

**PALOMAR ENERGY PROJECT (01-AFC-24)
CEC STAFF DATA REQUEST NUMBER 58**

Technical Area: Soil and Water Resources

Response Date: April 8, 2002

REQUEST:

Please identify for each chemical storage and containment system, whether it is located inside a covered area or exposed to rainfall.

RESPONSE:

Table 58-1 contains data that addresses this request.

**Table 58-1
PALOMAR ENERGY PROJECT
Soil and Water Resources**

Date: April 8, 2002

ITEM IDENTIFICATION		STORAGE MEDIUM	CONTAINMENT SYSTEM	STORAGE AREA ^{1 & 2}	SPILL REMOVAL AND DRAINAGE PROCEDURES ³
TYPE	NAME				
Chemical	Aqueous Ammonia	Carbon Steel Tank And Bulk Unloading Area	Tank is situated in a steel-reinforced, concrete containment basin with a collection sump. Basin and sump designed to hold entire content of tank. Unloading area surfacing is concrete with concrete curbs. Area is graded to direct spills to a covered sump area. Containment is sized to handle a complete tanker spill.	Tank outdoors and collective sump in covered area. Unloading area outdoors. Collection sump indoors.	Removed from collective sumps through corrosive resistant piping system to neutralization tank where pH is adjusted and then released into the plant sanitary sewer system for final discharge into city sanitary sewer system.
Chemical	Organic Phosphate Inhibitor solution	Above Ground Lined Carbon Steel Tank	Curbed concrete containment.	Indoors	Removed from collective sump through corrosive resistant piping system to neutralization tank where pH is adjusted and then released into the plant sanitary sewer system for final discharge into city sanitary sewer system.
Chemical	Sodium Hypochlorite Solution	Above Ground Lined Carbon Steel Tank	Secondary containment sized to accommodate entire contents of tank.	Indoors	Removed from collective sump through corrosive resistant piping system to neutralization tank where pH is adjusted and then released into the plant sanitary sewer system for final discharge into city sanitary sewer system.
Chemical	Sulfuric Acid	Above Ground Lined Carbon Steel Tank	Curbed concrete containment. Area lined with acid resistant materials.	Outdoors (no cover)	Removed from collective sump through corrosive resistant piping system to neutralization tank where pH is adjusted and then released into the plant sanitary sewer system for final discharge into city sanitary sewer system.
Chemical	Sodium Hydroxide	Above Ground Lined Carbon Steel Tank	Curbed concrete containment..	Indoors	Removed from collective sump through corrosive resistant piping system to neutralization tank where pH is adjusted and then released into the plant sanitary sewer system for final discharge into city sanitary sewer system.
Chemical	Oxygen Scavenger Solution	Above Ground Stainless Steel Tank	Curbed concrete containment..	Indoors	Removed from collective sump through corrosive resistant piping system to neutralization tank where pH is adjusted and then released into the plant sanitary sewer system for final discharge into city sanitary sewer system

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Soil and Water Resources**

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ITEM IDENTIFICATION		STORAGE MEDIUM	CONTAINMENT SYSTEM	STORAGE AREA ^{1 & 2}	SPILL REMOVAL AND DRAINAGE PROCEDURES ³
TYPE	NAME				
Chemical	Cyclohexylamine	Above Ground Stainless Steel Tank	Curbed concrete containment.	Indoors	Removed from collective sump through corrosive resistant piping system to neutralization tank where pH is adjusted and then released into the plant sanitary sewer system for final discharge into city sanitary sewer system
Chemical	Disodium phosphate	Above Ground Plastic Tank	Curbed concrete containment.	Indoors	Removed from collective sump through corrosive resistant piping system to neutralization tank where pH is adjusted and then released into the plant sanitary sewer system for final discharge into city sanitary sewer system
Chemical	Trisodium phosphate	Above Ground Plastic Tank	Curbed concrete containment.	Indoors	Removed from collective sump through corrosive resistant piping system to neutralization tank where pH is adjusted and then released into the plant sanitary sewer system for final discharge into city sanitary sewer system
Chemical	Boiler water treatment Chemicals (various)	Above Ground Plastic Tank	Curbed concrete containment.	Indoors	Removed from collective sump through corrosive resistant piping system to neutralization tank where pH is adjusted and then released into the plant sanitary sewer system for final discharge into city sanitary sewer system
Chemical	Sulfuric Acid	Inside Station batteries	Curbed concrete containment. Area lined with acid resistant materials.	Indoors	Discharged directly to the plant sanitary sewer system without the need to pH balancing due to low concentrations.
Petroleum	Miscellaneous hydraulic and lubricating oils	55-gallon drums/containers	Skid mounted with built-in containment or curbed concrete containment.	Outdoors (no cover)	Stormwater collected in containment area is released to plant site oil/water separator with water being released to sanitary sewer system and oil recycled off-site by waste oil disposal contractor.
Petroleum	Mineral Oils	Inside of electrical transformers	Curbed concrete containment around each transformer	Outdoors (no cover)	Stormwater collected in containment area is released to plant site oil/water separator with water being released to sanitary sewer system and oil recycled off-site by waste oil disposal contractor.

¹ Stormwater falling outside of outdoor containment area will be channeled into plant stormwater runoff collection system for eventual release back into surrounding drainage areas.

² Outdoor containment areas sized to include the rainfall accumulation from a 25 year-24 hour storm.

³ Outdoor containment areas will include a drainage line to the drainage disposition location indicated above with an isolation valve that will be normally locked closed to hold any rainwater or spills in the containment. Containment basins will be checked periodically to ensure no spills or rainwater has been collected. Any rainwater collected in the sumps will be monitored by authorized personnel to ensure that it is not contaminated prior to discharge. Discharge or removal of spills will be as indicated in the Spill Removal column above.