# EXHIBIT B

# License Amendment Request Dated October 29, 1982

Exhibit B, attached, consists of the following revised pages of the Appendix A Technical Specifications which incorporate the proposed changes.

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# APPENDIX A TECHNICAL SPECIFICATIONS

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	transmood onlie orew composition

- Positive reactivity changes shall not be made by boron dilution when containment system integrity is not intact unless the boron concentration in the reactor is maintained ≥2100 ppm for the initial refueling and ≥2000 ppm for subsequent refuelings.
- 5. The vacuum breaker system shall be considered operable for containment system integrity when both valves in each of two vacuum breakers, including actuating and power circuits, are operable or when one vacuum breaker is daily demonstrated as operable and the other has been inoperable for no more than 7 days under conditions for which containment integrity is required.
- 6. Automatic containment isolation valves listed in Table TS.4.4-1 shall be considered operable for containment system integrity when all automatic isolation valves, including actuation circuits, for each penetration are operable or the inoperable valve is deactivated in the closed position, or at least one valve in each penetration having an inoperable valve is locked closed.
- 7. a. The 36-inch containment purge system double gasketed blind flanges shall be installed whenever the reactor is above cold shutdown.
  - b. The 18-inch containment inservice purge system double gasketed blind flanges shall be installed whenever the reactor is above cold shutdown except as noted below.
  - c. The inservice purge system may be operated above cold shutdownwhen required for safe plant operation if the following conditions are met:
    - 1. The debris screens are installed on the supply and exhaust ducts in containment.
    - Both valves shall satisfactorily pass a local leak rate test prior to use.
    - 3. The two automatic primary containment isolation values and the automatic shield building ventilation damper in each duct that penetrates containment shall be operable, including instruments and controls associated with them.
- 8. During maintenance, construction and testing activities, containment integrity is considered intact if the auxiliary building special vent zone boundary is opened intermittently, provided such openings are under direct administrative control and can be reduced to less than 10 square feet within 6 minutes following an accident.

		nnel			Functional	Response	
	Descrip	otion	Check	Calibrate	Test	Test	Remarks
35.	Post-Ac Instrum	cident Monitoring ments	M	R	NA	NA	Includes all those in FSAR Table 7.7-2 and Tables TS.3.15-1 and TS.3.15-2 not included elsewhere in this Table
36.		xclusion on System	W	R	М	NA	See FSAR Appendix I, Section I.14.6
37.	Overpre Mitigat System		NA	R	R	NA	Instrument Channels for PORV Control Including Overpressure Mitigation System
38.		d Voltage eguard Busses	NA	R	м	NA	
39.		Voltage eguard Busses	NA	R	м	NA	
S	-	Each Shift					
D		Daily					
W	-	Weekly					
м		Monthly					
Q	-	Quarterly					
R	-	Each refueling a	shutdown				
р	-	Prior to each st	tartup if	not done previ	ious week		
Т	-	Prior to each st	tartup fol	lowing shutdow	n in excess o	f 2 days if m	not done in the previous 30 days
NA	-	Not applicable					
*	-	See Specificatio	on 4.1.D				

# TABLE TS.4.1-1 (Page 5 of 5)

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# UNIT 1 AND UNIT 2 PENETRATION DESIGNATION FOR LEAKAGE TESTS

: 1

Penetration No. (Notes 1,2)	Penetration Description	Penetration Designation (Note 3)	Type of <u>Test</u>	Test Method	
17	Loop B Hot Leg Sample	ABSVZ	С	Pneumatic	(5)
18 18	Fuel Transfer Tube(4) Bellows	ABSVZ Annulus	B A	Pneumatic OILT	
19	Service Air (4)	ABSVZ	В	Pneumatic	
20	Instrument Air	Exterior	С	Pneumatic	
21	RC Drain Tank Gas to Analyzer	ABSVZ	С	Pneumatic	
22	Containment Air Sample In	ABSVZ	С	Pneumatic	
23	Containment Air Sample Out	ABSVZ	С	Pneumatic	
24	Spare			None	
25A	Containment Purge Exhaust(4)	ABSVZ	В	Pneumatic	
25B	Containment Purge Supply(4)	ABSVZ	В	Pneumatic	
26	Containment Sump "A" Discharge	ABSVZ	С	Pneumatic	
27A-1; 27A-2	Steam Generator Blowdown Sample	Sealed	A	OILT	
27B (51 in Unit 2)	Fire Protection (4)	ABSVZ	В	Pneumatic	
27-1, 27-2 (27C-1 and 27C-2 in Unit 2)	Pressure Instrument	ABSVZ	В	Pneumatic	
27D	Spare			None	
28A,28B	Safety Injection	ABSVZ	Н	Hydrostati	c
29A,29B	Containment Spray	ABSVZ	Н	Hydrostati	c
30A,30B	Containment Sump Suction	ABSVZ	H	Hydrostati	c

TABLE TS.4.4-1 (Pg 4 of 5) REV

#### Penetration Type Penetration Designation Test Penetration of No. (Notes 1,2) Description (Note 3) Test Method 42B (53 in Inservice Purge ABSVZ C Pneumatic Unit 2) Supply Valves(6) 42B (53 in Inservice Purge Annulus B Pneumatic Unit 2) Supply Blind Flange(4) 42C (54 in Containment Heating ABSVZ B Pneumatic Unit 2) Steam (4) 42D, 42E None Spare 42F (42E in Heating Steam ABSVZ B Pneumatic Unit 2) Condensate Return(4) 42F (42E in Heating Steam ABSVZ B Pneumatic Unit 2) Return Vent(4) 42G Spare None 43A (52 in ABSVZ C Pneumatic (5) Inservice Purge Unit 2) Exhaust Valves(6) 43A (52 in Inservice Purge Annulus B Pneumatic Unit 2) Exhaust Blind Flange(4) 43B,C,D Spares None Pneumatic 44 Containment Vessel ABSVZ B Pressurization (4) 45 Reactor Makeup to ABSVZ C Pneumatic Pressurizer Relief Tank 46A,46B Auxiliary Feedwater OILT Sealed A (46C,46D in Unit 2) 47 Electrical Sealed OILT A Penetration 47 Nitrogen to Elect Sealed OILT A Penetration 48 Low Head SI Hydrostatic ABSVZ H 49A Instrumentation ABSVZ OILT A Pneumatic 49B (55 in Demineralized ABSVZ B Unit 2) Water (4)

### UNIT 1 AND UNIT 2 PENETRATION DESIGNATION FOR LEAKAGE TESTS

TABLE TS.4.4-1 (Pg 5 of 5) REV

Penetration No. (Notes 1,2)	Penetration Description	Penetration Designation (Note 3)	Type of	Test
NO. (NOLES 1,2)	Description	(NOLE J)	Test	Method
50	Post-LOCA Hydro- gen Control Air Supply	Exterior	с	Preumatic
50	Post-LOCA Hydro- gen Control Vent	Annulus	С	Pneumatic
50	Sample to Gas Analyzer	Exterior	С	Pneumatic
	Equipment Door	Annulus	В	Pneumatic (5)
	Personnel Airlock	Annulus	В	Pneumatic (5)
	Maintenance Air- lock	Annulus	В	Pneumatic (5)

# UNIT 1 AND UNIT 2 PENETRATION DESIGNATION FOR LEAKAGE TESTS

Notes:

- Penetration numbers and description identify the penetration. Additional information regarding penetrations is listed in FSAR Table 5.2-2.
- Additional description of penetration function is contained in FSAR Appendix G.
- 3. Penetration Designations

ABSVZ	- pipes connected to systems that are located in the Auxiliary Building Special Ventilation Zone
Exterior	- pipes connected to systems that are exterior to the Shield Building and ABSVZ
Sealed	- pipes that will be sealed by water in space between isolation barriers following LOCA
Annulus	- penetration that would leak to the Shield Building annulus following LOCA

- 4. These penetrations have blind flanges. Penetrations 18, 25A and 25B have blind flanges on inside only. Penetration 42B(53) and 43A(52) have a blind flange in the annulus only.
- 5. Test pressure is applied in the opposite direction to the pressure that would exist when the component is required to perform its safety function.
- The leakage test for this penetration is only required prior to use of the inservice purge system.

TS.3.8-1 REV

# 3.8 REFUELING AND FUEL HANDLING

#### Applicability

Applies to operating limitations during fuel-handling and refueling operations.

### Objectives

To ensure that no incident could occur during fuel handling and refueling operations that would affect public health and safety.

### Specification

- A. During refueling operations the following conditions shall be satisfied:
  - 1. The equipment hatch and at least one door in each personnel air lock shall be closed. In addition, at least one isolation valve shall be operable or locked closed in each line which penetrates the containment and provides a direct path from containment atmosphere to the outside.
  - 2. Radiation levels in fuel handling areas, the containment and the spent fuel storage pool areas shall be monitored continuously.
  - 3. The core subcritical neutron flux shall be continuously monitored by at least two neutron monitors, each with continuous visual indication in the control room and one with audible indication in the containment, which are in service whenever core geometry is being changed. When core geometry is not being changed, at least one neutron flux monitor shall be in service.
  - 4. During reactor vessel head removal and while loading and unloading fuel from the reactor, the minimum boron concentration of 2000 ppm shall be maintained in the reactor coolant system. The required boron concentration shall be verified by chemical analysis daily.
  - 5. During movement of fuel assemblies or control rods out of the reactor vessel, at least 23 feet of water shall be maintained above the reactor vessel flange. The required water level shall be verified prior to moving fuel assemblies or control rods and at least once every day while the cavity is flooded.
  - At least one residual heat removal pump shall be operable and running. The pump may be shutdown for up to one hour to facilitate movement of fuel or core components.
  - If the water level above the cop of the reactor vessel flange is less than 20 feet, except for control rod latching and unlatching operations, both residual heat removal loops shall be operable.
  - 8. If Specification 3.8.A.6 or 3.8.A.7 cannot be satisfied, all fuel handling operations in containment shall be suspended, the containment, integrity requirements of Specification 3.8.A.1 shall be satisfied, and no reduction in reactor coolant boron concentration shall be made.

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### Basis

The equipment and general procedures to be utilized during refueling are discussed in the FSAR. Detailed instructions, the precautions specified above, and the design of the fuel handling equipment incorporating built-in interlocks and safety features, provide assurance that no incident could occur during the refueling operations that would result in a hazard to public health and safety. Whenever changes are not being made in core geometry, one flux monitor is sufficient. This permits maintenance of the instrumentation. Continuous monitoring of radiation levels (B above) and neutron flux provides immediate indication of an unsafe condition. The residual heat comoval pump is used to maintain a uniform boron concentration.

The shutdown margin indicated in A.5. above will keep the core subcritical, even if all control rods were withdrawn from the core. During refueling, the reactor refueling cavity is filled with approximately 275,000 gallons of borated water. The boron concentra ion of this water is sufficient to maintain the reactor subcritical by approximately  $10\% \Delta k/k$  in the cold condition with all rods inserted, and will also maintain the core subcritical even if no control rods were inserted into the reactor. Periodic checks of refueling water boron concentration insure that proper shutdown margin is maintained. A.6. above allows the control room operator to inform the manipulator operator of any impending unsafe condition detected from the main control board indicators during fuel movement.

No movement of fuel in the reactor is permitted until the reactor has been subcritical for at least 100 hours to permit decay of the fission products in the fuel. (3) The delay time is consistent with the fuel handling accident analysis.

The spent fuel assemblies will be loaded into the spent fuel cask for shipment to a reprocessing plant after sufficient decay of fission products. In loading the cask into a carrier, there is a potential drop of 66 feet <sup>(5)</sup>. The cask will not be loaded onto the carrier for shipment prior to a 3-month storage period. At this time, the radioactivity has decayed so that a release of fission products from all fuel assemblies in the cask would result in off-site doses less than 10 CFR Part 100. It is assumed, for this dose analysis that 12 assemblies rupture after storage for 90 days. Other assumptions are the same as those used in the dropped fuel assembly accident in the SER, Section 15. The resultant doses at the site boundary are 94 Rems to the thyroid and 1 Rem whole body.

The Spent Fuel Pool Special Ventilation System<sup>(4)</sup> is a safeguards system which maintains a negative pressure in the spent fuel enclosure upon detection of high area radiation. The Spent Fuel Pool Normal Ventilation system is automatically isolated and exhaust air is drawn through filter modules containing a roughing filter, particulate filter, and a charcoal filter before discharge to the environment via one of the Shield Building exhaust stacks. Two completely redundant trains are provided. The exhaust fan and filter of each train are shared with the corresponding train of the Containment In-service Purge System. High efficiency particulate absolute (HEPA) filters are installed before the charcoal adsorbers to prevent clogging of the iodine adsorbers in each SFPSVS filter train. The charcoal adsorbers are installed to reduce the potential/

TS.3.8-4 REV

release of radioiodine to the environment. The in-place test results should indicate a HEPA filter leakage of less than 1% through DOP testing and a charcoal adsorber leakage of less than 1% through halogenated hydrocarbon testing. The laboratory carbon sample test results should indicate a radioactive methyl iodide removal efficiency of at least 90% under test conditions which are more severe than accident conditions. The satisfactory completion of these periodic tests combined with the qualification testing conducted on new filters and adsorber provide a high level of assurance that the emergency air treatment systems will perform as predicted in the accident analyses.

During movement of irradiated fuel assemblies or control rods, a water level of 23 feet is maintained to provide sufficient shielding.

The specifications require that at least one residual heat removal loop be in operation. This assures that sufficient cooling capacity is available to remove decay heat and maintain the water in the reactor below 140°F and that sufficient coolant circulation is maintained through the core to minimize the effect of a boron dilution incident and prevent boron stratification. The requirement to have two residual heat removal loops operable when there is less than 20 feet of water above the vessel flange ensures that a single failure of the operating loop will not result in a complete loss of residual heat removal capability. With the reactor vessel head removed and 20 feet of water above the vessel flange, a large heat sink is available for core cooling. In the event of a failure of the operating RHR loop, adequate time is provided to initiate repairs or emergency procedures to cool the core.

The water level may be lowered to the top of the RCCA drive shafts for latching and unlatching. The basis for this allowance is (1) the refueling cavity pool has sufficient level to allow time to initiate repairs or emergency procedures to cool the core (2) during latching and unlatching the level is closely monitored because the activity uses this level as a reference point. (3) The time spent at this level is minimal.

### References

(1)	FSAR	Section 9.5.2
(2)	FSAR	Table 3.2.1-1
(3)	FSAR	Section 14.2.1
(4)	FSAR	Section 9.6
(5)	FSAR	Page 9.5-20a

TABLE TS.3.12-1 (Page 1 of 8) REV

# SAFETY RELATED SNUBBERS

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Snubber No.		Location	Elevation	Accessible or Inaccessible _(A or I)	Snubbers Especially Difficult to Remove	In High Radiation Area During Shutdown
		UNIT I				
AFSH-22	A&B	Main and Aux-	773'-4%"	A		
AFSH-36		iliary Steam	745'-7%	A		
AFSH-39			699'-101"	A		
AFSH-48			699'-62"	A		
MSDH-25	A&B		736'-6-7/16"	Α		
MSDH-26 A	A&B		756'-7%"	A		
MSDH-29			756'-7%"	A		
MSDH-30			736'-6-7/16"	A		
MSH-48	A&B		739'-1-11/16"	Α		
	A&B		735'-6"	A		
MSH-63			756'-0"	A		
MSH-64			743'-0"	A		
MSH-65			748'-0"	A		
MSH-66			753'-0"	A		
MSH-67			743'-0"	A		
	A&B		755'-8"	А		물건 가슴 걸었다.
	A&B		748'-0"	A		
MSH-101			729'-0"	A		16. Sec. 16. S
MSH-102			735'-0"	A		
MSH-103 /	A&B		737'-0"	A		
		UNIT II				
AFSH-2		Main and Aux-	749'-4"	A		
AFSH-19		iliary Steam	745'-7%"	A		
AFSH-20			745'-7%"	A		
AFSH-24			745'-6"	А		
AFSH-29 /	A&B		721'-1-9/16"	А		
AFSH-33			707'-5"	А		
AFSH-39			696'-62"	A		
AFSH-40			696'-6'	A		
AFSH-44			750'-73"	А		
AFSH-46			750'-7"	A		
MSDH-17			739'-0"	A		
MSDH-18			759'-0"	A		
MSDH-19			739'-0"	A		
MSDH-20			759'-0"	A		

TABLE TS.3.12-1 (Page 2 of 8) REV

# SAFETY RELATED SNUBBERS

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Snubber No.	Location	Elevation	Accessible or Inaccessible _(A or I)	Snubbers Especially Difficult to Remove	In High Radiation Area During Shutdown
	UNIT II				
MSH-23 A&B	Main and Aux-	739'-1-3/16"	А		
MSH-54 A&B	iliary Steam	756'-0-1/16"	I		
MSH-75		744'-0"	A		I
MSH-76 A&B		748'-0"	A		
MSH-77		748'-0"	A		
MSH-78		743'-0"	A		
MSH-79		753'-0"	A		
MSH-80		755'-0"	A		
MSH-81 A&B		735'-9"	A		1. Sec. 1. 1. 1. 1.
MSH-82 A&B		755'-8"	A		
MSH-83		761'-13/16"	I		
MSH-101		727'-0"	Â		
MSH-102		734'-0"	A		
MSH-103A&B		736'-0"	A		
			<b>^</b>		
	UNIT I				
RHRRH-5	Safety Injection	723'-41"	I		
RHRRH-41		698'-11"	Î		
RHRRH-58		670'-0"	A		
RHRRH-60		670'-0"	A A		
RPCH-160		718'-1-"	I		
RSIH-92		714'-11"	I		
RSIH-93		714'-11"	Ĩ		
RSIH-95		711'-2"	I		
RSIH-96		711'-2"	ī		
RSIH-98		701'-2"	I		
RSIH-163		717'-9"	I		
RSIH-167		717'-9"	ī		
RSIH-413 A&B		722'-8"	A		
RISH-414		716'-10"	I		
RISH-442		717'-95"	I		
RSIH-469		707'-6'2"			
RSIH-476		707'-1-3/4"	I	1.2 1.2 2 6 6 6	
SIRH-9		737'-0"	1		
SIRH-11		718'-6"	I		
SIRH-17		730'-0"			
SIRH-18		730'-0"	I		
SIRH-22		711'-4"	I		
SIRH-23 A&B		711'-4"	I		
SIRH-26		705'-0"	I		
SIRI-20		105 -0	I		

TABLE TS.3.12-1 (Page 7 of 8) REV

# SAFETY RELATED SNUBBERS

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Snubber No.	Location UNIT II	Elevation	Accessible or Inaccessible (A or I)	Snubbers Especially Difficult to Remove	In High Radiation Area During Shutdown
RCVCH-1396	Chemical & Vol	7021 10"	이 가격 비슷하는 것이다.		
RCVCH-1505	Control	702'-10"	I		
RCVCH-1513	Control	708'-6"	I		
RCVCH-1524		710'-1" 719'-1"	I		
RCVCH-1574		721'-0"	I		
RCVCH-1668		705'-5"	I		
RCVCH-1373		722'-11"	I		
RCVCH-1389		706'-1"			
RRCH-253		704'-4"	I I		
RRCH-255		704'-8"	I		
RRCH-261		707'-2"	I		
RRCH-288		707'-2"	I		
RRCH-291		704'-6"	I		
RRCH-292		704'-7"	I		
CCU-204	UNIT I				
ССН-304 ССН-373	Comp Cooling	717'-7"	A		
CCH-376 A&B		712'-4"	A		
CCH-377 A&B		700'-5"	A		
ССН-378		703'-0"	A		
CCH-380		708'-4"	A		
CCH-381 A&B		670'-8"	A		
CCH-397		671'-4" 699'-3"	A		
CCH-398 A&B		671'-4"	A		
	UNIT II	0/1-4	. A		
CCH-161	Comp Cooling	717'-7"	A		
CCH-166		719'-11"	A		
CCH-167 CCH-172		720'-0"	А		
CCH-172 CCH-173		720'-0"	A		
CCH-175		708'-5"	A		
CCH-179 A&B		705'-3"	Α		
CCH-180		671'-4"	A		
CCH-181		670'-8"	A		
CCH-182		708'-4" 704'-2"	A		
CCH-185 A&B		671'-4"	A		
CCH-186		670'-10"	A		
	UNIT I		A		
RCSH-81	Containment Spray	760'-9"	I		1
RCSH-82		760'-8"	I		
RCSH-83 A&B	UNIT II	732'-1"	I		1
CSH-75 A&B	Containment Spray	731'-10"			
CSH-76		752'-7"	T		
CSH-79		751'-9"	T		
CSH-82 A&B		.731'-11"	T		
CSH-83		767'-2"	Ĩ		
CSH-84		767'-2"	T		
CSH-210		698'-0"	I		
CSH-215		698'-0"	Ă		
CSH-224		710'-6"	A		

TABLE TS.3.12-1 (Page 8 of 8) REV

# SAFETY RELATED SNUBBERS

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Snubber No.	Location	Elevation	Accessible or Inaccessible (A or I)	Snubbers Especially Difficult to Remove	In High Radiation Area During Shutdown
RRHH-20 RRHH-62	UNIT I RHR	704'-3" 705'-10"	A A		
CVCRH-6 RRHH-21	UNIT II RHR	711'-0" 704'-6"	I. A		
ZX-PSCH-127	UNIT II ZX	707'-0"	A		1

### 3.15 EVENT MONITORING INSTRUMENTATION

#### Applicability

Applies to plant instrumentation which does not perform a protective function, but which provides information to monitor and assess important parameters during and following an accident.

#### Objectives

To ensure that sufficient information is available to operators to determine the effects of and determine the course of an accient to the extent required to carry out required manual actions.

#### A. Specification - Process Monitors

- The event monitoring instrumentation channels specified in Table TS.3.15-1 shall be Operable.
- 2. With the number of Operable event monitoring instrumentation channels less than the Required Total Number of Channels shown on Table TS.3.15-1, either restore the inoperable channels to Operable status within seven days, or be in at least Hot Shutdown within the next 12 hours.
- 3. With the number of Operable event monitoring instrumentation channels less than the Minimum Channels Operable requirements of Table TS.3.15-1, either restore the minimum number of channels to Operable status within 48 hours, or be in at least Hot Shutdown within the next 12 hours.

#### B. Specification - Radiation Monitors

- 1. The event monitoring instrumentation channels specified in Table TS.3.15-2 shall be Operable.
- 2. With the number of Operable event monitoring instrumentation channels less than the Required Total Number of Channels shown on Table TS.3.15-2, either restore the inoperable channels to Operable status within seven days, or prepare and submit a Special Report to the Commission pursuant to Technical Specification 6.7.B.2 within the next 30 days outlining the action taken, the cause of the inoperability, the plans and the schedule for restoring the system to Operable status.
- 3. With the number of Operable event monitoring instrumentation channels less than the Minimum Channels Operable requirement of Table TS.3.15-2, initiate the preplanned alternate method of monitoring the appropriate parameters in addition to submitting the report required in (2) above.

TS.3.15-2 REV

Basis

1, A

The operability of the event monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables during and following an accident. This capability is consistent with the recommendations of NUREG-0578, "TMI-2 Lessons Learned Task Force Status Report and Short Term Recommendations."

Instrument	Required Total No. of Channels	Minimum Channels Operable
1. Pressurizer Water Level	• 2	1
2. 'Auxiliary Feedwater Flow to Steam Generators (One Channel Flow and One Channel Wide Range Level for Each Steam Generator)	2/steam gen	l/steam gen
3. Reactor Coolant System Subcooling Margin***	2	1
4. Pressurizer Power Operated Relief Valve Position (One Common Channel Temperature, One Channel Limit Switch per Valve, and One Channel Acoustic Sensor per Valve*)	2/valve	l/valve
5. Pressurizer Power Operated Relief Block Valve Position (One Common Channel Temperature, One Channel Limit Switch per Valve, and One Channel Acoustic Sensor per Valve*)	2/valve	l/valve
6. Pressurizer Safety Valve Position (One Channel Temperature per Valve and Common Acoustic Sensor**)	2/valve	l/valve

# TABLE TS.3.15-1 EVENT MONITORING INSTRUMENTATION - PROCESS

 A common acoustic sensor provides backup position indication for each pressurizer power operated relief valve and its associated block valve.

- \*\* The acoustic sensor channel is common to both valves. When operable, the acoustic sensor may be considered as an operable channel for each valve.
- \*\*\* Fully qualified input instrumentation is being installed in accordance with the NRC's TMI Action Plan. Until installation is completed, this function will be satisfied using the plant process computer.

Instrument	Required Total No. of Channels	Minimum Channels Operable
1. Containment Radiation Monitors (Hi Range)	2	1
2. Steam Relief Activity Monitors	1/steam line	l/steam line
3. High Range Shield Building Ventilation Monitors	1	1

TABLE TS.3.15-2 EVENT MONITORING INSTRUMENTATION - RADIATION

TS.4.5-2 REV

# 3. Containment Fan Coolers

Each fan cooler unit shall be tested during each reactor refueling shutdown to verify proper operation of all essential features including low motor speed, cooling water valves, and normal ventilation system dampers. Individual unit performance will be monitored by observing the terminal temperatures of the fan coil unit and by verifying a cooling water flow rate of greater than or equal to 900 gpm to each fan coil unit.

### 4. Component Cooling Water System

- a. System tests shall be performed during each reactor refueling shutdown. Operation of the system will be initiated by tripping the actuation instrumentation.
- b. The test will be considered satisfactory if control board indication and visual observations indicate that all components have operated satisfactorily.

### 5. Cooling Water System

- a. System tests shall be performed at each refueling shutdown. Tests shall consists of an automatic start of each diesel engine and automatic operation of valves required to mitigate accidents including those valves that isolate non-essential equipment from the system. Operation of the system will be initiated by a simulated accident signal to the actuation instrumentation. The tests will be considered satisfactory if control board indication and visual observations indicate that all components have operated satisfactorily and if cooling water flow paths required for accident mitigation have been established.
- b. At least once each 18 months, subject each diesel engine to a thorough inspection in accordance with procedures prepared in conjunction with the manufacturer's recommendations for this class of standby service.

#### B. Component Tests

### 1. Pumps

- a. The safety injection pumps, residual heat removal pumps and containment spray pumps shall be started and operated at intervals of one month. Acceptable levels of performance shall be that the pumps start and reach their required developed heat on minimum recirculation flow and the control board indications and visual observations indicate that the pumps are operating properly for at least 15 minutes.
- b. A test consisting of a manually-initiated start of each diesel engine, and assumption of load within one minute, shall be conducted monthly.