PAM Instrumentation 3.3.11

	FUNCTION	REQUIRED CHANNELS	CONDITIONS REFERENCED FROM REQUIRED ACTION F.1
1.	Excore Neutron Flux	2	F
2.	Reactor Coolant System Hot Leg Temperature	2 (1 per steam generator)	F
3.	Reactor Coolant System Cold Leg Temperature	2 (1 per steam generator)	F .
4.	Reactor Coolant System Pressure (wide range)	2	F
5.	Reactor Yessel Water Level	2 ^(d)	G
۶.	Containment Water Level (wide range)	2	F
7.	Containment Pressure (wide range)	2	F
8.	Containment Isolation Valve Position	2 per penetration flow path(a)(b)	F
9.	Containment Area Radiation (high range)	2	G
D.	Deleted		
1.	Pressurizer Level	2	F
12.	Steam Generator Water Level (wide range)	2 per steam generator	F
13.	Condensate Storage Tank Level	2	F
14.	Core Exit Temperature - Quadrant 1	2(c)	F
15.	Core Exit Temperature - Quadrant 2	2(c)	F
16.	Core Exit Temperature - Quadrant 3	2(c)	F
.7.	Core Exit Temperature - Quadrant 4	2(c)	F
18.	Auxiliary Feedwater flow	1 per steam generator	F
19.	Containment Pressure (narrow range)	2	F
20.	Reactor Coolant System Subcooling Margin Monitor	2	F
21.	Pressurizer Safety Valve Position Indication	1 per valve	F
22.	Containment Temperature	2	F
23.	Containment Water Level (narrow range)	2	F
24.	HPS1 Flow Cold Leg	1 per cold leg	F
25.	HPSI Flow Hot Leg	1 per hot leg	F
6.	Steam Line Pressure	2 per steam generator	F
27.	Refueling Water Storage Tank Level	2	F

Table 3.3.11-1 (page 1 of 1) Post Accident Honitoring Instrumentation

(a) Not required for isolation valves whose associated penetration is isolated by at least one closed and de-activated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured.

(b) Only one position indication channel is required for penetration flow paths with only one installed control room indication channel.

(c) A channel consists of two or more core exit thermocouples.

(d) A channel consists of eight sensors in a probe. A channel is DPERABLE if four or more sensors, one sensor in the upper head and three sensors in the lower head are OPERABLE.

SAN ONOFRE--UNIT 2

Amendment No.194 Corrected by NRC letter dated 5/18/05

PAM Instrumentation 3.3.11

	FUNCTION	REQUIRED CHANNELS	CONDITIONS REFERENCED FROM REQUIRED ACTION F.1
1.	Excore Neutron Flux	2	F
2.	Reactor Coolant System Hot Leg Temperature	2 (1 per steam generator)	·F
3.	Reactor Coolant System Cold Leg Temperature	2 (1 per steam generator)	, F
4.	Reactor Coolant System Pressure (wide range)	2.	F
5.	Reactor Vessel Water Level	2 ^(d)	G
6.	Containment Water Level (wide range)	2	F
7.	Containment Pressure (wide range)	2	F
8.	Containment Isolation Valve Position	2 per penetration flow path(a)(b)	F
9.	Containment Area Radiation (high range)	2	G
10.	Deleted		
11.	Pressurizer Level	2	F
12.	Steam Generator Water Level (wide range)	2 per steam generator	F
13.	Condensate Storage Tank Level	2	F
14.	Core Exit Temperature - Quadrant 1	₂ (c)	F
15.	Core Exit Temperature - Quadrant 2	2(c)	F
16.	Core Exit Temperature - Quadrant 3	2 ^(c)	F
17.	Core Exit Temperature - Quadrant 4	2 ^(c)	F
18.	Auxiliary Feedwater Flow	1 per steam generator	F
19.	Containment Pressure (narrow range)	2	F
20.	Reactor Coolant System Subcooling Margin Honitor	2	۶
21.	Pressurizer Safety Valve Position Indication	1 per valve	F
22.	Containment Temperature	2	F
23.	Containment Water Level (narrow range)	2	F
24.	HPSI Flow Cold Leg	1 per cold leg	F
25.	HPSI Flow Hot Leg	1 per hot leg	F
26.	Steam Line Pressure	2 per steam generator	F
27.	Refueling Water Storage Tank Level	2	+ F

Table 3.3.11-1 (page 1 of 1) Post Accident Honitoring Instrumentation

(a) Not required for isolation valves whose associated penetration is isolated by at least one closed and de-activated automatic valve, closed manual valve, blind flange, or check valve with flow through the valve secured.

(b) Only one position indication channel is required for penetration flow paths with only one installed control room indication channel.

(c) A channel consists of two or more core exit thermocouples.

(d) A channel consists of eight sensors in a probe. A channel is OPERABLE if four or more sensors, one sensor in the upper head and three sensors in the lower head are OPERABLE.