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QUALITY ASSURANCE MANUAL GINNA STATION ROCHESTER GAS & ELECTRIC CORPORATION		REV. 0	PAGE 1 OF 13
	EFFECTIVE DATE:	January 1, 1990	
		SIGNATURE	DATE
TITLE:	PREPARED BY:	H. F. Snyder	5/16/89
APPENDIX C INSERVICE PUMP AND VALVE TESTING PROGRAM FOR THE 1990-1999 INTERVAL	REVIEWED BY:	W.P. Filley	5/16/89
	REVIEWED BY:	[illegible]	5-17-89
	APPROVED BY:	Charles R Anderson	5-23-89

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1.0 INTRODUCTION

1.1 This Appendix to the Ginna Station Quality Assurance Manual establishes and defines the Inservice Pump and Valve Testing Program for the ten year interval from January 1, 1990 through December 31, 1999. This program has been developed as required by Title 10 Code of Federal Regulations Part 50 Paragraph 50.55a(g), in accordance with the ASME Boiler and Pressure Vessel Code - Section XI - "Rules for Inservice Inspection of Nuclear Power Plant Components".

1.2 The purpose of this Inservice Testing Program is to verify operational readiness of those pumps and valves whose function is required for safety. It is not intended to place the R.E. Ginna plant in a degraded safety condition for the purpose of conducting system or component tests. Therefore, as normally viewed for Code compliance, testing of a safety train will not be performed when the redundant train is out of service. Instead, equipment will be positioned to provide the necessary safety lineup. Pumps and valves included in the program, are those in systems or portions of systems (Section 8.0 - System Index) which are required to accomplish specified safety functions or tasks, as identified within various plant safety analyses.

1.3 In addition to those pumps and valves required to be tested by the Code, other components are included in the program from a good engineering and management practice standpoint. These components are identified with an asterisk (*) and need not be tested to specific Code criteria.

1.4 The IST Program substantially augments (but does not affect, replace, or supersede) the pump and valve surveillance program required by Technical Specifications. Technical Specification requirements associated with pump and valve surveillances shall continue to be implemented as specified.

2.0 REFERENCES

2.1 ASME Boiler & Pressure Vessel Code - Section XI Division 1, "Rules for Inservice Inspection and Testing of Nuclear Power Plant Components", 1986 Edition (hereafter referred to as the Code)

2.2 ASME/ANSI OMa-1988, "Operation and Maintenance of Nuclear Power Plants" (Part 1, 10).

2.3 Ginna Station Quality Assurance Manual

2.4 Ginna Station Technical Specifications

2.5 Ginna Station Updated Final Safety Analysis Report (UFSAR)

2.6 NUREG-0821, Systematic Evaluation Program (SEP) topics

2.7 Title 10 Code of Federal Regulations Part 50 Para. 50.55a, "Codes and standards".

2.8 USNRC Generic Letter 89-04

3.0 TERMS AND DEFINITIONS

3.1 Obturator - Valve closure member (e.g., disk, gate, plug, ball, etc.)

3.2 Operational readiness - the ability of a pump or valve to perform its intended function when required.

3.3 Reference values - one or more values of test parameters measured or determined when the equipment is known to be operating acceptably.

3.4 Active valves - valves required to change obturator position to accomplish a safety function.

3.5 Passive valves - valves that maintain obturator position and are not required to change obturator position to accomplish required safety functions.

4.0 GENERAL REQUIREMENTS

4.1 Inservice pump and valve testing shall be performed in accordance with ASME Boiler and Pressure Vessel Code - Section XI Division 1, Subsections IWP & IWV to the extent practicable within limits of design, geometry and materials of construction of the components.

4.1.1 Code requirements related to Enforcement Authority, Authorized Inspection Agency, Authorized Nuclear Inspector Supervisors and Inspectors are excluded, as the R.E. Ginna Nuclear Power Plant is located in the state of New York which has not endorsed ASME Codes. However, the Ginna Station Quality Assurance Program shall continue to be used in lieu of Code administrative functions to verify implementation.

4.1.2 Where a Code test requirement is determined to be impractical, the Program Plan identifies applicable Relief Requests or Cold Shutdown Justifications which describe the bases for determination and alternative test methods and/or frequencies.

4.1.3 Inservice testing requirements shall be in accordance with the Code edition and addenda specified in para. 2.1.

4.2 Implementation of the program shall be controlled in accordance with the Ginna Station Quality Assurance Program, including but not limited to responsibilities, procedures, specifications, personnel qualifications, test performance and evaluation, and records.

4.3 Changes to this program should not be implemented prior to review and approval by the Nuclear Regulatory Commission.

4.4 The program and/or implementing procedures shall be revised as necessary following applicable changes to Technical Specifications, or plant modifications.

4.5 If the revised program conflicts with Technical Specifications, an amendment of Technical Specifications shall be submitted to eliminate the conflict.

5.0 PUMP TESTING PROGRAM

5.1 Scope

The Inservice Pump Testing Program includes all safety related centrifugal and positive displacement type pumps that are provided with an emergency power source, and are not exempt by paragraph 5.2, and which function to:

a. mitigate the consequences of an accident or,

b. shutdown the reactor to a cold shutdown condition.

5.2 Exemptions

The following are exempt from requirements of this program:

a. pumps that are supplied with emergency power solely for operating convenience.

b. drivers of pumps, except where the pump and driver form an integral unit and the pump bearings are in the driver.

5.3 Test Requirements

5.3.1 Inservice pump tests shall be conducted in accordance with Article IWP-3000 of the Code, unless specific relief is granted by the Commission.

5.3.2 Inservice pump tests shall be conducted nominally every three months during normal plant operation.

5.3.3 Inservice pump test intervals may be extended by 25% to accommodate normal test schedules. The total combined interval for any three consecutive tests shall not exceed 3.25 times the specified interval.

5.3.4 For a pump in a system declared inoperable or not required to be operable, the test schedule need not be followed. Within 96 hours prior to placing the system in an operable status, the pump shall be tested and the test schedule resumed.

5.3.5 After a pump has been replaced, or when pump repairs or maintenance may have affected any reference value, the pump shall be tested prior to declaring it operable to determine new reference values or reconfirm previous values.

5.3.6 With the exception of measuring bearing temperatures, pump parameters that shall be measured or observed during testing shall be consistent with the guidelines of Article IWP-3000 as identified in the Pump Program Plan (Attachment A). Relief Request No. PR-1 provides the bases for excluding bearing temperature measurements.

5.3.7 All test data shall be analyzed within 96 hours after completion of a test, however when data is recorded which exceeds the Required Action range, the pump shall immediately be declared inoperable.

5.4 <u>Pump Testing Program Plan Description</u>

Pumps that are required to be tested for the program are identified in Attachment A - Pump Testing Program Plan. The plan is organized as a table to provide the following information:

a. System - plant system of which the pump is a component.

b. Pump ID - pump identification number.

c. Drawing (Dwg) - Piping and Instrumentation Diagram (P&ID) where the pump is located (RG&E Drawing Number 33013 series).

d. Coordinates (Coor) - P&ID coordinates.

e. Safety Class - designated safety class of the pump.

f. Frequency (Freq) - test frequency

g. Measured Parameters - these columns show applicable pump testing parameters that shall be measured. When an "X" is shown in a particular column, that parameter shall be measured or observed during inservice pump

testing in accordance with the Code. If alternate testing is planned or if a test is being waived, the applicable pump relief request (PR) number will be shown.

Measured Parameters include the following:

Pump Speed	N
Inlet Pressure	Pi
Differential Pressure	Pd
Flow Rate	Qf
Vibration Amplitude	V
Bearing Temperature	Tb
Lube Oil Level/Pressure	L

6.0 VALVE TESTING PROGRAM

6.1 Scope

The Inservice Valve Testing Program includes all safety related valves that are not exempt by paragraph 6.2, and which function to:

a. mitigate the consequences of an accident or,
b. shutdown the reactor to a cold shutdown condition or,
c. provide overpressure protection to a system or component.

6.2 Exemptions

The following are exempt from requirements of this program:

a. Maintenance Valves - valves that are used only to isolate components to perform maintenance.

b. Operating Convenience Valves - valves used only for operating convenience, such as manual vent, drain, instrument and test valves.

c. System Control Valves - valves such as pressure regulating, flow control and manual throttle valves.

d. External Control and Protection Systems - valves in systems responsible for sensing plant conditions and providing signals for valve operation.

e. Thermal Reliefs - valves that provide overpressure protection for a component that can be isolated for maintenance during operation.

6.3 Test Requirements

6.3.1 Inservice valve tests shall be conducted in accordance with Article IWV-3000 of the Code unless specific relief is granted by the Nuclear Regulatory Commission.

6.3.2 Inservice valve tests shall be conducted nominally every three months during normal plant operation.

6.3.3 Inservice valve test intervals may be extended by 25% to accomodate normal test schedules. The total combined interval for any three tests shall not exceed 3.25 times the specified intervals.

6.3.4 Valve testing that is specified in Attachment B to be conducted during cold shutdowns, shall commence within 48 hours of achieving cold shutdown (as defined in plant Technical Specifications), and continue until all testing is complete or the plant is ready to return to power. However, it is not required to keep the plant in cold shutdown in order to complete all cold shutdown testing. Any testing not completed at one cold shutdown due to outage duration, shall commence and continue as above during any subsequent cold shutdown that may occur before the next refueling outage to meet the specified testing frequency.

6.3.5 For extended outages, testing need not commence within 48 hours provided that all valves required to be tested during cold shutdown will be tested prior to plant startup.

6.3.6 For cold shutdown intervals of less then three months, testing is not required unless three months have passed since the last cold shutdown test.

6.3.7 All valve testing required to be performed during a refueling outage shall be completed prior to returning the plant to operation.

6.3.8 For a valve in a system declared inoperable or not required to be operable, the exercising test schedule need not be followed. Within 30 days prior to returning the system to operable status, exercising tests shall be conducted and test schedules resumed.

6.3.9 When a valve or its control system has been replaced or repaired or has undergone maintenance that could affect its performance, and prior to declaring the valve operable, it shall be retested to demonstrate that the performance parameters which could be affected by the replacement, repair or maintenance are within acceptable limits.

6.3.10 Containment Isolation Valves shall be tested in accordance with 10CFR50 Appendix J (LT-J) and controlled in accordance with the Local Leak Rate Testing Program as described in Technical Specifications.

6.3.11 Those valves which perform both a containment isolation function and a pressure isolation function shall be tested to both 10CFR50 Appendix J and IWV requirements of the Code.

6.3.12 Relief Test (RT) - relief valves shall be tested in accordance with ASME/ANSI OMa - 1988 Part 1, to verify set pressure and seat tightness.

6.3.13 Exercising check valves to the full open position utilizing flow is considered acceptable by Generic Letter 89-04 if the maximum required accident flowrate is passed through the valve.

6.3.14 Where system design or operation prevents full stroke check valve exercising, Generic Letter 89-04 allows the valve to be disassembled and manually exercised as an alternative, using a sample disassembly program. When a check valve is disassembled and manually exercised a partial stroke test shall be performed upon reassembly if possible.

6.3.15 At the time of the test, valves which have exceeded their stroke time limiting value, shall immediately be declared inoperable.

6.3.16 Check valves whose obturator movement will be verified by a mechanical exerciser, shall be demonstrated operable by comparing a breakaway force to reference value as described by OM_a 1988-Part 10.

6.4 <u>Valve Testing Program Plan Description</u>

Valves that are required to be tested for the program are identified in Attachment B - Valve Testing Program Plan. The plan is organized as a table to provide the following information:

a) System - Dwg Number: each page of the valve plan contains a heading which identifies the plant system and associated Piping and Instrumentation Diagram (P&ID) for valves on the page.

b) Valve Number - valve identification number.

c) Coor./P&ID - location coordinates of the valve on the P&ID and the P&ID Number (RG&E Drawing Number 33013 series).

d) Type/Size - valve design type as indicated by the following abbreviations, and nominal size of the valve in inches.

BAV - Ball Valve
BFV - Butterfly Valve
CV - Check Valve
DIV - Diaphragm Valve
GTV - Gate Valve
GLV - Globe Valve
REV - Relief Valve
SCV - Stop Check Valve
TWV - Three-way Valve

e) Actuator - type of valve actuator as indicated by the following abbreviations:

MOV - Motor Operator
AOV - Air Operator

SOV - Solenoid Operator
MAN - Manual Operator
HYD - Hydraulic Operator
SAV - Self Actuated

f) Normal Position (Norm Pos) - position of the valve during normal plant operation as indicated by the following:

O - Open
C - Closed

g) Safety Class - designated safety class of the valve (NC = non-safety).

h) Category/Act-Pas - ASME category A, B, C, BC, or AC assigned to the valve, and identification of the valve as ACTIVE or PASSIVE.

i) Required Tests - required inservice test to be performed are indicated by the following:

LT-J - Leak test per 10CFR50 Appendix J
LT-X - Leak test per ASME Section XI
EX - Exercising test (for Category A or B valves)
ST (O,C) - Stroke Time (O=open, C=closed)
FS (O,C) - Fail Safe Test (O=open, C=closed)
PIT - Position Indication Test
CV-C - Check Valve Exercise - Full closed
CV-O - Check Valve Exercise - Full open
CV-P - Check Valve Exercise - Partial open
RT - Relief Valve Test

j) Frequency (Freq) - test frequency described by:

°Quarterly (Q) - at least once every three months.

°Cold Shutdown (CS) - during cold shutdowns.

°Refueling (R) - nominally at least once every 18 months not to exceed two years.

°Relief valve 5 year/10 year (5Y/10Y), Category A-5Y; Category B, C-10Y.

k) Rel.Req/CSJ - identifies applicable Relief Request or Cold Shutdown Justification number, where:

CS = Cold Shutdown Justification
CR = Code Administrative Relief Request
GR = Generic Relief Request
VR = Valve Relief Request

l) Remarks - applicable pertinent clarification or additional information is provided or referenced.

7.0 Records

Records of the Inservice Pump and Valve Testing Program shall be developed and maintained in accordance with criteria established by the Code.

8.0 System Index

SYSTEM	PI&D Number
Main Steam	33013-1231
Main Feedwater	33013-1236
Auxiliary Feedwater	33013-1237
Standby Auxiliary Feedwater	33013-1238
Diesel Generators	33013-1239
Fire Protection	33013-1240
Fire Protection	33013-1241
Component Cooling Water	33013-1245
Component Cooling Water	33013-1246
Residual Heat Removal	33013-1247
Spent Fuel Pool Cooling	33013-1248
Service Water	33013-1250
Reactor Coolant Pressurizer	33013-1258
Reactor Coolant System	33013-1260
Containment Spray	33013-1261
Safety Injection & Accumulators	33013-1262
RCS Overpressure Protection	33013-1263
CVCS Letdown	33013-1264
CVCS Charging	33013-1265
Reactor Coolant Drain Tank	33013-1272
Waste Disposal - Gas	33013-1273
Hydrogen Recombiners	33013-1275
Steam Generator Blowdown	33013-1277

Nuclear Sampling	33013-1278
Containment HVAC, Recirculation	33013-1863
Containment HVAC, Purge Supply	33013-1865
Containment HVAC, Purge Exhaust	33013-1866
Auxiliary/Intermediate Bldg HVAC	33013-1870
Containment Vessel Air Test	33013-1882
Service Air	33013-1886
Instrument Air	33013-1893
Primary Water Treatment - DI Water	33013-1908
Containment Heating - Steam & Cond.	33013-1915
Construction Fire Service Water	UFSAR Fig. 6.2-17

ATTACHMENT A

PUMP TESTING PROGRAM PLAN

QUALITY ASSURANCE MANUAL GINNA STATION APPENDIX C	ATTACHMENT A PUMP TESTING PROGRAM PLAN FOR THE 1990 - 1999 INTERVAL	Date: 4/24/89	Page: 1 of 2	Rev: 0
		PREPARED BY: G. F. Snajder	DATE: 4/25/89	
		APPROVED BY: C R Anderson	DATE: 4/25/89	

Pump	Pump ID	Dwg.	Coor	Safety Class	Freq	Measured Parameters N	Pi	Pd	Qf	V	Tb	L
MOTOR AUX FEED	PAFO2A	1237	B-4	3	Q	N/A	X	X	X	X	PR-1	X
MOTOR AUX FEED	PAFO2B	1237	I-4	3	Q	N/A	X	X	X	X	PR-1	X
TURBINE AUX FEED	PAFO1	1237	I-4	3	Q	X	X	X	X	X	PR-1	X
STANDBY AUX FEED	PSFO1A	1238	B-5	3	Q	N/A	X	X	X	X	PR-1	X
STANDBY AUX FEED	PSFO1B	1238	I-5	3	Q	N/A	X	X	X	X	PR-1	X
D/G FUEL OIL	PDGO2A	1239	H-4	3	Q	N/A	X	X	PR-2	X	PR-1	
D/G FUEL OIL	PDGO2B	1239	H-7	3	Q	N/A	X	X	PR-2	X	PR-1	
COMPONENT COOLING	ACAPOC1	1246	E-5	3	Q	N/A	X	X	X	X	PR-1	
COMPONENT COOLING	ACAPOC2	1246	F-5	3	Q	N/A	X	X	X	X	PR-1	
RESIDUAL HT REMOVAL	ACAPRH1	1247	E-6	2	Q	N/A	X	X	X	X	PR-1	X
RESIDUAL HT REMOVAL	ACAPRH2	1247	B-5	2	Q	N/A	X	X	X	X	PR-1	X

Pump	Pump ID	Dwg.	Coor	Safety Class	Freq	Measured Parameters						
						N	Pi	Pd	Qf	V	Tb	L
SPENT FUEL PIT	ACAPSF1	1248	H-3	NC	Q	N/A	X	X	X	X	PR-1	X
SPENT FUEL PIT	ACAPSF2	1248		3	Q	N/A	X	X	X	X	PR-1	X
SERVICE WATER	PSW01A	1250	J-1	3	Q	N/A	PR-4	X	PR-7	PR-5	PR-1	
SERVICE WATER	PSW01B	1250	J-2	3	Q	N/A	PR-4	X	PR-7	PR-5	PR-1	
SERVICE WATER	PSW01C	1250	J-3	3	Q	N/A	PR-4	X	PR-7	PR-5	PR-1	
SERVICE WATER	PSW01D	1250	J-3	3	Q	N/A	PR-4	X	PR-7	PR-5	PR-1	
CONTAINMENT SPRAY	SIAPCS1	1261	E-4	2	Q	N/A	PR-3	X	X	X	PR-1	X
CONTAINMENT SPRAY	SIAPCS2	1261	I-4	2	Q	N/A	PR-3	X	X	X	PR-1	X
SAFETY INJECTION	SIAPSI2	1262	C-4	2	Q	N/A	PR-3	X	X	X	PR-1	X
SAFETY INJECTION	SIAPSI2	1262	I-4	2	Q	N/A	PR-3	X	X	X	PR-1	X
SAFETY INJECTION	SIAPSI3	1262	F-4	2	Q	N/A	PR-3	X	X	X	PR-1	X
CHARGING	CSAPCH1	1265	E-4	2	Q	X	X	X	X	X	PR-1	X
CHARGING	CSAPCH2	1265	F-4	2	Q	X	X	X	X	X	PR-1	X
CHARGING	CSAPCH3	1265	G-4	2	Q	X	X	X	X	X	PR-1	X

ATTACHMENT B

VALVE TESTING PROGRAM PLAN

QUALITY ASSURANCE MANUAL GINNA STATION APPENDIX C	ATTACHMENT B VALVE TESTING PROGRAM PLAN FOR THE 1990 - 1999 INTERVAL	System: MAIN STEAM Dwg No: 33013-1231		
		Date: 4/24/89	Page: 1 of 88	Rev: 0
		PREPARED BY: H. F. Snojder		DATE: 4/25/89
		APPROVED BY: C R Anderson		DATE: 4/25/89

Valve Number	Coor. P&ID.	Type Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
3410	I-4 / 1231	GTV / 6	AOV	C	2	B / ACTIVE				
							EX	CS	CS-3	MANUAL EXERCISE
							PIT	R		
							FS-C	CS	CS-3	
3411	C-4 / 1231	GTV / 6	AOV	C	2	B / ACTIVE				
							EX	CS	CS-3	MANUAL EXERCISE
							PIT	R		
							FS-C	CS	CS-3	
3504A	G-4 / 1231	GTV / 6	MOV	C	2	B / ACTIVE				
							EX	Q		
							ST-O	Q		
							ST-C	Q		
							PIT	R		
3504B	E-4 / 1231	CV / 6	SAV	C	3	C / ACTIVE				
							CV-O	Q		
							CV-C	Q		
3505A	B-4 / 1231	GTV / 6	MOV	C	2	B / ACTIVE				
							EX	Q		
							ST-O	Q		
							ST-C	Q		
							PIT	R		

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
3505B	D-4 / 1231	CV / 6	SAV	C	3	C / ACTIVE	CV-O CV-C	Q Q		
3508	G-5 / 1231	REV / 6	SAV	C	2	C / ACTIVE	RT	10Y		
3509	A-5 / 1231	REV / 6	SAV	C	2	C / ACTIVE	RT	10Y		
3510	G-6 / 1231	REV / 6	SAV	C	2	C / ACTIVE	RT	10Y		
3511	A-6 / 1231	REV / 6	SAV	C	2	C / ACTIVE	RT	10Y		
3512	G-7 / 1231	REV / 6	SAV	C	2	C / ACTIVE	RT	10Y		
3513	A-6 / 1231	REV / 6	SAV	C	2	C / ACTIVE	RT	10Y		
3514	G-7 / 1231	REV / 6	SAV	C	2	C / ACTIVE	RT	10Y		

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
3515	A-7 / 1231	REV / 6	SAV	C	2	C / ACTIVE	RT	10Y		
3516	G-11 / 1231	CV / 30	AOV	O	2	B / ACTIVE	EX	CS	CS-1	
							ST-C	CS	CS-1	
							PIT	R		
							FS-C	CS	CS-1	
3517	A-11 / 1231	CV / 30	AOV	O	2	B / ACTIVE	EX	CS	CS-1	
							ST-C	CS	CS-1	
							PIT	R		
							FS-C	CS	CS-1	
3518	G-11 / 1231	CV / 30	SAV	O	N C	C / ACTIVE	CV-C	CS	CS-2	
3519	A-11 / 1231	CV / 30	SAV	O	N C	C / ACTIVE	CV-C	CS	CS-2	
3652	D-4 / 1231	GTV / 3	HYD	O	3	B / ACTIVE	EX	Q		

Valve Number	Coor. P&ID.	Type Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
3992	J-8 1236	CV 14	SAV	O	2	C ACTIVE				
							CV-C	CS	CS-5	
							-	-	VR-21	
3993	A-7 1236	CV 14	SAV	O	2	C ACTIVE				
							CV-C	CS	CS-5	
							-	-	VR-21	
4269	D-7 1236	GLV 12	AOV	O	NC	B ACTIVE				
							EX	CS	CS-8	
							ST-C	CS	CS-8	
							PIT	R		
							FS-C	CS	CS-8	
4270	G-7 1236	GLV 12	AOV	O	NC	B ACTIVE				
							EX	CS	CS-8	
							ST-C	CS	CS-8	
							PIT	R		
							FS-C	CS	CS-8	
4271	D-8 1236	GLV 4	AOV	C	NC	B ACTIVE				
							EX	CS	CS-8	
							ST-C	CS	CS-8	
							PIT	R		
							FS-C	CS	CS-8	

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
4272	H-8 / 1236	GLV / 4	AOV	C	NC	B / ACTIVE				
							EX	CS	CS-8	
							ST-C	CS	CS-8	
							PIT	R		
							FS-C	CS	CS-8	

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
3996	I-6 / 1237	SCV / 5	MOV	C	3	BC / ACTIVE				
							EX	Q		
							ST-O	Q		
							ST-C	Q		
							PIT	R		
							CV-O	Q		
3998	I-8 / 1237	CV / 5	SAV	C	3	C / ACTIVE				
							CV-O	Q		
							CV-C	Q		
4000A	D-7 / 1237	GLV / 3	MOV	C	3	B / ACTIVE				
							EX	Q		
							ST-O	Q		
							ST-C	Q		
							PIT	R		
4000B	D-8 / 1237	GLV / 3	MOV	C	3	B / ACTIVE				
							EX	Q		
							ST-O	Q		
							ST-C	Q		
							PIT	R		
4000C	B-10 / 1237	CV / 3	SAV	C	2	C / ACTIVE				
							CV-O	Q		
							CV-C	Q		
4000D	E-10 / 1237	CV / 3	SAV	C	2	C / ACTIVE				
							CV-O	Q		
							CV-C	Q		

Valve Number	Coor. P&ID.	Type Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
4003	I-11 1237	CV 3	SAV	C	2	C ACTIVE				
							CV-O	Q		
							CV-C	Q		
4004	J-10 1237	CV 3	SAV	C	2	C ACTIVE				
							CV-O	Q		
							CV-C	Q		
4007	B-8 1237	SCV 3	MOV	C	3	BC ACTIVE				
							EX	Q		
							ST-O	Q		
							ST-C	Q		
							PIT	R		
							CV-O	Q		
							CV-C	Q		
4008	E-8 1237	SCV 3	MOV	C	3	BC ACTIVE				
							EX	Q		
							ST-O	Q		
							ST-C	Q		
							PIT	R		
							CV-O	Q		
							CV-C	Q		
4009	B-5 1237	CV 3	SAV	C	3	C ACTIVE				
							CV-0	Q		
							CV-C	Q		

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
4010	E-5 / 1237	CV / 3	SAV	C	3	C / ACTIVE	CV-O CV-C	Q Q		
4013	I-1 / 1237	GTV / 4	MOV	C	3	B / ACTIVE	EX ST-O PIT	Q Q R		
4014	H-2 / 1237	CV / 4	SAV	C	3	C / ACTIVE	CV-O CV-C	Q Q		
4016	E-2 / 1237	CV / 4	SAV	C	3	C / ACTIVE	CV-O CV-C	Q Q		
4017	B-2 / 1237	CV / 4	SAV	C	3	C / ACTIVE	CV-O CV-C	Q Q		
4020	J-3 / 1237	REV / .75	SAV	C	3	C / ACTIVE	RT	10Y		
4021	B-3 / 1237	REV / .75	SAV	C	3	C / ACTIVE	RT	10Y		

Valve Number	Coor. P&ID.	Type Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
4022	E-4 / 1237	REV / .75	SAV	C	3	C / ACTIVE	RT	10Y		
4023	I-5 / 1237	CV / 1.5	SAV	C	3	C / ACTIVE	CV-O	Q		
							CV-C	R	VR-23	VALVE DISASSEMBLY
4027	C-2 / 1237	GTV / 4	MOV	C	3	B / ACTIVE	EX	Q		
							ST-O	Q		
							PIT	R		
4028	D-3 / 1237	GTV / 4	MOV	C	3	B / ACTIVE	EX	Q		
							ST-O	Q		
							PIT	R		
4098	I-2 / 1237	GTV / 4	MAN	C	3	B / ACTIVE	EX	Q		
4291	H-5 / 1237	GTV / 1.5	AOV	O	3	B / ACTIVE	EX	Q		THROTTLE DISCH TO ACTIVATE
							ST-0	-	VR-13	
							ST-C	-	VR-13	
							FS-O	Q		

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
4297	I-10 / 1237	GLV / 3	AOV	O	3	B / ACTIVE				
							EX	Q		
							ST-O	-	GR-6	
							FS-O	Q		
4298	J-8 / 1237	GLV / 3	AOV	O	3	B / ACTIVE				
							EX	Q		
							ST-O	-	GR-6	
							FS-O	Q		
4304	C-6 / 1237	GTV / 1	AOV	C	3	B / ACTIVE				
							EX	Q		THROTTLE DISCH TO ACTIVATE
							ST-O	-	VR-13	
							ST-C	-	VR-13	
							FS-O	Q		
4310	E-6 / 1237	GTV / 1	AOV	C	3	B / ACTIVE				
							EX	Q		THROTTLE DISCH TO ACTIVATE
							ST-O	-	VR-13	
							ST-C	-	VR-13	
							FS-O	Q		
4324	J-3 / 1237	GTV / .75	SOV	C	3	B / ACTIVE				
							EX	Q		
							ST-O	-	VR-6	
4325	C-4 / 1237	GTV / .5	SOV	C	3	B / ACTIVE				
							EX	Q		
							ST-O	-	VR-6	

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
4326	F-3 / 1237	GTV / .5	SOV	C	3	B / ACTIVE	EX ST-O	Q -	VR-6	
4344	E-3 / 1237	GTV / 4	MAN	C	3	B / ACTIVE	EX	Q		
4345	C-3 / 1237	GTV / 4	MAN	C	3	B / ACTIVE	EX	Q		
4480	B-6 / 1237	GTV / 1.5	AOV	C	3	B / ACTIVE	EX ST-C FS-C	Q - Q	GR-6	
4481	F-6 / 1237	GTV / 1.5	AOV	C	3	B / ACTIVE	EX ST-C FS-C	Q - Q	GR-6	

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
9627A	B-2 / 1238	CV / 4	SAV	C	3	C / ACTIVE				
							CV-P	Q		
							CV-O	R	VR-5	
							CV-C	R	VR-5	
9627B	I-2 / 1238	CV / 4	SAV	C	3	C / ACTIVE				
							CV-P	Q		
							CV-O	R	VR-5	
							CV-C	R	VR-5	
9629A	B-3 / 1238	GTV / 4	MOV	C	3	B / ACTIVE				
							EX	Q		
							ST-O	Q		
							PIT	R		
9629B	I-3 / 1238	GTV / 4	MOV	C	3	B / ACTIVE				
							EX	Q		
							ST-O	Q		
							PIT	R		
9700A	B-6 / 1238	CV / 3	SAV	C	3	C / ACTIVE				
							CV-O	Q		
							CV-C	Q		
9700B	I-6 / 1238	CV / 3	SAV	C	3	C / ACTIVE				
							CV-O	Q		
							CV-C	Q		

Valve Number	Coor. P&ID.	Type Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
9701A	B-7 1238	GTV 3	MOV	O	3	B ACTIVE				
							EX	Q		
							ST-O	Q		
							PIT	R		
9701B	I-7 1238	GTV 3	MOV	O	3	B ACTIVE				
							EX	Q		
							ST-O	Q		
							PIT	R		
9703A	F-8 1238	GLV 3	MOV	C	3	B ACTIVE				
							EX	Q		
							ST-O	Q		
							PIT	R		
9703B	F-8 1238	GLV 3	MOV	C	3	B ACTIVE				
							EX	Q		
							ST-O	Q		
							PIT	R		
9704A	B-9 1238	SCV 3	MOV	C	2	BC ACTIVE				
							EX	Q		
							ST-O	Q		
							ST-C	Q		
							PIT	R		
							CV-O	Q		
							CV-C	Q		

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
9704B	I-9 / 1238	SCV / 3	MOV	C	2	BC / ACTIVE				
							EX	Q		
							ST-O	Q		
							ST-C	Q		
							PIT	R		
							CV-O	Q		
							CV-C	Q		
9705A	B-10 / 1238	CV / 3	SAV	C	2	C / ACTIVE				
							CV-O	Q		
							CV-C	Q		
9705B	I-10 / 1238	CV / 3	SAV	C	2	C / ACTIVE				
							CV-O	Q		
							CV-C	Q		
9709A	B-3 / 1238	REV / 1	SAV	C	3	C / ACTIVE				
							RT	10Y		
9709B	I-3 / 1238	REV / 1	SAV	C	3	C / ACTIVE				
							RT	10Y		
9710A	C-7 / 1238	GLV / 1.5	AOV	C	3	B / ACTIVE				
							EX	Q		
							ST-O	-	VR-13	
							PIT	R		
							FS-O	Q		

Valve Number	Coor. P&ID.	Type Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
9710B	H-7 / 1238	GLV / 1.5	AOV	C	3	B / ACTIVE				
							EX	Q		
							ST-O	-	VR-13	
							PIT	R		
							FS-O	Q		
9721A	C-3 / 1238	CV / .5	SAV	C	3	C / ACTIVE				
							CV-O	Q		
							CV-C	Q		
9721B	G-3 / 1238	CV / .5	SAV	C	3	C / ACTIVE				
							CV-O	Q		
							CV-C	Q		
9746	I-8 / 1238	GTV / 3	MOV	O	3	B / ACTIVE				
							EX	Q		
							ST-C	Q		
							PIT	R		

Valve Number	Coor. P&ID.	Type Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
5907	D-5 / 1239	GTV / 1	SOV	O	3	B / ACTIVE				
							EX	Q		
							ST-O	Q	VR-18	
							ST-C	Q	VR-18	
							FS-O	Q		
5907A	F-5 / 1239	GTV / .75	SOV	C	3	B / ACTIVE				
							EX	Q		
							ST-O	Q	VR-18	
							ST-C	Q	VR-18	
							FS-C	Q		
5908	D-6 / 1239	GTV / 1	SOV	O	3	B / ACTIVE				
							EX	Q		
							ST-O	Q	VR-18	
							ST-C	Q	VR-18	
							FS-O	Q		
5908A	F-6 / 1239	GTV / .75	SOV	C	3	B / ACTIVE				
							EX	Q		
							ST-O	Q	VR-18	
							ST-C	Q	VR-18	
							FS-C	Q		
5933A	C-5 / 1239	GTV / 1.5	SOV	C	3	B / ACTIVE				
							EX	Q		
							ST-O	Q	VR-1	

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
5933B	C-5 / 1239	GTV / 1.5	SOV	C	3	B / ACTIVE	EX ST-O	Q Q	 VR-1	
5934A	C-7 / 1239	GTV / 1.5	SOV	C	3	B / ACTIVE	EX ST-O	Q Q	 VR-1	
5934B	C-7 / 1239	GTV / 1.5	SOV	C	3	B / ACTIVE	EX ST-O	Q Q	 VR-1	
5941A	F-1 / 1239	CV / .75	SAV	C	3	C / ACTIVE	CV-C	Q		
5942A	F-11 / 1239	CV / .75	SAV	C	3	C / ACTIVE	CV-C	Q		
5943A	F-1 / 1239	REV / .5	SAV	C	3	C / ACTIVE	RT	10Y		
5944A	E-11 / 1239	REV / .5	SAV	C	3	C / ACTIVE	RT	10Y		
5947B	G-1 / 1239	REV / .75	SAV	C	3	C / ACTIVE	RT	10Y		

Valve Number	Coor. P&ID.	Type Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
5947C	F-1 1239	REV .75	SAV	C	3	C ACTIVE	RT	10Y		
5948B	G-10 1239	REV .75	SAV	C	3	C ACTIVE	RT	10Y		
5948C	F-10 1239	REV .75	SAV	C	3	C ACTIVE	RT	10Y		
5955	H-3 1239	CV 3	SAV	C	3	C ACTIVE	CV-O CV-C	Q Q		
5956	H-9 1239	CV 3	SAV	C	3	C ACTIVE	CV-O CV-C	Q Q		
5959	H-5 1239	REV 1.5	SAV	C	3	C ACTIVE	RT	10Y		
5960	H-7 1239	REV 1.5	SAV	C	3	C ACTIVE	RT	10Y		

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ.	Remarks
5960A	C-1 / 1239	CV / 1.5	SAV	C	3	C / ACTIVE				
							CV-O	R	VR-2	SAMPLE DISASSEMBLY
							CV-C	R	VR-2	SAMPLE DISASSEMBLY
5960B	C-11 / 1239	CV / 1.5	SAV	C	3	C / ACTIVE				
							CV-O	R	VR-2	SAMPLE DISASSEMBLY
							CV-C	R	VR-2	SAMPLE DISASSEMBLY
5961	H-5 / 1239	CV / 2	SAV	C	3	C / ACTIVE				
							CV-O	Q		
							CV-C	Q		
5962	H-7 / 1239	CV / 2	SAV	C	3	C / ACTIVE				
							CV-O	Q		
							CV-C	Q		

	Valve Number	Coor. P&ID.	Type Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
*	5133	B-4 / 1240	CV / 10	SAV	C	NC	C / ACTIVE	CV-O	Q		
*	5134	B-4 / 1240	REV / 6	SAV	C	NC	C / ACTIVE	RT	10Y		
*	5135	C-2 / 1240	REV / 6	SAV	C	NC	C / ACTIVE	RT	10Y		
*	5136	B-2 / 1240	CV / 10	SAV	C	NC	C / ACTIVE	CV-O	Q		
*	5171	C-10 / 1240	GTV / 10	MOV	O	NC	B / ACTIVE	EX ST-O ST-C PIT	Q Q Q R		

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
9227	C-6 / 1241	GTV / 4	AOV	C	2	A / ACTIVE				
							EX	CS	CS-29	
							ST-C	CS	CS-29	
							PIT	R		
							FS-C	CS	CS-29	
							LT-J	R	GR-2	
9229	D-6 / 1241	CV / 4	SAV	C	2	AC / ACTIVE				
							LT-J	R	GR-2	
							CV-C	CS	CS-29	

Valve Number	Coor. P&ID.	Type Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
723A	E-5 1245	CV 10	SAV	C,O	3	C ACTIVE	CV-P	Q		
							CV-O	CS	CS-31	
							CV-C	Q		
723B	F-5 1245	CV 10	SAV	O,C	3	C ACTIVE	CV-P	Q		
							CV-O	CS	CS-31	
							CV-C	Q		
732	B-3 1245	REV 3	SAV	C	3	C ACTIVE	RT	10Y		
738A	G-2 1245	GTV 10	MOV	O	3	B ACTIVE	EX	Q		
							ST-O	Q		
							PIT	R		
738B	I-2 1245	GTV 10	MOV	O	3	B ACTIVE	EX	Q		
							ST-O	Q		
							PIT	R		
* 823	D-2 1245	GTV 2	MOV	C	3	B PASSIVE	PIT	R		

Valve Number	Coor. P&ID.	Type Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
RCV017	A-3 1245	GLV 1	AOV	O	3	B ACTIVE				
							EX	Q		
							ST-C	Q		
							FS-C	Q		
VAC BKR	B-3 1245	REL 1	SAV	C	3	C ACTIVE				
							RT	10Y		

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
743	B-10 / 1246	CV / 2	SAV	C	2	AC / ACTIVE				
							LT-J	R	GR-2	
							CV-C	Q		
745	H-10 / 1246	GLV / 2	AOV	C	2	A / ACTIVE				
							EX	Q		
							ST-C	Q		
							PIT	R		
							FS-C	Q		
							LT-J	R	GR-2	
749A	B-8 / 1246	GTV / 3	MOV	O	2	A / ACTIVE				
							EX	CS	CS-6	
							ST-C	CS	CS-6	
							PIT	R		
							LT-J	R	GR-2	
749B	B-7 / 1246	GTV / 3	MOV	O	2	A / ACTIVE				
							EX	CS	CS-6	
							ST-C	CS	CS-6	
							PIT	R		
							LT-J	R	GR-2	
750A	B-8 / 1246	CV / 4	SAV	O	2	AC / ACTIVE				
							LT-J	R		
							CV-C	CS	CS-7	
750B	B-7 / 1246	CV / 4	SAV	O	2	AC / ACTIVE				
							LT-J	R		
							CV-C	CS	CS-7	

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
759A	H-9 / 1246	GTV / 3	MOV	O	2	A / ACTIVE				
							EX	CS	CS-6	
							ST-C	CS	CS-6	
							PIT	R		
							LT-J	R	GR-2	
759B	H-7 / 1246	GTV / 3	MOV	O	2	A / ACTIVE				
							EX	CS	CS-6	
							ST-C	CS	CS-6	
							PIT	R		
							LT-J	R	GR-2	
813	B-10 / 1246	GTV / 6	MOV	O	2	A / ACTIVE				
							EX	CS	CS-12	
							ST-C	CS	CS-12	
							PIT	R		
							LT-J	R	GR-2	
814	H-11 / 1246	GTV / 6	MOV	O	2	A / ACTIVE				
							EX	CS	CS-12	
							ST-C	CS	CS-12	
							PIT	R		
							LT-J	R	GR-2	

	Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
*	624	J-10 / 1247	BFV / 8	AOV	O	2	B / PASSIVE	EX	Q		
*	625	I-10 / 1247	BFV / 8	AOV	O	2	B / PASSIVE	EX	Q		
*	626	G-8 / 1247	BFV / 6	AOV	C	2	B / PASSIVE	EX	Q		
	697A	/ 1247	CV / 8	SAV	C	2	C / ACTIVE	CV-P CV-O CV-C	CS R CS	CS-30 VR-20 CS-30	
	697B	/ 1247	CV / 8	SAV	C	2	C / ACTIVE	CV-P CV-O CV-C	CS R CS	CS-30 VR-20 CS-30	
	700	G-1 / 1247	GTV / 8	MOV	C	1	A / ACTIVE	EX ST-O PIT LT-X	CS CS R R	CS-13 CS-13	

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
701	G-2 / 1247	GTV / 8	MOV	C	1	A / ACTIVE				
							EX	CS	CS-14	
							ST-O	CS	CS-14	
							PIT	R		
							LT-X	R		
704A	C-5 / 1247	GTV / 8	MOV	O	2	B / ACTIVE				
							EX	Q		
							ST-C	Q		
							PIT	R		
704B	C-5 / 1247	GTV / 8	MOV	O	2	B / ACTIVE				
							EX	Q		
							ST-C	Q		
							PIT	R		
710A	E-6 / 1247	CV / 8	SAV	C	2	C / ACTIVE				
							CV-P	Q		
							CV-O	R	VR-20	
							CV-C	Q		
710B	B-6 / 1247	CV / 8	SAV	C	2	C / ACTIVE				
							CV-P	Q		
							CV-O	R	VR-20	
							CV-C	Q		

Valve Number	Coor. P&ID.	Type Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
720	I-2 1247	GTV 8	MOV	C	1	A ACTIVE				
							EX	CS	CS-14	
							ST-O	CS	CS-14	
							PIT	R		
							LT-X	R		
721	I-1 1247	GTV 8	MOV	C	1	A ACTIVE				
							EX	CS	CS-13	
							ST-O	CS	CS-13	
							PIT	R		
							LT-X	R		
850A	E-5 1247	GTV 10	MOV	C	2	B ACTIVE				
							EX	Q		
							ST-O	Q		
							PIT	R		
850B	B-5 1247	GTV 10	MOV	C	2	B ACTIVE				
							EX	Q		
							ST-O	Q		
							PIT	R		
* 851A	B-1 1247	GTV 8	MOV	O	2	B PASSIVE				
							PIT	R		
* 851B	B-2 1247	GTV 8	MOV	O	2	B PASSIVE				
							PIT	R		

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
852A	F-4 / 1260	GTV / 6	MOV	C	1	A / ACTIVE				
							EX	CS	CS-15	
							ST-O	CS	CS-15	
							ST-C	CS	CS-15	
							PIT	R		
							LT-X	R		
852B	E-4 / 1260	GTV / 6	MOV	C	1	A / ACTIVE				
							EX	CS	CS-15	
							ST-O	CS	CS-15	
							ST-C	CS	CS-15	
							PIT	R		
							LT-X	R		
853A	F-4 / 1260	CV / 6	SAV	C	1	AC / ACTIVE				
							LT-X	R	GR-5	EVENT V PIV - T.S. 4.3.3
							CV-P	CS	CS-16	
							CV-O	R	VR-3	CV-O AT 120 PSID
							CV-C	R	VR-14	
853B	E-4 / 1260	CV / 6	SAV	C	1	AC / ACTIVE				
							LT-X	R	GR-5	EVENT V PIV - T.S. 4.3.3
							CV-P	CS	CS-16	
							CV-O	R	VR-3	CV-O AT 120 PSID
							CV-C	R	VR-14	
854	G-7 / 1247	CV / 10	SAV	C	2	C / ACTIVE				
							CV-P	Q		
							CV-O	R	VR-4	

Valve Number	Coor. P&ID.	Type Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
856	G-7 1247	GTV 10	MOV	O	2	B ACTIVE				
							EX	CS	CS-28	
							ST-C	CS	CS-28	
							PIT	R		
857A	C-10 1247	GTV 4	MOV	C	2	B ACTIVE				
							EX	Q		
							ST-O	Q		
							PIT	R		
857B	B-10 1247	GTV 4	MOV	C	2	B ACTIVE				
							EX	Q		
							ST-O	Q		
							PIT	R		
857C	B-10 1247	GTV 4	MOV	O	2	B ACTIVE				
							EX	Q		
							ST-O	Q		
							PIT	R		
* 1811A	A-8 1247	GTV 2	MAN	C	2	B PASSIVE				
							-	-		CLASS BOUNDARY ID - NO TEST REQ
* 1811B	E-8 1247	GTV 2	MAN	C	2	B PASSIVE				
							-	-		CLASS BOUNDARY ID - NO TEST REQ

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
1813A	F-3 / 1247	GTV / 6	MOV	C	2	A / PASSIVE	PIT LT-J	R R		TEST NOT REQ BY ASME
1813B	B-3 / 1247	GTV / 6	MOV	C	2	A / PASSIVE	PIT LT-J	R R		TEST NOT REQ BY ASME

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
8614	H-9 / 748	GTV / 4	MAN	C	3	B / ACTIVE	EX	Q		DWG/COOR. ARE PRELIMINARY
8654	E-4 / 748	GTV / 6	MAN	C	3	B / ACTIVE	EX	Q		DWG/COOR. ARE PRELIMINARY
8655	F-7 / 748	CV / 4	SAV	C	3	C / ACTIVE	CV-O CV-C	Q Q		DWG/COOR. ARE PRELIMINARY
8658	D-7 / 748	CV / 6	SAV	O	3	C / ACTIVE	CV-O CV-C	Q Q		DWG/COOR. ARE PRELIMINARY

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
4561	F-10 / 1250	BFV / 14	AOV	O	3	B / ACTIVE				
							EX	Q		
							ST-O	Q		
							PIT	R		
							FS-O	Q		
4562	F-11 / 1250	BFV / 14	AOV	C	3	B / ACTIVE				
							EX	Q		
							ST-O	Q		
							PIT	R		
							FS-O	Q		
4601	J-2 / 1250	CV / 14	SAV	O,C	3	C / ACTIVE				
							CV-P	Q		
							CV-O	R	VR-17	SAMPLE DISASSEMBLY
							CV-C	Q		
4602	J-3 / 1250	CV / 14	SAV	O,C	3	C / ACTIVE				
							CV-P	Q		
							CV-O	R	VR-17	SAMPLE DISASSEMBLY
							CV-C	Q		
4603	J-3 / 1250	CV / 14	SAV	O,C	3	C / ACTIVE				
							CV-P	Q		
							CV-O	R	VR-17	SAMPLE DISASSEMBLY
							CV-C	Q		

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
4604	J-4 / 1250	CV / 14	SAV	O,C	3	C / ACTIVE				
							CV-P	Q		
							CV-O	R	VR-17	SAMPLE DISASSEMBLY
							CV-C	Q		
4609	I-1 / 1250	GTV / 3	MOV	O	3	B / ACTIVE				
							EX	Q		
							ST-C	Q		
							PIT	R		
4613	F-2 / 1250	BFV / 10	MOV	O	3	B / ACTIVE				
							EX	Q		
							ST-C	Q		
							PIT	R		
4614	H-4 / 1250	BFV / 10	MOV	O	3	B / ACTIVE				
							EX	Q		
							ST-C	Q		
							PIT	R		
4615	A-6 / 1250	GTV / 20	MOV	O	3	B / ACTIVE				
							EX	Q		
							ST-O	Q		
							ST-C	Q		
							PIT	R		

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
4616	A-4 / 1250	GTV / 20	MOV	O	3	B / ACTIVE				
							EX	Q		
							ST-O	Q		
							ST-C	Q		
							PIT	R		
4619C	B-8 / 1250	GTV / 12	MAN	C	3	B / ACTIVE				
							EX	CS	CS-4	
4620B	A-8 / 1250	GTV / 12	MAN	C	3	B / ACTIVE				
							EX	CS	CS-4	
4622A	B-9 / 1250	GTV / 6	MAN	C	3	B / ACTIVE				
							EX	CS	CS-4	
4627	D-5 / 1250	BFV / 8	MAN	O	2	A / ACTIVE				
							EX	Q		
							LT-X	R		IN LIEU OF LT-J
4628	E-5 / 1250	BFV / 8	MAN	O	2	A / ACTIVE				
							EX	Q		
							LT-X	R		IN LIEU OF LT-J
4629	D-10 / 1250	BFV / 8	MAN	O	2	A / ACTIVE				
							EX	Q		
							LT-X	R		IN LIEU OF LT-J

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
4630	E-10 / 1250	BFV / 8	MAN	O	2	A / ACTIVE	EX LT-X	Q R		IN LIEU OF LT-J
4635	G-6 / 1250	BFV / 2.5	MAN	O	2	A / ACTIVE	EX LT-X	Q R		IN LIEU OF LT-J
4636	G-9 / 1250	GLV / 2.5	MAN	O	2	A / ACTIVE	EX LT-X	Q R		IN LIEU OF LT-J
4641	G-5 / 1250	BFV / 8	MAN	O	2	A / ACTIVE	EX LT-X	Q R		IN LIEU OF LT-J
4642	H-5 / 1250	BFV / 8	MAN	O	2	A / ACTIVE	EX LT-X	Q R		IN LIEU OF LT-J
4643	G-10 / 1250	BFV / 8	MAN	O	2	A / ACTIVE	EX LT-X	Q R		IN LIEU OF LT-J
4644	H-10 / 1250	BFV / 8	MAN	O	2	A / ACTIVE	EX LT-X	Q R		IN LIEU OF LT-J

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
4653	B-8 / 1250	REV / .75	SAV	C	3	C / ACTIVE	RT	10Y		
4654	A-9 / 1250	REV / .75	SAV	C	3	C / ACTIVE	RT	10Y		
4657	B-9 / 1250	REV / .75	SAV	C	3	C / ACTIVE	RT	10Y		
4663	H-5 / 1250	GTV / 6	MOV	O	3	B / ACTIVE	EX ST-C PIT	Q Q R		
4664	H-4 / 1250	GTV / 10	MOV	O	3	B / ACTIVE	EX ST-C PIT	Q Q R		
4670	F-2 / 1250	GTV / 10	MOV	O	3	B / ACTIVE	EX ST-C PIT	Q Q R		
4733	I-5 / 1250	BFV / 6	MOV	O	3	B / ACTIVE	EX ST-C PIT	Q Q R		

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
4734	A-6 / 1250	BFV / 14	MOV	O	3	B / ACTIVE				
							EX	Q		
							ST-O	Q		
							ST-C	Q		
							PIT	R		
4735	B-5 / 1250	BFV / 18	MOV	O	3	B / ACTIVE				
							EX	Q		
							ST-O	Q		
							ST-C	Q		
							PIT	R		
4739B	C-5 / 1250	GTV / 3	MAN	C	3	B / ACTIVE				
							EX	CS	CS-4	
4757	F-6 / 1250	BFV / 2.5	MAN	O	2	A / ACTIVE				
							EX	Q		
							LT-X	R		
4758	F-9 / 1250	BFV / 2.5	MAN	O	2	A / ACTIVE				
							EX	Q		
							LT-X	R		
4780	I-1 / 1250	BFV / 8	MOV	O	3	B / ACTIVE				
							EX	Q		
							ST-C	Q		
							PIT	R		

	Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
*	8685	D-8 / 749	BFV / 8	MOV	O	3	B / PASSIVE	PIT	R		DWG/COOR. ARE PRELIMINARY
*	8698	F-8 / 749	BFV / 8	MOV	O	3	B / PASSIVE	PIT	R		DWG/COOR. ARE PRELIMINARY
	9632A	D-11 / 1250	GTV / 1.5	AOV	O	3	B / ACTIVE	EX ST-O FS-O	Q Q Q	GR-4	
	9632B	C-11 / 1250	GTV / 1.5	AOV	O	3	B / ACTIVE	EX ST-O FS-O	Q Q Q	GR-4	
	9633A	D-11 / 1250	SCV / 1.5	SAV	C	3	BC / ACTIVE	EX CV-O	Q Q		
	9633B	C-11 / 1250	SCV / 1.5	SAV	C	3	BC / ACTIVE	EX CV-O	Q Q		
	9634B	D-11 / 1250	GLV / 1.5	MAN	C	3	B / ACTIVE	EX	CS	CS-4	

Valve Number	Coor. P&ID.	Type Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
430	B-7 / 1258	GLV / 3	AOV	C	1	B / ACTIVE				
							EX	CS	CS-10	
							ST-O	CS	CS-10	ST USING NITROGEN
							ST-C	CS	CS-10	ST USING NITROGEN
							PIT	R		
							FS-C	CS	CS-10	
431C	C-7 / 1258	GLV / 3	AOV	C	1	B / ACTIVE				
							EX	CS	CS-10	
							ST-O	CS	CS-10	ST USING NITROGEN
							ST-C	CS	CS-10	ST USING NITROGEN
							PIT	R		
							FS-C	CS	CS-10	
434	A-8 / 1258	REV / 4	SAV	C	1	C / ACTIVE				
							PIT	R	VR-7	
							RT	5Y		
435	C-8 / 1258	REV / 4	SAV	C	1	C / ACTIVE				
							PIT	R	VR-7	
							RT	5Y		
508	H-6 / 1258	GTV / 2	AOV	C	2	A / ACTIVE				
							EX	Q		
							ST-C	Q		
							PIT	R		
							FS-C	Q		
							LT-J	R	GR-2	

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
515	C-6 / 1258	GLV / 3	MOV	O	1	B / ACTIVE				
							EX	Q		
							ST-C	Q		
							PIT	R		
516	B-6 / 1258	GLV / 3	MOV	O	1	B / ACTIVE				
							EX	Q		
							ST-C	Q		
							PIT	R		
528	G-8 / 1258	CV / .75	SAV	C	2	AC / ACTIVE				
							LT-J	R	GR-2	
							CV-C	Q		
529	H-8 / 1258	CV / 2	SAV	C	2	AC / ACTIVE				
							LT-J	R	GR-2	
							CV-C	Q		
539	G-6 / 1258	GLV / .375	AOV	C	2	A / ACTIVE				
							EX	Q		
							ST-C	Q		
							PIT	R		
							FS-C	Q		
							LT-J	R	GR-2	
546	G-7 / 1258	GLV / .375	MAN	O	2	A / ACTIVE				
							EX	Q		
							LT-J	R	GR-2	

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
547	G-7 / 1258	GLV / .375	MAN	C	2	A / PASSIVE	LT-J	R	GR-2	

Valve Number	Coor. P&ID.	Type Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
590	E-7 / 1260	GLV / 2	SOV	C	2	B / ACTIVE				
							EX	CS	CS-9	
							ST-O	CS	GR-4	
							-	-	CS-9	
							PIT	R		
							FS-C	CS	CS-9	
591	E-7 / 1260	GLV / 2	SOV	C	2	B / ACTIVE				
							EX	CS	CS-9	
							ST-O	CS	GR-4	
							-	-	CS-9	
							PIT	R		
							FS-C	CS	CS-9	
592	F-7 / 1260	GLV / 2	SOV	C	2	B / ACTIVE				
							EX	CS	CS-9	
							ST-O	CS	GR-4	
							-	-	CS-9	
							PIT	R		
							FS-C	CS	CS-9	
593	F-7 / 1260	GLV / 2	SOV	C	2	B / ACTIVE				
							EX	CS	CS-9	
							ST-O	CS	GR-4	
							-	-	CS-9	
							PIT	R		
							FS-C	CS	CS-9	

Valve Number	Coor. P&ID.	Type Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
357	E-3 / 1261	CV / 4	SAV	C	2	C / ACTIVE	CV-O	CS	CS-25	
836A	H-3 / 1261	GLV / 2	AOV	C	2	B / ACTIVE	EX ST-O FS-O	Q Q Q		
836B	H-3 / 1261	GLV / 2	AOV	C	2	B / ACTIVE	EX ST-O FS-O	Q Q Q		
845C	F-3 / 1261	REV / 3	SAV	C	2	C / ACTIVE	RT	10Y		
845D	F-4 / 1261	REV / 3	SAV	C	2	C / ACTIVE	RT	10Y		
847A	G-5 / 1261	CV / 2	SAV	C	2	C / ACTIVE	CV-O CV-C	Q Q		
847B	H-5 / 1261	CV / 2	SAV	C	2	C / ACTIVE	CV-O CV-C	Q Q		

Valve Number	Coor. P&ID.	Type Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
860A	E-8 1261	GTV 6	MOV	C	2	B ACTIVE				
							EX	Q		
							ST-O	Q		
							PIT	R		
860B	E-8 1261	GTV 6	MOV	C	2	B ACTIVE				
							EX	Q		
							ST-O	Q		
							PIT	R		
860C	I-8 1261	GTV 6	MOV	C	2	B ACTIVE				
							EX	Q		
							ST-O	Q		
							PIT	R		
860D	I-8 1261	GTV 6	MOV	C	2	B ACTIVE				
							EX	Q		
							ST-O	Q		
							PIT	R		
861	J-3 1261	REV .75	SAV	C	2	C ACTIVE				
							RT	10Y		
862A	E-8 1261	CV 6	SAV	C	2	AC ACTIVE				
							LT-J	R	GR-2	
							CV-O	Q	VR-24	MECH EXERCISE
							CV-C	Q		

	Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
	862B	I-8 / 1261	CV / 6	SAV	C	2	AC / ACTIVE				
								LT-J	R	GR-2	
								CV-O	Q	VR-24	MECH EXERCISE
								CV-C	Q		
*	875A	G-10 / 1261	GLV / 2	MOV	C	2	B / PASSIVE				
								EX	Q		
								ST-O	Q		
								PIT	R		
*	875B	G-10 / 1261	GLV / 2	MOV	C	2	B / PASSIVE				
								EX	Q		
								ST-O	Q		
								PIT	R		
*	876A	G-10 / 1261	GLV / 2	MOV	C	2	B / PASSIVE				
								EX	Q		
								ST-O	Q		
								PIT	R		
*	876B	G-10 / 1261	GLV / 2	MOV	C	2	B / PASSIVE				
								EX	Q		
								ST-O	Q		
								PIT	R		
	896A	D-2 / 1261	GTV / 10	MOV	O	2	B / ACTIVE				
								EX	CS	CS-17	
								ST-C	CS	CS-17	
								PIT	R		

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
896B	E-2 / 1261	GTV / 10	MOV	O	2	B / ACTIVE				
							EX	CS	CS-17	
							ST-C	CS	CS-17	
							PIT	R		
897	C-6 / 1261	GLV / 2	MOV	O	2	B / ACTIVE				
							EX	Q		
							ST-C	Q		
							PIT	R		
898	C-7 / 1261	GLV / 2	MOV	O	2	B / ACTIVE				
							EX	Q		
							ST-C	Q		
							PIT	R		
1802	F-3 / 1261	REV / .75	SAV	C	2	C / ACTIVE				
							RT	10Y		
1819A	A-9 / 1261	GLV / .75	MAN	O	2	A / ACTIVE				
							EX	CS	CS-19	
							LT-J	R	GR-2	
1819B	A-9 / 1261	GLV / .75	MAN	O	2	A / ACTIVE				
							EX	CS	CS-19	
							LT-J	R	GR-2	

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
1819C	B-9 / 1261	GLV / .75	MAN	O	2	A / ACTIVE	EX LT-J	CS R	CS-19 GR-2	
1819D	B-9 / 1261	GLV / .75	MAN	O	2	A / ACTIVE	EX LT-J	CS R	CS-19 GR-2	
1819E	C-9 / 1261	GLV / .75	MAN	O	2	A / ACTIVE	EX LT-J	CS R	CS-19 GR-2	
1819F	C-9 / 1261	GLV / .75	MAN	O	2	A / ACTIVE	EX LT-J	CS R	CS-19 GR-2	
1819G	C-9 / 1261	GLV / .75	MAN	O	2	A / ACTIVE	EX LT-J	CS R	CS-19 GR-2	
2850	B-2 / 1261	REV / 6	SAV	C	2	C / ACTIVE	RT	10Y		
2851	B-2 / 1261	REV / 6	SAV	C	2	C / ACTIVE	RT	10Y		

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
825A	G-4 / 1262	GTV / 8	MOV	C	2	B / ACTIVE				
							EX	Q		
							ST-O	Q		
							PIT	R		
825B	I-2 / 1262	GTV / 8	MOV	C	2	B / ACTIVE				
							EX	Q		
							ST-O	Q		
							PIT	R		
826A	F-2 / 1262	GTV / 8	MOV	O	2	B / ACTIVE				
							EX	Q		
							ST-O	Q		
							ST-C	Q		
							PIT	R		
826B	G-2 / 1262	GTV / 8	MOV	C	2	B / ACTIVE				
							EX	Q		
							ST-O	Q		
							ST-C	Q		
							PIT	R		
826C	F-1 / 1262	GTV / 8	MOV	O	2	B / ACTIVE				
							EX	Q		
							ST-O	Q		
							ST-C	Q		
							PIT	R		

Valve Number	Coor. P&ID.	Type Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
826D	G-1 / 1262	GTV / 8	MOV	C	2	B / ACTIVE	EX ST-O ST-C PIT	Q Q Q R		
830A	A-10 / 1262	REV / 1	SAV	C	2	C / ACTIVE	RT	10Y		
830B	E-9 / 1262	REV / 1	SAV	C	2	C / ACTIVE	RT	10Y		
* 834A	A-9 / 1262	GLV / 1	AOV	C	2	B / PASSIVE	PIT	R		
* 834B	E-9 / 1262	GLV / 1	AOV	C	2	B / PASSIVE	PIT	R		
* 835A	C-8 / 1262	GLV / 1	AOV	C	2	B / PASSIVE	PIT	R		
* 835B	G-8 / 1262	GLV / 1	AOV	C	2	B / PASSIVE	PIT	R		
* 839A	C-11 / 1262	GLV / .75	AOV	C	2	B / PASSIVE	PIT	R		

	Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
*	839B	D-11 / 1262	GLV / .75	AOV	C	1	B / PASSIVE				
								PIT	R		
*	840A	G-10 / 1262	GLV / .75	AOV	C	2	B / PASSIVE				
								PIT	R		
*	840B	H-11 / 1262	GLV / .75	AOV	C	1	B / PASSIVE				
								PIT	R		
	841	C-10 / 1262	GTV / 10	MOV	O	2	B / ACTIVE				
								EX	R	VR-22	
								ST-C	R	VR-22	
								PIT	R		
	842A	C-10 / 1262	CV / 10	SAV	C	1	AC / ACTIVE				
								LT-X	R		
								CV-P	Q		
								CV-O	R	VR-8	SAMPLE DISASSEMBLY
								CV-C	R	VR-8	SAMPLE DISASSEMBLY
	842B	H-10 / 1262	CV / 10	SAV	C	1	AC / ACTIVE				
								LT-X	R		
								CV-P	Q		
								CV-O	R	VR-8	SAMPLE DISASSEMBLY
								CV-C	R	VR-8	SAMPLE DISASSEMBLY

	Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
*	844A	C-10 / 1262	GLV / 2	AOV	C	2	B / PASSIVE				
								PIT	R		
*	844B	G-10 / 1262	GLV / 2	AOV	C	2	B / PASSIVE				
								PIT	R		
	846	A-3 / 1262	GLV / 1	AOV	C	2	A / ACTIVE				
								EX	Q		
								ST-C	Q		
								PIT	R		
								FS-C	Q		
								LT-J	R	GR-2	
	865	G-10 / 1262	GTV / 10	MOV	O	2	B / ACTIVE				
								EX	R	VR-22	
								ST-C	R	VR-22	
								PIT	R		
	867A	D-10 / 1262	CV / 10	SAV	C	1	AC / ACTIVE				
								LT-X	R	GR-5	EVENT V PIV - T.S. 4.3.3
								CV-O	R	VR-9	VALVE DISASSEMBLY
								CV-C	R	VR-9	
	867B	H-10 / 1262	CV / 10	SAV	C	1	AC / ACTIVE				
								LT-X	R	GR-5	EVENT V PIV - T.S. 4.3.3
								CV-O	R	VR-9	VALVE DISASSEMBLEY
								CV-C	R	VR-9	

Valve Number	Coor. / P&ID.	Type / Size	Actuator	Norm Pos	Safety Class	Category / Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
870A	C-5 / 1262	CV / 3	SAV	C	2	AC / ACTIVE				
							LT-J	R	GR-2	
							CV-P	Q		
							CV-O	R	VR-11	
							CV-C	Q		
870B	H-5 / 1262	CV / 3	SAV	C	2	AC / ACTIVE				
							LT-J	R	GR-2	
							CV-P	Q		
							CV-O	R	VR-11	
							CV-C	Q		
871A	C-5 / 1262	GTV / 3	MOV	O	2	B / ACTIVE				
							EX	Q		
							ST-C	Q		
							PIT	R		
871B	G-5 / 1262	GTV / 3	MOV	O	2	B / ACTIVE				
							EX	Q		
							ST-C	Q		
							PIT	R		
872A	C-6 / 1262	CV / .75	SAV	C	2	C / ACTIVE				
							CV-O	Q		
							CV-C	Q		
872B	I-6 / 1262	CV / .75	SAV	C	2	C / ACTIVE				
							CV-O	Q		
							CV-C	Q		

Valve Number	Coor. P&ID.	Type Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
877A	D-8 / 1262	CV / 2	SAV	C	1	AC / PASSIVE	LT-X	R	GR-5	EVENT V PIV - T.S. 4.3.3
877B	I-9 / 1262	CV / 2	SAV	C	1	AC / PASSIVE	LT-X	R	GR-5	EVENT V PIV - T.S. 4.3.3
878A	D-7 / 1262	GLV / 2	MOV	C	2	A / PASSIVE	PIT LT-X	R R	 GR-5	PIT DURING LT-X ONLY TECH SPEC PIV - T.S. 4.3.3
* 878B	D-7 / 1262	GLV / 2	MOV	O	2 -	B / PASSIVE	PIT	R		
878C	I-8 / 1262	GLV / 2	MOV	C	2	A / PASSIVE	PIT LT-X	R R	 GR-5	PIT DURING LT-X ONLY TECH SPEC PIV - T.S. 4.3.3
* 878D	I-8 / 1262	GLV / 2	MOV	O	2	B / PASSIVE	PIT	R		
878F	D-8 / 1262	CV / 2	SAV	C	1	AC / PASSIVE	LT-X	R	GR-5	EVENT V PIV - T.S. 4.3.3

Valve Number	Coor. P&ID.	Type Size	Actuator	Norm Pos	Safety Class	Category Act/Pas	Required Tests	Freq	Rel.Req CSJ	Remarks
878G	D-8 1262	CV 2	SAV	C	1	AC ACTIVE				
							LT-X	R	GR-5	EVENT V PIV - T.S. 4.3.3
							CV-O	R	VR-10	
							CV-C	Q		
878H	I-9 1262	CV 2	SAV	C	1	AC PASSIVE				
							LT-X	R	GR-5	EVENT V PIV - T.S. 4.3.3
878J	H-9 1262	CV 2	SAV	C	1	AC ACTIVE				
							LT-X	R	GR-5	EVENT V PIV - T.S. 4.3.3
							CV-O	R	VR-10	
							CV-C	Q		
879	J-5 1262	GLV 1	MAN	C	2	A PASSIVE				
							LT-J	R	GR-2	
887	J-6 1262	REV .75	SAV	C	2	C ACTIVE				
							RT	10Y		
889A	B-4 1262	CV 3	SAV	C	2	AC ACTIVE				
							LT-J	R	GR-2	
							CV-P	Q		
							CV-O	R	VR-11	
							CV-C	Q		

ATTACHMENT 15
EMERGENCY EQUIPMENT INVENTORY
EOF CABINET T - RSM
(cont)

PLANS/PROCEDURES/ MANUALS	MINIMUM QTY.	QTY. FOUND	CORRECTIVE ACTION TAKEN
INPO Emergency Resources Manual	1		
Log Books	20		
Intro.To Nuclear Eng. Book	1		
Meteorology and Atomic Energy 1968	1		
Management of Persons Accidentally Contaminated with Radionuclides	1		
Midas Training Guide	1		
Natural Background Radiation in the U.S.	1		
Preparation of Radiological Effluent Tech. Specs. for Nuclear Power Plants	1		
Prepardness And Response In Radiation Accidents	1		
Procedures for Obtaining Supplemental Meteorological Data	1		
Protection of The Thyroid Gland In The Event of Releases of Radioiodine	1		
PSE&G Emergency Directory	1		
PSE&G Offsite Rad. Monitoring Sites	3		
Rad. Exposure From Consumer Products and Miscellaneous Sources	1		
Radiation Protection Book	1		
Radiological Health Handbook	1		

Completed by:_____ Date:_____

ATTACHMENT 15
EMERGENCY EQUIPMENT INVENTORY
EOF CABINET T - RSM
(cont)

PLANS/PROCEDURES/ MANUALS	MINIMUM QTY.	QTY. FOUND	CORRECTIVE ACTION TAKEN
RMC - Decontamination And Treatment Of The Radioactively Contaminated Patients At The Memorial Hospital Of Salem Co.	2		
RMS Handbook	1		
Artificial Island Emergency Plan (cc# 84)	1		
EPIP - Salem (cc# 84)	1		
EPIP - Hope Creek (cc# 84)	1		
EPIP - EOF (cc# 84)	1		
ECG - Salem (cc# 36)	1		
ECG - Hope Creek (cc# 87)	1		
ECG - Hope Creek (cc# 25)	1		

Completed by:_____ Date:_____

ATTACHMENT 16
ENC INVENTORY

1. Action Level

When regularly scheduled for quarterly implementation or following use during an emergency exercise or drill.

2. Individual Who Will Implement This Procedure

Public Information Manager - Nuclear (PIM-N)

3. Action Statements

THE PUBLIC INFORMATION MANAGER - NUCLEAR (OR DESIGNEE) SHALL:

3.1 Schedule

DATE	INITIAL		
____	_____	1.	Ensure that a scheduled inventory is implemented immediately after a planned exercise or drill.

3.2 Personnel

____	_____	1.	Instruct the individual(s) listed below to perform the inventories. _____ _____
____	_____	2.	Instruct personnel to properly perform the inventories.

3.3 Forms

DATE	INITIAL		
____	_____	1.	Provide the forms on which inventories are recorded. (Attachment 16 on page 25)

3.4 Implementation

Designated individual (s) will:

_____ _____ 1. Count the contents of each item on the ENC inventory.

_____ _____ 2. Record the inventory of each item on its appropriate form - listed in section 3.3. Note discrepancies.

_____ _____ 3. Submit the completed forms to the Emergency Prepardness Manager.

_____ _____ 4. Ensure that a current copy of the approriate inventory form is posted in the ENC.

_____ _____ 5. Review the completed inventory forms to:

_____ _____ a. Note missing supplies and order them.

_____ _____ b. Ensure supplies integrity by replacing missing materials.

_____ _____ 6. Complete and return one copy of the Inspection Order to the Emergency Preparedness Department.

_____ _____ 7. Complete one copy of this procedure as a written record of implementation.

_____ _____ 8. File all records, including worksheets, to be retained for five (5) years.

_____ _____ 9. Complete inventory summary log.

ATTACHMENT 16
ENC INVENTORY

Equipment for Briefings:	MINIMUM QTY.	QTY. FOUND	CORRECTIVE ACTION TAKEN
Overhead Projectors	2		
Extra Overhead Projector Bulbs	2		
35mm Projector	1		
Extra Bulbs	6		
Stage Lights	4		
Flaps for Lights	4		
Scrims	4		
Microphones	4		
Microphone Desk Stands	4		
Whirlwind Multiplex Boxes	4		
Mixer	1		
Preamp	1		
Speakers and Stands	2		
Projection Screen	1		
Projector Stands	2		
Extension Cord	1		

Completed by:_____ Date:_____

ATTACHMENT 16
(Cont)
ENC INVENTORY

Media Monitoring Equipment	MINIMUM QTY.	QTY. FOUND	CORRECTIVE ACTION TAKEN
VCRs	3		
Panasonic TV Monitors	3		
EBS Tone Alert Radio	1		
AM/FM Cassette Radio	1		
Blank Audio Cassettes	12		
Scanner	1		
Blank Tapes for VCR	12		

Completed by:_____ Date:_____

ATTACHMENT 16
(Cont)
ENC INVENTORY

Admin Supplies	MINIMUM QTY.	QTY. FOUND	CORRECTIVE ACTION TAKEN
Stick-on Media Badges	300		
Registration Log/Files	2		
PSE&G ENC (Right Turn)	2		
PSE&G ENC (Left Turn)	2		
PSE&G ENC (Building ID Sign)	1		
Pads	2 doz.		
Pencils	2 doz.		
Pens	4 doz.		
Log Books	1 doz.		
Fax Paper	6 rolls		
First Aid Kit	1		
Flashlights	12		
Candles & Matches	3 doz.		
Paper Plates	1 case		
Forks, Spoons, Knives	1 case		
Napkins	1 case		
Toilet Paper	1 case		

Completed by:_____ Date:_____

SIGNATURE PAGE

Prepared By: G. Thomson Rev 13 5-12-89
(If Editorial Revisions Only, Last Approved Revision) Date

Reviewed By: N/A
Station Qualified Reviewer Date

Significant Safety Issue
( ) Yes ( ) no
Reviewed By: N/A
Department Manager Date

Reviewed By:
Emergency Preparedness Manager Date

Reviewed By: N/A
General Manager - Quality Assurance/Safety Review Date
(If Applicable)

SORC Review and Station Approvals

N/A
Mtg. No. Salem Chairman

Date

N/A
Mtg. No. Hope Creek Chairman

Date

N/A
General Manager - Salem

Date

N/A
General Manager - Hope Creek

Date

ARTIFICIAL ISLAND EMERGENCY PLAN
ADMINISTRATIVE PROCEDURE

EMERGENCY COMMUNICATIONS DRILL
EPIP 1008

1. Action Level

   Communications drills required to be conducted by an Inspection Order.

2. Individuals Who Will Implement This Procedure:

   Emergency Preparedness Manager (EPM)
   Senior Nuclear Shift Supervisor (SNSS)

3. Action Statements

   THE EMERGENCY PREPAREDNESS GROUP REPRESENTATIVE SHALL:

   3.1 When ordered, record the date and Inspection Order number.

   Date: _____ Inspection Order No.:_____

   3.2 Refer to Table 1 and select the appropriate attachment for the requested communications test.

   3.3 Forward the attachment to the appropriate department.

   3.4 Upon completion of the drill, the attachment shall be forwarded to the Emergency Preparedness Manager for review.

   3.5 The Emergency Preparedness Group will complete the Inspection Order and update the station I.O. computer.

   3.6 Review all test results ensuring all problems or deficiencies are corrected and documented using Attachment 9, as soon as possible.

   3.7 Forward all completed forms to the Emergency Preparedness Manager, mail code N37.

CONTROL
COPY # 059

4. References

   1. Artificial Island Emergency Plan, Section 15, Exercises and Drills.

5. Attachments

   1. SNSS checklist federal, New Jersey and Delaware state, county and local governments.

   2. TSC checklist federal, New Jersey and Delaware state, county and local governments.

   3. EOF checklist federal, New Jersey and Delaware state, county and local governments.

   4. EPM group tests, Federal and State.

   5. Telecopier tests, CR, TSC, EOF.

   5a. Telecopy Test Form.

   6. Full fan out New Jersey and Delaware.

   6a. Telecopy Test Form.

   7. PSE&G Facilities and Communications Response Team.

   8. Alternate Checklist, New Jersey and Delaware state, county and local governments.

   9. Telephone Repair Request.

6. Signature Page

TABLE 1
COMMUNICATIONS DRILLS

DRILL TITLE	FREQUENCY	ATTACHMENT	REFERENCE
1. SNSS initiated drills to federal, state, county and local governments.	Monthly	1	IO
2. TSC initiated tests by EPM to federal, state, county and local governments.	Monthly	2	IO
3. EOF initiated tests by EPM to federal, state, county and local governments.	Monthly	3	IO
4. EPM initiated line tests to other federal and state agencies.	Monthly	4	IO
5. Telecopier tests - CR, TSC, EOF and other federal and state agencies.	Monthly	5	IO
6. Full fan out notification.	Annually	6	IO
7. PSE&G facilities.	Annually	7	IO

ATTACHMENT 1
COMMUNICATIONS DRILL CHECKLIST
FEDERAL, NEW JERSEY & DELAWARE STATE, COUNTY & LOCAL GOVERNMENTS
SENIOR NUCLEAR SHIFT SUPERVISOR COMMUNICATION CHECKLIST

1. The Senior Nuclear Shift Supervisor (SNSS)/designee shall:

   Initiate a test call monthly for each of the following locations. Repeat the following message:

   "THIS IS A TELEPHONE TEST. THIS IS _____FROM (SPECIFY HOPE CREEK OR SALEM GENERATING STATION) CONDUCTING A TELEPHONE COMMUNICATIONS TEST.

   HOW DO YOU HEAR ME? (PAUSE FOR RESPONSE) I HEAR YOU LOUD AND CLEAR (OR THE QUALITY OF TRANSMISSION).

   THIS COMPLETES THE COMMUNICATIONS TEST. THANK YOU FOR YOUR COOPERATION."

2. Notify the following agencies from the NETS lines in the Control Room using the above test message.

Primary Lines	NETS Number	HOPE CREEK		SALEM	
		Sat/Unsat	Date/Time	Sat/Unsat	Date/Time
NJSP Comm. Sgt.	5400				
DEL. State Police	5406				
DEL. DEPO	5407				
Salem County EOC	5402				
Cumberland County EOC	5403				
New Castle County EOC	5408				
Kent County EOC	5409				
Lower Alloways Creek	5404				

ATTACHMENT 1 (cont.)

2a. If all circuits are satisfactory, go to step 3 below. If any of the circuits are found to be unsatisfactory, request repair of circuit by calling the Chief Telephone Operator/Newark at one of the following numbers:
a. 7-333-6924 or 6925 b. 201-430-6924 or 6925

2b. If necessary, refer to Attachment 8 and check this Attachment number next to the appropriate agency ensuring that any unsatisfactory primary circuits are tested using the alternate numbers provided.

3. Notify the NRC on the following direct lines located in the HOPE CREEK and SALEM Control Rooms using the following message:

"THIS IS A TELEPHONE TEST. THIS IS _____FROM (SPECIFY HOPE CREEK OR SALEM GENERATING STATION) CONDUCTING A TELEPHONE COMMUNICATIONS TEST.

HOW DO YOU HEAR ME? (PAUSE FOR RESPONSE) I HEAR YOU LOUD AND CLEAR (OR THE QUALITY OF TRANSMISSION). PLEASE CALL BACK TO VERIFY THIS INSTRUMENT IS WORKING.

THIS COMPLETES THE COMMUNICATIONS TEST. THANK YOU FOR YOUR COOPERATION." (WAIT FOR THE NRC TO HANG UP FIRST).

3a. Notify the NRC from the direct lines in the Control Rooms using the message in 3 above.

ENS LOCATION	CIRCUIT NUMBER	NRC SAT/UNSAT	DATE/TIME
HOPE CREEK SNSS OFFICE			
HOPE CREEK CONTROL ROOM			
SALEM SNSS OFFICE			
SALEM U/I CONTROL ROOM			
SALEM U/II CONTROL ROOM			

3b. If any of the NRC lines are found to be unsatisfactory, call the NRC/ENS-Duty Officer on one of the following back-up lines to complete the test and to notify NRC of the failure.
a. 301-951-0550 b. 301-427-4259 c. 301-427-4056 d. 301-492-8893

4. Describe any unsatisfactory transmissions/actions taken:

5. Forward all completed forms to the Emergency Preparedness Manager, Bldg. 400, mail code N37.

Reviewed by:_____ Date:_____
Emergency Preparedness Manager

ATTACHMENT 2
TSC COMMUNICATIONS DRILL CHECKLIST
NEW JERSEY & DELAWARE STATE, COUNTY & LOCAL GOVERNMENTS

1. The Emergency Preparedness Manager/designee shall initiate a monthly test call from the HOPE CREEK AND SALEM TSC to each of the following locations.

   Repeat the following message:

   "THIS IS A TELEPHONE TEST. THIS IS _____ FROM (SPECIFY HOPE CREEK OR SALEM GENERATING STATION) CONDUCTING A TELEPHONE COMMUNICATIONS TEST.

   HOW DO YOU HEAR ME? (PAUSE FOR RESPONSE) I HEAR YOU LOUD AND CLEAR (OR THE QUALITY OF TRANSMISSION).

   THIS COMPLETES THE COMMUNICATIONS TEST. THANK YOU FOR YOUR COOPERATION."

2. Notify the following agencies from the NETS lines in the TSC using the above test message.

Primary Lines	NETS Number	HOPE CREEK		SALEM	
		Sat/Unsat	Date/Time	Sat/Unsat	Date/Time
NJSP Comm. Sgt.	5400				
DEL. State Police	5406				
DEL. DEPO	5407				
Salem County EOC	5402				
Cumberland County EOC	5403				
New Castle County EOC	5408				
Kent County EOC	5409				
Lower Alloways Creek	5404				

ATTACHMENT 2 (cont.)

2a. If all circuits are satisfactory, go to step 3 below. If any of the circuits are found to be unsatisfactory, request repair of circuit by calling the Chief Telephone Operator/Newark at one of the following numbers:
a. 7-333-6924 or 6925 b. 201-430-6924 or 6925

2b. If necessary, refer to Attachment 8 and check this Attachment number next to the appropriate agency ensuring that any unsatisfactory primary circuits are tested using the alternate numbers provided.

3. Notify the NRC on the following direct lines located in the HOPE CREEK and SALEM Control Rooms using the following message:

"THIS IS A TELEPHONE TEST. THIS IS _____ FROM (SPECIFY HOPE CREEK OR SALEM GENERATING STATION) CONDUCTING A TELEPHONE COMMUNICATIONS TEST.

HOW DO YOU HEAR ME? (PAUSE FOR RESPONSE) I HEAR YOU LOUD AND CLEAR (OR THE QUALITY OF TRANSMISSION). PLEASE CALL BACK TO VERIFY THIS INSTRUMENT IS WORKING.

THIS COMPLETES THE COMMUNICATIONS TEST. THANK YOU FOR YOUR COOPERATION." (WAIT FOR THE NRC TO HANG UP FIRST).

3a. Notify the NRC from the direct lines in the TSC using the message in 3 above.

ENS LOCATION	CIRCUIT NUMBER	NRC SAT/UNSAT	NRC DATE/TIME
HOPE CREEK - TSC			
SALEM - TSC			

3b. Test the NRC/HPN commercial line (including bridge) located in the HOPE AND SALEM TSC by placing a local call to any telephone using message in 3 of this attachment.

HPN LOCATION	CIRCUIT NUMBER	NRC SAT/UNSAT	NRC DATE/TIME
HOPE CREEK TSC - HPN	935-2643		
HOPE CREEK TSC - HPN	BRIDGE		
SALEM TSC - HPN	935-6172		
SALEM TSC - HPN	BRIDGE		

ATTACHMENT 2 (cont.)

3c. If the ENS circuit or the HPN commercial line is found to be failed, NRC notification on a back-up line is required from the list provided below:

a. 301-951-0550
b. 301-427-4259
c. 301-427-4056
d. 301-492-8893

4. Describe any unsatisfactory transmissions/actions taken:

5. Forward all completed forms to the Emergency Preparedness Manager, Bldg. 400, mail code N37.

Reviewed by: _____ Date:_____
Emergency Preparedness Manager

ATTACHMENT 3
EOF COMMUNICATIONS DRILL CHECKLIST
NEW JERSEY & DELAWARE STATE, COUNTY & LOCAL GOVERNMENTS

1. The Emergency Preparedness Manager/designee shall initiate a monthly test call from the EOF to each of the following locations.

   Repeat the following message:

   "THIS IS A TELEPHONE TEST. THIS IS _____ FROM HOPE CREEK AND SALEM GENERATING STATIONS EMERGENCY OPERATIONS FACILITY CONDUCTING A TELEPHONE COMMUNICATIONS TEST.

   HOW DO YOU HEAR ME? (PAUSE FOR RESPONSE) I HEAR YOU LOUD AND CLEAR (OR THE QUALITY OF TRANSMISSION).

   THIS COMPLETES THE COMMUNICATIONS TEST. THANK YOU FOR YOUR COOPERATION."

2. Notify the following agencies from the NETS lines in the EOF using the above test message.

Primary Lines	NETS Number	EMERGENCY OPERATIONS FACILITY			
		SAT	UNSAT	DATE	TIME
NJSP Comm. Sgt.	5400				
DEL. State Police	5406				
DEL. DEPO	5407				
Salem County EOC	5402				
Cumberland County EOC	5403				
New Castle County EOC	5408				
Kent County EOC	5409				
Lower Alloways Creek	5404				

2a. If all circuits are satisfactory, go to step 3 below. If any of the circuits are found to be unsatisfactory, request repair of circuit by calling the Chief Telephone Operator/Newark at one of the following numbers:
a. 7-333-6924 or 6925 b. 201-430-6924 or 6925

ATTACHMENT 3 (cont.)

2b. If necessary, refer to Attachment 8 and check this Attachment number next to the appropriate agency ensuring that any unsatisfactory primary circuits are tested using the alternate numbers provided.

3. Notify the NRC on the following direct line located in the EOF using the following message:

"THIS IS A TELEPHONE TEST. THIS IS _____ FROM HOPE CREEK AND SALEM GENERATING STATIONS EMERGENCY OPERATIONS FACILITY CONDUCTING A TELEPHONE COMMUNICATIONS TEST.

HOW DO YOU HEAR ME? (PAUSE FOR RESPONSE) I HEAR YOU LOUD AND CLEAR (OR THE QUALITY OF TRANSMISSION). PLEASE CALL BACK TO VERIFY THIS INSTRUMENT IS WORKING.

THIS COMPLETES THE COMMUNICATIONS TEST. THANK YOU FOR YOUR COOPERATION." (WAIT FOR THE NRC TO HANG UP FIRST).

3a. Notify the NRC from the direct line in the EOF using the above message.

ENS LOCATION	CIRCUIT NUMBER	SAT	UNSAT	DATE	TIME
EOF	Direct				

3b. Test the NRC HPN commercial line (including bridge) located in the EOF by placing a local call to any telephone using the test message in 3 of this attachment.

HPN LOCATION	CIRCUIT NUMBER	SAT	UNSAT	DATE	TIME
EOF	935-7525				
EOF	BRIDGE				

3c. If the ENS circuit or HPN commercial line is found to be failed, NRC notification on a back-up line is required from the list provided below.

a. 301-951-0550 b. 301-427-4259 c. 301-427-4056 d. 301-492-8893

4. Describe any unsatisfactory transmissions/actions taken:

5. Forward all completed forms to the Emergency Preparedness Manager, Bldg. 400, mail code N37.

Reviewed by: _____ Date:_____
Emergency Preparedness Manager

ATTACHMENT 4
EMERGENCY PREPAREDNESS GROUP TESTS, FEDERAL AND STATE

1. The Emergency Preparedness Manager/designee shall initiate a test call monthly for each of the following locations. Repeat the following message:

   "THIS IS A TELEPHONE TEST. THIS IS _____ FROM HOPE CREEK AND SALEM GENERATING STATIONS CONDUCTING A TELEPHONE COMMUNICATIONS TEST.

   HOW DO YOU HEAR ME? (PAUSE FOR RESPONSE) I HEAR YOU LOUD AND CLEAR (OR THE QUALITY OF TRANSMISSION).

   THIS COMPLETES THE COMMUNICATIONS TEST. THANK YOU FOR YOUR COOPERATION."

2. Notify the following agencies from the EPM office telephones for circuit verification. Repeat the above test message for each agency.

Secondary Lines	Number	Sat/Unsat	Date/Time	Person Contacted
NJSP Comm. Sgt.	882-2000			
DEL. State Police	(302) 736-5851			
DEL. DEPO	(302) 834-4531			
Salem County EOC	769-2959			
Cumberland County EOC	455-8500			
New Castle County EOC	(302) 738-3131			
Kent County EOC	(302) 678-9111			
Lower Alloways Creek	935-7300			

ATTACHMENT 4 (cont.)

Line Name	Circuit Tel.No.	Sat/Unsat	Date/Time	Person Contacted
NOAA Weather Station Wilmington Delaware	(302) 573-6143			
US Coast Guard Philadelphia	(215) 271-4940			
PA Emergency Mgt. Agency	(717) 783-8150			
MD Civil Defense	(301) 486-4422			
D.O.E. Brookhaven	(516) 282-2200			

Line Name	Circuit No. (see below)	Sat/Unsat	Date/Time
NRC - HPN (commercial line)			

3. Verification must be performed and NRC notification of any failed HPN circuit recorded.

   a. 301-951-0550
   b. 301-427-4259
   c. 301-427-4056
   d. 301-492-8893

4. Describe any unsatisfactory transmissions/actions taken:

5. Forward all completed forms to the Emergency Preparedness Manager, Bldg. 400, mail code N37.

Reviewed by: _____ Date:_____
Emergency Preparedness Manager

ATTACHMENT 5
TELECOPY DRILL WORKSHEET
FEDERAL, NEW JERSEY - DELAWARE STATE, COUNTY AND LOCAL GOVERNMENTS

1. The Emergency Preparedness Manager/designee shall initiate a monthly telecopier test from Hope Creek and Salem Generating Station's emergency response facilities to each of the following locations.

2. Transmit test message 5a, "This is a test. This is a telecopier transmission test from Hope Creek and Salem Generating Stations emergency response facilties TSC/C.Rm./EOF."

3. Transmit the above message from each facility to the following agencies:

Location From Control Room To:	Telephone Number	HOPE CREEK		SALEM	
		Sat/Unsat	Date/Time	Sat/Unsat	Date/Time
NJSP	5413				
DEPO	5418				
BNE	5411				
HC - TSC	5216			N/A	N/A
SGS - TSC	5114	N/A	N/A		
EOF	5035				

Location From TSC To:	Telephone Number	HOPE CREEK		SALEM	
		Sat/Unsat	Date/Time	Sat/Unsat	Date/Time
NJSP	5413				
DEPO	5418				
BNE	5411				
HC - C.Rm.	5225			N/A	N/A
SGS - C.Rm.	5131	N/A	N/A		
EOF	5035				

ATTACHMENT 5 (cont.)

Location From EOF To:	Telephone Number	Sat/Unsat	Date/Time
NJSP	5413		
DEPO	5418		
BNE	5411		
SGS - C.Rm.	5131		
SGS - TSC	5114		
HC - C.Rm.	5225		
HC - TSC	5216		

4. Any unsatisfactory transmissions should be retested using the test message from 1.

   If service/repair of a telecopier is required, call NEC Telecopy/ Troubleshooting/Service at the following number:

   a. 1-800-431-0318

5. Describe any unsatisfactory transmissions/actions taken.

6. Forward all completed forms to the Emergency Preparedness Manager, Bldg. 400, mail code N37.

   Completed by: _____ Date:_____

   Reviewed by: _____ Date:_____
   Emergency Preparedness Manager

ATTACHMENT 5
TELECOPY TEST MESSAGE FORM

THIS IS A TEST. THIS IS A TELECOPIER TRANSMISSION TEST FROM HOPE CREEK AND SALEM GENERATING STATIONS EMERGENCY RESPONSE FACILITIES. NO FURTHER ACTION IS REQUIRED.

FROM:	TIME:	DATE:	TO:	NJSP	BNE	DEPO	TSC	EOF	CR
HOPE CREEK CONTROL ROOM	_____	_____							X
SALEM CONTROL ROOM	_____	_____							X
HOPE CREEK - TSC	_____	_____					X		
SALEM - TSC	_____	_____					X		
HOPE CREEK/SALEM - EOF -	_____	_____						X	

ATTACHMENT 6
COMMUNICATIONS DRILL CHECKLIST
FULL FAN OUT - NEW JERSEY & DELAWARE

1. The Emergency Preparedness Manager/designee will contact both states at least one week prior to the annual graded exercise to conduct a drill of the Full Fan Out Communications Network. This drill will provide a final communications check prior to the exercise.

2. Contact the New Jersey State Police Communications Sergeant on the NETS line from Hope Creek/Salem Generating Station Control Room and/or telephone (609) 882-2000 and the Delaware State Police on the NETS line or telephone (302) 736-5851 to alert them to receive a telecopy message. Send the prepared message to "Group A" recipients which both parties will receive.

3. The following test message should be sent via telecopy (ATTACHMENT 6a):

   "THIS IS A TEST. THIS IS THE COMMUNICATOR AT _____ (SPECIFY STATION) PLEASE INITIATE A FULL FAN OUT COMMUNICATIONS TEST OF YOUR AGENCIES. WHEN FULLY ACTIVATED THIS TEST SHALL BE CONSIDERED COMPLETE. THANK YOU FOR YOUR COOPERATION. THIS IS A TEST."

   After the message has been transmitted, verify receipt with follow up telephone calls.

4. Complete the following:

New Jersey State Police _____
(name of recipient)

Drill Coordinator	Date/Time
_____	_____

Copy Quality	
Sat	Unsat
_____	_____

Delaware State Police _____
(name of recipient)

Drill Coordinator	Date/Time
_____	_____

Copy Quality	
Sat	Unsat
_____	_____

5. Describe any discrepancies/actions taken:

6. Return this form when completed to the Emergency Preparedness Manager, Bldg. 400, mail code N37.

Reviewed by: _____ Date: _____
Emergency Preparedness Manager

ATTACHMENT 6a
TELECOPY TEST

THIS IS A TEST MESSAGE FORM PROVIDED FOR TELECOPY USE

"THIS IS A TEST. THIS IS THE COMMUNICATOR AT
(SPECIFY STATION)

PLEASE INITIATE A FULL FAN OUT COMMUNICATIONS TEST OF YOUR AGENCIES. WHEN FULLY ACTIVATED THIS TEST SHALL BE CONSIDERED COMPLETE. THANK YOU FOR YOUR COOPERATION. THIS IS A TEST."

_____ / _____ _____
DATE TIME NAME

ATTACHMENT 7
ARTIFICIAL ISLAND EMERGENCY PLAN
COMMUNICATIONS DRILL CHECKLIST
PSE&G FACILITIES & COMMUNICATIONS: RESPONSE TEAMS

1. The Emergency Preparedness Manager (EPM)/designee will ensure testing is performed within PSE&G facilities using the Nuclear Emergency Telecommunications System (NETS).

2. EPM/designee will contact the Senior Nuclear Shift Supervisor (SNSS) to prearrange testing for an acceptable time/date. The SNSS/designee shall initiate phone calls/call back from the Control Roon and OSC to each facility listed below, when manned.

   Repeat the following message:
   "THIS IS A COMMUNICATIONS TEST. THIS IS _____, HOW DO YOU HEAR ME? (PAUSE FOR RESPONSE) I HEAR YOU LOUD AND CLEAR (OR THE QUALITY OF VOICE TRANSMISSION)."
   The same communications test should then be performed with the callee initiating the call, followed by, "THIS COMPLETES THE COMMUNICATIONS TEST."

FROM/TO	NETS #	SAT	UNSAT	CALLER	TIME	DATE
HC SNSS <___> HC TSC	5224/5200					
HC CR <___> HC TSC	5221/5201					
HC CR <___> HC OSC	5221/5226					
HC CR <___> EOF	5221/5012					
HC OSC <___> HC TSC	5226/5202					
HC OSC <___> HC CP	5226/5230					
HC TSC <___> EOF (RSM)	5202/5001					
HC TSC <___> EOF (SSM)	5200/5012					
HC TSC <___> EOF (TSM)	5201/5007					
SGS TSC <___> EOF (RSM)	5102/5001					
SGS TSC <___> EOF (SSM)	5100/5012					
SGS TSC <___> EOF (TSM)	5101/5007					
SGS SNSS<___> SGS TSC	5127/5100					
SGS CR 1<___> SGS TSC	5120/5100					
SGS CR 2<___> SGS TSC	5123/5100					
SGS OSC <___> SGS TSC	5128/5100					
SGS OSC <___> SGS CP	5128/5132					

*NOTE: TSC/EOF testing shall be performed by the Emergency Preparedness Staff.

3. The remaining NETS telephones shall be tested by calling another NETS telephone close by, verify ringing and quality of voice transmission. Then reverse the process and perform call back.
4. Describe any unsatisfactory condition:
5. Forward all completed forms to the Emergency Preparedness Manager, Bldg. 400, mail code N37.

Reviewed by:_____ Date:_____
Emergency Preparedness Manager

ATTACHMENT 8
ALTERNATE COMMUNICATIONS CHECKLIST
NEW JERSEY & DELAWARE STATE, COUNTY & LOCAL GOVERNMENTS

1. The Emergency Preparedness Manager/designee shall complete the following, as necessary, for any failed primary circuits noted in Attachments 1, 2, or 3.

2. Place a check mark in the attachment block next to the appropriate agency for which the failure(s) occurred.

3. The Emergency Preparedness Manager/designee shall initiate a test call(s), using the following message:

   "THIS IS A TELEPHONE TEST. THIS IS _____ FROM (SPECIFY LOCATION) CONDUCTING A TELEPHONE COMMUNICATIONS TEST.

   HOW DO YOU HEAR ME? (PAUSE FOR RESPONSE) I HEAR YOU LOUD AND CLEAR. THIS COMPLETES THE COMMUNICATIONS TEST. THANK YOU FOR YOUR COOPERATION.

Alternate Lines	Tel. Number	ATTACHMENT NO. 1	2	3	Date/ Time	Person Contacted
NJSP Comm. Sgt.	882-2000					
DEL. State Police	(302) 736-5851					
DEL. DEPO	(302) 834-4531					
Salem County EOC	769-2959					
Cumberland County EOC	455-8500					
New Castle County EOC	(302) 738-3131					
Kent County EOC	(302) 678-9111					
Lower Alloways Creek	935-7300					

4. Forward all completed forms to the Emergency Preparedness Manager, Bldg. 400, mail code N37.

Review by: _____ Date: _____
Emergency Preparedness Manager

ATTACHMENT 9
TELEPHONE REPAIR REQUEST

TO: _____ Date:_____
Nuclear Department Telephone Coordinator

Please repair telephone equipment:

Circuit/Telephone No.:_____

Located at:_____

Problem:_____

Chief Telephone Operator in Newark informed? _____ yes _____ no

Signed:_____
Emergency Preparedness Manager

==========

CORRECTIVE ACTION

Assigned to:_____ Date:_____

Job completed by:_____

Checked by:_____

Return all completed form to the Emergency Preparedness Manager, Bldg. 400, mail code N37.

Reviewed by:_____ Date:_____
Emergency Preparedness Manager

SIGNATURE PAGE

Prepared By: DAVID S. BURGIN REV. 0 — 4/5/88
(If Editorial Revisions Only, Last Approved Revision) — Date

Reviewed By: N/A — Date
Station Qualified Reviewer

Significant Safety Issue
( ) Yes ( ) No
Reviewed By: N/A — Date
Department Manager

Reviewed By: [signature] — 4/5/88
Emergency Preparedness Manager — Date

Reviewed By: N/A — Date
General Manager - Quality Assurance/Safety Review
(If Applicable)

SORC Review and Station Approvals

N/A
Mtg. No. Salem Chairman

Date

N/A
Mtg. No. Hope Creek Chairman

Date

N/A
General Manager - Salem

Date

N/A
General Manager - Hope Creek

Date

ARTIFICIAL ISLAND EMERGENCY PLAN
ADMINISTRATIVE PROCEDURE

EMERGENCY RESPONSE FACILITY STATUS BOARDS
EPIP 1010

CONTROL
COPY # 059

EMERGENCY RESPONSE FACILITY STATUS BOARDS INDEX

SECTION I - HOPE CREEK GENERATING STATION

NOTE:

STATUS BOARDS LISTED IN EPIP 1010 ARE FOR EXAMPLE ONLY AND WILL BE UPDATED IN THIS PROCEDURE ON AN ANNUAL BASIS.

EMERGENCY RESPONSE FACILITY STATUS BOARDS
INDEX

SECTION II - SALEM GENERATING STATION

SECTION I

HOPE CREEK GENERATING STATION

STATUS BOARDS

HOPE CREEK GENERAL STATUS DATE_____

EMERGENCY CLASSIFICATION

CLASS	TIME	ECG SECTION/EVENT
GE	____	_____/_____
SAE	____	_____/_____
A	____	_____/_____
UE	____	_____/_____

EMERGENCY FACILITY ACTIVATION LIST

FACILITY	TIME	FACILITY	TIME
TSC	____	N.J. EOC	____
OSC	____	DEL. EOC	____
EOF	____		

ON SITE PROTECTIVE ACTIONS

ACTION	TIME	AFFECTED AREAS
_____	____	_____
_____	____	_____
_____	____	_____
_____	____	_____

WEATHER INFORMATION

PRESENT GEN. COND	WIND SPEED	DIRECTION
		FROM_____ TO_____
FORECAST COND. (ETA	**WIND SPEED**	**DIRECTION**
		FROM_____ TO_____

ACCOUNTABILITY

TIME	#MISS.	SEARCH (Y/N)	RESULTS
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

TYPE OF RELEASE

AIR = AIRBORNE
LIQ. = LIQUID

AIR/LIQ. OR BOTH	TIME OF RELEASE	RELEASE DURATION ACTUAL	RELEASE DURATION PROJECTED
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

OFF SITE PROTECTIVE RECOMMENDATIONS AND STATE ACTIONS

PSE&G RECOMMENDATIONS	TIME	STATE	STATE ACTION	TIME
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

ST427 REV. 0

ATTACHMENT 1
HOPE CREEK GENERAL STATUS

HOPE CREEK GENERATING STATION
O S C TEAM STATUS BOARD

O S C COORDINATOR_____ DATE_____ UNIT_____

EMERGENCY CLASS_____

TEAM OBJECTIVE	TEAM LEADER	NO. OF TEAM MEMBERS	TIME DISPATCHED	TIME RETURNED	TEAM RESULTS OR PROBLEMS ENCOUNTERED

STH28 REV. 0

HOPE CREEK GENERATING STATION
MAJOR EQUIPMENT AND ELECTRICAL STATUS

REV. 0

DATE _____

TIME _____

COOLING SYS.	ELEC FD	NOT AVAIL	NOT RUN
SWS A	A401		
SWS C	A403		
SWS B	A402		
SWS D	A404		
SACS A	A401		
SACS C	A403		
SACS B	A402		
SACS D	A404		
RACS A	B415		
RACS B	B426		
CW A	A501		
CW B	A502		
CW C	A501		
CW D	A502		
PRI. COND A	A110		
PRI. COND B	A120		
PRI. COND C	A102		
SEC. COND A	A110		
SEC. COND B	A120		
SEC. COND C	A104		
FEED WTR. A	STEAM		
FEED WTR. B	STEAM		
FEED WTR. C	STEAM		
Rx RECIRC. A	A110		
Rx RECIRC. B	A120		

ECCS	ELEC FD	NOT AVAIL	NOT RUN
R.H.R. A	A401		
R.H.R. C	A403		
R.H.R. B	A402		
R.H.R. D	A404		
RCIC –	STEAM		
HPCI –	STEAM		
CORE SPRAY A	A401		
CORE SPRAY C	A403		
CORE SPRAY B	A402		
CORE SPRAY D	A404		
MISC. PMPS	**ELEC FD**	**NOT AVAIL**	**NOT RUN**
SLC A	B212		
SLC B	B222		
RWCU A	B254		
RWCU B	B264		
CRD A	B430		
CRD B	B440		
REFUEL A	A101		
REFUEL B	A104		
CHILL WTR. A	A110		
CHILL WTR. B	A120		
CHILL WTR. C	A101		
CHILL WTR. D	A110		
TSC C.W. A	B451		
TSC C.W. B	B461		

EMERG. DIESEL	NOT LOADED	NOT AVAIL	NOT RUN
E.D.G. A			
E.D.G. B			
E.D.G. C			
E.D.G. D			
CONT. CONTROL	**ELEC FD**	**NOT AVAIL**	**NOT RUN**
ERVS FAN A	B410		
ERVS FAN E	B450		
ERVS FAN B	B420		
ERVS FAN F	B460		
ERVS FAN C	B430		
ERVS FAN D	B440		
ERVS VENT A	B212		
ERVS VENT B	B222		
CPC FAN –	B264		
H_2 RCOMB. A	B212		
H_2 RCOMB. B	B242		
AIR COMPR. 00K107	A110		
AIR COMPR. 10K107	A120		
EMERG. INST.– AIR COMPR. 10K100	B450		
PCIG COMP. A	B232		
PCIG COMP. B	B242		

FIRE SYSTEMS	–	NOT AVAIL	NOT RUN
ELECTRIC PMP	B590		
DIESEL PMP			

ELECTRICAL STATUS	NOT AVAIL
OFFSITE AC POWER	
DC CONTROL POWER	

MISC. INFORMATION OR EXCEPTIONS

ATTACHMENT 3

HOPE CREEK GENERATING STATION
MAJOR EQUIPMENT & ELECTRICAL STATUS

EPIP 1010
Pg. 7 of 35

HOPE CREEK GENERATING STATION
OPERATIONS SUPPORT CENTER STATUS

EMERGENCY INFORMATION

ACTIVATED: _____ (HOUR & DATE)

TERMINATED: _____ (HOUR & DATE)

CLASSIFICATION:	UE	ALERT	SAE	GE
TIME:				

EVENT DESCRIPTION: _____

PERSONNEL		RELIEF PERSONNEL
OSC COORDINATOR:		
OPS. SPT. COORD:		
RADPRO COORD:		
MAINT SUPERVISOR:		
I&C SUPERVISOR:		
FIRE PRO COORD:		
STATUS BOARD RECORDER:		
ADMIN CLERK:		
COMMUNICATOR:		

SD-22

REV. 0

ATTACHMENT 5

SIGNIFICANT PLANT EVENTS

SIGNIFICANT PLANT EVENTS

DATE_____

TIME	ITEM

SD429

REV. 0

UNIT	EMERGENCY INFORMATION OPS READY ROOM	DATE: _____ TIME: _____
S1 _____ S2 _____ H/C _____		

PERSONNEL

SENIOR SHIFT SUPERVISOR _____
SHIFT SUPERVISOR _____
SHIFT SUPPORT SUPERVISOR _____
O S C COODINATOR _____
MAINT. SUPERVISOR _____
I & C SUPERVISOR _____
RAD. PROT. SUPERVISOR _____
FIRE PROT. SUPERVISOR _____

RADIOLOGICAL CONDITIONS

AREAS OF RADIOLOGICAL CONCERN:

AREA	R/N*
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____

*R=REQUIRED ESCORT / N=NO ENTRY

RELEASE IN PROGRESS YES ___ NO ___

IF 'YES'→WIND DIRECTION TOWARDS: _____ (LANDMARK)

EMERGENCY STATUS:

1. CLASS OF EMERGENCY	(CHECK ONE)		TIME AND DATE OF DECLARATION
A.) UNUSUAL EVENT	___	_____	_____
B.) ALERT	___	_____	_____
C.) SITE AREA	___	_____	_____
D.) GENERAL	___	_____	_____

2. DESCRIPTION OF EVENT/INITIATING CONDITIONS:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

3. ACCOUNTABILITY IN EFFECT YES ___ NO ___

4. SITE EVACUATION YES ___ NO ___

STS4 REV. 0

ATTACHMENT 6
EMERGENCY INFORMATION
OPS READY ROOM

HOPE CREEK OPERATIONAL STATUS BOARD - EMERGENCY DATE_____

REV. 0

CONDITION:

	PARAMETERS	UNITS	TIME OF UPDATE 2400 HR.	UNITS
RCP	LST LEVEL	x10^3 GAL		x10^3 GAL
	CONDENSER PRESSURE	in Hg. A		in Hg. A
	RCIC FLOW	GPM		GPM
	CRD FLOW	x10^6 lb/hr		x10^6 lb/hr
ECCS	RHR/LPCI FLOW A**	GPM		GPM
	RHR/LPCI FLOW C	GPM		GPM
	RHR/LPCI FLOW B**	GPM		GPM
	RHR/LPCI FLOW D	GPM		GPM
	HPCI PUMP FLOW	GPM		GPM
	HPCI SPRAY FLOW A	GPM		GPM
	HPCI SPRAY FLOW B	GPM		GPM
	SRV OPEN STATUS	#OPEN		#OPEN
RX COOLANT SYSTEM	PUMP	CYCLES		CYCLES
	VSSEL LEVEL	in		in
	PRESSURE	PSIG		PSIG
	TEMPERATURE	°F		°F
	RECIRC FLOW LOOP A	x10^6 GPH		x10^6 GPH
	RECIRC FLOW LOOP B	x10^6 GPH		x10^6 GPH
	RX PUMP FLOW (TOTAL)	x10^6 lb/hr		x10^6 lb/hr
CONTAINMENT	DRYWELL PRESSURE	PSIG		PSIG
	TEMPERATURE	°F		°F
	RX LEVEL	in		in
	RX LEVEL	in		in
	SUPP. CHAMBER PRESSURE	PSIG		PSIG
	AIR TEMPERATURE	°F		°F
	WATER LEVEL	in		in
	WATER TEMPERATURE	°F		°F
SGL	SPENT FUEL PRESSURE	in H2O		in H2O
	DIESEL POWER AVAILABLE ?	YES NO		
	DIESEL FUEL LEVELS AVAILABLE ?	YES NO		
	RX SCRAM ACTUATED ?	YES NO		
	RX SCRAM INDICATED ?	YES NO		
	DRYWELL CAPABLE OF ISOLATION ?	YES NO		
OTHER ITEMS				
	**R. NOT IN EPIC MEM. CONSL FLOW RATE			

ATTACHMENT 7

HCGS OPERATIONAL STATUS BOARD - EMERGENCY

HOPE CREEK GENERATING STATION
INTEGRATED ERF ROSTER

CONTROL POINT		CONTROL ROOM		OPERATIONS SUPPORT CENTER	
RP SUPV.		SNSS		COORD.	
RP TECHS.		NSS		MAINT.	
		NSTA		OPS	
		NCO1		RAD. PRO.	
CHEM. SUPV.		NCO2		FIRE DEPT.	
CHEM. TECHS.		COMM1		RADIO OPERATOR	
		COMM2			
		NRC			

TECHNICAL SUPPORT CENTER			
EDO		EPA	
TSS		SECURITY	
RAC		NRC	
RPS		NRC	
CHEM SUPV		ADMIN. SUPP. SUPV.	

EMERGENCY OPERATIONS FACILITY		EMERGENCY NEWS CENTER		FEDERAL/STATE	
ERM		CO. SPKS. PRSN.		NJ OEM	
SSM		ENC MGR.		NJ BNE	
RSM		ENC OPS. SUPV.		DEPO	
TSM		ENC COMM. SUPV.		NRC	
ASM		TECH. ADVISOR		FEMA HQ	
EPC				FEMA II	
EPA				FEMA III	
SECURITY					
PIL					

REV. 1 HCGS

HOPE CREEK CHEMISTRY STATUS

REV. 0

DATE_____

SYSTEM STATUS

TIME						
RWCU						
CPD						
PASS						

KEY: AV = AVAILABLE
NA = NOT AVAILABLE
IS = IN SERVICE

SYSTEM CHEMISTRY

SAMPLE TIME								
REACTOR WATER								
CONDUCTIVITY	µS/cm							
pH	S.U.							
CHLORIDE	ppb							
BORON	ppm							
D.E. I-131	µCi/g							
GROSS ACTIVITY	µCi/g							
DRYWELL ATMOSPHERE								
HYDROGEN	%							
OXYGEN	%							

CORE DAMAGE CONFIRMATORY PARAMETERS

SAMPLE TIME						
DAPA (R/hr)						
% FUEL INVENTORY AIRBORNE						
% METAL-WATER REACTION						

CORE DAMAGE ESTIMATES (%)

LIQUID SAMPLES							
SAMPLE TIME							
I-131	CLADDING FAILURE						
	FUEL MELTING						
I-133	CLADDING FAILURE						
	FUEL MELTING						
I-135	CLADDING FAILURE						
	FUEL MELTING						
Cs-134	CLADDING FAILURE						
	FUEL MELTING						
Cs-137	CLADDING FAILURE						
	FUEL MELTING						
ATMOSPHERE SAMPLES							
SAMPLE TIME							
Kr-85m	CLADDING FAILURE						
	FUEL MELTING						
Kr-85	CLADDING FAILURE						
	FUEL MELTING						
Xe-133	CLADDING FAILURE						
	FUEL MELTING						
Xe-135	CLADDING FAILURE						
	FUEL MELTING						

5362

HOPE CREEK GENERATING STATION RMS STATUS BOARD

DATE_____ START TIME_____

PLANT VENT FLOW RATE (cfm)

(TIME OF READING)

DESCRIPTION	RANGE	NORMAL
FRVS VENT	200 cfm - 1000 cfm	200 cfm - 400 cfm
NORTH PLANT VENT	[illegible]	[illegible]
SOUTH PLANT VENT	[illegible]	[illegible]

METEOROLOGICAL DATA

WIND SPEED (mph) EL.33	
WIND SPEED (mph) EL.150	
WIND SPEED (mph) EL.300	
WIND DIRECTION (FROM) EL.33	
WIND DIRECTION (FROM) EL.150	
WIND DIRECTION (FROM) EL.300	
ΔT (°C) (150'-33')	
ΔT (°C) (300'-33')	
STABILITY CLASS (302-573-6142)	

VENT PROCESS MONITORS

FRVS GASEOUS LOW RANGE	10^{-7} to 10^{-2} μCi/cc	8.2E-9 μCi/cc
FRVS GASEOUS MID RANGE	10^{-7} to 10^{2} μCi/cc	μCi/cc
FRVS GASEOUS HIGH RANGE	10^{-7} to 10^{5} μCi/cc	μCi/cc
FRVS EFFLUENT	0 to 10^{12} μCi/sec	1.2E-8 μCi/sec
NPV PARTICULATES	1E-10 to 1E-4 μCi/cc	5.1E-10 μCi/cc
NPV IODINE	1E-10 to 1.5E-5 μCi/cc	3.7E-11 μCi/cc
NPV NOBLE GAS NORMAL RANGE	10^{-7} to 10^{-2} μCi/cc	7.2E-9 μCi/cc
NPV NOBLE GAS MID RANGE	10^{-7} to 10^{2} μCi/cc	μCi/cc
NPV NOBLE GAS HIGH RANGE	10^{-7} to 10^{5} μCi/cc	μCi/cc
NPV EFFLUENT	0 to 10^{12} μCi/sec	16 μCi/sec
SPV PARTICULATES	1E-10 to 1E-4 μCi/cc	3.4E-10 μCi/cc
SPV IODINE	1E-10 to 1.5E-5 μCi/cc	4.8E-13 μC /cc
SPV NOBLE GAS NORMAL RANGE	10^{-7} to 10^{-2} μCi/cc	8.2E-9 μCi/cc
SPV NOBLE GAS MID RANGE	10^{-7} to 10^{2} μCi/cc	μCi/cc
SPV NOBLE GAS HIGH RANGE	10^{-7} to 10^{5} μCi/cc	μCi/cc
SPV EFFLUENT	0 to 10^{12} μCi/sec	35 μCi/sec

DRYWELL MONITORS

DRYWELL ATMOS. POST ACCIDENT (DAPA) A	1 to 10^{8} R/hr	21 R/hr
DRYWELL ATMOS. POST ACCIDENT (DAPA) B	1 to 10^{8} R/hr	18 R/hr
DRYWELL LEAK DETECTION	1E-4 to 1E-1 μCi/cc	1.1E-4 μCi/cc

SUPPLEMENTAL

MAIN STEAM LINE A	1 to 10^{6} mR/hr	23 mR/hr
MAIN STEAM LINE B	1 to 10^{6} mR/hr	28 mR/hr
MAIN STEAM LINE C	1 to 10^{6} mR/hr	23 mR/hr
MAIN STEAM LINE D	1 to 10^{6} mR/hr	24 mR/hr

RMS REV. 2

ATTACHMENT 10

HOPE CREEK GENERATING STATION
RMS STATUS (PLANT VENT FLOW)

HOPE CREEK GENERATING STATION RMS STATUS BOARD

DATE_____ START TIME_____

SUPPLEMENTAL RMS DATA

AREA MONITORS

(TIME OF READING)

DESCRIPTION	RANGE	NORMAL
MAIN CONTROL ROOM	.01 to 10^{4} mR/hr	2E-2 mR/hr
TSC VESTIBULE AREA	.01 to 10^{4} mR/hr	2E-2 mR/hr
CHEMISTRY LAB SAMPLE ROOM	.01 to 10^{4} mR/hr	2E-2 mR/hr
RADWASTE CONTROL ROOM	.01 to 10^{4} mR/hr	2E-2 mR/hr
OFFGAS TREATMENT CONTROL ROOM	.01 to 10^{4} mR/hr	2E-2 mR/hr
OFFGAS VIAL SAMPLE STATION	.01 to 10^{4} mR/hr	5E-2 mR/hr
RADWASTE SAMPLE STATION	.01 to 10^{4} mR/hr	5E-2 mR/hr
REACTOR BLDG SAMPLE STATION	.01 to 10^{4} mR/hr	6 mR/hr
OUTSIDE REAC. BLDG SAMPLE STATION	.01 to 10^{4} mR/hr	4E-2 mR/hr
ERVSV SKID	.01 to 10^{4} mR/hr	2E-2 mR/hr
ERVSV TRP	.01 to 10^{4} mR/hr	3E-2 mR/hr
PERSONNEL AIRLOCK	.01 to 10^{4} mR/hr	2E-2 mR/hr
EQUIPMENT AIRLOCK	.01 to 10^{4} mR/hr	2.5E-2 mR/hr
MOTORIZED EQUIPMENT HATCH	.01 to 10^{4} mR/hr	4E-2 mR/hr
OPEN EQUIPMENT HATCH	.01 to 10^{4} mR/hr	5.5E-2 mR/hr
SPENT FUEL POOL BEHIN EQUIPMEN	.01 to 10^{4} mR/hr	3E-2 mR/hr
AUXILIARY HATCHWAY	.01 to 10^{4} mR/hr	2E-2 mR/hr
RESTRICTED MACHINE SHOP A	.01 to 10^{4} mR/hr	2E-2 mR/hr
RESTRICTED MACHINE SHOP B	.01 to 10^{4} mR/hr	2E-2 mR/hr
SPENT FUEL POOL	.01 to 10^{4} mR/hr	mR/hr
NEW FUEL A	.01 to 10^{4} mR/hr	2E-2 mR/hr
NEW FUEL B	.01 to 10^{4} mR/hr	2.5E-2 mR/hr

PROCESS MONITORS

DESCRIPTION	RANGE	NORMAL
REFUELING FLOOR EXHAUST A	10^{-6} to 10^{-2} mCi/cc	6E-7 mCi/cc
REFUELING FLOOR EXHAUST B	10^{-6} to 10^{-2} mCi/cc	5.5E-7 mCi/cc
REFUELING FLOOR EXHAUST C	10^{-6} to 10^{-2} mCi/cc	6E-7 mCi/cc
REACTOR BUILDING EXHAUST A	10^{-6} to 10^{-2} mCi/cc	2E-5 mCi/cc
REACTOR BUILDING EXHAUST B	10^{-6} to 10^{-2} mCi/cc	2.5E-5 mCi/cc
REACTOR BUILDING EXHAUST C	10^{-6} to 10^{-2} mCi/cc	2.2E-5 mCi/cc
CONTROL ROOM VENTILATION C	10^{-6} to 10^{-2} mCi/cc	7.8E-7 mCi/cc
CONTROL ROOM VENTILATION C1	10^{-6} to 10^{-2} mCi/cc	6.25E-7 mCi/cc
CONTROL ROOM VENTILATION D	10^{-6} to 10^{-2} mCi/cc	3.7E-7 mCi/cc
CONTROL ROOM VENTILATION D1	10^{-6} to 10^{-2} mCi/cc	8.0E-7 mCi/cc
COOLING TOWER BLOWDOWN	10^{-6} to 10^{-2} mCi/cc	1.0E-6 mCi/cc
LIQUID RADWASTE	10^{-6} to 10^{-2} mCi/cc	4.0E-5 mCi/cc
OFFGAS A	$1-10^{4}$ mR/hr	83 mR/hr
OFFGAS B	$1-10^{4}$ mR/hr	78 mR/hr
OFFGAS TREATMENT SYSTEM A	10 to 10^{6} cpm	20 cpm
OFFGAS TREATMENT SYSTEM B	10 to 10^{6} cpm	27 cpm
REAC. BLDG. VENT SYSTEM EXHAUST	10^{-6} to 10^{-2} mCi/cc	mCi/cc
TURBINE BUILDING EXHAUST	10^{-6} to 10^{-2} mCi/cc	1.5E-5 mCi/cc
TURBINE BUILDING COMPT. EXHAUST	10^{-6} to 10^{-2} mCi/cc	3.5E-5 mCi/cc
RADWASTE EXHAUST SYSTEM	10^{-6} to 10^{-2} mCi/cc	2.5E-6 mCi/cc
RADWASTE AREA EXHAUST	10^{-6} to 10^{-2} mCi/cc	1.0E-6 mCi/cc
GASEOUS RADWASTE AREA EXHAUST	10^{-6} to 10^{-2} mCi/cc	1.0E-6 mCi/cc
TSC VENTILATION	10^{-6} to 10^{-2} mCi/cc	7.0E-7 mCi/cc
REACTOR AUX. COOLING SYSTEM	10^{-6} to 10^{-2} mCi/cc	9.5E-7 mCi/cc
SAFETY AUX. COOLING SYSTEM A	10^{-6} to 10^{-2} mCi/cc	7.8E-7 mCi/cc
SAFETY AUX. COOLING SYSTEM B	10^{-6} to 10^{-2} mCi/cc	8.0E-7 mCi/cc
HEATING STEAM CNDS. WASTE	10^{-6} to 10^{-2} mCi/cc	7.5E-7 mCi/cc
HEATING STEAM CNDS. DECON.	10^{-6} to 10^{-2} mCi/cc	8.5E-7 mCi/cc
TURBINE BUILDING CIRC. WATER	10^{-6} to 10^{-2} mCi/cc	9.0E-7 mCi/cc

SDR3 REV. 2

DATE_____
UNIT #_____

REV. 0

℄ PLUME INTEGRATED DOSES (millirem)

TIME OF MONITOR READING	TIME TO WHICH DOSE IS INTEGRATED			MEA				LPZ				EPZ			
				WHOLE BODY		THYROID		WHOLE BODY		THYROID		WHOLE BODY		THYROID	
	MEA	LPZ	EPZ	PROJECTED	MEASURED	PROJECTED	MEASURED	PROJECTED	MEASURED	PROJECTED	MEASURED	PROJECTED	MEASURED	PROJECTED	MEASURED

SN24

ATTACHMENT 12

PLUME INTEGRATED DOSES
(MILLIREM)

DATE_____
START TIME_____

REV. 0

℄ PLUME DOSE RATES (millirem/hour)

TIME OF MONITOR READING	TIME OF PLUME ARRIVAL AT RECEPTOR			MEA				LPZ		EPZ		TIME FIELD DATA READING	FIELD TEAM DATA			
				WHOLE BODY		THYROID		PROJECTED		PROJECTED			LOCATION			
	MEA	LPZ	EPZ	PROJECTED	MEASURED	PROJECTED	MEASURED	WHOLE BODY	THYROID	WHOLE BODY	THYROID					

SD4D

ATTACHMENT 13

PLUME INTEGRATED DOSES
(MILLIREM/HOUR)

PLUME DATA TRACKING
ONSITE
HOPE CREEK

DATE_____

DISTANCE OR SURVEY LOCATION	TIME OF MONITOR READING	PLUME DOSE RATES (mrem/hr)			
		WHOLE BODY		THYROID	
		PROJECTED	MEASURED	PROJECTED	MEASURED

SDC6

REV. 0

SECTION II

SALEM GENERATING STATION

STATUS BOARDS

SALEM GENERATING STATION
O S C TEAM STATUS BOARD

O S C COORDINATOR_____ DATE_____ UNIT_____

EMERGENCY CLASS_____

TEAM OBJECTIVE	TEAM LEADER	NO. OF TEAM MEMBERS	TIME DISPATCHED	TIME RETURNED	TEAM RESULTS OR PROBLEMS ENCOUNTERED

SIS3 REV. 0

UNIT	EMERGENCY INFORMATION OPS READY ROOM	DATE: _____ TIME: _____
S1 _____ S2 _____ H/C _____		

PERSONNEL

SENIOR SHIFT SUPERVISOR _____
SHIFT SUPERVISOR _____
SHIFT SUPPORT SUPERVISOR _____
O S C COODINATOR _____
MAINT. SUPERVISOR _____
I & C SUPERVISOR _____
RAD. PROT. SUPERVISOR _____
FIRE PROT. SUPERVISOR _____

RADIOLOGICAL CONDITIONS

AREAS OF RADIOLOGICAL CONCERN:

	AREA	R/N*
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____

*R=REQUIRED ESCORT / N=NO ENTRY

RELEASE IN PROGRESS YES ___ NO ___

IF 'YES'→WIND DIRECTION TOWARDS: _____ (LANDMARK)

EMERGENCY STATUS:

1. CLASS OF EMERGENCY	(CHECK ONE)	TIME AND DATE OF DECLARATION	
A.) UNUSUAL EVENT	___	_____	_____
B.) ALERT	___	_____	_____
C.) SITE AREA	___	_____	_____
D.) GENERAL	___	_____	_____

2. DESCRIPTION OF EVENT/INITIATING CONDITIONS:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

3. ACCOUNTABILITY IN EFFECT YES ___ NO ___

4. SITE EVACUATION YES ___ NO ___

REV. 0

ATTACHMENT 3

SIGNIFICANT PLANT EVENTS

SIGNIFICANT PLANT EVENTS

DATE _____

TIME	ITEM

SIES

REV. 0

SALEM GENERAL STATUS

DATE_____
UNIT_____

EMERGENCY CLASSIFICATION		
CLASS	TIME	ECG SECTION/EVENT
GE	____	_____/_____
SAE	____	_____/_____
A	____	_____/_____
UE	____	_____/_____

EMERGENCY FACILITY ACTIVATION LIST			
FACILITY	TIME	FACILITY	TIME
TSC	____	N.J. EOC	____
OSC	____	DEL. EOC	____
EOF	____		

ON SITE PROTECTIVE ACTIONS		
ACTION	TIME	AFFECTED AREAS

WEATHER INFORMATION		
PRESENT GEN. COND	WIND SPEED	DIRECTION
		FROM_____ TO_____
FORECAST COND. (ETA	WIND SPEED	DIRECTION
		FROM_____ TO_____

OFF SITE PROTECTIVE RECOMMENDATIONS AND STATE ACTIONS				
PSE&G RECOMMENDATIONS	TIME	STATE	STATE ACTION	TIME

ACCOUNTABILITY			
TIME	#MISS.	SEARCH (Y/N)	RESULTS

OFF SITE ASSISTANCE			
AGENCY	TIME REQ.	TIME ARR.	TIME DEP.

REV. 0

ATTACHMENT 4
SALEM GENERATING STATION
GENERAL STATUS

UNIT NO.__
DATE_____

OPERATIONAL STATUS BOARD - SALEM

		TIME OF UPDATE →		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
ECCS SYSTEM	EMERGENCY CORE PUMP FLOW	GPM																					GPM
	SAFETY INJECTION PUMP FLOW #1	GPM																					GPM
	SAFETY INJECTION PUMP FLOW #2	GPM																					GPM
	RHR PUMP FLOW #1	GPM																					GPM
	RHR PUMP FLOW #2	GPM																					GPM
	RWST LEVEL	FT.																					FT.
CONTAINMENT	CONTAINMENT PRESSURE	PSIG																					PSIG
	CONTAINMENT TEMPERATURE (AVERAGE)	°F																					°F
	CONTAINMENT H2 CONCENTRATION	%																					%
	CONTAINMENT SUMP LEVEL	%																					%
	CONTAINMENT RADIATION (GAMMA)	R/HR																					R/HR
	CONTAINMENT RADIATION (BETA)	R/HR																					R/HR
REACTOR COOLANT SYSTEM	RCS HPSI FLOW (TOTAL)	NO.																					NO.
	RCS LS (OUT PORV)	%																					%
	RCP COASTDOWNS (REQUIRED)																						
	* IF RCP COASTDOWNS EXCEEDED (TOTAL)	NO.																					NO.
	RCS TEMP LOOP 1	°F																					°F
	RCS TEMP LOOP 2	°F																					°F
	RCS TEMP LOOP 3	°F																					°F
	RCS TEMP LOOP 4	°F																					°F
	RCS SUBCOOLED	°F																					°F
	PRZR PRESSURE	PSIG																					PSIG
	PRESSURIZER LEVEL (HOT)	%																					%
	RCS LOOP 1	°F																					°F
	RCS LOOP 2	°F																					°F
	RCS LOOP 3	°F																					°F
	RCS LOOP 4	°F																					°F
	RCP POWER/MOTOR FLOW	Y/A/PS																					Y/A/PS
	SHUTDOWN MARGIN USE/OF CALCULATION	%																					%
C.V.C.S.	LETDOWN FLOW	GPM																					GPM
	CHARGING FLOW	GPM																					GPM
SECONDARY COOLANT SYSTEM	#1 STEAM GENERATOR LEVEL (WR) RRRR NO	%																					%
	#2 STEAM GENERATOR LEVEL (WR) RRRR NO	%																					%
	#3 STEAM GENERATOR LEVEL (WR) RRRR NO	%																					%
	#4 STEAM GENERATOR LEVEL (WR) RRRR NO	%																					%
	#1 STEAM GENERATOR PRESSURE	PSIG																					PSIG
	#2 STEAM GENERATOR PRESSURE	PSIG																					PSIG
	#3 STEAM GENERATOR PRESSURE	PSIG																					PSIG
	#4 STEAM GENERATOR PRESSURE	PSIG																					PSIG
	#1 STEAM GENERATOR FEED FLOW	% RRRR LBS/HR																					% RRRR LBS/HR
	#2 STEAM GENERATOR FEED FLOW	% RRRR LBS/HR																					% RRRR LBS/HR
	#3 STEAM GENERATOR FEED FLOW	% RRRR LBS/HR																					% RRRR LBS/HR
	#4 STEAM GENERATOR FEED FLOW	% RRRR LBS/HR																					% RRRR LBS/HR
	RWST LEVEL	%																					%
MISC. TANKS	WASTE HOLD-UP TANK #1 LEVEL	%																					%
	WASTE HOLD-UP TANK #2 LEVEL	%																					%
	WASTE MONITOR HOLD-UP LEVEL	%																					%

SALEM GENERATING STATION UNIT #___
MAJOR EQUIPMENT AND ELECTRICAL STATUS

DATE _____
TIME _____

ECCS	ELEC FD	NOT AVAIL	NOT RUN
CHG. PUMP# 1	B9D		
CHG. PUMP# 2	C9D		
CHG. PUMP# 3	A7X		
S.I. PUMP# 1	A5D		
S.I. PUMP# 2	C5D		
R.H.R. PUMP# 1	A7D		
R.H.R. PUMP# 2	B7D		
AUX. FD PMP# 1	A1D		
AUX FD PMP# 2	B1D		
AUX FD PMP# 3	STEAM		

CONT. CONTR. SYS	ELEC FD	NOT AVAIL	NOT RUN
IODINE UNIT# 1	G7X		
IODINE UNIT# 2	E7X		
H_2 RECOMBINER# 1	A15X		
H_2 RECOMBINER# 2	B15X		
SPRAY PUMP# 1	A2D		
SPRAY PUMP# 2	C2D		
	(H.S.) (L.S.)		
F.C. UNIT# 1	A3X A4X A2X		
F.C. UNIT# 2	B3X B4X B2X		
F.C. UNIT# 3	C3X C4X C2X		
F.C. UNIT# 4	B7X B8X B6X		
F.C. UNIT# 5	C7X C8X C6X		

COOLING SYS.	ELEC FD	NOT AVAIL	NOT RUN
S.W. PUMP# 1	3D		
S.W. PUMP# 2	8D		
S.W. PUMP# 3	B3D		
S.W. PUMP# 4	B8D		
S.W. PUMP# 5	3D		
S.W. PUMP# 6	8D		
C.C. PUMP# 1	A10D		
C.C. PUMP# 2	B10D		
C.C. PUMP# 3	C10D		
R.C. PUMP# 1	H4D		
R.C. PUMP# 2	E4D		
R.C. PUMP# 3	F4D		
R.C. PUMP# 4	G4D		

ELECTRICAL	SOURCE			
BUS A	SP	EDG	GT	NA
BUS B	SP	EDG	GT	NA
BUS C	SP	EDG	GT	NA
BUS E	SP	AT		NA
BUS F	SP	AT		NA
BUS G	SP	AT		NA
BUS H	SP	AT		NA

NOTE:
SP= STATION POWER
AT= AUX XFMER
GT= #3 GAS TURBINE
EDG= EMER. DIESEL GEN.
NA= BUS DEENERGIZED

MISC. PMPS	ELEC FD	NOT AVAIL	NOT RUN
AUX. DEMIN. WTR.	A6X		

FIRE SYSTEMS	NOT AVAIL	NOT RUN
DIESEL PUMP# 1		
DIESEL PUMP# 2		

EMERGENCY DIESELS	NOT AVAIL	NOT RUN
E.D.G. A		
E.D.G. B		
E.D.G. C		
#3 GAS TURBINE		

RAD. WASTE WATER FLOWPATH-

MISC. INFO.:

REV. 0

SALEM GENERATING STATION
INTEGRATED ERF ROSTER

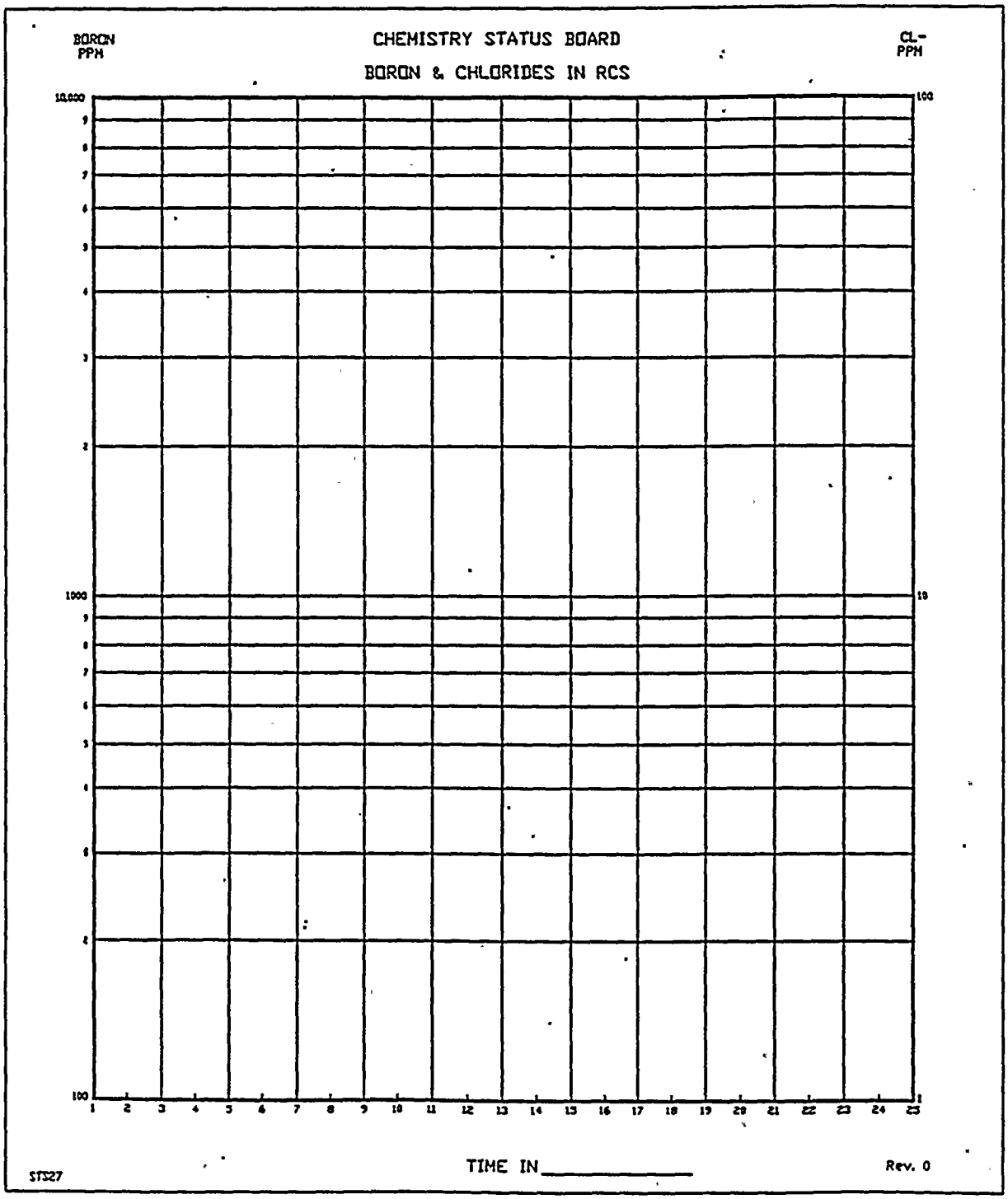
CONTROL POINT		CONTROL ROOM		OPERATIONS SUPPORT CENTER	
RP SUPV.		SNSS		COORD.	
RP TECHS.		NSS		MAINT.	
		NSTA		OPS	
		NCO1		RAD. PRO.	
CHEM. SUPV.		NCO2		FIRE DEPT.	
CHEM. TECHS.		COMM1		RADIO OPERATOR	
		COMM2			
		NRC			

TECHNICAL SUPPORT CENTER			
EDO		EPA	
TSS		SECURITY	
RAC		NRC	
RPS		NRC	
CHEM SUPV		ADMIN. SUPP. SUPV.	

EMERGENCY OPERATIONS FACILITY		EMERGENCY NEWS CENTER		FEDERAL/STATE	
ERM		CO. SPKS. PRSN.		NJ OEM	
SSM		ENC MGR.		NJ BNE	
RSM		ENC OPS. SUPV.		DEPO	
TSM		ENC COMM. SUPV.		NRC	
ASM		TECH. ADVISOR		FEMA HQ	
EPC				FEMA II	
EPA				FEMA III	
SECURITY					
PIL					

31530 REV. 1 SGS

ATTACHMENT 8



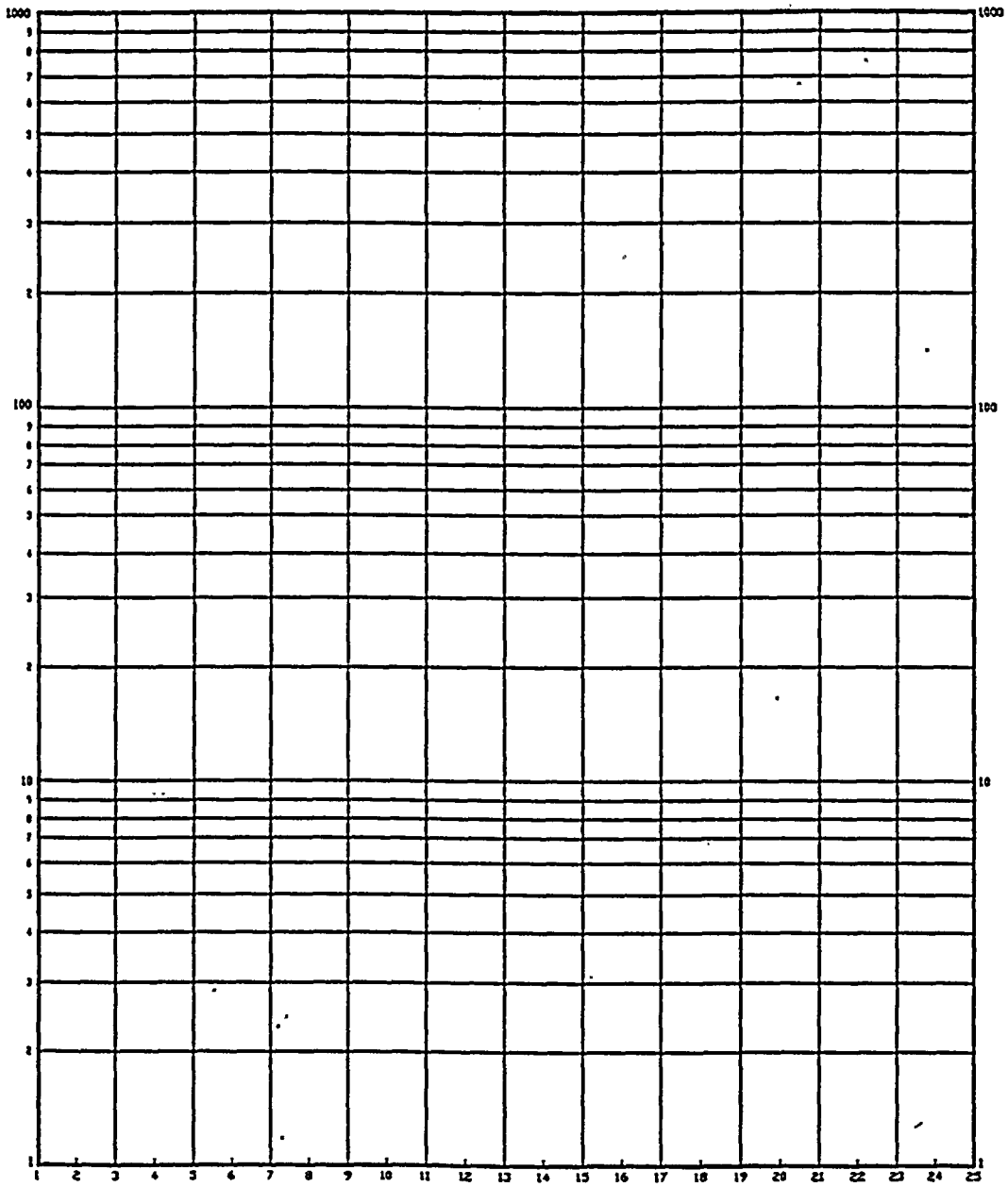
ATTACHMENT 9

CONT. H_2 PPM

CHEMISTRY STATUS BOARD

HYDROGEN IN CONTAINMENT & IN RCS

RCS H_2 PPM



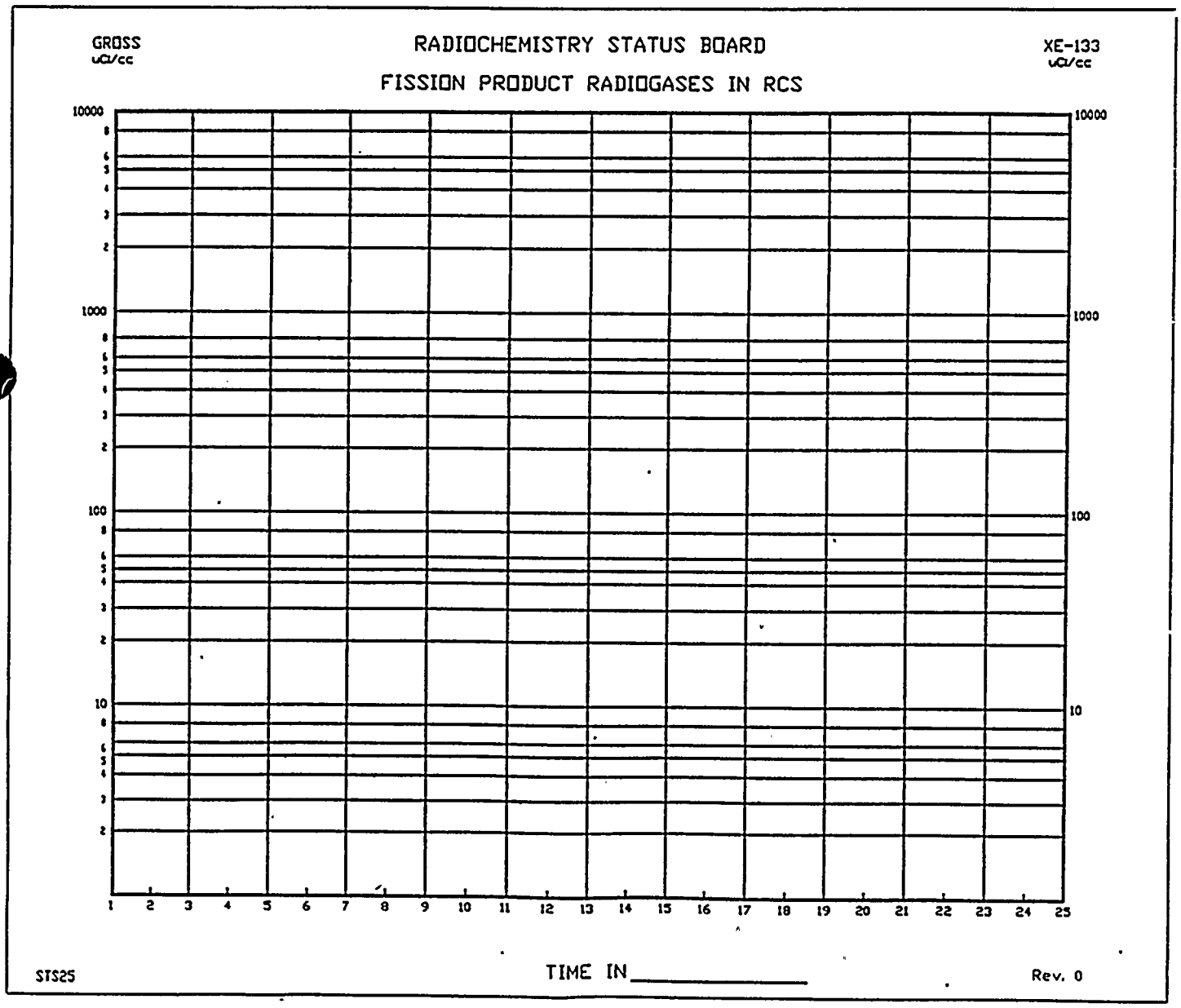
ST526

TIME IN _____

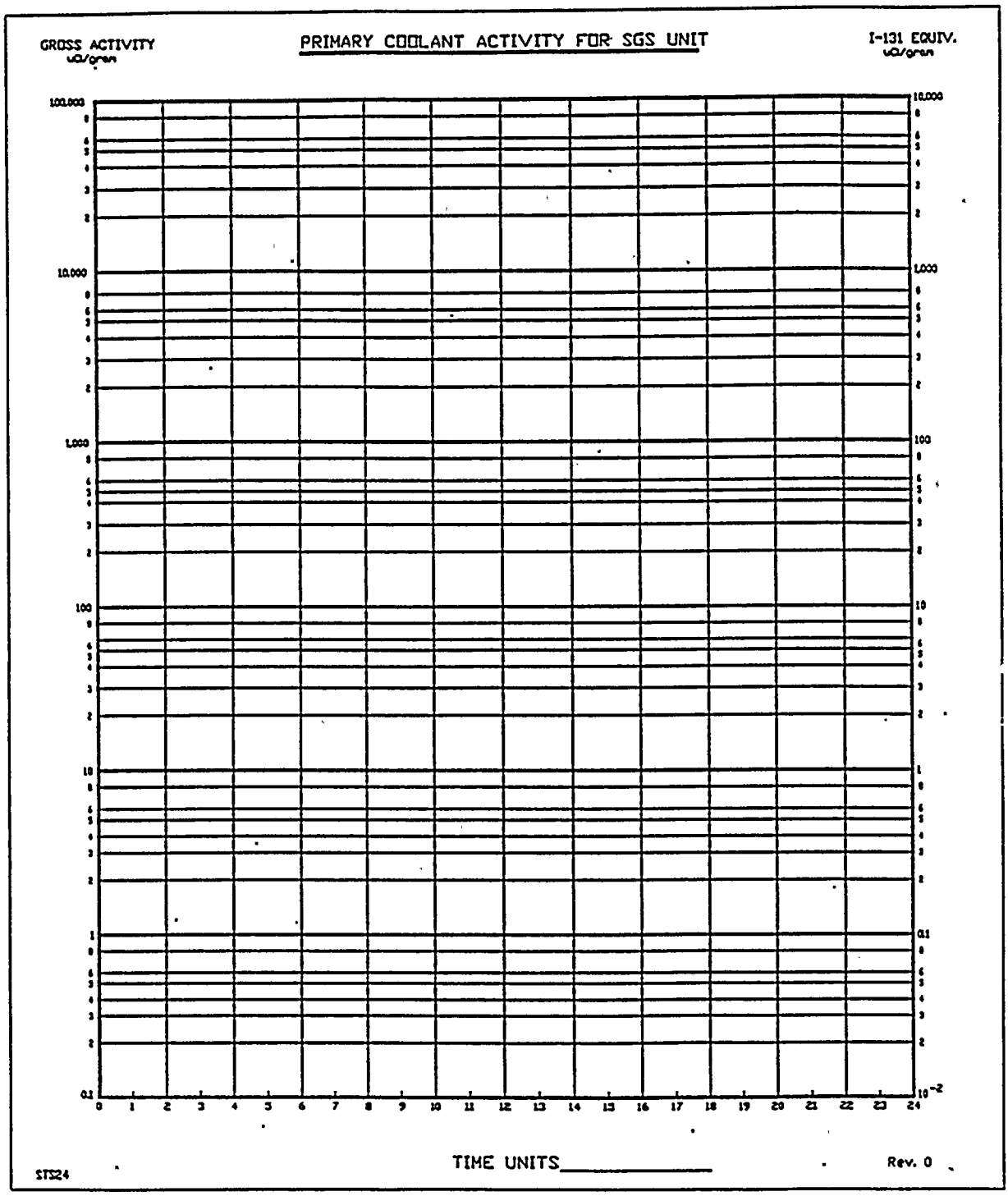
Rev. 0

ATTACHMENT 10

RADIOCHEMISTRY STATUS BOARD
FISSION PRODUCT RADIOGASES IN RCS



ATTACHMENT 11

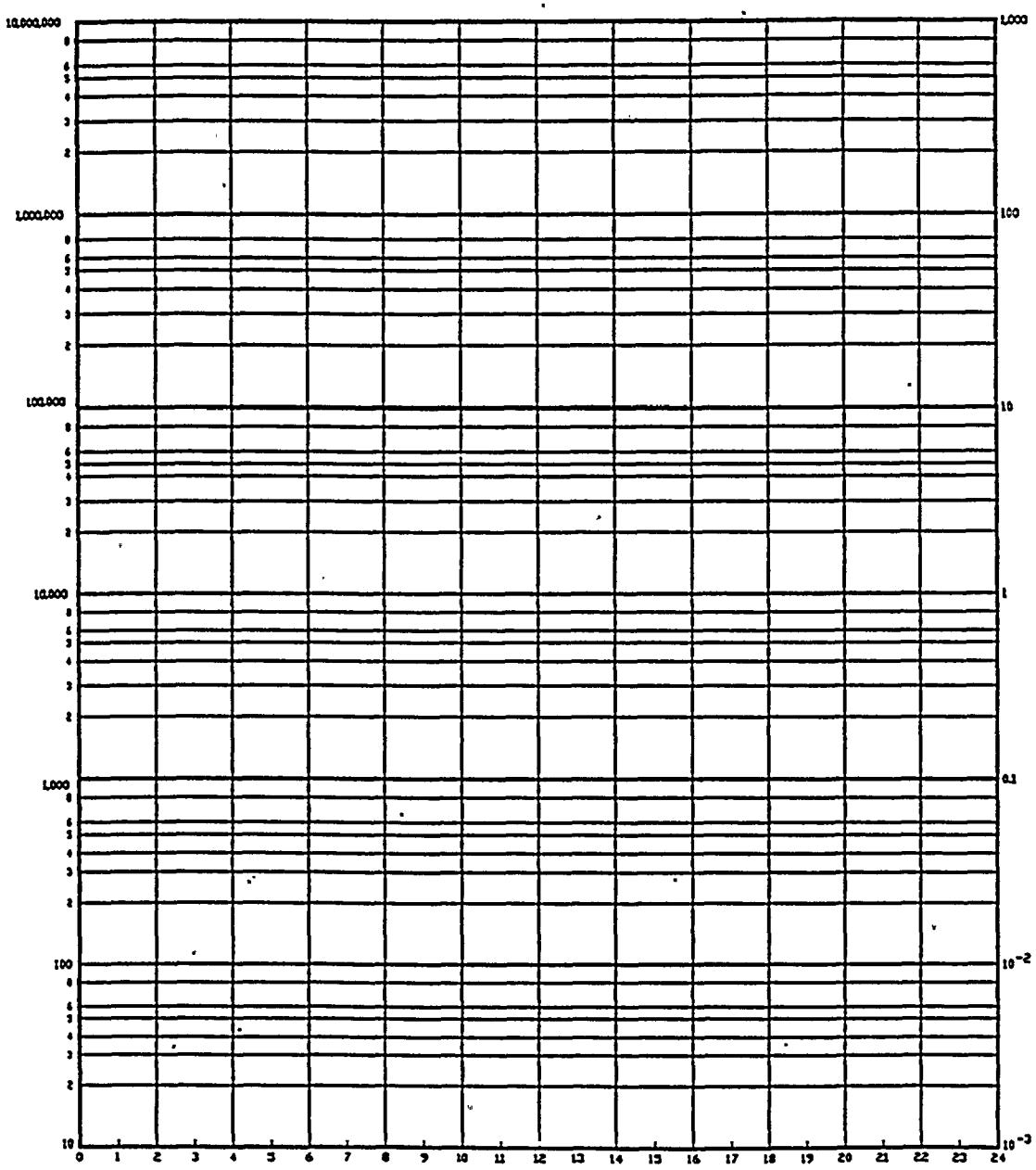


ATTACHMENT 12

NOBLE GAS

TOTAL CURIES GASEOUS RELEASES - SGS UNIT

I-131

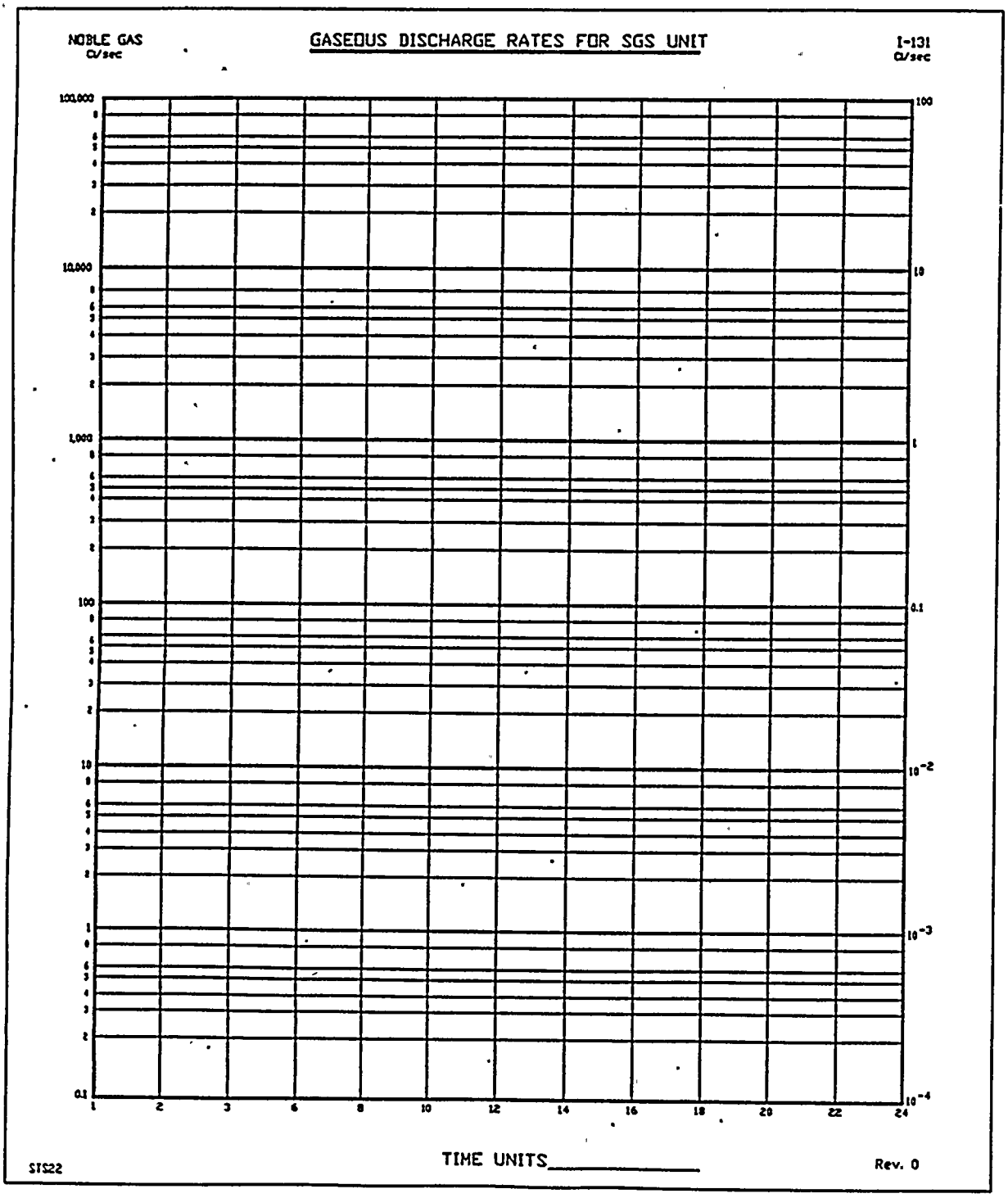


STS23

TIME UNITS_____

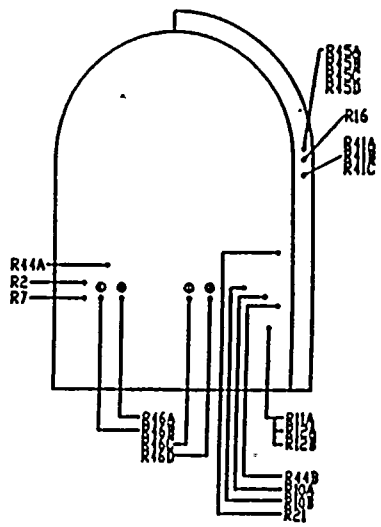
Rev. 0

ATTACHMENT 13



DATE_____ START TIME_____

SALEM NUCLEAR GENERATING STATION - NO.1 UNIT POST ACCIDENT RMS ASSESSMENT - EMERGENCY



DESCRIPTION	RANGE	NORMAL BACKGROUND	TIME OF UPDATE (2400 HRS.)							REMARKS
PLANT VENT FLOW RATE CFM										
WIND SPEED (mph) EL. 33										
WIND SPEED (mph) EL. 150										
WIND SPEED (mph) EL. 300										
WIND DIRECTION (from) EL.33										
WIND DIRECTION (from) EL.150										
WIND DIRECTION (from) EL.300										
ΔT (°C) (150'-33')										
ΔT (°C) (300'-33')										
STABILITY CLASS										
R31A LETDOWN-FAILED FUEL (GROSS)	[illegible]	---								
R31B LETDOWN-FAILED FUEL (IODINE)	[illegible]	---								
R40 CONDENSATE FILTER	[illegible]	---								
R41A PLANT VENT PART.	[illegible]	---								
R41B PLANT VENT IODINE	[illegible]	---								
R41C PLANT VENT NOBLE GAS	[illegible]	---								
R43 HIGH RANGE NOBLE GAS	[illegible]	---								
R44A CONT. HI RANGE	[illegible]	---								
R44B CONT. HI RANGE	[illegible]	---								
R45B PLANT VENT NG MEDIUM RANGE	[illegible]									
R45C PLANT VENT NG HIGH RANGE	[illegible]									
R45D PLANT VENT FILTER MONITOR	[illegible]									
R46A POST ACC. NO. 12 STM. LINE	[illegible]	[illegible]								
R46B POST ACC. NO. 14 STM. LINE	[illegible]	[illegible]								
R46C POST ACC. NO. 11 STM. LINE	[illegible]	[illegible]								
R46D POST ACC. NO. 13 STM. LINE	[illegible]	[illegible]								
R46E REDUNDANT FOR 46A-D	[illegible]	[illegible]								
R1A CONTROL ROOM	[illegible]	---								
R1B CONTROL ROOM INTAKE DUCT	[illegible]	---								
R2 CONTAINMENT ELEVATION 139	[illegible]	---								
R3* RADIOCHEM LAB	[illegible]	---								
R4 CHARGING PUMP ROOM	[illegible]	---								
R5 FUEL HOLD. BLDG. SPENT FUEL POOL	[illegible]	---								
R6A* SAMPLE ROOM	[illegible]	---								
R7 INCORE SEAL TABLE	[illegible]	---								
R8* RAD WASTE LOADING AREA	[illegible]	---								
R9 FUEL HOLD. BLDG. NEW FUEL STOR	[illegible]	---								
R10A PERS. HATCH EL. 100 CONT.	[illegible]	---								
R10B PERSONNEL HATCH EL. 130 CONT.	[illegible]	---								
R11A CONTAINMENT PARTICULATE	[illegible]	---								
R12A CONTAINMENT NOBLE GAS	[illegible]	---								
R12B CONTAINMENT IODINE	[illegible]	---								
R13A CONT. NO. 11 FAN COIL CLG. VTR.	[illegible]	---								
R13B CONT. NO. 12 FAN COIL CLG. VTR.	[illegible]	---								
R13C CONT. NO. 13 FAN COIL CLG. VTR.	[illegible]	---								
R13D CONT. NO. 14 FAN COIL CLG. VTR.	[illegible]	---								
R13E CONT. NO. 15 FAN COIL CLG. VTR.	[illegible]	---								
R15 CONDENSER AIR EJECTOR (TGA)	[illegible]	---								
R16 PLANT VENT EFFLUENT	[illegible]	---								
R17A NO. 11 COMPONENT COOLING VTR.	[illegible]	---								
R17B NO. 12 COMPONENT COOLING VTR.	[illegible]	---								
R18 LIQUID WASTE DISPOSAL	[illegible]	---								
R19A NO. 11 STM. GEN. BLOWDOWN	[illegible]	---								
R19B NO. 12 STM. GEN. BLOWDOWN	[illegible]	---								
R19C NO. 13 STM. GEN. BLOWDOWN	[illegible]	---								
R19D NO. 14 STM. GEN. BLOWDOWN	[illegible]	---								
R20* COUNTING ROOM	[illegible]	---								
R21 CONTAINMENT EL. 130	[illegible]	---								
R22* SOLID RAD WASTE	[illegible]	---								
R33 ION EXCHANGE FILTER	[illegible]	---								
R34 MECHANICAL PEN. AREA (EL. 100)	[illegible]	---								
R35 STM. GEN. BLVDN. FILTER DISCHARGE	[illegible]	---								
R36 EVAP. & FDWTR. PREHEAT CNDS	[illegible]	---								

NOTE (1) [illegible]

NOTE (2) [illegible]

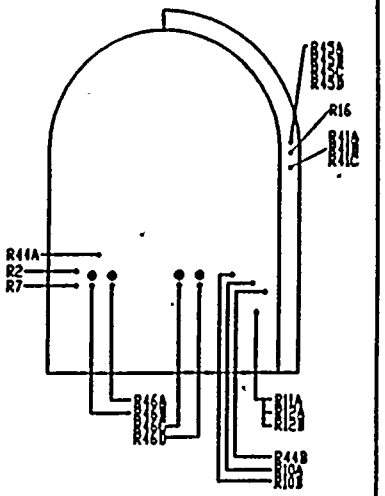
NOTE (3) [illegible]

STSI

REV. 0

DATE_____ START TIME_____

SALEM NUCLEAR GENERATING STATION - NO.2. UNIT POST ACCIDENT RMS ASSESSMENT - EMERGENCY



DESCRIPTION	RANGE		TIME OF UPDATE (2400 HRS.)							REMARKS
PLANT VENT FLOW RATE CFM										
WIND SPEED (mph) EL. 33										
WIND SPEED (mph) EL. 150										
WIND SPEED (mph) EL. 300										
WIND DIRECTION (from) EL.33										
WIND DIRECTION (from) EL.150										
WIND DIRECTION (from) EL.300										
ΔT (°C) (150'-33')										
ΔT (°C) (300'-33')										
STABILITY CLASS										
R31 LETDOWN-FAILED FUEL (GROSS)										
R41A PLANT VENT PART.										
R41B PLANT VENT IODINE										
R41C PLANT VENT NOBLE GAS										
R43 HIGH RANGE NOBLE GAS										
R44A CONT. HI RANGE										
R44B CONT. HI RANGE										
R45B PLANT VENT NG MEDIUM RANGE										
R45C PLANT VENT NG HIGH RANGE										
R45D PLANT VENT FILTER MONITOR										
R46A POST ACC. NO. 22 STM. LINE										
R46B POST ACC. NO. 24 STM. LINE										
R46C POST ACC. NO. 21 STM. LINE										
R46D POST ACC. NO. 23 STM. LINE										
R46E REDUNDANT FOR 46A-D										
R1A CONTROL ROOM										
R1B CONTROL ROOM INTAKE DUCT										
R2 CONTAINMENT ELEVATION 150										
R3* RADIOCHEM LAB										
R4 CHARGING PUMP ROOM										
R5 FUEL HDLG BLDG SPENT FUEL POOL										
R6A* SAMPLE ROOM										
R7 INCORE SEAL TABLE										
R8* RAD WASTE LOADING AREA										
R9 FUEL HDLG BLDG NEW FUEL STOR										
R10A PERS. HATCH EL. 100 CONT.										
R10B PERSONNEL HATCH EL. 130 CONT										
R11A CONTAINMENT PARTICULATE										
R12A CONTAINMENT NOBLE GAS										
R12B CONTAINMENT IODINE										
R13A CONT. NO. 21 FAN COIL CLG VTR.										
R13B CONT. NO 22 & 24 FAN COIL CLG VTR										
R13C CONT. NO 23 & 25 FAN COIL CLG VTR										
R15 CONDENSER AIR EJECTOR (TGA)										
R16 PLANT VENT EFFLUENT										
R17A NO. 21 COMPONENT COOLING VTR										
R17B NO. 22 COMPONENT COOLING VTR										
R18 LIQUID WASTE DISPOSAL										
R19A NO. 21 S. G. BLOWDOWN										
R19B NO. 22 S. G. BLOWDOWN										
R19C NO. 23 S. G. BLOWDOWN										
R19D NO. 24 S. G. BLOWDOWN										
R20B* COUNTING ROOM										
R22* SOLID RAD WASTE										
R29 SPENT FUEL POOL SKIMMER FILTER										
R33 ION EXCHANGE FILTER										
R34 MECHANICAL PEN. AREA (EL. 100)										
R36 EVAP. & FDWTR. PREHEAT (NDS)										
R40 CONDENSATE FILTER										
R42A WASTE GAS DECAY TANK #21										
R42B WASTE GAS DECAY TANK #22										
R42C WASTE GAS DECAY TANK #23										
R42D WASTE GAS DECAY TANK #24										
R47 ELECTRICAL PEN. AREA (EL. 78')										

NOTE (1) [illegible]

NOTE (2) [illegible]

ST12 REV. 0

SIGNATURE PAGE

Prepared By: D. Bryant Rev 0 4-4-89
(If Editorial Revisions Only, Last Approved Revision) Date

Reviewed By: N/A
Station Qualified Reviewer Date

Significant Safety Issue
( ) Yes ( ) no
Reviewed By: N/A
Department Manager Date

Reviewed By: 4/15/89
Emergency Preparedness Manager Date

Reviewed By: N/A
General Manager - Quality Assurance/Safety Review Date
(If Applicable)

SORC Review and Station Approvals

N/A
Mtg. No. Salem Chairman

Date

N/A
Mtg. No. Hope Creek Chairman

Date

N/A
General Manager - Salem

Date

N/A
General Manager - Hope Creek

Date

ARTIFICIAL ISLAND EMERGENCY PLAN
ADMINISTRATIVE PROCEDURE

EMERGENCY RESPONSE PERSONNEL TELEPHONE LIST
EPIP 1013

1. Action Level

   This procedure may be utilized by Emergency Response personnel who require services or assistance outside of the Artificial Island Emergency Response organization. Emergency Response personnel who utilize this telephone list to contact off-site organizations shall have the permission of the person in charge of their emergency response facility.

2. Individuals Who Will Implement This Procedure

   Emergency Response personnel as requested by the person in charge of their emergency response facility.

3. Action Statements

   Refer to INDEX on page 2 of 18, Step 3.1.

NOTE
Refer to Emergency Response Callout/ Personnel Recall, EPIP 204, for telephone listing of Salem/Hope Creek Emergency Response Personnel.

CONTROL
COPY # 059

3.1 Index

- NUCLEAR REGULATORY COMMISSION	
HEADQUARTERS, BETHESDA	
EMERGENCY 24 HOUR NUMBER	Bus: (301) 951-0550 (301) 427-4056 (301) 492-8893
REGION I, KING OF PRUSSIA	
EMERGENCY 24 HOUR NUMBER	Bus: (215) 337-5000
SALEM RESIDENT INSPECTORS	
KATHY GIBSON: SENIOR RESIDENT INSPECTOR	Bus: (4) 429-4479 (609) 935-3850 (609) 935-3851 Home: (609) 678-4977
GLENN MEYER	Bus: (7) 450-3280 (609) 935-5151 Home: (215) 644-0319
HOPE CREEK RESIDENT INSPECTORS	
GLENN MEYER: SENIOR RESIDENT INSPECTOR	Bus: (7) 450-3280 (609) 935-5151 Home: (215) 644-0319
DAVE ALLSOPP	Bus: (7) 450-3280 (609) 935-5151 Home: (609) 678-4830
- FEDERAL EMERGENCY MANAGEMENT AGENCY	
HEADQUARTERS, WASHINGTON D.C.	
EMERGENCY 24 HOUR NUMBER	Bus: (202) 898-6100 (202) 646-2400
REGION II, NEW YORK	
(NEW YORK) REGION II: EMERGENCY LINE 24 HOUR NUMBER	Bus: (212) 238-8208 (212) 238-8223 (212) 238-8247
REGION III, PHILADELPHIA	
(PHILADELPHIA) REGION III: EMERGENCY LINE 24 HOUR NUMBER	Bus: (215) 597-9416
- US DEPARTMENT OF ENERGY	
BROOKHAVEN, (FRMAP)	
EMERGENCY 24 HOUR NUMBER	Bus: (516) 282-2200
- COAST GUARD	
EMERGENCY 24 HOUR NUMBER	Bus: (215) 271-4940 (215) 271-4800
- NOAA - NATIONAL WEATHER SERVICE	
EMERGENCY 24 HOUR NUMBER	Bus: (302) 573-6143 (302) 573-6142

- NJ STATE POLICE

EMERGENCY 24 HOUR NUMBER	Bus: (609) 882-4201
JOSEPH CRAPAROTTA: MAJOR	Bus: (609) 530-4811 Home: (609) 443-7446
PETER MARTINASCO: CAPTAIN	Bus: (609) 530-4827 Home: (201) 255-6305
JACK KELLER: LT.	Bus: (609) 561-1800 Home: (609) 589-0335
OPEN: SUPERVISING PLANNER	Bus: (609) 530-4815

- CUMBERLAND COUNTY
  OFFICE OF EMERGENCY MANAGEMENT

JOSEPH SEVER: COORDINATOR	Bus: (609) 455-8770 (609) 451-8000 (609) 455-8500 Home: (609) 455-0290

- SALEM COUNTY
  OFFICE OF EMERGENCY MANAGEMENT

CARL WENTZELL: DEPUTY COORDINATOR	Bus: (609) 769-2900 (609) 769-1955 (609) 769-2959 Home: (609) 478-4455

  THE MEMORIAL HOSPITAL OF SALEM COUNTY

JOHN CASTIGLIONI, D.O.	Bus: (609) 339-6048 Home: (609) 769-3152

- LOWER ALLOWAYS CREEK TOWNSHIP

EMERGENCY 24 HOUR NUMBER	Bus: (609) 935-7300
MICHAEL FACEMEYER: MAYOR	Bus: (609) 935-1549 (609) 853-9955 Home: (609) 935-1907
JOHN GALASSO: EMERGENCY COORDINATOR	Bus: (609) 935-5121 (609) 678-6001 Home: (609) 935-2248
ERIC PETERSON: CHIEF OF POLICE	Bus: (609) 935-7300 Home: (609) 935-1169

- DEPARTMENT OF ENVIRONMENTAL PROTECTION STATE OF NEW JERSEY

DONALD DEIESO: ASSISTANT COMMISSIONER	Bus: (609) 292-8058 Home: (201) 906-9563
- DIVISION OF ENVIRONMENTAL QUALITY	
OPEN: DIRECTOR	Bus: (609) 292-5383
GERALD NICHOLLS: ASSISTANT DIRECTOR	Bus: (609) 987-6389
- BUREAU OF NUCLEAR ENGINEERING	
RECEPTIONIST	Bus: (609) 987-2032
KENT TOSCH: CHIEF	Bus: (609) 987-2031 Home: (609) 587-6950
JENNY HOON: ASSISTANT CHIEF	Bus: (609) 987-2039 Home: (609) 758-2111
STEPHEN STASOLLA: NUCLEAR EMER. PREP. SECTION	Bus: (609) 987-2050 Home: (215) 493-4657

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JENNY MOON: ASSISTANT CHIEF	Bus: (609) 987-2039 Home: (609) 758-2111
STEPHEN STASOLLA: NUCLEAR EMER. PREP. SECTION	Bus: (609) 987-2050 Home: (215) 493-4657

- GOVERNOR'S PRESS SECRETARY

CARL GOLDEN: GOVERNOR'S PRESS SECRETARY	Bus: (609) 292-8956 (609) 292-6000 Home: (609) 394-0584

- BOARD OF PUBLIC UTILITIES
  ELECTRIC DIVISION

STEVE GABEL: DIRECTOR, ELECTRIC DIVISION	Bus: (201) 648-3448 Home: (201) 247-3561
RICHARD HARTUNG: CHIEF	Bus: (201) 648-2066 Home: (201) 684-5458
MARTY VAN ESS: SENIOR ENGINEER	Bus: (201) 648-2057 Home: (201) 835-7192
TOM GOULD	Bus: (201) 648-2219 Home: (201) 825-3782

- DEPARTMENT OF ENERGY
  DIVISION OF PLANNING & ENGINEERING

BHARAT PATEL: DIRECTOR	Bus: (201) 648-6289 Home: (609) 448-8441
TONY POLOMSKI	Bus: (201) 648-2228 Home: (201) 436-6667

- DELAWARE STATE POLICE - DOVER
  COMMUNICATIONS CENTER (24 HOUR NUMBER)

Bus: (302) 736-5851
(302) 736-5854
(302) 736-5858

- DIVISION OF EMERGENCY PLANNING & OPERATIONS - DEPO

DOMINIC PETRILLI: DEPUTY DIRECTOR
Bus: (302) 834-4531
(800) 292-9588
Home: (301) 287-9378

CHARLES FOSTER III: OPERATIONS OFFICER
Bus: (302) 834-4531
Home: (302) 655-9713

JAN ZAREBICKI: SENIOR PLANNER
Bus: (302) 834-4531
Home: (302) 834-0565

- NATURAL RESOURCES & ENVIRONMENTAL CONTROL

DR.HARRY OTTO
Bus: (302) 736-4771
Home: (302) 697-6188

JOSEPH KLIMENT
Bus: (302) 323-4569
Home: (302) 834-9248

- BUREAU OF ENVIRONMENTAL HEALTH, DIVISION OF PUBLIC HEALTH

DR. LYMAN OLSEN: DIRECTOR
Bus: (302) 736-4701
Home: (302) 697-2482

AL TAPPERT
Bus: (302) 736-4731
Home: (302) 697-2644

- GOVERNOR'S PRESS SECRETARY

JEFF WELSH
Bus: (302) 736-4101
(302) 571-3210
Home: (301) 778-3294

- KENT COUNTY
  FIRE BOARD

Bus: (302) 678-9111
(302) 734-6040
(302) 734-6041

DEPARTMENT OF PLANNING & OPERATIONS

DAWSON HOLLINGER: DIRECTOR
Bus: (302) 736-4218
(302) 736-2222
Home: (302) 697-7350

MARY LOUISE CONNELY: ASSISTANT DIRECTOR
Bus: (302) 736-4218
(302) 736-2222
Home: (302) 653-9132

- NEW CASTLE COUNTY
  FIRE BOARD

Bus: (302) 738-3131
(302) 571-7949

DEPARTMENT OF PUBLIC SAFETY

DICK KENDALL: COORDINATOR OF EMERGENCY PLANNING

Bus: (302) 571-7919
(302) 571-7965
Home: (302) 658-2620

MARILYN KOWALCHECK: EMERGENCY PREPAREDNESS PLANNING

Bus: (302) 571-7965
Home: (302) 731-5509

NEW CASTLE COUNTY
FIRE BOARD

Bus: (302) 738-3131
(302) 571-7949

DEPARTMENT OF PUBLIC SAFETY

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(302) 571-7965
Home: (302) 658-2620

MARILYN KOWALCHECK: EMERGENCY PREPAREDNESS PLANNING

Bus: (302) 571-7965
Home: (302) 731-5509

- WSI (COMPUTER LINES - 300/1200 BAUD)

  Bus: (617) 275-5300
  (617) 275-4357

- METEOROLOGICAL EVALUATION SERVICES

  Bus: (516) 691-3395
  (516) 598-3945

- AMERICAN NUCLEAR INSURANCE

  Bus: (203) 677-7305

- NUCLEAR ELECTRIC INSURANCE LIMITED
  QUENTIN JACKSON

  Bus: (302) 888-3000
  Home: (302) 654-8477

- ROLM CORPORATION

  Bus: (800) 835-7656
  (215) 245-2200

- INSTITUTE OF NUCLEAR POWER OPERATIONS
  (ASK FOR "DUTY OFFICER")

  Bus: (404) 953-0904
  (404) 953-3600
  (404) 953-0922

- RADIATION MANAGEMENT CONSULTANTS
  EMERGENCY 24 HOUR NUMBER

  Bus: (215) 243-2990
  (215) 537-0672

- ENVIRONMENTAL CONSULTING INC.
  V.J. SCHULER

  Bus: (302) 378-9881
  Home: (302) 378-8893

  SCOTT BECK

  Bus: (302) 378-9881
  Home: (302) 378-2127

  ALVIN MAIDEN

  Bus: (302) 378-9881
  Home: (302) 378-4770

  CHARLES MILLER

  Bus: (302) 378-9881
  Home: (302) 378-9680

- STATE OF MARYLAND
  EMERGENCY MANAGEMENT AGENCY
  - EDWIN TREMPER: ASSISTANT DIRECTOR, OPERATIONS

  Bus: (301) 486-4422

- STATE OF PENNSYLVANIA
  EMERGENCY MANAGEMENT AGENCY

  Bus: (717) 783-8150

  DIVISION ENVIRONMENTAL RADIATION
  MARGARET REILLY: CHIEF

  Bus: (717) 787-3479
  Home: (717) 233-4028