

**Table 2.2**

**Potential Applicable or Relevant and Appropriate Requirements and To Be Considered Documents  
Pemaco Superfund Site, Maywood, CA**

Requirements	Description	Media	Applicable or Relevant and Appropriate
<b>CHEMICAL-SPECIFIC ARARs</b>			
Federal Primary Drinking Water Standards 40 CFR Part 141	Federal primary MCLs under the Safe Drinking Water Act (SDWA) protect the public from contaminants that may be found in drinking water. The NCP defines MCLs as relevant and appropriate for groundwater that is a potential source of drinking water. Although neither the perched nor the exposition groundwater are viable aquifers, the San Pedro Aquifers, which are used for municipal and industrial purposes, may lie beneath the site. To prevent potential migration to possible lower aquifers, the selected remedy will use federal MCLs, unless State MCLs are more stringent, as cleanup levels for perched and exposition groundwater.	Groundwater	Relevant and appropriate
California Primary Drinking Water Standards  Health and Safety Code (H&S Code) §4010 <i>et seq.</i>  22 California Code of Regulations (CCR) §64431 and 64444	California primary MCLs are established to protect public health from contaminants that may be found in drinking water sources. The selected remedy will use State MCLs more stringent than federal MCLs as cleanup levels for COCs in perched and exposition groundwater.	Groundwater	Relevant and appropriate
Secondary Drinking Water Standards  22 CCR §64471	Secondary MCLs address the taste, odor and appearance of drinking water.  There are secondary MCLs for four of the COCs in the groundwater at the Pemaco.	Groundwater	Relevant and appropriate
State Water Resources Control Board (SWRCB) Resolution No. 92-49  Policy and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code Section 13304 (amended 4\21\94)	To protect groundwater, the resolution requires cleanup to either background water quality or the best water quality that is reasonable if background water quality cannot be restored. Non-background cleanup levels must be consistent with maximum benefit to the public, present and anticipated future beneficial uses, and conform to water quality control plans and policies.	Soil and groundwater	Relevant and appropriate

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<b>CHEMICAL-SPECIFIC ARARS</b>			
<p>Water Quality Control Plan - Los Angeles Region</p> <p>California Water Code § 13240 <i>et seq</i></p>	<p>Establishes beneficial uses of ground and surface waters, establishes water quality objectives, including narrative and numerical standards, establishes implementation plans to meet water quality objectives and protect beneficial uses, and incorporates statewide water quality control plans and policies. The WQOs for groundwater are based on the primary MCLs.</p> <p>While the stratigraphic equivalent zones present below the site are thin and low-yielding (i.e. do not, at present, meet the strict definition of "aquifer," since that definition includes the "ability to yield commercially significant quantities of water"), the zone still falls within the potential drinking water beneficial use designation per the Water Quality Control Plan for Los Angeles Region.</p> <p>Any selected remedy will use the most stringent state or federal MCLs as cleanup levels for groundwater and to protect groundwater from soil contamination.</p>	Groundwater	Relevant and Appropriate
<p>DTSC Hazardous Waste Regulations</p> <p>Hazardous Waste Definition Standards</p> <p>22 CCR Part 261</p>	<p>Contaminated soil and groundwater, once extracted for treatment, must be managed as state &amp; federal hazardous waste if such soil or groundwater contains levels of hazardous substances that meet or exceed state and federal hazardous waste toxicity criteria for specific hazardous wastes and/or contains one or more RCRA listed hazardous wastes.</p> <p>Contaminated media treated to specified cleanup levels will no longer need to be managed as hazardous waste.</p>	Soil & Groundwater	Applicable
<b>LOCATION-SPECIFIC ARARS</b>			
<p>No federal location specific ARARs have been identified for the Pemaco site.</p>			
<p>California Fish and Game Code § 3503</p> <p>Protection of Birds' Nests</p>	<p>This law prohibits take, possession, or needless destruction of any bird nests and eggs, except as provided by the Fish and Game Code or regulations.</p> <p>Selected remedy will not result in a "take" and will comply with this requirement.</p>	Soil and groundwater	Applicable

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<b>LOCATION-SPECIFIC ARARS</b>			
California Fish and Game Regulations  Non-Game Animals  14 CCR § 472	Regulations provides that nongame birds and mammals may not be taken expect for English sparrow, starling, coyote, weasels, skunks, opossum, moles and rodents (excludes treed and flying squirrels, and those listed as furbearers, endangered or threatened species), and American crows.  Selected remedy will not result in a “take” and will comply with this requirement.		Applicable
<b>ACTION-SPECIFIC ARARS</b>			
NPDES Non-Point Source Discharge  40 CFR §122.26	Non-point sources addressed by using best management practices for control of contaminants to stormwater runoff from construction activities on sites greater than one acre.  All alternatives that evaluate soil excavation are confined to areas less than one acre, so the requirement is not applicable to the site, but is relevant and appropriate.	Groundwater	Relevant and appropriate
Basin Plan for Los Angeles Region  Chapter 4 - Remediation of Pollution	The Basin Plan recognizes the cleanup goals based on the State’s Antidegradation Policy as set forth in State Board Solution No. 68-16.	Groundwater	Relevant and appropriate
SWRCB Resolution 68-16  Statement of Policy with Respect to Maintaining High Quality of Waters in California  Water Code § 13140	Under the State’s Antidegradation Policy as set forth in State Board Resolution No. 68-16, whenever the existing quality of water is better than that needed to protect present and potential beneficial uses, such existing quality will be maintained.  Applies to the discharge of waste to waters, including alternatives that include re-injection into the aquifer and discharges to soil that may affect surface water or groundwater.  Selected remedy will comply with substantive requirements.	Groundwater	Applicable

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<b>ACTION-SPECIFIC ARARS</b>			
<p>California Water Code §13140 - 13147, 13172, 13260, 13263, 132267, 13304 27 CCR Div.2, Subdiv.1, Chap.3, Subchap.2, Art.2</p> <p>(Porter-Cologne Water Quality Control Act)</p>	<p>Wastes classified as a threat to water quality (designated waste) may be discharged to a Class I hazardous waste or Class II designated waste management unit. Nonhazardous solid waste may be discharged to a Class I, II, or III waste management unit. Inert waste would not be required to be discharged into a SWRCB-classified waste management unit.</p> <p>Waste will be classified for disposal to appropriate permitted off-site waste management units. CERCLA waste (e.g. contaminated soil, spent GAC) would be disposed at an off-site disposal facility.</p>	Soil	Applicable
<p>SWRCB Resolution No. 88-63</p> <p>Sources of Drinking Water</p>	<p>This policy specifies that ground and surface waters of the state are either existing or potential sources of municipal and domestic supply except water supplies with:</p> <p>a. Total dissolved solids exceeding 3,000 milligrams per liter, or</p> <p>b. Natural or anthropogenic contamination (unrelated to a specific pollution incident) that cannot reasonably be treated for domestic use using either best management practices (BMPs) or best economically achievable treatment practices, or</p> <p>c. The water source does not provide a sustained yield of 200 gallons per day.</p> <p>The perched zone is not capable of sustaining 200 gallons per day through a single well, but may be contributing to contamination in the underlying groundwater zones. The upper and deeper Exposition Zones could likely sustain 200 gallons per day.</p> <p>The selected remedy will apply a groundwater cleanup level protective of drinking water.</p>	Groundwater	Applicable

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Hazardous Waste Regulations  Hazardous Waste Determination by Generators  22 CCR §66262.11, 66264.13(a) & (b)	A generator must determine if the waste is classified as a hazardous waste in accordance with the criteria provided in these requirements.  The determination of whether wastes generated during remedial activities, such as soil cuttings from well installation and treatment residues, are hazardous will be made when the wastes are generated.	Soil and groundwater	Applicable
Hazardous Waste Regulations  Accumulation Time  22 CCR § 66262.34	On-site hazardous waste accumulation is allowed for up to 90 days as long as the waste is stored in containers or tanks, on drip pads, inside buildings, is labeled and dated, etc.	Soil and groundwater	Applicable for any operation where hazardous waste is generated. The determination of whether wastes generated during remedial activities are hazardous will be made at the time the wastes are generated.

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Hazardous Waste Regulations Hazardous Waste Security 22 CCR §66264.14	A treatment facility should maintain a fence in good repair which completely surrounds the active portion of the facility. A locked gate at the facility should restrict unauthorized personnel entrance. The security standards to prevent entry from unauthorized personnel for the proposed remedial treatment alternatives should be applied.	Soil and groundwater	Substantive provisions are applicable if waste is determined to be RCRA hazardous waste.
Hazardous Waste Regulations Hazardous Waste Facility General Inspection Requirements and Personnel Training 22 CCR §66264.15 - 66264.16	The hazardous waste facility standards require routine facility inspections conducted by trained hazardous waste facility personnel. Inspections are to be conducted at a frequency to detect malfunctions and deterioration, operator errors, and discharges which may be causing or leading to a hazardous waste release and a threat to human health or the environment.	Soil and groundwater	Substantive provisions are applicable if waste is determined to be RCRA hazardous waste.
Hazardous Waste Regulations Preparedness and Prevention 22 CCR Div. 4.5, Chap. 14, Art. 3	Facility design and operation to minimize potential fire, explosion, or unauthorized release of hazardous waste.	Soil and groundwater	Substantive provisions are applicable if waste is determined to be RCRA hazardous waste.
Hazardous Waste Regulations Water Quality Monitoring and Response Systems for Permitted Systems 22 CCR Div 4.5, Chap. 14, Art.6	The requirements present the groundwater monitoring system objectives and standards to evaluate the effectiveness of the corrective action program (remedial activities). After completion of the remedial activities and closure of the facility, groundwater monitoring will continue for an additional three years to ensure attainment of the remedial action objectives.	Groundwater	Relevant and appropriate

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<b>ACTION-SPECIFIC ARARS</b>			
Hazardous Waste Regulations Closure and Post-Closure 22 CCR Div 4.5, Chapter 14, Art. 7	The closure and post-closure requirements establish standards to minimize maintenance after facility closure to protect human health and the environment. The closure and post-closure requirements may be dependent upon the treatment alternatives.	Soil and groundwater	Substantive provisions are applicable if waste is determined to be RCRA hazardous waste.
Hazardous Waste Regulations Use and Management of Containers 22 CCR Div 4.5, Chapter 14, Art. 9	Maintain container and dispose to a Class I hazardous waste disposal facility within 90 days. The 90-day storage limit prevents greater environmental hazard than already exists.  Waste contained on-site will be maintained in a container in good condition prior to off-site disposal.	Soil and groundwater	Substantive provisions are applicable if waste is determined to be RCRA hazardous waste.
Hazardous Waste Regulations Tank Systems 22 CCR Div. 4.5, Chapter 14, Art. 10	Minimum design standards (i.e., shell strength, foundation, structural support, pressure controls, seismic considerations) for tank and ancillary equipment are established. The requirements for minimum shell thickness and pressure controls to prevent collapse or rupture prevents a greater environmental hazard than already exists.	Groundwater	Substantive provisions are applicable if waste is determined to be RCRA hazardous waste.

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Hazardous Waste Regulations Corrective Action for Waste Management Units (CAMU)  22 CCR Div. 4.5, Chapter 14, Art. 15.5	Allows for the creation of Corrective Action Management Units (CAMUs) to facilitate treatment, storage, and disposal of hazardous wastes managed for implementing cleanup and to remove the disincentives to cleanup that hazardous waste regulations sometimes impose.	Soil	Relevant and appropriate
Hazardous Waste Regulations Miscellaneous Units Requirements  22 CCR Div. 4.5, Chapter 14, Art. 16 22 CCR § 66264.601 - 66264.603	Minimum performance standards are established for miscellaneous equipment to protect health and the environment. "Miscellaneous units" are units that are not a container, tank, surface impoundment, pile, land treatment unit, landfill, incinerator, boiler, industrial furnace other than industrial furnaces.	Soil and groundwater	Substantive provisions are applicable if waste is determined to be RCRA hazardous waste.
Land Disposal Requirements  22 CCR Div. 4.5, Chap.18	Provides a list of wastes subject to land disposal requirements. Only applicable if there is placement of a restricted RCRA hazardous waste.	Soil and groundwater	Applicable if there is placement of a restricted RCRA hazardous waste.

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South Coast Air Quality Management District (SCAQMD) Rules and Regulations Regulation IV, Rule 402, Nuisance.	A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health, or safety of any such persons or the public or which cause to have a natural tendency to cause injury or damage to business or property.	Air	Applicable
South Coast Air Quality Management District (SCAQMD) Rules and Regulations Regulation IV, Rule 403, Fugitive Dust	Emissions of fugitive dust shall not remain visible in the atmosphere beyond the property line of the emission source. Activities conducted in the South Coast Air Basin shall use best available control measures to minimize fugitive dust emissions and take necessary steps to prevent the track-out of bulk material onto public paved roadways as a result of their operations.	Air	Applicable
South Coast Air Quality Management District (SCAQMD) Rules and Regulations Regulation IV, Rule 404, Particulate Matter – Concentration.	Particulate matter in excess of the concentration standard conditions shall not be discharged from any source. Particulate matter in excess of 450 milligrams per cubic meter (0.196 grain per cubic foot) in discharged gas, calculated as dry gas at standard conditions, shall not be discharged to the atmosphere from any source.	Air	Applicable
South Coast Air Quality Management District (SCAQMD) Rules and Regulations Regulation IV, Rule 405, Solid Particulate Matter – Weight.	Solid particulate matter including lead and lead compounds discharged into the atmosphere from any source shall not exceed the rates Table 450(a) of Rule 405. Nor shall solid particulate matter including lead and lead compounds in excess of 0.23 kilogram (0.5 pound) per 907 kilograms (2,000 pounds) of process weight be discharged to the atmosphere. Emissions shall be averaged over one complete cycle of operation or one hour, whichever is the lesser time period.	Air	Applicable

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South Coast Air Quality Management District (SCAQMD) Rules and Regulations  Regulation XIII, Rule 1166 - <a href="#">Volatile Organic Compound Emissions from Decontamination of Soil</a>	<a href="#">The purpose of Rule 1166 is to control the emission of VOCs from excavating, grading, handling, and treating VOC-contaminated soil.</a> If excavated soil is measured in the field at 50 parts per million using an OVA at less than 1-inch distance from the excavated soil. This requirement would apply if soil excavation of upper vadose zone soils is selected as part of the final remedy for the Site.	Air	Applicable
South Coast Air Quality Management District (SCAQMD) Rules and Regulations  Regulation XIII, Rule 1303 - New Source Review	Construction for any relocation or for any new or modified source, which results in an emission increase of any nonattainment air contaminant, any ozone-depleting compound, or ammonia, must include BACT for the new or relocated source or for the actual modification to an existing source. This requirement would apply to treatment technologies with potential to emit primary pollutant(s) to the atmosphere.	Air	Applicable
South Coast Air Quality Management District (SCAQMD) Rules and Regulations  Regulation XIV, Rule 1401, New Source of Toxic Air Contaminants	Construction or reconstruction of a major stationary source emitting hazardous air pollutants shall be constructed with Best Available Control Technology for Toxics (T-BACT) and complies with all other applicable requirements.	Air	Applicable

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<b>TO-BE-CONSIDERED DOCUMENTS</b>			
California Well Standards California Department of Water Resources Bulletin 74-90	Provides minimum specifications for monitoring wells, extraction wells, injection wells, and exploratory borings.  Design and construction specifications are considered for construction and destruction of wells and borings.	Soil and groundwater	To Be Considered
United States Environmental Protection Agency (USEPA) Region IX Preliminary Remediation Goals (PRGs) and Soil Screening Levels (SSLs)	PRGs are tools for evaluating and cleaning up contaminated sites. They are risk-based concentrations combining exposure information and EPA toxicity data. PRGs should be viewed as Agency guidelines, not legally enforceable standards. (PRGs for tap water were used when no MCLs were available.)  No MCLs are available for soils. For surface and near surface soils at the Pemaco site, PRGs for Residential Soil were used for comparison. PRGs for subsurface soils are termed Soil Screening Levels (SSLs) and are used to screen subsurface soils as a threat to groundwater. A Dilution Attenuation Factor (DAF) of 20 and 1 are available, DAF 1 being more stringent. DAF 20 PRGs are used when the contaminated soil is not directly adjacent to a drinking water source and dilution of the contaminant is occurring before it reaches the drinking water source. DAF 1 PRGs assume that the contaminated soil is directly adjacent to a drinking water source and no dilution of the contaminant is occurring along the pathway between the source soil and the drinking water source. At Pemaco, subsurface soils to 50 ft were compared to DAF 20 SSLs; subsurface soils greater than 50 ft bgs were compared to DAF 1 SSLs.	Soil and groundwater	To Be Considered
California Department of Health Action Levels (ALs)	Action Levels (ALs) are health-based advisory levels established by the California Department of Health Services for contaminants that lack primary MCLs. ALs are advisory levels and not enforceable standards. An AL is the level of a contaminant in drinking water that is considered not to pose a significant health risk to people ingesting that water on a daily basis. It is calculated using standard risk assessment methods for noncancer and cancer endpoints, and typical exposure assumptions, including a 2-liter per day ingestion rate, a 70-kilogram adult body weight, and a 70-year lifetime.	Soil and groundwater	To Be Considered

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<b>TO-BE-CONSIDERED DOCUMENTS</b>			
State of California Office of Environmental Health Hazard Assessment (OEHHA) Public Health Goals (PHGs)	PHGs are based on health risk assessments using the most current scientific methods.	Soil and groundwater	To Be Considered