

DEPARTMENT OF HEALTH SERVICES

2151 BERKELEY WAY
BERKELEY, CA 94704

January 5, 1988

Captain P.W. Drennon, Commander
Western Division
Naval Facilities Engineering Command
P.O. Box 727
San Bruno, CA 94066-0720

Dear Captain Drennon:

STATE ARARS

In recent months, we have received several letters from the Navy requesting site-specific State requirements, standards, criteria, or limitations (more commonly referred to as "ARARS") which are legally applicable or relevant and appropriate for remedial actions conducted pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 as amended in 1986. ARARS have been specifically requested for the following Navy Facilities:

- o Hunters Point Annex
- o Mare Island Naval Shipyard
- o Naval Air Station, Moffet Field
- o Naval Weapons Station, Concord

This letter is in response to these requests.

Background

Pursuant to Section 121(d) of the Superfund Amendments and Reauthorization Act (SARA), the Department contacted over 20 different state agencies and requested that they each identify any potential ARARS. This effort resulted in the development of a list known as "California Standards, Requirements, Criteria, and Limitations for Hazardous Waste Cleanups Pursuant to Section 121(d)(2) of the Superfund Amendment and Reauthorization Act, June 1987." The purpose of this effort was to identify the universe of potential state ARARS which may apply to the remediation of sites in California. A copy of this list is enclosed.

Development of Site-Specific ARARS for Navy Facilities

All four of the Navy Facilities for which ARARS have been requested are in the remedial investigation phase of the CERCLA

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process. This phase essentially involves identifying the kinds of hazardous substances that have been released into the environment and the vertical and lateral extent of contamination. This information will then be used to perform a public health evaluation and to evaluate and select appropriate remedial actions.

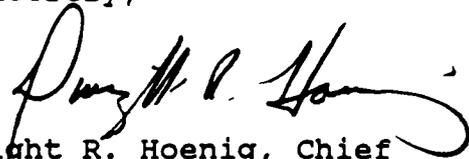
Until such site-specific information is developed, the attached list of potential State ARARs should be considered by the Navy. Consistent with the ARARs guidance provided to us by the U.S. Environmental Protection Agency, an iterative process will be followed to narrow this list as more site-specific information is developed and provided to us by the Navy.

Future Coordination

We urge the Navy to coordinate closely with the project officers assigned by the Department to each Navy facility. Such coordination will enhance and expedite the process of narrowing the list and identifying site-specific State ARARs.

If you have any questions or comments, please contact me or our respective project officers.

Sincerely,



Dwight R. Hoenig, Chief
North Coast California Section
Toxic Substances Control Division

Enclosure

cc: Keith Takata, U.S. EPA, Region IX
Roger James, SF RWQCB
J. Martin Robertson, Department of the Navy
Richard Cornelius, Department of the Navy
Joseph Smith, Jr., Department of the Navy
Captain C.T. Moyer III, Naval Air Station

DRH:rn:na

CA DEPT. OF HEALTH SERVICES, TSCD, APPLIED ACTION LEVELS
Applied Action Levels are developed for and must be used in
conjunction with the process outlined in the DHS document,
California Site Mitigation Decision Tree, May 1986

SUBSTANCE	BIOLOGICAL RECEPTOR	AALwater (ug/l)	AALair (ug/m3)	AALsoil	OTHER MEDIA	TEST 1 COMMENT
ACENAPHTHENE	HUMAN	0.019	0.0019			
ACENAPHTHYLENE	HUMAN	0.019	0.0019			
ANTHRACENE	HUMAN	0.019	0.0019			
ARSENIC	AQUATIC	0.074				FRESHWATER SPECIES
ARSENIC	AQUATIC	0.0224				SALTWATER SPECIES
BENZENE	HUMAN	0.0007	0.0032			AALwater is the SBB Action Level AALair is the Limit of Detection
BENZO(A)PYRENE	HUMAN	2.3 E-5	8.7 E-6			AALwater is the Limit of Detection
CADMIUM	AQUATIC	0.00017				FRESHWATER SPECIES
CADMIUM	AQUATIC	0.0051				SALTWATER SPECIES
CHLOROPORM	HUMAN	0.0043	0.00043			
CHROMIUM	AQUATIC	0.051				FRESHWATER SPECIES
CHROMIUM	AQUATIC	0.00153				SALTWATER SPECIES
COPPER	AQUATIC	0.0043				FRESHWATER SPECIES
COPPER	AQUATIC	0.0060				SALTWATER SPECIES
ETHYLBENZENE	HUMAN	0.68	0.14			AALwater is the SBB ACTION LEVEL
FLUORANTHENE	HUMAN	0.019	0.0019			
FLUORENE	HUMAN	0.019	0.0019			
HEXANE, n-	HUMAN	0.13	0.22			
LEAD	AQUATIC	0.012				FRESHWATER SPECIES
LEAD	AQUATIC	0.0044				SALTWATER SPECIES
METHYL ETHYL KETONE	HUMAN	1.77	0.25			
NAPHTHALENE	HUMAN	0.018	0.0018			

CA DEPT. OF HEALTH SERVICES, TSCD, APPLIED ACTION LEVELS
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SUBSTANCE	TEST 2 MEDIA FOR SUMMATION OF EXPOSURE	TEST 2 COMMENTS	TEST 3 TOXIC MANIFESTATION	TEST 3 COMMENTS
ACENAPHTHENE	ALL MEDIA			A NON-CARCINOGENIC PAH. CUMULATE ALL NON-CARCINOGENIC PAHs.
ACENAPHTHYLENE	ALL MEDIA			A NON-CARCINOGENIC PAH. CUMULATE ALL NON-CARCINOGENIC PAHs.
ANTHRACENE	ALL MEDIA			A NON-CARCINOGENIC PAH. CUMULATE ALL NON-CARCINOGENIC PAHs.
ARSENIC				
ARSENIC				
BENZENE	ALL MEDIA	FOR WATER USE, AALwater/3.5	CANCER	FOR WATER USE, AALwater/3.5
BENZO(A)PYRENE	ALL MEDIA		CANCER	
CADMIUM				
CADMIUM				
CHLOROPHORM	ALL MEDIA		CANCER	
CHROMIUM				
CHROMIUM				
COPPER				
COPPER				
ETHYLENBENZENE	ALL MEDIA	FOR WATER, USE AALwater/0.3	DEVELOPMENTAL TOXICITY	FOR WATER, USE AALwater/0.3
FLUORANTHENE	ALL MEDIA			A NON-CARCINOGENIC PAH. CUMULATE ALL NON-CARCINOGENIC PAHs.
FLUORENE	ALL MEDIA			A NON-CARCINOGENIC PAH. CUMULATE ALL NON-CARCINOGENIC PAHs.

State of California
Department of Health Services

Drinking Water Action Levels Recommended
by the Department of Health Services

October 1987

Chemical	Action Level parts per billion (ppb)
Pesticides	
Chlorinated Hydrocarbon	
Aldrin	Limit of Quantification (0.05)
a-Benzene Hexachloride (a-BHC)	0.70
b-Benzene Hexachloride (b-BHC)	0.30
Chlordane	0.055
Dieldrin	Limit of Quantification (0.05)
Heptachlor	0.02
Heptachlor Epoxide	0.10
Pentachlorophenol	30.00
Organophosphate	
Dimethoate	140.00
Diazinon	14.00
Ethion	35.00
Malathion	160.00
Methyl Parathion	30.00
Parathion	30.00
Trithion	7.00
Carbamate	
Aldicarb	10.00
Baygon	90.00
Carbaryl	60.00
Phthalamide	
Captan	350.00
Amides	
Diphenamide	40.00
Fumigants	
Dibromochloropropane	1.00
1,2-Dichloropropane	10.00
Ethylene Dibromide	Limit of Quantification (0.02)
Chloropicrin	50.00 (37.0)*
Miscellaneous	
Terrachlor (Pentachloronitrobenzene)	0.90

*Taste & Odor Threshold

Phenols

2,4-dimethylphenol
Phenol

(400.00)*
(1.00)* (For Chlorinated
Systems)

Aldehydes

Formaldehyde

30.00

Radioactivity

Uranium

30 (equivalent to 20
picocuries per liter)

*Taste & Odor Threshold

CALIFORNIA STANDARDS, REQUIREMENTS, CRITERIA AND LIMITATIONS FOR HAZARDOUS WASTE CLEANUPS PURSUANT TO SECTION 121 (d) (2) OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT. SEPTEMBER, 1987

I. STATUTES AND REGULATIONS

STATUTES	REGULATION	APPLICABILITY	REGULATORY AGENCY
Air Resources Act Health and Safety Code, Division 26, Section 39000 et seq.	17 CAC, Part III, Chapter 1 Section 60000 et seq.	Air Quality (Refer also to air district requirements in Section II)	Air Resources Board
California Coastal Act of 1976 Public Resources Code, Division 20 Section 30,000 et seq.		Activities in Coastal Zone Coastal Management Program	California Coastal Commission
California Environmental Quality Act, Public Resources Code Division 13, Section 21000 et seq.	14 CAC, Division 6, Chapter 3 Section 15000 et seq.	CEQA Law and Guidelines. EIR process and alter- natives.	Resources Agency Office of Planning and Research
California Health and Safety Code Div. 20	California Administrative Code, Title 22, Division 4 Chapter 30, Minimum Standards for Management of Hazardous and Extremely Hazardous Wastes.		Department of Health Services
Chapter 6.5 Hazardous Waste Wastes.		Management and Control of TSD facilities, Transpor- tation, Hauling, Labora- tories, Fees, Waste Classi- fication.	Department of Health Services
Chapter 6.6 Safe Drinking Water and Toxics Enforcement Act (Proposition 65)		Reproductive Toxin Levels Reporting of hazardous materials releases to local government	Department of Health Services

STATUTES	REGULATION	APPLICABILITY	REGULATORY AGENCY
Chapter 6.7 Underground Storage of Hazardous Substances		Underground tank construction and containment	Department of Health Services State Water Resources Control Board Regional Water Quality Control Board
Chapter 6.8 Hazardous Substance Account		Principle requirement governing State Superfund and Board program abandoned sites, emergency response, victim's compensation	Department of Health Services
Chapter 6.91 Hazardous Materials Duty		Notification to local government officials of the use of the use of and dangers imposed by hazardous materials. Community information program	Office of Emergency Services
Chapter 6.95 Hazardous Materials Release Response Plans and Inventory	19 CAC, Chapter 3, Subchapter 3	Emergency plans in the event of hazardous materials release or threatned release	Office of Emergency Services
Chapter 6.98 Environmental Quality Assessment		Registration of Environmental Assessors	Department of Health Services State Water Resources Control Board Air Resources Board
California Safe Drinking Water Act, Health and Safety Code, Division 7, Part 1, Chapter 7 Section 4010 et seq.	California Administrative Code, Title 22, Division 4, Chapter 15, Domestic Water Quality and Monitoring	Public Water Systems Drinking Water Standards Maximum Contaminant Levels (MCLs), Lab Certification	Department of Health Services, Sanitary Engineering

STATUTES	REGULATION	APPLICABILITY	REGULATORY AGENCY
Hazardous Substances Act, Health and Safety Code Division 22, Chapter 13, Section 28740 et seq.		"Hazardous Substance" and "Toxic" broadly defined	Department of Health Services
Occupational Health and Safety Act, Labor Code Section 6300 et seq.		Worker safety, responsibilities and duties of employer.	Department of Industrial Relations, Division of Industrial Safety
Porter Cologne Water Quality Control Act, Water Code, Division 7 Section 13000 et seq.	California Administrative Code, Title 23, Chapter 3	Identification of general duties and authorities of State and Regional Water Boards	State Water Resources Control Board Regional Water Quality Control Board Department of Health Services
	Subchapter 9, Waste Discharge Reports and Requirements		
	Subchapter 9.1, Enforcement Procedures and Septic Tank Prohibition Review by the (Water) Board.		
	Subchapter 10, Licensing and Regulation of Use of Oil Spill Cleanup Agents.		
	Subchapter 13, Registration and Regulation of Liquid Waste Haulers.		
	Subchapter 15, Discharges of Waste to Land.		

STATUTES	REGULATION	APPLICABILITY	REGULATORY AGENCY
	(23 CAC, Chapter 3 Cont.) Subchapter 16, Underground Tank Regulation	Underground Tanks	
	Subchapter 20, Standards for Removal of Sewage from Vessels		
Fish and Game Code, Division 6, Part 1, Chapter 2, Sections 5650 and 5651		Fish and Wildlife, Water Pollution Prohibition, Correction of Chronic Water Pollution	Department of Fish and Game
	California Administrative Code, Title 8, Chapter 4	Health and Safety Re- quirements	
	Subchapter 4, Construction Safety Orders		
	Subchapter 5, Electrical Safety Orders		
	Subchapter 7, General Industry Safety Orders		
	California Administrative Code, Title 14, Division 7, Chapter 3. Standards for Solid Waste Hand- ling and Disposal.		Solid Waste Management Board
	California Administrative Code, Title 17, Chapter 5, Subchapter 4, Group 3 Article 6, Section 30298.	Cleanup of radioactive bearing hazardous waste in buildings.	Department of Health Services

STATUTES	REGULATION	APPLICABILITY	REGULATORY AGENCY
	California Administrative Code, Title 19, Chapter 2, Sub- Chapter 3, Hazardous Materials Release Response	Emergency Response (Office of Emergency Services)	Office of Emergency Services (OES)
	California Administrative Code, Title 23, Chapter 4, Subchapter 15. Regulations for Implemen- tation of the California En- vironmental Quality Act of 1970 (Water Board Requirements)	Water Board CEQA Regulations	State Water Resources Control Board, Regional Water Quality Control Board
	California Administrative Code, Title 26, Toxics	Directory of Toxic Related Regulations.	Office of Administrative Law

APPLICABILITY

REGULATORY AGENCY

II. OTHER STANDARDS, REQUIREMENTS, CRITERIA AND LIMITATIONS

All policies and procedures for hazardous waste and hazardous materials management and cleanup adopted by the Toxic Substances Control Division.
Control Division.

Department of Health Services

Department of Health Services Decision Tree.

Development of site-specific
cleanup levels evaluation of
remedial action alternatives.

Department of Health Services

Department of Health Services Exposure Criteria.

Department of Health Services

- o RMCLs, MCLs, and action levels*
for unregulated chemicals in
drinking water.
- o Applied action levels* developed
by the Toxic Substances Control
Division.
- o Other cleanup levels developed
by the Toxic Substances Control
Division on a site specific basis.

Toxic air quality criteria policies or standards generated
Department of Health Services,
by the Department of Health Services or the Air Resources
Board.

Department of Health Services,

Air Resources Boards

Air Pollution Control District regulations.

Local Air Pollution Control
District

South Coast Air Quality Management District Rule 1150,
Excavation of Landfill Sites.

Permit requirements for exca-
vation at landfill sites.South Coast Air Quality
Management District

	APPLICABILITY	REGULATORY AGENCY
South Coast Air Quality Management District Rule 1150.1, Control of Gaseous Emissions from Active Landfills Storage Tanks	Gas collection at active landfills.	South Coast Air Quality Management District Underground
Bay Area Air Quality Management District Regulation 8 Rule 40, Aeration of Contaminated Soil and Removal of Underground Storage Tanks.	Control of organic compounds during removal of underground tanks	Bay Area Air Quality Management District
Water Quality Control plans of the State Water Resources Control Board and the Regional Water Quality Control Board	Water Quality and Basin Plans	State Water Resources Control Board Regional Water Quality Control Board
Other requirements of the State Water Resources Control Board and Regional Water Quality Control Boards.		State Water Resources Control Board Regional Water Quality Control Board
All policies and procedures for water quality control adopted by the State Water Resources Control Board and the nine Regional Water Quality Control Boards.	Includes "Non Degradation" Policy	State Water Resources Control Board Regional Water Quality Control Board
Regional Water Quality Control Board cleanup levels.		Regional Water Quality Control Board
Regional Water Quality Control Board site remediation guidance and criteria.		Regional Water Quality Control Board
All county hazardous waste management plans.		Department of Health Services
Hazardous Waste Move Committee Memorandum of Understanding.	Transportation of Hazardous waste during cleanup.	Department of Health Services, Department of Transportation, Highway Patrol

APPLICABILITY

REGULATORY AGENCY

General Orders of the Public Utilities Commission.

Public Utilities Commission

Notes:

1. Pursuant to the Superfund Amendments and Reauthorization Act, Section 121 (e), and associated state policies and requirements, permits may not be mandatory at Superfund sites.
2. The "Applicability" column is intended only to highlight some major elements of the statute or regulation. It is not designed to denote which sections of the code or statute apply.
3. The Department of Health Services reserves the right to amend this list pursuant to the intent of the Superfund Amendments and Reauthorization Act.