NRC nformation on AP600 from letters of 930126, 0312,
	acn: 9306020220	Fiche: 75137:097-75137:229
May 26, 1993	meeting with DOE, GE,	om S. Koenick) issuing notification of 930603 ABB-CE, and Westinghouse to discuss status of review schedules (SECY-93-097). Fiche: 75143:190-75143:196
May 24, 1993		om N. Liparulo) requesting that preliminary facility 600 automatic depressurization system Phase B 0 CFR 2.790. Fiche: 77957:004-77957:012
May 24, 1993	design drawings for AP	om N. Liparulo) forwarding preliminary facility 600 automatic depressurization system Phase B t VAPORE facility in Casaccia, Italy. Fiche: 77957:001-77957:012

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May 24, 1993	report WCAP-13734, "Struct Inertia Flywheel, " be withhe	. Liparulo) requesting that proprietary topical ural Analysis Summary for AP600 RCP High Id per 10 CFR 2.790. Fiche: 75116:173-75116:245
May 24, 1993	nonproprietary topical report respectively, entitled "Structu Coolant Pump High Inertia F	. Liparulo) forwarding proprietary and s WCAP-13734 and WCAP-13735, ural Analysis Summary for AP600 Reactor lywheel." Fiche: 75116:162-75116:245
May 20, 1993	WCAP-13594, Revision 0, ", FMEA," be withheld per 10 C	. Liparulo) requesting that proprietary Advanced Passive Plant Protection System CFR 2.790. Fiche: 75038:003-75038:011
May 20, 1993	WCAP-13662 and proprietar Protection System FMEA," R effects analysis.	. Liparulo) forwarding nonproprietary y WCAP-13594 "Advanced Passive Plant Revision 0, documenting failure modes and Fiche: 75038:001-75038:077
May 14, 1993	Westinghouse letter (from Naresponses to NRC requests 930126, 0218, 0312, and 04	. Liparulo) forwarding Westinghouse for additional information on AP600 from
May 13, 1993	presented at 930513 meeting	Liparulo) forwarding proprietary information g on AP600 piping analysis. Fiche: 74957:070-74957:071
May 11, 1993	program reports WCAP-1323 be withheld per 10 CFR 2.79	Liparulo) requesting that AP600 testing 34, Revision 1, and WCAP-13277, Revision 1, 0. Fiche: 74995:073-74995:166
May 11, 1993	WCAP-13283, Revision 1, ar reports WCAP-13234, Revisi regarding AP600 testing pro	Liparulo) forwarding nonproprietary reports nd WCAP-13278, Revision 1, and proprietary ion 1, and WCAP-13277, Revision 1, gram. Fiche: 74995:001-74995:166
May 11, 1993	•	

May 11, 1993	Westinghouse letter (from N. Liparulo) forwarding proprietary material in support of 930526-27 meeting related to AP600 ADS and associated tes program.	
	acn: 9305170017	Fiche: 74929:291-74929:301
May 7, 1993	with applicant to review res	berg) issuing notification of 930526-27 meeting ults of Phase A of applicant automatic sts and to discuss test facility design and coming Phase B tests. Fiche: 74910:352-74910:356
May 7, 1993	with applicant to review pipi	perg) issuing notification of 930513 meeting ng analysis methodology and status and alysis planning for AP600 design. Fiche: 74907:356-74907:360
May 5, 1993	information presented at 93	N. Liparulo) requesting that proprietary 0504 meeting on AP600 automatic hase A tests be withheld per 10 CFR 2.790. Fiche: 74979:085-74979:101
May 5, 1993		J. Liparulo) forwarding proprietary information ng on AP600 automatic depressurization Fiche: 74979:081-74979:101
May 5, 1993	comments on core makeup) forwarding corrections to NRC staff tank test matrix supporting AP600 design smitted to applicant on 930429. Fiche: 74904:353-74904:357
May 5, 1993	information in support of We	N. Liparulo) requesting that AP600 I&C estinghouse response to NRC request for ers 420.11 and 420.90 be withheld per 10 Fiche: 74886:313-74886:319
May 5, 1993		I. Liparulo) forwarding proprietary response to information numbers 420.11 and 420.90 Fiche: 74886:309-74886:319
May 3, 1993	presentation materials from	I. Liparulo) requesting that proprietary 930420 meeting on AP600 ADS tests at 2 meeting on AP600 integral system tests at per 10 CFR 2.790. Fiche: 74898:291-74898:299

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Appendix A		
May 3, 1993	Westinghouse letter (from N. Liparulo) forwarding proprietary presentatio materials from 930420 meeting with NRC on AP600 ADS tests at VAPORE facility and 930422 meeting on AP600 integral system tests at SPES-2 facility.	
	acn: 9305120094	Fiche: 74898:289-74898:299
May 3, 1993	930428 RAI on AP600 and	I. Liparulo) providing results of review of NRC draft document entitled "Defense-in-Depth f AP600 Protection System," dated 930405. Fiche: 74882:260-74882:260
April 30, 1993	meeting with Westinghouse containment cooling system WGOTHIC computer code.	erg) forwarding summary of 930323-24 regarding discussions on AP600 passive in general and large scale test facility and
	acn: 9305070204	Fiche: 74867:001-74867:108
April 29, 1993		I. Liparulo) forwarding responses to NRC mation on AP600 letters of 930126 and 0312. Fiche: 74840:053-74840:124
April 29, 1993	•	erg) issuing notification of 930504 meeting data regarding ADS testing. Fiche: 74823:306-74823:308
April 29, 1993) forwarding comments on core makeup tank 0 design certification application. Fiche: 74817:191-74817:194
April 27, 1993		forwarding summary of 930420 meeting with discuss system designs and unusual features
	acn: 9305030047	Fiche: 74818:124-74818:204
April 22, 1993	NRC letter (from J. Taylor) LWR reviews for January - Macn: 9304280017	forwarding quarterly status report of advanced March 1993. Fiche: 81094:227-81094:242
April 20, 1993	with Westinghouse to discus	erg) issuing notification of 930428 meeting as implementation issues regarding NRC stor accidents and key assumptions in SSAR. Fiche: 74799:356-74799:359
April 20, 1993	with Westinghouse to discus	erg) issuing notification of 930428 meeting as implementation issues regarding NRC's ator accident and to discuss key assumptions i.

NUREG-1512

Fiche: 74707:340-74707:343

acn: 9304220338

April 19, 1993	Westinghouse letter (from N. Liparulo) requesting that proprietary presentation material from 930420 meeting with NRC on AP600 design be withheld per 10 CFR 2.790.	
	acn: 9304260060	Fiche: 74738:348-74738:356
April 19, 1993	proprietary presentation ma AP600 design.	N. Liparulo) forwarding nonproprietary and aterial from 930420 meeting with NRC on
	acn: 9304260045	Fiche: 74738:346-74738:356
April 16, 1993	Thermal Hydraulic Phenom regarding RELAP5-MOD3 of passive plant design.) N. Liparulo) forwarding summary of ACRS ena Subcommittee 930304-05 meeting code issues related to Westinghouse AP600
	acn: 9306250342	Fiche: 75493:001-75493:055
April 16, 1993		N. Liparulo) advising that request for additional ains no information that Westinghouse
	acn: 9304230068	Fiche: 74741:244-74741:244
April 16, 1993	-	N. Liparulo) responding to 930406 letter arding upcoming NRC visits to test facilities in ly. Fiche: 74741:245-74741:245
	ach. 9304230001	FICHE. 74741.245-74741.245
April 16, 1993	and 22-23 meeting with Ital	R. Borchardt) issuing notification of 930420 ian officials in Casaccia, Italy to discuss AP600 and General Electric SBWR designs. Fiche: 74696:338-74696:351
April 13, 1993	AP600 in areas of structura system (Q280.4) and radiat) requesting additional information regarding I engineering (Q220.21-Q220.23) containment ion protection (Q471.4-Q471.20). Fiche: 74750:215-74750:221
April 13, 1993	· · ·) issuing notification of 930420 meeting with esign of AP600 system design and unusual
	acn: 9304200353	Fiche: 74649:129-74649:131
April 13, 1993	schedules for AP600 testing	N. Liparulo) forwarding updated testing g program. Schedules have been updated to esting program as of 930408. Fiche: 74690:001-74690:023
April 8, 1993) discussing review of proposed test schedule points provided in 930323 letter. Requests

Appendix A Westinghouse provide detailed test matrix for each program, including approximate test dates so alternate or additional tests can be observed. acn: 9304140346 Fiche: 74582:351-74582:353 April 8, 1993 Westinghouse letter (from N. Liparulo) requesting that revised AP600 instrumentation and control process block diagrams be withheld (reference 10 CFR 2.790). acn: 9304130413 Fiche: 74583:311-74583:322 April 8, 1993 Westinghouse letter (from N. Liparulo) forwarding revised "AP600 Instrumentation and Control Process Block Diagram Package." acn: 9304130404 Fiche: 74583:309-74583:322 April 7, 1993 ACRS letter (from D. Ward) N. Liparulo) forwarding summary of 389th ACRS meeting on 920910-12 regarding comments on staff review of Westinghouse AP600 design. acn: 9311010278 Fiche: 77037:059-77037:093 NRC letter (from F. Hasselberg) forwarding summary of 930402 meeting April 2, 1993 with Westinghouse regarding status of ITAAC development for AP600 desian. acn: 9304090170 Fiche: 74523:356-74523:358 April 2, 1993 NRC letter (from F. Hasselberg) forwarding request from INEL for additional design information regarding AP600 automatic depressurization system in-containment refueling water storage tank and core makeup tanks. acn: 9304090160 Fiche: 74523:353-74523:355 April 2, 1993 NRC letter (from F. Hasselberg) requesting that Code Cases N-200 and N-400 be evaluated and reported to NRC. Cases should combine stresses due to temperature gradients and pressure, and compare results with allowable buckling stress values in ASME Code Case N-284. Fiche: 74523:351-74523:352 acn: 9304090149 April 2, 1993 Westinghouse letter (from N. Liparulo) requesting that proprietary WCAP-10054 and WCAP-7907 in support of AP600 review be withheld (reference 10 CFR 2.790). acn: 9304090106 Fiche: 74532:263-74532:271 Westinghouse letter (from N. Liparulo) forwarding WCAP-10054 and April 2, 1993 WCAP-7907 in support of AP600 review. acn: 9304090104 Fiche: 74532:261-74532:271 April 2, 1993 Westinghouse letter (from N. Liparulo) advising that NRC 930312 request for additional information on AP600 does not contain information considered proprietary. acn: 9304060351 Fiche: 74491:224-74491:224

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April 1, 1993	drawings regarding AP600 re 10 CFR 2.790).	Liparulo) requesting that proprietary eactor vessel internals be withheld (reference
	acn: 9304120021 F	Fiche: 74641:161-74641:170
April 1, 1993	regarding AP600 reactor vess Westinghouse topical report.	Liparulo) forwarding listed drawings sel internals and additional copies of
	acn: 9304120017 F	Fiche: 74641:159-74641:170
April 1, 1993	withholding proprietary inform corrected AP600 passive RHI	Liparulo) forwarding application for ation from public disclosure regarding R study sketch drawings. Fiche: 74560:284-74560:293
April 1, 1993	passive RHR study sketch dra 920714 request for additional	Liparulo) forwarding corrected AP600 awings provided in 920914 response to information. Fiche: 74560:282-74560:293
April 1, 1993	transmitted to NRC via 92062	Liparulo) forwarding AP600 SSAR initially 6 letter. Fiche: 74489:339-74489:342
March 30, 1993	request for additional information	Liparulo) forwarding response to NRC tion on AP600 per 930126 letter. Fiche: 74465:064-74465:175
March 26, 1993	key phenomena identified for tests.	Borchardt) forwarding staff comments on AP600 core makeup tank separate effects iche: 74417:202-74417:205
	acn. 9303310241 F	icne. 74417.202-74417.205
March 24, 1993	information presented at 9303 program be withheld (reference	Liparulo) requesting that proprietary 323-24 meeting on AP600 containment test ce 10 CFR 2.790). Fiche: 74431:182-74431:188
March 24, 1993	presented at 930323-24 meet	Liparulo) forwarding proprietary information ing on AP600 "Containment test program." iche: 74431:073-74431:188
March 23, 1993	programs for comments on m 930415.	Liparulo) forwarding draft AP600 test atrix by 930401 and to be finalized by iche: 74420:335-74420:345
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Appendix A	
March 18, 1993	NRC letter (from J. Wilson) requesting additional design information required to make automatic depressurization system incontainment refueling water storage tank and core makeup tank prototypical. acn: 9304090163 Fiche: 74523:355-74523:355
March 18, 1993	Westinghouse letter (from N. Liparulo) forwarding response to NRC request for additional information on AP600 from NRC letters of 921116 and 930126. acn: 9303230129 Fiche: 74355:114-74355:223
March 18, 1993	Westinghouse letter (from N. Liparulo) forwarding 27 proprietary oversize drawings identifying radiation zones for AP600 during normal shutdown and post-accident conditions. Drawings provided in support of Westinghouse response to NRC RAI 471.2. acn: 9303220240 Fiche: 74349:229-74349:232
March 16, 1993	NRC letter (from T. Kenyon) forwarding summary of 930309 and 10meeting with Westinghouse regarding status of AP600 testing programs.acn: 9303230148Fiche: 74334:074-74334:077
March 16, 1993	Westinghouse letter (from N. Liparulo) requesting that proprietarybackground material provided in support of 930323-24 meeting on AP600containment tests be withheld (reference 10 CFR 2.790).acn: 9303190371Fiche: 74327:356-74327:356
March 16, 1993	Westinghouse letter (from N. Liparulo) forwarding material to be used in support of 930323-24 meeting with NRC to discuss passive containment cooling system testing being performed in support of AP600. acn: 9303190341 Fiche: 74327:354-74327:356
March 16, 1993	Westinghouse letter (from N. Liparulo) forwarding proprietary AP600 HVAC system drawings in support of Westinghouse response to NRC requests for additional information regarding RAI 410.94 and 450.6. acn: 9303190200 Fiche: 74349:157-74349:161
March 15, 1993	NRC letter (from F. Hasselberg) requesting that Westinghouse provide additional information on AP600 reactor internals such as neutron reflector and core support former and baffle assemblies by 930405. acn: 9303190325 Fiche: 74301:258-74301:261
March 15, 1993	NRC letter (from F. Hasselberg) forwarding proprietary ERI-NRC 93-202, "Evaluation of Westinghouse Approach and Scaling Analysis to Demonstrate Adequacy of AP-600 Passive Containment Cooling System." acn: 9303190230 Fiche: 74326:001-74326:006
March 15, 1993	NRC letter (from T. Kenyon) forwarding summary of 930224 meeting with Westinghouse to discuss status of AP600 review.

NUREG-1512

acn: 9303190119

Fiche: 74319:007-74319:115

March 12, 1993	regarding Westinghouse Al areas of ITAAC (Q100.9), in	n) forwarding request for additional information P600 design. Additional information needed in Instrumentation and controls man factors engineering (Q620.51) as result of ation. Fiche: 74534:238-74534:271
March 9, 1993		N. Liparulo) forwarding presentation material on AP600 testing program. Fiche: 74361:001-74361:105
March 9, 1993		N. Liparulo) confirming plans for NRC visit to acilities at Casaccia and Piacenza, Italy Fiche: 74356:317-74356:321
March 4, 1993		berg) forwarding summary of 930225 meeting w plans for upcoming core makeup tank Fiche: 74149:020-74149:101
March 3, 1993	Westinghouse letter (from N component and piping draw	N. Liparulo) requesting that proprietary vings for AP600 long term cooling tests in withheld per 10 CFR 2.790. Fiche: 74289:004-74289:012
March 3, 1993	Westinghouse letter (from N	N. Liparulo) forwarding proprietary component 600 long term cooling tests to be performed at
March 1, 1993	- · ·	I. Liparulo) forwarding Revision 1 to ppliance with SRP Acceptance Criteria." Fiche: 74199:001-74199:312
March 1, 1993	NRC letter (from J. Wilson) Review Schedule. acn: 9303050124	forwarding SECY-93-041, "Advanced BWR Fiche: 74098:305-74098:315
February 25, 1993		I. Liparulo) requesting that proprietary 930225 meeting on AP600 CMT tests be Fiche: 74112:181-74112:266
February 25, 1993	- ,	I. Liparulo) forwarding nonproprietary and terial from 930225 meeting on AP600 CMT Fiche: 74112:179-74112:266

February 24, 1993	Westinghouse letter (from N. Liparulo) requesting that proprietary slides used during 930224 presentation to NRC on AP600 testing program be withheld (reference 10 CFR 2.790). acn: 9303030276 Fiche: 74105:117-74105:231
February 24, 1993	Westinghouse letter (from N. Liparulo) forwarding nonproprietary and proprietary slides used during Westinghouse AP600 presentation on 930224 to NRC.
	acn: 9303030269 Fiche: 74105:115-74105:231
February 24, 1993	Westinghouse letter (from N. Liparulo) advising that requests for additional information on AP600 do not contain information considered proprietary by Westinghouse.
	acn: 9303010224 Fiche: 74069:281-74069:281
February 23, 1993	Westinghouse letter (from N. Liparulo) requesting that proprietary "SPES-2 Instrumentation and Data Reduction Plan," Revision 0, and SPES-2 component and piping drawings be withheld per 10 CFR 2.790. acn: 9303020251 Fiche: 74263:003-74263:034
February 23, 1993	Westinghouse letter (from N. Liparulo) forwarding nonproprietary information on SPES-1 power channels pumps and SGS, and proprietary SPES-2 instrumentation and data reduction plan, including proprietary Revision 0 to SPES-2 component and piping drawings. acn: 9303020214 Fiche: 74263:001-74263:034
February 23, 1993	Westinghouse letter (from R. Borchardt) advising that during review of AP600 PRA discovered that Level 2 containment event trees omitted potentially significant phenomenological and containment loading issues; Suggests meeting to discuss potential approaches regarding matter. acn: 9302260276 Fiche: 74024:354-74024:356
February 23, 1993	NRC letter (from T. Kenyon) forwarding summary of 930205 meeting with Westinghouse regarding discussions on design characteristics of valves used in AP600 design. acn: 9302260266 Fiche: 74025:274-74025:343
February 23, 1993	NRC letter (from F. Hasselberg) forwarding summary of 920210 meeting with Westinghouse regarding structural modules which applicant intends to incorporate into AP600 design. acn: 9302260199 Fiche: 74056:341-74056:356
February 23, 1993	NRC letter (from F. Hasselberg) forwarding summary of 930210 meeting with Westinghouse regarding possible temperature-induced stresses associated with AP600 containment. acn: 9302260193 Fiche: 74059:196-74059:223

February 18, 1993 NRC letter (from T. Kenyon) requesting response to request for additional information in order to complete review of June 1992 application for design certification of AP600. acn: 9303050029 Fiche: 74099:324-74099:327 February 18, 1993 NRC letter (from F. Hasselberg) issuing notification of 930309-10 meetings with applicant to review status of AP600 design certification test program status and schedules. acn: 9302240285 Fiche: 64952:274-64952:279 February 18, 1993 NRC letter (from T. Kenyon) forwarding summary of 921006 and 07 meeting with Westinghouse to discuss instrumentation and control system of AP600 design. acn: 9302230455 Fiche: 64918:228-64918:316 February 18, 1993 Westinghouse letter (from N. Liparulo) requesting that enclosed information in support of meeting with NRC regarding CMT tests for AP600 be withheld (reference 10 CFR 2.790). Fiche: 64990:345-64990:353 acn: 9302230276 Westinghouse letter (from N. Liparulo) forwarding proprietary information February 18, 1993 to be used in support of 930225 meeting with NRC on AP600 core makeup tank test specification. acn: 9302230264 Fiche: 64990:343-64990:353 February 17, 1993 NRC letter (from A. Thadani) forwarding revised implementation plan for review of vendor testing programs for AP600 and SBWR. Fiche: 78344:035-78344:065 acn: 9302220327 February 17, 1993 NRC letter (from R. Borchardt) issuing notification of 930224 meeting with applicant to review overall status of AP600 project including test program status and schedules and AP600 probabilistic risk assessment. Fiche: 64906:277-64906:281 acn[.] 9302230259 Westinghouse letter (from N. Liparulo) requesting that enclosed February 16, 1993 information presented at 930126-27 meeting with NRC on AP600 containment be withheld (reference 10 CFR 2.790). Fiche: 64988:352-64988:360 acn: 9302230321 February 16, 1993 Westinghouse letter (from N. Liparulo) forwarding proprietary information presented at 930126-27 meeting with NRC to review details on AP600 containment. acn: 9302230315 Fiche: 64988:350-64988:360 NRC letter (from T. Kenyon) informing that 930205 request to withhold February 12, 1993 slides used during Westinghouse presentation from public disclosure has been granted. acn: 9302230005 Fiche: 64915:351-64915:353

February 12, 1993	NRC letter (from F. Hasselberg) issuing notification of 930224 meeting to review details of core makeup tank design test plans analysis plans and schedule. acn: 9302180103 Fiche: 64836:336-64836:340
February 11, 1993	NRC letter (from F. Hasselberg) issuing notification of 930216 meeting with Westinghouse to discuss AP600 ITAAC. acn: 9302180060 Fiche: 64856:256-64856:258
February 10, 1993	NRC letter (from D. Crutchfield) responding to Westinghouse proposal to establish cooperative AP600 integral test program involving both NRC- and Westinghouse-sponsored test facilities. acn: 9302180057 Fiche: 64856:253-64856:255
February 9, 1993	NRC letter (from T. Kenyon) requesting response to revised 930126 request for additional information on valve reliability within 120 days of letter receipt. acn: 9303040162 Fiche: 74083:174-74083:179
February 9, 1993	Westinghouse letter (from N. Liparulo) forwarding responses to requests for additional information on AP600 from NRC letters dated 921009, 1014, and 1116. acn: 9302160284 Fiche: 64834:001-64834:076
February 8, 1993	Westinghouse letter (from N. Liparulo) requesting that proprietary slides from 930210 NRC meeting on AP600 modularization be withheld per 10 CFR 2.790. acn: 9302230341 Fiche: 64963:326-64964:003
February 8, 1993	Westinghouse letter (from N. Liparulo) forwarding nonproprietary and proprietary slides from 930210 NRC meeting on AP600 modularization. acn: 9302230331 Fiche: 64963:324-64964:003
February 8, 1993	Westinghouse letter (from N. Liparulo) requesting that proprietary slides from 930210 meeting with NRC regarding AP600 containment vessel be withheld (reference 10 CFR 2.790 and 9.17(a)(4)). acn: 9302230249 Fiche: 64987:242-64987:274
February 8, 1993	Westinghouse letter (from N. Liparulo) forwarding proprietary and nonproprietary slides from 930210 meeting with NRC on AP600 containment vessel temperatures. acn: 9302230243 Fiche: 64987:240-64987:274
February 5, 1993	Westinghouse letter (from N. Liparulo) requesting that proprietary presentation material from 930205 meeting with NRC on AP600 valves be withheld per 10 CFR 2.790. acn: 9302160048 Fiche: 64853:176-64853:246

February 5, 1993 Westinghouse letter (from N. Liparulo) forwarding nonproprietary and proprietary presentation material from 930205 meeting with NRC on AP600 valves. acn: 9302160043 Fiche: 64853:174-64853:246 February 4, 1993 Westinghouse letter (from N. Liparulo) requesting that paper entitled, "Experimental Evaluation of Flooding Between Hot Leg and SG Inlet Plenum of PWR During Small LOCAs," be withheld per 10 CFR 2.790. acn: 9302120173 Fiche: 64849:255-64849:263 Westinghouse letter (from N. Liparulo) forwarding unpublished paper February 4, 1993 entitled, "Experimental Evaluation of Flooding Between Hot Leg and SG Inlet Plenium of PWR..." and videotape of 1/3 scale air water flooding experiments. acn: 9302120169 Fiche: 64849:253-64849:263 February 2, 1993 Westinghouse letter (from N. Liparulo) discussing test schedule for AP600 automatic depressurization system test - Phase B. acn: 9302160178 Fiche: 64855:001-64855:009 February 2, 1993 NRC letter (from F. Hasselberg) issuing notification of 930210 meeting with applicant to obtain information on containment structure resistance to buckling under various thermal conditions. Fiche: 64788:308-64788:312 acn: 9302110277 January 29, 1993 Westinghouse letter (from N. Liparulo) requesting that 25 oversize proprietary AP600 general arrangement drawings for RAI Q471.1 be withheld per 10 CFR 2.790. acn: 9302040181 Fiche: 64853:342-64853:352 January 29, 1993 Westinghouse letter (from N. Liparulo) forwarding 25 oversize proprietary AP600 general arrangement drawings of figures from AP600 SSAR submitted on 920626 in NRC 921001 letter regarding RAI Q471.1. Fiche: 64853:340-64853:352 acn: 9302040169 January 26, 1993 NRC letter (from T. Kenyon) requesting response to enclosed questions. acn: 9303050146 Fiche: 74098:344-74098:359 NRC letter (from J. Taylor) forwarding quarterly status report of advanced January 25, 1993 LWR reviews covering period of September - December 1992. Fiche: 81094:211-81094:226 acn: 9302010164 NRC letter (from F. Hasselberg) issuing notification of 930205 meeting January 25, 1993 with Westinghouse to obtain detailed design information on selected AP600 valves in critical operational applications. acn: 9301290247 Fiche: 64705:261-64705:264

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January 25, 1993	WCAP-13566, "AP600 1/8th	I. Liparulo) requesting that proprietary a Large Scale Passive CCS Heat Transfer be withheld (reference 10 CFR 2.790). Fiche: 64734:019-64734:027
January 25, 1993	WCAP-13560, "Advance Nu WCAP-13567 and proprieta	I. Liparulo) forwarding nonproprietary uclear Plant Valve Study," and nonproprietary ry WCAP-13566 "AP600 1-8th Large Scale Test Baseline Data Report." Fiche: 64734:017-64735:350
January 22, 1993	with Westinghouse to obtain	erg) issuing notification of 930126-27 meeting n detailed design information on AP600 e containment test facility for development of codes. Fiche: 64703:170-64703:172
January 19, 1993	to 920901 request for addition	I. Liparulo) forwarding information in response onal information regarding testing to be at SPES-2 facility in support of AP600 Fiche: 64694:265-64694:271
January 19, 1993	to 920721 request for addition	I. Liparulo) forwarding information in response onal information regarding testing program phouse in support of AP600 design. Fiche: 64725:256-64725:260
January 19, 1993	920622 request for additiona	I. Liparulo) forwarding responses to NRC al information related to AP600 containment ails on 1/8 scale containment test facility. Fiche: 64734:008-64734:016
January 19, 1993		I. Liparulo) forwarding updated schedules for eflect progress in AP600 testing program as of Fiche: 64696:001-64696:025
January 14, 1993	Westinghouse letter (from N on AP600 from letters 92092 acn: 9301250260	l. Liparulo) forwarding responses to NRC RAIs 23, 1001, and 1009. Fiche: 64686:001-64686:188
January 13, 1993	passive plant safety matters	responding to 930112 letter on issues of for discussion at 930122 meeting. Fiche: 81093:227-81093:265

January 8, 1993		N. Liparulo) forwarding Westinghouse s for additional information on AP600 from 028 letters. Fiche: 64557:184-64557:257
January 8, 1993	NRC letter (from F. Hasselberg) issuing notification of 930113 meeting with Westinghouse to discuss review of instrumentation design and requirements for AP600 low-pressure integral system test facility at	
	Oregon State University. acn: 9301120288	Fiche: 64550:280-64550:282
December 31, 1992		 transmitting notice of receipt of application standard plant design; Docket No. 52-
	acn: 9301080147	Fiche: 64493:342-64493:343
December 31, 1992	•	ield) forwarding notice accepting or final design approval and design certification lished in Federal Notice. Fiche: 64493:339-64493:343
December 22, 1992	•	N. Liparulo) forwarding Westinghouse 1001, 1009, and 1028 requests for additional Fiche: 64443:166-64443:273
December 17, 1992		 I. Liparulo) requesting that proprietary slides presentations on 921209-10 to NRC on AP600 I (reference 10 CFR 2.790). Fiche: 64359:090-64359:096
December 17, 1992	Westinghouse letter (from N. Liparulo) forwarding proprietary slides used during Westinghouse presentations on 921209-10 to NRC on AP600	
	testing program. acn: 9212290016	Fiche: 64359:086-64359:096
December 15, 1992	Preliminary Refueling Outag	N. Liparulo) requesting that proprietary "AP600 ge Plan Description of PERT Chart Activities," 2980 "Passive RHR HX Test, Final Report" be 2.2790).
	acn: 9212150330	Fiche: 64248:016-64248:106
December 15, 1992	Westinghouse letter (from N. Liparulo) forwarding nonproprietary WCAP-13573 and proprietary Revision 1 to WCAP-12980 "AP600 Passive RHR HX Test Final Report."	
	acn: 9212150325	Fiche: 64248:001-64248:285

December 15, 1992	Assessment with ALWR Util Revision 3;" AP600 Severe	Liparulo) forwarding "AP600 Conformance ity Requirements Document, Volume III, Accident Mitigation Design Alternative tary topical report WCAP-13559, "Operational the AP600 Design." Fiche: 64231:359-64232:166
December 14, 1992		. Liparulo) requesting that proprietary slides ation to NRC on AP600 testing program be 2.790). Fiche: 64322:150-64322:156
December 14, 1992		. Liparulo) forwarding proprietary slides used to NRC on AP600 testing program. Fiche: 64322:146-64322:156
December 8, 1992	1116 requests for additional information considered prop	. Liparulo) advising that NRC 921028 and information regarding AP600 contain no rietary by Westinghouse. Fiche: 64215:288-64215:288
December 4, 1992	Cylindrical Shells with Reinf Compression," in reference for additional information on	Liparulo) forwarding report on "Buckling of orced Circular Openings under Axial to Westinghouse response to NRC request AP600. Fiche: 64232:255-64232:272
November 30, 1992	responses to NRC requests 920923 and 1001 letters.	. Liparulo) forwarding Westinghouse for additional information on AP600 from Fiche: 64102:001-64102:166
November 24, 1992	Westinghouse letter (from N. Liparulo) requesting that enclosed proprietary material to be used in support of Westinghouse-NRC 921209 meeting on OSU test program for AP600 be withheld (reference 10 CFR 2.790). acn: 9211300134 Fiche: 64044:138-64044:144	
November 24, 1992	Westinghouse letter (from N. Liparulo) forwarding proprietary Revision 1 to "Long Term Cooling Test," including test schedule as of 921030 and proprietary draft Revision 2 to "Scaling Analysis for OSU," in support of 921209 meeting. acn: 9211300127 Fiche: 64044:134-64044:144	
November 24, 1992	Westinghouse letter (from N to be used in support of Wes test program for AP600 be w	Liparulo) requesting that enclosed material stinghouse-NRC 921210 meeting on SPES withheld (reference 10 CFR 2.790). Fiche: 64044:227-64044:233

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November 24, 1992	SPES-2 scaling update incl	N. Liparulo) forwarding proprietary draft luding test schedule and proprietary draft specification to be used in support of 0 meeting. Fiche: 64044:223-64044:233
November 16, 1992	NRC letter (from T. Kenyon) requesting additional information regarding June 1992 application for design certification of AP600 to complete review.	
	acn: 9301190141	Fiche: 64589:117-64589:134
November 16, 1992	NRC letter (from F. Hasselberg) issuing notification of 921209 and 10 meeting with Westinghouse regarding scaling logic facility design test matrix and analysis plans for Westinghouse high pressure and low pressure integral system test facilities.	
	acn: 9211240033	Fiche: 64016:335-64016:338
November 16, 1992	with Westinghouse to discu	berg) issuing notification of 921215 meeting ass severe accident issues such as accident as source term and containment analysis. Fiche: 64081:198-64081:201
November 12, 1992	NRC letter (from F. Hassell regarding AP600 control ro acn: 9211160567	berg) issuing notification of 921119 meeting om design features. Fiche: 63898:348-63898:350
November 5, 1992	Westinghouse letter (from t AP600 testing program. acn: 9211120224	N. Liparulo) forwarding detailed schedule for Fiche: 63897:299-63897:301
	ach. 9211120224	Fiche. 03097.299-03097.301
October 30, 1992	Westinghouse letter (from N. Liparulo) requesting that proprietary information submitted in response to NRC request for additional information regarding INEL use of RELAP5 computer code be withheld (reference 10 CFR 2.790).	
	acn: 9211130216	Fiche: 63898:335-63898:341
October 30, 1992 Westinghouse letter (from N. Liparulo) for information regarding INEL use of RELAP NRC request.		N. Liparulo) forwarding proprietary AP600 use of RELAP5 computer code in response to
	acn: 9211130183	Fiche: 63898:331-63898:341
October 28, 1992) requesting additional information regarding esign certification to complete review. Fiche: 64589:135-64589:145
October 23, 1992	NRC letter (from J. Taylor) light water reactor reviews f acn: 9211040101	forwarding quarterly status report of advanced for 920601-0831. Fiche: 81094:193-81094:210

Appendix	Α
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October 23, 1992	Westinghouse letter (from N. Liparulo) forwarding "Simplified Passive ALWR Plant Program AP600 Tier 1 Material, " including plant description and ITAAC.	
	acn: 9211170177	Fiche: 63934:050-63934:053
October 21, 1992	NRC letter (from A. Thadan vendor testing programs for acn: 9211130325	i) forwarding implementation plan for review of AP600 and SBWR. Fiche: 78344:006-78344:034
October 21, 1992	which request for withholdin	e) requesting that Westinghouse determine ng of preapplication materials on AP600 still dered proprietary under 10 CFR 2.790. Fiche: 63672:246-63672:247
October 21, 1992	request for withholding port) advising that much of material in 920626 ions of AP600 SSAR and PRA does not CFR 2.790; Reevaluation of information Fiche: 63672:248-63672:250
October 16, 1992		I. Liparulo) informing that review of requests AP600 dated 920923, 1001, 1009, and 1014 no proprietary information. Fiche: 63691:309-63691:309
October 14, 1992	NRC letter (from T. Kenyon regarding Westinghouse AF acn: 9211110104) forwarding request for additional information 2600 design. Fiche: 63822:130-63822:138
October 13, 1992	which comments on draft po Policy Issues Pertaining to I Designs," dated 920925.	eld) acknowledging receipt of 920917 letter blicy paper, "Design Certification and Licensing Passive and Evolutionary Advanced LWR
	acn: 9210190220	Fiche: 63535:335-63535:359
October 9, 1992) forwarding request for additional information 2600 design. Additional information needed in tem (Q435.1-Q435.73). Fiche: 63822:139-63822:155
October 6, 1992	ACRS letter (from D. Ward) forwarding summary of 920805 meeting of ACRS planning and procedures subcommittee meeting regarding report on Westinghouse AP600 integral and separate effects testing for plant certification. acn: 9304140288 Fiche: 74592:001-74592:045	
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	elements of AP600 design including two cold legs and one hot leg per	
	loop. .acn: 9210090341	Fiche: 63466:314-63466:322
October 5, 1992	NRC letter (from F. Hasselberg) issuing notification of 921006-07 meetings regarding AP600 I&C system quality and diversity software and hardware development PRA man-machine interface requirements and related topics.	
	acn: 9210090027	Fiche: 63453:266-63453:269
October 2, 1992	WCAP-13487, Revision 0, (reference 10 CFR 2.790).	N. Liparulo) requesting that proprietary and WCAP-13323, Revision 0, be withheld
	acn: 9212010170	Fiche: 64083:186-64083:192
October 2, 1992	WCAP-13487, Revision 0 proprietary WCAP-13323, I Revision 0.	N. Liparulo) forwarding proprietary and nonproprietary WCAP-13488, and Revision 0 and nonproprietary WCAP-13324,
	acn: 9212010167	Fiche: 64083:184-64083:192
October 1, 1992		n) requesting additional information as result of ation for design certification of AP600. Fiche: 63453:195-63453:242
September 30, 1992	Westinghouse letter (from l advanced nuclear plant che acn: 9301280128	N. Liparulo) transmitting nonproprietary eck valve study. Fiche: 64735:249-64735:350
September 25, 1992		neeting on 920305-07 regarding integral house AP600 nuclear plant meeting with NRC zation of generic issues. Fiche: 63435:345-63435:352
September 21, 1992	•	N. Liparulo) forwarding list of AP600 system for providing ITAAC per 920904 commitment. Fiche: 9-63323:361
September 17, 1992		N. Liparulo) providing comments on draft policy nsing policy issues pertaining to passive and R designs dated 920625. Fiche: 1-63308:322
September 16, 1992	NRC letter (from F. Hassell Chapter 18 for evolutionary acn: 9209250153	berg) transmitting documents regarding SSAR and passive reactors. Fiche: 7-63300:296

- September 14, 1992Westinghouse letter (from N. Liparulo) forwarding proprietary information
in partial response to 920721 RAI regarding AP600 testing program.
acn: 9209300052Fiche: 0-63435:166
- September 14, 1992 Westinghouse letter (from N. Liparulo) requesting that proprietary responses to NRC RAI regarding SPES-2 test facility be withheld (reference 10 CFR 2.790). acn: 9209290258 Fiche: 8-63364:288
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- September 9, 1992 Westinghouse letter (from N. Liparulo) providing comments on SECY-92-294 regarding AP600 acceptance review. acn: 9408040346 Fiche: 81093:213-81093:217

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- September 4, 1992 Westinghouse letter (from N. Liparulo) forwarding information regarding ITAAC for AP600 design consisting of Class 1E dc and ups system, containment system, onsite standby power system, passive core cooling system, and protection and safety monitoring system. acn: 9209150234
- September 2, 1992 Westinghouse letter (from T. Murley) concluding that a complete set of ITAAC is required by 10 CFR 52.47 for application for FDA and staff approval of ITAAC will be required before issuance of FDA. acn: 9209100135
- September 1, 1992 NRC letter (from R. Pierson) forwarding summary of results of preliminary evaluation of proposed testing matrix for testing to be conducted at SPES-2 facility. acn: 9209090352

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- August 31, 1992NRC letter (from D. Crutchfield) providing background information that
may be useful for 920903 Commission meeting with EPRI.
acn: 9408040341Fiche: 81093:209-81093:212
- August 28, 1992 Westinghouse letter (from N. Liparulo) requesting that proprietary WCAP-11693 Revision 3 "Grafter Microcomputer-Based Code System to Construct and Quantify Fault Trees," be withheld (reference 10 CFR 2.790). acn: 9209100225
- August 28, 1992 Westinghouse letter (from N. Liparulo) forwarding nonproprietary and proprietary WCAP-13486 and WCAP-11693, Revision 3, "Grafter Microcomputer-Based Code System to Construct and Quantify Fault Trees." acn: 9209100211
- August 28, 1992 Westinghouse letter (from N. Liparulo) discussing results of acceptance review for applicant application for final design approval and design certification under 10 CFR 52 for AP600 standard plant design. acn: 9209030248 Fiche: 62961:275-62961:281
- August 28, 1992 NRC letter (from R. Pierson) issuing notice of receipt of Westinghouse 920626 application for standard design certification of AP600 standard plant design. acn: 9209030252
- August 13, 1992 ACRS letter (from D. Ward) forwarding summary of ACRS 387th meeting on 920709-11 regarding integral system and separate effects testing in support of Westinghouse AP600 plant design certification, and SECY-92-224. acr: 9210070186 Fiche: 63437:132-63437:177
- August 11, 1992NRC letter (from S. Chilk) issuing staff requirements memo advising that
Commission agreed to authorize NRC to proceed to enter into agreement
with Japan Atomic Energy Research Institute to perform confirmatory
AP600 test program in ROSA-V test facility (SECY-92-219).
acn: 9409010104Fiche: 81119:289-81119:289
- August 7, 1992 ACRS letter (from I. Catton) forwarding summary of 920623-24 meeting of ACRS thermal hydraulic phenomena subcommittee to continue review of

Westinghouse and NRC proposed test programs in support of AP600 passive plant design certification. acn: 9304140260 Fiche: 74591:262-74591:306 August 5, 1992 NRC letter (from J. Taylor) providing staff response to ACRS 920717 letter on integral system and separate effects testing in support of Westinghouse AP600 plant design certification. acn: 9408040329 Fiche: 81093:192-81093:205 August 5, 1992 NRC letter (from J. Taylor) forwarding comments and observations on N. Zuber memos regarding AP600 thermal hydraulic testing. Fiche: 81093:095-81093:117 acn: 9408040243 July 30, 1992 NRC letter (from J. Taylor) forwarding quarterly status report of ALWR reviews for March - May 1992. acn: 9208210124 Fiche: 81094:178-81094:192 July 24, 1992 NRC letter (from J. Taylor) forwarding report of nuclear safety research review committee on AP600 thermal hydraulic testing plans examining AP600 ROSA-V proposal addressing issues of necessity efficacy and adequacy. acn: 9211020057 Fiche: 63766:236-63766:241 July 21, 1992 Westinghouse letter (from S. Modro) providing comments on Zuber report to Catton on ROSA - AP600 meeting on 920603-04 and 23. Fiche: 81093:137-81093:152 acn: 9408040306 July 20, 1992 Westinghouse letter (from N. Todreas) summarizing 920701 and 02 meeting to review RES programs regarding AP600 program. Westinghouse concurs with RES' recommendation to proceed with ROSA-V program for integral system testing of AP600 plant design. acn: 9211020067 Fiche: 63766:238-63766:241 June 30, 1992 Westinghouse letter (from N. Liparulo) forwarding summary of 920623 and 24 meeting of ACRS thermal-hydraulic subcommittee regarding description of separate effects tests and integral tests under high and low pressures. acn: 9408040324 Fiche: 81093:186-81093:191 June 15, 1992 Letter (from V. Schrock) summarizing NRC RES and NRR-JAERI joint meeting on AP600 IST on 920603 and 04. Fiche: 63444:154-63444:164 acn: 9210060082 June 11, 1992 Letter (from B. Boyack) discussing applicability of ROSA large scale test facility for reactors having AP600-like features. Fiche: 81093:129-81093:136 acn: 9408040301

Appendix A

June 4, 1992	Westinghouse letter (from N. Liparulo) forwarding summary of 92060 and 04 meeting regarding assessment of modifications needed to RC facility to simulate AP600 design.	
	acn: 9408040322	Fiche: 81093:168-81093:185
May 6, 1992	ACRS letter (from I. Catton) forwarding summary of ACRS thermal hydraulic phenomena subcommittee 920303 meeting regarding need for integral system testing requirements for Westinghouse AP600 passive plant design.	
	acn: 9210050221	Fiche: 63440:046-63440:176
February 24, 1992	Letter (from P. Griffith) summarizing feelings regarding acceptabilit ROSA IV facility for facility for integral large scale for AP600 reactor system.	
	acn: 9408040248	Fiche: 81093:118-81093:121
December 24, 1991		orwarding quarterly status report of advanced r - November 1991 per 910620 letter. Fiche: 81094:143-81094:160
November 7, 1991	NRC letter (from J. Taylor) informing that enclosed S. Tritch (Westinghouse) 910910 letter requests that no further review of written materials regarding AP600 pre-application effort be undertaken by NRC. acn: 9111250254 Fiche: 81093:058-81093:066	
September 10, 1991	reviewed AP600 related ma	5. Tritch) informing that Westinghouse terial in response to C. Miller request. Formal has been transmitted to NRC unnecessary. Fiche: 81093:060-81093:066

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NUREG-1512

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B-55

APPENDIX C ACRONYMS

2D	two dimensional
3D	three dimensional
2D 3D AABVS ABB-CE ABFOSS ac ACI ACRS ADGFOSS ADS AEOD AFW AFWS AHUS AHUS AHUS AI AICC AISC AISI ALARA ALWR ALARA ALWR AMCA AM AMSAC ANS ANSI ANPA-DISP	two dimensional three dimensional auxiliary/annex building ventilation subsystem Asea Brown Boveri-Combustion Engineering auxiliary boiler fuel oil supply system alternating current American Concrete Institute Advisory Committee on Reactor Safeguards ancillary diesel generator fuel oil supply system automatic depressurization system NRC Office for Analysis and Evaluation of Operational Data auxiliary feedwater auxiliary feedwater system air handling units automatic isolation adiabatic isochoric complete combustion American Institute of Steel Construction American Institute of Steel Construction American Iron and Steel Institute low as reasonably achievable advanced light water reactor Air Movement and Control Association accident management ATWS mitigation system actuation circuitry American National Standards Institute Agenzia Nazionale per la Protezione dell'Ambiente (ANPA), Italian
ANSI AOO AOV AP API ARI ARM ASI ASCE ASME APEX ASHRAE ASME	Agenzia Nazionale per la Protezione deir Ambiente (ANPA), nanan Nuclear Regulatory Agency American National Standards Institute anticipated operational occurrences air operated valves advanced plant American Petroleum Institute Air Conditioning and Refrigeration Institute area radiation monitor adverse systems interaction American Society of Civil Engineers American Society of Mechanical Engineers advanced plant experiment American Society of Heating, Refrigerating and Air Conditioning American Society of Mechanical Engineers

ASTM	American Society for Testing and Materials
ATBA	advanced technical business area
ATC	automatic turbine control
ATWS	anticipated transient without scram
AVT	all-volatile treatment
AWG	American wire gauge
AWS	American Welding Society
B&W	Babcock and Wilcox
BAC	bounding analysis curve
BDS	steam generator blowdown system
BDS	blowdown system
BE	best estimate
BMC	Battelle Model Containment
BNCS	Board on Nuclear Codes and Standards
BNL	Brookhaven National Laboratory
BOP	balance of plant
BPC	Bechtel Power Corporation
BRL	Ballistic Research Laboratory
BTP	branch technical position
BWR	boiling water reactor
BWROG	Boiling Water Reactor Owners Group
CAD CAS CAS CAV CB&I CBS CCDF CCF CCF CCF CCF CCF CCI CCS CCS CCS CCS CCS CCS CCS CCS CCS	code applicability document compressed and instrument air system central alarm station cumulative absolute velocity Chicago Bridge & Iron circuit breakers complementary cumulative distribution function common cause failure conditional containment failure probabilities core-concrete interaction corium-concrete interactions condensate cleanup system component cooling water system Cylindrical Core Test facility component cooling water core damage frequency conservative deterministic failure margin containment event trees computational fluid dynamics early containment failure intermediate containment failure late containment failure U.S. Code of Federal Regulations condensate and feedwater system heat removal capability critical heat flux

CI	containment isolation
CIS	containment internal structures
CIS	containment isolation system
CIV	containment isolation valves
CLS	circulating water and service water chemical injection system
CMS	condenser air removal system
CMT	core makeup tank
CMTR	certified material test reports
CPG	containment performance goal
CP	construction permit
CPI	Containment Performance Improvement Program
COL	combined license
COTS	commercial off-the-shelf
COV	coefficient of variation
CPG	containment performance goal
CQD	code qualification document
CR	control room
CRDM	control rood drive mechanism
CRDS	control rod drive system
CRFCU	containment recirculation fan coil unit
CRT	cathode ray tube
CSAU	code scaling, applicability, and uncertainty
CSNI	Committee on the Safety of Nuclear Installations
CSS	containment spray system
CUF	cumulative usage factor
CU	Columbia University (New York City)
CV	check valve
CVCS	chemical and volume control system
CVS	chemical and volume control system
CW	circulating water
CWS	circulating water system
D-RAP DAC DAC DAS DBA DBPB DBT dc DCD DCD DCD DCD DCH DDS DDT DECLG DEDVI DEG	design reliability assurance program derived air concentration design acceptance criteria diverse actuation system design-basis accident design basis pipe breaks design basis tornado direct current design certification document design certification document direct containment heating data and display processing system deflagration-to-detonation transition double-ended cold leg guillotine double-ended direct vessel injection double-ended guillotine

DEH DEHLG DEI DEMA DET DF DG DGFOTS DHR DID DIS DLF DMIV DMVS DNB DNBR DOD DOE DOP DOS dP, DP DSER DSSRS DTS DU DVI DWS DWST	digital electrohydraulic double-ended hot leg guillotine dose equivalent iodine Diesel Engine Manufacturers Association decomposition event trees decontamination factors diesel generator diesel generator fuel oil transfer system decay heat removal defense-in-depth diverse indication system dynamic load factor demineralized water isolation valves demineralized water transfer and storage system departure from nucleate boiling departure from nucleate boiling departure from nucleate boiling departure for nuclear boiling ratio U.S. Department of Defense U.S. Department of Energy dioctyl-phthalate polydispersed standby diesel and auxiliary boiler fuel oil system differential-pressure draft safety evaluation report design site-specific response spectrum demineralized water transfer and storage system dynamic transient events direct vessel injection demineralized water transfer and storage system demineralized water transfer and storage system
E/C EAB ECC ECCS EDE EDO EDS EFDS EFPY EFW EFWS EHT ELS EM EM EM EM EM EM EM EM EM EM EM EMEL	erosion-corrosion exclusion area boundary emergency core cooling emergency core cooling system effective dose equivalent Executive Director for Operations non-Class 1E dc system equipment and floor drainage system effective full power years emergency feedwater emergency feedwater system effluent holdup tank plant lighting system evaluation methodology evaluation methodology evaluation model electromagnetic compatibility electromagnetic interference Ente per le Nuove technologie, l'Energia e l'Ambiente, Italian Energy Agency Ente Nazionale Per L'Energia Elettrica\Italian Energy Agency

EOF EOP EPA EPA EPRI EQ ER ERDS ERG ERVC ESBU ESD ESF ESFAS ESW ETS EVSE EWST	emergency offsite facility emergency operating procedures electrical penetration assembly U. S. Environmental Protection Agency Electric Power Research Institute equipment qualification electrical room Emergency Response Data System emergency response guidelines external reactor vessel cooling Energy System Business Unit (Westinghouse) electrostatic discharge engineered safety feature engineered safety feature engineered safety feature engineered safety features actuation system essential service water emergency trip system ex-vessel steam explosion eductor water storage tank
FA FATT FBACS FBTA FCI FCU FDA/DC FDA FDR FDS FF FHA FHAVS FIVE FLB FMEA FMEA FMEA FMEA FMEA FMEA FMEA FMEA	fragility analysis fracture appearance transition temperature fuel building air cleanup system function-based task analysis fuel-coolant interaction fan coil unit final design approval/design certification final design approval final data report fire-smoke detection and alarm system free field fuel-handling accident fuel handling area ventilation subsystem Fire Induced Vulnerability Evaluation methodology feedwater line break foreign material exclusion failure modes and effects analysis failure modes and effects criticality analysis first-of-a-kind engineering fire protection system feet per second floor response spectrum factor of safety final safety evaluation report final verification and validation Fussel-Vesely worth feedwater full zero period acceleration method

GAHVAC GDC GE GI GL GRS GSI GSS GTG GTS GWD/MTU	general area HVAC general design criteria/criterion General Electric generic safety issue generic letter Gesellschaft fuer Anlangenund Reaktorsicherheit mbH generic safety issue turbine gland seal system generic technical guidance global trip subsystem gigawatt days per metric tons of uranium
HA	hot assembly
HCLPF	<u>h</u> igh <u>c</u> onfidence that the particular SSC will have a <u>l</u> ow probability of failure
HCMS	hydrogen concentration monitoring subsystem
HCSD	hot/cold shutdown
HDR	Heißdampfreaktor\German test facility (high temperature steam reactor)
HELB	high-energy line break
HEM	homogenous equilibrium model
HEP	human error probability
HEPA	high efficiency particulate air
HFE	human factors engineering
	Human Factors Engineering Program Review Model
HFS	Human Factors Society
HIGH-1 HIS	high radiation hydrogen ignition system
HLHS	heavy load handling system
HP	health physics
HPCI	high-pressure coolant injection
HPI	high pressure injection
HPME	high pressure core melt ejection
HR	hard rock
HRA	human reliability analysis
HRS	hydrogen recombination subsystem
HSI	human-system interface
HTFR	Heat Transfer Research Facility (Columbia University)
HVAC	heating, ventilation, and air conditioning
HWS	hot water heating system
HX	heat exchanger
I/O I&C IAEA IAS IC ICC ID	input/output instrumentation and control International Atomic Energy Agency instrument air system intact containment inadequate core cooling inner diameter
IDS	Class 1E dc system

IE	Inspection and Enforcement
IEB	Inspection and Enforcement bulletin
IEC	International Electrotechnical Commission
JEEE	Institute of Electrical and Electronics Engineers
IES	Illuminating Engineering Society
IFM	intermediate flow mixer
IHP	integrated head package
IIS	in-core instrumentation system
ILRT	integrated leak rate testing
IN	Information Notice
INEEL	Idaho National Engineering and Environmental Laboratory
INEL	Idaho National Engineering Laboratory
INPO	Institute of Nuclear Power Operations
INSAG	International Nuclear Safety Advisory Group
IPC	• •
	integrated protection cabinet
IR	inspection report
IRI	incomplete control rod insertion
IRWST	in-containment refueling water storage tank
ISA	Instrument Society of America
ISI	inservice inspection
ISLOCA	intersystem loss-of-coolant accident
ISO	International Organization for Standardization
ISP	international standard problem
IST	inservice testing
ITAAC	inspection, test, analyses, and acceptance criteria
ITP	initial test program
J/T	J-Integral/tearing modulus
	• •
JAERI	Japan Atomic Energy Research Institute
La	maximum allowable leakage rate
LANL	Los Alamos National Laboratory
LBB	leak-before-break
LBHS	large-bore hydraulic snubber
LBLOCA	large-break loss-of-coolant accident
LCO	limiting condition for operation
LCS	local control station
LCS	lower containment sump
LDS	leakage detection system
LER	licensee event report
LHVAC	local HVAC
LLHS	light load handling system
LLNL	Lawrence Livermore National Laboratory
LLOCA	large LOCA
LMFW	loss of main feedwater
LP	low pressure
LOCA	loss-of-coolant accident
LOFT	loss of fluid test

LOFTRAN LONF LOOP LP&S LPZ LRF LSD LSL LSL LST LTC LTOP LWR	transient and SGTR computer analysis code loss of normal feedwater loss of offsite power low power and shutdown low population zone large release frequency logarithmic standard deviation low steamline pressure large scale tests low cold leg temperature low-temperature overpressure protection light water reactor
M-G M-MIS MAAP MCC MCR MCRE MFCS MFCV MFVS MGL MFWS MGL MHS MIL MLOCA MIL MLOCA MINS MIT MOI MOV MPC mph MS MS&FW MSGTR MSIV HVAC MSIVHVAC MSLB MSS	motor-generator man-machine interface system Modular Accident Analysis Program motor control center main control room main control room envelop main feedwater control system main feedwater control valve main feedwater isolation valve main feedwater system Multiple Greek Letter (common cause failure analysis) mechanical handling system military mid-loop medium LOCA metal impact monitoring system Massachusetts Institute of Technology method of images motor operated valve maximum permissible concentration miles per hour main steam main steam and feedwater multiple steam generator tube rupture main steam isolation valve MSIV compartment HVAC main steamline break main steam system
MSSS MSSV MST MSV MTC MTS MUX MVSS	main steam supply system main steam safety valve main steam tunnel mean square voltage moderator temperature coefficient main turbine system multiplexer multiple venture scrubbing system

NACE NAI	National Association of Corrosion Engineers Numerical Applications Incorporated
NASA NATD	U.S. National Aeronautics and Space Administration Nuclear and Advanced Technology Division
NCA	neutron control assembly
NCC	natural convection cooldown
NCIG	Nuclear Construction Issues Group
NDE	nondestructive examination
NDRC	National Defense Research Committee
NDT	nil-ductility temperature
NDTT	nil ductility transition temperature
NEM	nodal enhanced model
NEPA	National Environmental Policy Act
NF	neutron flux
NFPA	National Fire Protection Association
NI The DOA	nuclear island
NON-RCA	non-radiologically controlled area
NNS NOAA	nonnuclear safety National Oceanic and Atmospheric Administration
NON	notice of nonconformance
NOTRUMP	small break LOCA computer analysis code
NPP	nuclear power plant
NPRDS	Nuclear Plant Reliability Data System
NPS	nominal pipe size
NPSH	net positive suction head
NQA	nuclear quality assurance
NRC	U.S. Nuclear Regulatory Commission
NRCA	nonradiologically controlled area
NRHR	normal residual heat removal system
NRR	Office of Nuclear Reactor Regulation
NRU	National Research Universal
NS	non-seismic
NSSS	nuclear steam supply system
NUPEC	Nuclear Power Engineering Corporation (Japan)
NUREG	NRC technical report designation
000	operational support center
OCS	operation and control centers system
O-RAP	operational reliability assurance process
O-RAP	operational reliability assurance program
OBE	operating basis earthquake
ODMC	offsite dose calculation manual
OEDC	Organization for Economic Cooperation and Development
OER	operating experience review
OL	operating license
OPDMS	on-line power distribution monitoring system
OPS	onsite power systems
OS&Y	outside screw and yoke
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OSC OSHA	operational support center U.S. Occupational Safety and Health Administration
OSU	Oregon State University
P/E P/T P&ID PABX PABS PARS PBL PC PC-DAS PCA PCB PCCAWST PCCS PCCWST PCP PCRA PCS	predicted to experimental pressure and temperature piping and instrumentation diagram private automatic branch exchange system post accident monitoring system passive autocatalytic recombiners pressure balance line personal computer personal computer based data acquisition system primary coolant activity printed circuit board passive containment cooling ancillary water storage tank passive containment cooling system passive containment cooling water storage tank process control program Paul C. Rizzo Associates passive containment cooling system
PCT [•] PGA	peak cladding temperature peak ground acceleration
PGS	plant gas systems
P I	proportional plus integral
PI&CS PIRT	plant instrumentation and control system phenomena identification and ranking table
PIV	pressure isolation valves
PLC	protection logic cabinet
PLS	plant control system
PMF	probable maximum flood
PMP	probable maximum precipitation
PMS	plant monitoring system
PMS	protection and monitoring system
PORV	power-operated relief valve
POV	power-operated valve
PQP	project QA plan
PRA	probabilistic risk assessment
PRC	Piping Review Committee
PRHR	passive residual heat removal system
PRHRHX	passive residual heat removal heat exchanger
PSAR	preliminary safety analysis report
PSARV	pressurizer safety and relief valve
PSDF	power spectral density function
PSF	performance shaping factor
PSI	preservice inspection
PSS	primary sampling system
PSV	pressurizer safety valves
PTLR	pressure-temperature limits report

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PTS PV&V PVRC PWR PWS PWSCC PXS PZR	pressurized thermal shock preliminary verification and validation Pressure Vessel Research Council pressurized water reactor potable water system primary water stress corrosion cracking passive core cooling system pressurizer
QA	quality assurance
QAPP	quality assurance program plan
QDPS	qualified data processing system
QG	quality group
QLR	quick look report
QSL	quality suppliers list
R/A	reliability/availability
RAI	request for additional information
RAMI	reliability, availability, maintainability, and inspection
RAP	reliability assurance program
RAT RAW	reserve auxiliary transformer risk achievement worth
RC	reactor coolant
RCs	release categories
RCA	radiologically controlled area
RCC	reactor cavity cooling
RCCA	reactive rod control cluster assembly
RCDT	reactor coolant drain tank
RCL	reactor coolant loop
RCLVS	radiation chemistry laboratory ventilation subsystem
RCM	reliability centered maintenance
RCP	reactor coolant pump
RCPB	reactor coolant pressure boundary
RCS RES	reactor coolant system NRC Office of Nuclear Regulatory Research
RETS	radiological effluent technical specifications
RFI	radio frequency interference
RG	regulatory guide
RH	relative humidity
RHR	residual heat removal
RIP	rod internal pressure
RLE	review level earthquake
RLM	residual load method
RLMM	residual load method for multiple response spectrum analysis
RMI	reflective metallic insulation
RMS	radiation monitoring system
RNS	residual heat removal system
RO	reactor operator

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ROAAM	rick priorited applicant analysis methodology
ROSA	risk oriented accident analysis methodology
	Rig-of-Safety Assessment
RP	regulatory position
RPS	reactor protection system
RRS	required response spectra
RRW	risk reduction worth
RSR	remote shutdown room
RSS	remote shutdown station
RSW	remote shutdown workstation
RT	reactor trip
RTB	reactor trip breaker
RTD	resistance temperature detector
RTNSS	regulatory treatment of non-safety systems
RTS	reactor trip system
RV	reactor vessel
RVHV	reactor vessel head vent
RVOS	relief/safety valve, open system
RWS	raw water system
RWST	refueling water storage tank
S/G	steam generator
SAB	shield and auxiliary building
SACF	single active component failure
SAM	seismic anchor motions
SAMDA	severe accident mitigation design alternatives
SAPHIRE	Safety Analysis Program for Hands-on Integrated Reliability Evaluations
	(SAPHIRE) code
SAR	safety analysis report
SASM	severe accident scaling methodology
SAT	systematic approach to training
SBO	station blackout
SBLB	Pennsylvania State University Subscale Boundary Layer Boiling
SC	seismic category
scfm	standard cubic feet per minute
SCV	steel containment vessel
SD	standard deviation
SDABFOS	standby diesel and auxiliary boiler fuel oil system
SDC	standard design certification
SDCAIES	standby diesel combustion air intake and exhaust system
SDECS	standby diesel engine cooling system
SDESS	standby diesel engine starting system
SDLOS	standby diesel lubricating oil system
SDR	
	security design report
SDS	sanitary drainage system
SDSER	supplement to the draft safety evaluation report
SEE-IN	INPO Significant Event Evaluation and Information Network program
SEP	systematic evaluation plants
SERG	steam explosion review group
SERHVAC	switchgear and equipment room HVAC

NUREG-1512

SFCS	spent fuel pool cooling system
SFCV	startup feedwater control valve
SFD	severe fuel damage
SFIV	startup feedwater isolation valve
SFPCPS	spent fuel pool cooling and purification system
SFS	spent fuel system
SFS	spent fuel pool cooling system
SFS	startup feedwater system
SFWS	startup feedwater system
SG	steam generator
SGBS	steam generator blowdown system
SGS	steam generator system
SGSV	steam generator safety valves
SGTR	steam generator tube rupture
SI	stress intensity
SIT	Servizio Italiano di Taratura
SIET	Societa' Informazioni Esperienze Termoidruliche
SIMARC	<u>SIM</u> ulator <u>A</u> dvanced <u>R</u> eal-time <u>C</u> ode
SLB	steamline break
SMA	
	seismic margin assessment
SMACNA	Sheet Metal and Air Conditioning Contractors' National Association
SMS	special monitoring system
SOER	significant operating event report
SPDS	safety parameter display system
SPES	Simulatore per Esperienze di Sicurezza \ Italian test facility
SR	safety-related
SR	surveillance requirement
SRM	staff requirements memorandum
SRO	senior reactor operator
SROA	safety-related operator action
SRP	standard review plan
SRSS	square root of the sum of squares
SRST	spent resin storage tank
SRV	safety relief valve
	•
SS	shift supervisor
SSAR	standard safety analysis report
SSCs	structures, systems and components
SSE	safe shutdown earthquake
SSI	soil-structure interaction
SSLC	safety system logic and control
STC	Science and Technology Center (Westinghouse)
STD	standard
STS	standard technical specification
SUFW	startup feedwater system
SWAT	subjective workload assessment technique
SWC	surge withstand capability
SWR	steam/water reservoir

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SWMS SWS	solid waste management system service water system
T-H TAR TASCS Tavg TB TBV TCS TDS TEDE TG THD THERP THTS TI TIC TID TLX TMI TRS TS TSC TSC TV&D	thermo-hydraulic test analysis report thermal stratification, cycling and striping average temperature turbine building turbine bypass valve turbine bypass valve turbine building closed cooling system turbine island vents, drains, and relief system total effective dose equivalent turbine generator total harmonic distortion technique for human error rate prediction Thermal Hydraulic Test Facility temporary instruction The Industrial Company total integrated dose task load index Three Mile Island test response spectra technical specifications technical services technical support center test, vent, and drain
UAT	unit auxiliary transformer
UBC	uniform building code
UCP	upper core plate
UET	unfavorable exposure time
UHS	ultimate heat sink
UL	Underwriters Laboratory, Inc.
UNAS	Universal Network Architecture Services
UPS	uninteruptable power supply
UPTF	upper plenum test facility
URD	Utility Requirements Document
URI	unresolved item
URS	ultimate rupture strength
USI	unresolved safety issues
UWO	University of Western Ontario
V5H	Vantage 5 Hybrid
V&V	verification and validation
VAPORE	valve and pressure operating related experiments
VAS	radiologically controlled area ventilation system
VBS	nuclear island non-radioactive system
VBS	nonradioactive ventilation system
VCS	containment recirculation cooling system

VDU VES VFD VFS VHS VRS VTS VTS VWS VXS VXS VYS VZS	video display unit main control room emergency habitability system variable frequency drive containment air filtration system health physics and hot machine shop HVAC system radwaste building HVAC system turbine building ventilation system central chilled water system annex/auxiliary buildings non-radioactive HVAC system plant hot water system diesel generator DG building heating and ventilation system
WCAP	Westinghouse Commercial Atomic Power (report)
WCOBRA/TRAC	Westinghouse large break LOCA and long term cooling computer analysis code
WDT	water distribution tests
WEC	Westinghouse Electric Corporation
<u>W</u> GOTHIC	Westinghouse-GOTHIC analysis code
WGS	gaseous waste management system
WLS	liquid radwaste system
WOG	Westinghouse Owners Group
WRS	radioactive waste drain system
WSS	solid radwaste system
WWS	waste water system
ZOS	onsite standby power system

I

APPENDIX D PRINCIPAL CONTRIBUTORS

<u>NAME</u>

R. Albert S. Ali T. Attard J. Bongarra H. Brammer L. Brown K. Campe R. Caruso T. Chena M. Chiramal A. Chu T. Collins E. Connell R. Corriea A. Cubbage T. D'Angelo D. Diec M. Dusaniwskyj R. Eckenrode A. El-Bassioni R. Emch D. Fischer E. Fox G. Galletti M. Gareri G. Georgiev R. Gramm J. Guo C. Hinson J. Holmes S. Hou G. Hsii J. Huang D. Jackson W. Jensen J. Kudrick R. Landry J. Lee S. Lee

RESPONSIBILITY

Safeguards Structural Engineering **Nuclear Physics** Human Factors Mechanical Engineering Meteorology Codes **Reactor Systems** Structural Engineering Instrumentation & Control **Technical Specifications Reactor Systems Fire Protection Reliability Assurance Reactor Systems Containment Systems Reactor Systems** Project Management Human Factors Probabilistic Risk Assessment Source Term and Radiological Consequences of Accidents Mechanical Engineering **Emergency Preparedness** Plant Procedures & Training Instrumentation and Controls **Materials Engineering Quality Assurance Plant Systems Radiation Protection Fire Protection** Mechanical Engineering **Reactor Systems Inservice Testing & Inspection Project Management** Severe Accidents **Containment Systems and Severe Accidents Reactor Systems** Source Term and Radiological Consequences of Accidents

Structural Engineering

Appendix D

NAME	RESPONSIBILITY
A. Levin	Reactor Systems and Testing
C. Li	Plant Systems
H. Li	Instrumentation & Control
Y. Li	Mechanical Engineering
L. Lois	Reactor Systems
J. Lyons	Plant Systems
S. Magruder	Project Management
R. McIntyre	Quality Assurance
J. Monninger	Containment Systems and Severe Accidents
J. O'Brien	Emergency Planning
R. Palla	Probabilistic Risk Assessment
K. Parczewski	Chemical Engineering
J. Peralta	Initial Testing Program
L. Phillips	Nuclear Physics
R. Pichumani	Geotechnical Engineering
M. Pohida	Probabilistic Risk Assessment
J. Raval	Plant Systems
M. Reinhart	Technical Specifications
R. Rothman	Geoscience
N. Saltos	Probabilistic Risk Assessment
J. Segala	Plant Systems
M. Snodderly	Containment Systems and Severe Accidents
J. Staudenmeier	Reactor Systems
S. Sun	Reactor Systems
F. Talbot	Reliability Assurance
D. Terao	Inspections, Tests, Analyses, and Acceptance Criteria
D. Thatcher	Electrical Engineering
G. Thomas	Reactor Systems
E. Throm	Containment Systems and Severe Accidents
N. Trehan	Electrical Engineering
H. Walker	Plant Systems
S. West	Fire Protection
J. Wigginton	Radiation Protection
J.H. Wilson	Project Management
J.N. Wilson	Inspections, Tests, Analysis, and Acceptance Criteria
R. Young	Plant Systems
B. Zalcman	Source Term and Radiological Consequences of Accidents;
	Emergency Planning
<u>Contractors</u>	Technical Area
Ames Laboratory	Structural Engineering

Ames LaboratoryStructural EngineeringArgonne National LaboratoryCode AnalysesBattelle Pacific Northwest LaboratoriesStartup Testing

NUREG-1512

D-2

Contractors

Brookhaven National Laboratory

Constantino Miller Associates

EG&G Idaho, Incorporated/Idaho National Engineering Laboratory

Energy Technology Engineering Center

ERI

Harstead Engineering Associates

Lawrence Livermore National Laboratory

Los Alamos National Laboratory

NCT Engineering, Inc.

Oak Ridge National Laboratory

Sandia National Laboratory

Scientech

Technical Area

Component Reliability, Structural Engineering, Containment Systems Human Factors

Geotechnical and Structural Engineering

Testing and Code Analyses, PRA, Valve Reliability

Mechanical Engineering

Code Analyses

Structural Engineering

Geotechnical & Structural Engineering, Instrumentation and controls

Containment Buckling

Geotechnical and Structural Engineering

Valve Reliability

Code Analyses

Containment Code and Accident Analyses

APPENDIX E CHRONOLOGY OF NRC'S REQUESTS FOR ADDITIONAL INFORMATION

Throughout the course of the AP600 design certification review, the staff requested additional information of Westinghouse to clarify it's description of the AP600 design. Some of Westinghouse's responses to these requests for additional information (RAIs) are discussed throughout this report. The following is a list of the issuance and response dates of the RAIs that have been asked on this design. Note that Westinghouse did not update all of the RAIs because changes to the design or SSAR documentation made it unnecessary or impractical.

The first 3 digits of the RAI number indicate the technical review area that is addressed by the question. The following provides a cross-reference between the RAI numbers and the technical areas discussed.

- 100 general
- 210 mechanical engineering
- 220 structural engineering
- 230 seismology
- 231 geology
- 240 hydrology
- 241 geotechnical engineering
- 250 inservice inspection
- 251 component integrity
- 252 materials application
- 260 quality assurance
- 270 environmental qualification
- 271 seismic and dynamic load _ qualification
- 280 fire protection
- 281 chemical technology
- 290 environmental engineering
- 310 regional impact analysis
- 311 site analysis
- 320 antitrust and economic analysis
- 410 auxiliary systems
- 420 instrumentation and controls

- 435 electric power systems
- 440 reactor systems
- 450 accident evaluation
- 451 meteorology
- 460 effluent treatment
- 470 radiological impact
- 471 radiation protection
- 480 containment systems
- 610 operator licensing
- 620 human systems interfaces
- 630 technical specifications and reliability assurance program
- 640 inspections, tests, analysis, and acceptance criteria (ITAAC)
- 650 USIs/GSIs
- 720 reliability and risk assessment
- 730 generic issues
- 920 safeguards
- 950 RES initiated RAIs general
- 951 RES initiated RAIs containment systems
- 952 RES initiated RAIs reactor systems

Q No.	Issued	Response	Comments	Q No.	lssued	Response	Comments
100.1	09/23/92	01/22/93		100.31	11/14/95	01/10/97	
		01/06/98 08/13/98		100.32F	11/04/97	12/11/97	
100.2	09/23/92	11/30/92 01/22/93		100.33F	11/04/97	12/11/97 03/17/98	
100.3	09/23/92	12/22/92		100.34F	-	01/23/98	
100.4	09/23/92	11/30/92		100.35F	-	01/23/98	
100.5	10/09/92	02/02/93					
100.6	10/28/92	02/25/93		210.1	10/01/92	12/22/92	
100.7	11/16/92	02/09/93		210.2	10/01/92	11/30/92	
100.8	01/26/93	05/28/93		210.3	10/01/92	01/14/93	
100.9	03/12/93	04/29/93		210.4	10/01/92	12/22/92	
100.10	08/13/93	11/16/93		210.5	10/01/92	01/08/93	
		02/21/97		210.6	10/01/92	01/14/93	
100.11	03/14/94	05/11/94		210.7	10/01/92	01/14/93	
100.12	05/02/94	07/01/94 07/08/94		210.8	10/01/92	12/22/92 05/20/94	
100.13	05/23/94	06/30/94		210.9	10/01/92	01/22/93	
100.14	11/14/95	01/10/97				06/30/94	
100.15	11/14/95	01/10/97		210.10	10/01/92	01/22/93	
100.16	11/14/95	01/10/97		210.11	10/01/92	12/22/92	
100.17	11/14/95	01/10/97		210.12	10/01/92	11/30/92	
100.18	11/14/95	01/10/97		210.13	10/01/92	11/30/92	
100.19	11/14/95	01/10/97		210.14	10/01/92	11/30/92	
100.20	11/14/95	01/10/97		210.15	10/01/92	12/22/92	
100.21	11/14/95	01/10/97		210.16	10/01/92	01/14/93 05/20/94	
100.22	11/14/95	01/10/97		210.17	10/01/92	01/08/93	
100.23	11/14/95	01/10/97		210.18	10/01/92	01/14/93	
100.24	11/14/95	01/10/97		210.10	10/01/02	05/20/94	
100.25	11/14/95	01/10/97		210.19	10/01/92	01/08/93	
100.26	11/14/95	01/10/97		210.20	10/01/92	01/08/93	
100.27	11/14/95	01/10/97		210.21	10/01/92	01/08/93	
100.28	11/14/95	01/10/97		210.22	10/01/92	01/08/93	
100.29	11/14/95	01/10/97		210.23	10/01/92	01/14/93	
100.30	11/14/95	01/10/97		210.24	10/01/92	01/22/93 06/30/94	

NUREG-1512

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Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
210.25	10/01/92	01/22/93		210.55	04/29/94	06/27/94 05/09/97	
210.26	10/01/92	01/22/93		210.56	04/29/94	06/27/94	
210.27	01/26/93	05/28/93		210.57	04/29/94	06/27/94	
210.28	01/26/93 02/09/93	05/28/93 07/01/94				10/23/96 05/09/97	
210.29	04/29/94	06/27/94		210.58	04/29/94	06/27/94 10/23/96	
210.30	04/29/94	05/20/94				05/09/97	
210.31	04/29/94	06/27/94		210.59	04/29/94	07/27/94	
210.32	04/29/94	07/08/94		210.60	04/29/94	06/30/94	
210.33	04/29/94	06/30/94		210.61	04/29/94	06/16/94 10/14/96	
210.34	04/29/94	06/27/94		210.62	04/29/94	06/30/94	
210.35	04/29/94	06/16/94		210.62	04/29/94	07/25/94	
210.36	04/29/94	06/27/94		210.63	04/29/94	07/25/94	
210.37	04/29/94	06/16/94		210.65	04/29/94	06/30/94	
210.38	04/29/94	06/27/94		210.65	04/29/94	07/22/94	
210.39	04/29/94	06/27/94		210.00	04/23/34	11/07/94	
210.40	04/29/94	06/27/94 10/23/96		210.67	04/29/94	07/08/94	
		02/19/97		210.68	04/29/94	07/25/94	
		03/11/97		210.69	04/29/94	07/25/94	
210.41	04/29/94	07/08/94				10/23/96	
210.42	04/29/94	06/30/94		210.70	04/29/94	06/30/94	
210.43	04/29/94	06/27/94		210.71	04/29/94	06/16/94	
210.44	04/29/94	07/08/94		210.72	04/29/94	06/27/94	
210.45	04/29/94	07/08/94		210.73	04/29/94	06/30/94	
210.46	04/29/94	05/20/94		210.74	04/29/94	06/16/94	
210.47	04/29/94	06/27/94		210.75	04/29/94	06/16/94	
210.48	04/29/94	07/25/94		210.76	04/29/94	07/2 7/94 10/23/96	
210.49	04/29/94	07/08/94		210.77	04/29/94	06/30/94	
210.50	04/29/94	06/27/94					
210.51	04/29/94	07/08/94		210.78	04/29/94	07/08/94	
210.52	04/29/94	06/30/94		210.79	04/29/94	07/27/94	
210.53	04/29/94	06/27/94		210.80	04/29/94	06/30/94	
210.54	04/29/94	06/27/94		210.81	04/29/94	08/03/94	
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Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
210.82	04/29/94	06/27/94		210.112	06/27/94	03/07/95	
210.83	04/29/94	06/27/94		210.113	09/02/94	11/07/94	
210.84	04/29/94	11/07/94		210.114	09/02/94	11/07/94	
210.85	04/29/94	07/22/94		210.115	09/02/94	11/07/94	
210.86	04/29/94	06/27/94		210.116	09/02/94	11/07/94	
210.87	04/29/94	07/22/94		210.117	09/02/94	11/07/94	
210.88	04/29/94	07/25/94		210.118	09/02/94	02/07/95	
210.89	04/29/94	07/22/94		210.119	09/02/94	11/07/94	
210.90	04/29/94	07/29/94		210.120	09/02/94	11/07/94	
210.91	04/29/94	06/16/94		210.121	09/02/94	02/28/95 03/07/95	
210.92	04/29/94	06/27/94		210.122	09/02/94	11/07/94	
210.93	04/29/94	06/27/94		210.123	09/02/94	11/07/94	
210.94	04/29/94	06/27/94 10/14/96		210.124	09/02/94	11/07/94	
210.95	04/29/94	06/30/94		210.125	09/02/94	11/07/94	
210.96	04/29/94	06/27/94		210.126	09/02/94	11/07/94	
210.97	04/29/94	06/30/94		210.127	09/02/94	02/07/95	
		10/14/96		210.128	09/02/94	11/07/94	
210.98	04/29/94	07/22/94		210.129	09/02/94	11/07/94	
210.99	04/29/94	06/27/94		210.130	09/02/94	11/07/94	
210.100	04/29/94	06/30/94 02/07/95		210.131	09/02/94	11/07/94	
210.101	04/29/94	06/27/94		210.132	09/02/94	11/07/94	
210.102	04/29/94	06/30/94		210.133	09/02/94	11/07/94	
	0.410040 A	02/07/95		210.134	09/02/94	11/07/94	
210.103	04/29/94	06/30/94		210.135	09/02/94	11/07/94	
210.104	04/29/94	06/30/94	·	210.136	09/02/94	11/07/94	
210.105	04/29/94	06/30/94		210.137	09/02/94	11/07/94	
210.106	04/29/94	06/27/94		210.138	09/02/94	11/07/94	
210.107	04/29/94	06/30/94 10/23/96		210.139	09/02/94	11/07/94	
210.108	04/29/94	06/02/94		210.140	09/02/94	11/07/94	
210.109	04/29/94	06/30/94		210.141	09/02/94	11/07/94	
210.110	04/29/94	06/30/94		210.142	VOID	N/A	see DSER OI
210.111	06/27/94	08/03/94		210.143	VOID	N/A	see DSER OI

NUREG-1512

E-4

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
210.144	VOID	N/A	see DSER OI	210.166	12/07/94	08/22/96	
210.145	VOID	N/A	see DSER OI			12/17/96	
210.146	VOID	N/A	see DSER OI	210.167	12/07/94	08/22/96 12/17/96	
210.147	VOID	N/A	see DSER OI	210.168	12/07/94	N/A ²	
210.148	VOID	N/A	see DSER OI	210.169	12/07/94	08/22/96	
210.149	VOID	N/A	see DSER OI	210.170	12/07/94	08/22/96	
210.150	VOID	N/A	see DSER OI	210.171	12/07/94	08/22/96	
210.151	VOID	N/A	see DSER OI			12/17/96	
210.152	VOID	N/A	see DSER OI	210.172	12/07/94	N/A ²	
210.153	12/07/94	N/A ¹		210.173	12/07/94	N/A ²	
210.154	12/07/94	N/A ¹		210.174	12/07/94	N/A ²	
210.155	12/07/94	N/A ¹		210.175	12/07/94	N/A ¹	
210.156	12/07/94	08/22/96		210.176	12/07/94	08/22/96	
		12/17/96		210.177	12/07/94	N/A ¹	
210.157	12/07/94	N/A ¹		210.178	12/07/94	08/22/96	
210.158	12/07/94	08/22/96		210.179	12/07/94	08/22/96	
210.159	12/07/94	N/A ¹		210.180	12/07/94	08/22/96	
210.160	12/07/94	N/A ¹		210.181	12/07/94	N/A ³	
210.161	12/07/94	N/A ¹		210.182	12/07/94	08/22/96 12/17/96	
210.162	12/07/94	N/A ¹				1211130	
210.163	12/07/94	N/A ²		210.183	12/07/94	N/A ²	
210.164	12/07/94	08/22/96		210.184	12/07/94	N/A ²	
210.165	12/07/94	N/A ³		210.185	12/07/94	08/22/96 12/17/96	
				210.186	12/07/94	08/22/96	
¹ Resolved during March 14-15, 1995 mtg (see summary dated March 23, 1995). No formal submittal				210.187	12/07/94	08/22/96 12/17/96	
	made by Westinghouse. Reverified in February 20, 1996 & October 11, 1996 NRC letters.			210.188	12/07/94	N/A ²	
² Desclued during October 27, 1005 talgeen (eee				210.189	12/07/94	12/17/96	

²Resolved during October 27, 1995 telecon (see summary dated February 20, 1996). No formal submittal made by Westinghouse. Reverified in October 11, 1996 NRC letter.

³Resolved during September 5 and October 8, 1996 telecons (see summary dated October 11, 1996). No formal submittal made by Westinghouse.

Response does not reference Q210.193

210.190

210.191

210.192

210.193

12/07/94

12/07/94

12/07/94

12/07/94

N/A²

N/A³

12/17/96

N/A³

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
210.194	12/07/94	N/A⁴		210.218	08/20/96	12/02/96	
210.195	12/07/94	07/21/98 ⁵	see 3/14/95 mtg sum.	210.219	08/20/96	12/02/96 02/19/97	
210.196	12/07/94	N/A ⁶		210.220	08/20/96	12/02/96	
210.197	12/07/94	N/A⁴		210.221	08/20/96	12/02/96 02/19/97	
210.198	12/07/94	N/A⁴		210 222	08/20/96	12/02/96	
210.199	12/07/94	N/A⁴		210.222			
210.200	12/07/94	08/22/96 12/17/96		210.223 210.224	08/20/96 08/20/96	12/02/96 12/02/96	
210.201	12/07/94	N/A4		210.225	08/20/96	07/21/987	
210.201	05/02/95	06/11/96		210.226	08/20/96	01/08/97	
210.202	05/02/95	06/11/96		210.220	00/20/00	02/19/97	
210.203	05/02/95	06/11/96		210.227 A	N/A	N/A	Ref in 08/20/96 Itr, but not used
210.205	05/02/95	06/11/96		A 210.227	02/07/97	02/19/97	
210.206	05/02/95	06/11/96		B	02/07/97	02/19/97	
210.207	05/02/95	06/11/96		210.228 A	08/20/96	10/30/96	
210.208	05/02/95	06/11/96		210.228	02/07/97	02/19/97	
210.209	05/02/95	06/11/96		В			
210.210	05/02/95	06/11/96		210.229	02/07/97	03/19/97	
210.211	05/02/95	06/11/96		210.230	02/07/97	02/19/97	
210.212	05/02/95	06/11/96		210.231	02/07/97	02/19/97	
210.213	04/10/96	01/08/97		210.232F	11/17/97	07/21/98	See WCAP- 13054, Rev. 3
210.214	04/10/96	10/14/96		210.233F	11/17/97	07/21/98	See WCAP-
210.215	07/29/96	07/26/96		210.234F	12/04/97	12/08/97	13054, Rev. 3
210.216	08/20/96	12/02/96		210.235F	12/04/97	12/08/97	
210.217	08/20/96	12/02/96					
				220.1	10/01/92	11/30/92	
⁴ Resolved during October 27, 1995 telecon (see summary dated February 20, 1996). No formal submittal made by Westinghouse. Reverified in October 11, 1996 NRC letter.				220.2	10/01/92	11/30/92	
				220.3	10/01/92	11/30/92	
				220.0			

⁵Transcription error; referenced valve should have been SFS-PL-V048, which is addressed in Q210.84.

⁶Resolved during March 14-15, 1995 mtg (see summary dated March 23, 1995). No formal submittal made by Westnghouse. Reverified in February 20, 1996. & October 11, 1996 NRC letters.

⁷Resolved during August 29, 1996 telecon. No formal submittal made by Westinghouse.

01/22/93

11/30/92

10/01/92

10/01/92

NUREG-1512

220.4

220.5

Q No.	issued	Response	Comments	Q No.	Issued	Response	Comments
220.6	10/01/92	11/30/92		220.35	01/26/94	03/04/94	
220.7	10/01/92	11/30/92		220.36	01/26/94	03/24/94	
220.8	10/01/92	01/22/93		220.37	01/26/94	04/28/94	
		09/02/94 10/23/96		220.38	01/26/94	03/24/94	
220.9	10/01/92	01/22/93		220.39	01/26/94	03/24/94	
		06/17/93		220.40	01/26/94	04/21/94	
220.10	10/01/92	01/14/93		220.41	01/26/94	04/14/94	
220.11	10/01/92	01/14/93			04/00/04	05/20/94	
220.12	10/01/92	01/14/93		220.42	01/26/94	03/24/94	
220.13	10/01/92	11/30/92		220.43	01/26/94	03/24/94	
220.14	10/01/92	11/30/92		220.44	01/26/94	03/24/94	
220.15	10/01/92	12/22/92		220.45	01/26/94	04/14/94	
220.16	10/01/92	01/08/93		220.46	01/26/94	03/24/94	
220.17	10/01/92	11/30/92 07/27/94		220.47	01/26/94	04/28/94	
220.18	10/01/92	11/30/92		220.48	01/26/94	04/14/94	
220.19	10/01/92	11/30/92		220.49	01/26/94	04/28/94 06/30/94	
220.20	10/01/92	11/30/92		220.50	01/26/94	03/24/94	
220.21	04/13/93	05/14/93				11/07/94	
220.22	04/13/93	05/14/93		220.51	03/16/94	05/17/94	
220.23	04/13/93	05/13/93		220.52	03/16/94	05/17/94	
220.24	01/26/94	04/14/94		220.53	03/16/94	05/11/94	
220.25	01/26/94	03/24/94		220.54	03/16/94	05/17/94	
220.26	01/26/94	03/04/94		220.55	03/16/94	05/17/94	
				220.56	03/16/94	05/20/94	
220.27	01/26/94	04/28/94 07/27/94		220.57	03/16/94	05/20/94	
220.28	01/26/94	04/14/94		220.58	03/16/94	06/30/94	
220.29	01/26/94	04/14/94		220.59	03/16/94	04/28/94	
220.30	01/26/94	03/24/94		220.60	03/16/94	05/11/94	
220.31	01/26/94	03/04/94		220.61	03/16/94	06/02/94	
220.32	01/26/94	03/24/94		000.00	00/40/04	06/27/94	
220.33	01/26/94	04/28/94 08/26/94		220.62 220.63	03/16/94 03/16/94	05/11/94 05/17/94	
220.34	01/26/94	03/24/94				09/19/94	

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Q No.	lssued	Response	Comments	Q No.	Issued	Response	Comments			
220.64	03/16/94	05/20/94		Q1	09/14/95	01/04/96				
220.65	03/16/94	05/20/94		Q2	09/14/95	01/04/96				
220.66	03/16/94	05/17/94		Q3	09/14/95	01/04/96				
220.67	03/16/94	05/11/94		Q4	09/14/95	01/04/96				
220.68	03/16/94	04/28/94		Q5	09/14/95	01/04/96				
220.69	03/16/94	05/20/94		Q6	09/14/95	01/04/96				
220.70	03/16/94	05/17/94		Q7	09/14/95	01/04/96				
220.71	03/16/94	05/20/94		Q8	09/14/95	01/04/96				
220.72	03/16/94	05/17/94	,	Q9	09/14/95	01/04/96				
220.73	03/16/94	05/17/94		Q10	09/14/95	01/04/96				
220.74	03/16/94	05/17/94		Q11	09/14/95	01/04/96				
220.75	03/16/94	05/17/94		Q12	09/14/95	01/04/96				
220.76	03/16/94	05/17/94		Q13	09/14/95	01/04/96				
000 77	00/40/04	05/19/94		Q14	09/14/95	01/04/96				
220.77	03/16/94	05/20/94		Q15	09/14/95	01/04/96				
220.78	03/16/94	06/16/94		220.94	10/03/95	02/12/96				
220.79	03/16/94	05/11/94		220.95	04/04/96	12/09/96				
220.80	03/16/94	05/17/94		220.96	04/04/96	12/09/96				
220.81	03/16/94	05/17/94		220.97	04/04/96	12/09/96				
220.82	03/16/94	05/17/94		220.98	04/04/96	12/09/96				
220.83	03/16/94	06/30/94 07/27/94		220.99	04/04/96	12/09/96 07/09/97				
220.84	03/16/94	05/17/94		220.100	04/04/96	02/11/97				
220.85	03/16/94	05/17/94				07/09/97				
220.86	03/16/94	05/20/94		220.101	04/04/96	02/11/97				
220.87	03/16/94	05/11/94 11/07/94		220.102	04/04/96	02/11/97				
220.88	03/16/94	05/11/94		220.103	07/03/96	05/30/968				
220.89	03/16/94	06/30/94		220.104	07/03/96	05/30/96°				
220.90	03/16/94	05/11/94		<u></u>						
220.00		08/08/94			olved during a D					
220.91	05/18/94	06/27/94			d March 4, 1997 ອ by Westinghou		5). No formal			
220.92	06/15/94	07/27/94		9Reer	lved during a N	ovember 26 10	96 telecon			
220.93	06/15/94	08/03/94 11/07/94		⁹ Resolved during a November 26, 1996 telecon (see summary dated December 9, 1996 for OITS #3376). No formal submittal made by Westingbouse						

(see summary dated December 9, 1996 for OITS #3376). No formal submittal made by Westinghouse.

11/07/94

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
220.105	09/24/96	10/09/96		220.128F	12/09/97	02/18/98 03/05/98	
220.106	05/01/97	06/11/97		220.129F	12/18/97	01/07/98	
220.107	05/01/97	06/11/97	· ·	220.1231	12/10/9/	01/22/98	
220.108	05/01/97	06/11/97		220.130F	12/18/97	01/07/98	
220.109	05/01/97	06/11/97				01/26/98 02/09/98	
220.110	05/01/97	06/11/97				03/05/98	
220.111	05/09/97	05/13/97 05/15/97 05/23/97		230.1	10/01/92	01/14/93	
		07/28/97		230.2	10/01/92	01/08/93	
220.112F	12/09/97	01/07/98 01/16/98		230.3	10/01/92	01/14/93	
220.113F	12/09/97	12/17/97		230.4	10/01/92	01/14/93	
220.114F	12/09/97	12/19/97		230.5	10/01/92	01/14/93	
220.1141	12/03/31	01/16/98		230.6	10/01/92	12/22/92	
220.115F	12/09/97	12/18/97		230.7	10/01/92	11/30/92	
220.116F	12/09/97	12/17/97		230.8	10/01/92	11/30/92	
		01/09/98		230.9	10/01/92	01/22/93	
220.117F	12/09/97	12/17/97		000.40	10/01/00	07/27/94	
220.118F	12/09/97	12/17/97		230.10	10/01/92	01/22/93	
220.119F	12/09/97	12/17/97		230.11	10/01/92	01/22/93 06/27/9 4	
220.120F	12/09/97	12/19/97 01/16/98 03/05/98		230.12	10/01/92	01/22/93	
200 4045	40/00/07			230.13	10/01/92	01/22/93	
220.121F	12/09/97	12/17/97 01/27/98		230.14	10/01/92	11/30/92	
		02/06/98		230.15	10/01/92	01/22/93 03/04/94	
220.122F	12/09/97	12/18/97				07/27/94	
220.123F	12/09/97	12/17/97		230.16	10/01/92	11/30/92	
220.124F	12/09/97	12/17/97 01/16/98				08/08/94	
		03/05/98		230.17	10/01/92	01/22/93	
220.125F	12/09/97	12/18/97		230.18	10/01/92	01/22/93	
		01/16/98 01/28/98		230.19	10/01/92	11/30/92	
		03/05/98		230.20	10/01/92	11/30/92	
220.126F	12/09/97	12/17/97		230.21	10/01/92	11/30/92	
220.127F	12/09/97	12/17/97		230.22	10/01/92	01/22/93	
				230.23	10/01/92	01/14/93	

Q No.	lssued	Response	Comments	Q No.	Issued	Response	Comments
230.24	01/26/94	03/24/94		230.53	03/16/94	05/11/94	
230.25	01/26/94	03/24/94				08/08/94	
230.26	01/26/94	03/04/94		230.54	03/16/94	06/27/94	
230.27	01/26/94	03/24/94		230.55	03/16/94	05/11/94	
230.28	01/26/94	03/24/94		230.56	03/16/94	05/20/94	
230.29	01/26/94	03/24/94		230.57	03/16/94	04/28/94	
		08/10/94		230.58	03/16/94	05/17/94 06/27/94	
230.30	01/26/94	03/24/94				07/27/94	
230.31	01/26/94	03/24/94		230.59	03/16/94	05/20/94 07/27/94	
230.32	01/26/94	03/24/94		230.60	03/16/94	05/17/94	
230.33	01/26/94	03/24/94		230.61	03/16/94	05/17/94	
230.34	01/26/94	03/24/94		230.62	03/16/94	05/11/94	
230.35	01/26/94	04/28/94 07/27/94				08/08/94	•
230.36	01/26/94	03/24/94		230.63	03/16/94	05/17/94 06/27/94	
230.37	01/26/94	04/14/94				07/29/94 08/10/94	
		08/26/94		230.64	03/16/94	05/20/94	
230.38	01/26/94	04/14/94		230.65	03/16/94	05/20/94	
230.39	01/26/94	04/14/94		230.66	03/16/94	06/27/94	
230.40	01/26/94	03/24/94		230.67	03/16/94	05/17/94	
230.41	01/26/94	04/14/94 08/26/94		230.68	03/16/94	06/27/94	
230.42	01/26/94	03/24/94		230.69	03/16/94	05/11/94	
		08/26/94		230.70	03/16/94	05/11/94	
230.43	01/26/94	03/24/94		230.71	03/16/94	05/20/94	
230.44	01/26/94	03/24/94		230.72	03/16/94	05/17/94	
230.45	01/26/94	03/24/94		230.73	03/16/94	06/27/94	
230.46	01/26/94	04/14/94		230.74	03/16/94	05/17/94	
230.47	01/26/94	04/28/94		230.75	03/16/94	05/17/94	
230.48	01/26/94	04/28/94 05/20/94		230.76	03/16/94	05/20/94	
230.49	01/26/94	04/14/94		230.77	03/16/94	05/17/94	
230.50	03/16/94	05/11/94		230.78	03/16/94	05/17/94	
230.51	03/16/94	04/28/94				08/08/94	
230.52	03/16/94	05/17/94		230.79	03/16/94	05/11/94 08/26/94	

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
230.80	03/16/94	05/11/94 08/08/94		230.105	04/05/96	N/A ¹⁰	
230.81	03/16/94			230.106	05/30/96	03/18/97	
230.81	03/16/94	05/11/94 05/17/94		230.107	05/30/96	03/18/97	
230.82	03/10/94	07/27/94		230.108	05/30/96	03/18/97	
230.83	03/16/94	05/17/94		230.109	05/30/96	03/18/97	
230.84	03/16/94	05/11/94		230.110	05/30/96	03/18/97	
		08/08/94		230.111	05/30/96	03/18/97	
230.85	03/16/94	05/17/94		230.112	05/30/96	06/13/97	
230.86	03/16/94	05/20/94		230.113	07/29/96	03/18/97	
230.87	03/16/94	05/20/94		230.114	07/29/96	03/18/97	
230.88	03/16/94	05/17/94		230.115	07/29/96	03/18/97	
230.89	03/16/94	05/17/94	. *	230.116	07/29/96	03/18/97	
230.90	03/16/94	05/17/94 08/08/94		230.117	07/29/96	03/18/97	
230.91	03/16/94	05/17/94		230.118	07/29/96	03/18/97	
230.92	03/16/94	05/17/94		230.119	07/29/96	03/18/97	
230.93	03/16/94	05/17/94		230.120	07/29/96	03/18/97	
230.94	03/16/94	05/17/94		230.121	07/29/96	03/18/97	
230.95	03/16/94	05/17/94		230.122	07/29/96	03/18/97	
230.96	04/05/96	09/25/96		230.123	07/29/96	03/18/97	
230.97	04/05/96	N/A ¹⁰		230.124	07/29/96	03/18/97	
230.98	04/05/96	N/A ¹¹		230.125	07/29/96	03/18/97	
230.99	04/05/96	N/A ¹⁰		230.126	07/29/96	03/18/97	
230.100	04/05/96	N/A ¹⁰		230.127	07/29/96	03/18/97	·
230.101	04/05/96	N/A ¹⁰		230.128	07/29/96	03/18/97	
230.102	04/05/96	N/A ¹⁰		230.129	07/29/96	03/18/97	
230.103	04/05/96	N/A ¹⁰		230.130	07/29/96	03/18/97	
230.104	04/05/96	N/A ¹⁰		230.131	07/29/96	03/18/97	
				230.132	07/29/96	03/18/97	
¹⁰ Resolved during a December 9-13, 1996 mtg (see summary dated March 4, 1997). No formal submittal			230.133	05/08/97	06/19/97 07/24/97		
made by Westi	ngnouse. olved during a J	anuary 14-16, 1	1997 mtg	230.134	05/08/97	06/19/97 07/24/97	

¹¹Resolved during a January 14-16, 1997 mtg (see summary dated March 18, 1997). No formal submittal made by Westinghouse.

06/19/97

230.135

05/08/97

Q No.	lssued	Response	Comments	Q No.	Issued	Response	Comments
230.136	05/08/97	06/19/97		231.15	03/16/94	05/11/94	
230.137	05/08/97	06/19/97		231.16	03/16/94	05/11/94	
		07/24/97		231.17	03/16/94	05/17/94	
230.138	05/08/97	06/19/97		231.18	03/16/94	05/17/94	
230.139	06/02/97	06/19/97 07/24/97		231.19	03/16/94	05/17/94 10/21/94	
230.140F	10/16/97 12/10/97	11/21/97		231.20	03/16/94	05/17/94	
230.141F	12/08/97	12/10/97		231.21	03/16/94	05/20/94	
230.142F	12/08/97	12/10/97		231.22	03/16/94	05/11/94 08/08/94	
230.143F	12/08/97	12/10/97		231.23	03/16/94	05/20/94	
230.144F	12/08/97	12/10/97				09/01/94	
230.145F	01/13/98	01/22/98		231.24	03/16/94	05/17/94	
230.146F	01/13/98	01/28/98		231.25	03/16/94	05/17/94	
230.147F	01/13/98	01/23/98 02/12/98		231.26	03/16/94	05/20/94 11/07/94	
230.148F	01/13/98	01/16/98		231.27	03/16/94	05/17/94	
230.149F	01/13/98	01/23/98		231.28	03/16/94	05/17/94	
230.150F	01/13/98	01/16/98		231.29	03/16/94	05/20/94 08/26/94	
231.1	10/01/92	01/22/93 08/08/94		231.30	03/16/94	05/11/94 08/10/94	
231.2	10/01/92	11/30/92		231.31	03/16/94	05/11/94	
20112		07/01/93		231.32	03/16/94	05/17/94	
231.3	10/01/92	01/08/93		231.33	07/29/96	10/25/96	
231.4	10/01/92	11/30/92		231.34	02/07/97	03/26/97	
231.5	10/01/92	01/22/93		004.05	04/05/07	08/28/97	
231.6	10/01/92	11/30/92		231.35	04/25/97	06/03/97 07/17/97	
231.7	10/01/92	11/30/92		231.36	04/25/97	06/03/97	
231.8	10/01/92	11/30/92				07/17/97	
231.9	10/01/92	11/30/92		231.37	04/25/97	06/03/97 08/07/97	
231.10	10/01/92	01/22/93		231.38	04/25/97	06/03/97	
231.11	10/01/92	01/22/93		231.39	04/25/97	06/03/97	
231.12	10/01/92	01/22/93				08/07/97 10/13/87	
231.13	10/01/92	01/08/93				10/10/01	
231.14	10/01/92	01/08/93					

Q No.	lssued	Response	Comments	Q No.	Issued	Response	Comments
231.40	04/25/97	06/05/97 07/09/97		250.26	10/01/92	11/30/92	
		08/07/97		250.27	10/01/92	11/30/92	
231.41	04/25/97	06/05/97 07/09/97		250.28	10/01/92	11/30/92	
		08/07/97	·	250.29	10/01/92	11/30/92	
231.42	04/25/97	06/05/97		250.30F	10/16/97	11/21/97	
		07/09/97		250.31F	10/16/97	11/21/97	
				250.32F	10/16/97	11/21/97	
250.1	10/01/92	11/30/92		250.33F	10/16/97	11/21/97	
250.2	10/01/92	11/30/92		250.34F	01/08/98	01/15/98	
250.3	10/01/92	11/30/92		250.35F	01/14/98	01/22/98	
250.4	10/01/92	11/30/92		250.36F	01/14/98	01/23/98	
250.5	10/01/92	11/30/92		250.37F	01/14/98	01/22/98	
250.6	10/01/92	11/30/92					
250.7	10/01/92	11/30/92		251.1	10/01/92	11/30/92	
250.8	10/01/92	11/30/92		251.2	10/01/92	01/14/93	
250.9	10/01/92	12/22/92		251.3	10/01/92	01/14/93	
250.10	10/01/92	01/14/93		251.4	10/01/92	01/14/93	
250.11	10/01/92	12/22/92		251.5	10/01/92	01/14/93	
250.12	10/01/92	12/22/92		251.6	10/01/92	01/14/93	
250.13	10/01/92	12/22/92				05/24/93	
250.14	10/01/92	12/22/92		251.7	10/01/92	01/14/93 05/24/93	
250.15	10/01/92	12/22/92 02/03/94		251.8	10/01/92	01/14/93	
250.16	10/01/92	01/14/93		251.9	10/01/92	01/14/93	
250.17	10/01/92	12/22/92		251.10	10/01/92	01/14/93	
250.18	10/01/92	12/22/92		251.11	10/01/92	01/14/93	
250.19	10/01/92	12/22/92				05/24/93 05/28/93	
250.20	10/01/92	12/22/92		251.12	10/01/92	01/14/93	
250.21	10/01/92	01/14/93		251.13	10/01/92	01/14/93	
250.22	10/01/92	11/30/92		251.14	10/01/92	01/14/93	
250.23	10/01/92	11/30/92				05/24/93	
250.24	10/01/92	11/30/92		251.15	10/01/92	01/14/93	
250.25	10/01/92	11/30/92		251.16	10/01/92	01/14/93 05/24/93	

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
251.17	10/01/92	01/14/93 05/24/93		252.13	10/01/92	01/14/93 02/25/97	
251.18	10/01/92	01/14/93 05/24/93		252.14	10/01/92	01/14/93	
251.19	10/01/92	01/14/93		252.15	10/01/92	01/08/93	
		05/24/93		252.16	10/01/92	01/08/93	
251.20	10/01/92	01/14/93		252.17	10/01/92	01/08/93	
251.21	10/01/92	01/14/93		252.18	10/01/92	01/22/93	
251.22	10/01/92	01/14/93		252.19	10/01/92	01/14/93	
251.23	10/01/92	01/14/93		252.20	10/01/92	11/30/92	
251.24	10/01/92	11/30/92		252.21	10/01/92	01/14/93	
251.25	10/01/92	11/30/92		252.22	10/01/92	01/14/93	
251.26	10/01/92	11/30/92		252.23	10/01/92	01/14/93	
251.27	10/01/92	11/30/92		252.24	10/01/92	01/14/93	
251.28	10/01/92	11/30/92		252.25	10/01/92	01/14/93	
251.29	10/01/92	01/22/93		252.26	10/01/92	01/14/93	
251.30	10/01/92	11/30/92		252.27	10/01/92	01/14/93	
251.31	10/01/92	11/30/92		252.28	10/01/92	01/22/93	
251.32	10/01/92	12/22/92		252.29	10/01/92	01/08/93	
201102				252.30	10/01/92	01/08/93	
252.1	10/01/92	01/22/93		252.31	10/01/92	01/08/93	
252.2	10/01/92	01/14/93		252.32	10/01/92	01/08/93	
252.2	10/01/92	12/22/92		252.33	10/01/92	01/08/93	
252.5	10/01/92	12/22/92				03/07/95	
252.5	10/01/92	12/22/92		252.34	10/01/92	01/08/93	
202.0	10/0 (792	10/30/96		252.35	10/01/92	01/08/93	
		02/25/97		252.36	10/01/92	11/30/92	
252.6	10/01/92	12/22/92		252.37	10/01/92	01/08/93	
252.7	10/01/92	01/22/93		252.38	10/01/92	01/08/93	
252.8	10/01/92	01/08/93		252.39	10/01/92	01/14/93	
252.9	10/01/92	01/22/93		252.40	10/01/92	11/30/92	
252.10	10/01/92	12/22/92 03/04/94		252.41	10/01/92	01/14/93	
252.11	10/01/92	12/22/92		252.42	10/01/92	11/30/92	
		02/25/97		252.43	10/01/92	01/08/93	
252.12	10/01/92	01/14/93		252.44	10/01/92	01/14/93	

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
252.45	10/01/92	01/08/93		252.77	10/01/92	01/08/93	
252.46	10/01/92	01/08/93		252.78	10/01/92	01/08/93	
252.47	10/01/92	12/22/92		252.79	10/01/92	01/08/93	
252.48	10/01/92	01/08/93		252.80	10/01/92	01/08/93	
252.49	10/01/92	01/08/93		252.81	10/01/92	01/22/93	
252.50	10/01/92	01/14/93		252.82	10/01/92	01/14/93	
252.51	10/01/92	01/14/93		252.83	10/01/92	01/14/93	
252.52	10/01/92	01/14/93		252.84	10/01/92	01/08/93	
252.53	10/01/92	01/08/93		252.85	10/01/92	01/14/93	
252.54	10/01/92	01/22/93		252.86	10/01/92	01/14/93	
252.55	10/01/92	01/08/93		252.87	10/01/92	01/14/93	
252.56	10/01/92	01/14/93		252.88	10/01/92	01/22/93	
252.57	10/01/92	11/30/92		252.89	10/01/92	01/14/93	
252.58	10/01/92	01/14/93		252.90	10/01/92	01/08/93	
252.59	10/01/92	01/22/93		252.91	10/01/92	11/30/92	
252.60	10/01/92	12/22/92		252.92	10/01/92	01/14/93	
252.61	10/01/92	01/08/93		252.93	10/01/92	01/14/93	
252.62	10/01/92	01/22/93		252.94	10/01/92	01/14/93	
252.63	10/01/92	01/08/93		252.95	10/01/92	01/22/93	
252.64	10/01/92	01/08/93		252.96	10/01/92	01/14/93	
252.65	10/01/92	01/08/93		252.97	10/01/92	11/30/92	
252.66	10/01/92	01/08/93		252.98	10/01/92	11/30/92	
252.67	10/01/92	01/14/93		252.99	10/01/92	01/22/93	
252.68	10/01/92	01/08/93		252.100	10/01/92	01/08/93	
252.69	10/01/92	01/08/93		252.101	10/01/92	01/14/93	
252.70	10/01/92	01/08/93		252.102	10/01/92	01/14/93	
252.71	10/01/92	01/08/93		252.103	10/01/92	01/22/93	
252.72	10/01/92	01/08/93		252.104	10/01/92	01/14/93	
252.73	10/01/92	01/14/93		252.105	10/01/92	01/14/93	
252.74	10/01/92	01/14/93		252.106	10/01/92	01/14/93	
252.75	10/01/92	01/14/93		252.107	10/01/92	12/22/92	
252.76	10/01/92	01/08/93		252.108	10/01/92	12/22/92	

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
252.109	10/01/92	12/22/92		252.142	10/01/92	01/14/93	
252.110	10/01/92	01/14/93		252.143	10/01/92	12/22/92	
252.111	10/01/92	12/22/92		252.144	10/01/92	11/30/92	
252.112	10/01/92	12/22/92		252.145	10/01/92	01/08/93	
252.113	10/01/92	12/22/92					
252.114	10/01/92	12/22/92		260.1	09/23/92	11/30/92	
252.115	10/01/92	12/22/92		260.2	09/23/92	11/30/92	
252.116	10/01/92	12/22/92		260.3	09/23/92	11/30/92	
252.117	10/01/92	01/08/93		260.4	09/23/92	11/30/92	
252.118	10/01/92	11/30/92		260.5	09/23/92	11/30/92	
252.119	10/01/92	11/30/92		260.6	09/23/92	11/30/92	
252.120	10/01/92	01/14/93		260.7	09/23/92	11/30/92	
252.121	10/01/92	01/08/93		260.8	09/23/92	11/30/92	
252.122	10/01/92	01/14/93		260.9	09/23/92	11/30/92	
252.123	10/01/92	01/08/93		260.10	09/23/92	11/30/92	
252.124	10/01/92	01/08/93		260.11	11/02/93	02/03/94	
252.125	10/01/92	01/14/93		260.12	11/02/93	02/03/94	
252.126	10/01/92	11/30/92		260.12	11/02/02	08/12/94 02/03/94	
252.127	10/01/92	01/14/93		260.13	11/02/93		
252.128	10/01/92	01/08/93		260.14	11/02/93	02/03/94 02/03/94	
252.129	10/01/92	01/08/93		260.15	11/02/93 11/02/93	02/03/94	
252.130	10/01/92	01/22/93		260.16		02/03/94	
252.131	10/01/92	01/08/93		260.17 260.18	11/02/93 11/02/93	02/03/94	
252.132	10/01/92	01/14/93		260.18	11/02/93	02/03/94	
252.133	10/01/92	01/14/93		260.20	04/07/94	07/29/94	
252.134	10/01/92	11/30/92		260.20	04/07/94	05/17/94	
252.135	10/01/92	11/30/92		260.22	04/07/94	06/27/94	
252.136	10/01/92	01/08/93		260.23	05/24/94	07/08/94	
252.137	10/01/92	12/22/92		260.23	05/24/94	07/22/94	
252.138	10/01/92	01/08/93		260.25	05/24/94	07/22/94	
252.139	10/01/92	01/22/93		200.20		U., LL /UT	
252.140	10/01/92	11/30/92					
252.141	10/01/92	01/22/93		`			

Q No.	Issued	Response	Comments	Q No.	lssued	Response	Comments
260.26	05/24/94 01/07/98	08/08/94 05/09/97 10/23/97		260.50	04/04/95	08/13/96 05/09/97 10/23/97	
200.27	05/04/04	01/23/98 03/10/98		260.51	04/04/95	08/13/96 05/09/97 10/23/97	
260.27	05/24/94	07/22/94 08/03/94		260.52	04/04/95	08/13/96	
260.28	05/24/94	07/22/94		260.53	04/04/95	08/13/96	
260.29	05/24/94	07/22/94		260.54	04/04/95	08/13/96	
260.30	05/24/94	09/19/94 10/23/97		260.55	04/04/95	08/13/96 05/09/97	
260.31	05/24/94	09/19/94		260.56	04/04/95	08/13/96	
260.32	05/24/94 01/07/98	07/22/94		260.57	04/04/95	08/13/96 10/23/97	
260.33	08/30/94	09/09/94 09/30/94		260.58	04/04/95	08/13/96	
260.34	08/30/94	04/22/96		260.59	04/04/95	08/13/96 05/09/97	
260.35	04/04/95	08/13/96 05/09/97		260.60	04/04/95	08/13/96	
260.36	04/04/95	08/13/96		260.61	04/04/95	08/13/96	
260.37	04/04/95	08/13/96		260.62	04/04/95	08/13/96	
260.38	04/04/95	08/13/96		260.63	04/04/95	08/13/96 05/09/97	
260.39	04/04/95	08/13/96 05/09/97 10/23/97		260.64	04/04/95	08/13/96	
260.40	04/04/95	08/13/96		260.65	06/26/95	08/13/96	
260.41	04/04/95	08/13/96		260.66	06/26/95	08/13/96	
260.42	04/04/95	08/13/96		260.67	06/26/95	08/13/96 05/09/97	
260.43	04/04/95	08/13/96		260.68	06/26/95	08/13/96 11/19/97	
260.44	04/04/95	08/13/96 05/09/97		260.69	06/26/95	08/13/96	
		10/23/97		260.70	06/26/95	08/13/96	
260.45	04/04/95	08/13/96		260.71	06/26/95	08/13/96	
260.46	04/04/95	08/13/96		260.72	06/26/95	08/13/96	
260.47	04/04/95	08/13/96		000 70	01/07/98	11/19/97	
260.48	04/04/95	08/13/96		260.73	06/26/95	08/13/96	
260.49	04/04/95	08/13/96		260.74	06/26/95	08/13/96	0.000.000.000
				260.75	10/23/95	08/13/96	2/28/95 Mtg

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Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
260.76	10/23/95	08/13/96	2/28/95 Mtg	260.106	03/20/97	05/09/97	
260.77	10/23/95	08/13/96	2/28/95 Mtg	260.107	03/20/97	05/09/97	
		06/18/97		260.108	03/20/97	05/09/97	
260.78	10/23/95	08/13/96	2/28/95 Mtg	260.109	03/20/97	05/09/97	
260.79	10/23/95	08/13/96	2/28/95 Mtg	000 440	00/00/07	10/23/97	
260.80	10/23/95	08/13/96	2/28/95 Mtg	260.110	03/20/97	05/09/97	
260.81	10/23/95	08/13/96	2/28/95 Mtg	260.111	03/20/97	05/09/97 10/23/97	
260.82	10/23/95	08/13/96	2/28/95 Mtg	260.112	03/20/97	05/09/97	
260.83	12/11/96	02/21/97			01/07/98	01/23/98	
260.84	12/11/96	02/21/97		260.113	03/20/97	05/09/97	
260.85	12/11/96	02/21/97		260.114	03/20/97 01/07/98	05/09/97	
260.86	12/11/96	02/21/97		260.115	03/20/97	05/09/97	
260.87	12/11/96	02/21/97		260.116	03/20/97	05/09/97	
260.88	12/11/96	02/21/97		260.117	03/20/97	05/09/97	
260.89	12/11/96	02/21/97		260.118	05/14/97	06/11/97	
260.90	12/19/96	01/31/97 04/30/97		260.119	05/14/97	06/11/97	
		10/21/97		260.120	05/14/97	06/11/97	
260.91	03/20/97	05/09/97		260.121	05/14/97	06/11/97	
260.92	03/20/97	05/09/97		260.122	05/14/97	06/11/97	
260.93	03/20/97 01/07/98	05/09/97 10/23/97		260.123	05/14/97	06/11/97	
	01101190	01/28/98		260.124	05/14/97	06/11/97	
260.94	03/20/97	05/09/97		260.125	05/14/97	06/11/97	
260.95	03/20/97	05/09/97		260.126	05/14/97	06/11/97	
260.96	03/20/97	05/09/97		260.127	05/14/97	06/11/97	
260.97	03/20/97	05/09/97		260.128	05/14/97	06/11/97	
260.98	03/20/97	05/09/97		260.129	05/14/97	06/11/97	
260.99	03/20/97	05/09/97		260.130	05/14/97	06/11/97	
260.100	03/20/97	05/09/97		260.131	05/14/97	06/11/97	
260.101	03/20/97	05/09/97		260.132	05/14/97	06/11/97	
260.102	03/20/97	05/09/97		260.133	05/14/97	06/11/97	
260.103	03/20/97	05/09/97		260.134	05/14/97	06/11/97	
260.104	03/20/97	05/09/97		260.135	05/14/97	06/11/97	
260.105	03/20/97	05/09/97		260.136	05/14/97	06/11/97	

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
260.137	05/14/97	06/11/97		280.8	05/05/94	07/22/94	
260.138	05/14/97	10/23/97		280.9	06/24/96	09/10/96	
260.139	01/07/98 05/14/97	01/23/98 10/23/97		280.10	06/24/96	09/10/96 02/07/97	
260.139 260.140F	03/03/98	03/10/98		280.11	06/24/96	09/10/96	
200.1401	03/03/90	03/10/30		280.12	06/24/96	09/20/96	
070 4	00/22/02	11/20/02		280.13	06/24/96	10/04/96	
270.1	09/23/92	11/30/92		280.14	06/24/96	10/11/96	
270.2	09/23/92	11/30/92		280.15	06/24/96	10/11/96	
270.3	09/23/92	11/30/92		280.16	06/24/96	10/11/96	
270.4	05/19/94	06/27/94		280.17	06/24/96	10/11/96	
270.5	05/19/94	06/27/94 07/15/94		280.18	06/24/96	10/11/96	
270.6	05/19/94	07/15/94		280.19	06/24/96	10/11/96	
270.7	05/19/94 05/19/94	07/15/94		280.20	06/24/96	12/10/96	
270.8	05/19/94	07/15/94		280.21	06/24/96	09/20/96	
270.9 270.10	05/19/94	07/15/94		280.22	06/24/96	09/20/96	
270.10	05/19/94	07/15/94		280.23	06/24/96	09/20/96	
270.11	05/19/94	07/15/94		280.24	06/24/96	09/20/96	
270.12	05/19/94	07/15/94		280.25	06/24/96	09/20/96	
270.13	05/19/94	07/15/94		280.26	06/24/96	09/20/96	
270.15F	10/09/97	01/19/98		280.27	06/24/96	10/04/96	
270.16F	10/09/97	10/14/97		280.28	06/24/96	10/04/96	
270.17F	10/09/97	10/14/97		280.29	06/24/96	10/04/96	
		01/23/98		280.30	06/24/96	10/04/96	
270.18F	10/09/97	10/14/97		280.31	06/24/96	10/11/96	
				280.32F	12/18/97	01/28/98	
280.1	05/05/94	09/01/92		280.33F	12/18/97	01/23/98	
280.2	05/05/94	07/15/94		280.34F	12/18/97	01/30/98	
280.3	05/05/94	07/15/94		280.35F	12/18/97	01/12/98	
280.4	05/05/94	07/22/94		280.36F	12/18/97	01/14/98	
280.5	05/05/94	07/22/94		280.37F	12/18/97	01/23/98	
280.6	05/05/94	08/03/94	x	280.38F	04/08/98	04/23/98	
280.7	05/05/94	07/15/94		200.001	0		

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
281.1	10/01/92	11/30/92		410.10	09/23/92	11/30/92	
281.2	10/01/92	01/14/93		410.11	09/23/92	01/22/93	•
281.3	10/01/92	01/22/93		410.12	09/23/92	01/22/93	
281.4	10/01/92	01/14/93		410.13	09/23/92	01/22/93	
281.5	10/01/92	01/22/93		410.14	09/23/92	01/22/93	
281.6	10/01/92	01/08/93		410.15	09/23/92	01/22/93 08/30/96	
281.7	10/01/92	01/14/93		410.16	11/16/92	03/18/93	
281.8	10/01/92	01/14/93		410.18	11/16/92	03/18/93	
281.9	10/01/92	01/22/93		410.17	11/10/52	05/19/97	
281.10	10/01/92	11/30/92				06/05/97 07/22/97	
281.11	10/01/92	01/22/93				08/29/97	·
281.12	10/01/92	01/22/93		410.18	11/16/92	03/18/93	
281.13	10/01/92	01/22/93		410.19	11/16/92	03/18/93	
281.14	10/01/92	11/30/92		410.20	11/16/92	03/18/93	
281.15	10/01/92	11/30/92		410.21	11/16/92	02/25/93	
281.16	10/01/92	11/30/92		410.22	11/16/92	02/25/93	
281.17	10/01/92	11/30/92		410.23	11/16/92	03/18/93 02/03/94	
281.18	10/01/92	11/30/92		410.24	11/16/92	02/25/93	
281.19	10/01/92	11/30/92		410.25	11/16/92	03/18/93	
281.20	07/14/94	09/01/94		410.26	11/16/92	02/25/93	
281.21	07/14/94	09/01/94		410.27	11/16/92	03/18/93	
281.22	07/14/94	11/07/94		410.28	11/16/92	03/18/93	
281.23	07/14/94	11/07/94		410.29	11/16/92	02/25/93	
				410.30	11/16/92	03/18/93	
410.1	09/23/92	01/22/93		410.31	11/16/92	01/22/93	
410.2	09/23/92	11/30/92		410.32	11/16/92	02/25/93	
410.3	09/23/92	01/22/93		410.33	11/16/92	03/18/93	
410.4	09/23/92	01/22/93		410.34	11/16/92	03/18/93	
410.5	09/23/92	01/22/93		410.35	11/16/92	02/25/93	
410.6	09/23/92	01/22/93		410.36	11/16/92	02/25/93	
410.7	09/23/92	01/22/93		410.37	11/16/92	03/18/93	
410.8	09/23/92	01/22/93		410.38	11/16/92	02/25/93	
410.9	09/23/92	01/22/93		410.39	11/16/92	02/25/93	
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Q No.	Issued	Response	Comments	Q No.	lssued	Response	Comments
410.40	11/16/92	03/18/93		410.72	11/16/92	03/18/93	
410.41	11/16/92	02/25/93		410.73	11/16/92	03/18/93	
410.42	11/16/92	01/14/93		410.74	11/16/92	03/18/93	
410.43	11/16/92	03/18/93		410.75	11/16/92	03/18/93	
410.44	11/16/92	03/18/93		410.76	11/16/92	03/18/93	
410.45	11/16/92	02/25/93		410.77	11/16/92	02/09/93	
410.46	11/16/92	03/18/93	ĸ	410.78	11/16/92	02/09/93	
410.47	11/16/92	03/18/93		410.79	11/16/92	02/09/93	
410.48	11/16/92	03/18/93		410.80	11/16/92	03/18/93	
410.49	11/16/92	03/18/93		410.81	11/16/92	03/18/93	
410.50	11/16/92	03/18/93		410.82	11/16/92	02/25/93	
410.51	11/16/92	03/18/93		410.83	11/16/92	03/18/93	
410.52	11/16/92	03/18/93		410.84	11/16/92	03/18/93	
410.53	11/16/92	03/18/93		410.85	11/16/92	02/09/93	
410.54	11/16/92	03/18/93		410.86	11/16/92	03/18/93	
410.55	11/16/92	02/09/93		410.87	11/16/92	03/18/93	
410.56	11/16/92	02/09/93		410.88	11/16/92	03/18/93	
410.57	11/16/92	02/09/93		410.89	11/16/92	03/18/93	
410.58	11/16/92	02/25/93		410.90	11/16/92	02/09/93	
410.59	11/16/92	03/18/93		410.91	11/16/92	03/18/93	
410.60	11/16/92	02/25/93		410.92	11/16/92	02/09/93	
410.61	11/16/92	03/18/93		410.93	01/26/93	03/18/93	
410.62	11/16/92	03/18/93		410.94	01/26/93	03/16/93 03/18/93	
410.63	11/16/92	03/18/93		410.95	01/26/93	03/30/93	
410.64	11/16/92	03/18/93		410.96	01/26/93	03/30/93	
410.65	11/16/92	01/22/93		410.97	01/26/93	03/30/93	
410.66	11/16/92	03/18/93		410.98	01/26/93	05/28/93	
410.67	11/16/92	03/18/93		410.99	01/26/93	05/14/93	
410.68	11/16/92	03/18/93		410.33	01/26/93	04/29/93	
410.69	11/16/92	03/18/93		410.100	01/26/93	05/15/93	
410.70	11/16/92	03/18/93		410.102	01/26/93	04/29/93	
410.71	11/16/92	03/18/93		410.102	01/26/93	03/30/93	
					0.1120100		

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
410.104	01/26/93	05/14/93		410.136	05/05/94	07/29/94	
410.105	01/26/93	03/30/93		410.137	05/05/94	08/03/94	
410.106	04/15/94	07/01/94		410.138	05/05/94	07/27/94	
410.107	05/05/94	07/01/94		410.139	05/05/94	08/08/94	
410.108	05/05/94	08/08/94		410.140	05/05/94	08/03/94	
410.109	05/05/94	08/08/94		410.141	05/05/94	06/30/94	
410.110	05/05/94	07/29/94		410.142	05/05/94	07/01/94	
410.111	05/05/94	07/01/94		410.143	05/05/94	08/08/94	
410.112	05/05/94	07/29/94		410.144	05/05/94	07/29/94	
410.113	05/05/94	08/03/94		410.145	05/05/94	08/26/94 07/26/96	
410.114	05/05/94	08/03/94		410.146	05/05/94	06/16/94	
410.115	05/05/94	08/08/94 10/17/96		410.147	05/05/94	08/03/94	
410 116	05/05/04	07/01/94		410.148	05/05/94	06/30/94	
410.116 410.117	05/05/94 05/05/94	06/30/94		410.149	05/05/94	07/22/94	
410.117	05/05/94	06/30/94		410.150	05/05/94	07/29/94	
410.119	05/05/94	07/22/94		410.151	05/05/94	07/29/94	
410.120	05/05/94	08/12/94		410.152	05/23/94	09/01/94	
410.121	05/05/94	06/30/94		410.153	05/23/94	07/29/94	
410.122	05/05/94	06/30/94		410.154	05/23/94	08/03/94	
410.123	05/05/94	06/30/94		410.155	05/23/94	09/01/94	
410.124	05/05/94	06/30/94		410.156	05/23/94	06/30/94	
410.125	05/05/94	06/30/94		410.157	05/23/94	03/07/95	
410.126	05/05/94	06/16/94		410.158	05/23/94	07/29/94	
410.127	05/05/94	06/16/94		410.159	05/23/94	07/29/94	
410.128	05/05/94	07/29/94		410.160	05/23/94	08/26/94	
410.129	05/05/94	06/30/94		410.161	05/23/94	07/29/94	
410.130	05/05/94	06/27/94		410.162	05/23/94	08/26/94	
410.131	05/05/94	06/30/94		410.163	05/23/94	07/29/94	
410.132	05/05/94	06/30/94		410.164	05/23/94	07/15/94	
410.133	05/05/94	07/29/94		410.165	05/23/94	07/22/94	
410.134	05/05/94	06/30/94		410.166	05/23/94	08/03/94	
410.135	05/05/94	08/03/94		410.167	05/23/94	07/08/94	

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Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
410.168	05/23/94	08/03/94		410.200	05/23/94	07/15/94	
410.169	05/23/94	07/22/94		410.201	05/23/94	07/15/94	
410.170	05/23/94	07/22/94		410.202	05/23/94	07/15/94	
410.171	05/23/94	08/08/94		410.203	05/23/94	07/27/94	
410.172	05/23/94	06/30/94		410.204	05/23/94	07/15/94	
410.173	05/23/94	06/30/94		410.205	05/23/94	06/27/94	
410.174	05/23/94	08/03/94		410.206	05/23/94	09/19/94	
410.175	05/23/94	07/15/94		410.207	05/23/94	06/27/94	
410.176	05/23/94	07/29/94		410.208	05/23/94	07/29/94	
410.177	05/23/94	08/03/94		410.209	05/23/94	07/27/94	
410.178	05/23/94	08/03/94		410.210	05/23/94	07/01/94	
410.179	05/23/94	08/03/94		410.211	05/23/94	06/27/94	
410.180	05/23/94	08/03/94		410.212	05/23/94	06/27/94	
410.181	05/23/94	07/15/94		410.213	05/23/94	07/29/94	
410.182	05/23/94	07/15/94		410.214	05/23/94	07/15/94	
410.183	05/23/94	08/03/94		410.215	05/23/94	06/27/94	
410.184	05/23/94	07/08/94		410.216	05/23/94	06/16/94	
410.185	05/23/94	07/29/94		410.217	05/23/94	06/27/94	
410.186	05/23/94	07/08/94		410.218	05/23/94	06/27/94	
410.187	05/23/94	07/29/94		410.219	05/23/94	07/29/94	
410.188	05/23/94	08/08/94		410.220	05/23/94	06/27/94	•
410.189	05/23/94	06/30/94		410.221	05/23/94	06/16/94	
410.190	05/23/94	07/29/94		410.222	05/23/94	06/27/94	
410.191	05/23/94	06/27/94		410.223	05/23/94	07/01/94	
410.192	05/23/94	07/15/94		410.224	05/23/94	06/27/94	
410.193	05/23/94	06/27/94		410.225	05/23/94	06/27/94	
410.194	05/23/94	07/08/94		410.226	05/23/94	06/27/94	
410.195	05/23/94	07/15/94		410.227	05/23/94	06/27/94	
410.196	05/23/94	08/26/94		410.228	05/23/94	06/27/94	
410.197	05/23/94	08/03/94		410.229	05/23/94	06/27/94	
410.198	05/23/94	08/03/94		410.230	05/23/94	06/27/94	
410.199	05/23/94	07/15/94		410.231	05/23/94	06/27/94	

Q No. Issued	Response	Comments	Q No.	Issued	Response	Comments
410.232 05/23/94	07/08/94		410.262	08/18/94	09/10/96	
410.233 05/23/94	07/22/94				03/13/97 10/13/97	
410.234 05/23/94	07/21/98		410.263	08/18/94	05/13/96	
410.235 05/23/94	07/22/94			01/07/98	02/07/97 05/09/97	
410.236 05/23/94	07/22/94				06/24/97 01/29/98	
410.237 05/23/94	06/30/94				03/10/98	
410.238 05/23/94	07/22/94	`	410.264	08/18/94	09/30/94	
410.239 05/23/94	07/08/94		410.265	06/13/95	09/21/96	COL Item
410.240 05/23/94	07/22/94		410.266	06/13/95	09/21/96	COL Item
410.241 05/23/94	07/15/94		410.267	06/13/95	09/21/96	COL Item
410.242 05/23/94	07/15/94		410.268	06/13/95	09/21/96	COL Item
410.243 05/23/94	07/29/94		410.269	06/13/95	09/21/96	COL Item
410.244 05/23/94	02/07/97		410.270	06/13/95	09/21/96	COL Item
	05/07/97		410.271	06/13/95	09/21/96	COL Item
410.245 05/23/94	05/07/97		410.272	06/13/95	09/21/96	COL Item
410.246 05/23/94	05/07/97		410.273	06/13/95	09/21/96	COL Item
410.247 05/23/94	05/07/97		410.274	06/13/95	09/21/96	COL Item
410.248 05/23/94	05/07/97		410.275	06/13/95	09/21/96	COL Item
410.249 05/18/94	07/15/94		410.276	03/26/96	05/20/96	,
410.250 05/18/94	07/22/94		410.277	03/26/96	09/10/96	
410.251 05/18/94	07/22/94		410.278	03/26/96	05/20/96	
410.252 05/18/94	07/08/94		410.279	03/26/96	07/01/96	
410.253 05/18/94	08/26/94		410.280	03/26/96	07/18/96	
410.254 05/18/94	07/15/94		410.281	03/26/96	07/18/96	,
410.255 05/18/94	08/08/94 10/17/96		410.282	03/26/96	07/26/96	
410.256 05/18/94	07/08/94		410.283	03/26/96	08/05/96	
410.257 05/18/94	08/08/94		410.284	03/26/96	05/20/96	
			410.285	03/26/96	07/26/96	
410.258 05/18/94	08/08/94		410.286	03/26/96	07/26/96	
410.259 05/18/94	08/08/94		410.287	03/26/96	05/20/96	
410.260 05/18/94	08/08/94		410.288	03/26/96	08/05/96	
410.261 08/18/94	10/21/94 02/21/97		410.289	03/26/96	06/21/96 01/30/97	

Q No.	lssued	Response	Comments	Q No.	Issued	Response	Comments
410.290	03/26/96	05/20/96		410.321F	10/30/97	12/22/97	
410.291	03/26/96	05/13/96		440.0005	10/20/07	01/23/98	
410.292	03/26/96	05/20/96		410.322F	10/30/97	12/03/97	
410.293	03/26/96	05/20/96		410.323F	10/30/97	12/08/97	
440.004	00/00/00	10/25/96		410.324F	10/30/97	12/08/97	
410.294	03/26/96	05/20/96 10/25/96		410.325F	10/30/97	12/10/97	
410.295	08/15/96	03/05/97		410.326F	10/30/97	12/10/97 01/22/98	
410.296	08/15/96	10/17/96		410.327F	10/30/97	12/09/97	
410.297	09/23/96	06/18/97	•	410.328F	10/30/97	12/10/97	
410.298	09/23/96	06/18/97		410.329F	10/30/97	12/10/97	
410.299	10/17/96	07/21/98		410.330F	10/30/97	12/10/97	
410.300	12/09/96	06/18/97		410.331F	10/30/97	12/10/97	
410.301	07/25/97	08/19/97		410.332F	10/30/97	12/10/97	
410.302	07/25/97	08/19/97		410.333F	10/30/97	12/11/97	
410.303	07/25/97	08/19/97		410.334F	10/30/97	12/11/97	
410.304F	10/10/97	12/10/97		410.335F	10/30/97	12/10/97	
410.305F	10/10/97	12/10/97		410.336F	10/30/97	12/11/97	
410.306F	10/10/97	12/12/97		410.337F	10/30/97	12/11/97	
410.307F	10/10/97	01/29/98		410.338F	10/30/97	12/11/97	
410.308F	10/20/97	11/26/97 01/29/98		410.339F	12/09/97	12/12/97 01/28/98	
410.309F	10/20/97	12/03/97		410.340F	12/09/97	12/10/97	
410.310F	10/20/97	11/26/97		410.341F	12/09/97	12/12/97	
410.311F	10/20/97	11/03/97		410.342F	12/09/97	12/12/97	
410.312F	10/20/97	11/03/97		410.343F	12/09/97	12/10/97	
410.313	10/24/97	11/11/97		410.344F	12/09/97	12/10/97	
410.314	10/24/97	11/11/97		410.345F	12/09/97	12/12/97	
410.315	10/24/97	11/11/97		410.346F	12/09/97	12/10/97	
410.316	10/24/97	11/11/97		410.347F	12/09/97	12/10/97	
410.317	10/24/97	11/11/97		410.348F	12/09/97	12/11/97	
410.318	10/24/97	11/11/97		410.349F	12/09/97	12/11/97	
410.319	VOID	VOID		410.350F	12/09/97	12/11/97	
410.320F	10/27/97	12/08/97		410.351F	12/09/97	12/10/97	

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Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
410.352F	12/09/97	12/12/97		410.382F	12/09/97	12/19/97	
410.353F	12/09/97	12/11/97		410.383F	12/09/97	12/19/97	
410.354F	12/09/97	12/11/97	ſ	410.384F	12/09/97	12/19/97	
410.355F	12/09/97	12/11/97		410.385F	12/09/97	12/18/97	
410.356F	12/09/97	12/12/97		410.386F	12/09/97	12/19/97	
410.357F	12/09/97	12/10/97		410.387F	12/09/97	12/19/97	
410.358F	12/09/97	12/12/97		410.388F	12/09/97	12/19/97	
410.359F	12/09/97	12/10/97	·	410.389F	12/09/97	12/19/97	·
410.360F	12/09/97	12/10/97		410.390F	12/09/97	12/19/97	
410.361F	12/09/97	12/10/97		410.391F	12/09/97	12/19/97	
410.362F	12/09/97	12/12/97		410.392F	12/09/97	12/19/97	
410.363F	12/09/97	12/11/97		410.393F	12/09/97	12/19/97 01/23/98	
410.364F	12/09/97	12/11/97		410.394F	12/09/97	12/19/97	
410.365F	12/09/97	12/22/97 01/26/98		410.395F	12/09/97	12/19/97	
410.366F	12/08/97	12/15/97		410.396F	12/17/97	12/30/97	
410.367F	12/08/97	12/15/97		410.397F	12/17/97	12/30/97	
410.368F	12/08/97	12/15/97		410.398F	12/17/97	01/05/98	
410.369F	12/08/97	12/15/97		410.399F	12/17/97	01/05/98	
410.370F	12/08/97	12/15/97		410.400F	12/17/97	01/06/98	
		01/27/98		410.401F	12/17/97	12/30/97	
410.371F	12/08/97	12/29/97		410.402F	12/17/97	12/30/97	
410.372F	12/08/97	12/29/97		410.403F	12/17/97	01/09/98	
410.373F	12/08/97	12/15/97		410.404F	12/12/97	12/16/97	
410.374F	12/08/97	12/15/97				01/23/98	
410.375F	12/08/97	12/29/97 01/26/98		410.405F	12/12/97	12/16/97	
410.376F	12/08/97	12/29/97		410.406F	12/12/97	12/16/97	
410.377F	12/08/97	12/15/97		410.407F	12/12/97	12/16/97 01/23/98	
410.378F	12/08/97	12/29/97		410.408F	12/12/97	12/16/97	
410.379F	12/08/97	12/29/97		410.409F	12/12/97	12/16/97	
		01/23/98		410.410F	12/12/97	12/16/97	
410.380F	12/08/97	12/29/97 01/26/98		410.411F	12/12/97	12/16/97 01/23/98	
410.381F	12/09/97	12/18/97 01/23/98		410.412F	12/12/97	12/16/97	
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Q No.	lssued	Response	Comments	Q No.	Issued	Response	Comments
410.413F 410.414F	12/17/97	01/09/98		420.2	09/23/92	01/14/93 05/14/93	
410.414	12/17/97	01/15/98 02/11/98		400.0	00/00/00	05/20/93	
410.415F	12/18/97	01/07/98 01/27/98		420.3 420.4	09/23/92 09/23/92	11/30/92 01/22/93	
410.416F	12/18/97	01/09/98		420.4	09/23/92	12/22/93	
				120.0	00,20,02	07/26/93 02/26/97	
410.417F	12/18/97	01/07/98 01/13/98		420.6	09/23/92	12/22/92	
410.418F	12/18/97	01/26/98		420.7	10/28/92	02/25/93	
410.419F	12/18/97	01/09/98				07/26/93 02/26/97	
410.420F	12/18/97	01/09/98		420.8	11/16/92	02/09/93	
410.421F	12/18/97	01/09/98				11/11/97	
410.422F	12/18/97	01/13/98		420.9	03/12/93	05/28/93	
410.423F	12/18/97	01/13/98		420.10	03/12/93	05/28/93	
410.424F	12/18/97	01/09/98		420.11	03/12/93	05/05/93 05/14/93	
410.425F	12/18/97	01/07/98		420.12	03/12/93	04/29/93	
410.426F	12/18/97	01/07/98		420.13	03/12/93	04/29/93	
410.427F	12/18/97	01/14/98 01/26/98		420.14	03/12/93	05/14/93	
410.428F	12/18/97	01/07/98		420.15	03/12/93	06/17/93	
410 4205	12/19/07	01/26/98		420.16	03/12/93	06/17/93	
410.429F 410.430F	12/18/97 12/18/97	01/07/98 01/08/98		420.17	03/12/93	04/29/93	
410.431F	12/18/97	01/09/98	·	420.18	03/12/93	04/29/93	
410.432F	12/18/97	01/07/98		420.19	03/12/93	05/28/93	
410.433F	VOID	VOID		420.20	03/12/93	04/29/93	
410.434F	12/18/97	01/07/98		420.21	03/12/93	04/29/93	
		01/26/98		420.22	03/12/93	04/29/93	
410.435F	12/18/97	01/13/98		420.23	03/12/93	04/29/93	
410.436F	12/22/97	12/23/97 01/26/98		420.24	03/12/93	07/16/93 10/21/97	
410.437F	01/20/98	01/23/98		420.25	03/12/93	06/17/93	
				420.26	03/12/93	05/14/93	
420.1	09/23/92	11/30/92		420.27	03/12/93	05/14/93	
	· .			420.28	03/12/93	04/29/93	

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
420.29	03/12/93	05/14/93		420.62	03/12/93	04/29/93	
420.30	03/12/93	04/29/93		420.63	03/12/93	04/29/93	
420.31	03/12/93	04/29/93		420.64	03/12/93	04/29/93	
420.32	03/12/93	04/29/93		420.65	03/12/93	04/29/93	
420.33	03/12/93	04/29/93		420.66	03/12/93	04/29/93	
420.34	03/12/93	04/29/93		420.67	03/12/93	04/29/93	
420.35	03/12/93	04/29/93		420.68	03/12/93	04/29/93	
420.36	03/12/93	05/28/93		420.69	03/12/93	04/29/93	
420.37	03/12/93	04/29/93		420.70	03/12/93	07/16/93	
420.38	03/12/93	05/14/93		420.71	03/12/93	07/16/93	
420.39	03/12/93	05/28/93		420.72	03/12/93	07/16/93	
420.40	03/12/93	/ 06/17/93		420.73	03/12/93	06/17/93	
420.41	03/12/93	04/29/93		420.74	03/12/93	07/16/93	
420.42	03/12/93	04/29/93		420.75	03/12/93	04/29/93	
420.43	03/12/93	07/16/93		420.76	03/12/93	04/29/93	
420.44	03/12/93	05/28/93		420.77	03/12/93	07/16/93	
420.45	03/12/93	05/14/93		420.78	03/12/93	07/16/93	
420.46	03/12/93	05/14/93		420.79	03/12/93	07/16/93	
420.47	03/12/93	06/17/93		420.80	03/12/93	07/16/93	
420.48	03/12/93	05/14/93		420.81	03/12/93	07/16/93	
420.49	03/12/93	05/14/93		420.82	03/12/93	05/14/93	
420.50	03/12/93	04/29/93		420.83	03/12/93	04/29/93	
420.51	03/12/93	04/29/93		420.84	03/12/93	04/29/93	
420.52	03/12/93	05/28/93		420.85	03/12/93	05/14/93	
420.53	03/12/93	05/28/93		420.86	03/12/93	05/28/93	
420.54	03/12/93	04/29/93		420.87	03/12/93	04/29/93	
420.55	03/12/93	07/16/93		420.88	03/12/93	05/14/93	
420.56	03/12/93	04/29/93		420.89	03/12/93	04/29/93	
420,57	03/12/93	04/29/93		420.90	03/12/93	05/05/93	
420.58	03/12/93	04/29/93			00110100	05/14/93	
420.59	03/12/93	04/29/93		420.91	03/12/93	06/17/93	
420.60	03/12/93	04/29/93		420.92	03/12/93	07/16/93	
420.61	03/12/93	04/29/93		420.93	03/12/93	06/17/93	

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Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
420.94	04/28/93	06/17/93		420.123	01/13/94	04/14/94	
420.95	04/28/93	06/17/93		420.124	04/29/94	03/07/95	
420.96	04/28/93	06/17/93		420.125	03/26/96	05/24/96	
420.97	04/28/93	08/31/93		420.126F	11/26/97	12/12/97	
420.98	04/28/93	07/01/93		420.127F	12/02/97	12/11/97	
420.99	04/28/93	06/17/93 06/02/94		420.128F	12/30/97	01/09/98 07/13/98	
420.100	04/28/93	06/17/93		420.129F	12/30/97	01/09/98	
420.101	04/28/93	06/17/93 06/25/97		435.1	10/09/92	02/09/93	
420.102	04/28/93	06/17/93		435.1	10/09/92	11/30/92	
420.103	04/28/93	07/16/93		435.2	10/09/92	02/09/93	
420.104	04/28/93	07/16/93		435.3	10/09/92	11/30/92	
420.105	04/28/93	08/31/93		435.5	10/09/92	12/22/92	
420.106	04/28/93	08/31/93		435.6	10/09/92	11/30/92	
420.107	10/08/93	01/12/94		435.7	10/09/92	12/22/92	
420.108	10/08/93	01/12/94		435.8	10/09/92	01/14/93	
420.109	10/08/93	01/12/94		435.9	10/09/92	12/22/92	
420.110	10/08/93	11/30/93		435.10	10/09/92	02/09/93	
420.111	10/08/93	01/12/94		435.11	10/09/92	11/30/92	
420.112	10/08/93	01/12/94		435.12	10/09/92	12/22/92	
420.113	10/08/93	01/12/94 01/17/94		435.13	10/09/92	02/09/93	
420.114	10/08/93	01/12/94		435.14	10/09/92	11/30/92	
420.115	10/08/93	01/12/94		435.15	10/09/92	11/30/92	
420.116	10/08/93	11/30/93		435.16	10/09/92	02/09/93	
420.117	10/08/93	01/12/94		435.17	10/09/92	12/22/92	
		02/11/94		435.18	10/09/92	11/30/92	
420.118	10/08/93	01/12/94		435.19	10/09/92	11/30/92	
420.119	10/08/93	01/12/94		435.20	10/09/92	11/30/92	
420.120	10/08/93	01/11/94 01/12/94		435.21	10/09/92	11/30/92	
420.121	10/08/93	01/11/94 01/12/94		435.22 435.23	10/09/92 10/09/92	11/30/92 11/30/92	
420.122	10/08/93	01/12/94		435.24	10/09/92	12/22/92	

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Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
435.25	10/09/92	12/22/92		435.57	10/09/92	02/09/93	
435.26	10/09/92	01/14/93		435.58	10/09/92	02/09/93	
435.27	10/09/92	01/14/93		435.59	10/09/92	02/09/93	
435.28	10/09/92	01/14/93		435.60	10/09/92	11/30/92	
435.29	10/09/92	01/14/93		435.61	10/09/92	01/14/93	
435.30	10/09/92	02/09/93		435.62	10/09/92	02/09/93	
435.31	10/09/92	02/09/93		435.63	10/09/92	01/22/93	
435.32	10/09/92	12/22/92		435.64	10/09/92	01/22/93	
435.33	10/09/92	12/22/92		435.65	10/09/92	12/22/92	
435.34	10/09/92	02/09/93		435.66	10/09/92	02/09/93	
		08/14/96		435.67	10/09/92	02/09/93	
435.35	10/09/92	01/22/93		435.68	10/09/92	12/22/92	
435.36	10/09/92	01/22/93		435.69	10/09/92	12/22/92	
435.37	10/09/92	01/22/93		435.70	10/09/92	01/14/93	
435.38	10/09/92	01/14/93		435.71	10/09/92	01/14/93	
435.39	10/09/92	01/22/93		435.72	10/09/92	01/22/93 03/07/95	
435.40	10/09/92	01/22/93		435.73	10/09/92	02/09/93	
435.41	10/09/92	01/22/93		435.74	04/29/94	06/30/94	
435.42	10/09/92	01/22/93		435.75	04/29/94	07/29/94	
435.43	10/09/92	01/22/93		435.76	04/29/94	08/08/94	
435.44	10/09/92	01/22/93		435.77	04/29/94	09/01/94	
435.45	10/09/92	01/22/93		435.78	04/29/94	08/03/94	
435.46	10/09/92	02/09/93					
435.47	10/09/92	01/22/93		435.79	04/29/94	08/03/94	
435.48	10/09/92	02/09/93		435.80	04/29/94	07/22/94	
435.49	10/09/92	01/22/93		435.81	04/29/94	07/27/94	
435.50	10/09/92	01/22/93	,	435.82	04/29/94	08/03/94	
435.51	10/09/92	01/14/93		435.83	04/29/94	10/21/94	
435.52	10/09/92	02/09/93		435.84	07/18/96	08/14/96	
435.53	10/09/92	02/09/93					
435.54	10/09/92	02/09/93		440.1	09/23/92	11/30/92 07/25/94	
435.55	10/09/92	02/09/93		440.2	09/23/92	01/14/93	
435.56	10/09/92	02/09/93				03/24/94	

Q No.	Issued	Response	Comments	Q No.	lssued	Response	Comments
440.3	09/23/92	01/22/93		440.28	09/23/92	01/14/93	
440.4	09/23/92	11/30/92		440.29	09/23/92	01/22/93	
		03/24/94		440.30	09/23/92	12/22/92	
440.5	09/23/92	11/30/92 03/24/94		440.31	09/23/92	01/22/93	
440.6	09/23/92	11/30/92 03/24/94		440.32	01/26/93	05/14/93 06/08/94	
440.7	09/23/92	11/30/92		440.33	02/18/93	06/17/93	
440.8	09/23/92	11/30/92		440.34	02/18/93	05/14/93 04/28/94	
440.9	09/23/92	11/30/92		440.35	08/05/93	11/04/93	
440.10	09/23/92	11/30/92 03/24/94		440.35	00/03/35	02/28/94 03/04/94	
440.11	09/23/92	11/30/92		440.36	11/02/93	02/03/94	
		07/25/94		440.37	11/02/93	02/03/94	
440.12	09/23/92	11/30/92 09/19/94		440.38	11/02/93	02/03/94	
440.13	09/23/92	01/22/93		440.3 9	11/02/93	02/03/94	
		02/03/94		440.40	11/02/93	02/03/94	
440.14	09/23/92	01/22/93 08/08/94		440.41	11/02/93	02/03/94	
440.15	09/23/92	11/30/92		440.42	11/02/93	02/03/94	
440.16	09/23/92	01/14/93		440.43	11/02/93	02/03/94	
440.17	09/23/92	01/22/93		440.44 .	11/02/93	02/03/94	
440.18	09/23/92	01/22/93		440.45	11/02/93	02/03/94	
440.19	09/23/92	11/30/92		440.46	11/02/93	02/03/94	
440.20	09/23/92	01/22/93		440.47	11/02/93	02/03/94	
440.21	09/23/92	01/22/93		440.48	11/02/93	02/03/94 04/21/94	
440.22	09/23/92	12/22/92		440.49	01/13/94	04/14/94	
440.23	09/23/92	12/22/92		440.50	01/13/94	03/24/94	
440.24	09/23/92	01/22/93		440.51	01/13/94	04/14/94	
440.25	09/23/92	01/22/93		440.52	03/07/94	07/25/94	
440.26	09/23/92	01/22/93 03/04/94			03/24/94		
				440.53	04/15/94	04/15/97 06/06/97	
440.27	09/23/92	01/22/93 03/03/95		440.54	04/15/94	07/29/94	
		04/06/95 08/22/95				06/30/94	
		00,22,00		440.55	04/15/94	00/30/34	

E-31

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
440.56	04/15/94	08/12/94		440.88	05/02/94	06/30/94	
440.57	04/15/94	08/08/94		440.89	05/02/94	06/27/94	
440.58	04/15/94	07/29/94		440.90	05/02/94	08/08/94	
440.59	04/15/94	06/30/94		440.91	05/02/94	.06/27/94	
440.60	04/15/94	08/03/94		440.92	05/02/94	06/30/94	
440.61	04/15/94	08/26/94		440.93	05/02/94	07/22/94	
440.62	04/15/94	06/30/94		440.94	05/02/94	07/22/94	
440.63	04/15/94	06/30/94		440.95	05/02/94	09/01/94	
440.64	04/15/94	03/07/95		440.96	05/02/94	07/22/94	
440.65	04/15/94	06/30/94		440.97	05/02/94	07/08/94	
440.66	04/15/94	· 08/08/94		440.98	05/02/94	08/03/94	
440.67	04/15/94	07/08/94		440.99	05/02/94	06/27/94	
440.68	04/15/94	07/27/94		440.100	05/02/94	06/30/94	
440.69	04/15/94	06/30/94		440.101	05/02/94	07/22/94	
440.70	04/15/94	09/02/94		440.102	05/02/94	06/27/94	
440.71	04/15/94	06/30/94		440.103	05/02/94	06/30/94	
440.72	04/15/94	07/08/94		440.104	05/02/94	06/30/94	
440.73	04/19/94	08/03/94		440.105	05/02/94	07/22/94	
440.74	04/29/94	08/03/94		440.106	05/02/94	08/03/94	
440.75	04/29/94	06/27/94 06/02/97		440.107	05/02/94	06/27/94	
440.76	04/29/94	06/30/94		440.108	05/02/94	07/22/94	
440.77	04/29/94	06/27/94		440.109	05/02/94	07/22/94	
440.78	04/29/94	07/29/94		440.110	05/02/94	07/22/94	
		07/10/97		440.111	05/02/94	07/27/94	
440.79	04/29/94	07/15/94		440.112	05/02/94	06/30/94	
440.80	04/29/94	08/03/94		440.113	05/02/94	06/30/94	
440.81	04/29/94	06/30/94		440.114	05/02/94	06/27/94	
440.82	04/29/94	06/27/94		440.115	05/02/94	06/27/94	
440.83	04/29/94	08/03/94		440.116	05/02/94	07/22/94	
440.84	04/29/94	06/27/94		440.117	05/02/94	07/22/94	
440.85	05/02/94	06/30/94		440.118	05/02/94	07/22/94	
440.86	05/02/94	06/27/94		440.119	05/02/94	07/22/94	
440.87	05/02/94	06/30/94					

NUREG-1512

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Q No.	Issued	Response	Comments	Q No.	lssued	Response	Comments
440.120	05/02/94	07/18/96		440.149	05/05/94	08/08/94	
	09/24/96	08/08/96 05/09/97		440.150	05/05/94	08/08/94	
		05/14/97 06/06/97		440.151	05/05/94	08/08/94	
		07/20/98		440.152	05/05/94	08/08/94	
440.121	05/02/94	08/08/94		440.153	05/05/94	08/08/94	
440.122	05/16/94	07/29/94		440.154	05/05/94	08/10/94	
440.123	05/11/94	06/30/94		440.155	05/05/94	08/10/94	
440.124	05/11/94	06/30/94		440.156	05/05/94	08/08/94	
440.125	05/11/94	06/16/94		440.157	05/16/94	06/27/94	
440.126	05/11/94	07/22/94		440.158	05/16/94	07/22/94	
440.127	05/11/94	06/27/94		440.159	05/16/94	06/27/94	
440.128	05/11/94	07/29/94		440.160	05/16/94	07/22/94	
440.129	05/11/94	06/27/94		440.161	05/16/94	06/27/94	
440.130	05/11/94	06/30/94		440.162	05/16/94	08/12/94	
440.131	05/11/94	07/29/94		440.163	05/16/94	07/22/94	
440.132	05/11/94	07/22/94		440.164	05/16/94	06/16/94	
440.133	05/11/94	07/06/94 07/25/94		440.165	05/16/94	07/27/94	
440.134	05/11/94	06/30/94		440.166	05/16/94	07/22/94	
440.135	05/11/94	06/27/94		440.167	05/26/94	08/03/94	
440.136	05/11/94	07/29/94		440.168	05/26/94	08/03/94	
440.137	05/11/94	06/30/94		440.169	06/01/94	07/22/94	
440.138	05/11/94	06/30/94		440.170	06/01/94	09/02/94 03/03/95	
440.139	05/11/94	06/27/94				03/07/95	
440.140	05/11/94	06/30/94				04/06/95 08/22/95	
440.141	05/11/94	06/30/94		440.171	06/01/94	07/25/94	
440.142	05/11/94	07/15/94		440.172	06/01/94	07/22/94	
440.143	05/11/94	06/30/94		440.173	06/08/94	09/01/94	
440.144	05/11/94	06/30/94		440.174	06/08/94	03/06/95	
440.145	05/05/94	08/10/94		440.175	06/08/94	03/07/95	
440.146	05/05/94	08/08/94		440.176	06/08/94	08/08/94	,
440.147	05/05/94	08/08/94		440.177	06/08/94	08/03/94	
440.148	05/05/94	08/10/94		440.178	06/08/94	09/02/94	

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
440.179	06/08/94	09/01/94		440.212	06/08/94	08/03/94	
440.180	06/08/94	09/01/94		440.213	06/08/94	08/03/94	
440.181	06/08/94	07/29/94		440.214	06/08/94	08/26/94	
440.182	06/08/94	09/01/94		440.215	06/08/94	09/01/94	
440.183	06/08/94	08/03/94		440.216	06/08/94	09/01/94	
440.184	06/08/94	09/01/94		440.217	06/08/94	09/02/94	
440.185	06/08/94	08/03/94		440.218	06/08/94	08/26/94	
440.186	06/08/94	08/03/94		440.219	06/08/94	08/12/94	
440.187	06/08/94	08/03/94		440.220	06/08/94	08/26/94	
440.188	06/08/94	08/03/94		440.221	06/08/94	08/08/94	
440.189	06/08/94	09/01/94		440.222	06/08/94	09/02/94	
440.190	06/08/94	07/29/94		440.223	06/08/94	08/03/94	
440.191	06/08/94	09/01/94		440.224	06/08/94	09/02/94	
440.192	06/08/94	09/01/94	,	440.225	06/08/94	08/12/94	
440.193	06/08/94	08/03/94		440.226	06/08/94	10/17/97	
440.194	06/08/94	09/02/94		440.227	06/08/94	09/01/94	
440.195	06/08/94	03/07/95		440.228	06/08/94	08/12/94	
440.196	06/08/94	07/29/94		440.229	06/08/94	09/02/94	
440.197	06/08/94	02/07/97		440.230	06/08/94	03/07/95	
440.198	06/08/94	07/29/94		440.231	06/08/94	08/12/94	
440.199	06/08/94	07/29/94		440.232	06/08/94	08/26/94	
440.200	06/08/94	08/03/94		440.233	06/08/94	09/01/94	
440.201	06/08/94	09/02/94		440.234	06/08/94	10/21/94	
440.202	06/08/94	08/08/94		440.235	06/08/94	07/22/94	
440.203	06/08/94	08/08/94		440.236	06/08/94	07/22/94	
440.204	06/08/94	09/02/94		440.237	06/08/94	09/02/94	
440.205	06/08/94	08/26/94		440.238	06/08/94	08/03/94	
440.206	06/08/94	03/07/95		440.239	06/08/94	08/12/94	
440.207	06/08/94	09/02/94		440.240	06/08/94	08/12/94	
440.208	06/08/94	08/08/94		440.241	06/08/94	08/12/94	
440.209	06/08/94	03/07/95		440.242	06/08/94	09/02/94	
440.210	06/08/94	10/21/94		440.243	06/08/94	09/02/94	
440.211	06/08/94	10/21/94		440.244	06/08/94	10/21/94	

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NUREG-1512

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Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
440.245	06/08/94	07/25/94		440.276	03/15/95	05/13/96	
440.246	06/08/94	03/07/95		440.277	03/15/95	05/13/96	
440.247	08/18/94	02/16/96		440.278	03/15/95	01/31/96	
440.248	08/18/94	04/26/96		440.279	03/15/95	01/31/96	
440.249	08/18/94	04/26/96		440.280	03/15/95	01/29/96	
440.250	08/18/94	03/13/95		440.281	03/15/95	11/17/95	
440.251	08/18/94	05/08/95 02/16/96		440.282 440.283	03/15/95 03/15/95	01/12/96 11/17/95	
440.252	08/18/94	02/16/96		440.283	03/15/95	01/04/96	
440.253	08/18/94	11/07/94		440.285	03/15/95	01/29/96	
440.254	08/18/94	02/16/96		440.286	03/15/95	01/12/96	
440.255	08/18/94	01/07/95					
440.256	08/18/94	09/29/94		440.287	03/15/95	01/04/96	
440.057	00/40/04	09/30/94		440.288	03/15/95	01/31/96	
440.257	08/18/94	09/30/94		440.289	03/15/95	01/31/96	
440.258	08/18/94	05/06/96		440.290	03/15/95	01/29/96	
440.259	02/13/95	10/10/95		440.291	03/15/95	01/12/96	
440.260	02/13/95	10/10/95		440.292	03/15/95	11/17/95	
440.261	02/13/95	10/10/95		440.293	03/15/95	11/17/95	
440.262	02/13/95	10/10/95		440.294	03/15/95	11/17/95	
440.263	03/15/95	03/01/96		440.295	03/15/95	11/17/95	
440.264	03/15/95	01/31/96		440.296	03/15/95	11/17/95	
440.265	03/15/95	01/31/96		440.297	03/15/95	11/17/95	
440.266	03/15/95	03/01/96		440.298	03/15/95	11/17/95	
440.267	03/15/95	01/19/96		440.299	03/15/95	01/26/96 10/02/97	
440.268	03/15/95	03/01/96		440.300	03/15/95	01/04/96	
440.269	03/15/95	05/13/96		440.301	03/15/95	01/04/96	
440.270	03/15/95	01/19/96		440.302	03/15/95	01/29/96	
440.271	03/15/95	05/13/96		440.303	03/15/95	11/17/95	
440.272	03/15/95	05/13/96		440.304	03/15/95	11/17/95	
440.273	03/15/95	05/13/96		440.305	03/15/95	01/12/96	
440.274	03/15/95	05/13/96		440.306	03/15/95	12/15/95	
440.275	03/15/95	05/13/96		440.307	03/15/95	05/13/96	

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Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
440.308	03/15/95	01/19/96		440.341	03/15/95	11/02/95	
440.309	03/15/95	05/13/96		440.342	03/15/95	04/17/97	
440.310	03/15/95	05/13/96		440.343	04/19/95	11/17/95	
440.311	03/15/95	01/04/96		440.344	04/19/95	11/17/95	
440.312	03/15/95	12/21/95		440.345	04/19/95	12/08/95	
440.313	03/15/95	11/17/95		440.346	04/19/95	11/17/95	
440.314	03/15/95	01/29/96		440.347	04/19/95	11/17/95	
440.315	03/15/95	01/04/96		440.348	04/19/95	11/17/95 12/15/95	
440.316	03/15/95	01/04/96		440.349	04/19/95	11/17/95	
440.317	03/15/95	11/17/95		440.350	04/19/95	11/17/95	
440.318	03/15/95	11/17/95		440.351	04/19/95	11/17/95	
440.319	03/15/95	11/17/95		440.352	04/19/95	11/17/95	
440.320	03/15/95	01/19/96		440.353	04/19/95	11/10/95	
440.321	03/15/95	01/19/96		440.354	04/19/95	05/20/96	
440.322	03/15/95	01/26/96		440.355	04/19/95	05/20/96	
440.323	03/15/95	01/26/96		440.356	04/19/95	11/10/95	
440.324	03/15/95	05/13/96		440.357	04/19/95	12/08/95	
440.325	03/15/95	11/10/95		440.358		05/09/97	
440.326	03/15/95	11/02/95		440.359	05/05/95	02/16/96	
440.327	03/15/95	12/15/95		440.360	05/05/95	01/31/96	
440.328	03/15/95	11/02/95		440.361	05/05/95	01/12/96	,
440.329	03/15/95	12/15/95		440.362	05/05/95	01/12/96	
440.330	03/15/95	11/02/95		440.363	05/05/95	01/31/96	
440.331	03/15/95	01/26/96		440.364	05/05/95	01/31/96	
440.332	03/15/95	07/26/96		440.365	05/05/95	01/31/96	
440.333	03/15/95	07/26/96		440.366	05/05/95	07/01/96	
440.334	03/15/95	12/15/95		440.367	05/05/95	01/31/96	
440.335	03/15/95	04/17/97		440.368	05/05/95	01/31/96	
440.336	03/15/95	04/17/97		440.369	05/05/95	07/01/96	
440.337	03/15/95	05/07/97		440.370	05/05/95	01/31/96	
440.338	03/15/95	04/17/97		440.371	05/05/95	01/31/96	
440.339	03/15/95	05/23/97		440.372	05/05/95	01/31/96	
440.340	03/15/95	07/26/96					

Q No.	Issued	Response	Comments	Q No.	lssued	Response	Comments
440.373	05/05/95	07/01/96		440.405	05/25/95	04/03/96	
440.374	05/05/95	07/01/96		440.406	05/25/95	04/03/96	
440.375	05/05/95	01/30/97		440.407	07/05/95	10/10/95	
440.376	05/05/95	06/21/96		440.408	07/05/95	10/10/95	
440.377	05/05/95	06/21/96		440.409	07/05/95	10/10/95	
440.378	05/05/95	08/05/97				06/10/97 08/26/97	
440.379	05/05/95	06/21/96		440.410	07/05/95	10/10/95	
440.380	05/05/95	01/30/97		440.411	07/05/95	10/10/95	
440.381	05/05/95	01/30/97				06/10/97 08/26/97	
440.382	05/05/95	06/21/96		440.412	07/05/95	10/10/95	
440.383	05/05/95	01/30/97		440.413	07/05/95	10/10/95	
440.384	05/05/95	06/21/96		440.414	07/05/95	10/10/95	
440.385	05/05/95	05/07/97				06/10/97 08/26/97	
440.386	05/05/95	07/01/96		440.415	07/05/95	10/10/95	
440.387	05/05/95	07/01/96				06/10/97 08/26/97	
440.388	05/05/95	01/30/97		440.416	07/05/95	10/10/95	
440.389	05/05/95	07/01/96					
440.390	05/05/95	07/01/96		440.417	07/05/95	10/10/95	,
440.391	05/05/95	07/01/96		440.418	07/05/95	10/10/95 06/10/97	
440.392	05/05/95	07/01/96				08/26/97	
440.393	05/05/95	06/21/96		440.419	07/05/95	10/10/95	
440.394	05/05/95	06/21/96		440.420	07/05/95	10/10/95 06/10/97	
440.395	05/05/95	02/07/97				08/26/97	
440.396	05/05/95	07/01/96		440.421	07/05/95	10/10/95 06/10/97	
440.397	05/05/95	07/01/96				08/26/97	
440.398	05/05/95	07/01/96		440.422	07/05/95	10/10/95 06/10/97	
440.399	05/05/95	07/01/96				08/26/97	
440.400	05/25/95	04/03/96		440.423	07/05/95	10/10/95	
440.401	05/25/95	04/03/96		440.424	07/05/95	10/10/95	
440.402	05/25/95	04/03/96		440.425	07/05/95	10/10/95	
440.403	05/25/95	04/03/96		440.426	07/05/95	10/10/95	
440.404	05/25/95	04/03/96		440.427	07/05/95	10/10/95	

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
440.428	07/05/95	10/10/95		440.458	08/31/95	01/31/96	
440.429	07/05/95	10/10/95		440.459	08/31/95	01/31/96	
		06/10/97 08/26/97		440.460	08/31/95	01/29/96	
440.430	07/05/95	10/10/95		440.461	08/31/95	01/31/96	
		06/10/97 08/26/97		440.462	08/31/95	01/31/96	
440.431	07/25/95	11/30/95		440.463	09/22/95	11/02/95	
		06/10/97 08/26/97		440.464	09/22/95	01/12/96	
440.432	08/22/95	12/15/95		440.465	09/22/95	11/10/95	
440.433	08/22/95	12/15/95		440.466	09/22/95	11/02/95	
440.434	08/22/95	08/05/96		440.467	09/22/95	11/02/95	
440.435	08/22/95	11/10/95		440.468	09/22/95	12/18/95 12/21/95	
440.436	08/22/95	11/17/95		440.469	09/22/95	11/10/95	
440.437	08/22/95	11/10/95		440.400	00,22,00	12/18/95	
440.438	08/22/95	11/02/95		440.470	09/22/95	12/18/95 01/04/96	
440.439	08/22/95	12/15/95		440.471	09/22/95	11/17/95	
440,440	08/22/95	01/12/96		440.472	09/22/95	11/10/95	
440.441	08/22/95	04/17/97		440.473	09/22/95	11/02/95	
440.442	08/22/95	04/17/97		440.474	09/22/95	11/17/9512/	
440.443	08/22/95	04/17/97				18/95	
440.444	08/22/95	04/17/97		440.475	09/22/95	11/02/95 12/18/95	
440.445	08/22/95	01/19/96				10/18/96	
440.446	08/22/95	04/17/97		440.476	09/22/95	11/17/95	
440.447	08/31/95	01/31/96				12/18/95 10/18/96	
440.448	08/31/95	01/19/96		440.477	09/22/95	11/02/95	
440.449	08/31/95	01/26/96				12/18/95 10/18/96	
440.450	08/31/95	01/31/96		440.478	09/22/95	12/18/95	
440.451	08/31/95	01/31/96				12/21/95	
440.452	08/31/95	01/31/96		440.479	09/22/95	01/19/96	
440.453	08/31/95	01/31/96		440.480	09/22/95	01/19/96	
440.454	08/31/95	01/31/96		440.481	09/22/95	11/17/95	
440.455	08/31/95	01/31/96		440.482	09/22/95	01/26/96	
440.456	08/31/95	01/31/96		440.483	09/22/95	12/15/95 12/18/95	
440.457	08/31/95	01/31/96				10/18/96	

Q No.	issued	Response	Comments	Q No.	Issued	Response	Comments
440.484	09/22/95	11/10/95		440.515	09/22/95	12/15/95	
440.485	09/22/95	01/26/96				12/18/95 03/26/96	
440.486	09/22/95	11/17/95		440.516	09/22/95	12/15/95	
440.487	09/22/95	11/30/95		440.517	09/22/95	12/15/95	
440.488	09/22/95	12/15/95		440.518	09/22/95	12/15/95	
440.489	09/22/95	01/26/96		440.519	09/22/95	12/15/95	
440.490	09/22/95	12/21/95		440.520	09/22/95	12/15/95	
440.491	09/22/95	11/17/95		440.521	VOID	VOID	
440.492	09/22/95	11/30/95		440.522	09/22/95	11/30/95	
440.493	09/22/95	01/12/96		440.523	09/22/95	11/30/95	
440.494	09/22/95	11/02/95		440.524	09/22/95	01/31/96	
440.495	09/22/95	11/30/95		440.525	09/22/95	01/31/96	
440.496	09/22/95	12/21/95		440.526	09/22/95	01/31/96	
440.497	09/22/95	11/02/95		440.527	09/22/95	01/31/96	
440.498	09/22/95	01/31/96		440.528	09/22/95	11/30/95	
440.499	09/22/95	12/15/95		440.529	09/22/95	01/31/96	
440.500	09/22/95	11/02/95		440.530	09/22/95	01/31/96	
440.501	09/22/95	01/19/96		440.531	09/22/95	01/31/96	
440.502	09/22/95	11/30/95		440.532	09/22/95	01/31/96	
440.503	09/22/95	12/21/95		440.533	09/22/95	11/30/95	
440.504	09/22/95	01/26/96		440.534	09/22/95	11/30/95	
440.505	09/22/95	11/10/95		440.535	09/22/95	01/26/96	
440.506	09/22/95	01/31/96		440.536	09/22/95	01/26/96	
440.507	09/22/95	11/30/95		440.537	09/22/95	11/30/95	·
440.508	09/22/95	12/21/95		440.538	09/22/95	01/31/96	
440.509	09/22/95	01/12/96		440.539	09/22/95	01/31/96	
440.510	09/22/95	11/02/95	·	440.540	09/22/95	01/31/96	
440.511	09/22/95	11/02/95		440.541	01/02/96	01/26/96	
440.512	09/22/95	11/17/95		440.542	01/02/96	01/29/96	•
440.513	09/22/95	11/02/95		440.543	01/02/96	01/26/96	
440.514	09/22/95	11/17/95		440.544	01/02/96	01/26/96	
				440.545	01/02/96	01/26/96	

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Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
440.546	01/02/96	01/31/96		440.574	02/13/96	01/30/97 02/07/97	
440.547	01/02/96	01/29/96		440.575	02/13/96	02/07/97	
440.548	01/02/96	01/31/96				01/29/98	
440.549	01/02/96	01/26/96		440.576	02/13/96	02/07/97 02/27/98	
440.550	01/02/96	01/31/96				03/05/98	
440.551	01/02/96	01/26/96		440.577	02/13/96	02/07/97	
440.552	01/02/96	01/26/96		440.578	03/04/96	03/13/97	
440.553	01/02/96	01/29/96		440.579	03/04/96	10/17/96	
440.554	12/28/95	01/31/96 07/01/96		440.580	04/23/96	02/07/97 02/20/98	
440.555	12/28/95	01/19/96		440.581	04/23/96	02/07/97	
	12/28/95	07/01/96 01/19/96		440.582	04/23/96	02/07/97	
440.556 440.557	12/28/95	01/19/96		440.583	04/26/96	09/08/97	
440.558	12/28/95	01/31/96		440.584	06/06/96	06/21/96 06/04/97	
440.559	12/28/95	01/19/96		440.585	08/01/96	12/10/96	
440.560	12/28/95	01/19/96		440.586	08/01/96	12/10/96	
440.561	12/28/95	01/19/96		440.587	08/01/96	12/10/96	
440.562	12/28/95	01/19/96		440.588	01/21/97	03/24/97	
440.563	12/28/95	01/19/96		440.589	03/04/97	05/20/97	
		07/01/96		440.590	03/04/97	05/20/97	
440.564	12/28/95	01/19/96		440.591	03/04/97	05/20/97	
440.565	12/28/95	01/19/96		440.592	03/04/97	05/20/97	
440.566	01/16/96	10/25/96		440.593	03/04/97	05/20/97	
440.567	02/13/96	03/13/97		440.594	03/20/97	05/20/97	
440.568	02/13/96	07/18/96		440.595	03/20/97	05/20/97	
440.569	02/13/96	04/30/97		440.596	03/20/97	05/20/97	
440.570	02/13/96	02/07/97		440.597	03/20/97	05/20/97	
440.571	02/13/96	01/30/97 02/07/97 02/21/97		440.598	03/20/97	05/20/97	
440.572	02/13/96	01/30/97		440.599	04/03/97	06/17/97	
		02/07/97		440.600	04/03/97	06/17/97	
440.573	02/13/96	01/30/97		440.601	04/03/97	06/17/97	
		02/07/97 01/29/98		440.602	04/03/97	06/17/97	
				440.603	04/03/97	06/17/97	

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
440.604	04/03/97	06/17/97		440.636	04/03/97	06/17/97	
440.605	04/03/97	06/17/97		440.637	04/03/97	06/17/97	
440.606	04/03/97	06/17/97		440.638	04/03/97	06/17/97	
440.607	04/03/97	06/17/97		440.639	04/03/97	06/17/97	
440.608	04/03/97	06/17/97		440.640	04/03/97	06/17/97	
440.609	04/03/97	06/17/97		440.641	04/03/97	06/17/97	
440.610	04/03/97	06/17/97		440.642	04/03/97	06/17/97	
440.611	04/03/97	06/17/97		440.643	04/03/97	06/17/97	
440.612	04/03/97	06/17/97		440.644	04/03/97	06/17/97	
440.613	04/03/97	06/17/97		440.645	04/24/97	06/27/97	
440.614	04/03/97	06/17/97		440.646	04/24/97	06/27/97	
440.615	04/03/97	06/17/97		440.647	05/28/97	08/27/97	
440.616	04/03/97	06/17/97		440.648	06/03/97	07/17/97	
440.617	04/03/97	06/17/97		440.649	06/03/97	11/06/97 07/17/97	
440.618	04/03/97	06/17/97		440.049	00/03/97	11/06/97	
440.619	04/03/97	06/17/97		440.650	06/03/97	07/17/97	
440.620	04/03/97	06/17/97				11/06/97	
440.621	04/03/97	06/17/97		440.651	06/03/97	07/17/97 11/06/97	
440.622	04/03/97	06/17/97		440.652	06/03/97	07/17/97	
440.623	04/03/97	06/17/97		440.002	00/00/01	11/06/97	
440.624	04/03/97	06/17/97		440.653	06/03/97	07/17/97	
440.625	04/03/97	06/17/97		440 654	06/02/07	11/06/97	
440.626	04/03/97	06/17/97		440.654	06/03/97	07/17/97 11/06/97	
440.627	04/03/97	06/17/97		440.655	06/03/97	07/17/97	
440.628	04/03/97	06/17/97			00/00/07	11/06/97	
440.629	04/03/97	06/17/97		440.656	06/03/97	07/17/97 11/06/97	
440.630	04/03/97	06/17/97		440.657	06/03/97	07/17/97	
440.631	04/03/97	06/17/97				11/06/97	
440.632	04/03/97	06/17/97		440.658	06/03/97	07/17/97 11/06/97	
440.633	04/03/97	06/17/97		440.659	06/24/97	01/30/98	
440.634	04/03/97	06/17/97		440.660	06/24/97	08/15/97	
440.635	04/03/97	06/17/97				10/27/97	

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
440.661	06/24/97	08/27/97		440.689	08/01/97	10/29/97 11/21/97	
440.662	06/24/97	08/15/97 10/27/97		440.690	08/01/97	10/29/97 11/21/97	
440.663	06/24/97	09/08/97		440.691	08/01/97	10/29/97	
440.664	07/07/97	09/08/97		440.091	00/0 //9/	11/21/97	
440.665	07/07/97	09/08/97		440.692	08/01/97	10/29/97	
440.666	07/07/97	09/08/97				11/21/97	
440.667	07/10/97	08/27/97		440.693	08/01/97	10/29/97 11/21/97	
440.668	07/10/97	08/27/97		440.694	08/01/97	10/29/97	
440.669	07/10/97	08/27/97				11/21/97	
440.670	07/10/97	08/27/97 09/23/97		440.695	08/01/97	10/29/97 11/21/97	
440.671	07/10/97	08/27/97		440.696	08/01/97	10/29/97 11/21/97	
440.672	07/10/97	08/27/97		440.697	08/01/97	10/29/97	
440.673	07/10/97	08/27/97			•	11/21/97	
440.674	07/10/97	08/27/97		440.698	08/01/97	10/29/97 11/21/97	
440.675	08/07/97	10/22/97		440.699	08/01/97	10/29/97	
440.676	08/07/97	10/22/97			00/01/01	11/21/97	
440.677	08/07/97	10/22/97		440.700	08/01/97	10/29/97 11/21/97	
440.678	08/07/97	10/22/97		440.701	08/01/97	10/29/97	
440.679	08/07/97	10/22/97				11/21/97	
440.680	08/07/97	10/22/97		440.702	08/01/97	10/29/97 11/21/97	
440.681	08/07/97	10/22/97		•	00/04/07	10/29/97	
440.682	08/07/97	10/22/97		440.703	08/01/97	11/21/97	
440.683	08/07/97	11/11/97		440.704	08/01/97	10/29/97	
440.684	08/01/97	10/29/97 11/21/97				11/21/97	
440.685	08/01/97	10/29/97 11/21/97		440.705	08/01/97	10/29/97 11/21/97	
440.686	08/01/97	10/29/97		440.706	08/01/97	10/29/97 11/21/97	
440 697	08/01/97	11/21/97 10/29/97		440.707	08/01/97	10/29/97 11/21/97	
440.687	00/01/97	11/21/97		440.708	08/01/97	10/29/97	
440.688	08/01/97	10/29/97		++0.700	00101101	11/21/97	
		11/21/97		440.709	08/01/97	10/29/97 11/21/97	

Q No.	issued	Response	Comments	Q No.	Issued	Response	Comments
440.710	08/01/97	10/29/97		440.731	10/03/97	11/17/97	
		11/21/97		440.732	10/03/97	11/17/97	
440.711	08/01/97	10/29/97 11/21/97		440.733	10/03/97	11/17/97	
440.712	08/01/97	10/29/97		440.734	10/03/97	11/17/97	
		11/21/97		440.735F	10/16/97	12/01/97	
440.713	08/01/97	11/07/97 11/21/97		440.736F	10/16/97	12/01/97	
440.714	08/01/97	11/07/97		440.737F	10/16/97	12/01/97	
		11/21/97		440.738F	12/18/97	01/08/98	
440.715	08/01/97	10/29/97 11/21/97		440.739F	12/18/97	02/13/98	
440.716	08/01/97	10/29/97		440.740F	12/04/97	01/30/98	
440.710	00/01/97	11/21/97		440.741F	12/04/97	01/07/98	
440.717	08/01/97	10/29/97 11/21/97		440.742F	12/04/97	02/10/98 02/24/98 03/13/98	
440.718	08/01/97	10/29/97 11/21/97		440.743F	12/04/97	01/08/98	
440.719	08/01/97	11/07/97 11/21/97		440.744F	12/04/97	12/19/97 01/26/98	
440.720	08/01/97	10/29/97 11/21/97		440.745F	12/04/97	12/15/97	
440.721	08/13/97	09/12/97		440.746F	12/08/97	07/21/9812	
440.721	00/13/9/	09/17/97 09/22/97		440.747F	12/08/97	01/30/98 02/13/98	
		10/01/97 10/13/97		440.748F	12/09/97	01/16/98	
		10/17/97 10/24/97		440.749F	12/18/97	01/07/98	
		11/12/97		440.750F	12/18/97	01/07/98	
		11/17/97 11/26/97		440.751F	12/18/97	01/07/98	
440.722	08/07/97	01/08/98		440.752F	12/18/97	01/19/98	
440.723	08/14/97	10/17/97		440.753F	12/17/97	01/09/98 02/27/98	
440.724	08/14/97	10/01/97		440.754F	12/17/97	01/16/98	
440.725	09/09/97	10/31/97			12/11/01	02/06/98	
440.726	09/16/97	10/16/97				02/27/98	
440.727	09/16/97	10/08/97		440.755F	12/17/97	01/23/98 02/27/98	
440.728	09/16/97	10/16/97					
440.729	09/16/97	10/16/97				dent on submitte	
440.730	09/16/97	10/10/97		able responses items complete		140.575, & 440.9	580. These

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Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
440.756F	12/17/97	01/15/98 01/30/98		440.786F	12/16/97	12/22/97 02/12/98	
440.757F	12/17/97	01/13/98 02/27/98		440.787F	VOID	VOID	
440.758F	12/10/97	12/16/97		440.788F	12/18/97	01/09/98 02/27/98	
440.759F	12/10/97	01/16/98 12/16/97		440.789F	12/18/97	02/27/98	
440.760F	12/09/97	01/08/98		440.790F	12/18/97	02/18/98 02/27/98	
440.761F	12/09/97	01/26/98		440.791F	12/16/97	01/28/98 ¹³	
		03/02/98		440.792F	12/16/97	01/14/98	
440.762F	12/10/97	01/08/98		440.793F	12/18/97	01/09/98	
440.763F	12/11/97	12/22/97		440.794F	12/18/97	01/07/98	
440.764F	12/11/97	12/22/97		440.795F	12/18/97	02/27/98	
440.765F	12/11/97	12/22/97		440.796F	12/18/97	02/27/98	
440.766F	12/11/97	12/22/97		440.797F	12/18/97	Subsumed ¹⁴	
440.767F	12/11/97	12/22/97		440.798F	12/18/97	01/29/98	
440.768F	12/11/97	12/22/97		440.799F	12/18/97	01/29/98	
440.769F	12/11/97	02/13/98				02/18/98	
440.770F	12/11/97	01/09/98		440.800F	12/18/97	01/29/98	
440.7 71 F	12/11/97	01/26/98		440.801F	12/18/97	01/29/98	
440.772F	12/11/97	12/22/97		440.802F	12/18/97	01/29/98 02/18/98	
440.773F	12/11/97	12/22/98		440.803F	12/22/97	01/30/98	Responds to
440.774F	12/11/97	12/22/97			12/22/31	02/10/98	10/02/97 NRC letter
440.775F	12/11/97	12/22/97			40,00,07	02/27/98	
440.776F	12/16/97	12/19/97		440.804F	12/22/97	01/09/98 01/30/98	
440.777F	12/16/97	12/19/97				02/27/98	
440.778F	12/16/97	01/08/98		440.805F	12/23/97	01/07/98	
440.779F	12/16/97	07/21/98		440.806F	12/23/97	01/07/98	
440.780F	12/16/97	07/21/98		440.807F	12/23/97	01/07/98	
440.781F	12/16/97	12/19/97		440.808F	12/23/97	01/09/98	
440.782F	12/16/97	01/07/98		440.809F	01/14/98	01/30/98	
440.783F	12/16/97	01/09/98		- <u></u>			
440.784F	12/16/97	12/23/97 02/09/98		meeting. Item :	subsumed into	January 28, 199 responses to)7F, & 440.808F	
440.785F	12/16/97	12/23/97 02/09/98				ponse to Q440.7	

NUREG-1512

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E-44

Q No.	Issued	Response	Comments	Q No.	lssued	Response	Comments
440.810F	02/19/98	02/23/98		460.9	11/16/92 05/12/94	03/18/93 09/30/94	
440.811F	02/19/98	02/23/98		460.10	11/16/92	03/18/93	
440.812F	02/19/98	02/23/98			05/12/94	09/30/94 10/23/96	
450.1	09/23/92	01/22/93		460.11	11/16/92 05/12/94	03/18/93 08/26/94	
450.2	09/23/92	01/22/93 05/28/93		460.12	11/16/92	10/23/96 02/09/93	
450.3	09/23/92	01/22/93				10/23/96	
450.4	09/23/92	11/30/92		460.13	11/16/92	03/18/93 10/23/96	
450.5	09/23/92	11/30/92		460.14	11/16/92	03/18/93	
450.6	09/23/92	01/22/93 03/16/93			05/12/94	08/12/94	
		03/18/93		460.15	11/16/92 05/12/94	03/18/93 12/09/93	
450.7	09/23/92	11/30/92				08/26/94 10/23/96	
450.8	09/23/92	01/22/93 03/24/94		460.16	11/16/92	03/18/93 10/23/96	
450.9	09/23/92	12/22/92		460.17	05/12/94	06/30/94	
450.10	05/23/94	09/02/94		460.18	05/12/94	08/10/94 10/23/96	
460.1	09/23/92	01/22/93		460.19	05/12/94	06/27/94	
400.1	05/12/94	08/12/94		460.20	05/12/94	08/03/94	
460.2	09/23/92 05/12/94	11/30/92 08/12/94				10/23/96	
460.3	09/23/92	01/22/93		460.21	05/12/94	08/03/94 10/23/96	
100.0	05/12/94	09/30/94		460.22	05/12/94	08/03/94	
460.4	09/23/92 05/12/94	01/22/93 08/03/94		460.23	05/12/94	06/27/94	
		10/23/96		460.24	05/12/94	06/30/94	
460.5	09/23/92 05/12/94	01/14/93 08/26/94 10/23/96		460.25	05/12/94	08/03/94 10/23/96	
460.6	09/23/92 05/12/94	01/14/93		460.26	05/12/94	06/30/94 10/23/96	
460.7	09/23/92	11/30/92		460.27	05/09/97	06/18/97	
	05/12/94	08/26/94 10/23/96		460.28F	10/20/97	11/12/97 12/19/97	
460.8	11/16/92 05/12/94	03/18/93 09/30/94				01/30/98	

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Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
470.1	10/28/92	02/25/93		470.30	03/08/96	10/30/96	
470.2	10/28/92	02/25/93		470.31	03/08/96	06/20/97	
470.3	07/20/93	10/20/93		470.32	08/08/96	07/17/97	
		12/09/93		470.33	08/08/96	07/17/97	
470.4	07/20/93	10/20/93		470.34	08/08/96	07/17/97	
470.5	07/20/93	09/21/93		470.35	08/08/96	07/17/97	
470.6	07/20/93	09/21/93		470.36	08/08/96	07/17/97	
470.7	07/20/93	09/21/93		470.37	08/08/96	07/17/97	
470.8	07/20/93	09/21/93		470.38	10/02/96	06/26/97	
470.9	07/20/93	10/20/93 02/03/94		470.39	10/02/96	06/26/97	
470.10	07/20/93	09/21/93		470.40	10/02/96	06/26/97	
470.11	07/20/93	09/21/93		470.41F	10/07/97	01/12/98	
470.12	07/20/93	09/21/93		470.42F	11/06/97	01/08/98	
470.13	07/20/93	09/21/93		470.43F	11/06/97	01/08/98	
470.14	07/20/93	09/21/93		470.44F	11/06/97	01/08/98	
470.15	07/20/93	09/21/93		470.45F	11/26/97	12/12/97	
470.16	05/16/94	09/30/94		470.46F	12/02/97	01/08/98	
470.17	11/07/94	03/07/95					
470.18	11/07/94	03/07/95		471.1	10/01/92	01/22/93	
470.19	11/07/94	03/07/95		471.2	10/01/92	12/22/92	
470.20	11/07/94	N/A ¹⁵				03/18/93 04/29/93	
470.21	11/07/94	04/07/95		471.3	10/01/92	12/22/92	
470.22	11/07/94	05/23/95				04/29/93 09/01/94	
470.23	02/06/95	04/07/95		471.4	04/13/93	08/09/93	
470.24	11/03/95	04/01/96		4/1.4	04/10/00	11/29/93 11/30/93	
470.25	11/03/95	03/14/96 04/01/96		471.5	04/13/93	08/09/93	
470.26	11/03/95	04/01/96		471.6	04/13/93	08/09/93	
	11/02/05	04/01/96		471.7	04/13/93	05/28/93	
470.27	11/03/95			471.8	04/13/93	05/28/93	
470.28	03/08/96	08/30/96 08/30/96		471.9	04/13/93	07/01/93	
470.29	03/08/96	00/30/90		471.10	04/13/93	07/16/93	
	a a mán a la da - 1	adifiadi aca	2222	471.11	04/13/93	07/01/93	
'°рн to Q470.31.	control design n	noamea; see res	ponse	471.12	04/13/93	05/28/93	

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
471.13	04/13/93	06/17/93	-	480.12	07/01/93	09/03/93 09/03/93	2 submittals
471.14	04/13/93	08/09/93 11/29/93 11/30/93		480.13	07/01/93	09/03/93	x
471.15	04/13/93	06/17/93		480.14	07/01/93	09/10/93	
471.16	04/13/93	05/28/93		480.15	07/01/93	09/03/93 11/07/94	
471.17	04/13/93	05/28/93		480.16	07/01/93	09/03/93	
471.18	04/13/93	07/16/93		480.17	07/01/93	09/03/93 03/13/95	
471.19	04/13/93	07/16/93 11/29/93 11/30/93		480.18	07/01/93	09/03/93	
474.00	04/40/00			480.19	07/01/93	09/03/93	
471.20	04/13/93	08/09/93		480.20	07/01/93	09/03/93	
471.21	10/26/93	02/03/94		480.21	07/01/93	09/03/93	
471.22	08/17/94	03/13/95 05/07/97		480.22	07/01/93	09/03/93	
471.23	08/17/94	11/07/94		480.23	07/01/93	09/03/93	
		03/13/97 05/07/97		480.24	07/01/93	09/03/93	
		03/10/98		480.25	07/01/93	09/03/93	
471.24	08/17/94	05/20/96		480.26	07/01/93	09/03/93	
471.25	08/17/94	11/07/94		480.27	07/01/93	10/04/93	
471.26	08/17/94	11/07/94 03/13/97		480.28	07/01/93	10/04/93	
				480.29	07/01/93	09/03/93	
				480.30	07/01/93	09/03/93	
480.1	09/23/92	12/22/92		480.31	07/01/93	09/03/93	
480.2	09/23/92	01/22/93		480.32	07/01/93	10/04/93	
480.3	09/23/92	12/22/92				11/07/94	
480.4 (280.4)	04/13/93	05/28/93		480.33	07/01/93	09/03/93	
480.5	04/28/93	07/01/93		480.34	07/01/93	09/03/93	
480.6	07/01/93	09/03/93		480.35	07/01/93	09/03/93	
480.7	07/01/93	09/03/93		480.36	07/01/93	10/04/93 09/19/94	
480.8	07/01/93	09/03/93		480.37	07/01/93	10/04/93	
	0.101.00	08/08/94		480.38	11/02/93	02/03/94	
480.9	07/01/93	09/03/93		480.39	11/02/93	02/03/94	
480.10	07/01/93	09/03/93		480.40	11/02/93	02/03/94	
480.11	07/01/93	09/03/93				02/00/04	

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
480.41	11/02/93	02/03/94		480.73	04/29/94	07/08/94	
480.42	11/02/93	02/03/94		480.74	04/29/94	07/22/94	
480.43	11/02/93	02/03/94		480.75	04/29/94	07/15/94	
480.44	11/02/93	02/03/94		480.76	04/29/94	07/29/94	
480.45	11/02/93	02/03/94		480.77	04/29/94	09/19/94	
480.46	11/02/93	01/12/94		480.78	04/29/94	06/30/94	
480.47	11/02/93	02/03/94		480.79	06/15/94	09/02/94	
480.48	11/02/93	02/03/94		480.80	12/06/94	09/28/95	
480.49	04/29/94	07/25/94		480.81	12/06/94	09/28/95	
480.50	04/29/94	07/25/94		480.82	12/06/94	09/28/95	
480.51	04/29/94	06/16/94		480.83	12/06/94	11/08/96	
480.52	04/29/94	07/25/94		480.84	12/06/94	11/08/96	
480.53	04/29/94	07/08/94		480.85	12/06/94	11/08/96	
480.54	04/29/94	07/08/94		480.86	12/06/94	11/08/96	
480.55	04/29/94	07/29/94		480.87	12/06/94	11/08/96	
480.56	04/29/94	07/25/94		480.88	12/06/94	09/28/95	
		08/08/94		480.89	12/06/94	09/28/95	
480.57	04/29/94	07/01/94		480.90	12/06/94	09/28/95	
480.58	04/29/94	07/27/94		480.91	12/06/94	09/28/95	
480.59	04/29/94	07/01/94		480.92	12/06/94	09/28/95	
480.60	04/29/94	07/25/94		480.93	12/06/94	09/28/95	
480.61	04/29/94	07/27/94		480.94	12/06/94	09/28/95	
480.62	04/29/94	06/27/94		480.95	12/06/94	09/28/95	
480.63	04/29/94	07/01/94		480.96	12/06/94	09/28/95	
480.64	04/29/94	08/03/94		480.97	12/06/94	09/28/95	
480.65	04/29/94	07/08/94		480.98	12/06/94	09/28/95	
480.66	04/29/94	07/25/94		480.99	12/06/94	09/28/95	
480.67	04/29/94	07/22/94		480.100	12/06/94	09/28/95	
480.68	04/29/94	07/25/94		480.101	12/06/94	09/28/95	
480.69	04/29/94	07/25/94		480.102	12/06/94	11/08/96	
480.70	04/29/94	07/27/94		480.103	12/06/94	09/28/95	
480.71	04/29/94	07/01/94		480.104	12/06/94	09/28/95	
480.72	04/29/94	06/27/94		480.105	12/06/94	11/08/96	

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
480.106	12/06/94	11/08/96		480.135	12/06/94	01/30/96	
480.107	12/06/94	09/28/95		480.136	01/20/95	05/03/96 11/08/96	
480.108	12/06/94	09/28/95		480.137	01/20/95	05/03/96	
480.109	12/06/94	09/28/95		400.101	0 1/20/00	11/08/96	
480.110	12/06/94	09/28/95		480.138	01/20/95	09/28/95	
480.111	12/06/94	09/28/95				05/03/96 11/08/96	
480.112	12/06/94	09/28/95		480.139	01/20/95	05/03/96	
480.113	12/06/94	09/28/95		480.140	01/20/95	09/28/95	
480.114	12/06/94	09/28/95				05/03/96	
480.115	12/06/94	09/28/95		480.141	01/20/95	09/28/95 05/03/96	
480.116	12/06/94	01/30/96		480.142	01/20/95	05/03/96	
480.117	12/06/94	01/30/96		480.143	01/20/95	09/28/95	
480.118	12/06/94	01/30/96				05/03/96	
480.119	12/06/94	12/21/95		480.144	01/20/95	09/28/95 05/03/96	
480.120	12/06/94	12/21/95 11/08/96		480.145	01/20/95	05/03/96	
480.121	12/06/94	01/30/96				11/08/96	
480.122	12/06/94	12/21/95		480.146	01/20/95	09/28/95 05/03/96	
		11/08/96				11/08/96	
480.123	12/06/94	12/21/95		480.147	01/20/95	09/28/95 05/03/96	
480.124	12/06/94	12/21/95 11/08/96				11/08/96	
480.125	12/06/94	12/21/95		480.148	01/20/95	09/28/95 05/03/96	
480.126	12/06/94	12/21/95				11/08/96	
		11/08/96		480.149	01/20/95	09/28/95 05/03/96	
480.127	12/06/94	12/21/95		480.150	01/20/95	05/03/96	ę
480.128	12/06/94	12/21/95		460.150	01/20/35	11/08/96	
480.129	12/06/94	12/21/95		480.151	01/20/95	05/03/96	
480.130	12/06/94	12/21/95				11/08/96	
480.131	12/06/94	12/21/95		480.152	01/20/95 .	05/03/96	
480.132	12/06/94	12/21/95 11/08/96		480.153	01/20/95	05/03/96 11/08/96	
480.133	12/06/94	12/21/95		480.154	01/20/95	05/03/96 11/08/96	
480.134	12/06/94	12/21/95		480.155	01/20/95	05/03/96 11/08/96	

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
480.156	01/20/95	11/08/96		480.183	01/20/95	05/03/96 11/08/96	
48 0.157	01/20/95	05/03/96	×	480.184	01/20/95	05/03/96	
480.158	01/20/95	05/03/96 11/08/96		400 195	01/20/05	11/08/96 05/03/96	
480.159	01/20/95	05/03/96		480.185	01/20/95	11/08/96	
480.160	01/20/95	11/08/96 05/03/96		480.186	01/20/95	05/03/96 11/08/96	
	•	11/08/96		480.187	01/20/95	05/03/96	
480.161	01/20/95	05/03/96 11/08/96		400 400	04/00/05	11/08/96	
480.162	01/20/95	05/03/96		480.188 480.189	01/20/95 01/20/95	05/03/96 05/03/96	
		11/08/96		400.109	0 1/20/00	11/08/96	
480.163	01/20/95	05/03/96		480.190	01/20/95	12/09/96	
480.164	01/20/95	05/03/96		480.191	01/20/95	12/09/96	
480.165	01/20/95	05/03/96 11/08/96		480.192	01/20/95	12/09/96	
480.166	01/20/95	05/03/96		480.193	01/20/95	01/02/97	
		11/08/96		480.194	01/20/95	01/02/97	
480.167	01/20/95	05/03/96		480.195	01/20/95	01/02/97	
480.168	01/20/95	05/03/96 11/08/96		480.196	01/20/95	01/02/97	
480.169	01/20/95	05/03/96		480.197	01/20/95	05/03/96 11/08/96	
480.170	01/20/95	05/03/96		480.198	01/20/95	05/03/96	
480.171	01/20/95	05/03/96				11/08/96	
480.172	01/20/95	05/03/96		480.199	01/20/95	05/03/96	
480.173	01/20/95	05/03/96		480.200	01/20/95	05/03/96 11/08/96	
480.174	01/20/95	05/03/96	•	480.201	01/20/95	05/03/96	
480.175	01/20/95	05/03/96 11/08/96				11/08/96	
480.176	01/20/95	05/03/96		480.202	01/20/95	05/03/96 11/08/96	
480.177	01/20/95	05/03/96 11/08/96		480.203	01/20/95	05/03/96 11/08/96	
480.178	01/20/95	05/03/96		480.204	01/20/95	05/03/96	
400	04/00/07	11/08/96		480.205	01/20/95	05/03/96	
480.179	01/20/95	05/03/96		480.206	01/20/95	05/03/96	
480.180	01/20/95	05/03/96			04/00/07	11/08/96	
480.181	01/20/95	05/03/96		480.207	01/20/95	05/03/96 11/08/96	
480.182	01/20/95	05/03/96					

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NUREG-1512
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Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
480.208	01/20/95	05/03/96		480.238	03/16/95	11/30/95 06/10/97	
480.209	01/20/95	05/03/96			00/40/05	08/26/97	
480.210	01/20/95	05/03/96		480.239	03/16/95	11/30/95	
480.211	01/20/95	05/03/96		480.240	03/16/95	11/30/95	
480.212	01/20/95	03/08/96 11/08/96		480.241	03/16/95	11/30/95	
480.213	01/20/95	03/08/96		480.242	03/16/95	01/29/96	
480.214	03/16/95	11/10/95		480.243	03/16/95	11/17/95	
480.215	03/16/95	11/10/95		480.244	03/16/95	11/10/95	
480.216	03/16/95	11/30/95		480.245	03/16/95	11/10/95	
480.217	03/16/95	11/30/95		480.246	03/16/95	11/17/95	
480.218	03/16/95	07/01/96		480.247	03/16/95	11/17/95	
480.219	03/16/95	07/01/96		480.248	03/16/95	02/16/96 03/06/96	
480.220	03/16/95	11/30/95		480.249	03/16/95	11/17/95	
480.221	03/16/95	12/21/95		480.250	03/16/95	11/17/95	
480.222	03/16/95	11/10/95		480.251	03/16/95	11/17/95	
480.223	03/16/95	11/17/95		480.252	03/16/95	11/10/95	
480.224	03/16/95	03/13/97		480.253	03/16/95	11/10/95	
480.225	03/16/95	01/31/96		480.254	03/16/95	11/10/95	
480.226	03/16/95	11/30/95		480.255	03/16/95	11/10/95	
480.227	03/16/95	11/30/95		480.256	03/16/95	11/10/95	
480.228	03/16/95	11/30/95		480.257	03/16/95	11/10/95	
480.229	03/16/95	11/30/95		480.258	03/16/95	11/30/95	
480.230	03/16/95	11/30/95		480.259	03/16/95	11/10/95	
480.231	03/16/95	11/30/95		480.260	03/16/95	11/17/95	
480.232	03/16/95	11/30/95		480.261	03/16/95	11/17/95	
480.233	03/16/95	01/31/96		480.262	03/16/95	11/17/95	
480.234	03/16/95	11/30/95		480.263	03/16/95	11/10/95	
480.235	03/16/95	11/30/95		480.264	03/16/95	11/10/95	
480.236	03/16/95	01/31/96		480.265	03/16/95	11/10/95	
480.237	03/16/95	11/30/95		480.266	03/16/95	11/10/95	
-00.201				480.267	03/16/95	11/17/95	
				480.268	03/16/95	11/17/95	

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
480.269	03/16/95	11/17/95		480.297	06/15/95	11/30/95 06/20/96	
480.270	03/16/95	11/17/95		480.298	06/15/95	11/30/95	
480.271	03/16/95	11/10/95		400.200	00/10/00	06/20/96	
480.272	03/16/95	11/17/95		480.299	06/15/95	11/30/95	
480.273	03/16/95	11/30/95		480.300	06/15/95	11/30/95	
480.274	03/16/95	01/31/96		480.301	06/15/95	11/30/95	
480.275	03/16/95	11/30/95		100 000	00145105	06/20/96	
480.276	05/25/95	02/12/96 02/16/96		480.302 480.303	06/15/95 06/15/95	10/17/96 11/30/95	
480.277	06/15/95	09/20/96				06/20/96	
480.278	06/15/95	08/29/97		480.304	06/15/95	02/26/96	
480.279	06/15/95	11/30/95 06/20/96		480.305	06/15/95	11/30/95 06/20/96	
480.280	06/15/95	08/05/96		480.306	06/15/95	11/30/95 06/20/96	
480.281	06/15/95	11/30/95 06/20/96		480.307	06/15/95	02/26/96	
480.282	06/15/95	11/30/95 06/20/96		480.308	06/15/95	02/16/96 06/20/96	
480.283	06/15/95	11/30/95 06/20/96		480.309	06/15/95	11/30/95 06/20/96	
480.284	06/15/95	11/30/95 06/20/96		480.310	06/15/95	11/30/95 06/20/96	
480.285	06/15/95	10/17/96		480.311	06/15/95	11/30/95 06/20/96	
480.286	06/15/95	10/17/96		480.312	06/15/95	11/30/95 06/20/96	
480.287	06/15/95	09/20/96		100.010	00/45/05		
480.288	06/15/95	11/30/95 06/20/96		480.313	06/15/95	11/30/95 06/20/96	
480.289	06/15/95	10/17/96		480.314	06/15/95	11/30/95	
480.290	06/15/95	10/11/96		480.315	06/15/95	11/30/95	
480.291	06/15/95	10/08/97		480.316	06/15/95	11/30/95	
480.292	06/15/95	10/08/97		480.317	06/15/95	11/30/95 06/20/96	
480.293	06/15/95	10/11/96		480.318	06/15/95	11/30/95	
480.294	06/15/95	10/08/97				06/20/96	
480.295	06/15/95	11/30/95 06/20/96		480.319	06/15/95	05/21/97	
480.296	06/15/95	11/30/95		480.320	06/15/95	05/21/97	
		06/20/96		480.321	06/15/95	05/21/97	

Q No.	Issued	Response	Comments	Q No.	lssued	Response	Comments
480.322	06/15/95	05/21/97		480.353	06/15/95	10/17/96	
480.323	06/15/95	05/21/97		480.354	06/15/95	10/17/96	
480.324	06/15/95 [.]	05/21/97		480.355	06/15/95	10/17/96	
480.325	06/15/95	11/30/95		480.356	06/15/95	10/17/96	
480.326	06/15/95	11/30/95		480.357	06/15/95	10/17/96	
480.327	06/15/95	11/30/95		480.358	06/15/95	10/17/96	
480.328	06/15/95	11/30/95		480.359	06/15/95	05/21/97	
480.329	06/15/95	09/20/96		480.360	06/15/95	05/21/97	
480.330	06/15/95	09/20/96		480.361	06/15/95	05/21/97	
400 004	0045105	02/27/97		480.362	06/15/95	05/21/97	
480.331	06/15/95	02/16/96		480.363	06/15/95	11/30/95	
480.332	06/15/95	02/16/96		490.264	00115/05	06/20/96 11/30/95	
480.333	06/15/95	02/16/96		480.364	06/15/95	06/20/96	
480.334 480.335	06/15/95 06/15/95	07/26/96		480.365	06/15/95	05/21/97	
480.336	06/15/95	10/17/96		480.366	06/15/95	05/21/97	
480.337	06/15/95	11/30/95		480.367	06/15/95	05/21/97	
480.338	06/15/95	11/30/95		480.368	06/15/95	05/21/97	
				480.369	06/15/95	05/21/97	
480.339	06/15/95	11/30/95		480.370	06/15/95	05/21/97	
480.340	06/15/95	05/21/97	v.	480.371	06/15/95	05/21/97	
480.341	, 06/15/95	05/21/97		480.372	06/15/95	10/17/96	
480.342	06/15/95	07/26/96		480.373	06/15/95	11/30/95	
480.343	06/15/95	05/21/97				06/20/96	
480.344	06/15/95	05/21/97		480.374	06/15/95	11/30/95 06/20/96	
480.345	06/15/95	11/30/95		480.375	06/15/95	05/21/97	
480.346	06/15/95	10/30/96		480.376	06/15/95	11/30/95	
480.347	06/15/95	08/05/96		480.377	06/15/95	11/30/95	
480.348	06/15/95	08/05/96		480.378	06/15/95	09/20/96	
480.349	06/15/95	08/05/96		480.379	06/15/95	09/20/96	
480.350	06/15/95	08/05/96				02/27/87	
480.351	06/15/95	08/05/96		480.380	06/15/95	09/20/96 02/27/97	
480.352	06/15/95	11/30/95 06/20/96				 -	

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Q No.	Issued	Response	Comments	Q No.	issued	Response	Comments
480.381	06/15/95	02/15/96		480.409	03/20/96	08/22/97	
		02/16/96		480.410	03/20/96	08/22/97	
480.382	10/11/95	02/15/96 02/16/96		480.411	03/20/96	08/22/97	
480.383	10/11/95	02/15/96		480.412	03/20/96	10/17/96	
		02/16/96		480.413	03/20/96	08/22/97	
480.384	10/11/95	02/15/96 02/16/96		480.414	03/20/96	08/22/97	
480.385	10/11/95	02/15/96		480.415	03/20/96	10/17/96	
		02/16/96		480.416	04/01/96	08/30/96	
480.386	10/11/95	02/15/96 02/16/96		480.417	04/01/96	08/30/96	
480.387	10/11/95	02/15/96		480.418	04/01/96	08/30/96	
		02/16/96		480.419	04/01/96	08/30/96	
480.388	10/11/95	08/22/97		480.420	04/01/96	08/30/96	
480.389	10/11/95	08/22/97		480.421	04/01/96	08/30/96	
480.390	10/11/95	10/30/96		480.422	04/01/96	08/30/96	
480.391	10/11/95	10/30/96		480.423	04/01/96	08/30/96	
480.392	10/11/95	10/30/96		480.424	04/01/96	08/30/96	
480.393	10/11/95	02/16/96		480.425	04/01/96	08/30/96	
480.394	10/11/95	10/30/96		480.426	04/01/96	08/30/96	
480.395	10/11/95	10/17/96		480.427	04/01/96	08/30/96	
480.396	10/11/95	09/20/96		480.428	04/01/96	08/30/96	
480.397	03/04/96	08/29/97		480.429	04/01/96	08/30/96	
480.398	03/04/96	08/29/97		480.430	04/01/96	08/30/96	
480.399	03/04/96	08/29/97		480.431	04/01/96	08/30/96	
480.400	03/04/96	08/29/97		480.432	04/01/96	08/30/96	
480.401	03/04/96	08/29/97		480.433	04/01/96	08/30/96	
480.402	03/04/96	08/29/97		480.434	04/01/96	08/30/96	
480.403	03/04/96	05/21/97		480.435	04/01/96	08/30/96	
480.404	03/20/96	05/21/97		480.436	VOID	VOID	
480.405	03/20/96	05/21/97		480.437	VOID	VOID	
480.406	03/20/96	05/21/97		480.438	VOID	VOID	
480.407	03/20/96	08/29/97		480.439	06/17/96	11/08/96 11/25/96	
480.408	03/20/96	08/11/97 08/22/97		480.440	11/07/96	12/13/96	

Q No.	Issued	Response	Comments	Q No.	lssued	Response	Comments
480.441	11/07/96	12/13/96		480.473	11/08/96	08/29/97	
480.442	11/07/96	12/13/96		480.474	11/08/96	08/29/97	
480.443	11/07/96	12/13/96		480.475	11/08/96	08/29/97	
480.444	11/07/96	12/13/96		480.476	11/08/96	08/29/97	
480.445	11/07/96	12/13/96		480.477	11/08/96	08/29/97	
480.446	11/07/96	12/13/96		480.478	11/08/96	08/29/97	
480.447	11/07/96	12/13/96		480.479	11/08/96	08/29/97	
480.448	11/07/96	12/13/96		480.480	11/08/96	08/29/97	
480.449	11/07/96	12/13/96		480.481	11/08/96	08/29/97	
480.450	11/07/96	12/13/96		480.482	11/08/96	08/29/97	
480.451	11/07/96	12/13/96		480.483	11/08/96	08/29/97	
480.452	11/07/96	12/13/96		480.484	11/08/96	08/29/97	
480.453	11/07/96	12/13/96		480.485	11/08/96	08/29/97	
480.454	11/07/96	12/13/96		480.486	11/08/96	08/29/97	
480.455	11/07/96	12/13/96		480.487	11/08/96	08/29/97	
480.456	11/07/96	12/13/96		480.488	11/08/96	08/05/97	
480.457	11/07/96	12/13/96		480.489	11/08/96	08/05/97	
480.458	11/07/96	12/13/96		480.490	11/08/96	08/05/97	
480.459	11/07/96	12/13/96		480.491	11/08/96	08/05/97	
480.460	11/07/96	12/13/96		480.492	11/08/96	08/05/97	
480.461	11/07/96	12/13/96		480.493	11/08/96	03/21/97	W Withdrew Sect. 13
480.462	11/08/96	08/29/97		480.494	11/08/96	08/22/97	
480.463	11/08/96	08/29/97		480.495	11/08/96	08/05/97	
480.464	11/08/96	08/29/97		480.496	11/08/96	08/05/97	
480.465	11/08/96	08/29/97		480.497	11/08/96	03/21/97	W Withdrew Sect. 13
480.466	11/08/96	08/29/97		480.498	11/08/96	03/21/97	W Withdrew Sect. 13
480.467	11/08/96	08/29/97		480.499	11/08/96	03/21/97	W Withdrew Sect. 13
480.468	11/08/96	08/29/97		480.500	11/08/96	03/21/97	W Withdrew Sect. 13
480.469	11/08/96	08/29/97		480.501	11/08/96	03/21/97	W Withdrew Sect. 13
480.470	11/08/96	08/29/97		480.502	11/08/96	03/21/97	W Withdrew
480.471	11/08/96	08/29/97			11/08/96	03/21/97	Sect. 13 <u>W</u> Withdrew
480.472	11/08/96	08/29/97		480.503	11/0/30	0012 1131	Sect. 13

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Q No.	lssued	Response	Comments	Q No.	Issued	Response	Comments
480.504	11/08/96	03/21/97	W Withdrew Sect. 13	480.534	11/08/96	03/21/97	W Withdrew Sect. 13
480.505	11/08/96	03/21/97	W Withdrew Sect. 13	480.535	11/08/96	03/21/97	W Withdrew Sect. 13
480.506	11/08/96	03/21/97	W Withdrew Sect. 13	480.536	11/08/96	03/21/97	W Withdrew Sect. 13
480.507	11/08/96	03/21/97	W Withdrew Sect. 13	480.537	11/08/96	03/21/97	W Withdrew Sect. 13
480.508	11/08/96	03/21/97	W Withdrew Sect. 13	480.538	11/08/96	03/21/97	W Withdrew Sect. 13
480.509	11/08/96	03/21/97	W Withdrew Sect. 13	480.539	11/08/96	03/21/97	W Withdrew Sect. 13
480.510	11/08/96	03/21/97	<u>W</u> Withdrew Sect. 13	480.540	11/08/96	03/21/97	W Withdrew Sect. 13
480.511	11/08/96	03/21/97	W Withdrew Sect. 13	480.541	11/08/96	03/21/97	W Withdrew Sect. 13
480.512	11/08/96	03/21/97	W Withdrew Sect. 13	480.542	11/08/96	03/21/97	W Withdrew Sect. 13
480.513	11/08/96	03/21/97	W Withdrew Sect. 13	480.543	11/08/96	03/21/97	W Withdrew Sect. 13
480.514	11/08/96	03/21/97	W Withdrew Sect. 13	480.544	11/08/96	03/21/97	W Withdrew Sect. 13
480.515	11/08/96	03/21/97	W Withdrew Sect. 13	480.545	11/08/96	03/21/97	W Withdrew Sect. 13
480.516	11/08/96	03/21/97	W Withdrew Sect. 13	480.546	11/08/96	03/21/97	W Withdrew Sect. 13
480.517	11/08/96	03/21/97	W Withdrew Sect. 13	480.547	11/08/96	03/21/97	W Withdrew Sect. 13
480.518	11/08/96	03/21/97	W Withdrew Sect. 13	480.548	11/08/96	03/21/97	W Withdrew Sect. 13
480.519	11/08/96	03/21/97	W Withdrew Sect. 13	480.549	11/08/96	03/21/97	W Withdrew Sect. 13
480.520	11/08/96	03/21/97	W Withdrew Sect. 13	480.550	11/08/96	03/21/97	W Withdrew Sect. 13
480.521	11/08/96	03/21/97	W Withdrew Sect. 13	480.551	11/08/96	03/21/97	W Withdrew Sect. 13
480.522	11/08/96	03/21/97	W Withdrew Sect. 13	480.552	11/08/96	03/21/97	W Withdrew Sect. 13
480.523	11/08/96	03/21/97	W Withdrew Sect. 13	480.553	11/08/96	03/21/97	W Withdrew Sect. 13
480.524	11/08/96	03/21/97	W Withdrew Sect. 13	480.554	11/08/96	03/21/97	W Withdrew Sect. 13
480.525	11/08/96	03/21/97	W Withdrew Sect. 13	480.555	11/08/96	03/21/97	W Withdrew Sect. 13
480.526	11/08/96	03/21/97	W Withdrew Sect. 13	480.556	11/08/96	03/21/97	W Withdrew Sect. 13
480.527	11/08/96	03/21/97	W Withdrew Sect. 13	480.557	11/08/96	03/21/97	W Withdrew Sect. 13
480.528	11/08/96	03/21/97	W Withdrew Sect. 13	480.558	11/08/96	03/21/97	W Withdrew Sect, 13
480.529	11/08/96	03/21/97	W Withdrew Sect. 13	480.559	11/08/96	03/21/97	W Withdrew Sect. 13
480.530	11/08/96	03/21/97	W Withdrew Sect. 13	480.560	11/08/96	03/21/97	W Withdrew Sect. 13
480.531	11/08/96	03/21/97	W Withdrew Sect. 13	480.561	11/08/96	03/21/97	W Withdrew Sect. 13
480.532	11/08/96	03/21/97	W Withdrew Sect. 13	480.562	11/08/96	03/21/97	W Withdrew Sect. 13
480.533	11/08/96	03/21/97	W Withdrew Sect. 13	480.563	11/08/96	03/21/97	W Withdrew Sect. 13

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
480.564	11/08/96	03/21/97	W Withdrew Sect. 13	480.593	11/08/96	03/21/97	W Withdrew Sect. 13
480.565	11/08/96	03/21/97	W Withdrew Sect. 13	480.594	11/08/96	03/21/97	W Withdrew Sect. 13
480.566	11/08/96	03/21/97	W Withdrew Sect. 13	480.595	11/08/96	03/21/97	W Withdrew Sect. 13
480.567	11/08/96	03/21/97	W Withdrew Sect. 13	480.596	12/31/96	08/22/97	
480.568	11/08/96	03/21/97	W Withdrew Sect. 13	480.597	12/31/96	08/22/97	
480.569	11/08/96	03/21/97	W Withdrew Sect. 13	480.598	12/31/96	08/22/97	
480.570	11/08/96	03/21/97	W Withdrew Sect. 13	480.599	12/31/96	08/22/97	
480.571	11/08/96	03/21/97	W Withdrew Sect. 13	480.600	12/31/96	08/22/97	
480.572	11/08/96	03/21/97	W Withdrew Sect. 13	480.601	12/31/96	08/22/97	
480.573	11/08/96	03/21/97	W Withdrew	480.602	12/31/96	08/22/97	
480.574	11/08/96	03/21/97	Sect. 13	480.603	12/31/96	08/22/97	
480.575			Sect. 13 W Withdrew	480.604	12/31/96	08/05/97	
	11/08/96	03/21/97	Sect. 13	480.605	12/31/96	08/05/97	
480.576	11/08/96	03/21/97	Sect. 13	480.606	12/31/96	08/05/97	
480.577	11/08/96	03/21/97	W Withdrew Sect. 13	480.607	12/31/96	08/05/97	
480.578	11/08/96	03/21/97	W Withdrew Sect. 13	480.608	12/31/96	05/21/97	
480.579	11/08/96	03/21/97	W Withdrew Sect. 13	480.609	12/31/96	05/21/97	
480.580	11/08/96	03/21/97	W Withdrew Sect. 13	480.610	12/31/96	08/05/97	
480.581	11/08/96	03/21/97	W Withdrew Sect. 13	480.611	12/31/96	08/05/97	
480.582	11/08/96	03/21/97	W Withdrew Sect. 13	480.612 480.613	12/31/96 12/31/96	08/05/97 08/05/97	
480.583	11/08/96	03/21/97	W Withdrew Sect. 13	480.614	12/31/96	08/05/97	
480.584	11/08/96	03/21/97		480.615	12/31/96	08/05/97	
480.585	11/08/96	03/21/97	Sect. 13	480.616	12/31/96	08/05/97	
480.586	11/08/96	03/21/97	Sect. 13 <u>W</u> Withdrew	480.617	12/31/96	08/05/97	
480.587	11/08/96	03/21/97	Sect. 13	480.618	12/31/96	08/22/97	
			Sect. 13	480.619	12/31/96	08/05/97	
480.588	11/08/96	03/21/97	Sect. 13	480.620	12/31/96	08/05/97	
480.589	11/08/96	03/21/97	<u>W</u> Withdrew Sect. 13	480.621	12/31/96	08/05/97	
480.590	11/08/96	03/21/97	W Withdrew Sect. 13	480.622	12/31/96	08/05/97	
480.591	11/08/96	03/21/97	W Withdrew Sect. 13	480.623	12/31/96	08/05/97	
480.592	11/08/96	03/21/97	W Withdrew Sect. 13	480.624	12/31/96	08/05/97	

480.625 12/31/96 08/05/97 480.656 12/31/96 08/05/97 480.626 12/31/96 08/05/97 480.660 12/31/96 08/05/97 480.627 12/31/96 08/05/97 480.661 12/31/96 08/05/97 480.628 12/31/96 08/05/97 480.662 12/31/96 08/05/97 480.630 12/31/96 08/05/97 480.662 12/31/96 08/05/97 480.631 12/31/96 08/05/97 480.663 12/31/96 08/05/97 480.631 12/31/96 08/05/97 480.666 12/31/96 08/05/97 480.633 12/31/96 08/02/97 480.667 12/31/96 08/05/97 480.633 12/31/96 08/22/97 480.667 01/29/97 08/05/97 480.633 12/31/96 08/22/97 480.671 01/29/97 08/05/97 480.633 12/31/96 08/05/97 480.672 01/29/97 08/05/97 480.633 12/31/96 08/05/97 480.672 01/29/97	Q No.	lssued	Response	Comments	Q No.	Issued	Response	Comments
No.000000000000000000000000000000000000	480.625	12/31/96	08/05/97		480.658	12/31/96	08/05/97	
480.623 12/31/96 08/05/97 480.661 12/31/96 08/05/97 480.620 12/31/96 08/05/97 480.662 12/31/96 08/05/97 480.630 12/31/96 08/05/97 480.663 12/31/96 08/05/97 480.631 12/31/96 08/05/97 480.666 12/31/96 08/05/97 480.631 12/31/96 08/05/97 480.666 12/31/96 08/05/97 480.633 12/31/96 08/05/97 480.666 12/31/96 08/05/97 480.633 12/31/96 08/02/97 480.666 12/31/96 08/05/97 480.633 12/31/96 08/02/97 480.667 12/31/96 08/05/97 480.633 12/31/96 08/02/97 480.669 01/29/97 08/05/97 480.633 12/31/96 08/02/97 480.671 01/29/97 08/05/97 480.641 12/31/96 08/02/97 480.672 01/29/97 08/05/97 480.641 12/31/96 08/05/97 480.675 01/29/97 08/05/97 480.642 12/31/96 08/05/97 480.676	480.626	12/31/96	08/05/97		480.659	12/31/96	08/05/97	
440.020 12/31/96 08/05/97 480.662 12/31/96 08/05/97 480.629 12/31/96 08/05/97 480.663 12/31/96 08/05/97 480.631 12/31/96 08/05/97 480.664 12/31/96 08/05/97 480.633 12/31/96 08/05/97 480.664 12/31/96 08/05/97 480.633 12/31/96 08/05/97 480.666 12/31/96 08/05/97 480.634 12/31/96 08/05/97 480.666 12/31/96 08/05/97 480.636 12/31/96 08/05/97 480.666 12/31/96 08/05/97 480.636 12/31/96 08/22/97 480.667 01/29/97 08/05/97 480.631 12/31/96 08/22/97 480.671 01/29/97 08/05/97 480.631 12/31/96 08/22/97 480.672 01/29/97 08/05/97 480.631 12/31/96 08/05/97 480.672 01/29/97 08/05/97 480.641 12/31/96 08/05/97 480.675 01/29/97 08/05/97 480.645 12/31/96 08/05/97 480.676	480.627	12/31/96	08/05/97		480.660	12/31/96	08/05/97	
440.039 12/31/96 08/05/97 480.663 12/31/96 08/05/97 480.630 12/31/96 08/05/97 480.663 12/31/96 08/05/97 480.631 12/31/96 08/05/97 480.665 12/31/96 08/05/97 480.633 12/31/96 08/05/97 480.666 12/31/96 08/05/97 480.636 12/31/96 08/05/97 480.666 12/31/96 08/05/97 480.636 12/31/96 08/05/97 480.666 12/31/96 08/05/97 480.636 12/31/96 08/05/97 480.666 01/29/97 08/05/97 480.637 12/31/96 08/22/97 480.670 01/29/97 08/05/97 480.638 12/31/96 08/22/97 480.671 01/29/97 08/05/97 480.640 12/31/96 08/05/97 480.672 01/29/97 08/05/97 480.641 12/31/96 08/05/97 480.675 01/29/97 08/05/97 480.641 12/31/96 08/05/97 480.676 01/29/97 08/05/97 480.645 12/31/96 08/05/97 480.679	480.628	12/31/96	08/05/97		480.661	12/31/96	08/05/97	
400.000 12/31/96 08/05/97 480.664 12/31/96 08/05/97 480.631 12/31/96 08/05/97 480.665 12/31/96 08/05/97 480.633 12/31/96 08/05/97 480.666 12/31/96 08/05/97 480.633 12/31/96 08/05/97 480.667 12/31/96 08/05/97 480.633 12/31/96 08/05/97 480.667 12/31/96 08/05/97 480.635 12/31/96 08/02/97 480.669 01/29/97 08/05/97 480.636 12/31/96 08/02/97 480.670 01/29/97 08/05/97 480.638 12/31/96 08/02/97 480.673 01/29/97 08/05/97 480.641 12/31/96 08/05/97 480.673 01/29/97 08/05/97 480.642 12/31/96 08/05/97 480.676 01/29/97 08/05/97 480.643 12/31/96 08/05/97 480.673 01/29/97 08/05/97 480.644 12/31/96 08/05/97 480.673 01/29/97 08/05/97 480.645 12/31/96 08/05/97 480.673	480.629	12/31/96	08/05/97		480.662	12/31/96	08/05/97	
400.051 12/31/96 08/05/97 480.665 12/31/96 08/05/97 480.632 12/31/96 08/05/97 480.666 12/31/96 08/05/97 480.633 12/31/96 08/05/97 480.666 12/31/96 08/05/97 480.633 12/31/96 08/05/97 480.667 12/31/96 08/05/97 480.635 12/31/96 08/02/97 480.668 12/31/96 08/05/97 480.636 12/31/96 08/02/97 480.667 01/29/97 08/05/97 480.638 12/31/96 08/02/97 480.671 01/29/97 08/05/97 480.631 12/31/96 08/05/97 480.673 01/29/97 08/05/97 480.641 12/31/96 08/05/97 480.675 01/29/97 08/05/97 480.642 12/31/96 08/05/97 480.676 01/29/97 08/05/97 480.643 12/31/96 08/05/97 480.676 01/29/97 08/05/97 480.644 12/31/96 08/05/97 480.679 01/29/97 08/05/97 480.644 12/31/96 08/05/97 480.681	480.630	12/31/96	08/05/97		480.663	12/31/96	08/05/97	
480.633 12/31/96 08/22/97 480.666 12/31/96 08/05/97 480.633 12/31/96 08/05/97 480.667 12/31/96 08/05/97 480.633 12/31/96 08/22/97 480.668 12/31/96 08/05/97 480.636 12/31/96 08/22/97 480.669 01/29/97 08/05/97 480.636 12/31/96 08/22/97 480.670 01/29/97 08/05/97 480.638 12/31/96 08/22/97 480.671 01/29/97 08/05/97 480.640 12/31/96 08/05/97 480.673 01/29/97 08/05/97 480.641 12/31/96 08/05/97 480.675 01/29/97 08/05/97 480.641 12/31/96 08/05/97 480.675 01/29/97 08/05/97 480.642 12/31/96 08/05/97 480.676 01/29/97 08/05/97 480.643 12/31/96 08/05/97 480.678 01/29/97 08/05/97 480.644 12/31/96 08/05/97 480.679 01/29/97 08/05/97 480.645 12/31/96 08/05/97 480.681	480.631	12/31/96	08/05/97		480.664	12/31/96	08/05/97	
12/31/96 08/05/97 480.667 12/31/96 08/05/97 480.634 12/31/96 08/05/97 480.6667 12/31/96 08/05/97 480.635 12/31/96 08/22/97 480.6668 12/31/96 08/05/97 480.636 12/31/96 08/22/97 480.669 01/29/97 08/05/97 480.637 12/31/96 08/22/97 480.670 01/29/97 08/05/97 480.638 12/31/96 08/22/97 480.671 01/29/97 08/05/97 480.640 12/31/96 08/05/97 480.673 01/29/97 08/05/97 480.641 12/31/96 08/05/97 480.675 01/29/97 08/05/97 480.641 12/31/96 08/05/97 480.675 01/29/97 08/05/97 480.643 12/31/96 08/05/97 480.676 01/29/97 08/05/97 480.644 12/31/96 08/05/97 480.678 01/29/97 08/05/97 480.644 12/31/96 08/05/97 480.681 01/29/97 08/05/97 480.645 12/31/96 08/05/97 480.681 01/29/97 </td <td>480.632</td> <td>12/31/96</td> <td>08/05/97</td> <td></td> <td>480.665</td> <td>12/31/96</td> <td>08/05/97</td> <td>· .</td>	480.632	12/31/96	08/05/97		480.665	12/31/96	08/05/97	· .
12/31/96 08/22/97 480.668 12/31/96 08/05/97 480.635 12/31/96 08/22/97 480.668 01/29/97 08/05/97 480.636 12/31/96 08/22/97 480.669 01/29/97 08/05/97 480.637 12/31/96 08/22/97 480.670 01/29/97 08/05/97 480.638 12/31/96 08/22/97 480.671 01/29/97 08/05/97 480.640 12/31/96 08/05/97 480.673 01/29/97 08/05/97 480.641 12/31/96 08/05/97 480.675 01/29/97 08/05/97 480.642 12/31/96 08/05/97 480.676 01/29/97 08/05/97 480.643 12/31/96 08/05/97 480.677 01/29/97 08/05/97 480.644 12/31/96 08/05/97 480.679 01/29/97 08/05/97 480.644 12/31/96 08/05/97 480.679 01/29/97 08/05/97 480.644 12/31/96 08/05/97 480.680 01/29/97 08/05/97 480.644 12/31/96 08/05/97 480.681 01/29/97 <td>480.633</td> <td>12/31/96</td> <td>08/22/97</td> <td></td> <td>480.666</td> <td>12/31/96</td> <td>08/05/97</td> <td></td>	480.633	12/31/96	08/22/97		480.666	12/31/96	08/05/97	
480.635 12/31/96 08/22/97 480.669 01/29/97 08/05/97 480.636 12/31/96 08/22/97 480.670 01/29/97 08/05/97 480.637 12/31/96 08/22/97 480.671 01/29/97 08/05/97 480.638 12/31/96 08/22/97 480.672 01/29/97 08/05/97 480.640 12/31/96 08/05/97 480.673 01/29/97 08/05/97 480.641 12/31/96 08/05/97 480.675 01/29/97 08/05/97 480.642 12/31/96 08/05/97 480.675 01/29/97 08/05/97 480.643 12/31/96 08/05/97 480.676 01/29/97 08/05/97 480.644 12/31/96 08/05/97 480.678 01/29/97 08/05/97 480.644 12/31/96 08/05/97 480.679 01/29/97 08/05/97 480.644 12/31/96 08/05/97 480.679 01/29/97 08/05/97 480.644 12/31/96 08/05/97 480.681 01/29/97 08/05/97 480.647 12/31/96 08/05/97 480.682	480.634	12/31/96	08/05/97		480.667	12/31/96	08/05/97	
480.637 12/31/96 08/22/97 480.670 01/29/97 08/05/97 480.638 12/31/96 08/22/97 480.671 01/29/97 08/05/97 480.639 12/31/96 08/22/97 480.672 01/29/97 08/05/97 480.640 12/31/96 08/05/97 480.673 01/29/97 08/05/97 480.641 12/31/96 08/05/97 480.675 01/29/97 08/05/97 480.642 12/31/96 08/05/97 480.676 01/29/97 08/05/97 480.643 12/31/96 08/05/97 480.676 01/29/97 08/05/97 480.643 12/31/96 08/05/97 480.676 01/29/97 08/05/97 480.644 12/31/96 08/05/97 480.678 01/29/97 08/05/97 480.645 12/31/96 08/05/97 480.681 01/29/97 08/05/97 480.644 12/31/96 08/05/97 480.682 01/29/97 08/05/97 480.644 12/31/96 08/05/97 480.681 01/29/97 08/05/97 480.651 12/31/96 08/05/97 480.682	480.635	12/31/96	08/22/97		480.668	12/31/96	08/05/97	
480.633 12/31/96 08/22/97 480.671 01/29/97 08/05/97 480.638 12/31/96 08/22/97 480.672 01/29/97 08/05/97 480.640 12/31/96 08/05/97 480.673 01/29/97 08/05/97 480.641 12/31/96 08/05/97 480.674 01/29/97 08/05/97 480.642 12/31/96 08/05/97 480.675 01/29/97 08/05/97 480.643 12/31/96 08/05/97 480.676 01/29/97 08/05/97 480.644 12/31/96 08/05/97 480.676 01/29/97 08/05/97 480.644 12/31/96 08/05/97 480.678 01/29/97 08/05/97 480.645 12/31/96 08/05/97 480.679 01/29/97 08/05/97 480.646 12/31/96 08/05/97 480.681 01/29/97 08/05/97 480.647 12/31/96 08/05/97 480.681 01/29/97 08/05/97 480.648 12/31/96 08/05/97 480.682 01/29/97 08/05/97 480.651 12/31/96 08/05/97 480.683	480.636	12/31/96	08/22/97		480.669	01/29/97	08/05/97	
480.639 12/31/96 08/22/97 480.672 01/29/97 08/05/97 480.640 12/31/96 08/05/97 480.673 01/29/97 08/05/97 480.641 12/31/96 08/05/97 480.674 01/29/97 08/05/97 480.642 12/31/96 08/05/97 480.675 01/29/97 08/05/97 480.643 12/31/96 08/05/97 480.676 01/29/97 08/05/97 480.644 12/31/96 08/05/97 480.676 01/29/97 08/05/97 480.645 12/31/96 08/05/97 480.678 01/29/97 08/05/97 480.646 12/31/96 08/05/97 480.679 01/29/97 08/05/97 480.646 12/31/96 08/05/97 480.681 01/29/97 08/05/97 480.648 12/31/96 08/05/97 480.681 01/29/97 08/05/97 480.651 12/31/96 08/05/97 480.683 01/29/97 08/05/97 480.651 12/31/96 08/05/97 480.683 01/29/97 08/05/97 480.651 12/31/96 08/05/97 480.686	480.637	12/31/96	08/22/97	•	480.670	01/29/97	08/05/97	
480.639 12/31/96 08/05/97 480.673 01/29/97 08/05/97 480.640 12/31/96 08/05/97 480.674 01/29/97 08/05/97 480.641 12/31/96 08/05/97 480.675 01/29/97 08/05/97 480.642 12/31/96 08/05/97 480.676 01/29/97 08/05/97 480.643 12/31/96 08/05/97 480.676 01/29/97 08/05/97 480.644 12/31/96 08/05/97 480.677 01/29/97 08/05/97 480.645 12/31/96 08/05/97 480.678 01/29/97 08/05/97 480.645 12/31/96 08/05/97 480.679 01/29/97 08/05/97 480.647 12/31/96 08/05/97 480.681 01/29/97 08/05/97 480.648 12/31/96 08/05/97 480.682 01/29/97 08/05/97 480.651 12/31/96 08/05/97 480.683 01/29/97 08/05/97 480.651 12/31/96 08/05/97 480.685 01/29/97 08/05/97 480.652 12/31/96 08/05/97 480.686	480.638	12/31/96	08/22/97		480.671	01/29/97	08/05/97	
480.640 12/31/96 08/05/97 480.674 01/29/97 08/05/97 480.641 12/31/96 08/05/97 480.675 01/29/97 08/05/97 480.642 12/31/96 08/05/97 480.676 01/29/97 08/05/97 480.643 12/31/96 08/05/97 480.677 01/29/97 08/05/97 480.644 12/31/96 08/05/97 480.678 01/29/97 08/05/97 480.645 12/31/96 08/05/97 480.679 01/29/97 08/05/97 480.646 12/31/96 08/05/97 480.680 01/29/97 08/05/97 480.648 12/31/96 08/05/97 480.681 01/29/97 08/05/97 480.648 12/31/96 08/05/97 480.681 01/29/97 08/05/97 480.651 12/31/96 08/05/97 480.682 01/29/97 08/05/97 480.651 12/31/96 08/05/97 480.685 01/29/97 08/05/97 480.652 12/31/96 08/05/97 480.685 01/29/97 08/22/97 480.653 12/31/96 08/05/97 480.686	480.639	12/31/96	08/22/97		480.672	01/29/97	08/05/97	
480.641 12/3 1/96 08/05/97 480.675 01/29/97 08/05/97 480.642 12/3 1/96 08/05/97 480.676 01/29/97 08/05/97 480.643 12/3 1/96 08/05/97 480.676 01/29/97 08/05/97 480.644 12/3 1/96 08/05/97 480.677 01/29/97 08/05/97 480.645 12/3 1/96 08/05/97 480.678 01/29/97 08/05/97 480.646 12/3 1/96 08/05/97 480.679 01/29/97 08/05/97 480.647 12/3 1/96 08/05/97 480.680 01/29/97 08/05/97 480.648 12/3 1/96 08/05/97 480.681 01/29/97 08/05/97 480.649 12/3 1/96 08/05/97 480.682 01/29/97 08/05/97 480.651 12/3 1/96 08/05/97 480.683 01/29/97 08/05/97 480.652 12/3 1/96 08/05/97 480.685 01/29/97 08/05/97 480.653 12/3 1/96 08/05/97 480.686 01/29/97 08/22/97 480.654 12/3 1/96 08/05/97 <td< td=""><td>480.640</td><td>12/31/96</td><td>08/05/97</td><td></td><td>480.673</td><td>01/29/97</td><td>08/05/97</td><td></td></td<>	480.640	12/31/96	08/05/97		480.673	01/29/97	08/05/97	
480.642 12/3 1/96 08/05/97 480.676 01/29/97 08/05/97 480.643 12/3 1/96 08/05/97 480.677 01/29/97 08/05/97 480.644 12/3 1/96 08/05/97 480.678 01/29/97 08/05/97 480.645 12/3 1/96 08/05/97 480.679 01/29/97 08/05/97 480.646 12/3 1/96 08/05/97 480.679 01/29/97 08/05/97 480.647 12/3 1/96 08/05/97 480.680 01/29/97 08/05/97 480.648 12/3 1/96 08/05/97 480.681 01/29/97 08/05/97 480.648 12/3 1/96 08/05/97 480.682 01/29/97 08/05/97 480.650 12/3 1/96 08/05/97 480.683 01/29/97 08/05/97 480.651 12/3 1/96 08/05/97 480.683 01/29/97 08/05/97 480.652 12/3 1/96 08/05/97 480.685 01/29/97 08/05/97 480.653 12/3 1/96 08/05/97 480.686 01/29/97 08/22/97 480.655 12/3 1/96 08/05/97 <td< td=""><td>480.641</td><td>12/31/96</td><td>08/05/97</td><td></td><td>480.674</td><td>01/29/97</td><td>08/05/97</td><td></td></td<>	480.641	12/31/96	08/05/97		480.674	01/29/97	08/05/97	
480.644 12/31/96 08/05/97 480.677 01/29/97 08/05/97 480.645 12/31/96 08/05/97 480.678 01/29/97 08/05/97 480.646 12/31/96 08/05/97 480.679 01/29/97 08/05/97 480.646 12/31/96 08/05/97 480.679 01/29/97 08/05/97 480.647 12/31/96 08/05/97 480.680 01/29/97 08/05/97 480.648 12/31/96 08/05/97 480.681 01/29/97 08/05/97 480.650 12/31/96 08/05/97 480.682 01/29/97 08/05/97 480.651 12/31/96 08/05/97 480.683 01/29/97 08/05/97 480.651 12/31/96 08/05/97 480.685 01/29/97 08/05/97 480.652 12/31/96 08/05/97 480.685 01/29/97 08/05/97 480.653 12/31/96 08/05/97 480.685 01/29/97 08/22/97 480.655 12/31/96 08/05/97 480.686 01/29/97 08/22/97 480.655 12/31/96 08/05/97 480.688	480.642	12/31/96	08/05/97		480.675	01/29/97	08/05/97	
480.645 12/31/96 08/05/97 480.678 01/29/97 08/05/97 480.646 12/31/96 08/05/97 480.679 01/29/97 08/05/97 480.647 12/31/96 08/05/97 480.680 01/29/97 08/05/97 480.648 12/31/96 08/05/97 480.681 01/29/97 08/05/97 480.649 12/31/96 08/05/97 480.682 01/29/97 08/05/97 480.650 12/31/96 08/05/97 480.683 01/29/97 08/05/97 480.651 12/31/96 08/05/97 480.683 01/29/97 08/05/97 480.652 12/31/96 08/05/97 480.685 01/29/97 08/05/97 480.653 12/31/96 08/05/97 480.685 01/29/97 08/22/97 480.654 12/31/96 08/05/97 480.686 01/29/97 08/22/97 480.655 12/31/96 08/05/97 480.687 01/29/97 08/22/97 480.655 12/31/96 08/05/97 480.688 01/29/97 08/22/97 480.655 12/31/96 08/05/97 480.688	480.643	12/31/96	08/05/97		480.676	01/29/97	08/05/97	
480.646 12/31/96 08/05/97 480.679 01/29/97 08/05/97 480.647 12/31/96 08/05/97 480.680 01/29/97 08/05/97 480.648 12/31/96 08/05/97 480.681 01/29/97 08/05/97 480.649 12/31/96 08/05/97 480.682 01/29/97 08/05/97 480.650 12/31/96 08/05/97 480.683 01/29/97 08/05/97 480.651 12/31/96 08/05/97 480.683 01/29/97 08/05/97 480.652 12/31/96 08/05/97 480.685 01/29/97 08/05/97 480.653 12/31/96 08/05/97 480.685 01/29/97 08/22/97 480.654 12/31/96 08/05/97 480.686 01/29/97 08/22/97 480.654 12/31/96 08/05/97 480.687 01/29/97 08/05/97 480.655 12/31/96 08/05/97 480.688 01/29/97 08/05/97 480.655 12/31/96 08/05/97 480.688 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.689	480.644	12/31/96	08/05/97		480.677	01/29/97	08/05/97	
480.647 12/31/96 08/05/97 480.680 01/29/97 08/05/97 480.648 12/31/96 08/05/97 480.681 01/29/97 08/05/97 480.649 12/31/96 08/05/97 480.682 01/29/97 08/05/97 480.650 12/31/96 08/05/97 480.682 01/29/97 08/05/97 480.651 12/31/96 08/05/97 480.683 01/29/97 08/05/97 480.652 12/31/96 08/05/97 480.685 01/29/97 08/05/97 480.653 12/31/96 08/05/97 480.686 01/29/97 08/02/97 480.653 12/31/96 08/05/97 480.686 01/29/97 08/22/97 480.654 12/31/96 08/05/97 480.687 01/29/97 08/22/97 480.655 12/31/96 08/05/97 480.688 01/29/97 08/05/97 480.655 12/31/96 08/05/97 480.688 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.688 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.689	480.645	12/31/96	08/05/97		480.678	01/29/97	08/05/97	
480.648 12/31/96 08/05/97 480.681 01/29/97 08/05/97 480.649 12/31/96 08/05/97 480.682 01/29/97 08/22/97 480.650 12/31/96 08/05/97 480.683 01/29/97 08/05/97 480.651 12/31/96 08/05/97 480.683 01/29/97 08/05/97 480.652 12/31/96 08/05/97 480.685 01/29/97 08/05/97 480.653 12/31/96 08/05/97 480.686 01/29/97 08/22/97 480.653 12/31/96 08/05/97 480.686 01/29/97 08/22/97 480.654 12/31/96 08/05/97 480.687 01/29/97 08/22/97 480.655 12/31/96 08/22/97 480.688 01/29/97 08/05/97 480.655 12/31/96 08/22/97 480.688 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.688 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.689 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.689	480.646	12/31/96	08/05/97		480.679	01/29/97	08/05/97	
480.649 12/31/96 08/05/97 480.682 01/29/97 08/22/97 480.650 12/31/96 08/05/97 480.683 01/29/97 08/05/97 480.651 12/31/96 08/05/97 480.684 01/29/97 08/05/97 480.652 12/31/96 08/05/97 480.685 01/29/97 08/05/97 480.653 12/31/96 08/05/97 480.686 01/29/97 08/22/97 480.654 12/31/96 08/05/97 480.687 01/29/97 08/22/97 480.655 12/31/96 08/05/97 480.688 01/29/97 08/22/97 480.655 12/31/96 08/05/97 480.688 01/29/97 08/22/97 480.656 12/31/96 08/05/97 480.688 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.689 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.689 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.689 01/29/97 08/05/97	480.647	12/31/96	08/05/97		480.680	01/29/97	08/05/97	
*80.650 12/31/96 08/05/97 480.683 01/29/97 08/05/97 480.651 12/31/96 08/05/97 480.684 01/29/97 08/05/97 480.652 12/31/96 08/05/97 480.685 01/29/97 08/22/97 480.653 12/31/96 08/05/97 480.686 01/29/97 08/22/97 480.654 12/31/96 08/05/97 480.687 01/29/97 08/22/97 480.655 12/31/96 08/05/97 480.688 01/29/97 08/05/97 480.655 12/31/96 08/05/97 480.688 01/29/97 08/05/97 480.655 12/31/96 08/05/97 480.688 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.688 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.689 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.689 01/29/97 08/05/97	480.648	12/31/96	08/05/97		480.681	01/29/97	08/05/97	
480.651 12/31/96 08/05/97 480.684 01/29/97 08/05/97 480.652 12/31/96 08/05/97 480.685 01/29/97 08/22/97 480.653 12/31/96 08/05/97 480.686 01/29/97 08/22/97 480.654 12/31/96 08/05/97 480.687 01/29/97 08/22/97 480.655 12/31/96 08/22/97 480.688 01/29/97 08/05/97 480.655 12/31/96 08/05/97 480.688 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.689 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.689 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.689 01/29/97 08/05/97	480.649	12/31/96	08/05/97		480.682	01/29/97	08/22/97	
480.651 12/31/96 08/05/97 480.685 01/29/97 08/22/97 480.652 12/31/96 08/05/97 480.686 01/29/97 08/22/97 480.653 12/31/96 08/05/97 480.686 01/29/97 08/22/97 480.654 12/31/96 08/05/97 480.687 01/29/97 08/22/97 480.655 12/31/96 08/22/97 480.688 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.689 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.689 01/29/97 08/05/97	<i>4</i> 80.650	12/31/96	08/05/97		480.683	01/29/97	08/05/97	
480.652 12/31/96 08/05/97 480.686 01/29/97 08/22/97 480.653 12/31/96 08/05/97 480.687 01/29/97 08/22/97 480.655 12/31/96 08/22/97 480.688 01/29/97 08/05/97 480.655 12/31/96 08/05/97 480.688 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.689 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.689 01/29/97 08/05/97	480.651	12/31/96	08/05/97		480.684	01/29/97	08/05/97	
480.653 12/31/96 08/05/97 480.687 01/29/97 08/22/97 480.655 12/31/96 08/22/97 480.688 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.689 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.689 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.689 01/29/97 08/05/97	480.652	12/31/96	08/05/97		480.685	01/29/97	08/22/97	
480.655 12/31/96 08/22/97 480.688 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.689 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.689 01/29/97 08/05/97	480.653	12/31/96	08/05/97		480.686	01/29/97	08/22/97	
480.655 12/31/96 08/05/97 480.689 01/29/97 08/05/97 480.656 12/31/96 08/05/97 480.689 01/29/97 08/05/97	480.654	12/31/96	08/05/97		480.687	01/29/97	08/22/97	
	480.655	12/31/96	08/22/97		480.688	01/29/97	08/05/97	
480.657 12/31/96 08/05/97 480.690 01/29/97 08/05/97	480.656	12/31/96	08/05/97		480.689	01/29/97	08/05/97	
	480.657	12/31/96	08/05/97		480.690	01/29/97	08/05/97	

NUREG-1512

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
480.691	01/29/97	08/05/97		480.723	01/29/97	08/05/97	
480.692	01/29/97	08/05/97		480.724	01/29/97	08/05/97	
480.693	01/29/97	08/05/97		480.725	01/29/97	08/22/97	
480.694	01/29/97	08/05/97		480.726	01/29/97	08/05/97	
480.695	01/29/97	08/05/97		480.727	01/29/97	08/05/97	
480.696	01/29/97	08/05/97		480.728	01/29/97	08/05/97	
480.697	01/29/97	08/05/97		480.729	01/29/97	08/05/97	
480.698	01/29/97	08/05/97	•	480.730	01/29/97	08/05/97	
480.699	01/29/97	08/05/97		480.731	01/29/97	08/05/97	
480.700	01/29/97	08/05/97		480.732	01/29/97	08/05/97	
480.701	01/29/97	08/05/97		480.733	01/29/97	08/05/97	
480.702	01/29/97	08/05/97		480.734	01/29/97	08/05/97	
480.703	01/29/97	08/05/97		480.735	01/29/97	08/05/97	
480.704	01/29/97	08/22/97		480.736	01/29/97	08/05/97	
480.705	01/29/97	08/05/97		480.737	01/29/97	08/05/97	
480.706	01/29/97	08/05/97		480.738	01/29/97	08/05/97	
480.707	01/29/97	08/05/97		480.739	01/29/97	08/05/97	
480.708	01/29/97	08/05/97		480.740	01/29/97	08/05/97	
480.709	01/29/97	08/05/97		480.741	01/29/97	08/05/97	
480.710	01/29/97	08/05/97		480.742	01/29/97	08/05/97	
480.711	01/29/97	08/05/97		480.743	01/29/97	08/22/97	
480.712	01/29/97	08/05/97		480.744	01/29/97	08/05/97	
480.713	01/29/97	08/05/97		480.745	01/29/97	08/05/97	
480.714	01/29/97	08/05/97		480.746	01/29/97	08/05/97	
480.715	01/29/97	08/05/97		480.747	01/29/97	08/05/97	
480.716	01/29/97	08/05/97		480.748	01/29/97	08/05/97	
480.717	01/29/97	08/05/97		480.749	01/29/97	08/22/97	
480.718	01/29/97	08/05/97		480.750	01/29/97	08/05/97	
480.719	01/29/97	08/22/97		480.751	01/29/97	08/05/97	
480.720	01/29/97	08/05/97		480.752	01/29/97	08/05/97	
480.721	01/29/97	08/05/97		480.753	01/29/97	08/05/97 02/06/98	
480.722	01/29/97	08/05/97		480.754	01/29/97	08/05/97	

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Q No.	lssued	Response	Comments	Q No.	Issued	Response	Comments
480.755	01/29/97	08/05/97		480.788	01/29/97	08/22/97	
480.756	01/29/97	08/05/97		480.789	01/29/97	08/05/97	
480.757	01/29/97	08/05/97		480.790	01/29/97	08/05/97	
480.758	01/29/97	08/22/97		480.791	01/29/97	08/05/97	
480.759	01/29/97	08/05/97		480.792	01/29/97	08/22/97	
480.760	01/29/97	08/05/97		480.793	01/29/97	08/05/97	
480.761	01/29/97	08/05/97		480.794	01/29/97	08/22/97	
480.762	01/29/97	08/05/97		480.795	01/29/97	08/05/97	
480.763	01/29/97	08/05/97		480.796	01/29/97	08/05/97	
480.764	01/29/97	08/22/97		480.797	01/29/97	08/05/97	
480.765	01/29/97	08/05/97		480.798	01/29/97	08/05/97	
480.766	01/29/97	08/05/97		480.799	01/29/97	08/05/97	
480.767	01/29/97	08/05/97		480.800	01/29/97	08/05/97	
480.768	01/29/97	08/05/97		480.801	01/29/97	08/22/97	
480.769	01/29/97	08/05/97		480.802	01/29/97	08/05/97	
480.770	01/29/97	08/22/97		480.803	01/29/97	08/22/97	
480.771	01/29/97	08/05/97		480.804	01/29/97	08/05/97	
480.772	01/29/97	08/05/97		480.805	01/29/97	08/05/97	
480.773	01/29/97	08/05/97		480.806	01/29/97	08/05/97	
480.774	01/29/97	08/05/97		480.807	01/29/97	08/05/97	
480.775	01/29/97	08/05/97		480.808	01/29/97	08/22/97	
480.776	01/29/97	08/05/97		480.809	01/29/97	08/22/97	
480.777	01/29/97	08/22/97		480.810	01/29/97	08/22/97	
480.778	01/29/97	08/22/97		480.811	01/29/97	08/22/97	
480.779	01/29/97	08/22/97		480.812	01/29/97	08/22/97	
480.780	01/29/97	08/05/97		480.813	01/29/97	08/22/97	
480.781	01/29/97	08/05/97		480.814	01/29/97	08/22/97	
480.782	01/29/97	08/05/97		480.815	01/29/97	08/22/97	
480.783	01/29/97	08/05/97		480.816	01/29/97	08/22/97	
480.784	01/29/97	08/05/97		480.817	01/29/97	08/22/97	
480.785	01/29/97	08/05/97		480.818	01/29/97	08/22/97	
480.786	01/29/97	08/22/97		480.819	01/29/97	08/22/97	
480.787	01/29/97	08/05/97		480.820	01/29/97	08/22/97	
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NUREG-1512

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
480.821	01/29/97	08/22/97		480.853	01/29/97	08/22/97	
480.822	01/29/97	08/22/97		480.854	01/29/97	08/22/97	
480.823	01/29/97	08/22/97		480.855	01/29/97	08/22/97	
480.824	01/29/97	08/22/97		480.856	01/29/97	08/22/97	
480.825	01/29/97	08/22/97		480.857	01/29/97	08/22/97	
480.826	01/29/97	08/22/97		480.858	01/29/97	08/22/97	
480.827	01/29/97	08/22/97		480.859	01/29/97	08/22/97	
480.828	01/29/97	08/22/97		480.860	01/29/97	08/22/97	
480.829	01/29/97	08/22/97		480.861	01/29/97	08/22/97	
480.830	01/29/97	08/22/97		480.862	01/29/97	08/22/97	
480.831	01/29/97	08/22/97		480.863	01/29/97	08/22/97	
480.832	01/29/97	08/22/97		480.864	01/29/97	08/22/97	
480.833	01/29/97	08/22/97		480.865	01/29/97	08/22/97	
480.834	01/29/97	08/22/97		480.866	01/29/97	08/22/97	
480.835	01/29/97	08/22/97		480.867	01/29/97	08/22/97	
480.836	01/29/97	08/22/97		480.868	01/29/97	08/22/97	
480.837	01/29/97	08/22/97		480.869	01/29/97	08/22/97	
480.838	01/29/97	08/22/97		480.870	01/29/97	08/22/97	
480.839	01/29/97	08/22/97		480.871	01/29/97	08/05/97	
480.840	01/29/97	08/22/97		480.872	01/29/97	08/05/97	
480.841	01/29/97	08/22/97		480.873	01/29/97	08/05/97	•
480.842	01/29/97	08/22/97			12/08/97	01/06/98 01/28/98	
480.843	01/29/97	08/22/97		480.874	01/29/97	08/05/97	
480.844	01/29/97	08/22/97		480.875	01/29/97	08/05/97	
480.845	01/29/97	08/22/97		480.876	01/29/97	08/05/97	
480.846	01/29/97	08/22/97		480.877	01/29/97	08/05/97	
480.847	01/29/97	08/22/97		480.878	01/29/97 ⁻	08/05/97	
480.848	01/29/97	08/22/97		480.879	01/29/97	08/05/97	
480.849	01/29/97	08/22/97		480.880	01/29/97	08/05/97	
480.850	01/29/97	08/22/97		480.881	01/29/97	08/05/97	
480.851	01/29/97	08/22)97		480.882	01/29/97	08/05/97	
480.852	01/29/97	08/22/97		480.883	01/29/97	08/05/97	

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
480.884	01/29/97	08/05/97		480.916	01/29/97	08/05/97	
480.885	01/29/97	08/05/97		480.917	01/29/97	08/05/97	
480.886	01/29/97	08/05/97		480.918	01/29/97	08/05/97	
480.887	01/29/97	08/05/97		480.919	01/29/97	08/05/97	
480.888	01/29/97	08/05/97		480.920	01/29/97	08/05/97	
480.889	01/29/97	08/05/97		480.921	01/29/97	08/05/97	
480.890	01/29/97	08/05/97		480.922	01/29/97	08/05/97	
480.891	01/29/97	08/05/97		480.923	01/29/97	08/05/97	
480.892	01/29/97	08/05/97		480.924	01/29/97	08/05/97	
480.893	01/29/97	08/05/97		480.925	01/29/97	08/05/97	
480.894	01/29/97	08/05/97		480.926	01/29/97	08/05/97	
480.895	01/29/97	08/05/97		480.927	01/29/97	08/05/97	
480.896	01/29/97	08/05/97		480.928	01/29/97	08/05/97	
480.897	01/29/97	08/05/97		480.929	01/29/97	08/05/97	
480.898	01/29/97	08/05/97		480.930	01/29/97	08/05/97	
480.899	01/29/97	08/05/97		480.931	01/29/97	08/05/97	
480.900	01/29/97	08/05/97		480.932	01/29/97	08/05/97	
480.901	01/29/97	08/05/97		480.933	01/29/97	08/05/97	
480.902	01/29/97	08/22/97		480.934	01/29/97	08/05/97	
480.903	01/29/97	08/05/97		480.935	01/29/97	08/05/97	
480.904	01/29/97	08/05/97		480.936	01/29/97	08/05/97	
480.905	01/29/97	08/05/97		480.937	01/29/97	08/05/97	
	12/08/97	01/06/98		480.938 ,	01/29/97	08/05/97	
480.906	01/29/97	08/05/97		480.939	01/29/97	08/05/97	
480.907	01/29/97	08/05/97		480.940	01/29/97	08/05/97	
480.908	01/29/97 12/08/97	08/05/97 01/06/98		480.941	01/29/97	08/05/97	
480.909	01/29/97	08/05/97		480.942	01/29/97	08/05/97	
480.910	01/29/97	08/05/97		480.943	01/29/97	08/05/97	
480.911	01/29/97	08/05/97		480.944	01/29/97	08/05/97	
480.912	01/29/97	08/05/97		480.945	01/29/97	08/05/97 01/20/98	
480.913	01/29/97	08/05/97		490.046	02/24/97	04/15/97	
480.914	01/29/97	08/05/97		480.946	02/24/97	04/21/97	
480.914	01/29/97	08/05/97		480.947	03/10/9/	04/21/31	
-00.010	01120101	00.00.01					

NUREG-1512

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
480.948	03/10/97	04/21/97		480.980	04/24/97	06/27/97	
480.949	03/10/97	04/21/97		480.981	04/24/97	06/27/97	
480.950	03/10/97	N/A	Withdrawn per 7/ 97 telecon	480.982	04/24/97	06/27/97	
			summary	480.983	04/24/97	06/27/97	
480.951	03/10/97	04/21/97		480.984	04/24/97	06/27/97	
480.952	03/10/97	04/21/97		480.985	04/24/97	06/27/97	
480.953	03/10/97	04/21/97		480.986	04/24/97	06/27/97	
480.954	03/10/97	04/21/97		480.987	04/24/97	06/27/97	
480.955	VOID	VOID		480.988	04/24/97	06/27/97	
480.956	03/10/97	04/15/97		480.989	04/24/97	06/27/97	
480.957	03/10/97	04/15/97		480.990	04/24/97	06/27/97	
480.958	03/10/97	04/15/97		480.991	04/24/97	06/27/97	
480.959	03/10/97	04/15/97		480.992	04/24/97	06/27/97	
480.960	03/10/97	04/15/97		100.002	12/08/97	01/06/98	
480.961	03/10/97	04/15/97		480.993	04/24/97	06/27/97	
480.962	03/10/97	04/15/97		480.994	04/24/97	06/27/97	
480.963	03/10/97	04/15/97		480.995	04/24/97-	06/27/97	
480.964	03/10/97	04/15/97		480.996	04/24/97	06/27/97	
480.965	03/10/97	04/15/97		480.997	04/24/97	06/27/97	
480.966	03/10/97	04/15/97		480.998	04/24/97	06/27/97	
480.967	04/24/97	06/27/97		480.999	04/24/97	06/27/97	
480.968	04/24/97	06/27/97		480.1000	04/24/97	06/27/97	
480.969	04/24/97	06/27/97		480.1001	04/24/97	06/27/97	
480.970	04/24/97	06/27/97		480.1002	04/24/97	06/27/97	
480.971	04/24/97	06/27/97		480.1003	04/24/97	06/27/97	
480.972	04/24/97	06/27/97		480.1004	04/24/97	06/27/97	
480.973	04/24/97	06/27/97		480.1005	04/24/97	06/27/97	
480.974	04/24/97	06/27/97		480.1006	04/24/97	06/27/97	
480.975	04/24/97	06/27/97		480.1007	04/24/97	06/27/97	
480.976	04/24/97	06/27/97		480.1008	04/24/97	06/27/97	
480.977	04/24/97	06/27/97		480.1009	04/24/97	06/27/97	
480.978	04/24/97	06/27/97		480.1010	04/24/97	06/27/97	
480.979	04/24/97	06/27/97		480.1011	04/24/97	06/27/97	

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Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
480.1012	04/24/97	06/27/97		480.1030	04/24/97	06/27/97	dupl. RAI
480.1013	04/24/97	06/27/97		480.1030	05/14/97	08/22/97	dupl. RAI
480.1014	04/24/97	06/27/97		480.1031	04/24/97	06/27/97	dupl. RAI
480.1015	04/24/97	06/27/97		480.1031	05/14/97	08/22/97	dupl. RAI
480.1016	04/24/97	06/27/97		480.1032	04/24/97	06/27/97	dupl. RAI
				480.1032 ⁻	05/14/97	08/22/97	dupl. RAI
480.1017	04/24/97	06/27/97	dupl. RAI	480.1033	04/24/97	06/27/97	dupl. RAI
480.1017	05/07/97	06/27/97	dupl. RAI	480.1033	05/14/97	08/22/97	dupl. RAI
480.1018	04/24/97	06/27/97	dupl. RAI	480.1034	04/24/97	06/27/97	dupl. RAI
480.1018	05/07/97	06/27/97	dupl. RAI	480.1034	05/14/97	08/22/97	dupl. RAI
480.1019	04/24/97	06/27/97	dupl. RAI	480.1035	04/24/97	06/27/97	dupl. RAI
480.1019	05/07/97	06/27/97	dupl. RAI	480.1035	05/14/97	08/22/97	dupl. RAI
480.1020	04/24/97	06/27/97	dupl. RAI	480.1036	04/24/97	06/27/97	dupl. RAI
480.1020	05/07/97	06/27/97	dupl. RAI	480.1036	05/14/97	08/22/97	dupl. RAI
480.1021	04/24/97	06/27/97	dupl. RAI	480.1037	05/01/97	06/12/97	dupl. RAI
480.1021	05/07/97	06/27/97	dupl. RAI	480.1037	05/14/97	08/22/97	dupl. RAI
480.1022	04/24/97	06/27/97	dupl. RAI	480.1038	05/01/97	06/12/97	dupl. RAI
480.1022	05/14/97	08/22/97	dupl: RAI	480.1038	05/14/97	08/22/97	dupl. RAI
480.1023	04/24/97	06/27/97	dupl. RAI	480.1039	05/01/97	06/12/97	dupl. RAI
480.1023	05/14/97	09/10/97	dupl. RAI	480.1039	05/14/97	08/22/97	dupl. RAi
490 1004	04/24/07	09/23/97		480.1040	05/01/97	06/12/97	dupl. RAI
480.1024	04/24/97	06/27/97	dupl. RAI	480.1040	05/14/97	08/22/97	dupl. RAI
480.1024	05/14/97	08/22/97	dupl: RAI	480.1041	05/01/97	06/27/97	dupl. RAI
480.1025 480.1025	04/24/97 05/14/97	06/27/97 08/22/97	dupl. RAI dupl. RAI	480.1041	05/14/97	08/22/97	dupi. RAI
480.1025	04/24/97	06/27/97	dupl. RAI	480.1042	05/01/97	07/08/97	dupl. RAI
480.1026		08/22/97	dupi. RAI	480.1042	05/16/97	06/12/97	dupl. RAI
480.1028	05/14/97 04/24/97	06/27/97	dupl. RAI	480.1043	05/01/97	06/27/97	dupl. RAI
400.1027	12/08/97	00/21/91		480.1043	05/16/97	06/12/97	dupl. RAI
480.1027	05/14/97	08/22/97	dupl. RAI	480.1044	05/01/97	06/27/97	dupl. RAI
480.1028	04/24/97	06/27/97	dupl. RAI	480,1044	05/16/97	06/12/97	dupl. RAI
480.1028	05/14/97	08/22/97	dupl. RAI	480.1045	05/01/97	06/12/97	dupl. RAI
480.1029	04/24/97	06/27/97	dupl. RAI	480.1045	05/16/97	06/12/97	dupl. RAI
480.1029	05/14/97	08/22/97	dupl. RAI	480.1046	05/01/97	06/12/97	dupl. RAI

Q No.	Issued	Response	Comments	Q No.	issued	Response	Comments
480.1046	05/16/97	06/12/97	dupl. RAI	480.1077	06/27/97	08/22/97	
				480.1078	08/21/97	11/21/97	
480.1047 480.1048	05/16/97 05/16/97	06/12/97 06/12/97		480.1079	08/21/97	11/21/97 12/12/97 01/30/98	
480.1049	05/16/97	06/12/97		480.1080	08/21/97	11/21/97	
480.1050	06/06/97	06/27/97		480.1081F	10/16/97	01/30/98	
480.1051	06/27/97	08/22/97		480.1082F	10/22/97	12/01/97	
480.1052	06/27/97	08/22/97				12/23/97	
480.1053	06/27/97	08/22/97		480.1083F	10/22/97	12/23/97	
480.1054	06/27/97	08/22/97		480.1084F	11/17/97	12/03/97 01/22/98	
480.1055	06/27/97	08/22/97		480.1085F	_	01/16/98	
480.1056	06/27/97	08/22/97	,	100.1000		02/13/98	
480.1057	06/27/97	08/22/97		480.1086F	-	01/16/98	
480.1058	06/27/97	08/22/97				02/05/98 03/05/98	
480.1059	06/27/97	08/22/97		480.1087F	VOID	VOID	
480.1060	06/27/97	08/22/97		480.1088F	11/26/97	12/12/97	
480.1061	06/27/97	08/22/97		480.1089F	11/26/97	12/12/97	
480.1062	06/27/97	08/22/97		480.1090F	11/26/97	12/11/97	
480.1063	06/27/97	08/22/97		480.1091F	11/26/97	12/11/97	
480.1064	06/27/97	08/22/97		480.1092F	11/26/97	12/11/97	
480.1065	06/27/97	08/22/97		480.1093F	11/26/97	12/11/97	
480.1066	06/27/97	08/22/97		480.1094F	11/26/97	12/12/97	
480.1067	06/27/97	08/22/97		480.1095F	11/26/97	12/12/97	
480.1068	06/27/97	08/22/97		480.1096F	11/26/97	12/12/97	
480.1069	06/27/97	08/22/97		480.1097F	11/26/97	12/12/97	
480.1070	06/27/97	08/22/97		480.1098F	11/26/97	12/12/97	
480.1071	06/27/97	08/22/97		480.1099F	11/26/97	12/12/97	
480.1072	06/27/97	08/22/97		480.1100F	11/26/97	12/11/97	
480.1073	06/27/97	08/22/97		480.1101F	11/26/97	12/11/97	
480.1074	06/27/97	08/22/97		480.1102F	11/26/97	12/12/97	
480.1075	06/27/97	08/22/97		480.1103F	11/26/97	12/12/97	
480.1076	06/27/97	08/22/97		480.1104F	12/08/97	12/30/97 01/30/98	

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
480.1105F	12/08/97	01/12/98		480.1128F	01/16/98	01/30/98	
		02/20/98 02/27/98		480.1129F	01/16/98	01/30/98	
480.1106F	12/08/97	01/12/98		480.1130F	01/16/98	01/30/98	
		02/17/98 02/27/98		480.1131F	01/16/98	02/02/98	
480.1107F	12/08/97	12/30/97		480.1132F	01/16/98	02/06/98	
		02/13/98 02/27/98		480.1133F	01/16/98	02/04/98	
480.1108F	12/08/97	01/12/98		480.1134F	01/16/98	02/04/98	
400.1100	12/00/97	02/20/98		480.1135F	01/16/98	02/05/98	
	10/00/07	02/27/98		480.1136F	01/16/98	02/27/98	
480.1109F	12/08/97	12/30/97 02/06/98		480.1137F	01/16/98	02/02/98	
		02/27/98		480.1138F	01/16/98	02/02/98	
480.1110F	12/08/97	01/12/98 02/17/98		480.1139F	01/16/98	01/30/98	
		02/27/98		480.1140F	01/16/98	02/02/98	
480.1111F	12/08/97	12/30/97		480.1141F	01/16/98	01/30/98	
480.1112F	12/17/97	01/29/98 02/27/98		480.1142F	01/16/98	02/02/98	
490 44425	10/47/07			480.1143F	01/16/98	02/02/98	
480.1113F	12/17/97	01/29/98 02/27/98		480.1144F	01/16/98	02/06/98	
480.1114F	12/17/97	01/20/98		480.1145F	01/16/98	02/06/98	
	40 44 7 40 7	02/27/98		480.1146F	01/16/98	02/06/98	
480.1115F	12/17/97	01/14/98 02/11/98		490 44 475	04/16/08	03/06/98	
480.1116F	12/30/97	01/16/98		480.1147F	01/16/98	02/06/98 02/06/98	
480.1117F	01/16/98	02/04/98		480.1148F 480.1149F	01/16/98 01/16/98	02/06/98	
480.1118F	01/16/98	01/30/98		480.1149F 480.1150F	01/16/98	02/02/98	
480.1119F	01/16/98	01/30/98		480.1150F 480.1151F	01/16/98	01/30/98	
480.1120F	01/16/98	02/05/98		480.1151 480.1152F	01/16/98	02/06/98	
480.1121F	01/16/98	02/06/98		480.11521 480.1153F	01/16/98	01/30/98	
480.1122F	01/16/98	01/30/98		480.1154F	01/16/98	01/30/98	
480.1123F	01/16/98	01/30/98		480.1155F	01/16/98	02/06/98	
480.1124F	01/16/98	01/30/98		480.1156F	01/16/98	02/06/98	
480.1125F	01/16/98	01/30/98		480.1157F	01/16/98	02/06/98	
490 11265	01/16/09	02/06/98 02/06/98		480.1158F	01/16/98	02/05/98	
480.1126F	01/16/98	02/08/98					
480.1127F	01/16/98	01130/90					

NUREG-1512

Q No.	issued	Response	Comments	Q No.	Issued	Response	Comments
480.1159F	01/16/98	02/04/98		492.5	04/19/94	07/25/94	
		03/20/98 04/01/98		492.6	11/15/95	12/21/95	
480.1160F	01/16/98	02/05/98		492.7	11/15/95	12/21/95	
480.1161F	01/16/98	01/30/98		492.8	11/27/95	06/13/97	、
480.1162F	01/16/98	02/06/98		492.9	11/27/95	08/30/96	
480.1163F	01/16/98	02/02/98		492.10	11/27/95	08/30/96	
480.1164F	01/16/98	02/06/98		492.11	11/27/95	08/30/96	
480.1165F	01/16/98	02/06/98		492.12	11/27/95	08/30/96	
400.11001	01/10/30	02/00/00		492.13	11/27/95	08/30/96	
100.4	04/40/04	06/20/04		492.14	11/27/95	11/21/97	
490.1	04/19/94	06/30/94		492.15	05/21/96	8/30/96	
490.2	04/19/94	06/30/94		492.16	05/21/96	08/30/96	
490.3	04/19/94	06/30/94 06/27/94		492.17	05/21/96	08/30/96	
490.4	04/19/94	06/30/94		492.18	06/06/96	08/30/96	
490.5	04/19/94	06/27/94		492.19	06/06/96	08/30/96	
490.6	04/19/94 04/19/94	06/27/94		492.20	06/06/96	08/30/96	
490.7		06/27/94		492.21	06/06/96	08/30/96	
490.8 490.9	04/19/94 04/19/94	06/27/94		492.22	06/06/96	08/30/96	
490.9 490.10	04/19/94	06/27/94		492.23	06/06/96	08/30/96	
490.10	04/13/34	00/21/34		492.24	06/06/96	08/30/96	
101.1	04/40/04	00/07/04		492.25	06/06/96	08/30/96	
491.1	04/19/94	06/27/94		492.26	06/06/96	08/30/96	
491.2	04/19/94 04/19/94	06/27/94 06/27/94		492.27	06/06/96	08/30/96	
491.3	04/19/94	06/27/94		492.28	06/06/96	08/30/96	
491.4 491.5	04/19/94	06/27/94		492.29	06/06/96	08/30/96	
491.6	04/19/94	06/27/94		492.30	06/06/96	08/30/96	
4 91.7	04/19/94	06/30/94		492.31	06/06/96	08/30/96	
431.7	04/10/04	00/00/04		492.32	06/06/96	08/30/96	
400.4	04/40/04	06/27/04		492.33	03/28/97	05/30/97	
492.1	04/19/94	06/27/94		492.34	03/28/97	05/30/97	
492.2	04/19/94	06/30/94		492.35	03/28/97	05/30/97	
492.3	04/19/94	06/27/94		492.36	03/28/97	05/30/97	
492.4	04/19/94	06/27/94					

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Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
492.37	03/28/97	05/30/97		620.16	09/23/92	01/22/93	
492.38	03/28/97	05/30/97		620.17	09/23/92	01/22/93	
492.39	03/28/97	05/30/97		620.18	09/23/92	11/30/92	
492.40	03/28/97	05/30/97		620.19	09/23/92	01/22/93	
492.41	03/28/97	05/30/97		620.20	09/23/92	01/22/93	
492.42	03/28/97	05/30/97		620.21	09/23/92	01/22/93	
492.43	03/28/97	05/30/97		620.22	09/23/92	11/30/92	
492.44	03/28/97	05/30/97		620.23	09/23/92	01/22/93	
492.45	03/28/97	05/30/97		620.24	09/23/92	01/22/93	
492.46	03/28/97	05/30/97		620.25	09/23/92	01/22/93	
492.47	03/28/97	05/30/97		620.26	09/23/92	01/22/93	
492.48	03/28/97	05/30/97		620.27	09/23/92	11/30/92	
492.49	03/28/97	05/30/97		620.28	09/23/92	01/22/93	
492.50	03/28/97	05/30/97		620.29	09/23/92	01/22/93	
492.51	03/28/97	05/30/97		620.30	09/23/92	11/30/92	
492.52	03/28/97	05/30/97		620.31	09/23/92	11/30/92	
492.53	03/28/97	05/30/97		620.32	09/23/92	11/30/92	
				620.33	09/23/92	01/22/93	
620.1	09/23/92	01/22/93		620.34	09/23/92	01/22/93	
620.2	09/23/92	01/14/93		620.35	09/23/92	01/22/93	
620.3	09/23/92	01/22/93	· .	620.36	09/23/92	11/30/92 08/12/94	
620.4	09/23/92	01/22/93		620.37	09/23/92	01/22/93	
620.5	09/23/92	01/22/93		020.57	00/20/02	02/08/94	
620.6	09/23/92	11/30/92		620.38	09/23/92	01/22/93	
620.7	09/23/92	11/30/92		620.39	09/23/92	01/22/93	-
620.8	09/23/92	01/22/93		620.40	09/23/92	01/22/93	
620.9	09/23/92	01/22/93		620.41	09/23/92	01/22/93	
620.10	09/23/92	01/22/93		620.42	09/23/92	01/22/93	
620.11	09/23/92	11/30/92		620.43	09/23/92	01/22/93	
620.12	09/23/92	01/22/93		620.44	09/23/92	11/30/92	
620.13	09/23/92	01/22/93		620.45	09/23/92	01/22/93 02/03/94	
620.14	09/23/92	01/22/93		600 46	09/23/92	02/03/94	
620.15	09/23/92	01/22/93		620.46	03123132	01142130	

NUREG-1512

Q No.	Issued	Response	Comments	Q No.	lssued	Response	Comments
620.47	09/23/92	01/22/93		620.77	07/08/93	09/03/93	
620.48	09/23/92	11/30/92 08/12/94		620.78	07/08/93	10/08/93	
620.49	09/23/92	11/30/92		620.79	07/08/93	09/21/93	
620.50	01/26/93	04/29/93		620.80	07/08/93	09/21/93	
620.51	03/12/93	07/16/93		620.81	07/08/93	10/04/93	
		10/20/93 02/08/ 94		620.82	07/08/93	10/04/93	
		07/01/94	•	620.83	07/08/93	09/03/93	
620.52	04/28/93	08/31/93	. ·	620.84	07/08/93	09/03/93	
620.53	04/28/93	08/31/93		620.85	07/08/93	09/03/93	
620.54	04/28/93	08/31/93		620.86	07/08/93	09/21/93	
620.55	04/28/93	08/31/93		620.87	07/08/93	09/03/93	
620.56	04/28/93	08/31/93		620.88	07/08/93	09/21/93	
620.57	04/28/93	08/31/93		620.89	07/08/93	09/03/93	
620.58	04/28/93	08/31/93		620.90	07/08/93	09/03/93	
620.59	04/28/93	08/31/93		620.91	05/15/95	08/13/96	
620.60	04/28/93	08/31/93		620.92	05/15/95	08/13/96	
620.61	04/28/93	08/31/93		620.93	05/15/95	08/13/96	
620.62	04/28/93	08/31/93		620.94	05/15/95	08/13/96	
620.63	04/28/93	08/31/93					
620.64	04/28/93	08/31/93		630.1	10/14/92	02/09/93	
620.65	04/28/93	08/31/93		630.2	10/14/92	02/09/93	
620.66	04/28/93	08/31/93		630.3	10/14/92	02/09/93 02/03/94	
620.67	04/28/93	08/31/93		620.4	10/14/00	02/03/94	
620.68	04/28/93	08/31/93		630.4	10/14/92	02/03/94	
620.69	04/28/93	08/31/93		630.5	10/14/92	02/09/93	
620.70	04/28/93	08/31/93		630.6	01/26/93	03/30/93	
620.71	04/28/93	08/31/93		630.7	01/26/93	05/28/93	
620.72	04/28/93	08/31/93		630.8	01/26/93	03/30/93	
620.73	04/28/93	08/31/93		630.9	01/26/93	05/28/93	
620.74	04/28/93	08/31/93		630.10	12/19/94	01/14/97	
620.75	07/08/93	10/04/93		630.11	12/12/96	02/06/97	
620.76	07/08/93	09/03/93		630.12	12/12/96	02/06/97	

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Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
630.13	12/12/96	02/06/97		640.28	03/04/97	06/16/97	
630.14	12/12/96	02/06/97		640.29	03/04/97	06/16/97	
630.15F	10/17/97	11/20/97		640.30	03/04/97	06/16/97	
				640.31	03/04/97	06/16/97	
640.1	03/04/97	06/16/97		640.32	03/04/97	06/16/97	
640.2	03/04/97	06/16/97		640.33	03/04/97	06/16/97	
640.3	03/04/97	06/16/97		640.34	03/04/97	06/16/97	
845.4	03/04/97	06/16/97		640.35	03/04/97	06/16/97	
S-0.5	03/04/97	06/16/97		640.36	03/04/97	06/16/97	
640.6	03/04/97	06/16/97		640.37	03/04/97	06/16/97	
640.7	03/04/97	06/16/97		640.38	03/04/97	06/16/97	
640.8	03/04/97	06/16/97		640.39	03/04/97	06/16/97	
640.9	03/04/97	06/16/97		640.40	03/04/97	06/16/97	
640.10	03/04/97	06/16/97		640.41	03/04/97	06/16/97	
0.40.4.4	00/04/07	03/23/98		640.42	03/04/97	06/16/97	
640.11	03/04/97	06/16/97		640.43	03/04/97	06/16/97	·
640.12	03/04/97	06/16/97 03/23/98		640.44	03/04/97	06/16/97	
640.13	03/04/97	06/16/97		640.45	03/04/97	06/16/97	
640.14	03/04/97	06/16/97		640.46	03/04/97	06/16/97	
640.15	03/04/97	06/16/97		640.47	03/04/97	06/16/97	
640.16	03/04/97	06/16/97		640.48	03/04/97	06/16/97	
640.17	03/04/97	06/16/97		640.49	03/04/97	06/16/97	
640.18	03/04/97	06/16/97		640.50	03/04/97	06/16/97	
640.19	03/04/97	06/16/97		640.51	03/04/97	06/16/97	
640.20	03/04/97	06/16/97		640.52	03/04/97 01/07/98	05/09/97 06/16/97	
640.21	03/04/97	06/16/97		040 50		06/46/07	
640.22	03/04/97	06/16/97		640.53	03/04/97	06/16/97	
640.23	03/04/97	06/16/97		640.54	03/04/97	06/16/97	
640.24	03/04/97	06/16/97		640.55	04/18/97	06/16/97	
640.25	03/04/97	06/16/97		640.56	04/18/97	06/16/97 03/06/98	
640.26	03/04/97	06/16/97		640.57	04/18/97	06/16/97	
640.27	03/04/97	06/16/97		640.58	04/18/97	06/16/97	
		06/20/97		640.59	04/18/97	06/18/97	

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
640.60	08/13/97	09/19/97 11/11/97		640.85	09/16/97	10/16/97	
640.61	00/40/07			640.86	09/16/97	10/16/97	
640.61	08/13/97	09/19/97 10/22/97 11/11/97		640.87	09/16/97	10/16/97 11/19/97	
640.62	08/13/97	09/19/97 10/22/97		640.88	09/16/97	10/16/97	
0.40.00	00/10/07			640.89	09/16/97	10/16/97	
640.63	08/13/97	09/19/97 11/11/97		640.90	09/16/97	10/16/97	
640.64	08/22/97	10/06/97		640.91	09/16/97	10/16/97	
640.65	08/22/97	10/06/97		640.92	09/16/97	10/16/97 11/19/97	
640.66	08/22/97	10/06/97		640.93	09/16/97	10/16/97	
640.67	08/22/97	10/06/97		640.94	09/16/97	10/16/97	
640.68	08/22/97	10/06/97		640.95	09/16/97	10/16/97	
640.69	08/22/97	12/12/97		•••••		11/19/97	
640.70	08/22/97	10/06/97		640.96	09/16/97	10/16/97 11/19/97	
640.71	08/22/97	10/06/97		640.97	09/16/97	12/03/97	
640.72	08/22/97	12/04/97		640.98	09/16/97	10/30/97	
640.73	08/22/97	10/06/97		040.30	03/10/37	12/01/97	
640.74	08/22/97	10/06/97				12/19/97	
640.75	08/22/97	10/06/97		640.99	09/16/97	10/30/97 12/01/97	
640.76	08/22/97	10/06/97 03/09/98		640.100	09/16/97	12/17/98	
640.77	08/22/97	10/06/97		640.101	09/16/97	11/19/97	
0-10.17	UU/LE/UI	03/10/98		640.102	09/16/97	11/13/97	
640.78	08/22/97	10/06/97		640.103	09/16/97	11/13/97	
		03/05/98		640.104	09/16/97	11/13/97	
640.79	08/22/97	10/06/97		640.105	09/16/97	11/13/97	
640.80	09/16/97	10/16/97 11/19/97		640.106	09/16/97	11/04/97	
640.81	09/16/97	10/16/97 11/19/97		640.107	09/16/97	11/13/97 11/13/97 03/06/98	
640.82	09/16/97	10/16/97 11/19/97		640.108	09/16/97	11/13/97	
640.83	09/16/97	10/16/97		640.109	09/16/97	11/13/97	
		11/19/97		640.110	09/16/97	11/13/97	
640.84	09/16/97	10/16/97				03/06/98	
				640.111	09/16/97	12/09/97	

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
640.112	09/16/97	12/09/97		640.138	10/03/97	12/04/97 12/19/97	
640.113	09/16/97	11/13/97 01/07/98		640.139	10/03/97	12/04/97	
640.114	09/16/97	11/13/97		C 40 4 40	40/02/07	12/19/97 12/04/97	
640.115	09/16/97	11/13/97		640.140	10/03/97	12/19/97	
640.116	09/16/97	11/13/97				03/23/98	
640.117	09/16/97	11/13/97 03/06/98		640.141 640.142	10/03/97 10/03/97	12/04/97 10/27/97	
640.118	09/16/97	11/13/97		640.143	10/03/97	12/04/97	
640.119	09/16/97	11/13/97				12/12/97	
640.120	09/16/97	11/13/97		640.144	10/03/97	12/04/97 12/12/97	
640.121	09/16/97	11/13/97 03/06/98		640.145	10/03/97	12/04/97 12/12/97	
640.122	09/16/97	11/13/97		640.146	10/03/97	12/04/97 12/12/97	
640.123	09/16/97	11/13/97 03/06/98		640.147	10/03/97	12/04/97	
640.124	09/16/97	11/13/97 03/06/98		640.148	10/03/97	12/04/97 12/19/97	
640.125	09/16/97	11/13/97		640.149	10/03/97	12/04/97	
640.126	09/16/97	11/04/97		640.150	10/03/97	12/17/97	
640.127	09/16/97	11/04/97 12/18/97		640.151	10/09/97	12/17/97	
		02/27/98		640.152	10/09/97	12/09/07	
640.128	09/16/97	11/04/97		640.153	10/09/97	12/03/97 12/23/97	
640.129	09/16/97	11/04/97 12/18/97		640.154	10/09/97	12/03/97 01/22/98	
640.130	09/16/97	11/04/97		640 155	10/09/97	01/22/98	
640.131	09/16/97	11/04/97 12/18/97		640.155 640.156	10/09/97	01/21/98	
640.132	09/16/97	11/04/97		640.157	10/09/97	12/01/97	
640.133	09/16/97	11/04/97		640.158	10/09/97	12/04/97	
640.134	09/16/97	11/04/97		640.159	10/09/97	01/07/98	
	00/10/07	12/18/97		640.160	10/09/97	12/09/97	
640.135	09/16/97	11/04/97		640.161	10/09/97	11/11/97	
640.136	10/03/97	12/11/97 01/29/98		640.162	11/06/97	01/07/98	
640.137	10/03/97	12/03/97		640.163	11/06/97	12/17/97	

Q No.	Issued	Response	Comments	Q No.	lssued	Response	Comments
640.164	11/06/97	12/12/97		650.8	06/11/97	10/02/97	
		03/06/98		650.9F	10/07/97	10/29/97	
640.165	11/06/97	12/17/97		650.10F	10/06/97	11/21/97	
640.166	01/09/98	02/27/98		650.11F	10/06/97	12/01/97	
640.167	01/09/98	01/23/98			40400407	01/28/98	
640.168	01/09/98	01/30/98		650.12F	10/06/97	12/09/97	
640.169	01/09/98	01/23/98		650.13F	11/07/97	12/01/97	
640.170	01/09/98	02/27/98		650.14F	11/07/97	12/01/97 01/08/98	
640.171	01/09/98	02/27/98		650.15F	12/12/97	12/22/97	
640.172	01/09/98	02/27/98		650.16F	12/12/97	01/08/98	
640.173	01/09/98	01/28/98		650.17F	12/12/97	01/08/98	
640.174	01/09/98	01/30/98				01/26/98	
640.175	01/09/98	01/29/98		650.18F	12/12/97	12/18/97	
640.176	02/23/98	02/27/98		650.19F	12/12/97	01/12/98	
640.177	02/23/98	03/06/98		650.20F	12/12/97	12/18/97	
640.178	02/23/98	03/19/98		650.21F	12/12/97	12/19/97	
640.179	02/23/98	03/31/98		650.22F	12/12/97	12/19/97	
640.180	02/23/98	02/27/98		650.23F	12/12/97	12/19/97	
640.181	02/23/98	03/06/98		650.24F	12/12/97	12/19/97 01/23/98	
640.182	02/23/98	03/09/98		650.25F	12/12/97	01/09/98	
640.183	02/23/98	03/19/98		650.26F	12/12/97	01/09/98	
640.184	02/23/98	03/04/98			40/40/07	04/07/09	
640.185	03/06/98	03/18/98		650.27F	12/12/97	01/07/98 01/27/98	
640.186	03/06/98	03/19/98		650.28F	12/12/97	01/08/98	
640.187	03/06/98	03/31/98		650.29F	12/12/97	12/19/97	
				650.30F	12/12/97	12/22/97	
650.1	06/11/97	10/02/97		650.31F	12/12/97	12/22/97	
650.2	06/11/97	10/02/97				01/23/98 01/29/98	
650.3	06/11/97	10/02/97		650.32F	12/12/97	12/22/97	
650.4	06/11/97	10/02/97		650.33F	12/12/97	12/22/97	
650.5	06/11/97	10/02/97				01/23/98 01/30/98	
650.6	06/11/97	10/02/97		650.34F	12/12/97	12/22/97	
650.7	06/11/97	10/02/97				01/23/98	

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
650.35F	12/19/97	01/05/98		720.27	09/23/92	01/22/93	
650.36F	12/19/97	01/23/98		720.28	09/23/92	01/22/93	
		01/29/98		720.29	09/23/92	01/22/93	
650.37F	02/26/98	03/10/98		720.30	09/23/92	12/22/92	
650.38F	02/26/98	03/10/98		720.31	09/23/92	01/22/93	
				720.32	09/23/92	01/22/93	
720.1	09/23/92	01/14/93		720.33	09/23/92	01/22/93	
720.2	09/23/92	01/08/93		720.34	09/23/92	01/22/93	
720.3	09/23/92	12/22/92		720.35	09/23/92	12/22/92	
720.4	09/23/92	01/22/93		720.36	09/23/92	12/22/92	
720.5	09/23/92	01/08/93		720.37	09/23/92	01/22/93	
720.6	09/23/92	12/22/92		720.38	09/23/92	12/22/92	
720.7	09/23/92	12/22/92		720.39	09/23/92	12/22/92	
720.8	09/23/92	01/22/93		720.40	09/23/92	01/22/93	
720.9	09/23/92	01/22/93		720.41	09/23/92	01/22/93	
720.10	09/23/92	12/22/92				03/30/93	
720.11	09/23/92	01/22/93		720.42	09/23/92	01/22/93	
720.12	09/23/92	01/22/93		720.43	09/23/92	01/22/93	
		09/21/93		720.44	09/23/92	01/22/93	
720.13	09/23/92	01/22/93		720.45	09/23/92	12/22/92	
720.14	09/23/92	01/22/93		720.46	09/23/92	12/22/92	
720.15	09/23/92	01/22/93		720.47	09/23/92	12/22/92	
720.16	09/23/92	12/22/92		720.48	09/23/92	01/22/93	
720.17	09/23/92	01/22/93		720.49	09/23/92	11/30/92	
720.18	09/23/92	01/22/93		720.50	09/23/92	12/22/92	
720.19	09/23/92	01/22/93		720.51	09/23/92	01/22/93	
720.20	09/23/92	01/22/93		720.52	09/23/92	01/22/93 08/09/93	
720.21	09/23/92	01/22/93					
720.22	09/23/92	01/22/93		720.53	09/23/92	01/22/93 08/09/93	
720.23	09/23/92	12/22/92		720.54	09/23/92	01/22/93	
720.24	09/23/92	01/22/93				06/17/93	. •
720.25	09/23/92	01/22/93		720.55	09/23/92	01/22/93 05/14/93	
720.26	09/23/92	12/22/92					

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
720.56	09/23/92	01/22/93		720.84	07/19/93	10/20/93	
		05/14/93 01/21/94		720.85	07/19/93	10/20/93	
		02/03/94 11/25/96		720.86	07/19/93	10/20/93	
720.57	10/28/92	12/22/92		720.87	07/19/93	10/20/93	
720.58	10/28/92	11/23/92		720.88	07/19/93	10/08/93	
		12/22/92		720.89	07/19/93	09/21/93	
720.59	07/19/93	10/20/93		720.90	07/19/93	10/20/93	2 aubmittele
720.60	07/19/93	10/20/93		700.04	07/40/02	10/20/93	submittals
720.61	07/19/93	10/20/93		720.91	07/19/93	10/20/93	
720.62	07/19/93	09/10/93 10/22/93	duplicate	720.92	07/19/93	10/08/93	
720.63	07/19/93	09/21/93		720.93	07/19/93	10/20/93	
720.64	07/19/93	10/20/93		720.94	07/19/93	10/04/93	
720.65	07/19/93	09/21/93		720.95	07/19/93	10/04/93	
720.66	07/19/93	10/20/93		720.96	07/19/93	10/20/93	
720.67	07/19/93	10/20/93		720.97	07/19/93	10/20/93 10/20/93	
720.68	07/19/93	09/21/93		720.98 720.99	07/19/93 07/19/93	10/20/93	
720.69	07/19/93	09/21/93		720.99	07/19/93	10/20/93	
720.70	07/19/93	10/20/93		720.100	07/19/93	09/21/93	
	•••••••	02/03/94		720.101	07/19/93	09/03/93	
720.71	07/19/93	10/04/93		720.102	07/19/93	10/20/93	
720.72	07/19/93	09/21/93		720.103	07/19/93	10/04/93	
720.73	07/19/93	10/04/93					
720.74	07/19/93	10/20/93		720.105	07/19/93	10/04/93	
720.75	07/19/93	09/21/93		720.106	07/19/93	09/21/93	
720.76	07/19/93	09/21/93		720.107	07/19/93	09/21/93	
720.77	07/19/93	09/21/93		720.108	07/19/93	10/20/93	
720.78	07/19/93	09/21/93		720.109	07/19/93	10/20/93	
720.79	07/19/93	09/21/93		720.110	07/19/93	10/20/93	
720.80	07/19/93	09/21/93		720.111	07/19/93	09/21/93	
720.81	07/19/93	10/20/93		720.112	07/19/93	10/20/93	
720.82	07/19/93	10/20/93		720.113	07/19/93	10/20/93	
720.83	07/19/93	10/20/93		720.114	07/19/93	10/20/93	
				720.115	07/19/93	10/04/93	

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Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
720.116	07/19/93	10/20/93		720.149	07/19/93	09/03/93	
720.117	07/19/93	10/20/93		720.150	07/19/93	09/10/93	duplicate
720.118	07/19/93	10/20/93			07/10/00	10/22/93	
720.119	07/19/93	09/21/93		720.151	07/19/93	08/31/93	
720.120	07/19/93	08/31/93		720.152	07/19/93	09/21/93	
720.121	07/19/93	10/20/93		720,153	07/19/93	10/20/93	
720.122	07/19/93	10/20/93		720.154	07/19/93	10/04/93	
720.123	07/19/93	10/20/93		720.155	07/19/93	09/21/93	
720.124	07/19/93	10/20/93		720.156	07/19/93	09/21/93	
720.125	07/19/93	10/04/93		720.157	07/19/93	09/21/93	
720.126	07/19/93	10/20/93		720.158	07/19/93	10/20/93 12/09/93	
720.127	07/19/93	10/20/93				07/08/94	
720.128	07/19/93	10/20/93		720.159	07/19/93	10/20/93	
720.129	07/19/93	10/04/93		720.160	07/19/93	10/20/93	
720.130	07/19/93	10/04/93		720.161	07/19/93	10/20/93	
720.131	07/19/93	10/20/93		720.162	07/19/93	10/20/93	
720.132	07/19/93	09/21/93		720.163	07/19/93	10/20/93	
720.133	07/19/93	10/04/93		720.164	07/19/93	08/31/93	
720.134	07/19/93	09/21/93		720.165	07/19/93	10/04/93	
720.135	07/19/93	09/21/93		720.166	07/19/93	10/20/93	
720.136	07/19/93	10/20/93		720.167	07/19/93	10/04/93	
720.137	07/19/93	09/21/93		720.168	07/19/93	09/21/93	
720.138	07/19/93	09/21/93		720.169	07/19/93	10/20/93	
720.139	07/19/93	09/21/93		720.170	07/19/93	10/04/93	
720.140	07/19/93	09/21/93		720.171	07/19/93	09/21/93	
720.141	07/19/93	10/20/93		720.172	07/19/93	09/21/93	
720.142	07/19/93	10/20/93		720.173	07/19/93	10/04/93	
720.143	07/19/93	09/21/93		720.174	07/19/93	10/04/93	
720.144	07/19/93	09/21/93		720.175	07/19/93	10/20/93	
720.145	07/19/93	10/20/93		720.176	07/19/93	10/20/93	
720.146	07/19/93	10/04/93		720.177	07/19/93	09/21/93	
720.147	07/19/93	09/21/93		720.178	07/19/93	10/20/93	
720.148	07/19/93	09/21/93		720.179	07/19/93	09/21/93	

NUREG-1512

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
720.180	07/19/93	10/20/93		720.211	07/19/93	09/21/93	
720.181	07/19/93	10/20/93		720.212	07/19/93	09/21/93	
720.182	07/19/93	10/20/93		720.213	07/19/93	10/20/93	
720.183	07/19/93	10/20/93		720.214	07/19/93	09/21/93	
720.184	07/19/93	09/21/93		720.215	07/19/93	09/21/93	
720.185	07/19/93	09/20/93		720.216	07/19/93	10/20/93	
		09/21/93		720.217	07/19/93	10/20/93	
720.186	07/19/93	09/21/93		720.218	07/19/93	10/20/93	
720.187	07/19/93	10/20/93		720.219	07/19/93	08/31/93	
720.188	07/19/93	09/21/93		720.220	07/19/93	09/21/93	
720.189 720.190	07/19/93 07/19/93	09/21/93 09/20/93		720.221	07/19/93	10/20/93 10/20/93	2 submittals
	•••••••	09/21/93		720.222	07/19/93	09/21/93	
720.191	07/19/93	10/20/93		720.223	07/19/93	08/31/93	
720.192	07/19/93	10/20/93		720.224	07/19/93	10/20/93	
720.193	07/19/93	09/21/93		720.225	07/19/93	09/21/93	
720.194	07/19/93	10/20/93		720.226	07/19/93	10/20/93	
720.195	07/19/93	10/20/93		720.227	07/19/93	09/21/93	
720.196	07/19/93	10/20/93		720.228	07/19/93	10/20/93	
720.197	07/19/93	10/20/93		720.229	07/19/93	10/20/93	
720.198	07/19/93	10/20/93		720.230	07/19/93	09/21/93	
720.199	07/19/93	10/20/93		720.231	07/19/93	10/20/93	
720.200	07/19/93	10/20/9⁄3		720.232	07/19/93	10/04/93	
720.201	07/19/93	10/20/93		720.233	07/19/93	09/21/93	
720.202	07/19/93	10/20/93		720.234	07/19/93	09/21/93	
720.203	07/19/93	10/20/93		720.235	07/19/93	10/20/93	
720.204	07/19/93	10/20/93		720.236	07/19/93	10/20/93	
720.205	07/19/93	09/21/93		720.237	07/19/93	10/20/93	
720.206	07/19/93	08/31/93		720.238	07/19/93	09/21/93	
720.207	07/19/93	10/20/93		720.239	07/19/93	10/20/93	
720.208	07/19/93	10/20/93		720.240	07/19/93	10/20/93	
720.209	07/19/93	10/20/93		720.241	07/19/93	09/21/93	
720.210	07/19/93	10/20/93		720.242	07/19/93	10/04/93	•

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Q No.	lssued	Response	Comments	Q No.	Issued	Response	Comments
720.243	07/19/93	10/04/93		720.271	03/18/94	06/02/94 07/29/94	,
720.244	07/19/93	10/04/93		720.272	04/28/94	07/27/94	
720.245	07/19/93	10/20/93		720.273	04/28/94	07/27/94	
720.246	07/19/93	09/21/93		720.274	04/28/94	07/27/94	
720.247	07/19/93	10/20/93		720.275	04/28/94	07/22/94	
720.248	07/19/93	10/20/93		720.276	05/16/94	03/07/95	
720.249	07/19/93	10/20/93		720.277	05/16/94	08/03/94	
720.250	07/19/93	10/20/93		720.278	05/16/94	07/27/94	
720.251	07/19/93	10/20/93		720.279	07/01/94	08/30/96	
720.252	07/19/93	09/21/93		720.280	10/13/94	08/26/96	
720.253	07/19/93	10/20/93		720.281	10/13/94	08/26/96	
720.254	07/19/93	10/20/93		720.281	10/13/94	08/26/96	
720.255	07/19/93	10/20/93			10/13/94	08/26/96	
720.256	07/19/93	10/20/93		720.283			
720.257	07/19/93	10/04/93		720.284	10/13/94	08/26/96	Decelued
720.258	07/19/93	10/20/93		720.285	10/13/94	08/17/95	Resolved during
720.259	07/19/93	10/20/93					8/17/95 mtg
720.260	07/19/93	10/20/93		720.286	11/06/95	04/01/96	
720.261	08/26/93	11/23/93		720.287	11/06/95	04/01/96	
720.262	03/18/94	06/02/94		720.288	11/06/95	04/01/96	
		07/29/94		720.289	11/21/95	04/01/96	
720.263	03/18/94	06/02/94 07/29/94		720.290	11/21/95	04/01/96	
700.064	02/18/04			720.291	11/21/95	04/01/96	
720.264	03/18/94	06/02/94 07/29/94		720.292	11/21/95	04/01/96	
720.265	03/18/94	06/02/94		720.293	11/21/95	04/01/96	
		07/29/94		720.294	11/21/95	04/01/96	
720.266	03/18/94	06/02/94 07/29/94		720.295	11/21/95	04/01/96	•
720.267	03/18/94	06/02/94		720.296	11/21/95	04/01/96	
720.268	03/18/94	06/02/94		720.297	11/21/95	04/01/96	
		07/29/94		720.298	11/21/95	04/01/96	
720.269	03/18/94	06/02/94 07/29/94		720.299	11/21/95	04/01/96	
720.270	03/18/94	06/02/94		720.300	11/21/95	04/01/96	
		07/29/94		720.301	11/21/95	04/01/96	

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NUREG-1512

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
720.302	11/21/95	04/01/96		720.330	04/22/96	11/27/96	
		08/26/96		720.331	04/22/96	11/27/96	
720.303	12/22/95	04/01/96 08/21/97		720.332	04/22/96	11/27/96	
720.304	12/22/95	04/01/96		720.333	05/07/96	11/27/96	
720.305	12/22/95	04/01/96 06/06/96		720.334	09/18/96	12/09/96 01/1 4/ 97	
		08/26/96 03/18/97		720.335	09/18/96	12/09/96 01/28/97	
720.306	12/22/95	04/01/96 06/06/96 11/27/96		720.336	09/18/96	12/09/96 01/28/97	
720.307	01/22/96	04/04/96		720.337	09/18/96	12/09/96 01/14/97	
720.308	01/22/96	04/04/96		720.338	09/18/96	12/09/96	
720.309	01/22/96	04/01/96				01/14/97	
720.310	01/22/96	04/04/96		720.339	09/18/96	12/09/96 01/14/97	
720.311	01/22/96	04/04/96		720.340	09/18/96	12/09/96	
720.312	01/22/96	04/04/96				01/14/97	
720.313	01/22/96	04/04/96		720.341	09/18/96	12/09/96 01/14/97	
720.314	01/22/96	04/01/96		720.342	09/18/96	12/09/96	
720.315	01/22/96	04/01/96		120.012		01/14/97	
720.316	01/22/96	04/01/96		720.343	09/18/96	12/09/96 01/14/97	
720.317	01/22/96	04/01/96		720.344	09/18/96	12/09/96	
720.318	01/22/96	04/01/96		720.044	03/10/30	01/14/97	
720.319	01/22/96	04/04/96		720.345	09/18/96	12/09/96	
720.320	01/22/96	04/01/96		700.040	00/49/06	01/14/97 12/09/96	
720.321	01/22/96	04/01/96		720.346	09/18/96	01/14/97	
720.322	03/07/96	10/23/96		720.347	09/18/96	12/09/96	
720.323	03/07/96	10/23/96				01/14/97	
720.324	03/27/96	11/27/96		720.348	09/18/96	12/09/96 01/14/97	
720.325	03/27/96	11/27/96		720.349	09/18/96	12/09/96	
720.326	03/27/96	11/27/96		•		01/14/97	
720.327	04/22/96	11/27/96		720.350	09/18/96	12/09/96 01/14/97	
720.328	04/22/96	11/27/96		720.351	09/18/96	12/09/96	
720.329	04/22/96	11/27/96				01/14/97	

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
720.352	09/18/96	12/09/96		720.383	03/12/97	07/10/97	
		01/28/97		720.384	03/17/97	05/23/97	
720.353	12/02/96	02/21/97		720.385	03/17/97	05/23/97	
720.354	12/02/96	02/21/97		720.386	03/17/97	06/19/97	
720.355	12/02/96	02/21/97		720.387	05/08/97	06/27/97	
720.356	12/02/96	02/21/97				08/21/97 09/23/97	
720.357	12/02/96	02/21/97 03/18/97		720.388	05/08/97	05/21/97	
720.358	12/02/96	03/18/97		720.389	05/08/97	06/27/97	
720.359	12/02/96	03/18/97		720.390	05/08/97	06/27/97	
720.360	12/02/96	02/21/97		720.391	05/28/97	07/21/97	
720.361	12/02/96	03/18/97		720.392	05/28/97	06/19/97	
720.362	12/02/96	03/18/97		720.393	05/29/97	01/23/98	
720.363	12/02/96	03/18/97		720.394	05/29/97	01/23/98	
720.364	12/02/96	03/18/97		720.395	05/29/97	01/23/98	
720.365	12/02/96	02/21/97		720.396	05/29/97	06/27/97	
720.366	01/16/97	05/07/97		720.397	05/29/97	06/27/97	
720.367	01/16/97	05/07/97		720.398	05/29/97	06/27/97	
720.368	01/16/97	05/07/97		720.399	05/29/97	06/27/97	
720.369	01/16/97	05/07/97		720.400	05/29/97	06/19/97	
720.370	01/16/97	05/07/97		720.401	05/29/97	06/27/97	
720.371	03/12/97	05/08/97		720.402	05/29/97	06/27/97	
720.372	03/12/97	05/08/97		720.403	05/29/97	07/10/97	
720.373	03/12/97	01/23/98 03/16/98		720.404	05/29/97	06/27/97	
700.074	02/42/07			720.405	05/29/97	06/27/97	
720.374	03/12/97	05/23/97 05/21/97		720.406	05/29/97	06/27/97	
720.375	03/12/97 03/12/97	03/21/97		720.407	06/03/97	06/27/97	
720.376	•			720.408	06/03/97	06/19/97	
720.377	03/12/97	05/21/97		720.409	06/03/97	06/27/97	
720.378	03/12/97	05/21/97		720.410	06/03/97	06/19/97	
720.379	03/12/97	05/21/97		720.411	06/27/97	08/29/97	
720.380	03/12/97	05/23/97		720.412	06/27/97	08/29/97	
720.381	03/12/97	05/23/97		720.413	06/27/97	08/29/97	
720.382	03/12/97	05/21/97					

NURÈG-1512

Q No.	Issued	Response	Comments	Q No.	lssued	Response	Comments
720.414	09/11/97	12/11/97 01/05/98 01/29/98		720.433F	11/07/97	01/16/98 03/16/98	
		03/16/98		720.434F	11/07/97	01/15/98 02/23/98	
720.415	09/11/97	12/18/97				03/16/98	
720.416	09/11/97	12/11/97 01/05/98		720.435F	11/19/97	01/23/98	
		01/29/98 03/16/98		720.436F	11/19/97	12/09/97	
				720.437F	11/19/97	12/09/97	
720.417	09/11/97	01/19/98 03/16/98		720.438F	11/19/97	01/23/98	
720.418F	10/22/97	12/09/97 01/27/98 03/16/98		720.439F	11/19/97	01/15/98 02/10/98 02/27/98 03/16/98	
720.419F	10/22/97	12/09/97 03/16/98		720.440F	11/19/97	12/11/97 01/28/98 03/16/98	
720.420F	10/22/97	12/11/97 03/16/98		720.441F	11/19/97	12/04/97 01/28/98	
720.421F	10/22/97	12/18/97 03/16/98		720.442F	11/19/97	12/12/97	
720.422F	10/22/97	01/15/98		720.443F	11/19/97	12/12/97	
720.423F	10/22/97	12/12/97 02/13/98 03/06/98		720.444F	11/19/97	01/09/98 01/30/98	
720 4245	11/04/97	03/20/98		720.445F	12/11/97	01/16/98 03/16/98	
720.424F		12/04/97		720.446F	12/11/97	01/16/98	
720.425F	11/04/97	12/04/97 02/04/98		720.447F	12/11/97	01/16/98	
720.426F	11/04/97	12/04/97 02/04/98		720.448F	12/11/97	01/16/98	
700 1075				720.449F	12/11/97	01/16/98	
720.427F	11/04/97	01/30/98 12/04/97		720.450F	12/11/97	01/16/98	
720.428F	11/04/97	01/30/98 02/10/98 03/16/98		720.451F	12/11/97	01/09/98 03/16/98	
720.429F	11/04/97	11/21/97 03/16/98		720.452F	12/11/97	01/09/98 03/16/98	·
720.430F	11/07/97	01/08/98		720.453F	12/11/97	01/09/98 03/16/98	
700 4045	44107107	02/10/98	•	720.454F	12/08/97	12/12/97	
720.431F	11/07/97	01/07/98 03/16/98		720.455F	12/08/97	12/12/97	
720.432F	11/07/97	12/12/97 01/30/98		720.456F	12/08/97	01/08/98 02/04/98	

Q No.	Issued	Response	Comments	Q No.	Issued	Response	Comments
720.457F	12/08/97	01/23/98		920.17F	12/15/97	01/14/98 01/30/98	
720.458F	12/18/97	01/06/98		920.18F	12/15/97	01/14/98	
720.459F	12/18/97	01/06/98		920.19F	12/15/97	01/14/98	
720.460F	12/18/97	01/12/98		920.20F	12/15/97	01/14/98	
		03/16/98		920.21F	12/15/97	01/14/98	
720.461F	12/18/97	01/15/98		920.22F	12/15/97	01/14/98	
720.462F	12/18/97	01/15/98				01/30/98	,
720.463F	12/18/97	01/12/98 02/12/98		920.23F	12/15/97	01/14/98	
700 4045	40/00/07			920.24F	12/15/97	01/14/98	
720.464F	12/22/97	01/07/98		920.25F	12/15/97	01/14/98	
720.465F	03/09/98	03/12/98 03/16/98		920.26F	12/15/97	01/14/98	
720.466F	03/13/98	03/20/98		920.27F	12/15/97	01/14/98	
720.467F	03/13/98	03/20/98					
				951.1	07/14/93	10/04/93	
920.1	09/23/93	12/09/93		951.2	07/14/93	09/03/93	
920.2	09/23/93	12/09/93		951.3	07/14/93	09/10/93	
		07/08/94		951.4	07/14/93	10/04/93	
920.3	04/19/94	08/03/94		951.5	07/14/93	09/03/93	
920.4	04/19/94	05/20/94		951.6	07/14/93	09/10/93	
920.5	05/18/94	08/26/94		951.7	07/14/93	10/04/93	
920.6F	12/15/97	01/14/98					
920.7F	12/15/97	01/14/98 01/30/98		952.1	07/28/93	08/18/93 10/27/93	3 submittals total
920.8F	12/15/97	01/14/98				10/27/93	
920.9F	12/15/97	01/14/98		952.2	08/27/93	10/04/93	
920.10F	12/15/97	01/14/98		952.3	08/27/93	10/04/93	
920.11F	12/15/97	01/14/98		952.4	08/27/93	10/04/93	
920.12F	12/15/97	01/14/98		952.5	08/27/93	11/30/93	
		01/30/98		952.6	08/27/93	10/04/93	
920.13F	12/15/97	01/14/98		952.7	08/27/93	10/04/93	
920.14F	12/15/97	01/14/98		952.8	08/27/93	10/04/93	
920.15F	12/15/97	01/14/98 01/30/98		952.9	08/27/93	10/04/93	
		02/10/98		952.10	08/27/93	11/30/93	
920.16F	12/15/97	01/14/98					

Q No.	lssued	Response	Comments	Q No.	Issued	Response	Comments
952.11	08/27/93	10/04/93		952.38	01/18/94	04/12/94 04/21/94	
952.12	11/02/93	02/03/94		952.39 ·	01/18/94	04/12/94	
952.13	11/02/93	02/03/94				04/21/94	
952.14	11/02/93	02/03/94		952.40	01/18/94	04/12/94	
952.15	11/02/93	02/03/94		052.44	04/40/04	04/21/94	
952.16	11/02/93	02/03/94		952.41	01/18/94	04/12/94 04/21/94	
952.17	11/02/93	02/03/94 07/22/94		952.42	01/27/94	04/28/94	
952.18	11/02/93	02/03/94 07/22/94		952.43	01/27/94	04/28/94 04/29/94	
952.19	11/02/93	02/03/94		952.44	02/17/94	05/17/94 05/17/94	2 documents
952.20	11/02/93	02/03/94 07/22/94		952.45	02/17/94	05/17/94 05/17/94	2 documents
952.21	11/02/93	02/03/94		952.46	02/17/94	05/17/94	2
952.22	11/02/93	02/03/94				05/17/94	documents
952.23	11/02/93	02/03/94		952.47	02/17/94	05/17/94	
952.24	11/02/93	02/03/94		952.48	02/17/94	04/25/94 05/17/94	
952.25	11/02/93	02/03/94		952.49	02/24/94	04/12/94	
952.26	11/02/93	02/03/94				04/21/94	
952.27	11/02/93	02/03/94 08/08/94		952.50	03/01/94	04/12/94 04/21/94	
952.28	11/02/93	02/03/94		952.51	03/01/94	04/12/94 04/21/94	
952.29	11/30/93	02/03/94 07/22/94		952.52	03/01/94	04/12/94	
952.30	11/30/93	02/03/94 07/22/94		952.53	03/01/94	04/21/94	,
952.31	11/30/93	02/03/94 07/22/94		952.54	03/01/94	04/21/94 04/12/94	
952.32	11/30/93	02/03/94				04/21/94	
952.33	11/30/93	02/03/94		952.55	03/01/94	04/12/94 04/21/94	
952.34	11/30/93	02/03/94		952.56	03/01/94	04/12/94	
952.35	11/30/93	02/03/94 07/22/94		952.57	03/01/94	04/21/94 04/12/94	
952.36	11/30/93	02/03/94			 -	04/21/94	
952.37	01/18/94	04/12/94 04/21/94		952.58	03/01/94	04/12/94 04/21/94	

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Q No.	lssued	Response	Comments	Q No.	Issued	Response	Comments
952.59	03/01/94	04/12/94 04/21/94		952.91	08/15/94	08/29/94	
052.60	03/01/94	04/21/94		952.92	08/15/94	08/31/94 09/19/94	
952.60 952.61	03/01/94	06/02/94		952.93	08/29/94	03/13/95	:
952.62	03/01/94	06/02/94		952.94	08/29/94	02/16/96	
952.63	03/01/94	06/02/94				03/06/96 04/15/97	
952.64	03/01/94	04/29/94 06/02/94		952.95	08/29/ 9 4	09/18/97	
952.65	05/26/94	08/10/94		002.00	00,20,0	09/30/94	
952.66	05/26/94	07/22/94		952.96	08/29/94	02/16/96 03/13/96	
952.67	05/26/94	07/22/94				12/17/96 02/19/97	
952.68	05/26/94	07/22/94				04/30/97	
952.69	05/26/94	07/22/94		952.97	08/29/94	03/13/96	
952.70	05/26/94	07/22/94		952.98	08/29/94	05/20/96	,
952.71	05/26/94	07/22/94		952.99	08/29/94	03/13/96 12/17/96	
952.72	05/26/94	07/22/94		952.100	08/29/94	03/13/95	
952.73	05/26/94	07/22/94		332.100	00/20/04	11/30/95	
952.74	05/26/94	06/30/94		952.101	08/29/94	11/07/94	
952.75	05/26/94	08/08/94		050 400	09/20/04	04/22/96 03/13/96	
952.76	05/26/94	07/22/94		952.102	08/29/94 08/29/94	11/07/94	
952.77	05/26/94	07/22/94		952.103	08/29/94	11/07/94	
952.78	05/26/94	06/27/94		952.104	00/29/94		
952.79	05/26/94	08/10/94		952.105	08/30/94	02/16/96	
952.80	05/26/94	07/22/94		952.106	-	04/22/96	
952.81	05/26/94	07/22/94					
952.82	05/26/94	07/25/94	• .				
952.83	05/26/94	06/27/94					
952.84	05/26/94	07/22/94					
952.85	05/26/94	06/27/94					
952.86	05/26/94	07/22/94					
952.87	05/26/94	06/27/94					
952.88	05/26/94	07/22/94					
952.89	06/01/94	09/01/94					
952.90	06/15/94	09/15/94					

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APPENDIX F COMBINED LICENSE ACTION ITEMS

COL applicants and licensees who reference the certified AP600 standard design will be required to satisfy the requirements and commitments in the design control document (DCD), which is the controlling document used in the certification of the AP600 design. Also, certain requirements and commitments are identified in the AP600 SSAR as "Combined License Information Items," and in this report as "COL Action Items." These COL action items relate to programs, procedures, and issues that are outside of the scope of the certified design review. These COL action items do not establish requirements; rather, they identify an acceptable set of information for inclusion in a plant-specific SAR. An applicant for a COL must address each of these items in its application. It may deviate from or omit these items, provided that the deviation or omission is identified and justified in the plant-specific SAR.

Westinghouse included a summary of COL action items in SSAR Table 1.8-2, and provided an explanation of the items in the applicable sections of the SSAR. The staff identified a number of COL action items that resulted from its review throughout this report. Each COL action item was assigned a unique identifying number. The number identifies the section in this report where the item is described. For example, COL Action Item 5.3.2-1 is discussed in Section 5.3.2 of this report. A cross-reference of the COL Action Items identified in this report and those identified by Westinghouse in SSAR Table 1.8-2 follows.

FSER Item	SSAR Table 1.8-2	SSAR Section	Description
2.1-1	2.1-1	2.1.1	COL applicants referencing the AP600 certified design will be required to provide site-specific information related to site location and description, exclusion area authority and control, and population distribution.
2.1.1-1	2.1-1	2.1.1	COL applicants referencing the AP600 certified design will be required to provide site-specific information on the site and its location, including political subdivisions, natural and man-made features, population, highways, railways, waterways, and other significant features of the area.

FSER Item	SSAR Table 1.8-2	SSAR Section	Description
2.1.2-1	2.1-1	2.1.1	COL applicants referencing the AP600 certified design will be required to provide site-specific information on the exclusion area authority and control, as well as any activity that may be permitted within the exclusion area.
2.1.3-1	2.1-1	2.1.1	COL applicants referencing the AP600 certified design will be required to provide site-specific information on population distribution.
2.2-1	2.2-1	2.2.1	COL applicants referencing the AP600 certified design will be required to provide site-specific information related to the identification of potential hazards stemming from nearby industrial, transportation, and military facilities within the site vicinity, including an evaluation of potential accidents.
2.2.1-1	2.2-1	2.2.1	COL applicants referencing the AP600 certified design will be required to provide a detailed review of aircraft hazards.
2.2.2-1	2.2-1	2.2.1	COL applicants referencing the AP600 certified design will be required to provide site-specific information on nearby transportation routes.
2.2.3-1	2.2-1	2.2.1	COL applicants referencing the AP600 certified design will be required to provide site-specific information on potential industrial and military hazards.
2.3.1-1	2.3-1	2.3.6.1	The COL applicant should provide the identified site-specific regional meteorological information.
2.3.2-1	2.3-2	2.3.6.2	The COL applicant should provide the identified site-specific local meteorological information.
2.3.3-1	2.3-3	2.3.6.3	The COL applicant should provide the onsite meteorological measurements program for staff review.
2.3.5-1	2.3-5	2.3.6.5	The COL applicant should provide the site-specific long-term diffusion estimates.

FSER Item	SSAR Table 1.8-2	SSAR Section	Description
2.3.5-2	2.3-4	2.3.6.4	The COL applicant should consider topographical characteristics in the vicinity of the site for restrictions of horizontal and/or vertical plume spread, channeling or other changes in airflow trajectories, and other unusual conditions affecting atmospheric transport and diffusion between the source and receptors.
2.4.1-1	2.4-1	2.4.1.1	The COL applicant should provide a detailed description of major hydrologic features.
2.4.2-1	2.4-2	2.4.1.2	COL applicants referencing the AP600 certified design will be required to provide site-specific information on historical flooding and potential flooding factors, including flood design considerations and the effects of local intense precipitation.
2.4.3-1	2.4-2	2.4.1.2	COL applicants referencing the AP600 certified design will be required to provide site-specific information that will be used to determine the design-basis flooding at the site, including the probable maximum flood on streams and rivers, as well as the extent of flood protection required for safety-related SSCs.
2.4.4-1	2.4-2	2.4.1.2	COL applicants referencing the AP600 certified design will be required to provide site-specific information on potential dam failures.
2.4.5-1	2.4-2	2.4.1.2	COL applicants referencing the AP600 certified design will provide site-specific information on probable maximum surge and seiche flooding.
2.4.6-1	2.4-2	2.4.1.2	COL applicants referencing the AP600 certified design will provide site-specific information on probable maximum tsunami loading.
2.4.8-1	2.4-1, 2.4-3	2.4.1.1, 2.4.1.3	COL applicants referencing the AP600 certified design will be required to provide site-specific information on the hydraulic design of canals and reservoirs used to transport and impound cooling water and protect safety-related structures.
2.4.9-1	2.4-1, 2.4-3	2.4.1.1, 2.4.1.3	COL applicants referencing the AP600 certified design will be required to provide site-specific information on channel diversions.

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Appendix F

FSER Item	SSAR Table 1.8-2	SSAR Section	Description
2.4.10-1	2.4-2	2.4.1.2	COL applicants referencing the AP600 certified design will be required to provide site-specific information on flood protection requirements.
2.4.11-1	2.4-3	2.4.1.3	COL applicants will be required to ensure that an adequate water supply will exist to operate or shut down the plant as required.
2.4.12-1	2.4-4	2.4.1.4	COL applicants referencing the AP600 certified design will be required to provide site-specific information on groundwater.
2.4.13-1	2.4-5	2.4.1.5	COL applicants referencing the AP600 certified design will be required to provide site-specific information on the ability of the ground and surface water to disperse, dilute, or concentrate accidental releases of liquid effluents. Effects of these releases on existing and known future use of surface water resources will also be provided.
2.4.14-1	2.4-6	2.4.1.6	COL applicants referencing the AP600 certified design will be required to establish the technical specifications and emergency procedures required to implement flood protection for safety-related facilities, and to ensure an adequate water supply to shut down and cool the reactor.
2.5.1-1	2.5-1	2.5.1	COL applicants referencing the AP600 certified design will be required to provide site-specific geologic and seismic information.
2.5.2-1	2.5-2	2.5.2.1	COL applicants referencing the AP600 design will be required to provide site-specific information related to seismic and tectonic characteristics of the site and region.
2.5.3-1	2.5-3	2.5.3	The COL applicant should provide detailed surface and subsurface geological and geophysical information.
2.5.4.1-1	2.5-4	2.5.4.6.1	COL applicants referencing the AP600 design will be required to provide site-specific information regarding the underlying site conditions and geologic features.
2.5.4.1-2	2.5-2	2.5.2.1	COL applicants must assure that the site-specific spectra developed for the finished grade are enveloped by the response spectra shown in SSAR Figures 3.7.1-1 and 3.7.1-2.

FSER Item	SSAR Table 1.8-2	SSAR Section	Description
2.5.4.2-1	2.5-5	2.5.4.6.2	The COL applicant should provide site-specific plot plans and profiles of site explorations.
2.5.4.2-2	2.5-5	2.5.4.6.2	The COL applicant should provide information about the number and type of laboratory tests and the location of samples, and to discuss the results of laboratory tests on disturbed and undisturbed soil and rock samples obtained from field investi- gations.
2.5.4.3-1	2.5-6	2.5.4.6.3	The COL applicant should provide data concerning the extent of all seismic Category I excavations, fills, and slopes.
2.5.4.3-2	2.5-6	2.5.4.6.3	The COL applicant will provide information on the specific soil nailing system and the waterproofing system.
2.5.4.4-1	2.5-7	2.5.4.6.4	The COL applicant should discuss the critical cases of groundwater conditions relative to the foundation stability of safety-related structures, and to confirm that the soil properties of the various layers under all possible groundwater conditions will fall within the range of values assumed in the SSAR.
2.5.4.5-1	2.5-8	2.5.4.6.5	The COL applicant should demonstrate that the assumptions made in the standard design regarding the variation of shear wave velocity and material damping are applicable to the site-specific conditions.
2.5.4.6-1	2.5-9	2.5.4.6.6	The COL applicant should provide site-specific information on soil liquefaction.
2.5.4.7-1	2.5-10	2.5.4.6.7	COL applicants will be required to document the method used to establish the site-specific soil bearing capacity and submit it for review and approval by the staff.
2.5.4.7-2	2.5-10	2.5.4.6.7	The COL applicant should provide information on site-specific soil bearing capacity.
2.5.4.10-1	2.5-11	2.5.4.6.10	The COL applicant should perform stability analyses or evaluations of all safety-related facilities which include foundation rebound, settlement, differential settlement, and bearing capacity.

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FSER Item	SSAR Table 1.8-2	SSAR Section	Description
2.5.4.11-1	2.5-12	2.5.4.6.11	The COL applicant should provide information pertaining to subsurface instrumentation.
2.5.5-1	2.5-13	2.5.5	The COL applicant should provide site-specific information about the static and dynamic stability of all soil and rock slopes, the failure of which could adversely affect the safety of the plant.
2.5.6-1	2.5-14	2.5.6	The COL applicant should provide site-specific information about the static and dynamic stability of all embankments and dams that will impound water for safe operation and shutdown of the plant.
3.3.2.2-1	3.3-1	3.3.3	The COL applicant should follow the identified criteria to ensure that the collapse of non-seismic Category I structures will not impair the functions of seismic Category I structures, systems, and components.
3.4.2-1	2.4-2	2.4.1.2	The COL applicant should provide a specific description of the site and the elevation for all safety-related structures, exterior accesses, equipment, and systems, from the standpoint of hydrology considerations and flood history.
3.4.2-2	3.4-1	3.4.3	The COL applicant should ensure and demonstrate in the site-specific application that all seismic Category I structures are either protected against flood damage or are not subject to such damage.
3.5.1.3-1	10.2-1	10.2.6	The COL applicant should provide the brittle fracture analyses of installed turbine rotors to the staff for review.
3.5.1.3-2	10.2-1	10.2.6	The COL applicant should provide the fatigue analyses of installed turbine rotors to the staff for review.
3.5.1.3-3	10.2-1	10.2.6	The COL applicant should provide the flaw growth analyses of NDE detected flaws in installed turbine rotors to the staff for review.
3.5.1.3-4	10.2-1	10.2.6	The COL applicant should provide the brittle fracture analyses of flaws detected by NDE during manufacture which are not removed in installed turbine rotors to the staff for review.

	SSAR	SSAR	Description
FSER Item	Table 1.8-2	Section	Description
3.6.3.4-1	3.6-2	3.6.4.2	The COL applicant should verify that the actual material properties and final as-built piping analyses meet the acceptance parameters established in the bounding LBB analyses.
3.7.2.13-1	3.7-1	3.7.5.1	The COL applicant should perform seismic analysis for evaluating the safety of existing dams and design the new dams based on the defined SSE.
3.7.4-1	3.7-2	3.7.5.2	The COL applicant should set the seismic instrumentation system to record at least 3 seconds of pre-event signal.
3.7.4-2	3.7-2	3.7.5.2	The COL applicant should specify plant procedures following an earthquake and that the plant procedures following an earthquake are contained in the EPRI reports NP-5930, NP-6695, and TR-100082.
3.8.2-1	3.8-1	3.8.6.1	The final design of containment vessel elements (reinforcement) adjacent to concentrated masses (penetrations) will be completed by the COL applicant and documented in the ASME Code design report. Also, the final design of containment vessel elements (reinforcement) adjacent to concentrated masses (penetrations) will be completed by the COL applicant and documented in the ASME Code design report in accordance with the criteria described in Subsection 3.8.2.4.1.2 of the SSAR.
3.8.4.4-1	3.8-2	3.8.6.2	The COL applicant should monitor the deformation (vertical and radial) of the tank during initial tank filling and compare with the tank deformation predicted by calculation.
3.9.3.1-1	3.9-2	3.9.8.2	The COL applicant will complete the AP600 Design Specifications and Design Reports and make them available for staff audit.
3.9.6.2-1	3.9-4	3.9.8.4	The COL applicant will develop a program that will establish the frequency and extent of disassembly and inspection of safety-related valves, including the basis for the frequency and the extent of each disassembly.

FSER Item	SSAR Table 1.8-2	SSAR Section	Description
3.10-1	3.10-1	3.10.1	For the seismic qualification methodology, the COL applicant will identify the specific equipment qualified on the basis of experience and include details of the methodology and the corresponding experience data for each piece of equipment.
3.12.4.3-1	3.9-6	3.9.8.6	For the piping analysis the COL applicant will implement the NRC benchmark program using AP600-specific problems if a piping analysis computer program other than those used for design certification is used.
4.2.8-1	4.2-1, 4.3-1, 4.4-1	4.2.5, 4.3.4, 4.4-7	The COL applicant, requesting any change to the initial reference design of the fuel, burnable absorber rods, rod cluster control assemblies, or initial core design, should submit a detailed description of any proposed change for prior NRC review and approval.
5.2.1.1-1	5.2-1	5.2.6.1	The COL applicant should ensure that the design is consistent with the construction practices (including inspection and examination methods) of the ASME Code edition and addenda in effect at the time of the COL application, as endorsed in 10 CFR 50.55a.
5.2.1.1-2	5.2-1	5.2.6.1	The COL applicant should identify in its application portions of later Code editions and addenda for NRC staff review and approval.
5.2.4-1	5.2-2	5.2.6.2	The COL applicant must submit the complete plant-specific PSI/ISI program to the NRC, including references to the edition and addenda of the ASME Code Section XI that will be used to select components subject to examination, as well as a description of the components exempt from examination by the applicable code, and isometric drawings used for the examination. The COL applicant should also verify that its PSI and ISI programs will incorporate the requirements of Appendices VII and VIII and Subsection IWH of ASME Section XI.
5.2.4-2	5.2-1	5.2.6.1	The COL applicant must meet the requirements of the ASME Boiler and Pressure Vessel Code, Section XI, as reviewed by the staff and determined to be appropriate for this application.

	SSAR	SSAR	
FSER Item	Table 1.8-2	Section	Description
5.3.2-1	5.3-2	5.3.6.2	The COL applicant should provide details of its reactor vessel materials surveillance program, including the specific materials in each surveil- lance capsule, the capsule lead factors, the with- drawal schedule for each capsule, the neutron fluence to be received by each capsule at the time of its withdrawal, and the vessel end-of-life peak neutron fluence.
5.3.3-1	5.3-1	5.3.6.1	The COL applicant should submit actual pressure-temperature (PT) curves for staff review.
5.3.3-2	5.3-3	5.3.6.3	The COL applicant, if utilizing foreign steel for beltline materials, must assess the need to estimate neutron irradiation embrittlement with a methodology more appropriate than that specified in Regulatory Guide 1.99, Revision 2.
5.3.5-1	5.3-3	5.3.6.3	The COL applicant should verify that plant-specific material properties and end-of-life fluence (60 years) are within the limits assumed in the AP600 analysis.
5.4.1.1-1	14.4-2	14.4.2	The COL applicant should submit its planned preoperational test program to be performed for the RCPs, as required by Section 14.2.8.1.40 of the SSAR.
5.4.2.1-1	5.4-1	5.4.15	The COL applicant shall develop and submit a Steam Generator surveillance program.
6.1.1-1	6.1-1	6.1.3.1	The COL applicant should review vendor fabrication and welding procedures to ensure that austenitic stainless steels meet the guidelines of Regulatory Guides 1.31 and 1.44.
6.1.2-1	6.1-2	6.1.3.2	The COL applicant should prepare a program for the procurement, application , and monitoring of safety-related coatings that is consistent with RG 1.54.
6.2.1.8-1	6.3-1	6.3.8.1	The COL applicant should develop a program to limit the amount of debris that might be left in containment following refueling and maintenance outages.
6.2.6-1	6.2-1	6.2.6	The COL applicant will develop and submit a containment leak rate testing program.

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FSER Item	SSAR Table 1.8-2	SSAR Section	Description
6.4-1	6.4-2	6.4.7	The COL applicant must also determine the amounts and locations of any possible sources of toxic substances near the plant using the methods in RG 1.78 and RG 1.95. The COL applicant must include specific toxic gas detectors where necessary to permit automatic isolation of the control room.
6.4-2	6.4-3	6.4.7	The COL applicant will verify that the as-built design, procedures, and training are consistent with the licensing basis documentation and the intent of Generic Issue 83, "Control Room Habitability."
6.6-1	6.6-1	6.6.9.1	The COL applicant should develop the PSI and ISI programs for Class 2 and 3 systems, components, and supports.
6.6-2	10.1-1	10.1.3	This DSER COL item is no longer applicable and has been subsumed by COL Action Item 10.1-3.
6.6-3	6.6-1	6.6.9.1	The COL applicant should submit PSI and ISI program plans for staff review and approval. The COL applicant should verify that its PSI and ISI programs will incorporate the requirements of Appendices VII and VIII of ASME Section XI.
6.6-4	6.6-2	6.6.9.2	The COL applicant is responsible for preserving accessibility and inspectability during construction and other post-design certification activities.
7.2.7-1	7.1-1	7.1.6	The COL applicant should provide a calculation of setpoints for protective functions consistent with the methodology presented in WCAP-14605. The COL applicant will need to perform a plant-specific setpoint study when the specific instrumentation equipment is obtained.
8.2.3.1-1	8.2-2	8.2.5	The COL applicant should determine the operating voltage for the high side of the AP600 transformer and transmission switchyard.
8.2.3.2-1	8.2-2	8.2.5	The COL applicant should provide a site-specific transient stability study simulating peak/valley loading conditions such that the stability performance of the AP600 are analyzed under all reactive loading or power factor conditions.

FSER Item	SSAR	SSAR	Description
FSER Item	Table 1.8-2	Section	Description
8.2.3.3-1	8.2-2	8.2.5	The COL applicant should determined the frequency decay rate upon site selection and switchyard voltage selection.
8.2.3.4-1	8.2-1	8.2.5	The COL applicant should include the specified periodic tests and inspections in appropriate plant procedures.
8.2.3.5-1	8.2-1	8.2.5	The COL applicant should provide the design of the offsite power system.
8.2.5.2-1	8.3-1	8.3.3	The COL applicant should provide the design of the direct lightning protection and the associated grounding.
8.3.1.2-1	8.3-2	8.3.3	The COL applicant will maintain the diesel generators in accordance with the requirements of the overall plant maintenance program.
8.3.2.1-1	8.3-2	8.3.3	The COL applicant will establish plant procedures so that prompt action is taken to clear any ground fault on the Class 1E dc system.
8.3.2.1-3	8.3-2	8.3.3	The COL applicant will provide plant procedure for checking sulfated plates or other anomalous conditions which require periodic inspections.
8.3.2.1-4	8.3-2	8.3.3	The COL applicant should provide proper maintenance and surveillance procedures based on the manufacturer's recommendations.
8.4.1-1	8.3-2	8.3.3	The COL applicant should address the provisions for periodically testing penetration protective devices.
9.5.1-1(a)	9.5-1	9.5.1.8	The COL applicant shall establish a fire protection program at the facility for the protection of structures, systems, and components important to safety, and the procedures, equipment and personnel required to implement the program.
9.5.1-1(b)	9.5-1	9.5.1.8, Tbl. 9.5.1-1	The implementation of the fire protection program prior to receiving fuel onsite for fuel storage areas, and for the entire unit prior to reactor startup is the responsibility of the COL applicant.

FSER Item	SSAR Table 1.8-2	SSAR Section	Description
9.5.1-1(c)	9.5-1	9.5.1.8, Tbl. 9.5.1-1	The establishment of administrative controls to maintain the performance of the fire protection systems and personnel is the responsibility of the COL applicant.
9.5.1-1(d)	9.5-1	9.5.1.8, Tbl. 9.5.1-1	The establishment of a site fire brigade trained and equipped for fire fighting to ensure adequate manual fire fighting capability for all plant areas containing structures, systems, or components important to safety is the responsibility of the COL applicant.
9.5.1-1(e)	9.5-1	9.5.1.8, Tbl. 9.5.1-1	The establishment of a quality assurance program to ensure that the guidelines for the design, procurement, installation and testing, and the administrative controls for fire protection systems are satisfied is the responsibility of the COL applicant.
9.5.1-1(f)	9.5-1	9.5.1.8, Tbl. 9.5.1-1	Inspection and maintenance of fire doors, access to keys for the fire brigade and the marking of exit routes is the responsibility of the COL applicant.
9.5.1-1(g)	9.5-1	9.5.1.8, Tbl. 9.5.1-1	The collection and sampling of water drainage from areas that may contain radioactivity is the responsibility of the COL applicant.
9.5.1-1(h)	9.5-1	9.5.1.8, Tbl. 9.5.1-1	The control of the use of compressed gases inside structures is the responsibility of the COL applicant.
9.5.1-1(i)	9.5-1	9.5.1.8, Tbl. 9.5.1-1	Portable radio communication for use by the plant fire brigade is the responsibility of the COL applicant.
9.5.1-1(j)	9.5-1	9.5.1.8, Tbl. 9.5.1-1	Fire protection inside containment during refueling and maintenance is the responsibility of the COL applicant.
9.5.1-1(k)	9.5-1	9.5.1.8, Tbl. 9.5.1-1	The control of combustible materials in the remote shutdown workstation is the responsibility of the COL applicant.
9.5.1-1(l)	9.5-1	9.5.1.8, Tbl. 9.5.1-1	Fire protection for cooling towers is the responsibility of the COL applicant.
9.5.1-1(m)	9.5-1	9.5.1.8, Tbl. 9.5.1-1	The proper storage of welding gas cylinders is the responsibility of the COL applicant.

FSER Item	SSAR Table 1.8-2	SSAR Section	Description
9.5.1-1(n)	9.5-1	9.5.1.8, Tbl. 9.5.1-1	The proper storage of ion exchange resins is the responsibility of the COL applicant.
9.5.1-1(0)	9.5-1	9.5.1.8, Tbl. 9.5.1-1	The proper storage of hazardous chemicals is the responsibility of the COL applicant.
9.5.1-2	9.5-2	9.5.1.8	The revision of the fire hazard analysis to reflect the actual plant configuration is the responsibility of the COL applicant.
9.5.1-3	9.5-4	9.5.1.8	The COL applicant is responsible for ensuring that any deviations from the applicable NFPA codes and standards in addition to those specified in the SSAR are incorporated in to the final safety analysis report with appropriate technical justification.
9.5.2-1	9.5-7	9.5.2.5.2	The COL applicant should describe the emergency response facility communications system
9.5.2-2	9.5-8	9.5.2.5.3	The COL applicant should describe the security system communication network.
10.2.9-1	10.2-1	10.2.6	The COL applicant should submit for staff review and approval, within three years of obtaining a combined license, a turbine maintenance program including probability calculations of turbine missile generation based on the NRC-approved methodology, or volumetrically inspect all low-pressure turbine rotors at the second refueling outage and every other refueling outage thereafter until a maintenance program is approved by the staff.
10.2.9-2	10.2-1	10.2.6	The COL applicant should submit test data for the turbine rotors and the calculated toughness curves to the staff for review and approval.
10.3-1	10.1-1	10.1.3	The COL applicant will perform pipe wall thickness inspections to monitor wall E/C rates.
10.4-1	10.4-1	10.4.12-1	The COL applicant is responsible for determining the system configuration for the circulating water system and may modify the design to meet site-specific requirements.

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FSER Item	SSAR Table 1.8-2	SSAR Section	Description
11.1-1	11.2-2	11.2.5.2	The COL applicant should demonstrate compliance with 10 CFR Part 50, Appendix I guidelines for maximally exposed offsite individual doses and population doses via liquid and gaseous effluents to the environs, and ANSI N13.1-1969, and RGs 1.21 and 4.15 guidelines.
11.2-1	11.2-3	11.2.5.3	The COL applicant should identify the media it plans to utilize for the cation bed and the mixed bed demineralizers in the liquid waste management system.
11.2-2	11.2-4	11.2.5.4	The COL applicant should identify its planned discharge flow rate for borated wastes.
11.2-3	11.5-1	11.5.7	The COL applicant should identify its planned operational set points for its liquid waste management system radiation monitors in its plant-specific offsite dose calculation manual (ODCM).
11.2-4	11.2-1	11.2.5.1	The COL applicant should discuss how any mobile processing equipment, intended for use in the processing of liquid radwastes, meets the guidelines of RG 1.143.
11.3-1	11.5-1	11.5.7	The COL applicant should identify its planned operational set point for the gaseous waste management system (WGS) radiation monitor in its plant-specific ODCM.
11.3-2	17.5-2	17.5	The COL applicant should provide details of its proposed QA program related to the installation, procurement, and fabrication of the WGS components.
11.4-1	11.4-1	11.4.6	The COL applicant should submit a process control program (PCP) that identifies the operating procedures for processing wet solid wastes. Additionally, the COL applicant should demon- strate solid waste management system (WSS) compliance with 10 CFR 61.55 and 61.56 and 10 CFR Part 71 and DOT regulations.
11.4-2	17.5-2	17.5	The COL applicant should provide details of its proposed QA program related to the installation, procurement, and fabrication of the WSS components.

FSER Item	SSAR Table 1.8-2	SSAR Section	Description
11.4-3	11.4-1	11.4.6	The COL applicant should discuss how any mobile processing equipment intended for use in the processing of solid radwastes meets the guidelines of RG 1.143.
11.5-1	11.5-1	11.5.7	The COL applicant should provide details of its proposed surveillance program, which eliminate the potential for unmonitored and uncontrolled release of radioactive material to the environment.
12.2.1-1	12.1-1	12.1.3	The COL applicant should submit an operational "As Low As Reasonably Achievable" (ALARA) policy, which conforms to the requirements of 10 CFR 20 and the recommendations of RG 8.8, RG 1.8, and RG 8.10.
12.2.3-1	12.1-1	12.1.3	The COL applicant should state its intention to follow the guidance contained in the RGs listed in Section 12.2.3 of this report, or state what alternatives will be used.
12.3.1-1	12.2-1	12.2.3	The COL applicant should identify additional contained radiation sources, used for instrument calibration or radiography, for staff review.
12.4.2-1	12.3-1	12.3.5	The COL applicant should provide adequate administrative controls (lock and access control procedures) in order to limit access to the reactor cavity.
12.4.2-2	12.3-1	12.3.5	The COL applicant should provide adequate administrative controls (lock and access control procedures) in order to limit access to the fuel transfer tube during refueling operations.
12.4.4-1	12.3-2	12.3.5	The COL applicant should provide the criteria and methods for obtaining representative in-plant airborne radioactivity concentrations in all work areas.
12.6-1	12.5-1	12.5.5	The COL applicant should provide information related to the organization and procedures that will be used to ensure that personnel radiation exposures will be maintained ALARA.
13.1-1	13.1-1	13.1.1	The COL applicant should describe its organizational structure.

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FSER Item	SSAR Table 1.8-2	SSAR Section	Description
13.2-1	13.2-1	13.2.1	The COL applicant should describe its personnel training.
13.3-1	13.3-1	13.3.1	The COL applicant should address emergency planning issues.
13.3-2	13.3-2	13.3.1	The COL applicant should activate the EOF immediately following a LOOP and loss of all onsite ac power.
13.3-3	13.3-3	13.3.1	The COL applicant should address the capability for promptly obtaining and analyzing grab samples of reactor coolant and containment atmosphere and sump in accordance with the guidance of Item II.B.3 of NUREG-0737.
13.4-1	13.4-1	13.4.1	The COL applicant should address the operational review.
13.5.1-1	13.5-1	13.5.1	The COL applicant should develop and describe its administrative procedures.
13.5.2-1	13.5-1	13.5.1	The COL applicant should develop and describe the operating and maintenance procedures.
13.6.1-1	13.6-3	13.6.13.3	The COL applicant should address personnel screening, selection, performance evaluation, and training aspects of the physical security program.
13.6.2-1	13.6-1	13.6.13.1	The COL applicant should develop and describe the security plan.
13.6.4-1	13.6-1	13.6.13.1	The COL applicant should describe its security organization.
13.6.6-1	13.6-3	13.6.13.3	The COL applicant should describe its access control.
13.6.10-1	13.6-1	13.6.13.1	The COL applicant should describe response requirements of the security plan.
13.6.11-1	13.6-3	13.6.13.3	The COL applicant will address testing and maintenance aspects of the plant security system.
13.6.12-1	13.6-1	13.6.13.1	The COL applicant will address detailed response requirements of the plant security program.

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FSER Item	Table 1.8-2	Section	Description
13.6.13.1-1	13.6-1	13.6.13.1	The COL applicant should address site-specific information relative to its security, contingency, and training and qualification plans and its fitness-for-duty program. The COL applicant will ensure that GLs 91-16 and 96-01 are addressed.
13.6.13.2-1	13.6-2	13.6.13.2	COL applicants referencing the AP600 certified design will verify that the as-built location of vital equipment is inside the vital areas.
13.6.13.3-1	13.6-3	13.6.13.3	The COL applicant will address in its safeguards plans how the physical protection system will provide the protection stated in Section 13.6.3.2.
14.2.2-1	14.4-1	14.4.1	The COL applicant is responsible for establishing a management organization with overall responsibility for defining the responsibilities, requirements, and interfaces necessary to safely and efficiently test, operate, and maintain the AP600 plant.
14.2.3-1	14.4-2	14.4.2	The principal design organizations will provide the COL applicant with scoping documents (i.e, preoperational and startup test specifications) containing testing objectives and acceptance criteria applicable to their scope of design responsibility.
14.2.3-2	14.4-2	14.4.2	The COL applicant is responsible for providing test specifications and test procedures for the preoperational and startup tests for NRC review.
14.2.3.1-1	14.4-3	14.4.3	The COL applicant is responsible for the generation of a startup administrative manual containing the administrative procedures and requirements governing the activities associated with the ITP.
14.2.3.2-1	14.4-4	14.4.4	The COL applicant and holder is responsible for review and evaluation of individual test results.
14.2.5-1	14.4-6	14.4.6	The COL applicant or licensee for the first plant or first three plants will perform the tests listed in section 14.2.5 of this report
14.2.10.5-1	14.4-5	14.4.5	The COL applicant is responsible for the testing of interfacing structures and systems.

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FSER Item	SSAR Table 1.8-2	SSAR Section	Description
	Table 1.8-2	Section	Description
15.3.4-1	2.3-4	2.3.6.4	The COL applicant should identify all compensatory measures to be relied upon in order to meet the relevant requirements of 10 CFR 50.34 and GDC 19.
16.2-1	16.1-1	16.1	The COL applicant should provide the plant specific values or alternate text into the brackets where information should be included in the technical specifications on detailed design information, equipment selection, allowable values, or other information.
17.1-1	17.5-1	17.5	The COL applicant should submit its design phase QA program for staff review.
17.2-1	17.5-4	17.5	The COL applicant will address its QA program for operations.
17.4.1-1	17.5-3	17.4.7.3	The COL applicant will submit the Phase III portion of D-RAP implementation.
17.4.2-1	17.5-3	17.5	The COL applicant is required to use PRA importance measures, the expert panel process and other deterministic methods to determine the list of risk significant SSCs under the scope of RAP.
17.4.5-1	17.5-3	17.4.6	The COL applicant is responsible for submitting its site-specific (Phase III) D-RAP organization description to the NRC.
17.4.7.3-1	17.5-3	17.4.7.3, 17.5	The COL applicant will need to establish PRA importance measures, the expert panel process, and other deterministic methods to determine the site-specific list of SSCs under the scope of RAP.
17.4.9-1	17.5-7	17.5	The NRC will review related QA activities in the COL applicant's O-RAP during the operational phase of plant life.
17.4.9-2	17.5-5, 17.5-6, 17.5-7, 17.5-8	17.5	The COL applicant will establish reliability and availability measures for risk significant SSCs under the scope of RAP. In addition, if the measures are not met, the COL must implement corrective actions to improve SSC performance.
18.2-1	18.2-1	18.2.6	The COL applicant referencing the AP600 certified design is responsible for the execution of the NRC approved human factors engineering program.

FSER Item	SSAR Table 1.8-2	SSAR Section	Description
18.2-2	18.2-2	18.2.6	The COL applicant is responsible for designing the EOF, including specification of a location, in accordance with the AP600 human factors engineering program.
18.5-1	18.5-2	18.5.4	The COL applicant referencing the AP600 certified design will document the scope and responsibilities of each main control room position, considering the assumptions and results of the task analysis.
18.5-2	18.5-1	18.5.4	The COL applicant will utilize the AP600-specific task analysis information in the development of procedures and training programs.
18.5-3	18.5-1	18.5.4	The human factors engineering task analysis was reviewed at an implementation plan level of detail; that is, finished products from the element were not available for review but the methodology for conducting a complete task analysis was evaluated. The methodology will be used by the COL applicant to conduct a complete task analysis.
18.6-1	18.6-1	18.6.1	The COL applicant will address staffing levels and qualifications of plant personnel, including operations, maintenance, engineering, I&C, radiological protection, security and chemistry. Specifically, the COL applicant will need to (1) address the staffing considerations in NUREG-0711, (2) address relevant concerns identified in the SER evaluation, and (3) identify the minimum documentation that the COL applicant will provide to the staff to complete its review. The COL applicant will ensure that GL 86-04 is addressed.

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Appendix F

FSER Item	SSAR Table 1.8-2	SSAR Section	Description
18.7-1	18.7-1	18.7.1	The COL applicant referencing the AP600 certified design is responsible for the execution and documentation of the human reliability analysis/human factors engineering integration implementation plan. A report will be generated, documenting the results of the exercises intended to validate the HRA performance assumptions, and submitted to the NRC for review as part of the COL application information provided in the HRA validation.
18.8-1	18.8-1	18.8.5	The COL applicant referencing the AP600 certified design is responsible for the execution and documentation of the human system interface design implementation plan.
18.9-1	18.9-1	18.9.1	With regards to procedure development, the COL applicant will need to (1) address the procedure development considerations in NUREG-0711, (2) address relevant concerns identified in the SER review, and (3) identify the minimum documentation that the COL applicant will provide to the staff to complete its review.
18.9-2	18.9-1	18.9.1	The COL applicant will develop plant specific EOPs using the guidance provided in the AP600 ERGs
18.10-1	18.10-1	18.10.1	With regards to the training program development, the COL applicant will need to (1) address the training program development considerations in NUREG-0711, (2) address relevant concerns identified in the SER review, and (3) identify the minimum documentation that the COL applicant will provide to the staff to complete its review.
18.11-1	18.11-1	18.11.1	The COL applicant referencing the AP600 certified design has the responsibility for developing, documenting, and executing the implementation plan for the verification and validation of the AP600 human factors engineering program.

FSER Item	SSAR Table 1.8-2	SSAR Section	Description
19.1.1-1	59.10-3 in PRA, 59.10-6 in PRA	PRA Sec. 59.10.6, PRA Tbl. 59-29, Item 45	The design-specific PRA, developed as part of the design certification process, should be revised to account for site-specific information, as-built (plant-specific) information refinements in the level of design detail, technical specifications, plant specific emergency operating procedures, and design changes.
19.1.3.1-1	17.5-3, 17.5-5	17.5, PRA Tbl. 59-29, Item 44	The COL applicant should incorporate the list of important SSCs in the D-RAP and maintenance programs.
19.1.3.1-2	18.7-1	18.7.1, PRA Tbl. 59-29, Item 11	The COL applicant should use the list of risk-important operator tasks to prevent or mitigate severe accidents in the control room design and fixed display panel, as well as to implement proce- dures and develop training programs.
19.1.3.1-3	18.7-1	18.7.1	During the main control room validation process, the COL applicant should qualitatively confirm that the "findings" from the human factors validation and verification (V&V) plan (as dispositioned) do not lead to a risk-significant increase in error potential over that represented in the AP600 PRA HRA. If this is not confirmed, the COL applicant should model the additional risk-significant errors in an updated HRA.
19.1.5-1	59.10-6 in PRA	PRA Sec. 59.10.6, PRA Tbl. 59-29, Item 45	The COL applicant shall perform a site-specific PRA-based analysis of external flooding, hurricanes, or other external events pertinent to the site to search for site-specific vulnerabilities.
19.1.5-2	59.10-2 in PRA	PRA Sec. 59.10.6	The COL applicant referencing the AP600 certified design will compare the as-built SSC HCLPFs to those assumed in the AP600 seismic margins evaluation. The COL applicant will evaluate deviations from the HCLPF values or assumptions in the seismic margins evaluation to determine if vulnerabilities have been introduced.

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FSER Item	SSAR Table 1.8-2	SSAR Section	Description
19.1.5-3	59.10-4 in PRA	PRA Sec. 59.10.6, PRA Tbl. 59-29, Item 45	The COL applicant should provide an updated internal fires PRA that takes into account design details (e.g., cable routing, door and equipment locations and fire detection and suppression system locations) to search for internal fire vulnerabilities in the detailed design.
19.1.5-4	59.10-4 in PRA	PRA Sec. 59.10.6, PRA Tbl. 59-29, Item 45	The COL applicant should provide an updated internal flood PRA that takes into account design details (e.g., pipe routing, door locations, and flood barriers) to search for internal flooding vulnerabilities in the detailed design.
19.1.8-1	9.5-3	9.5.1.8, Tbl. 9.5.1-1 PRA Tbl. 59-29, Item 14	The COL applicant will implement requirements for fire and flood barrier maintenance.
19.1.8-2	9.5-3	9.5.1.8, Tbl. 9.5.1-1, PRA Tbl. 59-29, Item 14	The COL applicant will implement appropriate outage management, administrative controls, procedures, and operator knowledge of plant configuration to minimize risk during shutdown.
19.1.8-3	13.5-1	13.5.1, PRA Tbl. 59-29, Item 47	The COL applicant should implement the maintenance guidelines as described in the Shutdown Evaluation Report (WCAP-14837).
19.1.8-4	9.5-3	9.5.1.8, PRA Tbl. 59-29, Item 48	The COL applicant should control transient combustibles.
19.1.8-5	13.2-1, 13.5-1	13.2.1, 13.5.1, PRA Tbl. 59-29, Item 65	The COL applicant is responsible for developing procedures and training to address the ability to close containment hatches and penetrations following an accident during Modes 5 and 6, before steam is released into the containment.
19.1.8-6	13.5-1	13.5.1, PRA Tbl. 59-29, Item 72	The COL applicant should provide administrative controls to control foreign debris from being introduced into the containment during maintenance and inspection operations, to prevent plugging of the containment sump screens.

FSER Item	SSAR Table 1.8-2	SSAR Section	Description
19.1.8-7	13.2-1, 13.5-1	13.2.1, 13.5.1, PRA Tbl. 59-29, Item 62	The COL applicant should have procedures and policies to maximize the availability of the non-safety-related wide range pressurizer level indication (cold calibrated) during RCS draining operations during cold shutdown. Training should be given to the operators on how to use this indication to identify inconsistencies in the safety-related hot-leg level instrumentation to prevent RCS overdraining.
19.1.8-8	6.3-1	6.3.8.1, PRA Tbl. 59-29, Item 72	The COL applicant should provide administrative controls to control foreign debris from being introduced in the IRWST tank during maintenance and inspection operations, to prevent plugging of the IRWST screens.
19.1.8-9	13.5-1	13.5.1, PRA Tbl. 59-29, Item 75	The COL applicant should have policies that maximize the availability of valve RNS V-023 and procedures to open this valve during cold shutdown and refueling operations when the RCS is open and PRHR cannot be used for core cooling.
19.1.8-10	13.5-1	13.5.1, PRA Tbl. 59-29, Item 67	The COL applicant will have administrative controls to ensure that inadvertent opening of RNS valve V024 is unlikely since inadvertent opening results in a draindown of RCS inventory to the IRWST and requires gravity injection from the IRWST.
19.1.8-11	18.7-1	18.7.1	The COL applicant should take into account that inadvertent opening of RNS valve V024 results in a draindown of RCS inventory to the IRWST and requires gravity injection from the IRWST in designing the control room.
19.1.8-12	13.5-1	13.5.1, PRA Tbl. 59-29, Item 71	The COL applicant will maintain procedures to respond to low hot-leg level alarms.
19.2.3-1	5.3-4	5.3.6.4	The COL applicant will verify that the RPV insulation is consistent with the design bases established for in-vessel retention.

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FSER Item	SSAR Table 1.8-2	SSAR Section	Description
19.2.3.3.7-1	59.10-7 in PRA	PRA Sec. 59.10.6	The COL applicant referencing the AP600 certified design will perform a thermal lag assessment of the as-built equipment used to mitigate severe accidents to provide additional assurance that this equipment can perform its severe accident functions during environmental conditions resulting from hydrogen burns.
19.2.5-1	13.5-1, 59.10-5 in PRA	13.5.1, PRA Sec. 59.10.6	The COL applicant will develop and implement severe accident management guidance and procedures.
19.3-1	13.5-1	13.5.1	The COL applicant will have an outage planning and control program and the COL applicants will have appropriately addressed the factors that improve low-power and shutdown operations.
19A.2.5-1	59.10-1 in PRA	PRA Sec. 59.10.6	The COL applicant referencing the AP600 certified design will perform a seismic walkdown to confirm that the as-built plant conforms to the design used as the basis for the seismic margins evaluation and that seismic spatial systems interactions do not exist. The COL applicant will develop details of the seismic walkdown.
20.2-1	USI/GSI	Table 1.9-2, Issue A-40	The COL applicant will demonstrate the acceptability of the AP600 design to the site-specific seismic characteristics.
20.3-1	USI/GSI	Table 1.9-2, Issue 142	For Issue 142, the COL applicant should implement an annual program to inspect and test all electronic isolators between Class 1E and non-Class 1E systems, as well as identify the specific isolation devices used in the design.
20.4-1	USI/GSI	Table 1.9-2, Issue I.A.1.4	The COL applicant should address shift staffing and working hours of licensed operators in Issue I.A.1.4 as part of the licensing process.
20.4-2	USI/GSI	Table 1.9-2, Issue I.A.2.6(1)	The COL applicant should address qualification and training of plant personnel in Issue I.A.2.6(1) as part of the licensing process.
20.4-3	USI/GSI	Table 1.9-2, Issue I.A.4.1(2), & Issue I.A.4.2	The COL applicant should address the plant training simulator in Issues I.A.4.1(2) and I.A.4.2 as part of the licensing process.

FSER Item	SSAR Table 1.8-2	SSAR Section	Description
20.4-4	USI/GSI	Table 1.9-2, Issue I.C.5	For Issue I.C.5, the COL applicant should develop the detailed procedures for the plant-specific design.
20.4-5	USI/GSI	Table 1.9-2, Issue I.C.9	For Issue I.C.9, the COL applicant should develop the detailed procedures for the plant-specific design.
20.4-6	USI/GSI	Table 1.9-2, Issue I.D.3	The COL applicant should address the human factors details of Issue I.D.3.
20.4-7	USI/GSI	Table 1.9-2, Issue I.F.2	For Issue I.F.2, the COL applicant should address its quality assurance program for the design, construction, and operation phases. The COL applicant should address this issue for the design of the remaining parts of the plant, and for the modification and operation of the plant.
20.4-8	USI/GSI	Table 1.9-2, Issue II.F.1	For Issue II.F.1, the COL applicant should address the human factors aspects of accident monitoring instrumentation.
20.4-9	USI/GSI	Table 1.9-2, Issue II.J.3.1	For Issue II.J.3.1, the COL applicant should address the organization for the plant, the construction of the plant, and any modifications to the AP600 certified design.
20.4-10	USI/GSI	Table 1.9-2, Issue II.J.4.1	For Issue II.J.4.1, the COL applicant should address plant procedures for adequate reporting in accordance with 10 CFR Part 21 and 10 CFR 50.55(e).
20.4-11	USI/GSI	Table 1.9-2, Issue II.K.1(26)	For Issue II.K.1(26), the COL applicant should address the scope of examinations and criteria for licensing examinations, as well as new training requirements for operators.
20.4-12	USI/GSI	Table 1.9-2, Issue III.A.3.3	For Issue III.A.3.3, the COL applicant should address the dedicated telephone lines and short-range radio communication systems for the emergency support facilities.
20.7-1	WCAP- 13559	1.9.5.5	For Bulletin 80-06, the COL applicant should address verification of the as-built instrumentation and control system.

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FSER Item	SSAR Table 1.8-2	SSAR Section	Description
20.7-2	WCAP- 13559	1.9.5.5	For Bulletin 80-15, the COL applicant will review the recommendations related to loss of offsite power and a consequential loss of the emergency notification system.
20.7-3	WCAP- 13559	1.9.5.5	For Bulletins 80-16, 80-20, 86-02, 88-03, and 96-01 and Generic Letters 85-06, 88-05, 89-02, 91-05 and 91-17, the COL applicant should address procurement and/or maintenance issues.
20.7-4	WCAP- 13559	1.9.5.5	For Bulletin 89-03, the COL applicant should address operating procedures.
20.7-5	WCAP- 13559	1.9.5.5	Generic Letter 81-38 is a site-specific issue because it depends upon available offsite storage space for plant low-level radioactive waste. This will be identified by the COL applicant, if it proposes an onsite low-level radioactive waste storage facility.
20.7-6	WCAP- 13559	1.9.5.5	For Generic Letter 81-39, the will confirm to the Commission policy statement on reduction of low-level radioactive wastes at plant sites provided in this generic letter. SSAR Section 11.4.6 identifies conforms with this generic letter as a COL action.
20.7-8	WCAP- 13559	1.9.5.5	The COL applicant should address surface vehicle bomb security issues involved in Generic Letter 89-07.
20.7-9	WCAP- 13559	1.9.5.5	The COL applicant will review Generic Letters 89-15 and 93-01, and Appendix E to 10 CFR Part 50, Section VI 2(a)(i) regarding the Emergency Response Data System.
22.5.4.3-1	16.3-1	16.3.2	The COL applicant shall develop and submit the RTNSS administrative controls consistent with SSAR Section 16.3.

The following table shows SSAR COL Information Items which are not called out in this report.

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SSAR Table 1.8-2	SSAR Section	Description
1.1-1	1.1.7	Construction and startup schedule
3.4-1	3.4.3	Site-specific flooding hazards protective measures
3.5-1	3.5.4	External missile protection requirements
3.6-1	3.6.4.1	Pipe break hazards analysis
3.7-3	3.7.5.3	Seismic interaction review
3.7-4	3.7.5.4	Reconciliation of seismic analyses of nuclear island structures
3.8-3	3.8.6.3	As-built summary report
3.9-1	3.9.8.1	Reactor internal vibration response
3.9-3	3.9.8.3	Snubber operability testing
3.9-5	3.9.8.5	Surge line thermal monitoring
3.11-1	3.11.5	Equipment qualification file
4.3-2	4.3.4	Fixed incore detectors
5.3-4	5.3.6.4	Reactor vessel insulation (in ITAAC)
9.1-1	9.1.6	New fuel rack
9.1-2	9.1.6	Criticality analysis for new fuel rack
9.1-3	9.1.6	Spent fuel racks
9.1-4	9.1.6	Criticality analysis for spent fuel racks
9.1-5	9.1.6	Inservice inspection program of cranes
9.1-6	9.1.6	Radiation monitor
9.3-1	9.3.7	Air systems (NUREG-0933, Issue 43)
9.4-1	9.4.12	Ventilation systems operations
9.5-3	9.5.1.8	Regulatory conformance
9.5-5	9.5.1.8	Operator actions minimizing spurious ADS actuation
9.5-6	9.5.2.5.1	Offsite interfaces
9.5-9	9.5.4.7	Cathodic protection
9.5-10	9.5.4.7	Fuel degradation protection

SSAR Table 1.8-2	SSAR Section	Description
10.4-2	10.4.12-2	Condensate, feedwater, and auxiliary steam system chemistry control
10.4-3	10.4.12-3	Potable water
11.3-1	11.3.5.1	Cost-benefit analysis of population doses
11.3-2	11.3.5.2	Identification of adsorbent media
11.5-2	11.5.7	Effluent monitoring and sampling
11.5-3	11.5.7	Appendix I to 10 CFR Part 50
17.5-2	17.5	Quality assurance for procurement, fabrication, installation, construction, and testing
17.5-5	17.5	Maintaining reliability of risk-significant SSCs
17.5-6	17.5	Maintenance activities relevant to the Maintenance Rule
17.5-8	17.5	Operational reliability assurance program integration with Quality Assurance Program
18.3-1	18.3.1	Operating experience review

APPENDIX G REPORT BY THE ADVISORY COMMITTEE ON REACTOR SAFEGUARDS





UNITED STATES NUCLEAR REGULATORY COMMISSION ADVISORY COMMITTEE ON REACTOR SAFEGUARDS WASHINGTON, D. C. 20555

July 23, 1998

The Honorable Shirley Ann Jackson Chairman U.S. Nuclear Regulatory Commission Washington, D.C. 20555-0001

Dear Chairman Jackson:

SUBJECT: REPORT ON THE SAFETY ASPECTS OF THE WESTINGHOUSE ELECTRIC COMPANY APPLICATION FOR CERTIFICATION OF THE AP600 PASSIVE PLANT DESIGN

During the 454th meeting of the Advisory Committee on Reactor Safeguards, July 8-10, 1998, we completed our safety review of the Westinghouse Electric Company application for certification of its AP600 passive plant design. This report is intended to fulfill the requirement of 10 CFR 52.53 that "the ACRS shall report on those portions of the application which concern safety." During our review, we had the benefit of discussions with representatives of Westinghouse and its consultants, and the NRC staff. We also had the benefit of the documents referenced.

AP600 Application

On June 26, 1992, Westinghouse tendered its application to the NRC for certification of the AP600 design. This application was submitted in accordance with Subpart B, "Standard Design Certifications," of 10 CFR Part 52, "Early Site Permits; Standard Design Certifications; and Combined Licenses for Nuclear Power Plants," and Appendix O, "Standardization of Design: Staff Review of Standard Designs." The application was docketed on December 31, 1992, and assigned Docket Number 52-003.

The application consists of the AP600 Standard Safety Analysis Report (SSAR), the Tier 1 Material, and the probabilistic risk assessment (PRA). On June 26, 1992, Westinghouse submitted the SSAR and the PRA. In December 1992, Westinghouse submitted the Tier 1 Material, which contains inspections, tests, analyses, and acceptance criteria (ITAAC) and Tier 1 design descriptions. Design certification is sought for the power generation complex, excluding those elements and features considered site-specific. All safety-related structures, systems, and components (SSCs) are located on the nuclear island and are to be included in the design certification. Three aspects of the plant design (i.e., instrumentation and control (I&C) systems, human factors engineering, and some piping) will be completed by the combined license (COL) applicant using the design processes described in the SSAR and ITAAC.

The staff issued a Draft Safety Evaluation Report (DSER) on November 30, 1994, a supplement to the DSER in April 1996, and an Advance Final Safety Evaluation Report on May 2, 1998. Our activities related to the review of the AP600 design are listed in the Attachment. As a result of our review, we issued three interim letters identifying several issues. The resolution proposed by Westinghouse to these issues is acceptable, pending staff review and approval.

AP600 Design Description

The AP600 plant is designed for use at either single-unit or multiple-unit sites. The scope of the design is complete except for site-specific elements. The AP600 design has a nuclear steam supply system rating of 1933 MWt, with an electrical output of at least 600 MWe. The plant has a design objective of 60 years without a planned replacement of the reactor vessel. The design does provide, however, for the replacement of other major components, including the steam generators.

The primary objective of the AP600 design is to meet safety requirements and goals defined for advanced light-water reactors with passive safety features as specified in the Electric Power Research Institute Utility Requirements Document. An additional objective is to provide a greatly simplified plant with respect to design, licensing, construction, operation, inspection, and maintenance.

The plant arrangement consists of five principal structures; the nuclear island, the turbine building, the annex building, the diesel generator building, and the radwaste building.

The nuclear island, which includes all safety-related or seismic Category I structures, is designed to withstand the effects of natural phenomena and postulated events. It consists of a containment building, a concrete shield building, and an auxiliary building, which are described below.

- The containment building consists of a free-standing steel containment vessel which has a design pressure of 45 psig and associated internal structures. The vessel performs the function of containing the release of radioactivity to the atmosphere following postulated design-basis accidents. The vessel is also part of the passive containment cooling system.
- The shield building comprises the structure and annulus area that surrounds the containment building. In the event of an accident, the passive containment cooling system releases water that runs down the outside of the containment vessel to enhance heat removal.
- The auxiliary building is designed to provide protection and separation for the seismic Category 1 mechanical and electrical equipment located outside the containment

building. The building also provides protection for safety-related equipment against the consequences of internal or external events. The main control room, Class 1E I&C systems, Class 1E electrical systems, and reactor fuel handling area are contained in the auxiliary building.

The turbine building houses the main turbine generator and associated fluid and electrical systems. The annex building includes the health physics area, the technical support center, access control, and personnel facilities. The diesel generator building houses two diesel generators and their associated support systems. The radwaste building contains facilities for the handling, processing, and storing of radioactive wastes.

The overall plant arrangement utilizes building configurations and structural designs to minimize the building volumes and quantities of bulk materials (concrete, structural steel, rebar) consistent with safety, operational, maintenance, and structural needs. The plant arrangement provides separation between safety and nonsafety equipment and systems to preclude adverse interactions among them. Separation between redundant safety equipment and systems provides confidence that the safety functions can be performed. In general, this separation is provided by concrete walls.

The ITAAC program is intended to ensure that the plant, when built, conforms to the design parameters and assumptions that existed at the time of design certification. For example, the efficacy of the passive emergency core cooling system depends on the flow resistances of piping segments, relief valves, and other components. The flow resistances will be measured in the as-built plant to ensure that they conform with the values derived and validated by the test and analysis program.

Safety Enhancement Features

The AP600 design contains many features that are not found in current operating plants. For example, a variety of engineering and operational improvements provide additional safety margins and comply with the Commission's Severe Accident, Safety Goal, and Standardization Policy Statements. Unique features of the AP600 design include an improved reactor core design, a large reactor vessel, a large pressurizer, an in-containment refueling water storage tank (IRWST), an automatic depressurization system, a digital microprocessor-based I&C system, hermetically sealed canned rotor coolant pumps mounted to the steam generator, and increased battery capacity.

The AP600 design represents a significant departure from previous commercial nuclear reactor technology in that it places more dependence on passive systems for accident response. Passive systems depend on gravity, condensation, and small pressure differences to prevent or mitigate damage to the core and to ensure containment of radioactive fission products in the event of accidents. Active systems, on the other hand, employ flow loops and pumps that require electrical or other sources of motive power. The performance of active systems is, in general, better known because of existing test data and extensive operating experience. Passive systems, although not tested under full-scale conditions, are more likely to ensure safety functions, especially under conditions where external or emergency motive power could be compromised.

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The AP600 I&C systems are significantly different from those in current operating plants. The primary differences result from using software-based digital systems with multiplexed and fiber optics data links in place of the analog systems. The use of digital systems with multiplex and fiber optics data links reduces the amount of cabling in the plant, thereby reducing configuration complexity and fire hazards.

The AP600 design does not require Class 1E electrical power except that provided by the Class 1E dc batteries and their inverters. This feature significantly reduces the complexity of the plant electrical systems and the reliance on safety-grade diesel generators.

The AP600 plant includes an innovative security plan which features the use of defensive capabilities at various vital area access points. This feature results in elimination of the protective area boundary and associated security attributes used at current operating nuclear power plants.

AP600 Test and Analysis Program

Westinghouse conducted an extensive test and analysis program, utilizing separate-effects and integral-system facilities both to investigate the behavior of the AP600 passive safety systems and to develop a database for validation of the computer codes used to perform accident and transient analyses. Key aspects of the test and analysis program include:

- Core Makeup Tank (CMT) Test Program to characterize the CMT over an extended range of thermal-hydraulic conditions.
- Automatic Depressurization System (ADS) Test Program, both to characterize the steam flow through the IRWST sparger and to test the thermal-hydraulic behavior of the ADS piping network.
- Passive Residual Heat Removal (PRHR) System Test Program to generate data for design and characterization of the AP600 PRHR heat exchanger.
- Oregon State University Advanced Plant Experiment (APEX) Test Program to obtain integral-systems data for code validation; emphasis was placed on low-pressure and long-term core cooling behavior for design-basis, small-break loss-of-coolant accidents (LOCAs).
- SPES-2 High-Pressure, Full-Height Integral-Systems Test Program to obtain integralsystems data for code validation; the particular focus was on accident progression from initiation to establishment of stable IRWST injection.
- Passive Containment Cooling System Test Program to obtain integral-systems test data on the thermal-hydraulic performance of this system to support code validation.

This extensive test and analysis program was necessary to validate the accident analysis codes applied to new, passive emergency core cooling systems for which there is not a significant experience base. The accident analysis codes used by Westinghouse included:

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- LOFTRAN/LOFTTR2 for analyses of non-LOCA transients
- NOTRUMP for evaluation-model analyses of small-break LOCAs
- WCOBRA/TRAC for best-estimate analyses of large-break LOCAs
- <u>WCOBRA/TRAC</u> for analyses of long-term core cooling
- <u>WGOTHIC</u> for design-basis accident analyses of the containment

To ensure that the test and analysis program adequately addressed important phenomena with respect to the passive systems and that the results would scale to the prototype size, Westinghouse developed a phenomena identification and ranking table and performed a scaling analysis for both the primary coolant system and the containment.

In addition, the NRC staff performed confirmatory experimental and analytical programs in support of the AP600 design certification review. These programs included the integral-systems testing performed at the Japan Atomic Energy Research Institute ROSA-AP600 facility, and follow-on testing performed at the Oregon State University APEX facility. The NRC staff also performed confirmatory analyses utilizing the NRC codes RELAP-5 and CONTAIN. The results of the staff's programs significantly aided our review of the Westinghouse test and analysis program.

During the extensive reviews of the Westinghouse test and analysis program, we raised numerous issues. These issues have been documented in our interim letters and meeting minutes. Based on discussions with representatives of Westinghouse and the NRC staff, all of our issues pertaining to the Westinghouse test and analysis program have been adequately resolved.

There are, however, a number of issues that arose during our review that, while not directly affecting the acceptability of the AP600 test and analysis program, should be considered in the context of future design certification reviews. We plan to address these issues in a future letter pertaining to lessons learned from the AP600 design certification review.

Probabilistic Risk Assessment

The AP600 design certification application included a PRA, in accordance with regulatory requirements. This PRA was done well and rigorous methods were used to quantify risk metrics, including core damage frequency (CDF) and large, early release frequency (LERF). Point estimates of the risk metrics are:

CDF = 2×10^{-7} per reactor year LERF = 2×10^{-8} per reactor year

These risk metrics are low compared to those estimated for existing nuclear power plants. The PRA was an integral part of the design process. This contributed significantly to design modifications, which resulted in the low CDF and LERF.

The PRA addressed passive safety systems and software-based digital I&C systems. Qualitative analyses and extensive sensitivity studies were used to compensate for incomplete modeling of these important features of the plant. In addition, the concept of the "focused" PRA

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was introduced to reduce uncertainties in the estimated performance of passive systems. The objective of the "focused" PRA was to determine whether the goals for CDF and LERF could be met without the support of the nonsafety-related systems. The regulatory treatment of nonsafety systems (RTNSS) process was used to impose special requirements on some nonsafety systems to ensure, with high confidence, that they would be available when needed. For example, Westinghouse used the RTNSS process to impose administrative controls on the availability of the engineered safety feature actuation function of the diverse actuation system in order to reduce uncertainties associated with the digital system software. The RTNSS process is an excellent example of a good risk-informed and performance-based approach.

We applaud the use of the "focused" PRA and the RTNSS process in developing defense-indepth measures. But, we caution against establishing the practice of comparing the results of "focused" PRAs with Safety Goals. These Goals apply to a plant as it is designed and operated. Comparison of these Goals with results of analyses, restricted to include only safety systems, would amount to the imposition of a new goal that does not appear in the Commission's Safety Goal Policy Statement.

Additional Observations

Westinghouse's approach for quantifying digital systems software in the PRA is consistent with the guidance in Regulatory Guide 1.152, "Criteria for Digital Computers in Safety Systems in Nuclear Power Plants." This approach provides a method for identifying and assessing design strengths and weaknesses.

The AP600 plant will use passive autocatalytic recombiners to maintain hydrogen concentrations below the flammability limit within the containment following design-basis accidents. We agree, in principle, that these devices are improvements over hydrogen recombiners used in existing plants. The COL applicant is responsible for qualifying passive autocatalytic recombiners. The present regulatory requirements for qualifying mechanical equipment are insufficient to ensure continued passive autocatalytic recombiner operation for the expected duty cycle.

The AP600 reactor containment is a steel shell. It has been designed to meet Service Level C of the ASME Boiler and Pressure Vessel Code. The containment meets all regulatory requirements. Testing has shown that steel shell containments are susceptible to catastrophic failure when overpressurized. For the AP600 design, however, under the peak pressure calculated in the Level 2 PRA for severe accident conditions, the probability of failure of the containment is estimated to be approximately 0.01. Deformation of the pressurized containment vessel and its interaction with the shield building could also induce leakage and further reduce the likelihood of failure. In any event, we have not been able to identify significant risks associated with possible catastrophic failure modes of the AP600 containment.

Westinghouse has concluded that external reactor vessel cooling will prevent core debris from penetrating the reactor vessel. This conclusion is based on a scenario for degradation of the core that avoids consideration of direct contact by metallic core debris with the reactor vessel. The NRC staff has concluded that reactor vessel failure is not precluded and has required that Westinghouse consider ex-vessel core debris interactions. Westinghouse performed these

evaluations and found that the AP600 containment performs satisfactorily under these severe conditions.

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ACRS Conclusion Concerning AP600 Design

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Based on our review of those portions of the AP600 application which concern safety, we believe that acceptable bases and requirements have been established to ensure that the AP600 design can be used to engineer and construct plants that with reasonable assurance can be operated without undue risk to the health and safety of the public.

Dr. Thomas S. Kress did not participate in the Committee's deliberation regarding external reactor vessel cooling.

Dr. Dana A. Powers did not participate in the Committee's deliberation regarding the AP600 source term or the results of Sandia National Laboratories tests on containment structural integrity and on environmental qualification of passive autocatalytic recombiners.

Dr. George Apostolakis did not participate in the Committee's deliberation regarding the AP600 passive system reliability assessment or the analyses performed by the Idaho Engineering and Environmental Laboratory concerning the use of the <u>W</u>COBRA/TRAC code and external reactor vessel cooling.

Sincerely,

A. T. Seals

R. L. Seale Chairman

References:

- 1. U.S. Nuclear Regulatory Commission, "Advance Final Safety Evaluation Report Related to the Certification of the AP600 Design," May 1998 (Predecisional Information).
- 2. U.S. Department of Energy Report DE-AC03-90SF18495, dated June 26, 1992, prepared by Westinghouse Electric Corporation, "AP600 Standard Safety Analysis Report," updated through Revision 23 (issued May 18, 1998).
- 3. U.S. Department of Energy Report DE-AC03-90SF18495, dated June 26, 1992, prepared by Westinghouse Electric Company, "AP600 Probabilistic Risk Assessment," updated through Revision 11 (issued March 1998).
- U.S. Department of Energy Report DE-AC03-90SF18495, December 1992, "AP600 Tier" 1 Material," updated through Revision 5 (issued May 7, 1998).
- 5. Letter dated February 19, 1998, from R. L. Seale, Chairman, ACRS, to L. Joseph Callan, Executive Director for Operations, NRC, Subject: Interim Letter on the Safety

8 ·

Aspects of the Westinghouse Electric Company Application for Certification of the AP600 Plant Design.

- 6. Letter dated April 9, 1998, from R. L. Seale, Chairman, ACRS, to L. Joseph Callan, Executive Director for Operations, NRC, Subject: The Safety Aspects of the Westinghouse Electric Company Application for Certification of the AP600 Plant Design-Interim Letter 2.
- 7. Letter dated June 15, 1998, from R. L. Seale, Chairman, ACRS, to L. Joseph Callan, Executive Director for Operations, NRC, Subject: The Safety Aspects of the Westinghouse Electric Company Application for Certification of the AP600 Plant Design-Interim Letter 3.
- 8. U.S. Nuclear Regulatory Commission, Draft NUREG-1512, "Draft Safety Evaluation Report Related to the Certification of the AP600 Design," November 1994.
- 9. U.S. Nuclear Regulatory Commission, Supplement to the "Draft Safety Evaluation Report Related to the Certification of the AP600 Design," April 1996.
- 10. Westinghouse Electric Corporation, WCAP-14812, Revision 2, "Accident Specification and Phenomena Evaluation for AP600 Passive Containment Cooling System," April 1998 (Proprietary).
- 11. Westinghouse Electric Corporation, WCAP-14845, Revision 3, "Scaling Analysis for AP600 Containment Pressure During Design Basis Accidents," March 1998 (Proprietary).
- 12. Westinghouse Electric Corporation, WCAP-14326, Revision 3, "Experimental Basis for the AP600 Containment Vessel Heat and Mass Transfer Correlations," May 1998 (Proprietary).
- 13. Westinghouse Electric Corporation, WCAP-14135, Revision 1, "Final Data Report for PCS Large-Scale Tests, Phase 2 and Phase 3," April 1997 (Proprietary).
- 14. Westinghouse Electric Corporation, WCAP-14382, Revision 0, "WGOTHIC Code Description and Validation," May 1995 (Proprietary).
- 15. Westinghouse Electric Corporation, WCAP-14407, Revision 3, "WGOTHIC Application to AP600," April 1998 (Proprietary).
- Office of Nuclear Regulatory Research (RES) Report, RPSB-98-04, "Phenomenology Observed in the AP600 Integral Systems Test Programs Conducted in the ROSA-AP600, APEX, and the SPES-2 Facilities," D. Bessette, RES, M. DiMarzo, University of Maryland, P. Griffith, Massachusetts Institute of Technology, April 1998.
- 17. Letter dated July 1, 1998, from B. McIntyre, Westinghouse, to NRC: Attention: J. Larkins, ACRS, transmitting Response to ACRS Request for NOTRUMP Break Area Sensitivity Study.
- 18. Letter dated July 2, 1998, from B. McIntyre, Westinghouse, to NRC: Attention: J. Larkins, ACRS, Subject: Responses to ACRS Reactor Coolant System Issues.
- Letter dated June 25, 1998, from B. McIntyre, Westinghouse, to NRC: Attention: J. Larkins, ACRS, Subject: Closure of ACRS Thermal Hydraulic Subcommittee Items for June 11-12, 1998 Meeting.

Attachment: Chronology of the ACRS Review of the Westinghouse Application for the AP600 Passive Plant Design Certification

ATTACHMENT

CHRONOLOGY OF THE ACRS REVIEW OF THE WESTINGHOUSE APPLICATION FOR THE AP600 PASSIVE PLANT DESIGN CERTIFICATION

The extensive ACRS review of the AP600 design and its interactions with representatives of the NRC staff and Westinghouse are discussed in the minutes of the following ACRS meetings. The questions raised by ACRS members during meetings which were not formally documented in ACRS reports and letters were answered during subsequent discussions.

ACRS MEETING/DATES	SUBJECT
Thermal Hydraulic Phenomena 12/17/91	Proposed Commission Paper on Need for Full- Height, Full-Pressure Integral System Testing of AP600 Design
Thermal Hydraulic Phenomena 3/3/92	Integral System Testing Requirements for AP600 Design
Thermal Hydraulic Phenomena 6/23-24/92	Integral System Testing Requirements for AP600 Design
Thermal Hydraulic Phenomena 3/4-5/93	Office of Nuclear Regulatory Research (RES) RELAP5/MOD3 Code
Thermal Hydraulic Phenomena 7/22-23/93	Westinghouse Test and Analysis Program (TAP)
Thermal Hydraulic Phenomena 9/21/93	TAP - Oregon State University APEX Test Facility
Thermal Hydraulic Phenomena 10/28/93	RES - ROSA-V (ROSA-AP600) Confirmatory Test Program
Thermal Hydraulic Phenomena 1/4-5/94	RES - RELAP5/MOD3 Code
Thermal Hydraulic Phenomena 3/15-16/94	TAP - Core Makeup Tank Test Facility, Passive Containment Cooling System
Thermal Hydraulic Phenomena 5/18-19/94	TAP - WCOBRA/TRAC Code

Appendix G

2

Thermal Hydraulic Phenomena 8/25-26/94

W Standard Plants Designs 1/11/95

Thermal Hydraulic Phenomena 2/15-16/95

Thermal Hydraulic Phenomena 3/27-28/95

Thermal Hydraulic Phenomena 3/29-30/95

W Standard Plant Designs 5/31/95

Thermal Hydraulic Phenomena 7/26-27/95

Thermal Hydraulic Phenomena 1/18-19/96

Thermal Hydraulic Phenomena 2/22-23/96

Thermal Hydraulic Phenomena 5/9-10/96

Severe Accidents 6/5/96

W Standard Plant Designs 7/19/96

433rd ACRS Meeting 8/8/96

W Standard Plant Designs 12/4/96

RES - Confirmatory Test Programs

Overview and General Description of the AP600 Plant Design

TAP - WCOBRA/TRAC Code

RES - Phenomena Identification and Ranking Table (PIRT) for RELAP5 Code

TAP - Passive Containment Cooling System

Commission Paper on Status of Ten Key Technical and Policy Issues

Qualification Document for the WCOBRA/TRAC Code

Qualification Document for the WCOBRA/TRAC Code

RES Program for Demonstrating Adequacy of the RELAP5/MOD3 Code to Assess Behavior of AP600 Design

TAP - Overview

Probabilistic Risk Assessment of Severe Accidents

SECY-96-128, "Policy and Key Technical Issues Pertaining to the AP600 Design"

SECY-96-128, "Policy and Key Technical Issues Pertaining to the AP600 Design" ACRS Report Issued 8/15/96

- Chap. 4: Reactor Chap. 5: Reactor Coolant System and Connected Systems
- Chap. 9: Auxiliary Systems
- Chap. 11: Radioactive Waste Management

Thermal Hydraulic Phenomena 12/18-19/96

Thermal Hydraulic Phenomena 2/12-14/97

Thermal Hydraulic Phenomena 2/19/97

Thermal Hydraulic Phenomena 3/28/97

442nd ACRS Meeting 6/13/97

Thermal Hydraulic Phenomena 7/29-30/97

Thermal Hydraulic Phenomena 9/29-30/97

Thermal Hydraulic Phenomena 12/9-10/97

Thermal Hydraulic Phenomena 12/11-12/97

Advanced Reactor Designs 2/3-4/98

448th ACRS Meeting 2/5/98

TAP - Scaling and PIRT Closure Report

RES Program for Demonstrating Adequacy of the RELAP5/MOD3 Code to Assess Behavior of AP600 Design

RES - ROSA-AP600 Confirmatory Test Program

TAP - Long-Term Cooling with <u>W</u>COBRA/TRAC Code

AP600 Containment Spray System ACRS Report issued 6/17/97

TAP - NOTRUMP Small-Break LOCA Code

TAP - Passive Containment Cooling System

TAP - PIRT; Scaling of Reactor Coolant System; NOTRUMP Code

TAP - WGOTHIC Containment System Code

Chap. 7: Instrumentation and Controls

Chap. 8: Electrical Power

Chap. 13: Conduct of Operations

Chap. 18: Human Factors Engineering

- TAP
- Chap. 1: Introduction and General Discussion
- Chap. 4: Reactor
- Chap. 5: Reactor Coolant System and Connected Systems
- Chap. 7: Instrumentation and Controls
- Chap. 8: Electrical Power
- Chap. 11: Radioactive Waste Management
- Chap. 13: Conduct of Operations
- Chap. 18: Human Factors Engineering
- Interim ACRS letter issued 2/19/98

Advanced Reactor Designs 3/30 - 4/1/98

- Chap. 2: Site Characteristics
- Chap. 9: Auxiliary Systems

Chap. 15: Accident Analyses TAP 2: Site Characteristics Chap. Chap. 9: Auxiliary Systems Chap. 10: Steam and Power Conversion Chap. 12: Radiation Protection Chap. 13: Conduct of Operations (Security) Chap. 15: Accident Analyses Interim ACRS Letter 2 Issued April 9, 1998 **TAP - Primary Coolant System** Chap. 1: Introduction and General Discussion Chap. 6: Engineered Safety Features Chap. 14: Initial Test Program Chap. 16: Technical Specifications Chap. 17: Quality Assurance Levels 2 and 3 PRA Regulatory Treatment of Nonsafety Systems TAP Chap. 3: Design of Structures, Components, Equipment, and Systems Chap. 6: Engineered Safety Features Chap. 9: Appendix A - Fire Protection Analysis Chap.14: Initial Test Program Chap.16: Technical Specifications Chap.17: Quality Assurance PRA Interim ACRS Letter 3 Issued June 15, 1998 TAP - Passive Containment Cooling System ITAAC: Level 1 PRA; Adverse Interaction Evaluation Report; and Containment Spray System TAP and Responses to ACRS Questions

4.

Chap. 10: Steam and Power Conversion

Chap. 13: Conduct of Operations (Security)

Chap. 12: Radiation Protection

451st ACRS Meeting 4/2/98

Thermal Hydraulic Phenomena 5/11-12/98

Advanced Reactor Designs 5/13-15/98

453rd ACRS Meeting 6/3/98

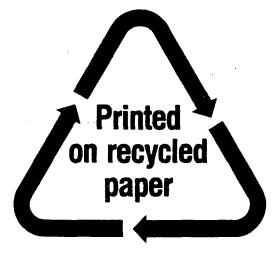
Thermal Hydraulic Phenomena 6/11-12/98

Advanced Reactor Designs 6/17-18/98

Advanced Reactor Designs 7/7/98

NRC FORM 335 U.S. NUCLEAR REGULATORY COMMISSION	1. REPORT NUMBER	
(2-89) NRCM 1102.	(Assigned by NRC, Add Vol., Supp., Rev., and Addendum Numbers, if any.)	
3201, 3202 BIBLIOGRAPHIC DATA SHEET	and Addition Humbers, if dily.)	
(See instructions on the reverse)	NUREG-1512	
2. TITLE AND SUBTITLE	Volume 3	
Final Sofahi Evoluation Depart Delated to	volume 5	
Final Safety Evaluation Report Related to Certification of the AP600 Standard Design	3. DATE REPORT PUBLISHED	
Docket No. 52-003	MONTH YEAR	
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10. SUPPLEMENTARY NOTES		
Project No. 676, Docket No. 52-003		
11. ABSTRACT (200 words or less)		
This final safety evaluation report (FSER) documents the technical review of the AP600 standard nuclear reactor design by the		
It is that safety evaluation report (FSER) documents the technical review of the AP600 standard	ed on June 26, 1992 by	
U.S. Nuclear Regulatory Commission (NRC). The application for the AP600 design was submitted on June 26, 1992 by Westinghouse Electric Corporation in accordance with Subpart B, Standard Design Certifications," of Part 52 of Title 10 of the		
Code of Federal Regulations (10 CFR Part 52), and Appendix O, "Standardization of Design: Staff Review of Standard		
Designs." The AP600 nuclear reactor design is a pressurized water reactor with a power rating of 1933 MWt with an electrical		
output of at least 600 MWe. The AP600 design contains many features that are not found in current operating reactor designs.		
For example, a variety of engineering and operational improvements provide additional safety margins and address the		
Commission's severe accident, safety goal, and standardization policy statements. The most significant improvement to the		
design is the use of safety systems that use passive means (such as gravity, natural circulation, condensation and		
evaporation, and stored energy) for accident prevention and mitigation. These passive safety systems perform safety		
injection, residual heat removal, and containment cooling functions. Unique features of the AP600 design include an		
enhanced reactor core design, larger reactor vessel, larger pressurizer, an in-containment refueling water storage tank,		
automatic depressurization system, revised main control room design with a digital microprocessor-based instrumentation and		
control system, hermetically-sealed canned reactor coolant pump motors mounted to the steam generator, and increased battery capacity. In addition, the facility is designed for a 60-year life, and employs modular construction techniques in its		
design.		
ucsign.		
On the basis of its evaluation and independent analyses, the NRC staff concludes that Westingh	nouse's application for design	
certification meets the requirements of Subpart B of 10 CFR Part 52 that are applicable and technically relevant to the AP600		
standard design.		
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	13. AVAILABILITY STATEMENT	
12. KEY WORDS/DESCRIPTORS (List words or phrases that will assist researchers in locating the report.)		
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