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## INDEX

### ADMINISTRATIVE CONTROLS

<u>SECTION</u>	<u>PAGE</u>	
<u>6.14 OFFSITE DOSE CALCULATION MANUAL.....</u>	<u>6-23 24</u>	x
<u>6.15 MAJOR CHANGES TO RADIOACTIVE LIQUID, GASEOUS, AND SOLID WASTE TREATMENT SYSTEMS.....</u>	<u>6-24</u>	
<u><del>6.16 PRE-PLANNED-ALTERNATE-SAMPLING-PROGRAM-.....</del></u>	<u><del>6-25</del></u>	x

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XVIII

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TABLE 3.3-6

RADIATION MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABLE MODES</u>	<u>ALARM/TRIP SETPOINT</u>	<u>MEASUREMENT RANGE</u>	<u>ACTION</u>
1. Area Monitors					
A. Fuel Pool Area RU-31	1	**	$\leq 15 \text{ mR/hr}$	$10^{-1}$ to $10^4 \text{ mR/hr}$	22 & 24
B. New Fuel Area RU-19	1	*	$\leq 15 \text{ mR/hr}$	$10^{-1}$ to $10^4 \text{ mR/hr}$	22
C. Containment RU-148 & RU-149	2	1,2,3,4	$\leq 10 \text{ R/hr}$	$1 \text{ R/hr}$ to $10^7 \text{ R/hr}$	27
D. Containment Power Access Purge Exhaust RU-37 & RU-38	1	#	$\leq 2.5 \text{ mR/hr}$	$10^{-1}$ to $10^4 \text{ mR/hr}$	25
E. Main Steam					
1) RU-139 A&B	1	1,2,3,4	##	$10^{-3}$ to $10^4 \text{ R/hr}$	27
2) RU-140 A&B	1	1,2,3,4	##	$10^{-3}$ to $10^4 \text{ R/hr}$	27
2. Process Monitors					
A. Containment Building Atmosphere RU-1	2	1,2,3,4			23 & 27
1) Particulate			$\leq 2.3 \times 10^{-6} \mu\text{Ci/cc}$	$10^{-9}$ to $10^{-4} \mu\text{Ci/cc}$	
			Cs-137		
2) Gaseous			$\leq 6.6 \times 10^{-2} \mu\text{Ci/cc}$	$10^{-6}$ to $10^{-1} \mu\text{Ci/cc}$	
			Xe-133		
B. Noble Gas Monitors Control Room Ventilation Intake RU-29 & RU-30	1	ALL MODES	$\leq 2 \times 10^{-5} \mu\text{Ci/cc}$	$10^{-6}$ to $10^{-1} \mu\text{Ci/cc}$	26
3. Post Accident Sampling System	1###	1,2,3	N.A.	N.A.	28

\*With fuel in the storage pool or building.

\*\*With irradiated fuel in the storage pool.

##When purge is being used.

###Three (3) times background in Rem/hour.

####The Minimum Channels Operable will be defined in the Preplanned Alternate Sampling Program.  
of Specification 6-16.



TABLE 3.3-6 (Continued)

ACTION STATEMENTS

- ACTION 22 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, perform area surveys of the monitored area with portable monitoring instrumentation at least once per 24 hours.
- ACTION 23 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.4.5.1.
- ACTION 24 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.12 or operate the fuel building essential ventilation system while handling irradiated fuel.
- ACTION 25 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, comply with the ACTION requirements of Specification 3.9.9.
- ACTION 26 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, within 1 hour initiate and maintain operation of the control room emergency ventilation system in the recirculation mode of operation.
- ACTION 27 - With the number of OPERABLE Channels less than required by the Minimum Channels OPERABLE requirement, either restore the inoperable channel(s) to OPERABLE status within 72 hours, or:
1. For area monitors RU-139 A and B, RU-140 A and B, RU-148 and RU-149, initiate a preplanned alternate program to monitor the appropriate parameters.
  2. For process monitors, place moveable air monitor in-line.
  3. Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 30 days following the event outlining the action taken, the cause of the inoperability, and the plans and schedule for restoring the system to OPERABLE status.
- ACTION 28 - With the number of OPERABLE Channels one less than required by the Minimum Channels OPERABLE requirement, either restore the inoperable channel(s) to OPERABLE status within 7 days, or:
1. Initiate the Preplanned Alternate Sampling Program of Specification 6.16 to monitor the appropriate parameter(s).
  2. Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 30 days following the event outlining the action(s) taken, the cause of the inoperability, and the plans and schedule for restoring the system to OPERABLE status.

TABLE 3.3-12 (Continued)

TABLE NOTATION

\* At all times.

\*\* During GASEOUS RADWASTE SYSTEM operation.

# During waste gas release.

## In MODES 1, 2, 3, and 4 or when irradiated fuel is in the fuel storage pool.

ACTION 35 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, the contents of the tank(s) may be released to the environment provided that prior to initiating the release:

- a. At least two independent samples of the tank's contents are analyzed, and
- b. At least two technically qualified members of the facility staff independently verify the release rate calculations and discharge valve lineup;

Otherwise, suspend release of radioactive effluents via this pathway.

ACTION 36 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided the flow rate is estimated at least once per 4 hours.

ACTION 37 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided the actions of (A) or (B) or (C) are performed:

- a. Initiate the Preplanned Alternate Sampling Program of Specification 6.16 to monitor the appropriate parameter(s).
- b. Place moveable air monitors in-line or take grab samples at least once per 12 hours.

C. ←

ACTION 38 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, immediately suspend PURGING of radioactive effluents via this pathway.

ACTION 39 - With the number of channels OPERABLE one less than required by the Minimum Channels OPERABLE requirement, operation of the GASEOUS RADWASTE SYSTEM may continue provided grab samples are taken and analyzed daily. With both channels inoperable operation may continue provided grab samples are taken and analyzed (1) every 4 hours during degassing operations, and (2) daily during other operations.



TABLE 3.3-12 (Continued)

TABLE NOTATION

- ACTION 40 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via the effected pathway may continue provided samples are continuously collected with auxiliary sampling equipment as required in Table 4.11-2 within one hour after the channel has been declared inoperable.
- ACTION 41 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirements, comply with the ACTION b of Specification 3.9.12 or operate the fuel building essential ventilation system while moving irradiated fuel.
- ACTION 42 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement restore the channel to OPERABLE status within 72 hours or:
- a. Initiate the Preplanned Alternate Sampling Program ~~of~~ Specification ~~6.16~~ to monitor the appropriate parameter(s) when it is needed.
  - b. Prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 30 days following the event outlining the action(s) taken, the cause of the inoperability, and the plans and schedule for restoring the system to OPERABLE status.

X

## ADMINISTRATIVE CONTROLS

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### AUDITS (Continued)

- g. The fire protection equipment and program implementation at least once per 12 months utilizing either a qualified offsite licensee fire protection engineer or an outside independent fire protection consultant. An outside independent fire protection consultant shall be used at least every third year.
- h. The radiological environmental monitoring program and the results thereof at least once per 12 months.
- i. The OFFSITE DOSE CALCULATION MANUAL and implementing procedures at least once per 24 months.
- j. The PROCESS CONTROL PROGRAM and implementing procedures for processing and packaging of radioactive wastes at least once per 24 months.
- k. The performance of activities required by the Operations Quality Assurance Criteria Manual to meet the provisions of Regulatory Guide 1.21, Revision 1, June 1974 and Regulatory Guide 4.1, Revision 1, April 1975 at least once per 12 months.
- ~~l. The Pre-planned Alternate Sampling Program and implementing procedures at least once per 24 months.~~ X

### AUTHORITY

6.5.3.6 The NSG shall report to and advise the Manager of Nuclear Safety on those areas of responsibility specified in Specifications 6.5.3.4 and 6.5.3.5.

### RECORDS

6.5.3.7 Records of NSG activities shall be prepared and maintained. Report of reviews and audits shall be prepared monthly for the Manager of Nuclear Safety who will distribute it to the Vice President-Nuclear Production, PVNGS Plant Manager, and to the management positions responsible for the areas audited.

### 6.6 REPORTABLE EVENT ACTION

6.6.1 The following actions shall be taken for REPORTABLE EVENTS:

- a. The Commission shall be notified and a report submitted pursuant to the requirements of Section 50.73 to 10 CFR Part 50, and
- b. Each REPORTABLE EVENT requiring 24 hours written notification shall be reviewed by the PRB, and the results of this review shall be submitted to the Supervisor of Nuclear Safety Group and the Vice President-Nuclear Production.



## ADMINISTRATIVE CONTROLS

### MAJOR CHANGES TO RADIOACTIVE LIQUID, GASEOUS, AND SOLID WASTE TREATMENT SYSTEMS (Continued)

- 6) A comparison of the predicted releases of radioactive materials, in liquid and gaseous effluents and in solid waste, to the actual releases for the period prior to when the changes are to be made; and
- 7) An estimate of the exposure to plant operating personnel as a result of the change.

#### ~~6.16 PRE-PLANNED-ALTERNATE-SAMPLING-PROGRAM-(PASP)-~~

~~6.16.1 The PASP shall be approved by the Regional Administrator, U.S. NRC Region V, prior to implementation.~~

#### ~~6.16.2 Licensee-initiated changes to the PASP:~~

~~Shall be submitted to the Commission in the Semiannual Radioactive Effluent Release Report for the period in which the change(s) was made. This submittal shall contain:~~

- ~~1) Sufficiently detailed information to totally support the rationale for the change without benefit of additional or supplemental information; and~~
- ~~2) A determination that the change did not reduce the overall effectiveness of the Gaseous Effluent Sampling Program.~~
- ~~3) A determination that the change did not reduce the overall effectiveness of the Post Accident Sampling System.~~
- ~~4) A determination that the change did not reduce the overall effectiveness of the post-accident High Range Effluent Monitors.~~



accordance with the previously evaluated design of the plant. Generic letter 85-19 dated September 27, 1985 provided guidance on Technical Specification revisions required as the result of the revisions to 10 CFR 50.72 and of implementation of 10 CFR 50.73. Thus, this change is in accordance with the original plant design.

The proposed Technical Specification change will not create the possibility for an accident or malfunction of a different type than any evaluated previously in the FSAR. No physical changes are being made to the plant and this change only revises the Technical Specifications to reflect a regulatory change.

The proposed Technical Specification change will not reduce the margin of safety as defined in the basis for any Technical Specifications. The basis for Technical Specifications 3.4.7 incorporates the limitations on the specific activity of the primary coolant to ensure that the resulting 2-hour doses at the site boundary will not exceed an appropriately small fraction of part 100 limits following a steam generator leakage rate of 1.0 gpm and a concurrent loss-of-offsite electrical power. This change does not affect these bases since assurance is provided in that the quality of nuclear fuel has been greatly improved with the result that normal coolant iodine activity (ie. in the absence of iodine spiking) is well below the limit. And appropriate actions would be initiated long before accumulating 800 hours above the iodine activity limit. In addition, 10 CFR 50.72 (b)(1)(ii) requires the NRC to be immediately notified of fuel cladding failures that exceed expected values or that are caused by unexpected factors.

F. ENVIRONMENTAL IMPACT CONSIDERATION DETERMINATION

The proposed change request does not involve an unreviewed environment question because operation of PVNGS Unit 1 in accordance with this change would not:

1. Result in a significant increase in any adverse environmental impact previously evaluated in the Final Environmental Statement (FES) as modified by the staff's testimony to the Atomic Safety and Licensing Board, Supplements to the FES, Environmental Impact Appraisals. or in any decisions of the Atomic Safety and Licensing Board; or
2. Result in a significant change in effluents or power levels; or
3. Result in matters not previously reviewed in the licensing basis for PVNGS which may have a significant environmental impact.

G. MARKED-UP TECHNICAL SPECIFICATION CHANGE PAGES

(see attached pages; VI, XVII, XVIII, XIX, 3/4 4-25, 3/4 4-26, 3/4 4-27, 3/4 4-28, 3/4 4-29, 3/4 4-30, 3/4 4-31, 3/4 4-32, 3/4 4-33, B 3/4 4-5, and 6-17)



## INDEX

### LIMITING CONDITION FOR OPERATION AND SURVEILLANCE REQUIREMENTS

<u>SECTION</u>	<u>PAGE</u>		
3/4.4.2 SAFETY VALVES			
SHUTDOWN.....	3/4 4-7		
OPERATING.....	3/4 4-8		
3/4.4.3 PRESSURIZER			
PRESSURIZER.....	3/4 4-9		
AUXILIARY SPRAY.....	3/4 4-10		
3/4.4.4 STEAM GENERATORS.....	3/4 4-11		
3/4.4.5 REACTOR COOLANT SYSTEM LEAKAGE			
LEAKAGE DETECTION SYSTEMS.....	3/4 4-18		
OPERATIONAL LEAKAGE.....	3/4 4-19		
3/4.4.6 CHEMISTRY.....	3/4 4-22		
3/4.4.7 SPECIFIC ACTIVITY.....	3/4 4-25		
3/4.4.8 PRESSURE/TEMPERATURE LIMITS			
REACTOR COOLANT SYSTEM.....	3/4 4-29	28	x
PRESSURIZER HEATUP/COOLDOWN LIMITS.....	3/4 4-32	31	x
OVERPRESSURE PROTECTION SYSTEMS.....	3/4 4-33	32	
3/4.4.9 STRUCTURAL INTEGRITY.....	3/4 4-34		
3/4.4.10 REACTOR COOLANT SYSTEM VENTS.....	3/4 4-35		
<u>3/4.5 EMERGENCY CORE COOLING SYSTEMS (ECCS)</u>			
3/4.5.1 SAFETY INJECTION TANKS.....	3/4 5-1		
3/4.5.2 ECCS SUBSYSTEMS - $T_{cold} \geq 350^{\circ}\text{F}$ .....	3/4 5-3		
3/4.5.3 ECCS SUBSYSTEMS - $T_{cold} < 350^{\circ}\text{F}$ .....	3/4 5-7		
3/4.5.4 REFUELING WATER TANK.....	3/4 5-8		

## INDEX

### ADMINISTRATIVE CONTROLS

<u>SECTION</u>	<u>PAGE</u>	
6.5.3 NUCLEAR SAFETY GROUP		
FUNCTION.....	6-10	
COMPOSITION.....	6-10	
CONSULTANTS.....	6-10	
REVIEW.....	6-10	
AUDITS.....	6-11	
AUTHORITY.....	6-12	
RECORDS.....	6-12	
<u>6.6 REPORTABLE EVENT ACTION.....</u>	6-12	
<u>6.7 SAFETY LIMIT VIOLATION.....</u>	6-13	
<u>6.8 PROCEDURES AND PROGRAMS.....</u>	6-13	
<u>6.9 REPORTING REQUIREMENTS</u>		
6.9.1 ROUTINE REPORTS.....	6-16	
STARTUP REPORT.....	6-16	
ANNUAL REPORTS.....	6-17 18	x
MONTHLY OPERATING REPORT.....	6-17 18	x
ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT.....	6-17 19	x
SEMIANNUAL RADIOACTIVE EFFLUENT RELEASE REPORT.....	6-18 19	x
6.9.2 SPECIAL REPORTS.....	6-20	
<u>6.10 RECORD RETENTION.....</u>	6-20	
<u>6.11 RADIATION PROTECTION PROGRAM.....</u>	6-22	
<u>6.12 HIGH RADIATION AREA.....</u>	6-22	
<u>6.13 PROCESS CONTROL PROGRAM.....</u>	6-23	

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## INDEX

### ADMINISTRATIVE CONTROLS

---

<u>SECTION</u>	<u>PAGE</u>
<u>6.14 OFFSITE DOSE CALCULATION MANUAL.....</u>	6-23 24 x
<u>6.15 MAJOR CHANGES TO RADIOACTIVE LIQUID, GASEOUS, AND SOLID WASTE TREATMENT SYSTEMS.....</u>	6-24
<u><del>6.16 PRE-PLANNED-ALTERNATE-SAMPLING-PROGRAM.....</del></u>	<del>6-25</del> x



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## INDEX

### LIST OF FIGURES

		<u>PAGE</u>	
3.1-1	ALLOWABLE MTC MODES 1 AND 2.....	3/4 1-5	
3.1-2	MINIMUM BORATED WATER VOLUMES.....	3/4 1-12	
3.1-2A	PART LENGTH CEA INSERTION LIMIT VS. THERMAL POWER.....	3/4 1-23	
3.1-2B	CORE POWER LIMIT AFTER CEA DEVIATION.....	3/4 1-24	
3.1-3	CEA INSERTION LIMITS VS THERMAL POWER (COLSS IN SERVICE).....	3/4 1-31	
3.1-4	CEA INSERTION LIMITS VS THERMAL POWER (COLSS OUT OF SERVICE).....	3/4 1-32	
3.2-1	DNBR MARGIN OPERATING LIMIT BASED ON COLSS (COLSS IN SERVICE).....	3/4 2-6	
3.2-2	DNBR MARGIN OPERATING LIMIT BASED ON CORE PROTECTION CALCULATOR (COLSS OUT OF SERVICE).....	3/4 2-7	
3.2-3	REACTOR COOLANT COLD LEG TEMPERATURE VS CORE POWER LEVEL.....	3/4 2-10	
3.3-1	DNBR MARGIN OPERATING LIMIT BASED ON COLSS, FOR BOTH CEAC'S INOPERABLE.....	3/4 3-10	
3.4-1	DOSE EQUIVALENT I-131 PRIMARY COOLANT SPECIFIC ACTIVITY LIMIT VERSUS PERCENT OF RATED THERMAL POWER WITH THE PRIMARY COOLANT SPECIFIC ACTIVITY > 1.0 $\mu$ Ci/GRAM DOSE EQUIVALENT I-131.....	3/4 4-28, 27	x
3.4-2	REACTOR COOLANT SYSTEM PRESSURE TEMPERATURE LIMITATIONS FOR 0 TO 10 YEARS OF FULL POWER OPERATION.....	3/4 4-30, 29	x
4.7-1	SAMPLING PLAN FOR SNUBBER FUNCTIONAL TEST.....	3/4 7-26	
B 3/4.4-1	NIL-DUCTILITY TRANSITION TEMPERATURE INCREASE AS A FUNCTION OF FAST (E > 1 MeV) NEUTRON FLUENCE (550°F IRRADIATION).....	B 3/4 4-10	
5.1-1	SITE AND EXCLUSION BOUNDARIES.....	5-2	
5.1-2	LOW POPULATION ZONE.....	5-3	
5.1-3	GASEOUS RELEASE POINTS.....	5-4	
6.2-1	OFFSITE ORGANIZATION.....	6-3	
6.2-2	ONSITE UNIT ORGANIZATION.....	6-4	

## REACTOR COOLANT SYSTEM

### 3/4.4.7 SPECIFIC ACTIVITY

#### LIMITING CONDITION FOR OPERATION

3.4.7 The specific activity of the primary coolant shall be limited to:

- a. Less than or equal to 1.0 microcurie/gram DOSE EQUIVALENT I-131, and
- b. Less than or equal to  $100/\bar{E}$  microcuries/gram.

APPLICABILITY: MODES 1, 2, 3, 4, and 5.

ACTION:

MODES 1, 2, and 3\*:

for more than 48 hours during one continuous time interval or exceeding the limit line shown on figure 3.4-1, be in at least HOT STANDBY with  $T_{cold}$  less than  $500^{\circ}F$  within 6 hours.

- a. With the specific activity of the primary coolant greater than 1.0 microcurie/gram DOSE EQUIVALENT I-131, but within the allowable limit (below and to the left of the line) shown on Figure 3.4-1, operation may continue for up to 48 hours provided that the cumulative operating time under these circumstances does not exceed 800 hours in any consecutive 12-month period. With the total cumulative operating time at a primary coolant specific activity greater than 1.0 microcurie/gram DOSE EQUIVALENT I-131 exceeding 500 hours in any consecutive 6-month period, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 30 days indicating the number of hours above this limit. The provisions of Specification 3.0.4 are not applicable.
- b.  $100/\bar{E}$  With the specific activity of the primary coolant greater than  $1.0$  microcurie/gram DOSE EQUIVALENT I-131 for more than 48 hours during one continuous time interval or exceeding the limit line shown on Figure 3.4-1, be in at least HOT STANDBY with  $T_{cold}$  less than  $500^{\circ}F$  within 6 hours.
- c. With the specific activity of the primary coolant greater than  $100/\bar{E}$  microcuries/gram, be in at least HOT STANDBY with  $T_{cold}$  less than  $500^{\circ}F$  within 6 hours.

\* With  $T_{cold}$  greater than or equal to  $500^{\circ}F$ .

MODES 1, 2, 3, 4, and 5:

With the specific activity of the primary coolant greater than 1.0 microcurie/gram DOSE EQUIVALENT I-131 or greater than  $100/\bar{E}$  microcuries/gram, perform the sampling and analysis requirement of item 4a) of Table 4.4-4 until the specific activity of the primary coolant is restored to within its limits.



## REACTOR COOLANT SYSTEM

### LIMITING CONDITION FOR OPERATION (Continued)

#### ACTION: (Continued)

MODES 1, 2, 3, 4, and 5:

- d. ~~With the specific activity of the primary coolant greater than 1 microcurie/gram DOSE EQUIVALENT I-131 or greater than 100/E microcuries/gram, perform the sampling and analysis requirements of item 4.(a) of Table 4.4-4 until the specific activity of the primary coolant is restored to within its limits. A Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 30 days with a copy to the Director, Nuclear Reactor Regulation, Attention: Chief, Core Performance Branch, and Chief, Accident Evaluation Branch, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555. This report shall contain the results of the specific activity analyses together with the following information:~~
- ~~1. Reactor power history starting 48 hours prior to the first sample in which the limit was exceeded,~~
  - ~~2. Fuel burnup by core region,~~
  - ~~3. Clean-up flow history starting 48 hours prior to the first sample in which the limit was exceeded,~~
  - ~~4. History of degassing operation, if any, starting 48 hours prior to the first sample in which the limit was exceeded, and~~
  - ~~5. The time duration when the specific activity of the primary coolant exceeded 1 microcurie/gram DOSE EQUIVALENT I-131.~~

### SURVEILLANCE REQUIREMENTS

4.4.7 The specific activity of the primary coolant shall be determined to be within the limits by performance of the sampling and analysis program of Table 4.4-4.

## AND ANALYSIS PROGRAM

<u>TYPE OF MEASUREMENT AND ANALYSIS</u>	<u>SAMPLE AND ANALYSIS FREQUENCY</u>	<u>Modes IN WHICH SAMPLE AND ANALYSIS REQUIRED</u>
1. Gross Activity Determination	At least once per 72 hours	1, 2, 3, 4
2. Isotopic Analysis for DOSE EQUIVALENT I-131 Concentration	1 per 14 days	1
3. Radiochemical for Ē Determination	1 per 6 months*	1
4. Isotopic Analysis for Iodine Including I-131, I-133, and I-135	(a) Once per 4 hours, whenever the specific activity exceeds 1.0 μCi/gram, DOSE EQUIVALENT I-131 or 100/Ē μCi/gram, and  (b) One sample between 2 and 6 hours following a THERMAL POWER change exceeding 15% of the RATED THERMAL POWER within a 1-hour period. One sample is sufficient if plant has gone through a SHUTDOWN or if transient is complete in 6 hours.	1#, 2#, 3#, 4#, 5#  1, 2, 3

# Until the specific activity of the primary coolant system is restored within its limits.

\* Sample to be taken after a minimum of 2 EFPD and 20 days of POWER OPERATION have elapsed since reactor was last subcritical for 48 hours or longer.



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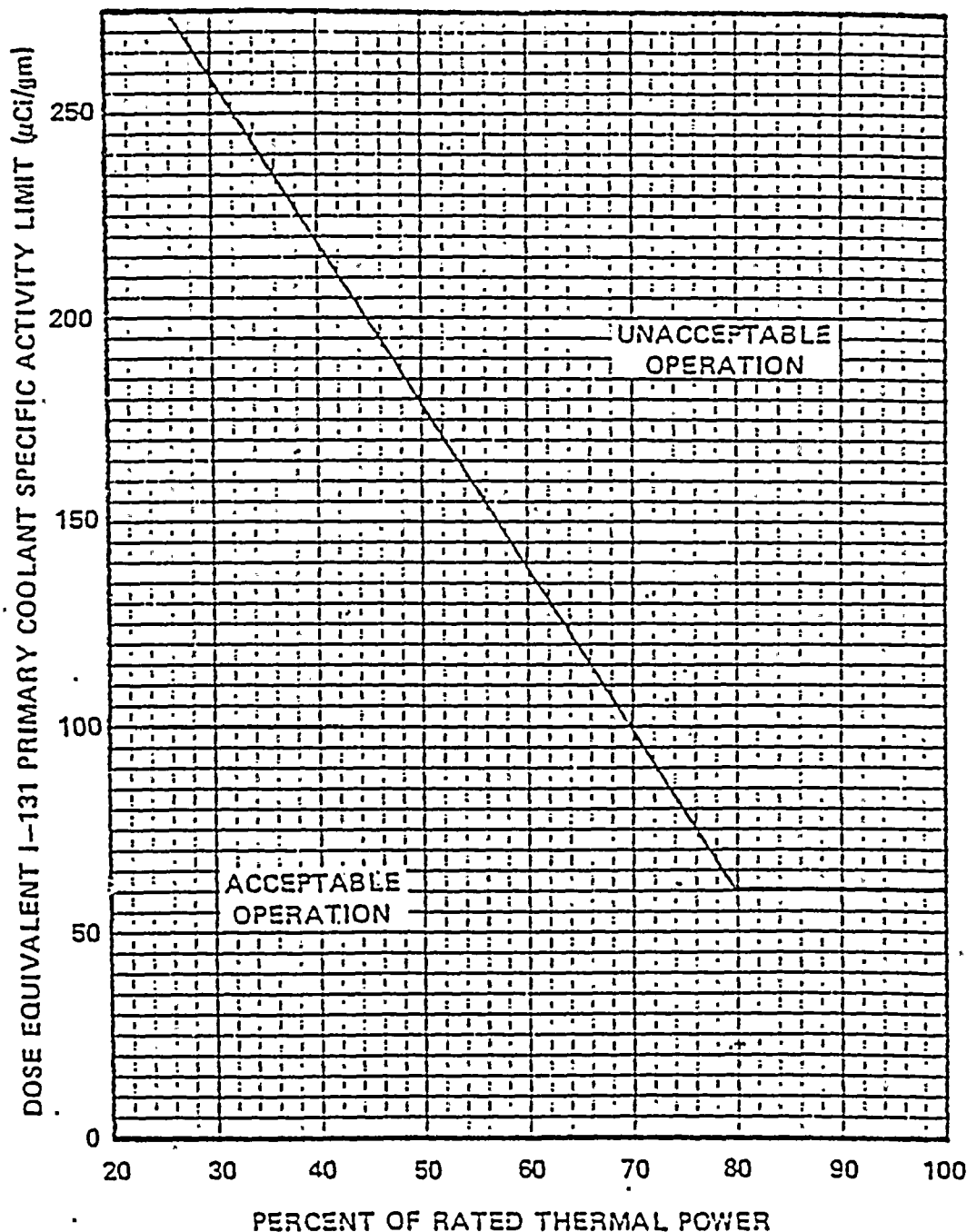


FIGURE 3.4-1

DOSE EQUIVALENT I-131 PRIMARY COOLANT SPECIFIC ACTIVITY LIMIT VERSUS  
PERCENT OF RATED THERMAL POWER WITH THE PRIMARY COOLANT SPECIFIC  
ACTIVITY > 1.0 μCi/GRAM DOSE EQUIVALENT I-131

## REACTOR COOLANT SYSTEM

### 3/4.4.8 PRESSURE/TEMPERATURE LIMITS

## REACTOR COOLANT SYSTEM

### LIMITING CONDITION FOR OPERATION

---

3.4.8.1 The Reactor Coolant System (except the pressurizer) temperature and pressure shall be limited in accordance with the limit lines shown on Figure 3.4-2 during heatup, cooldown, criticality, and inservice leak and hydrostatic testing with:

- a. A maximum heatup rate of 20°F per hour with the RCS cold leg temperature less than or equal to 95°F, 40°F per hour with RCS cold leg temperature greater than 95°F but less than or equal to 400°F, and 100°F per hour with RCS cold leg temperature greater than 400°F.
- b. A maximum cooldown rate of 10°F per hour with RCS cold leg temperature less than or equal to 100°F, 40°F per hour with RCS cold leg temperature greater than 100°F but less than or equal to 130°F, and 100°F per hour with RCS cold leg temperature greater than 130°F.
- c. A maximum temperature change of 10°F in any 1-hour period during inservice hydrostatic and leak testing operations.

APPLICABILITY: At all times.\*.

#### ACTION:

With any of the above limits exceeded, restore the temperature and/or pressure to within the limit within 30 minutes; perform an engineering evaluation to determine the effects of the out-of-limit condition on the structural integrity of the Reactor Coolant System; determine that the Reactor Coolant System remains acceptable for continued operations or be in at least HOT STANDBY within the next 6 hours and reduce the RCS  $T_{cold}$  and pressure to less than 210°F and 500 psia, respectively, within the following 30 hours.

### SURVEILLANCE REQUIREMENTS

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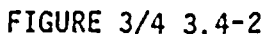
4.4.8.1.1 The Reactor Coolant System temperature and pressure shall be determined to be within the limits at least once per 30 minutes during system heatup, cooldown, and inservice leak and hydrostatic testing operations.

4.4.8.1.2 The reactor vessel material irradiation surveillance specimens shall be removed and examined, to determine changes in material properties, at the intervals required by 10 CFR Part 50 Appendix H in accordance with the schedule in Table 4.4-5. The results of these examinations shall be used to update Figure 3.4-2.

\*See Special Test Exception 3.10.5.

PALO VERDE - UNIT 1





### RCS PRESS/TEMP LIMITS (0 - 10 YRS) FULL POWER OPERATION

TABLE 4.4-5

REACTOR VESSEL MATERIAL SURVEILLANCE PROGRAM.- WITHDRAWAL SCHEDULE

<u>CAPSULE NUMBER</u>	<u>VESSEL LOCATION</u>	<u>LEAD FACTOR</u>	<u>WITHDRAWAL TIME (EFPY)</u>
1	38°	1.0 L LF L	8 - 10
2	43°	1.0 L LF L	Standby
3	137°	1.0 L LF L	4 - 5
4	142°	1.0 L LF L	Standby
5	230°	1.0 L LF L	12 - 15
6	310°	1.0 L LF L	18 - 24

PALO VERDE - UNIT 1

3/4 4-31<sup>0</sup>

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## REACTOR COOLANT SYSTEM

### PRESSURIZER HEATUP/COOLDOWN LIMITS

#### LIMITING CONDITION FOR OPERATION

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3.4.8.2 The pressurizer temperature shall be limited to:

- a. A maximum heatup rate of 200°F per hour, and
- b. A maximum cooldown rate of 200°F per hour.

APPLICABILITY: At all times.

#### ACTION:

With the pressurizer temperature limits in excess of any of the above limits, restore the temperature to within the limits within 30 minutes; perform an engineering evaluation to determine the effects of the out-of-limit condition on the structural integrity of the pressurizer; determine that the pressurizer remains acceptable for continued operation or be in at least HOT STANDBY within the next 6 hours and reduce the pressurizer pressure to less than 500 psig within the following 30 hours.

#### SURVEILLANCE REQUIREMENTS

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4.4.8.2.1 The pressurizer temperatures shall be determined to be within the limits at least once per 30 minutes during system heatup or cooldown.

4.4.8.2.2 The spray water temperature differential shall be determined for use in Table 5.7-2 for each cycle of main spray with less than four reactor coolant pumps operating and for each cycle of auxiliary spray operation.



## REACTOR COOLANT SYSTEM

### OVERPRESSURE PROTECTION SYSTEMS

#### LIMITING CONDITION FOR OPERATION

3.4.8.3 Both shutdown cooling system (SCS) suction line relief valves with lift settings of less than or equal to 467 psig shall be OPERABLE and aligned to provide overpressure protection for the Reactor Coolant System.

APPLICABILITY: When the reactor vessel head is installed and the temperature of one or more of the RCS cold legs is less than or equal to:

- a. 255°F during cooldown
- b. 295°F during heatup

#### ACTION:

- a. With one SCS relief valve inoperable, restore the inoperable valve to OPERABLE status within seven days or reduce  $T_{cold}$  to less than 200°F and, depressurize and vent the RCS through a greater than or equal to 16 square inch vent(s) within the next eight hours. Do not start a reactor coolant pump if the steam generator secondary water temperature is greater than 100°F above any RCS cold leg temperature.
- b. With both SCS relief valves inoperable, reduce  $T_{cold}$  to less than 200°F and, depressurize and vent the RCS through a greater than or equal to 16 square inch vent(s) within eight hours. Do not start a reactor coolant pump if the steam generator secondary water temperature is greater than 100°F above any RCS cold leg temperature.
- c. In the event either the SCS suction line relief valves or an RCS vent(s) are used to mitigate an RCS pressure transient, a Special Report shall be prepared and submitted to the Commission pursuant to Specification 6.9.2 within 30 days. The report shall describe the circumstances initiating the transient, the effect of the SCS suction line relief valves or RCS vent(s) on the transient and any corrective action necessary to prevent recurrence.
- d. The provisions of Specification 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

4.4.8.3.1 Each SCS suction line relief valve shall be verified to be aligned to provide overpressure protection for the RCS once every 8 hours during

- a. Cooldown with the RCS temperature less than or equal to 255°F.
- b. Heatup with the RCS temperature less than or equal to 295°F.

4.4.8.3.2 The SCS suction line relief valves shall be verified OPERABLE with the required setpoint at least once per 18 months.

## REACTOR COOLANT SYSTEM

### BASES

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#### 3/4.4.6 CHEMISTRY

The limitations on Reactor Coolant System chemistry ensure that corrosion of the Reactor Coolant System is minimized and reduces the potential for Reactor Coolant System leakage or failure due to stress corrosion. Maintaining the chemistry within the Steady State Limits provides adequate corrosion protection to ensure the structural integrity of the Reactor Coolant System over the life of the plant. The associated effects of exceeding the oxygen, chloride, and fluoride limits are time and temperature dependent. Corrosion studies show that operation may be continued with contaminant concentration levels in excess of the Steady State Limits, up to the Transient Limits, for the specified limited time intervals without having a significant effect on the structural integrity of the Reactor Coolant System. The time interval permitting continued operation within the restrictions of the Transient Limits provides time for taking corrective actions to restore the contaminant concentrations to within the Steady State Limits.

The surveillance requirements provide adequate assurance that concentrations in excess of the limits will be detected in sufficient time to take corrective action.

#### 3/4.4.7 SPECIFIC ACTIVITY

The limitations on the specific activity of the primary coolant ensure that the resulting 2-hour doses at the site boundary will not exceed an appropriately small fraction of Part 100 limits following a steam generator tube rupture accident in conjunction with an assumed steady state primary-to-secondary steam generator leakage rate of 1.0 gpm and a concurrent loss-of-offsite electrical power. The values for the limits on specific activity represent limits based upon a parametric evaluation by the NRC of typical site locations. These values are conservative in that specific site parameters of the Palo Verde site, such as site boundary location and meteorological conditions, were not considered in this evaluation.

The ACTION statement permitting POWER OPERATION to continue for limited time periods with the primary coolant's specific activity greater than 1.0 microcurie/gram DOSE EQUIVALENT I-131, but within the allowable limit shown on Figure 3.4-1, accommodates possible iodine spiking phenomenon which may occur following changes in THERMAL POWER. ~~Operation with specific activity levels exceeding 1.0 microcurie/gram DOSE EQUIVALENT I-131 but within the limits shown on Figure 3.4-1 must be restricted to no more than 800 hours per year (approximately 10% of the unit's yearly operating time) since the activity levels allowed by Figure 3.4-1 increase the 2-hour thyroid dose at the site boundary by a factor of up to 20 following a postulated steam generator tube rupture. The reporting of cumulative operating time over 500 hours in any 6 month consecutive period with greater than 1.0 microcurie/gram DOSE EQUIVALENT I-131 will allow sufficient time for Commission evaluation of the circumstances prior to reaching the 800-hour limit.~~



ADMINISTRATIVE CONTROLS

6.9.1.3 Startup reports shall be submitted within (1) 90 days following completion of the startup test program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the Startup Report does not cover all three events (i.e., initial criticality, completion of startup test program, and resumption or commencement of commercial operation) supplementary reports shall be submitted at least every 3 months until all three events have been completed.

ANNUAL REPORTS\*

6.9.1.4 Annual reports covering the activities of the unit as described below for the previous calendar year shall be submitted prior to March 1 of each year. The initial report shall be submitted prior to March 1 of the year following initial criticality.

6.9.1.5 Reports required on an annual basis shall include a tabulation on an annual basis of the number of station, utility, and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man-rem exposure according to work and job functions,\*\* e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance (describe maintenance), waste processing, and refueling. The dose assignments to various duty functions may be estimated based on pocket dosimeter, TLD, or film badge measurements. Small exposures totalling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources should be assigned to specific major work functions.

--- (add attachment 1) ---  
MONTHLY OPERATING REPORT

6.9.1.6 Routine reports of operating statistics and shutdown experience, including documentation of all challenges to the safety valves, shall be submitted on a monthly basis to the Director, Office of Resource Management, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, with a copy to the Regional Administrator of the Regional Office of the NRC, no later than the 15th of each month following the calendar month covered by the report.

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT\*\*\*

6.9.1.7 Routine Annual Radiological Environmental Operating Reports covering the operation of the unit during the previous calendar year shall be submitted prior to May 1 of each year. The initial report shall be submitted prior to May 1 of the year following initial criticality.

\*A single submittal may be made for a multiple unit station. The submittal should combine those sections that are common to all units at the station.

\*\*This tabulation supplements the requirements of §20.407 of the 10 CFR Part 20.

\*\*\*A single submittal may be made for a multiple unit station.

## ATTACHMENT 1

Annual reports shall also include the results of specific activity analysis in which the primary coolant exceeded the limits of Specification 3.4.7. The following information shall be included: (1) Reactor power history starting 48 hours prior to the first sample in which the limit was exceeded; (2) Results of the last isotopic analysis for radioiodine performed prior to exceeding the limit, results of analysis while limit was exceeded and results of one analysis after the radioiodine activity was reduced to less than limit. Each result should include date and time of sampling and the radioiodine concentrations; (3) Clean-up system flow history starting 48 hours prior to the first sample in which the limit was exceeded; (4) Graph of the I-131 concentration and one other radioiodine isotope concentration in microcuries per gram as a function of time for the duration of the specific activity above the steady-state level; and (5) The time duration when the specific activity of the primary coolant exceeded the radioiodine limit.