

March 9, 2000

MEMORANDUM TO: Robert A. Gramm, Chief, Section 1
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

FROM: John A. Nakoski, Senior Project Manager, Section 1 */RAI/*
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

SUBJECT: SOUTH TEXAS PROJECT, UNITS 1 AND 2 - MARCH 8, 2000,
TELECONFERENCE INFORMATION PROVIDED BY LICENSEE FOR
RESOLUTION OF THE REQUEST FOR ADDITIONAL INFORMATION
FOR THE MULTIPART EXEMPTION REQUEST
(TAC NOS. MA6057 AND MA6058)

The U.S. Nuclear Regulatory Commission (NRC) staff is in the process of reviewing the risk-informed exemption requests that the STP Nuclear Operating Company (STPNOC) submitted on July 13, 1999. As part of that process, the NRC staff issued a request for additional information (RAI) on January 18, 2000. Currently, the staff is working with STPNOC to ensure that STPNOC clearly understands the extent of the questions raised and for the NRC staff to gain a better understanding of the scope of the expected response by STPNOC. The NRC staff has agreed to participate in periodic teleconferences to discuss specific questions raised in the RAI. In preparation for these teleconferences, the licensee will frequently provide the NRC staff with information either using email or by fax. Likewise the NRC staff will frequently provide information to the licensee using similar methods. All of the information exchanged by email or fax between the licensee and the NRC during this process will be made available to the public.

Attachment 1 to this memorandum provides the licensee draft response to RAI questions 10, 26, 27, and 35. Questions 10, 26, and 35 were discussed during a March 8, 2000, teleconference between the licensee and the NRC staff. Attachment 2 provides a list of NRC and licensee participants in the March 8, 2000, teleconference.

Attachments: 1. Draft Response to RAI Questions 10, 26, 27, and 35
2. List of March 8, 2000, Teleconference Participants

Docket Nos. 50-498 and 50-499

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10. The licensee is proposing to downgrade the manual initiation of protective functions one lower level than the ranking of the controlled component. This will result in manual initiation functions being downgraded to LSS when the controlled component is categorized MSS and, thus, manual initiation will be exempted from the special treatments. However, manual initiation is required by IEEE-279 which is embedded in 10 CFR 50.55a(h).

(a) Therefore, explain why an exemption from 10 CFR 50.55a(h) has not been requested.

(b) If such an exemption request is proposed, provide the technical basis for the request.

RESPONSE (part a):

We agree with the NRC feedback. Sections 4.3 and 4.4 of IEEE Standard 279 do reference quality and environmental qualification requirements for protection systems and do not exclude the manual initiation portion of those systems from these requirements. Therefore, STP will request an exemption from 10CFR50.55a(h) with respect to sections 4.3 and 4.4 of IEEE 279 in order to allow exemption of LSS and NRS components from these special treatment requirements. STP would continue to meet the other requirements listed in IEEE 279, including functional and design requirements.

RESPONSE (part b):

Manual initiation components included in the scope of IEEE 279 that have been risk ranked by STP consist of handswitches. STP is using the convention of risk ranking control room handswitches one level lower than the controlled component, except that if the controlled component is LSS, the handswitch must also be LSS. Under this convention, handswitches used for the manual initiation of protective systems could be ranked LSS if the controlled component is MSS. These handswitches would be exempt from the special treatment requirements in IEEE 279. The technical basis for this is as follows:

The handswitches would continue to meet all other requirements of IEEE 279, including design requirements.

The experience of STP and the industry with handswitches has shown them to be very reliable.

A handswitch is a typically rugged component that is unlikely to be affected by environmental or seismic conditions.

Protection systems are periodically tested. The scope of these tests includes the operation of these handswitches. If any malfunction occurred, it would be captured in the performance and feedback process and evaluated for impact on risk significance.

The primary method of actuating protective systems is through automatic means. Handswitches are provided only as backup. If both the automatic initiation and the main backup control room handswitch failed, redundancy would be available via redundant handswitches located in the control room, on the Auxiliary Shutdown Panel, or on transfer panels.

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The STP convention for risk ranking handswitches is contained in a set of general notes that promote consistency in the risk ranking process for similar components. However, where appropriate, the Working Group can recommend and the Expert Panel can approve risk rankings that are more conservative than those provided for in the general notes. For example, in the Residual Heat Removal system, some control room handswitches were ranked the same as the controlled component due to their support of the manual start and/or alignment of the system.

26. Please provide an explanation about how the safety-significance determination process was applied to the auxiliary feedwater system (AFWS) steam supply orifices for the AFWS pump turbine. How did the determination process account for the design modification which had replaced steam condensate traps with orifices as a result of operational problems (turbine overspeed had apparently resulted from the presence of steam condensate in the AFWS pump turbine steam supply when the steam condensate traps had overfilled)?

RESPONSE:

The risk significance determination process included specific discussion on the design modification that replaced the steam condensate traps with orifices. As documented in the Working Group meeting minutes and in the Risk Significance Basis Document, the removal of condensate from the steam supply to the AFW turbine was considered an important function and was risk ranked "High". The components that support this function are the orifices and the one inch drain line valves. These components would have normally been ranked NRS, but were upgraded to LOW because of their contribution to the condensate removal function. The basis for the LOW ranking was as follows:

Orifices are considered to be passive and inherently reliable devices.

The drain line valves are normally open valves.

There are moisture detectors that alarm in case of excessive condensate buildup. These detectors and their associated instrument loops are ranked MEDIUM.

The critical attribute of "allow condensate to drain" is specified for these components. This means that special attention is placed on this attribute during the performance of activities that affect these components, including operation, maintenance and procurement activities.

27. During the staff's recent visit to the STP plant site, a sample comparison was completed for risk rankings in the risk-significance basis documents for two heating, ventilation and air conditioning (HVAC) systems. These systems included the electrical auxiliary building (EAB) HVAC and fuel handling building (FHB) HVAC.

A sample comparison of risk rankings for fire dampers for the EAB HVAC and FHB HVAC systems, respectively, showed that EAB HVAC system dampers were assigned a risk ranking of "Medium" while FHB HVAC system dampers were assigned a risk ranking of "Low." Provide the bases for the differences in risk rankings. [The licensee has frequently cited fire dampers as an example of components brought into scope to receive "special treatment."]

Compare the risk rankings of the filtration fans, HEPA filter and carbon filter in both the EAB HVAC and FHB HVAC systems (i.e., a comparison of components that are typically covered by Technical Specifications) and provide the bases for any differences. Select two other examples where the risk rankings differ and provide the bases for the differences.

RESPONSE:

The EAB HVAC (HE) system fire dampers were ranked MEDIUM because the potential consequences of the spread of fire due to a failed fire damper are more severe in this system than they are in the Fuel Handling Building HVAC (HF) system. In the HE system, it could not be assured that failure of a fire damper in one train would not prevent the fire from spreading to another train (another risk significant area). The layout of the HF system is different in that the functions with the highest risk (MEDIUM) are associated with providing cooling air to essentially self-contained rooms such as the safety injection and containment spray pump rooms. In addition, there are 3-hour rated fire barriers (walls) between these rooms. The rest of the system, including the supply and exhaust of air to/from the Fuel Handling Building is ranked LOW or NRS. Thus, failure of a fire damper in one area of the HF system would not result in the spread of fire to another MEDIUM ranked area.

In addition, the number and percentage of HE components ranked HIGH/MEDIUM far exceed those for the HF system, as shown below:

Sys	High	Medium	Total (all risks)
HE	90 (4.7%)	92 (4.7%)	1,970
HF	0 (0%)	6 (0.8%)	755

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Comparison of similar components between the HE and HF system produced the following results:

Type	Pra Risk		Determ. Risk		Final Risk		Basis	
	HE	HF	HE	HF	HE	HF	HE	HF
FAN	High	N/A	Med.	Low	High	Low	Deterministic risk based on component's support of system functions ranked Medium, including the smoke purge function. PRA risk based on high Risk Achievement Worth (RAW) and/or Fussell-Vesely (FV) values. Refer to PRA analysis for further details. Final risk is highest of PRA or deterministic.	Deterministic risk based on component's support of functions ranked Low, including exhausting Fuel Handling Building air to the main vent stack. The PRA does not rank this component as it falls below its threshold for Low risk.
HEPA Filter	Med.*	N/A	Med.	Low	Med.	Low	Deterministic risk based on component's impact on system functions ranked Medium, including the potential to impede cooling air flow if the filter is clogged. PRA risk based on similar considerations, resulting in relatively high RAW values ($100.0 > RAW \geq 10.0$). Note: the asterisk in the PRA risk indicates that the Full QA program is to be applied to those critical attributes of the component that are associated with the RAW value.	Deterministic risk based on component's support of functions ranked Low, including the filtering of exhaust air to remove radioactive particulates. The PRA does not rank this component as it falls below its threshold for Low risk.
Carbon Filter	N/A	N/A	Med.	Low	Med.	Low	Deterministic risk based on component's impact on system functions ranked Medium, including the ability to make-up fresh air. The PRA does not rank this component as it falls below its threshold for Low risk.	Deterministic risk based on component's support of functions ranked Low, including filtering of exhaust air to remove radioactive iodine. The PRA does not rank this component as it falls below its threshold for Low risk.
Heater	N/A	N/A	Med.	Low	Med.	Low	3V111VHX012, C Train Battery Room Reheat Coil - Deterministic risk based on component's impact on system functions ranked Medium, including the function to maintain room temperatures within the design range (areas containing risk significant equipment). The PRA does not rank this component as it falls below its threshold for Low risk. This heater is required to remain operational during a LOOP.	3V121VHX007C, Fuel Handling Building Exhaust Filtration Unit Heater 13a - Deterministic risk based on component's support of functions ranked Low including the function to provide heating of the exhaust air to reduce moisture which could impact the carbon filters. The PRA does not rank this component as it falls below its threshold for Low risk.

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Backdra ft Damper	High	N/A	Med.	Low	High	Low	3V111VDA224, EAB Main Air Handling Unit 11a Outlet Backdraft Damper – Deterministic risk based on component’s impact on system functions ranked Medium, including the function to maintain room temperatures within the design range (areas containing risk significant equipment). PRA risk based on high Risk Achievement Worth (RAW) and/or Fussell-Vesely (FV) values. Refer to PRA analysis for further details. Final risk is highest of PRA or deterministic.	3V121VDA151, FHB Main Exhaust Fan 11a Discharge Backdraft Damper - Deterministic risk based on component’s impact on system functions ranked Low, including the function to exhaust FHB air to the main vent stack under accident conditions. The PRA does not rank this component as it falls below its threshold for Low risk.
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35. In Section 5.2.4.1, page 17 of your submittal, it is stated that you have identified approximately 100 non-safety-related SSCs that have been categorized as high safety significant and medium safety significant. To help us better understand your categorization process, please provide a list of these SSCs and a summary description of why they are important. Explain how this categorization is reflected in the plant PRA. The staff needs to have an understanding about the extent to which the PRA models relatively more significant plant equipment. (It may help to group certain components, as appropriate, when describing their-risk significance).

RESPONSE:

Currently, there are 374 non-safety related SSCs risk ranked MEDIUM or HIGH, grouped, represented, and justified on Attachment 1. Of these, 220 are fire dampers in the Mechanical Auxiliary Building HVAC (HM) system. The RAI question requests an explanation of how these categorizations are reflected in the plant PRA. The question implies that these types of components may need to be treated differently in the PRA.

These MEDIUM and HIGH components are special only because they are classified as non-safety related and therefore may need to have additional quality assurance controls applied to them. The PRA analysis does not concern itself with the safety classification of the component. Its risk analysis is not affected by whether a component is safety related or not. The Attachment 1 listing shows the PRA risk, where applicable and/or modeled and the final risk. In some cases, there is no PRA risk because the component is not explicitly or implicitly modeled (e.g., AF turbine steam inlet drain line water level sensing switch). In other cases, there is no PRA risk because the component is implicitly modeled as part of a larger component (e.g., the manual control station for the RHR heat exchanger flow control valve is implicitly modeled as part of the valve). In the remaining cases, the final risk is sometimes driven by the PRA risk (e.g., positive displacement pump motor) or by the deterministic risk. The point is that this is no different from safety related components. The end result for the subject components is that they will have additional QA controls placed on their critical attributes, as applicable.

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Non-safety related components currently ranked Medium or High – Total: 374; the representative sample shown below excludes Unit 2 components and Unit 1 trains B & C components. In addition, 220 HM fire dampers are shown as one listing.

SY	TYPE	ID	COMPONENT DESCRIPTION	PRA	RISK	COMMENTS
AF	IBISSW	N1AFLSH7600	TDAFWP #14 T&T VALVE STEAM INLET DRAIN LINE WATER LEVEL		MEDIUM	PART OF LOOP IS USED TO MONITOR LEVEL IN THE TURBINE DRIVEN AUXILIARY FEED WATER PUMP INLET STEAM DRAIN LINES. THE LEVEL SWITCH ACTUATES ON HIGH LEVEL TO PROVIDE AN INPUT SIGNAL (ALARM DATA POINT) ON HIGH LEVEL ABOVE SET POINT TO THE PROTEUS PLANT COMPUTER. AN UNDETECTED HIGH LEVEL COULD CAUSE AN OVERSPEED TRIP OF THE TURBINE ON START-UP. REFER TO FUNCTION 4.3 AND ITS BASIS.
AF	IXMITR	N1AFLE7600	TDAFWP #14 T&T VALVE STEAM INLET DRN LINE WATER LVL		MEDIUM	PART OF LOOP IS USED TO MONITOR LEVEL IN THE TURBINE DRIVEN AUXILIARY FEED WATER PUMP INLET STEAM DRAIN LINES. THE LEVEL SWITCH ACTUATES ON HIGH LEVEL TO PROVIDE AN INPUT SIGNAL (ALARM DATA POINT) ON HIGH LEVEL ABOVE SET POINT TO THE PROTEUS PLANT COMPUTER. AN UNDETECTED HIGH LEVEL COULD CAUSE AN OVERSPEED TRIP OF THE TURBINE ON START-UP. REFER TO FUNCTION 4.3 AND ITS BASIS.
AF	PIPE	N1AFFO7552	LUBE OIL PUMP 15 RECIRC FLOW ORIFICE		MEDIUM	USED TO MAINTAIN PROPER OIL FLOW AND PRESSURE. FAILURE COULD IMPACT OPERATION OF THE TURBINE
AF	PIPE	N1AFFO7553	TERRY TURBINE GOVERNOR END BRG LUBE OIL SUPPLY FLOW ORIFICE		MEDIUM	USED TO MAINTAIN PROPER OIL FLOW AND PRESSURE. FAILURE COULD IMPACT OPERATION OF THE TURBINE
CV	CKTBRK	N1CVHS0286	POS DISP CHG PUMP 1A SEL SW		MEDIUM	MANUALLY OPERATED TO START POSITIVE DISPLACEMENT PUMP. RISK IS ONE LEVEL LOWER THAN PUMP RISK
CV	MOTOR	N1CVPA102A	CVCS POSITIVE DISPLACEMENT CHARGING PUMP MOTOR TPNS: 2R171NPA102A	H	HIGH	PRIMARYLY USED FOR HYDROTESTING THE RCS. PROVIDES A MEANS FOR ADDING CHEMICALS TO THE RCS FOR pH AND OXYGEN CONTROL. PROVIDES SEAL INJECTION FLOW IF BOTH CCPs ARE INOPERABLE
CV	VALVE	N1CVLY3119	CVCS AUXILIARY SPRAY LV- 3119 SOLENOID VALVE	L	MEDIUM	OPENS MAIN VALVE ONLY WHEN SUPPLYING AUX SPRAY TO PZR TO COLLAPSE STM BUBBLE/COOL PZR DURING COOLDOWN OR TO DEPRESSURIZE SG IN CASE OF TUBE RUPTURE. MAIN VALVE IS 2ND VALVE AFTER CV-0009 TO PROVIDE RCS PRESS BOUNDARY INTEGRITY. MAIN VALVE FAILS CLOSED
HE	DAMPER	7V101VFF078	MAB MAIN EXHAUST AIR FUSIBLE LINK FIRE DAMPER (Note: risk approved by EP, to be implemented @ 6-month review)		MEDIUM	FIRE DAMPERS PROVIDE CAPABILITY TO ISOLATE HVAC TRAINS, SUB-SYSTEMS OR DUCTS TO PROTECT REDUNDANT EQUIPMENT NEEDED FOR SAFE SHUTDOWN OF THE REACTOR IN THE EVENT OF A FIRE. FIRE DAMPERS, LOCATED INSIDE HVAC DUCT, ACTIVATE WHEN INTERNAL DUCT TEMPERATURE SELTS FUSIBLE LINK OR UPON RECEIPT OF ELECTRO-THERMAL SIGNAL FROM FIRE DETECTION SYSTEM
HE	IBISSW	N1HEXSH9583	EAB OUTSIDE AIR INTAKE HIGH SMOKE DETECTION SWITCH		MEDIUM	DETECTOR PROVIDES A SIGNAL TO ISOLATE MAIN CONTROL ROOM AND TSC INLET HVAC DAMPERS.
HE	IBISSW	N1HEXSH9601	CONTROL ROOM TRAIN A RETURN AIR HIGH SMOKE DETECTION SWITCH		MEDIUM	SMOKE DETECTOR IN THE RETURN AIR DUCT OF ONE OF THREE OF THE CONTROL ROOM ENVELOPE CLEAN-UP AIR HANDLING UNITS (AHU). ACTUATES UPON THE DETECTION OF SMOKE TO PROVIDE AN ANNUNCIATION (22M-3-05F) IN THE CONTROL ROOM (CR).
HE	IXMITR	N1HEXE9601	CONTROL ROOM TRAIN A RETURN AIR SMOKE DETECTOR		MEDIUM	SMOKE DETECTOR IN THE RETURN AIR DUCT OF ONE OF THREE OF THE CONTROL ROOM ENVELOPE CLEAN-UP AIR HANDLING UNITS (AHU). ACTUATES UPON THE DETECTION OF SMOKE TO PROVIDE AN ANNUNCIATION (22M-3-05F) IN THE CONTROL ROOM (CR).
HM	CKTBRK	N1HMHS9419	TIE DAMPER FV-9419		MEDIUM	REFER TO ASSOCIATED COMPONENT
HM	DAMPER	[VARIOUS]	[FIRE DAMPER, TYPICAL. TOTAL OF 220 RANKED MEDIUM]		MEDIUM	FIRE DAMPERS PROVIDE CAPABILITY TO ISOLATE HVAC TRAINS, SUB-SYSTEMS OR DUCTS TO PROTECT REDUNDANT EQUIPMENT NEEDED FOR SAFE SHUTDOWN OF THE REACTOR IN THE EVENT OF A FIRE. FIRE DAMPERS, LOCATED INSIDE HVAC DUCT, ACTIVATE WHEN INTERNAL DUCT TEMPERATURE SELTS FUSIBLE LINK OR UPON RECEIPT OF ELECTRO-THERMAL SIGNAL FROM FIRE DETECTION SYSTEM.

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IA	BLOWER	8Q111MCO0106	INSTRUMENT AIR COMPRESSOR 11	M*	MEDIUM	PROVIDES CONTINUOUS SUPPLY OF FILTERED, DRY, OIL-FREE COMPRESSED AIR AT SUITABLE PRESSURE AND FLOWRATE FOR PNEUMATIC INSTRUMENT OPERATION AND CONTROL OF PNEUMATIC VALVE AND DAMPER ACTUATORS. DETERMINISTICALLY RANKED AS LOW. FINAL RISK BASED ON PRA.
IA	VALVE	8Q111TIA0027	INSTRUMENT AIR RECEIVER OUTLET CHECK VALVE	M*	MEDIUM	PREVENT BACKFLOW WHEN THE SERVICE AIR SYSTEM IS PROVIDING AIR TO THE INSTRUMENT AIR SYSTEM. DETERMINISTICALLY RANKED AS LOW. FINAL RISK BASED ON PRA.
IA	VESSEL	8Q111MTS0162	INSTRUMENT AIR RECEIVER	M*	MEDIUM	SUPPLIES COMPRESSED AIR FOR PNEUMATIC CONTROLS, ACTUATION OF VALVES, DAMPERS AND SIMILAR DEVICES. AIR RECEIVER VOLUME IS BASED ON 2 MINUTE NORMAL SUPPLY OF INSTRUMENT AIR IN THE EVENT OF COMPRESSOR TRIP. DETERMINISTICALLY RANKED AS LOW. FINAL RISK BASED ON PRA.
RC	IBISSW	N1RCPS0455Z	RCS PRZR 1A PRZR PRESS CONT SEL SW		MEDIUM	ALLOWS OPERATOR TO SELECT ONE OF FOUR PRESSURIZER PRESSURE CHANNELS
RC	ICLOOP	N1RCP0655B	RCS PRZR 1A LOOP 4 SPRAY VALVE		MEDIUM	THIS LOOP SENSES PRESSURIZER PRESSURE AND PROVIDES A CONTROL SIGNAL TO THE PRESSURE SPRAY VALVES TO OPENTHE VALVE TO RELIEVE PRESSURE IN THE PRESSURIZER
RC	ICNTRL	N1RCPC0655A	RCS PRZR 1A LOOP 4 SPR VALVE PCV-0655 CONTROLLER		MEDIUM	ACTS TO MODULATE PCV0655A
RC	ICNTRL	N1RCPC0655B	RCS PRZR 1A LOOP 4 SPR VALVE PCV-0655B CONTR		MEDIUM	MODULATES PCV-0655B OPEN ON HIGH PRESSURE TO PREVENT THE PRESSURIZER PRESSURE FROMJ REACHING THE SETPOINT OF THE PORVs
RC	ICNTRL	N1RCPC0655C	RCS PRZR 1A LOOP 4 SPR VALVE PCV-0655 CONTROLLER		MEDIUM	MODULATES PCV-0655C OPEN ON HIGH PRESSURE TO PREVENT THE PRESSURIZER PRESSURE FROMJ REACHING THE SETPOINT OF THE PORVs
RC	ICNTRL	N1RCPK0655A	PRESSURIZER 1A PORV (PCV-655A) I/P CONVERTER		MEDIUM	THE THREE CONTROL STATIONS (PK0655A, B, AND C) LOCATED IN THE CONTROL ROOM PROVIDE THE OPERATOR MANUAL OR AUTOMATIC CONTROL OVER THE PRESSURIZER SPRAY VALVES. CONTROL OF THE PRESSURIZER SPRAY IS REQUIRED TO PREVENT THE PRESSURE OF THE PRESSURIZER FROM EXCEEDING THAT OF THE PRESSURIZER RELIEF VALVES. PK0655A IS AN NCB CARD IN 7300 CABINET
RC	ICNTRL	N1RCPK0655B	RCS PZR 1A LOOP 1D SPRAY VLV (PCV-0655B) I/P CONVERTER		MEDIUM	THREE HAND CONTROL STATIONS (PK0655A, B, AND C) IN THE CONTROL ROOM ARE AVAILABLE TO PROVIDE THE OPERATOR CONTROL OVER THE PRESSURIZER SPRAY VALVES. CONTROL OF THE PRESSURIZER SPRAY IS REQUIRED TO PREVENT THE PRESSURE OF THE PRESSURIZER FROM EXCEEDING THAT OF THE PRESSURIZER RELIEF VALVES.
RC	ICNTRL	N1RCPK0655C	RCA PRZR 1A LOOP 1 SPRAY PCV-0655C CONT STA		MEDIUM	FAILURE COULD CAUSE POSSIBLE LOSS OF EFFECTIVE OPERATOR CONTROL OF PRESSURIZER SPRAY.
RC	INDREC	N1RCLG3660	REACTOR COOLANT SYSTEM LOOP 1A MID LOOP OPERATIONS LEVEL GAUGE		MEDIUM	PROVIDES LOCAL INDICATION, ERFDADS INFORMATION, CONTROL ROOM INDICATION, OF REACTOR VESSEL WATER LEVEL DURING MIDLOOP OPERATIONS.
RC	INDREC	N1RCLR3660	RCS LEVEL LOOP A AND C MID LOOP OPERATION (2-PEN)		MEDIUM	SUPPORTS MID-LOOP OPERATIONS
RC	INDREC	N1RCPI0407A	RCS LOOP 1 WR PRESS		MEDIUM	AUX SHUTDOWN PANEL INDICATION
RC	INTCPM	N1RCPY3656C	PRESSURIZER LOOP 1A SPRAY VALVE PCV-0655C I/P PRESSURE CONVERTER		MEDIUM	ONE OF 2 PRESSURIZER SPRAY CONTROL VALVES USED TO PROVIDE SPRAY TO THE PRESSURIZER TO ASSIST IN EQUALIZING THE BORON CONCENTRATION BETWEEN THE REACTOR COOLANT LOOPS AND THE PRESSURIZER. THESE VALVES ARE AUTOMATICALLY MODULATED OPEN ON HIGH PRESSURE TO PREVENT THE PRESSURIZER PRESSURE FROM REACHING THE OPERATING (SET) POINT OF THE POWER-OPERATED RELIEF VALVES FOLLOWING A STEP LOAD REDUCTION.

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RC	IXMITR	N1RCLIT3662	RCS MID LOOP OPERATIONS LEVEL INDICATING TRANSMITTER	MEDIUM	PROVIDES LOCAL INDICATION OF REACTOR VESSEL WATER LEVEL DURING MIDLOOP OPERATIONS.
RC	IXMITR	N1RCLT0675	PRESSURIZER COLD CAL LEVEL TRANSMITTER	MEDIUM	RC-L-0675 IS A FIFTH NON-CLASS 1E PRESSURIZER LEVEL TRANSMITTER/INDICATOR, CALIBRATED FOR LOW TEMPERATURE CONDITIONS. IT PROVIDES SIGNALS FOR PRESSURIZER WATER LEVEL AND ERFDADS DURING STARTUP, SHUTDOWN, AND REFUELING OPERATIONS.
RC	IXMITR	N1RCLT3660	REACTOR COOLANT SYSTEM LOOP 1A OPERATIONS LEVEL TRANSMITTER	MEDIUM	THIS LEVEL LOOP SENSES REACTOR COOLANT LEVEL AND PROVIDES A RECORDING OF THIS LEVEL AND LOW-LOW LEVEL ANNUNCIATION (01M2-1F) IN THE CONTROL ROOM DURING MID LOOP OPERATION. THIS INFORMATION PROVIDES THE OPERATOR INFORMATION TO ASSIST IN MAINTAIN LEVEL WITHIN THE MID LOOP OPERATING BAND.
RC	MECFUN	9C241NXN101	REACTOR VESSEL-TO-CAVITY SEAL RING	MEDIUM	USED DURING REFUELING OPERATIONS
RC	MECFUN	RC1014HL5003W	REACTOR COOLANT SYSTEM MECHANICAL SNUBBER MODEL NUMBER: AD5501	MEDIUM	LIMITS PIPE STRESS DURING SEISMIC EVENTS. RISK BASED ON LOW PROBABILITY AND VERY LOW MAGNITUDE OF SEISMIC EVENTS AT STP
RC	MECFUN	RC1014HL5005S	REACTOR COOLANT SYSTEM MECHANICAL SNUBBER MODEL NUMBER: AD5501	MEDIUM	LIMITS PIPE STRESS DURING SEISMIC EVENTS. RISK BASED ON LOW PROBABILITY AND VERY LOW MAGNITUDE OF SEISMIC EVENTS AT STP
RC	MECFUN	RC1014HL5009	REACTOR COOLANT SYSTEM MECHANICAL SNUBBER MODEL NUMBER: AD501	MEDIUM	LIMITS PIPE STRESS DURING SEISMIC EVENTS. RISK BASED ON LOW PROBABILITY AND VERY LOW MAGNITUDE OF SEISMIC EVENTS AT STP
RC	MECFUN	RC1014HL5026	REACTOR COOLANT SYSTEM MECHANICAL SNUBBER MODEL NUMBER: AD501	MEDIUM	LIMITS PIPE STRESS DURING SEISMIC EVENTS. RISK BASED ON LOW PROBABILITY AND VERY LOW MAGNITUDE OF SEISMIC EVENTS AT STP
RC	VALVE	7R141TRC0203	(IRC) RV HD FE 3659A ISOL BYPASS	MEDIUM	NORMALLY OPEN ROOT VALVE CONNECTED TO RCS PRESSURE BOUNDARY. PRESSURE BOUNDARY FAILURE OF VALVE MITIGATED BY UPSTREAM FLOW RESTRICTOR
RC	VALVE	7R141TRC0518	(IMB) RCS LEVEL SIGHT GLASS LIT-3662 DRAIN VALVE	MEDIUM	USED DURING MID-LOOP OPERATIONS
RC	VALVE	7R141ZRC0208	(IRC) LOOP 1 LEVEL TRANSMITTER LT-3660 ISOL VLV	MEDIUM	NORMALLY OPEN ROOT VALVE CONNECTED TO RCS PRESSURE BOUNDARY. PRESSURE BOUNDARY FAILURE OF VALVE MITIGATED BY UPSTREAM FLOW RESTRICTOR
RC	VALVE	7R141ZRC0210	(IMB) LOOP C LG-3661 UPPER ROOT VALVE	MEDIUM	SUPPORTS MID-LOOP OPERATIONS
RC	VALVE	7R141ZRC0211	(IMB) LOOP 1 LEVEL GAGE LG-3660 VENT VALVE	MEDIUM	SUPPORTS MID-LOOP OPERATIONS
RC	VALVE	7R141ZRC0212	(IMB) LOOP A MID LOOP LEVEL GAGE, LG-3660 DRAIN VALVE	MEDIUM	SUPPORTS MID-LOOP OPERATIONS
RC	VALVE	7R141ZRC0213	(IMB) LOOP A MID LOOP LEVEL GAGE, LG-3660 UPPER ISOL	MEDIUM	NORMALLY OPEN ROOT VALVE CONNECTED TO RCS PRESSURE BOUNDARY. PRESSURE BOUNDARY FAILURE OF VALVE MITIGATED BY UPSTREAM FLOW RESTRICTOR

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Non-safety related components currently ranked Medium or High – Total: 374; the representative sample shown below excludes Unit 2 components and Unit 1 trains B & C components. In addition, 220 HM fire dampers are shown as one listing.

RC	VALVE	7R141ZRC0214	(IMB) LOOP A LG-3660 LOWER ROOT VALVE	MEDIUM	SUPPORTS MID-LOOP OPERATIONS
RC	VALVE	7R141ZRC0215	(IMB) LOOP A LG-3660 LOWER ROOT VALVE	MEDIUM	SUPPORTS MID-LOOP OPERATIONS
RC	VALVE	7R141ZRC0216	(IMB) LOOP A MID LOOP LEVEL SENSING LINE VENT	MEDIUM	USED DURING MID-LOOP OPERATIONS
RC	VALVE	7R141ZRC0217	(IMB) LOOP 3 LEVEL GAGE LG-3661 VENT VALVE	MEDIUM	SUPPORTS MID-LOOP OPERATIONS
RC	VALVE	7R141ZRC0218	(IMB) LOOP 3 LEVEL GAUGE LG-3661 DRAIN VALVE	MEDIUM	SUPPORTS MID-LOOP OPERATIONS
RC	VALVE	7R141ZRC0219	(IMB) LOOP 3 LEVEL GAGE LG-3661 UPPER ISOLATION	MEDIUM	NORMALLY OPEN ROOT VALVE CONNECTED TO RCS PRESSURE BOUNDARY. PRESSURE BOUNDARY FAILURE OF VALVE MITIGATED BY UPSTREAM FLOW RESTRICTOR
RC	VALVE	7R141ZRC0220	(IMB) LOOP 3 LEVEL GAUGE LG-3661 LOWER ISOLATION	MEDIUM	NORMALLY OPEN ROOT VALVE CONNECTED TO RCS PRESSURE BOUNDARY. PRESSURE BOUNDARY FAILURE OF VALVE MITIGATED BY UPSTREAM FLOW RESTRICTOR
RC	VALVE	7R141ZRC0221	(IMB) LOOP 3 LEVEL GAGE LG-3661 LOWER ISOLATION	MEDIUM	NORMALLY OPEN ROOT VALVE CONNECTED TO RCS PRESSURE BOUNDARY. PRESSURE BOUNDARY FAILURE OF VALVE MITIGATED BY UPSTREAM FLOW RESTRICTOR
RC	VALVE	7R141ZRC0222	(IMB) LOOP 3 LEVEL TRANS LT-3661 VENT VALVE	MEDIUM	USED DURING MID-LOOP OPERATIONS
RH	ICNTRL	N1RHHC0864	RHR HEAT EXCHANGER 1A CONTROL	HIGH	THE MANUAL CONTROL STATION PROVIDES REMOTE MANUAL CONTROL OF THE TRAIN A RHR HEAT EXCHANGER FLOW CONTROL VALVE FROM THE CONTROL ROOM OR THE AUX SHUTDOWN PANEL. THIS VALVE DOES NOT PERFORM A SAFETY FUNCTION. HOWEVER, THE VALVE IS NORMALLY OPEN AND FAILS OPEN TO ENSURE CORRECT POSITIONING DURING SAFETY INJECTION AND SAFE SHUTDOWN OPERATION. THE VALVE IS PROVIDED TO MANUALLY CONTROL THE REACTOR COOLANT FLOW THROUGH THE RHR HEAT EXCHANGER AND, SUBSEQUENTLY, THE RATE OF COOLDOWN OF THE RCS SYSTEM.
RH	ICNTRL	N1RHHK0864	RHR HEAT EXCHANGER 1A CONTROL	HIGH	THE MANUAL CONTROL STATION PROVIDES REMOTE MANUAL FLOW CONTROL THROUGH ONE OF THREE TRAINED RHR HEAT EXCHANGERS FROM THE CONTROL ROOM. THE FLOW CONTROL VALVE DOES NOT PERFORM A SAFETY FUNCTION, HOWEVER, THE VALVE IS NORMALLY OPEN AND FAILS OPEN TO ENSURE CORRECT POSITIONING DURING SAFETY INJECTION AND SAFE SHUTDOWN OPERATION.
RH	RELAY	N1RHFY3860	RHR HEAT EXCHANGER 1A OUTLET VALVE FV-3860 CURRENT/PNEUMATIC CONVERTOR	HIGH	RHR HEAT EXCHANGER FLOW CONTROL: THE PNEUMATIC TRANSDUCER (FY) RECEIVES AN ANALOG ELECTRICAL SIGNAL FROM A HAND CONTROLLER IN THE CONTROL ROOM AND CONVERTS THE ELECTRICAL SIGNAL TO A PNEUMATIC SIGNAL TO PROVIDE FOR THE POSITIONING OF AN AIR OPERATED BUTTERFLY VALVE (FV) TO CONTROL REACTOR COOLANT FLOW THROUGH THE RHR HEAT EXCHANGER AND, SUBSEQUENTLY, THE RATE OF RCS COOLDOWN. PERFORMS NO SAFETY-RELATED FUNCTION. NORMALLY OPEN AND FAILS OPEN TO ENSURE CORRECT POSITIONING DURING SAFETY INJECTION, POST POST ACCIDENT AND THE ABILITY TO REACH SAFE SHUTDOWN.
SI	INTCPM	N1SIFY3857	RHR HEAT EXCHANGER 1A FCV-0851 CURRENT/PNEUMATIC CONVERTER	MEDIUM	PROVIDES FOR THE CONVERSION FROM AN ELECTROMAGNETIC SIGNAL TO A PNEUMATIC PRESSURE TO CONTROL VALVE FCV0833 FROM A SIGNAL FROM THE OUTPUT OF THE REMAINDER OF THE LOOP.

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LIST OF PARTICIPANTS IN
MARCH 8, 2000, TELECONFERENCE
ON STP MULTIPART EXEMPTION RAI RESPONSE

NAME	Position	ORGANIZATION
Steve Rosen	Manager, Risk & Reliability/Industry Relations	STPNOC
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