

- (8)(a) Arizona Public Service Company is authorized to transfer all or a portion of its 29.1% ownership share in Palo Verde, Unit 2 to certain equity investors identified in its submissions of August 6, August 8 and December 5, 1986, and at the same time to lease back from such purchasers such interest sold in the Palo Verde, Unit 2 facility. The term of the lease is for approximately 29-½ years subject to a right of renewal. Additional sale and leaseback transactions of all or a portion of APS's remaining ownership share in Palo Verde, Unit 2 are hereby authorized until June 30, 1987. Any such sale and lease back transaction is subject to the representations and conditions set forth in the aforementioned application of May 2, 1986, and the subsequent submittals dated July 30, August 2, August 6, August 7, August 8, August 13, October 16 and December 5, 1986, as well as the letters of the Director of the Office of Nuclear Reactor Regulation dated August 15, and December 11, 1986, consenting to such transactions. Specifically, the lessor and anyone else who may acquire an interest under this transaction are prohibited from exercising directly or indirectly any control over the licensees of the Palo Verde Nuclear Generating Station, Unit 2. For purposes of this condition the limitations in 10 CFR 50.81, "Creditor Regulations," as now in effect and as they may be subsequently amended, are fully applicable to the lessor and any successor in interest to the lessor as long as the license for Palo Verde, Unit 2 remains in effect; this financial transaction shall have no effect on the license for the Palo Verde nuclear facility throughout the term of the license.
- (b) Further, the licensees are also required to notify the NRC in writing prior to any change in: (i) the terms or conditions of any lease agreements executed as part of this transaction; (ii) the ANPP Participation Agreement, (iii) the existing property insurance coverage for the Palo Verde nuclear facility, Unit 2 as specified in licensee counsel's letter of November 26, 1985, and (iv) any action by the lessor or others that may have an adverse effect on the safe operation of the facility.

C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

Arizona Public Service Company (APS) is authorized to operate the facility at reactor core power levels not in excess of 3990 megawatts thermal (100% power) in accordance with the conditions specified herein.

1.1 Definitions (continued)

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RATED THERMAL POWER (RTP)	RTP shall be a total reactor core heat transfer rate to the reactor coolant of 3876 Mwt for Units 1 and 3. and 3990 Mwt for Unit 2.
REACTOR PROTECTIVE SYSTEM (RPS) RESPONSE TIME	The RPS RESPONSE TIME shall be that time interval from when the monitored parameter exceeds its RPS trip setpoint at the channel sensor until electrical power to the CEAs drive mechanism is interrupted. The response time may be measured by means of any series of sequential, overlapping, or total steps so that the entire response time is measured. In lieu of measurement, response time may be verified for selected components provided that the components and methodology for verification have been previously reviewed and approved by the NRC.
SHUTDOWN MARGIN (SDM)	<p>SDM shall be the instantaneous amount of reactivity by which the reactor is subcritical or would be subcritical from its present condition assuming:</p> <ol style="list-style-type: none"><li>All full length CEAs (shutdown and regulating) are fully inserted except for the single CEA of highest reactivity worth, which is assumed to be fully withdrawn. With any full length CEAs not capable of being fully inserted, the withdrawn reactivity worth of these CEAs must be accounted for in the determination of SDM and</li><li>There is no change in part length CEA position.</li></ol>

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(continued)

RPS Instrumentation - Operating  
3.3.1

Table 3.3.1-1 (page 1 of 3)  
Reactor Protective System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Variable Over Power	1.2	SR 3.3.1.1 SR 3.3.1.4 SR 3.3.1.6 SR 3.3.1.7 SR 3.3.1.8 SR 3.3.1.9 SR 3.3.1.13	Ceiling $\leq$ 111.0% RTP Band $\leq$ 9.9% RTP Incr. Rate $\leq$ 11.0%/min RTP Decr. Rate $>$ 5%/sec RTP
2. Logarithmic Power Level - High(a)	2	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.9 SR 3.3.1.12 SR 3.3.1.13	$\leq$ 0.011% NRTP
3. Pressurizer Pressure - High	1.2	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.9 SR 3.3.1.13	$\leq$ 2388 psia
4. Pressurizer Pressure - Low	1.2	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.9 SR 3.3.1.12 SR 3.3.1.13	$\geq$ 1821 psia
5. Containment Pressure - High	1.2	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.9 SR 3.3.1.13	$\leq$ 3.2 psig
6. Steam Generator #1 Pressure - Low	1.2	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.9 SR 3.3.1.13	Units 1 and 3: $\geq$ 890 psia Unit 2: $\geq$ 955 psia
7. Steam Generator #2 Pressure - Low	1.2	SR 3.3.1.1 SR 3.3.1.7 SR 3.3.1.9 SR 3.3.1.13	Units 1 and 3: $\geq$ 890 psia Unit 2: $\geq$ 955 psia

(continued)

(a) Trip may be bypassed when logarithmic power is  $>$  1E-4% NRTP. Bypass shall be automatically removed when logarithmic power is  $\leq$  1E-4% NRTP.

PALO VERDE UNITS 1 AND 3  
PALO VERDE UNIT 2

3.3.1-8

AMENDMENT NO. ~~117~~, 119  
AMENDMENT NO. ~~119~~ 149

RPS Instrumentation - Shutdown  
3.3.2

Table 3.3.2-1  
Reactor Protective System Instrumentation - Shutdown

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	SURVEILLANCE REQUIREMENTS	ALLOWABLE VALUE
1. Logarithmic Power Level-High <sup>(d)</sup>	3 <sup>(a)</sup> , 4 <sup>(a)</sup> , 5 <sup>(a)</sup>	SR 3.3.2.1 SR 3.3.2.2 SR 3.3.2.3 SR 3.3.2.4 SR 3.3.2.5	≤ 0.011% NRTP <sup>(c)</sup>
2. Steam Generator #1 Pressure-Low <sup>(b)</sup>	3 <sup>(a)</sup>	SR 3.3.2.1 SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.5	Units 1 and 3: ≥ 890 psia Unit 2: ≥ 955 psia
3. Steam Generator #2 Pressure-Low <sup>(b)</sup>	3 <sup>(a)</sup>	SR 3.3.2.1 SR 3.3.2.2 SR 3.3.2.4 SR 3.3.2.5	Units 1 and 3: ≥ 890 psia Unit 2: ≥ 955 psia

- (a) With any Reactor Trip Circuit Breakers (RTCBS) closed and any control element assembly capable of being withdrawn.
- (b) The setpoint may be decreased as steam pressure is reduced, provided the margin between steam pressure and the setpoint is maintained ≤ 200 psig. The setpoint shall be automatically increased to the normal setpoint as steam pressure is increased.
- (c) The setpoint must be reduced to ≤ 1E-4% NRTP when less than 4 RCPs are running.
- (d) Trip may be bypassed when logarithmic power is > 1E-4% NRTP. Bypass shall be automatically removed when logarithmic power is ≤ 1E-4% NRTP.

Table 3.3.5-1 (page 1 of 1)  
Engineered Safety Features Actuation System Instrumentation

FUNCTION	APPLICABLE MODES OR OTHER SPECIFIED CONDITIONS	ALLOWABLE VALUE
1. Safety Injection Actuation Signal		
a. Containment Pressure - High	1.2.3	$\leq 3.2$ psig
b. Pressurizer Pressure - Low(a)		$\geq 1821$ psia
2. Containment Spray Actuation Signal		
a. Containment Pressure - High High	1.2.3	$\leq 8.9$ psig
3. Containment Isolation Actuation Signal		
a. Containment Pressure - High	1.2.3	$\leq 3.2$ psig
b. Pressurizer Pressure - Low(a)		$\geq 1821$ psia
4. Main Steam Isolation Signal(c)		
a. Steam Generator #1 Pressure-Low(b)	1.2.3	Units 1 and 3: $\geq 890$ psia Unit 2: $\geq 955$ psia
b. Steam Generator #2 Pressure-Low(b)		Units 1 and 3: $\geq 890$ psia Unit 2: $\geq 955$ psia
c. Steam Generator #1 Level-High		$\leq 91.5\%$
d. Steam Generator #2 Level-High		$\leq 91.5\%$
e. Containment Pressure-High		$\leq 3.2$ psig
5. Recirculation Actuation Signal		
a. Refueling Water Storage Tank Level-Low	1.2.3	$\geq 6.9$ and $\leq 7.9\%$
6. Auxiliary Feedwater Actuation Signal SG #1 (AFAS-1)		
a. Steam Generator #1 Level-Low	1.2.3	$\geq 25.3\%$
b. SG Pressure Difference-High		$\leq 192$ psid
7. Auxiliary Feedwater Actuation Signal SG #2 (AFAS-2)		
a. Steam Generator #2 Level-Low	1.2.3	$\geq 25.3\%$
b. SG Pressure Difference-High		$\leq 192$ psid

- (a) The setpoint may be decreased to a minimum value of 100 psia, as pressurizer pressure is reduced, provided the margin between pressurizer pressure and the setpoint is maintained  $\leq 400$  psia or  $\geq 140$  psia greater than the saturation pressure of the RCS cold leg when the RCS cold leg temperature is  $\geq 485^\circ\text{F}$ . Trips may be bypassed when pressurizer pressure is  $< 400$  psia. Bypass shall be automatically removed when pressurizer pressure is  $\geq 500$  psia. The setpoint shall be automatically increased to the normal setpoint as pressurizer pressure is increased.
- (b) The setpoint may be decreased as steam pressure is reduced, provided the margin between steam pressure and the setpoint is maintained  $\leq 200$  psig. The setpoint shall be automatically increased to the normal setpoint as steam pressure is increased.
- (c) The Main Steam Isolation Signal (MSIS) Function (Steam Generator Pressure - Low, Steam Generator Level-High and Containment Pressure - High signals) is not required to be OPERABLE when all associated valves isolated by the MSIS Function are closed.

Figure 3.4.1-1, (Page 1 of 2)  
Reactor Coolant Cold Leg Temperature vs. Core Power Level

Units 1 and 3

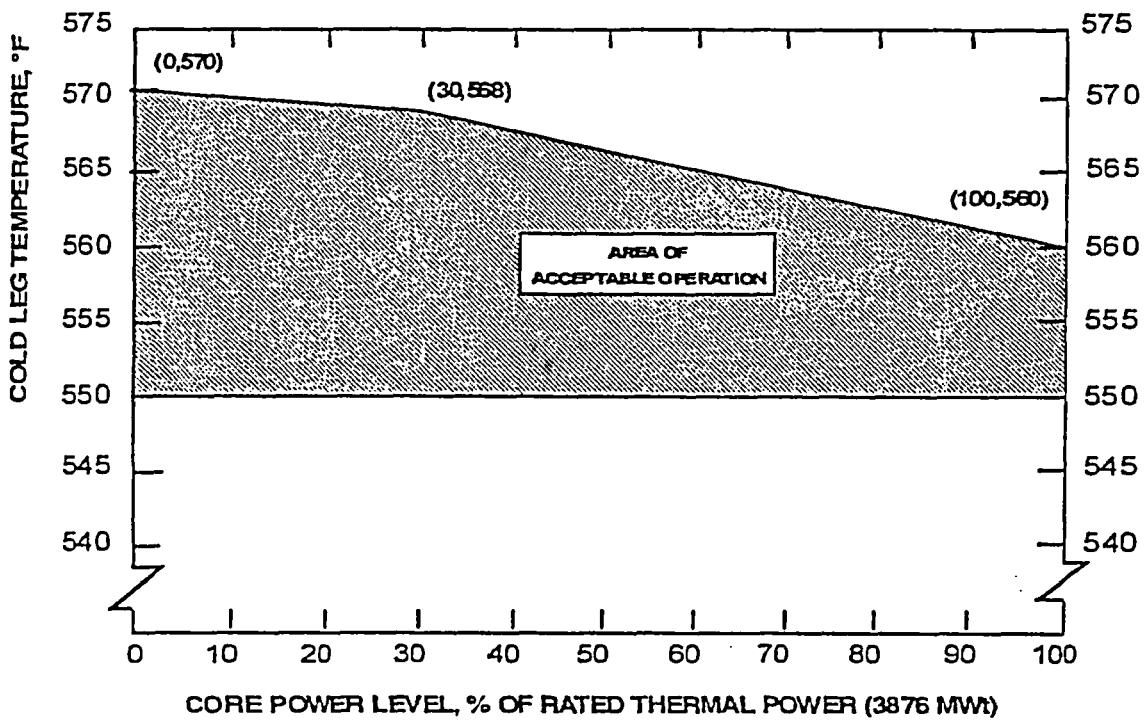


Figure 3.4.1-1, (Page 2 of 2)  
Reactor Coolant Cold Leg Temperature vs. Core Power Level

Unit 2

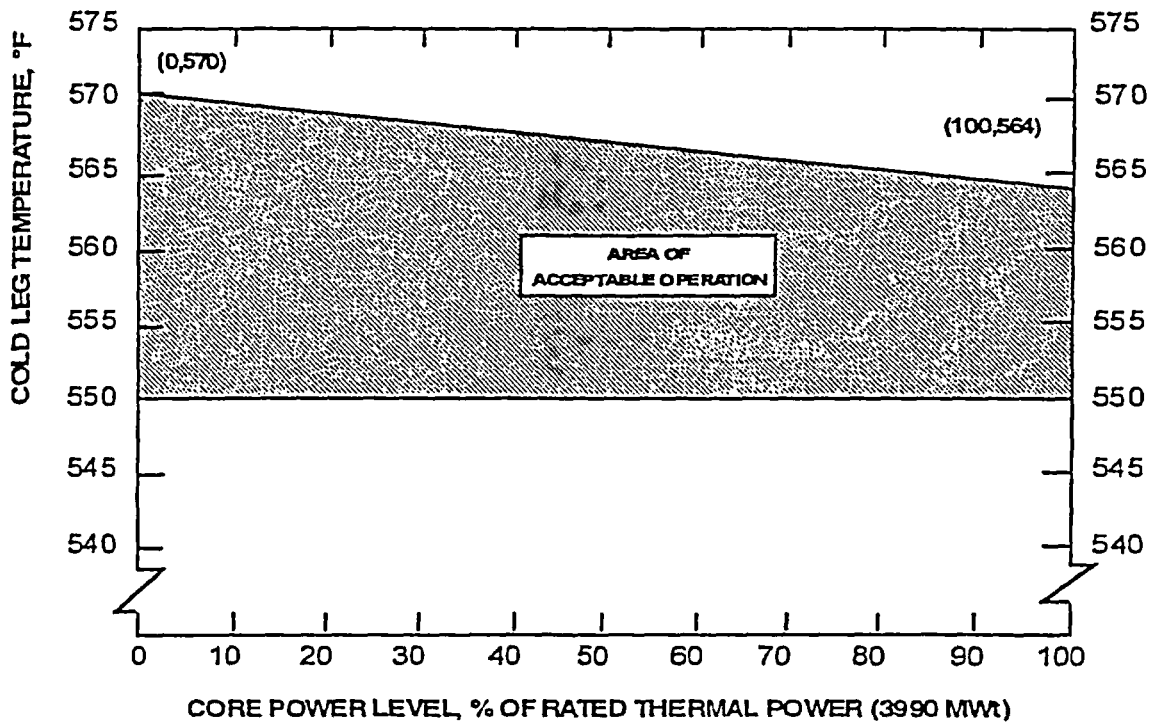


Table 3.7.1-1 (page 1 of 1)  
Variable Overpower Trip Setpoint versus  
OPERABLE Main Steam Safety Valves

MINIMUM NUMBER OF MSSVs PER STEAM GENERATOR REQUIRED OPERABLE	MAXIMUM POWER (% RTP)		MAXIMUM ALLOWABLE VARIABLE OVERPOWER TRIP SETPOINT (% RTP)	
	Units 1 and 3	Unit 2	Units 1 and 3	Unit 2
10	100.0	100.0	111.0	111.0
9	98.2	90.0	108.0	99.7
8	87.3	80.0	97.1	89.7
7	76.4	68.0	86.2	77.7
6	65.5	56.0	75.3	65.7



5.5 Programs and Manuals (continued)

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5.5.15 Safety Function Determination Program (continued)

- b. A required system redundant to system(s) in turn supported by the inoperable supported system is also inoperable; or
- c. A required system redundant to support system(s) for the supported systems (a) and (b) above is also inoperable.

The SFDP identifies where a loss of safety function exists. If a loss of safety function is determined to exist by this program, the appropriate Conditions and Required Actions of the LCO in which the loss of safety function exists are required to be entered.

When a loss of safety function is caused by the inoperability of a single Technical Specification support system, the appropriate Conditions and Required Actions to enter are those of the support system.

5.5.16 Containment Leakage Rate Testing Program

A program shall be established to implement the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50, Appendix J, Option B, as modified by approved exemptions. This program shall be in accordance with the guidelines contained in Regulatory Guide 1.163, "Performance-Based Containment Leak-Test Program," dated September, 1995, as modified by the following exceptions:

The peak calculated containment internal pressure for the design basis loss of coolant accident,  $P_a$ , is 52.0 psig for Units 1 and 3, and 58.0 psig for Unit 2. The containment design pressure is 60 psig.

The maximum allowable containment leakage rate,  $L_a$ , at  $P_a$ , shall be 0.1 % of containment air weight per day.

Leakage Rate acceptance criteria are:

- a. Containment leakage rate acceptance criterion is  $\leq 1.0 L_a$ . During the first unit startup following testing in accordance with this program, the leakage rate acceptance are  $< 0.60 L_a$  for the Type B and C tests and  $\leq 0.75 L_a$  for Type A tests.

(continued)