

**Comanche Peak Nuclear Power Plant, Units 3 & 4
COL Application
Part 3 - Environmental Report**

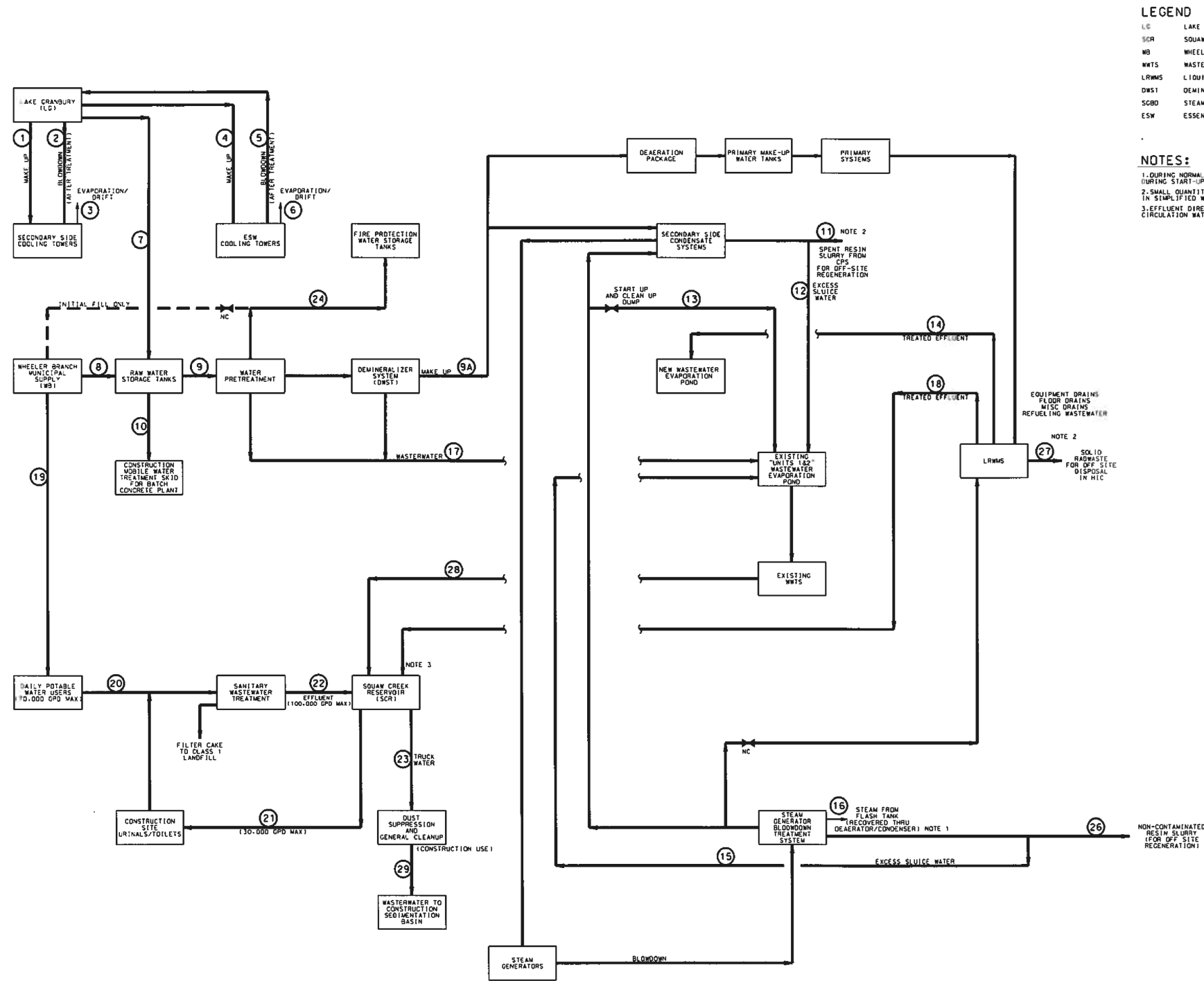


Figure 3.3-1 Water Balance (Sheet 1 of 3)

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| Steam | Description | Flow @ Max Power Operation | Units | Waste Constituents | Comments and References |
|--------------|---|-----------------------------------|--------------|--|--|
| 1 | Cooling Tower Makeup from Lake Granbury (LG) | 31,200/Unit 3 | gpm | | Secondary Side Water Cooling System Study Case1Ba (revised by RFI-0202) From Lake Granbury to Cooling Tower Section 5.0 Optimization Study SSCWS - Final Report dated 8/15/07 |
| 2 | Cooling Tower Blowdown to Lake Granbury (LG) | 12,900/Unit 3 | gpm | TDS-3 times LG value; Free chlorine - less than 0.2 ppm; sulfate, phosphate and trace anti-scalants will be below permit limits. | Secondary Side Water Cooling System Study Case1Ba (revised by RFI-0202) From Cooling Tower to Lake Granbury (LG) Section 5.0 Optimization Study SSCWS - Final Report dated 8/15/07 |
| 3 | Cooling Tower Evaporation + Drift | 18,292/Unit 3 | gpm | | Secondary Side Water Cooling system Study Case1Ba(revised by RFI-0202) |
| 4 | ESW Cooling Tower Makeup from LG | 274/Unit 3 | gpm | | (revised by RFI-0202) |
| 5 | ESW Cooling Tower Blowdown to LG | 109/Unit 3 | gpm | | (revised by RFI-0202) |
| 6 | ESW CT Evaporation Loss + Drift | 165/Unit 3 | gpm | | (revised by RFI-0202) |
| 7 | Raw water from LG to storage tanks | 320- 1,100/Unit 3 &4 | gpm | | A blend of LG and potable water is expected. Minimum make-up for operation is estimated from Luminant at ~ 200 gpm/Unit. Maximum construction flushing is estimated at ~ 500 gpm/Unit. Normal for 2 unit Ops will be 320 gpm from LG with remaining 230 gpm from WB. |
| 8 | Potable water from WB raw water storage tanks | 0 to 300 | gpm | | Assumed a 300 gpm uninterruptible supply of potable water from Somervell County Water District (SCWD) for the URS estimates.. |
| 9 | Raw water to pretreatment | 1,100 to 1,250 for Units 3 & 4 | gpm | | Assume 80% recovery as demin water. 550 gpm is the normal MU for U3/4. Ops. 50 gpm to existing evap. Pond, 200 gpm to U 1/2 Ops, and 300 gpm to |
| 9A | Demineralized Make-up to Primary Water Tanks | 200 to 500 per Unit | | | See 7 above. |
| 10 | Raw water to construction mobile treatment skid | 250/Units 3 & 4 | gpm | | URS estimate. |
| 11 | Spent resin slurry from CPS | N/A | | | Neglect for simplified balance |
| 12 | Excess sluice water from CPS | N/A | gpm | | Neglect for simplified balance |
| 13 | SGBD blowdown wastewater to existing evaporation pond | 1,165 (see comment) | gpm | | Assume during plant startup flow duration will be 4 hrs. Normal power operation flow duration is to be determined. |
| 14 | LRWMS effluent to new evaporation pond | 2,000 | gals/day | | Rad waste estimate. Assumed 50% of total released effluent from LRWMS. |
| 15 | Excess sluice water from SGBD treatment | N/A | gpm | | Neglect for simplified balance |
| 16 | Evaporation from SGBD flash tank | N/A | | | Evaporated steam is condensed and recovered in the main condenser. |

Figure 3.3-1 Water Balance (Sheet 2 of 3)

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| Stream | Description | Flow @ Max Power Operation | units | Waste Constituents | Comments and References |
|---------------|--|-----------------------------------|--------------|--|---|
| 17 | Water treatment wastewater to existing evaporation pond | 50 to 250 for Units 3 and 4 | gpm | pH- 6 to 9; TDS- 5 times feed water TDS; resin regeneration salts- sodium sulfate, calcium sulfate and sodium chloride; suspended solids & silts- from filter back wash. | Expected ~ 50 gpm. URS estimate. Assumed 80% recovery of feed water as demin. Water. |
| 18 | LRWMS effluent to existing U 1/2 circ. Water discharge. | 2,000 | gals/day | | Design condition for Tritium sends 50% of 4000 gpd to SCR. Rad waste estimate. Assumed 50% of total released effluent from LRWMS. |
| 19 | Potable water to daily potable water users | 50/Units 3 & 4 | gpm | | URS estimate. |
| 20 | Sanitary wastewater from potable water toilets/urinals | 70,000/Unit 3 & 4 | gals/day | | Sanitary wastewater treatment system's COLA concept design report |
| 21 | Non-potable water to construction toilets/urinals | 30,000/Unit 3 & 4 | gals/day | | Sanitary wastewater treatment system's COLA concept design report |
| 22 | Sanitary wastewater treatment systemt effluent | 100,000/Unit 3 & 4 | gals/day | Effluent will meet permit limits (see SWTS System Description for permit limits). | Sanitary wastewater treatment system's COLA concept design report |
| 23 | Dust suppression & general cleanup water | 63,000/Units 3 & 4 | gals/day | | Trucked to user locations Construction estimate. |
| 24 | Fire protection water storage tank makeup water | N/A | | | Neglect for simplified balance. Initial fill is from potable water supply. |
| 25 | Evaporation loss from fuel pool tanks | N/A | | | Neglect for simplified balance |
| 26 | Non-contaminated resin slurry from SGBD treatment system | N/A | | | Neglect for simplified balance |
| 27 | Solid radwaste for off site disposal in HIC | N/A | | | Neglect for simplified balance |
| 28 | Existing pond wastewater treatment system effluent | N/A | | | Neglect for simplified balance |
| 29 | Wastewater to construction sedimentation basin | 63,000/Units 3 & 4 | gals/day | | URS construction estimate. |

Figure 3.3-1 Water Balance (Sheet 3 of 3)