PLE

Southern California Edison Company

P. O. BOX 800 2244 WALNUT GROVE AVENUE ROSEMEAD, CALIFORNIA 91770

M. O. MEDFORD MANAGER, NUCLEAR LICENSING TELEPHONE (818) 302-1749

February 18, 1986

Director, Office of Nuclear Reactor Regulation Attention: G. E. Lear, Director PWR Project Directorate No. 1 U. S. Nuclear Regulatory Commission Washington, D. C. 20555

Gentlemen:

Subject: Docket No. 50-206 Fire Protection Program Review San Onofre Nuclear Generating Station Unit 1

During the San Onofre Unit 1 site visit conducted by members of the NRC staff on January 13, 1986, it was requested that two lists of information be prepared. The first list was to include all Fire Areas where operator action was necessary, within the Fire Area, in order to achieve safe shutdown with a description of the timing requirements applicable to these actions. The second list was to include all exemption requests which have been submitted. Accordingly, the enclosed lists are provided for your information and use.

If you have any questions or desire additional information, please contact me.

Very truly yours,

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Enclosures



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#### MANUAL ACTION TIMING REQUIREMENTS SAN ONOFRE UNIT 1

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FIRE AREA/ZONE	FUNCTION * <u>RESOTRATION</u>	TIME <u>AVAILABLE</u>	SEE <u>NOTES</u>
1-AB-(3)-2A	RCS MAKE-UP & BORATION	3 HRS.	ì
1-AB-20-2N	RCS MAKE-UP & BORATION	3 HRS.	2
1-YD-20-4C	RCS MAKE-UP & BORATION	3 HRS	
1-YD-14-4D	AFWS FLOW CONTROL RCP SEAL COOLING RCS MAKE-UP & BORATION CONTROL RHR FLOW	N/A 2 1/2 HRS. 3 HRS. 32 HRS.	3 4 2 5
1-YD-14-4F	ELECTRICAL POWER AVAILABILITY RCS MAKE-UP & BORATION	N/A 3 HRS.	6 2
1-FH-14-7	PRESSURIZER HEATER CONTROL INITIATE RHR CONTAINMENT SPRAY ISOLATION	N/A N/A N/A	7 7 7
1-PB-42-16	TRIP OFFSITE POWER	N/A	8
1-TB-8-9A	REHEATER ISOLATION INITIATE SINGLE PHASE COOLDOWN	3 HRS. 55 HRS.	
1-TB-35-9B	TURBINE TRIP	N/A	9

\* The manual actions are documented in Table 1 (attached) of the response to Question 6 of Enclosure 1 of the submittal provided to the NRC by letter dated December 31, 1985.

#### NOTES

- The manual action required in the areas are only necessary if the charging system will be used. If the Safety Injection System is used as an alternate, these actions are not necessary.
- 2. The requirements for charging pump protection due to spurious opening of MOV-1100C and/or spurious closing of MOV-883 are under review and have not been included in the table.
- 3. The actions to use the AFWS flow control valves in this area are no longer required as these valves fail open and the manual valves downstream and outside this Fire Zone will be used.
- 4. If the component cooling pumps are affected by a fire in this area, the RCP seal cooling function must be performed by the charging system taking credit for the DC Thermal Barrier Pump to provide the cooling function initially.
- 5. If RHR system remains available, the manual actions are not needed until RHR conditions are reached. The 32 hrs. assumes a natural circulation cool down with a 20 hr. soak time.
- 6. These operator actions within the affected fire zone are no longer necessary. The III.G compliance review has been revised to require that Auxiliary Transformer C be isolated by opening breakers 11C02 and 12C02 in the 4160 volt switchgear room. This revision will be reflected in the upcoming page changes to the III.G compliance report to be submitted to the NRC for review.
- 7. These operator actions within the affected fire areas are no longer necessary. The III.G compliance review has been revised to require that this equipment be isolated by deenergizing the 480 volt buses to which they are connected by opening the associated isolation breakers in the 4160 volt switchgear room (Fire Area 1-PB-14-8).
- 8. The timing requirements were previously justified in the control room evaluation submitted December 31, 1985.
- 9. If the operators were unable to access the area due to a fire, the turbine can also be tripped by tripping the generator from the control room and allowing the turbine to trip on overspeed.

#### SONGS - 1

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# Manual Actions Required Subsequent to a Fire

Po Fin An	ostulated re in Fire rea/Zone	-	Description of Manual Actions Required	Location of Manual Actions Fire Area/Zone
1-(	CO-(-10)-1	-	Deenergize 120VAC/480 VAC sources at vital buses 1,2,3,3A,5 and 6	1-FH-14-7 and 1-DG-20-17B
		-	Isolate instrument air to fail open seal injection control valves FCV-1115A,B&C verify closed seal water supply valves water supply valves FCV-1115D,E&F control seal injection flow using RCP filter bypass valves MOV-18 or 19	1-YD-20-4C
		-	Start RCP thermal barrier pump G-964 at 125VDC bus 1	1-PB-20-13A
		-	Close containment spray pump isolation valves (CRS-306 and 307) located upstream of CV-82, CV-92, and CV-114.	1-YD-14-4D
1-/	AB-(-3)-2A*	-	Deenergize charging pumps G-8A and G-8B at Buses 1C and 2C.	1-PB-14-8
		Not not use	te that the completion of the following manual t affect the operation of the safety injection ed as an alternate system.	actions will system when
		-	Deenergize and verify closed RWST charging isolation valves MOV-1100B and 1100D at MCC's 1 and 3	1-AB-(-3)-2A 1-PB-14-8 and 1-TB-8-9A
		-	Deenergize charging system test pump G-42 at MCC-2A	1-AB-(-3)-2A
		-	Close manual valve (BAS-316) located upstream of boric acid supply control valve CV-334	1-AB-(-3)-2A
*	Fire area/zone in that zone.	requ	liring manual action within the zone subsequent	t to a fire

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#### <u>TABLE – 1</u>

# (Continued)

Postulated Fire in Fire <u>Area/Zone</u>	Description of Manual Actions Required	Location of Manual Actions <u>Fire Area/Zone</u>
1-AB-(-3)-2A*	<ul> <li>Close manual valve (BAS-344) downstream of primary water makeup control valve FCV-1102A</li> </ul>	1-AB-(-3)-2A
1-AB-20-2N*	<ul> <li>Manually close volume control tank isolation valve MOV-1100C (see response to NRC question 1.b. transmittal dated 11/15/85)</li> </ul>	1-AB-20-2N
	<ul> <li>Verify RWST charging isolation valves MOV-1100B or D open</li> </ul>	1-AB-(-3)-2A
1-AB-11-34	<ul> <li>Close manual valve (BAS-344) downstream of primary water makeup control valve FCV-1102A.</li> </ul>	1-AB-(-3)-2A
	<ul> <li>Close manual valve (BAS-316) located upstream of boric acid supply control valve CV-334.</li> </ul>	1-AB-(-3)-2A
	<ul> <li>Manually close volume control tank isolation valve MOV-1100C (see response to NRC question 1.b. transmittal dated 11/15/85).</li> </ul>	1-AB-20-2N
	<ul> <li>Verify RWST charging isolation values MOV-1100B or D open.</li> </ul>	1-AB-(-3)-2A
	<ul> <li>Control CCW flow to RHR heat exchangers using manual valves CCW-459 and 461 located downstream of TCV-601 A and B.</li> </ul>	1-YD-14-4D
	<ul> <li>Close manual valves VCC-307, 308, 337 and 338 located upstream of charging flow control valve FCV-1112. For higher makeup flow rates through charging loop A manually override and open FCV-1112.</li> </ul>	1-YD-20-4C and 1-AB-(-3)-2A

\* Fire area/zone requiring manual action within the zone subsequent to a fire in that zone.

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#### <u>TABLE - 1</u>

## (Continued)

Postulated Fire in Fire <u>Area/Zone</u>	Description of Manual Actions Required	Location of Manual Actions Fire Area/Zone
1-AB-11-34	<ul> <li>Isolate instrument air to fail open seal injection control valves FCV-1115A, B and C; verify closed seal water suppply valves FCV-1115 D, E and F; control seal injection flow using RCP filter bypass valves MOV-18 or 19.</li> </ul>	1-YD-20-4C
	<ul> <li>Deenergize charging system test pump G-42 at MCC-2A.</li> </ul>	1-AB-(-3)-2A
1-YD-20-4A	<ul> <li>Isolate instrument air and manually control AFW control valves FCV-2300, 2301, 3300 and 3301.</li> </ul>	1-YD-14-4D
	<ul> <li>Deenergize 120VAC/480VAC/125VDC sources at vital buses 1, 2, 3, 3A, 5 and 6 and and DC buses 1 and 2.</li> </ul>	1-FH-14-7
		1-PB-20-13A 1-DG-20-17B
	<ul> <li>Isolate instrument air to fail open seal injection control valves FCV-1115</li> <li>A, B and C; verify closed seal water supply valves FCV-1115 D, E and F; control seal injection flow using RCP filter bypass valves MOV-18 or 19.</li> </ul>	1-YD-20-4C
	<ul> <li>Trip turbine in control room or at turbine stand.</li> </ul>	1-PB-42-16 or 1-TB-35-9B
	<ul> <li>Close containment spray isolation values (CRS-306 and CRS-307) located upstream of CV-82.</li> </ul>	1 - YD - 14 - 4D
	<ul> <li>Trip main feedwater pumps G-3A and G-3B at Buses 1C and 2C.</li> </ul>	1-PB-14-8
1-YD-20-4B	<ul> <li>Isolate instrument air and manually control AFW control valves FCV-2300, 2301, 3300 and 3301.</li> </ul>	1-YD-14-4D

\* Fire area/zone requiring manual action within the zone subsequent to a fire in that zone.

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#### <u> TABLE – 1</u>

#### (Continued)

Postulated Fire in Fire <u>Area/Zone</u>	Description of Manual Actions Required	Location of Manual Actions <u>Fire Area/Zone</u>
1-YD-20-4B	<ul> <li>Open manual bypass to pressurizer PORV nitrogen supply valve CV-532.</li> </ul>	1-YD-20-4C
	<ul> <li>Trip turbine in control room or at turbine stand.</li> </ul>	1-PB-42-16 or 1-TB-35-9B
,	<ul> <li>Deenergize 120VAC/480VAC/125VDC sources at vital buses 1 2 3 30 5 and 6 and</li> </ul>	1-FH-14-7
	and DC buses 1 and 2.	1-PB-20-13A 1-DG-20-17B
	<ul> <li>Isolate instrument air to fail open seal injection control valves FCV-1115 A, B and C; verify closed seal water supply valves FCV-1115 D, E and F; control seal injection flow using RCP filter bypass valves MOV-18 or 19.</li> </ul>	1-YD-20-4C
	<ul> <li>Deenergize charging system test pump G-42 at MCC-2A.</li> </ul>	1-AB-(-3)-2A
	<ul> <li>Close manual valve (BAS-344) downstream of primary water makeup control valve FCV-1102</li> </ul>	1-AB-(-3)-2A A.
	<ul> <li>Close containment spray pump isolation valves (CRS-306 and 307) located upstream of CV-114.</li> </ul>	1 - YD-14 - 4D
	<ul> <li>Deenergize safety injection pump G-50B at bus 1C.</li> </ul>	1-PB-14-8
	<ul> <li>Close manual valve BAS-316 located upstream of the boric acid supply control valve CV-334.</li> </ul>	1-AB-(-3)-2A
1-YD-20-4C*	<ul> <li>Close manual valves VCC-307, 308, 337 and 338 located upstream of charging flow control valve FCV-1112. For higher makeup flow rates through charging loop A manually override and open FCV-1112.</li> </ul>	1-YD-20-4C and 1-AB-(-3)-2A

\* Fire area/zone requiring manual action within the zone subsequent to a fire in that zone.

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## (Continued)

Postulated Fire in Fire <u>Area/Zone</u>	Description of Manual Actions Required	Location of Manual Actions <u>Fire Area/Zone</u>
1-YD-20-4C*	<ul> <li>Isolate instrument air to fail open seal injection control valves FCV-1115A, B and C; verify closed seal water supply valves FCV-1115D, E and F; control seal injection flow using RCP filter bypass valves MOV-18 or 19.</li> </ul>	1-YD-20-4C
	<ul> <li>Open manual bypass to pressurizer PORV nitrogen supply valve CV-532.</li> </ul>	1-YD-20-4C
1-YD-14-4D*	<ul> <li>Isolate instrument air and manually control AFW control valves FCV-2300, 2301, 3300 and 3301.</li> </ul>	1 - Y D - 1 4 - 4 D
	<ul> <li>Deenergize and verify open RWST charging isolation valves MOV-1100B and 1100D at MCC's 1 and 3.</li> </ul>	1-AB-(-3)-2A, 1-PB-14-8 and 1-TB-8-9A
	<ul> <li>Deenergize and manually open RWST isolation supply valve MOV-883.</li> </ul>	1-TB-8-9A and 1-YD-14-4D
	<ul> <li>Close manual valves VCC-307, 308, 337 and 338 located upstream of charging flow control valve FCV-1112. For higher makeup flow rates through charging loop A, manually override and open FCV-1112.</li> </ul>	1-YD-20-4C and 1-AB-(-3)-2A
	<ul> <li>Isolate instrument air to fail open seal injection control valves FCV-1115A, B and C; verify closed seal water supply valves FCV-1115D, E and F; control seal injection flow using RCP filter bypass valves MOV-18 or 19.</li> </ul>	1-YD-20-4C
	<ul> <li>Manually start motor driven AFW pump G-10S at 480V switchgear 1.</li> </ul>	1-PB-14-8
	<ul> <li>Open AFW pump G-10S discharge valve MOV-1202</li> </ul>	. 1-TB-8-9A

\* Fire area/zone requiring manual action within the zone subsequent to a fire in that zone.

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#### (Continued)

Postulated Fire in Fire Area/Zone	Description of Manual Actions Required	Location of Manual Actions Fire Area/Zone
1-YD-14-4D*	<ul> <li>Manual action may be required to intertie the 480V electrical distribution systems to power redundant components if the train 1, 2 or 3 480V electrical distri- bution system is lost.</li> </ul>	1-PB-14-8
	<ul> <li>Control CCW flow to RHR heat exchanger using manual valves CCW-459 and 461 located downstream of TCV-601A and B.</li> </ul>	1-YD-14-4D
	<ul> <li>Close reactor vessel vent valve SV-3402 and pressurizer high point vent valve SV-3404 at disconnect switches installed at the pene- tration area.</li> </ul>	1-YD-20-4A and 1-YD-20-4B
	<ul> <li>Deenergize charging system test pump G-42. at MCC-2A</li> </ul>	1-AB-(-3)-2A
	<ul> <li>Close manual valve (BAS-316) located upstream of boric acid supply control valve CV-334.</li> </ul>	1-AB-(-3)-2A
	<ul> <li>Close manual valve (BAS-344) downstream of primary water makeup control valve FCV-1102A.</li> </ul>	1-AB-(-3)-2A
	<ul> <li>Manually close volume control tank isolation valve MOV-1100C (see response to NRC question l.b. transmittal dated 11/15/85).</li> </ul>	1-AB-20-2N
1-YD-14-4F*	<ul> <li>Manually close volume control tank isolation valve MOV-1100C (see response to NRC question l.b. transmittal dated 11/15/85).</li> </ul>	1-AB-20-2N

\* Fire area/zone requiring manual action within the zone subsequent to a fire in that zone.

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Postulated Fire in Fire Area/Zone		Description of Manual Actions Required	Location of Manual Actions Fire Area/Zone
1-YD-14-4F*	-	Manually trip breaker RX1 and RY1 and close breakers 11C14 and 12C15 if required to energize 4160V bus 1C from diesel generator 1.	1-PB-14-8 1-YD-14-4F
1-FH-14-7*	-	Deenergize reactor coolant pumps G-2A and B.	1-PB-42-16
	-	Deenergize feedwater pumps G-3A and B at bus 1C and 2C.	1-PB-14-8
	-	Manually close volume control tank isolation valve MOV-1100C (see response to NRC question l.b. transmittal dated 11/15/85).	1-AB-20-2N
	-	Deenergize pressurizer heater groups B, C and D at switchgear 2 and station service transformers XO6 and XO7.	1-FH-14-7 and 1-YD-14-4D
	-	Isolate instrument air and manually control AFW control valves FCV-3300 and 3301.	1-YD-14-4D
	-	Start CCW pump G-15A at switchgear 1.	1-PB-14-8
	-	Deenergize and manually open RHR inlet and discharge isolation valves MOV-814 and 834.	1-FH-14-7 and 1-CO-(-10)-1
		Close reactor vessel vent valve SV-3402 and pressurizer high point vent valve SV-3404 at disconnect switches installed at the penetration area.	1-YD-20-4A and 1-YD-20-4B
	-	Deenergize refueling water pump G-27S at switchgear 2	1-FH-14-7
1-PB-14-8	-	Deenergize 120VAC/480VAC/125VDC	1-FH-14-7
		1, 2, 3, 3A, 5 and 6 and DC buses 1 and 2	1-PB-20-13A, and 1-DG-20-17B

\* Fire area/zone requiring manual action within the zone subsequent to a fire in that zone.

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Postulated Fire in Fire Area/Zone	Description of Manual Actions Required	Location of Manual Actions Fire Area/Zone
1-PB-14-8	<ul> <li>Trip offsite power prior to evacuating centrol room</li> </ul>	1-PB-42-16
	- Trip turbine in control room or at turbine stand	1-PB-42-16 and 1-TB-35-9B
	- Close manual valve (BAS-344) downstream of primary water makeup control valve FCV-1102A	1-AB-(-3)-2A
	<ul> <li>Close manual valve (BAS-316) located upstream of boric acid supply control valve CV-334</li> </ul>	1-AB-(-3)-2A
	<ul> <li>Manually close volume control tank isolation valve MOV-1100C (See response to NRC question l.b. transmittal dated 11/15/85)</li> </ul>	1-AB-20-2N
	<ul> <li>Open manual bypass to pressurizer</li> <li>PORV nitrogen supply valve CV-532</li> </ul>	1-YD-20-4C
	<ul> <li>Verify charging pump suction valves MOV-1100B or D from RWST open</li> </ul>	1-AB-(-3)-2A
	- Trip diesel generators 1 and 2	1-DG-20-17A and 1-DG-20-18
	- Close containment spray pump isolation valves (CRS-306 and 307) located upstream of CV-82, 92 and 114	1-YD-14-4D
	- Start RCP thermal barrier pump G-964 at 125VDC bus 1	1-PB-20-13A
	- Verify open RWST supply valve MOV-883	1-YD-14-4D

\* Fire area/zone requiring manual action within the zone subsequent to a fire in that zone.

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Postulated Fire in Fire Area/Zone	-	Description of Manual Actions Required	Location of Manual Actions Fire Area/Zone
1-PB-14-8	-	Isolate instrument air to fail open seal injection control valves FCV-1115A, B & C; verify closed seal water supply valves FCV-1115 D, E & F; control seal injection flow using RCP filter bypass valves MOV-18 or 17	1-YD-20-4C
	-	Deenergize charging system test pump G-42 at MCC-2A	1-AB-(-3)-2A
	-	Close reheater isolation valves MOV-14, 15,16 & 17	1-TB-8-9A
1-PB-20-11A and 1-PB-20-12	-	Trip turbine in control room or at turbine stand	1-PB-42-16 and 1-TB-35-9B
	-	Close manual valves VCC-307, 308, 337 and 338 located upstream of charging flow control valve FCV-1112. For higher makeup flow rates through charging loop A manually override and open FCV-1112	1-YD-20-4C and 1-AB-(-3)-2A
1-PB-20-13	-	Close manual valves VCC-307, 308, 337 and 338 located upstream of charging flow control valve FCV-1112. For higher makeup flow rates through charging loop A manually override and open FCV-1112	1-YD-20-4C and 1-AB-(-3)-2A
	-	Trip turbine in control room or at turbine stand	1-PB-42-16 and 1-TB-35-9B
1-PB-42-16*	-	Trip offsite power prior to exiting control room	1-PB-42-16
	-	Deenergize 120VAC/480VAC sources at vital buses 1, 2, 3, 3A, 5 & 6	1-FH-14-7 1-DG-20-17B

\* Fire area/zone requiring manual action within the zone subsequent to a fire in that zone.

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# (Continued)

Postulated Fire in Fire Area/Zone	Description of Manual Actions Required	Location of Manual Actions Fire Area/Zone
1-PB-42-16*	<ul> <li>Verify RWST charging isolation values MOV-1100B or D open</li> </ul>	1-AB-(-3)-2A
	<ul> <li>Verify RWST isolation return valve MOV-883 open</li> </ul>	1-YD-14-4D
·	<ul> <li>Isolate instrument air to fail open seal injection control valves FCV-1115A, B &amp; C; verify closed seal water supply valves VCV-1115 D, E, &amp; F; control seal injection flow using RCP filter bypass valves MOV-18 or 19</li> </ul>	1-YD-20-4C
	<ul> <li>Manually close reheater isolation valves MOV-14, 15, 16 and 17</li> </ul>	1-TB-8-9A
	- Trip turbine at turbine stand	1-TB-35-9B
	- Isolate instrument air and manually contro AFW control valves FCV-2300, 2301, 3300 & 3301	I 1-YD-14-4D
	<ul> <li>Start RCP thermal barrier pump G-964 at 125VDC bus</li> </ul>	1-PB-20-13A
	- Trip diesel generator 2	1-DG-20-17A
	- Trip diesel generator l	1-DG-20-18
	<ul> <li>Open manual bypass to pressurizer PORV nitrogen supply valve CV-532</li> </ul>	1-YD-20-4C
	<ul> <li>Close manual valve (BAS-344) downstream of primary water makeup control valve FCV-1102A</li> </ul>	1-AB-(-3)-2A
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\* Fire area/zone requiring manual action within the zone subsequent to a fire in that zone.

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## (Continued)

Postulated Fire in Fire Area/Zone		Description of Manual Actions Required	Location of Manual Actions Fire Area/Zone
1-PB-42-16*	-	Manually close volume control tank isolation valve MOV-1100C (See response to NRC question l.b transmittal dated 11/5/85)	1-AB-20-2N
	-	Deenergize refueling water pumps G-27N and G-27S at switchgears 1 and 2	1-FH-14-7
	-	Close containment spray pump isolation valves (CRS-306 and 307) located upstream of CV-82 and 114	1-YD-14-4D
	-	Deenergize safety injection pumps G-50A and B at bus 1C and 2C	1-PB-14-8
	-	Close manual valve BAS-316 located upstream of the boric acid supply control valve CV-334	1-AB-(-3)-2A
	-	Deenergize main feedwater pumps G-3A and B at bus 1C and 2C	1-PB-14-8
1-PB-14-25	-	Close manual valves VCC-307, 308,377 and 388 located upstream of charging flow control valve FCV-1112. For higher makeup flow rates through charging loop A manually override and open FCV-1112	1-YD-20-4C and 1-AB-(-3)-2A
1-PB-53-33	-	Isolate instrument air and manually control AFW control valves FCV-2300, 2301, 3300 & 3301	1-YD-14-4D
	-	Close reactor vessel vent valve SV-3402 and pressurizer high point vent valve SV-3404 at disconnect switches installed at the penetration area	1-YD-20-4A and 1-YD-20-4B
1-TB-8-9A*	-	Trip offsite power prior to exiting control room	1-PB-42-16
	-	Manually position RWST charging isolation valves MOV-1100B or D	1-AB-(-3)-2A
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\* Fire area/zone requiring manual action within the zone subsequent to a fire in that zone.

## <u> TABLE – 1</u>

## (Continued)

Postulated Fire in Fire <u>Area/Zone</u>	Description Actions Re	of Manual guired	Location of Manual Actions <u>Fire Area/Zone</u>
1-TB-8-9A*	- Deenergize 120VAC/48 buses 1, 2, 3, 3A, 5	OVAC sources at vital & 6	1-FH-14-7 and 1-DG-20-17B
	- Open RWST isolation	valve MOV-883	1-YD-14-4D
	<ul> <li>Isolate instrument a injection control va verify closed seal w FCV-1115D, E &amp; F; co flow using RCP filte MOV-18 or 19</li> </ul>	ir to fail open seal lves FCV-1115A, B & C; ater supply valves ntrol seal injection r bypass valves	1-YD-20-4C
	<ul> <li>Manually close rehea</li> <li>MOV-14, 15, 16 &amp; 17</li> </ul>	ter isolation valves	1-TB-8-9A
	<ul> <li>Trip turbine at turb</li> </ul>	ine stand	1-TB-8-9B
	<ul> <li>Open manual bypass to nitrogen supply valve</li> </ul>	⊃ pressurizer PORV e CV-532	1-YD-20-4C
	<ul> <li>Deenergize charging : at MCC-2A</li> </ul>	system test pump G-42	1-AB-(-3)-2A
	<ul> <li>Manually close volume valve MOV-1100C (See 1.b transmittal dated</li> </ul>	e control tank isolation response to NRC question 1 11/15/85)	1-AB-20-2N
	- Close manual valve (6 primary water makeup	3AS-344) downstream of control valve FCV-1102A	1-AB-(-3)-2A
	<ul> <li>Close manual valve (8 upstream of boric act CV-334</li> </ul>	BAS-316) located id supply control valve	1-AB-(-3)-2A
	<ul> <li>Deenergize 125VDC pow dump isolation valves (SV-90) at DC bus 1</li> </ul>	ver to condenser steam 5 CV-3 (SV-89) and CV-4	1-PB-20-13A
	<ul> <li>Open manual valves Af initiate single phase mately t=55 hours.</li> </ul>	W-375 and 377 to cooldown at approxi-	1-TB-8-9A
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\* Fire area/zone requiring manual action within the zone subsequent to a fire in that zone.

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Postulated Fire in Fire Area/Zone		Description of Manual Actions Required	Location of Manual Actions Fire Area/Zone
1-TB-8-9A*	-	Deenergize 125VDC power to steam generator sample isolation valves SV-119, 120, 121, 122, 123 & 124 at DC bus 1	1-PB-20-13A
	-	Deenergize refueling water pump G-27S at switchgear 2	1-FH-14-7
	-	Deenergize main feedwater pumps G-3A and G-3B at Bus 1C and 2C	1-PB-14-8
1 -TB-35-9B*	-	Isolate instrument air and manually position AFW control valves FCV-2300, 2301, 3300, & 3301	1-YD-14-4D
	-	Deenergize pressurizer heater groups A and B at switchgear 1 and 2	1-FH-14-7 and 1-PB-14-8
	-	Trip turbine at turbine stand	1-TB-35-9B
	-	Deenergize and manually open AFW pump G-10S discharge valve MOV-1202	1-TB-8-9A and 1-PB-14-8
	-	Manually start motor driven AFW pump G-10S at 480V switchgear 1	1-PB-14-8
	-	Close reactor vessel vent valve SV-3402 and pressurizer high point vent valve SV-3404 at disconnect switches installed at the penetration area	1-YD-20-4A and 1-YD-20-4B
	-	Verify closed AFW bypass isolation valve MOV-1204	1-TB-35-9A
1 -TB-20-9D	-	Deenergize and manually open RWST isolation return line MOV-883.	1-TB-8-7A and 1-YD-14-4D
1-DG-20-17A	-	Manually open bypass valve around CV-532 to allow nitrogen to PORVs.	1-YD-20-4C

\* Fire area/zone requiring manual action within the zone subsequent to a fire in that zone.

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#### LIST OF EXEMPTION REQUESTS 10 CFR 50 APPENDIX R SAN ONOFRE UNIT 1

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FIRE <u>AREA/ZONE</u>	APPENDIX R Section	DATE <u>SUBMITTED</u>	SEE <u>NOTES</u>
1-AB-(-3)-2A	III.G.3	10/4/85	
1-YD-20-4A	III.G.3	10/4/85	
1-YD-20-4B	III.G.3	10/4/85	
1-YD-14-4D	III.G.2 AND 3	10/4/85 (REV 0)	`1
1-YD-(-7)-4E	III.G.3	10/4/85	
1-TB-8-9A	III.G.3	10/4/85	
1-TB-35-9B	III.G.3	10/4/85	
1-PB-42-16	III.G.3	10/4/85	
1-PB-56-33	III.G.3	10/4/85	
GENERAL EXEMPT. 1	III.G.3	10/4/85	2
1-CO-(-10)-1	III.G.3	12/31/85	
1-YD-14-4D	III.G.3	12/31/85 (REV. 1	) 1

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#### NOTES

- This exemption was revised to remove the request for exemption from III.G.2 in accordance with the guidance provided by the NRC staff during the meetings of November 14 and 15, 1985. The exemption request per Rev. 1 applies only to III.G.3.
- 2. These exemptions are no longer required in accordance with the guidance provided by the NRC during the meetings of November 14 and 15, 1985. These exemptions have been replaced by evaluations demonstrating compliance with Section III.G.1 of Appendix R. The evaluations were submitted by letter dated December 31, 1985.