

COMANCHE PEAK STEAM ELECTRIC STATION
OFFSITE DOSE CALCULATION MANUAL (ODCM)
REVISION CHANGE SHEET

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* Revisions 0 through 10 have been previously issued. See effective page list for dates of Revisions.

NOTE: The date of the last effective Revision can be confirmed by contacting Docket Licensing at (214) 812-4340. The List of Effective Pages identifies all Revisions.

ACTION STATEMENTS

ACTION 30- With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided that prior to initiating a release:

- a. At least two independent samples are analyzed in accordance with Control 4.11.1.1.1; and
- b. At least two technically qualified members of the facility staff independently verify the release rate calculations and discharge line valving.

Otherwise, suspend release of radioactive effluents via this pathway.

8 ACTION 31- With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided grab samples are analyzed for principal gamma emitters at a lower limit of detection of no more than 5×10^{-7} microCurie/ml:

- a. At least once per 12 hours when the specific activity of the secondary coolant is greater than 0.01 microCurie/gram DOSE EQUIVALENT I-131; or
- 8 b. At least once per 24 hours when the specific activity of the secondary coolant is less than or equal to 0.01 microCurie/gram DOSE EQUIVALENT I-131. (Refer to Notation 3 of Table 4.11-1 for the applicability of the LLD requirement.)

10 ACTION 31A- With number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided grab samples are analyzed for principal gamma emitters at a lower-limit of detection of no more than 5×10^{-7} microCurie/ml at least once per 12 hours.

ACTION 32- With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, operations may continue provided that:

- 11 a. With the component cooling water monitors (uRE-4509, uRE-4510, & uRE-4511)* OPERABLE and indicating an activity of less than 1×10^{-4} microCurie/ml, a grab sample is collected and analyzed for radioactivity at a lower limit of detection of no more than 10^{-7} microCurie/ml at least every 31 days; or
- 8 b. At least once per 12 hours, grab samples are collected and analyzed for principal gamma emitters at a lower limit of detection of no more than 5×10^{-7} microCurie/ml. (Refer to Notation 3 of Table 4.11-1 for the applicability of the LLD requirement.)

7 NOTE: Collection of grab samples is not required when there is no process flow at the monitor.

11 * "u" designates monitor for the applicable unit, e.g., 1 or 2.

TABLE 4.3-3 (Continued)

TABLE NOTATIONS

- (1) The DIGITAL CHANNEL OPERATIONAL TEST shall also demonstrate that automatic isolation of this pathway and Control Room alarm annunciation occur if any of the following conditions exist:
- a. Instrument indicates measured levels above the Alarm/Trip Setpoint; or
 - b. Circuit failure (Channel Out of Service - Loss of Power, Loss of Counts, Loss of Sample Flow, or Check Source Failure).
- (2) The DIGITAL CHANNEL OPERATIONAL TEST shall also demonstrate that automatic flow diversion of this pathway (from the Low Volume Waste Treatment System to the Co-Current Waste Treatment System) and Control Room alarm annunciation occur if any of the following conditions exist:
- a. Instrument indicates measured levels above the Alarm/Trip Setpoint; or
 - b. Circuit failure (Channel Out of Service - Loss of Power, Loss of Counts, Loss of Sample Flow*, or Check Source Failure).
- * For Radiation Monitors 1-RE-5100 and 2-RE-5100, "Loss of Sample Flow" is not applicable.
- (3) The DIGITAL CHANNEL OPERATIONAL TEST shall also demonstrate that Control Room alarm annunciation occurs if any of the following conditions exist:
- a. Instrument indicates measured levels above the Alarm Setpoint; or
 - b. Circuit failure (Channel Out of Service - Loss of Power, Loss of Counts, Loss of Sample Flow, or Check Source Failure).
- (4) The initial CHANNEL CALIBRATION shall be performed using one or more of the reference standards certified by the National Institute of Standards and Technology (NIST) or using standards that have been obtained from suppliers that participate in measurement assurance activities with NIST. These standards shall permit calibrating the system over its intended range of energy and measurement range. For subsequent CHANNEL CALIBRATION, sources that have been related to the initial calibration, reference standards certified by NIST, or standards that have been obtained from suppliers that participate in measurement assurance activities with NIST shall be used.
- (5) CHANNEL CHECK shall consist of verifying indication of flow during periods of release. CHANNEL CHECK shall be made at least once per 24 hours on days on which continuous, periodic, or batch releases are made.

INSTRUMENTATION

METEOROLOGICAL MONITORING INSTRUMENTATION

CONTROLS

- 8 | 3.3.3.6 The meteorological monitoring instrumentation channels shown in Table 3.3-9 shall be OPERABLE.

APPLICABILITY: At all times.

ACTION:

- 11 | a. With less than the minimum number of meteorological monitoring instrumentation channels OPERABLE for more than 7 days, prepare and submit a Special Report to the Commission pursuant to CPSES Technical Specification 6.9.2 within the next 10 days outlining the cause of the malfunction and the plans for restoring the channel(s) to OPERABLE status.

SURVEILLANCE REQUIREMENTS

- 4.3.3.6 Each of the above meteorological monitoring instrumentation channels shall be demonstrated OPERABLE:
- a. At least once per 24 hours by performance of a CHANNEL CHECK; and
 - b. At least once per 184 days by performance of a CHANNEL CALIBRATION.

SECTION 1.0
LIQUID EFFLUENTS

8 The Comanche Peak Steam Electric Station (CPSES) is a 2-unit nuclear generating
facility. Each unit is a 1150 MWe, 4-loop, Westinghouse PWR. The units share
7A a common primary liquid radwaste processing system. CPSES is located on Squaw
Creek Reservoir (SCR), which serves as the point of supply and discharge for
the plant circulating water. Radioactive liquid effluent releases from the
primary radwaste processing system are batch type releases, from the Plant
Effluent Tanks (PET), Laundry Holdup & Monitor Tanks (LHMT) and Waste Monitor
7 Tanks (WMT), discharged to SCR via the Circulating Water Discharge Tunnel.
Potentially radioactive liquid effluent releases from secondary systems include
9 a continuous release from the Turbine Building Sumps (TB Sump), the Unit 1 and
Unit 2 Component Cooling Water Drain Tanks (CCWDT), Auxiliary Building Sumps 3
and 11, and the Unit 1 and Unit 2 Diesel Generator Sumps 1, 2, 3 and 4, and
8 batch releases from the Condensate Polisher Backwash Recovery Tanks (CPBWRT).
These secondary pathways from each unit are normally discharged to the common
Low Volume Waste (LVW) Pond for chemical treatment. The LVW Pond normally
discharges to SCR via the circulating Water Discharge Tunnel. Alternatively,
secondary waste streams may be routed to the common Waste Water Holdup Tanks
(WWHT). The WWHTs may be released on a batch basis to the LVW Pond or to SCR
7 via the Circulating Water Discharge Tunnel, depending on the levels of
radioactivity present. Table 4.11-1 of Part I of this document requires that
secondary waste streams be diverted to the WWHT's if radioactivity is present
in the waste stream in concentrations that exceed the limits of 10 CFR 20,
8 Appendix B, Table 2, Column 2. Also, releases from the Station Service Water
(SSW) System are monitored for radioactivity, although no significant releases
of radioactivity are expected from this pathway. Sampling and analysis
requirements for all release sources are given in Part I, Table 4.11-1. All
batch release sources are isolated and thoroughly mixed by mechanical mixing or
recirculating the tank contents, prior to sampling, to assure representative
sampling. The recirculation or mixing times necessary to assure representative
sampling shall be specified in station procedures.

TABLE 1.1

SUMMARY OF LIQUID RELEASE PATHWAYS1. RELEASES TO SCR VIA THE CIRC WATER DISCHARGE

Release Source	Release Type	Max Flow Rate (gpm)	Max Vol (gal)	Monitor
PET-1	Batch	100	30000	XRE-5253
PET-2	Batch	100	30000	XRE-5253
WMT-1	Batch	100	5340	XRE-5253
WMT-2	Batch	100	5340	XRE-5253
LHMT-1	Batch	100	5875	XRE-5253
LHMT-2	Batch	100	5875	XRE-5253
WWHT-1	Batch	200	30500	None
WWHT-2	Batch	200	30500	None
LVW Pond	Continuous	1600	-	None

2. RELEASES TO THE LVW POND

Release Source	Release Type	Max Flow Rate (gpm)	Max Vol (gal)	Monitor
CPBWRT-A	Batch	1550	8500	None
CPBWRT-B	Batch	1550	17000	None
WWHT-1	Batch	200	33100	None
WWHT-2	Batch	200	33100	None
TBSump2 (Unit1)	Continuous	300	-	1RE-5100
TBSump4 (Unit2)	Continuous	300	-	2RE-5100
AB Secondary*	Continuous	380	-	XRE-5251A

3. DIRECT RELEASES TO SCR (SAFE SHUTDOWN IMPOUNDMENT)

Release Source	Release Type	Max Flow Rate (gpm)	Max Vol (gal)	Monitor
Unit 1 SSW Train A	Continuous	17,000	-	1RE-4269
Unit 1 SSW Train B	Continuous	17,000	-	1RE-4270
Unit 2 SSW Train A	Continuous	17,000	-	2RE-4269
Unit 2 SSW Train B	Continuous	17,000	-	2RE-4270

NOTE:

* AB Secondary Effluents contain the following sources:

	Max. Flow (gpm)
Auxiliary Building Sump 3	50
Auxiliary Building Sump 11	50
Diesel Generator Sump 1 (Unit 1)	50
Diesel Generator Sump 2 (Unit 1)	50
Diesel Generator Sump 3 (Unit 2)	50
Diesel Generator Sump 4 (Unit 2)	50
CCWDT (Unit 1)	40
CCWDT (Unit 2)	40

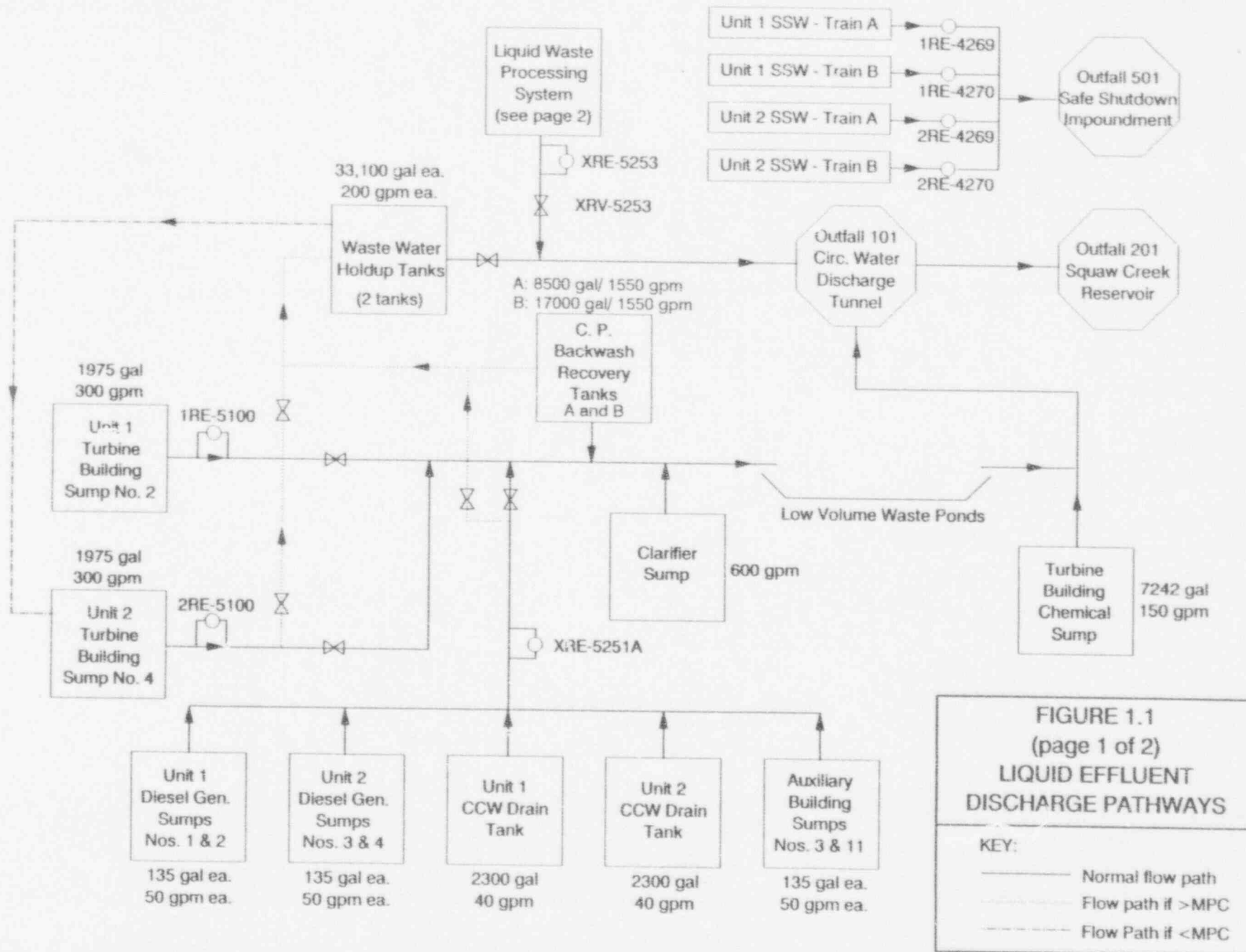


TABLE 3.1 (Continued)
ENVIRONMENTAL SAMPLING LOCATIONS

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	Sampling Point	Location (Sector - Miles)	Sample Type ⁽¹⁾
	GW3	SSE-4.6 (Glen Rose)	GW ⁽⁵⁾
	GW4	N-9.8 (Granbury)	GW ^{(2),(5)}
	GW5	N-1.45 (Squaw Creek Park)	GW ⁽⁵⁾
	SS1	NNE-1.0 (Squaw Creek Reservoir)	SS
	SS2	N-9.9 (Lake Granbury)	SS
	SS3	NE-7.4 (Lake Granbury)	SS
8	M1	Deleted	M
	M2	not used ⁽⁶⁾	M
	M3	not used ⁽⁶⁾	M
	M4	SW-13.5 (Control)	M
	F1	ENE-2.0 (Squaw Creek Reservoir)	F
	F2	NNE-8.0 (Lake Granbury)	F
	FP1	ENE-9.0 (Leonard Bros. Pecan Farm)	FP
11	FP2	Deleted	FP
6	FP3	Deleted	FP
11	FP4	Deleted	FP
	FP5	SW-12.7 (Control)	FP
	FP6	E-3.5 (Happy Hills Farm)	FP
	BL1	N-1.45	BL
	BL2	SW-1.0 ⁽⁷⁾	BL
	BL3	SW-13.5 (Control) ⁽⁷⁾	BL

(1) Types:

A - Air Sample; R - Direct Radiation; SW - Surface Water;

GW - Ground Water; SS - Shoreline Sediment; M - Milk;

F - Fish; FP - Food Products; BL - Broad Leaf Vegetation.

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