
APPENDIX C

ARARs Summary

Compliance with Applicable or Relevant and Appropriate Requirements

Remedial actions selected under CERCLA must comply with ARARs under federal environmental laws or, where more stringent than the federal requirements, state environmental or facility siting laws. Where a State has been delegated authority to enforce a federal statute, such as RCRA, the delegated portions of the statute are considered to be a federal ARAR unless the state law is broader or more stringent than the federal law.

The ARARs are identified on a site-specific basis from information about site-specific chemicals, specific actions that are being considered, and specific site location features. There are three categories of ARARs: 1) chemical-specific requirements, 2) location-specific requirements, and 3) action specific requirements. Where there are no chemical-, location-, or action-specific ARARs, EPA may consider non-promulgated federal or state advisories and guidance as to-be-considered (TBC) criteria. Although consideration of a TBC criterion is not required, standards based on TBCs are legally enforceable as performance standards.

Chemical-specific ARARs are risk-based standards or methodologies that may be applied to site-specific conditions and result in the development of cleanup levels for the COCs at Cooper Drum.

Location-specific ARARs are restrictions placed on the chemical contaminant or the remedial activities based on geographic or ecological features. Examples of features include wetlands, floodplains, sensitive ecosystems and seismic areas.

Action-specific ARARs are usually technology- or activity-based requirements. They are triggered by the particular remedial activities selected to accomplish a remedy.

A summary of ARARs and TBC criteria for the selected remedy are presented in Table 1.

Table 1
ARARs for Selected Remedy

Authority	Medium	Legal Authority	Status	Synopsis of Requirement	Actions to be Taken to Attain Requirement
CHEMICAL-SPECIFIC ARARs					
Federal Regulatory Authority	Groundwater	Federal Primary Drinking Water Standards 40 CFR Part 141	Relevant and appropriate	Federal drinking water standards protect the public from contaminants that may be found in drinking water. The groundwater underlying Cooper Drum is a potential source of drinking water.	The selected remedy will use federal MCLs, unless State MCLs are more stringent, as cleanup levels for VOCs in groundwater and will protect groundwater from soil contaminants.
State Regulatory Authority	Groundwater	California Primary Drinking Water Standards H&S Code §4010 et seq. 22 CCR §64431 and 64444	Relevant and appropriate	California drinking water standards protect public health from contaminants found in drinking water sources. The groundwater underlying Cooper Drum is a potential source of drinking water.	The selected remedy will use state MCLs more stringent than federal MCLs as cleanup levels for VOCs in groundwater and will protect groundwater from soil contaminants.
State Regulatory Authority	Groundwater	Basin Plan for Los Angeles Region California Water Code §13240 et seq.	Relevant and appropriate	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.	The selected remedy will use the most stringent state or federal MCLs as cleanup levels for VOCs in groundwater and will protect groundwater from soil contaminants.
State Regulatory Authority	Groundwater	SWRCB Resolution No. 92-49 Policy and Procedures for Investigation and Cleanup and Abatement of Discharges under California Water Code §13304 (amended 4/21/94) California Water Code §13307 23 CCR §2550.4	Relevant and appropriate	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.	Groundwater at Cooper Drum will be cleaned up to MCLs for VOCs or will attain the best water quality that is reasonable (e.g. 1 ppb for 1,2,3-TCP, which is the chemical detection limit).

Table 1 (Continued)
ARARs for Selected Remedy

Authority	Medium	Legal Authority	Status	Synopsis of Requirement	Actions to be Taken to Attain Requirement
LOCATION-SPECIFIC ARARs					
Local Building Department	Remediation Equipment Installation	Local Building Department 2001 CBC-CCR Title 24	Applicable	The CBC requires civil and mechanical installations to be designed for a seismic zone 4.	The civil and mechanical components of this project will be designed following the 2001 CBC design requirements for a seismic zone 4.
State Regulatory Authority	Soil and groundwater	Prohibition-Destruction of Bird Eggs and Nests Fish & Game Code §3503	Applicable	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.	Project construction of the selected remedy will not result in a 'take' and will comply with this requirement.
State Regulatory Authority	Soil and groundwater	Non-Game Animals Fish & Game regulations 14 CCR §472	Applicable	Regulation provides that non-game birds and mammals may not be taken except for English sparrow, starling, coyote, weasels, skunks, opossum, moles, and rodents (excludes tree and flying squirrels, and those listed as furbearers, endangered, or threatened species); and American crows.	Project construction of the selected remedy will not result in a 'take' and will comply with this requirement.
ACTION-SPECIFIC ARARs					
Federal Regulatory Authority	Soil and Groundwater	NPDES Non-Point Source Discharge 40 CFR §122.26	Relevant and appropriate	Nonpoint sources address using best management practices for control of contaminants to stormwater run-off from construction activities on sites greater than 1 acre.	Since no soil excavation will occur and only minimal disturbance of soil is expected, the requirement is not applicable but is relevant and appropriate. BMPs will be established to prevent non-stormwater run-off or siltation of stormwater.
State Regulatory Authority	Soil and Groundwater	Basin Plan for Los Angeles Region Chapter 4 - Remediation of Pollution	Relevant and appropriate	The Basin Plan recognizes the cleanup goals based on the State's Antidegradation Policy as set forth in State Board Resolution No. 68-16. Under the Antidegradation Policy, whenever the existing quality of water is better than that needed to protect present and potential beneficial uses, such existing quality will be maintained.	Antidegradation requirements obligate EPA to prevent further degradation of the water during and at completion of the cleanup action. The pumping and treating of groundwater and the removal of the source in soil will retard and/or prevent the further degradation of groundwater at the site.
State Regulatory Authority	Groundwater	Water Quality Control Plan (Basin Plan) for Los Angeles Region (adopted 9\09\00) California Water Code §13240 et seq.	Relevant and appropriate	Presents numerical and narrative water quality objectives for maintaining a high quality of protection for the inland surface water and groundwater in the region. Groundwater underlying Cooper Drum has been identified by the Basin Plan as a potential drinking water aquifer.	Relevant to groundwater cleanup and soil cleanup to protect groundwater quality. Groundwater and soil cleanup levels will be based on protection of groundwater quality for drinking water.

**Table 1 (Continued)
ARARs for Selected Remedy**

Authority	Medium	Legal Authority	Status	Synopsis of Requirement	Actions to be Taken to Attain Requirement
State Regulatory Authority	Soil and Groundwater	Non-Degradation Policy SWRCB Resolution No. 68-16 Water Code §13140	Applicable	Requires maintaining the existing water quality using best practicable treatment technology unless a demonstrated change will benefit the people of California, will not unreasonably affect present or potential uses, and will not result in water quality less than that prescribed in other state policies. Determination is made through a two-step process to determine (1) whether further degradation may be allowed, and (2) the discharge level which will result in the best practicable treatment or control of the discharge.	Antidegradation requirements will be addressed to prevent further degradation of the groundwater during and at completion of the cleanup action. Soil vapor extraction and groundwater pumping and treating provides the best practicable treatment.
State Regulatory Authority	Soil	California Water Code §13140 - 13147, 13172, 13260, 13263, 132267, 13304 27 CCR Div.2, Subdiv.1, Chap.3, Subchap.2, Art.2	Applicable	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. Non-hazardous 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.	Waste will be classified for disposal to appropriate permitted off-site waste management units. CERCLA waste (e.g., contaminated soil, IDW, spent GAC) would be disposed at an approved off-site disposal facility.
State Regulatory Authority	Groundwater	Sources of Drinking Water SWRCB Resolution No. 88-63	Applicable	This policy specifies that ground and surface waters of the state are either existing or potential sources of municipal and domestic supply.	The requirement establishes groundwater underlying Cooper Drum as a potential source for drinking water. The selected remedy will apply a groundwater cleanup level protective of drinking water.
State Regulatory Authority	Soil and groundwater	Hazardous waste regulations Identification and Listing of Hazardous Waste 22 CCR Div. 4.5, Chap. 11 22 CCR §66264.13 22 CCR §66260.200	Applicable	A generator must determine if the waste is classified as a hazardous waste in accordance with the criteria provided in these requirements.	The selected remedy will comply with the waste classification requirements to determine proper disposal of waste. Waste characteristics of treated soil and groundwater will be defined prior to treatment and disposal.

**Table 1 (Continued)
ARARs for Selected Remedy**

Authority	Medium	Legal Authority	Status	Synopsis of Requirement	Actions to be Taken to Attain Requirement
State Regulatory Authority	Soil and groundwater	Hazardous waste regulations Standards Applicable to Generators of Hazardous Waste 22 CCR Div. 4.5, Chap. 12	Relevant and appropriate	Establishes waste storage timeframes on site. The purpose of the 90-day storage limit is to prevent creating a greater environmental hazard than already exists at Cooper Drum.	Waste contained on site will be maintained in a container in good conditions prior to off-site disposal.
State Regulatory Authority	Soil and groundwater	Hazardous waste regulations Hazardous Waste Security 22 CCR §66264.14	Relevant and appropriate	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.	The selected remedy will comply with the security requirements around the treatment plant.
State Regulatory Authority	Soil and groundwater	Hazardous waste regulations Hazardous Waste Facility General Inspection Requirements and Personnel Training 22 CCR §66264.15 - 66264.16	Relevant and appropriate	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.	The treatment system will comply with this requirement and provide treatment system inspections for malfunctions and deterioration.
State Regulatory Authority	Soil and groundwater	Hazardous waste regulations Preparedness and Prevention 22 CCR Div. 4.5, Chap. 14, Art. 3	Relevant and appropriate	Facility design and operation to minimize potential fire, explosion, or unauthorized release of hazardous waste.	The selected remedy will comply with the design requirements.

**Table 1 (Continued)
ARARs for Selected Remedy**

Authority	Medium	Legal Authority	Status	Synopsis of Requirement	Actions to be Taken to Attain Requirement
State Regulatory Authority	Groundwater	Hazardous waste regulations Water Quality Monitoring and Response Systems for Permitted Systems 22 CCR Div. 4.5, Chap. 14, Art. 6	Relevant and appropriate	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.	The selected remedy will comply with these requirements by monitoring to demonstrate all the COCs concentrations are reduced to levels below cleanup levels.
State Regulatory Authority	Soil and groundwater	Hazardous waste regulations Closure and Post-Closure 22 CCR Div. 4.5, Chap. 14, Art. 7	Relevant and appropriate	The closure and post-closure requirements establish standards to minimize maintenance after facility closure to protect human health and the environment.	The selected remedy will comply with these requirements. Specific closure conditions of the treatment facilities will be provided in a site closure report after completion of the remedial action.
State Regulatory Authority	Soil and groundwater	Hazardous waste regulations Use and Management of Containers 22 CCR Div. 4.5, Chap. 14, Art. 9	Relevant and appropriate	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. Maintaining the containers in good conditions at all times and not creating an environmental hazard is relevant and appropriate.	Storage of investigation-derived waste (i.e., soil cuttings from well development) will occur. Requirements may apply for the storage of contaminated groundwater and sediments trapped by the bag filter during start-up operation. Waste contained on site will be maintained in a container in good condition prior to off-site disposal.
State Regulatory Authority	Groundwater	Hazardous waste regulations Tank Systems 22 CCR Div. 4.5, Chap. 14, Art. 10	Relevant and appropriate	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.	The selected remedy will comply and treatment system design requirements will not create an environmental hazard greater than already exists.

Table 1 (Continued)
ARARs for Selected Remedy

Authority	Medium	Legal Authority	Status	Synopsis of Requirement	Actions to be Taken to Attain Requirement
State Regulatory Authority	Soil and groundwater	Hazardous waste regulations Miscellaneous Units 22 CCR Div. 4.5, Chap. 14, Art. 16 22 CCR §66264.601 - 66264.603	Relevant and appropriate	Minimum performance standards are established for miscellaneous equipment to protect health and the environment. "Miscellaneous unit" are units that are not a container, tank, surface impoundment, pile, land treatment unit, landfill, incinerator, boiler, industrial furnace other than industrial furnaces (i.e., injection wells, treatment system).	The COC levels are not classified as hazardous waste. The selected remedy will comply with those environmental performance standards to protect human health and the environment in the treatment system design and construction.
State Regulatory Authority	Air	South Coast Air Quality Management District (SCAQMD) Rules and Regulations Regulation IV, Rule 402, Nuisance.	Applicable	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.	The selected remedy will provide short- and long-term emission control measures during construction and O&M to prevent impacts to the public.
State Regulatory Authority	Air	South Coast Air Quality Management District (SCAQMD) Rules and Regulations Regulation IV, Rule 403, Fugitive Dust	Applicable	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.	The selected remedy will provide short- and long-term fugitive emission control measures during construction and O&M to prevent impacts to the public.
State Regulatory Authority	Air	South Coast Air Quality Management District (SCAQMD) Rules and Regulations Regulation IV, Rule 404, Particulate Matter – Concentration.	Applicable	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.	The selected remedy will provide emission control measures during construction and O&M to comply with these emission standards.

**Table 1 (Continued)
ARARs for Selected Remedy**

Authority	Medium	Legal Authority	Status	Synopsis of Requirement	Actions to be Taken to Attain Requirement
State Regulatory Authority	Air	South Coast Air Quality Management District (SCAQMD) Rules and Regulations Regulation IV, Rule 405, Solid Particulate Matter – Weight.	Applicable	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.	The selected remedy will provide emission control measures during excavation of lead contaminated soil to comply with these emission standards.
State Regulatory Authority	Air	South Coast Air Quality Management District (SCAQMD) Rules and Regulations Regulation XIII, Rule 1303 - New Source Review	Applicable	Construction for any relocation or for any new or modified source which results in an emission increase of any non-attainment 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.	The selected remedy will be designed and constructed with BACT emission control measures on the treatment system to comply with these emission standards.
State Regulatory Authority	Air	South Coast Air Quality Management District (SCAQMD) Rules and Regulations Regulation XIV, Rule 1401, New Source of Toxic Air Contaminants.	Applicable	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.	The selected remedy will be designed and constructed to comply with T-BACT emission standards.
TO-BE-CONSIDERED CRITERIA					
TBC	Soil and groundwater	California Well Standards California Department of Water Resources Bulletin 74-90	To-be-considered	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.	Extraction and injection well siting requirements are inappropriate for Cooper Drum because the effectiveness of the remedy is dependent upon well locations. Wells constructed for the selected remedy (e.g., extraction wells, injection wells, monitoring well, soil vapor wells) will be constructed to meet the minimum state standards.