California Regional Water Quality Control Board

San Francisco Bay Region

1515 Clay Street, Suite 1400, Oakland CA 94612
(510) 622-2300 • Fax (510) 622-2460
http://www.waterboards.ca.gov/sanfranciscobay

Linda S. Adams
Acting Secretary for Environmental Protection

Edmund G. Brown, Jr.
Governor

ORDER NO. R2-2011-0008
NPDES NO. CA0030121

The following Discharger is subject to waste discharge requirements set forth in this Order.

Table 1. Discharger Information

Discharger	Bay Ship and Yacht Company
Name of Facility	Bay Ship and Yacht Company
Facility Address	2900 Main Street Suite 2100
	Alameda, CA 94501
	Alameda County
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a **minor** discharge.	

Discharges by the Bay Ship and Yacht Company from the discharge points identified below are subject to waste discharge requirements as set forth in this Order.

Table 2. Discharge Locations

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Surface runoff from dry dock during submergence	37°47′ 29.5″ N	122° 17′ 30.8″ W	Oakland Inner Harbor, Lower San Francisco Bay
002	Integral ballast water from dry dock	37° 47′ 29.5″ N	122° 17′ 30.8″ W	Oakland Inner Harbor, Lower San Francisco Bay
003	Non-contact cooling water from vessels in dry dock	37° 47′ 29.5″ N	122° 17′ 30.8″ W	Oakland Inner Harbor, Lower San Francisco Bay
004	Fire suppression water	37° 47′ 29.5″ N	122° 17′ 30.8″ W	Oakland Inner Harbor, Lower San Francisco Bay

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	**February 9, 2011**
This Order shall become effective on:	**April 1, 2011**
This Order shall expire on:	**March 31, 2016**
CIWQS Remedial Measure Number	**377548**
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	**180 days prior to the Order expiration date**

I, Bruce H. Wolfe, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on February 9, 2011.

Digitally signed by Bruce Wolfe
Date: 2011.02.11 13:52:22 -08'00'

Bruce H. Wolfe, Executive Officer

Table of Contents

I. Facility Information 3
II. Findings 3
III. Discharge Prohibitions 8
IV. Effluent Limitations and Discharge Specifications 9
A. Effluent Limitations and Discharge Specifications– Discharge Point 001 9
B. Effluent Limitations and Discharge Specifications– Discharge Point 002 9
C. Effluent Limitations and Discharge Specifications– Discharge Point 003 9
D. Effluent Limitations and Discharge Specifications– Discharge Point 004 9
V. Receiving Water Limitations 9
VI. Provisions 10
A. Standard Provisions 10
B. MRP Requirements 11
C. Special Provisions 11
1. Reopener Provisions 11
2. Best Management Practices and Pollution Minimization 12
3. Best Management Practices Plan Trigger Levels 14

Tables

Table 1. Discharger Information 1
Table 2. Discharge Locations 1
Table 3. Administrative Information 1
Table 4. Facility Information 3
Table 5. Basin Plan Beneficial Uses 6
Table 6. Triggers for Wipe Samples 16

Attachments

Attachment A – Definitions A-1
Attachment B – Facility Map B-1
Attachment C – Process Flow Diagram C-1
Attachment D – Federal Standard Provisions D-1
Attachment E – Monitoring and Reporting Program (MRP) E-1
Attachment F – Fact Sheet F-1
Attachment G – Regional Standard Provisions and Monitoring and Reporting Program G-1

I. FACILITY INFORMATION

The following Discharger is subject to the waste discharge requirements set forth in this Order:

Table 4. Facility Information

Discharger	Bay Ship and Yacht Company
Name of Facility	Bay Ship and Yacht Company
Facility Address	2900 Main Street, Suite 2100
	Alameda, CA 94501
	Alameda County
CIWQS Place Number	208897
Facility Contact, Title, and Phone	Benjamin Perry-Thistle; Environmental, Safety, and Health Manager, 510-337-9122, Email: bperry-thistle@bay-ship.com
CIWQS Party Number	305514
Mailing Address	Same as Facility Address
Type of Facility	Ship Building and Repairing (SIC 3731)

II. FINDINGS

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter the Regional Water Board), finds:

A. Background. The Bay Ship and Yacht Company (hereinafter the Discharger) is currently discharging under Order No. R2-2005-0039, National Pollutant Discharge Elimination System (NPDES) Permit No. CA0030121. The Discharger submitted a Report of Waste Discharge, dated April 30, 2010, and applied for NPDES permit reissuance to continue discharging surface runoff and ballast water to waters of the State and the United States.

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and State laws, regulations, plans, and policies are held to be equivalent to references to the Discharger herein.

B. Facility Description and Discharge Locations

1. **Facility Description.** The Discharger owns and operates a ship building and repair facility. It builds, repairs, and performs maintenance on various seagoing vessels. Facilities include one double wall floating dry dock and one Syncrolift platform for removing vessels from the water for repair. The U.S. National Park Service owns the floating reinforced concrete dry dock and leases it to the Discharger, which is responsible for compliance to the extent described and authorized by California Water Code (CWC) Division 7. A machine shop, pipe shop, metal fabrication shop, and storage sheds, located on land, support the ship repair operations.

   Flooding integral ballast compartments with water from the Oakland Inner Harbor of San Francisco Bay lowers the dry dock. A vessel to be repaired or maintained can then be maneuvered into place above the deck of the dry dock and wooden blocks are put in place to support the vessel as it is lifted out of the water. Pumping out the water from the integral ballast compartments back into the Bay raises the dry dock and lifts the vessel out of the water. The Discharger can perform repair and maintenance work on a vessel. A sump, at the lower end of

the dry dock, collects any process wastewater generated during repair, including hydro-blasting and wash water. A pump transfers the wastewater from the sump to a filter treatment system for treatment prior to discharge to the sanitary sewer system. Prior to re-submergence, the Discharger then cleans, washes, and inspects the dry dock to ensure all wastes have been removed.

The Discharger installed a Syncrolift platform during the term of the previous permit. The Syncrolift consists of a slatted wooden deck with installed rail beds and is supported by steel cross members. The platform is lowered and raised by eight electric powered winches with support cabling attached to the steel cross members of the platform. The electric winches are supported by a system of piles driven to bedrock with concrete landings structured over the piles. Each structured support for the winches is set atop three piles. The Discharger maneuvers vessels over the Syncrolift platform, lifts vessels from the water until they are at land dock level, and then tows them, on the rails, from the platform into the ship repair area where the Discharger performs maintenance and repairs. The Discharger pumps all process wastewaters, generated during repair, including hydro-blasting and cradle wash water, that are collected in sumps within the ship repair rail berths, to the filter treatment system. This wastewater is treated prior to discharge to the sanitary sewer system. After the Discharger completes repair or maintenance work, it cleans the rail cradles and vessel and tows it back to the platform where it is lowered back into the water. The Syncrolift platform operates without any discharge of ballast waters. No repairs or maintenance are conducted over the platform.

2. **Discharge Description and Location**. The Discharger discharges from a floating dry dock, Discharge Point 001, to Oakland Inner Harbor in San Francisco Bay when the dry dock is submerged and San Francisco Bay water flows over the dry dock deck, potentially carrying wastes from the ship repair and maintenance operations. The Discharger also discharges at Discharge Point 002 when San Francisco Bay water is pumped from the integral ballast tank to raise the dry dock. The discharge of ballast water is at a rate of 40,000 gallons per minute for a total of 2.5 million gallons of ballast water per docking event. There are typically 20 to 30 docking events each year. This discharge is San Francisco Bay water previously pumped into the ballast. When larger ships are in dry dock, the ship's crew may continue to live on board. On such occasions, once-through non-contact cooling water from Oakland Inner Harbor is used to maintain on-board services, such as air conditioning. This results in a discharge of thermal waste at Discharge Point 003. This occurs roughly six to eight times per year. There is also a fire suppression system for emergency use that utilizes water from Oakland Inner Harbor. Occasional testing, for periods of about ten minutes, of the fire suppression pump, rated at 500 gallons per minute, results in discharges at Discharge Point 004. This occurs roughly six to eight times per year.

3. **Storm Water Discharge.** The Discharger is covered under the State Water Resources Control Board's (State Water Board's) statewide NPDES permit for storm water discharges associated with industrial activities (NPDES General Permit No. CAS000001); therefore, this Order does not cover storm water discharges.

Attachment B provides a map of the area around the facility. Attachment C-1 provides a plan view of the facility, and Attachment C-2 shows the dry dock.

C. Legal Authorities. This Order is issued pursuant to Clean Water Act (CWA) Section 402 and implementing regulations and California Water Code (CWC) Chapter 5.5, Division 7 (commencing

with Section 13370). It shall serve as an NPDES permit for point source discharges from this facility to surface waters. This Order also serves as waste discharge requirements pursuant to CWC Article 4, Chapter 4, Division 7 (commencing with Section 13260).

D. Background and Rationale for Requirements. The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (**Attachment F**), which contains background information and rationale for requirements of the Order, is hereby incorporated into this Order and constitutes part of the findings for this Order. **Attachments A** through **G** are also incorporated into this Order.

E. California Environmental Quality Act (CEQA). Under CWC Section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA.

F. Technology-Based Effluent Limitations. CWA Section 301(b) and NPDES regulations at Title 40 of the Code of Federal Regulations (40 CFR) Section 122.44 require that permits include conditions meeting applicable technology-based requirements at minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. Because there are no numeric technology-based effluent limitations established for the ship building and repair industry, the Regional Water Board may use its Best Professional Judgment (BPJ) pursuant to CWA Section 402(s)(1)(B) and 40 CFR 125.3. This Order includes Best Management Practices that the Regional Water Board considers appropriate technology-based effluent limitations.

G. Water Quality-Based Effluent Limitations (WQBELs). CWA Section 301(b) and 40 CFR 122.44(d) require that permits include limitations more stringent than federal technology-based requirements where necessary to achieve water quality standards.

NPDES regulations at 40 CFR 122.44(d)(1)(i) mandate that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, WQBELs must be established using (1) USEPA criteria guidance under CWA Section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion (WQC), such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in 40 CFR 122.44(d)(1)(vi).

Best Management Practices (BMPs) are defined by NPDES regulations at 40 CFR 122.2 as schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. The inclusion of BMPs as permit requirements is required by NPDES regulations at 122.44(k), when applicable, to control or abate the discharge of pollutants in several circumstances, including when numeric effluent limitations are infeasible.

H. Water Quality Control Plans. *The Water Quality Control Plan for the San Francisco Bay Basin* (hereinafter the Basin Plan) is the Regional Water Board's master water quality control planning document. It designates beneficial uses and water quality objectives (WQOs) for waters of the State, including surface waters and groundwater. The Basin Plan specifically identifies the receiving water

for this discharge, Lower San Francisco Bay. It also includes implementation programs to achieve the WQOs. The Basin Plan was duly adopted by the Regional Water Board and approved by the State Water Board, the Office of Administrative Law and the USEPA. Requirements of this Order implement the Basin Plan.

The Basin Plan identifies beneficial uses for the receiving water for this discharge, Lower San Francisco Bay. The Basin Plan implements State Water Board Resolution No. 88-63, which establishes State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Because of marine influence in Lower San Francisco Bay, total dissolved solids levels exceed 3,000 milligrams per liter (mg/L) and thereby meet an exception to State Water Board Resolution No. 88-63. The MUN designation therefore does not apply to Lower San Francisco Bay.

Basin Plan beneficial uses for Lower San Francisco Bay are listed in the table below.

Table 5. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Uses
001, 002	Lower San Francisco Bay	Industrial Service Supply (IND) Ocean, Commercial, and Sport Fishing (COMM) Shellfish Harvesting (SHELL) Estuarine Habitat (EST) Fish Migration (MIGR) Preservation of Rare and Endangered Species (RARE) Fish Spawning (SPWN) Wildlife Habitat (WILD) Water Contact Recreation (REC1) Non-Contact Water Recreation (REC2) Navigation (NAV)

On September 18, 1975, the State Water Board adopted the *Water Quality Control Plan for Control of Temperature in the Coastal Interstate Waters and Enclosed Bays and Estuaries of California* (hereinafter the Thermal Plan). The Thermal Plan contains objectives governing cooling water discharges, providing different and specific numeric and narrative water quality objectives for new and existing discharges.

The State Water Board's *Water Quality Control Plan for Enclosed Bays and Estuaries—Part 1, Sediment Quality* became effective on August 25, 2009. This plan supersedes other narrative sediment quality objectives and establishes new sediment quality objectives and related implementation provisions for specifically defined sediments in most bays and estuaries.

I. National Toxics Rule (NTR) and California Toxics Rule (CTR). USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995, and November 9, 1999. About 40 NTR criteria applied in California. On May 18, 2000, USEPA adopted the CTR, promulgating new toxics criteria for California and, in addition, incorporating the previously adopted NTR criteria applicable in the State, and amended it on February 13, 2001. These rules contain WQC for priority pollutants.

J. State Implementation Policy. On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (hereinafter the State Implementation Policy [SIP]). The SIP became effective on

April 28, 2000, with respect to the priority pollutant criteria promulgated through the NTR and to the priority pollutant objectives established in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria USEPA promulgated through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005, that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

K. Compliance Schedules and Interim Requirements. The State Water Board adopted Resolution No. 2008-0025, titled "Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits." Under limited circumstances, this policy allows the Regional Water Board to grant a compliance schedule based on a discharger's request and demonstration that it is infeasible to comply immediately with certain effluent limits. This Order does not contain a compliance schedule or any interim effluent limit for any constituent.

L. Alaska Rule. On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards become effective for CWA purposes [65 Fed. Reg. 24641 (April 27, 2000) (codified at 40 CFR 131.21)]. Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

M. Stringency of Requirements for Individual Pollutants. This Order does not contain technology-based or water quality based numeric effluent limitations for individual pollutants. It continues the previous permit requirements to develop and implement an appropriate BMP Plan for control of pollutants in facility discharges as discussed in the Fact Sheet (**Attachment F**). Because numeric effluent limitations are infeasible, this Order contains BMP requirements as necessary to meet water quality standards. These requirements implement minimum applicable federal requirements.

N. Antidegradation Policy. NPDES regulations at 40 CFR 131.12 require that State water quality standards include an antidegradation policy consistent with federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16, which incorporates federal antidegradation policy where federal policy applies under federal law and requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies.

O. Anti-Backsliding Requirements. CWA sections 402(o)(2) and 303(d)(4) and 40 CFR 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed.

P. Endangered Species Act. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect

the beneficial uses of waters of the State. The Discharger is responsible for meeting all requirements of applicable State and federal law pertaining to threatened and endangered species.

Q. Monitoring and Reporting (MRP, Attachment E). NPDES regulations at 40 CFR 122.48 require that all NPDES permits specify requirements for recording and reporting monitoring results. CWC sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The MRP establishes monitoring and reporting requirements to implement federal and State requirements. This MRP is in Attachment E.

R. Standard and Special Provisions. Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR 122.42, are in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions applicable under 40 CFR 122.42. The Discharger must also comply with the Regional Standard Provisions provided in Attachment G. The Regional Water Board has included in this Order special provisions applicable to the Discharger. A rationale for the special provisions is in the attached Fact Sheet (**Attachment F**).

S. Provisions and Requirements Implementing State Law. No provisions or requirements in this Order are included to implement State law only. All provisions and requirements are required or authorized under the federal CWA; consequently, violations of these provisions and requirements are subject to the enforcement remedies available for NPDES violations.

T. Notification of Interested Parties. The Regional Water Board notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided an opportunity to submit written comments and recommendations. Details of notification are in the Fact Sheet.

U. Consideration of Public Comment. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the public hearing are in the Fact Sheet.

IT IS HEREBY ORDERED, that this Order supersedes Order No. R2-2005-0039, except for enforcement purposes, and, in order to meet the provisions contained in CWC Division 7 (commencing with section 13000) and regulations adopted hereunder, and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted hereunder, the Discharger shall comply with the requirements in this Order.

III. DISCHARGE PROHIBITIONS

A. Discharge of wastewater at a location or in a manner different from that described in this Order is prohibited.

B. Discharge of sanitary wastewater is prohibited.

C. Discharge of solid materials and solid wastes, spent abrasive and paint residues is prohibited.

D. Discharge of floating oil or other floating material from any activity that may cause deleterious bottom deposits, turbidity, or discoloration in surface waters is prohibited.

E. Discharge of ship ballast water from vessels in dry dock is prohibited.

F. Discharge of any power or pressure washing water, boiler drainage, or any process water used or accumulated in the dry dock area is prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations and Discharge Specifications– Discharge Point 001

1. The discharge of pollutants from Discharge Point 001 shall be prevented or minimized through implementation of a Best Management Practices Program, as described in Provision VI.C.3.

2. As the Discharger performs maintenance and repair work, the Discharger shall remove spent abrasives, paint residues, and other debris, particulate material, and waste from those portions of the dry dock deck that are reasonably accessible by scraping, broom cleaning, vacuuming and power washing. Prior to submergence, the remaining area of the deck that was previously inaccessible shall be cleaned by scraping, broom cleaning, and power washing as soon as practical. The Discharger may then submerge the dry dock and bring in one or more other vessels for repair and maintenance.

3. The Discharger shall perform regular cleaning of the dry dock deck while work is being conducted, to minimize the potential for pollutants to build up on, or be released from, dry dock surfaces.

B. Effluent Limitations and Discharge Specifications– Discharge Point 002

The discharge of pollutants from Discharge Point 002 shall be prevented or minimized through implementation of a Best Management Practices Program, as described in Provision VI.C.3.

C. Effluent Limitations and Discharge Specifications– Discharge Point 003

The temperature of any once-through non-contact cooling water discharged at Discharge Point 003 shall be not more than 4ºF greater than the receiving water.

D. Effluent Limitations and Discharge Specifications– Discharge Point 004

Pollutants discharged from the fire suppression salt water system at Discharge Point 004 shall be prevented or minimized through implementation of a Best Management Practices Program, as described in Provision VI.C.3.

V. RECEIVING WATER LIMITATIONS

The discharges shall not cause the following in the receiving water:

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

    a. Floating, suspended, or deposited macroscopic particulate matter or foams;

    b. Bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely affect beneficial uses;

c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

d. Visible, floating, suspended, or deposited oil or other products of petroleum origin; and

e. Toxic or other substances to be present in concentrations or quantities that cause deleterious effects on wildlife, waterfowl, or other aquatic biota, or that render any of these unfit for human consumption, either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State at any place within 1 foot of the water surface:

a. Dissolved Oxygen	5.0 mg/L, minimum Furthermore, the median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the dissolved oxygen content at saturation. When natural factors cause concentrations less than that specified above, the discharge shall not cause further reduction in ambient dissolved oxygen concentrations.
b. Dissolved Sulfide	Natural background levels (0.1 mg/L, maximum)
c. pH	The pH shall not be depressed below 6.5 or raised above 8.5. The discharge shall not cause changes greater than 0.5 pH units in normal ambient pH levels.
d. Un- ionized Ammonia	0.025 mg/L as N, annual median, and 0.4 mg/L as N, maximum.
e. Nutrients	Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

3. The discharge shall not cause a violation of any water quality standard for receiving waters adopted by the Regional Water Board or the State Water Board pursuant to the CWA and related regulations. If more stringent applicable water quality standards are promulgated or approved pursuant to CWA Section 303, or amendments thereto, the Regional Water Board may revise and modify this Order in accordance with such more stringent standards.

VI. PROVISIONS

A. Standard Provisions

1. **Federal Standard Provisions.** The Discharger shall comply with the Federal Standard Provisions included in Attachment D of this Order.

2. **Regional Standard Provisions.** The Discharger shall comply with all applicable items of the Regional Standard Provisions, and Monitoring and Reporting Requirements (Supplement to Attachment D) for NPDES Wastewater Discharge Permits (**Attachment G**), including amendments thereto.

B. MRP Requirements

The Discharger shall comply with the MRP (**Attachment E**), and future revisions thereto, including applicable sampling and reporting requirements in the two standard provisions listed in VI.A, above.

C. Special Provisions

1. Reopener Provisions

The Regional Water Board may modify or reopen this Order prior to its expiration date in any of the following circumstances as allowed by law:

a. If present or future investigations, or information gathered during the term of the Order, demonstrate that the discharges governed by this Order have or will have a reasonable potential to cause or contribute to, or will cease to have, adverse impacts on water quality and/or beneficial uses of the receiving waters.

b. If new or revised WQOs or total maximum daily loads (TMDLs) come into effect for the San Francisco Bay Estuary and contiguous water bodies (whether statewide, regional, or site-specific). In such cases, effluent limitations in this Order will be modified as necessary to reflect updated WQOs and waste load allocations in TMDLs. Adoption of effluent limitations contained in this Order is not intended to restrict in any way future modifications based on legally adopted WQOs or TMDLs, or as otherwise permitted under federal regulations governing NPDES permit modifications.

c. If translator, dilution, or other water quality studies provide a basis for determining that a permit condition should be modified.

d. If receiving water does not meet promulgated ammonia objectives.

e. If State Water Board precedential decisions, new policies, new laws, or new regulations on chronic toxicity or total chlorine residual become available.

f. If an administrative or judicial decision on a separate NPDES permit or waste discharge requirements addresses requirements similar to this discharge.

g. Or as otherwise authorized by law.

The Discharger may request permit modification based on any of the circumstances described above. In any such request, the Discharger shall include an antidegradation and anti-backsliding analysis.

2. Best Management Practices and Pollution Minimization

The Discharger shall update its Best Management Practices (BMP) Plan, acceptable to the Executive Officer, and submit a copy to the Regional Water Board by June 1, 2011. The Discharger shall implement its BMP Program to identify and evaluate sources of wastes and pollutants associated with activities at the facility, and shall continue to identify and implement site-specific BMPs to reduce or prevent the discharge of wastes and pollutants. The BMP Program shall include provisions for developing, annually updating, and implementing its BMP Plan that shall be consistent with the general guidance contained in USEPA's *Guidance Manual for Developing Best Management Practices* (EPA 833-B-93-004). The BMP Plan shall address potential releases of wastes from Discharge Point 001, Discharge Point 002, and Discharge Point 004, and shall include the following elements:

a. Characterization of Discharges

The BMP Plan shall include a narrative assessment of all industrial activities conducted at the site, potential pollutant sources associated with each activity, and the nature of the pollutants that could be discharged.

b. Identification of BMPs

The BMP Plan shall include a narrative description of the BMPs to be implemented at the site to control the discharge of pollutants. The Plan shall identify and describe BMPs, including the anticipated effectiveness of each BMP, for each potential source of pollutant, including the following elements:

- Preventative BMPs—measures to reduce or eliminate the generation of pollutants and waste;
- Control BMPs—measures to control or manage pollutants and waste after they are generated and before they come into contact with water, including measures to prevent leaks and spills and measures including broom sweeping, vacuuming, and power washing of surfaces, the use of shrouds, and the specification of acceptable weather conditions to contain dust and particulate material;
- Treatment BMPs—measures to remove pollutants and waste from water that may be released to the Lower San Francisco Bay;
- Response BMPs—measures to respond to leaks, spills, and other releases with containment, control, and cleanup measures to prevent or minimize the potential for the discharge of pollutants and to minimize the adverse effects of such discharges;
- A wipe sampling protocol to monitor dry dock surfaces for metals, PCBs, and tributyltin before the dry dock is submerged. The wipe-samples shall be analyzed using procedures described in the Monitoring and Reporting Program (Attachment E); and
- Response to Sampling Data BMPs—measures to be taken in response to data collected in accordance the Monitoring and Reporting Program (Attachment E) when wipe samples collected from the dry dock surface exposed to operational wastes, after the surfaces have been cleaned, exceed the trigger levels in Table 6.

The BMP Plan shall address shipyard activities, including the following, if applicable:

- Control of large solid materials
- Abrasive blasting
- Oil, grease, and fuel transfers
- Paint and solvent use
- Dust and overspray
- Over-water or near-shore activities
- Storm drain inlet protection
- Hose, piping, and fitting use and maintenance
- Segregation of water from debris
- Hydro-blasting
- Material and waste storage
- Sewage disposal
- Gray water disposal
- Oily bilge and ballast water disposal
- Floating dry dock cleanup
- Discharges resulting from wind, tidal action, and site runoff
- Leaks and spills
- Waste disposal
- Recovery of ship launch grease/wax
- Hull cleaning
- Other activities with potential to result in discharges of wastes or pollutants to the San Francisco Bay

c. Site Map

The BMP Plan shall include a site map that includes:

i. Site boundaries and structures,

ii. Locations of site runoff collection and conveyance systems, and points of discharge,

iii. Areas of industrial activity where discharges originate.

The site map shall include the locations of material handling and processing areas; waste treatment, storage, and disposal areas; dust or particulate generating areas; cleaning and rinsing areas; and other areas of industrial activity that are potential pollutant sources.

d. Annual Comprehensive Site Compliance Evaluation

The Discharger shall conduct at least one comprehensive site compliance evaluation per calendar year to determine the effectiveness of the BMP Program, and submit an evaluation report (see subsection d.v. below) as part of this Order's requirement for an annual report (see MRP, Attachment E). Evaluations shall be conducted not less than 8, nor more than 16, months apart. The Discharger shall revise the BMP Plan as appropriate. The Discharger shall submit a description of the revisions to the Executive Officer and implement them within 30 days of the evaluation. Evaluations shall include the following:

i. A review of all visual observation records, inspection records, and sampling and analysis results.

ii. A visual inspection of all potential pollutant sources for, or the potential for, the discharge of pollutants.

iii. A review and evaluation of all BMPs to determine whether the BMPs are adequate and properly implemented and maintained, and whether additional BMPs are needed.

iv. A review of the sampling wipe test procedures to ensure they are quantitatively detecting residual contaminants. If a review indicates that changes to the sampling procedures are necessary then, with the approval of the Executive Officer, changes may be made.

v. An evaluation report that includes:

- identities of personnel performing the evaluation,
- date of the evaluation,
- necessary Program revisions,
- incidents of non-compliance and corrective actions taken, and
- certification that the Discharger is in compliance with this Order.

If the above certification cannot be provided, the evaluation report shall include an explanation as to why the Discharger is not in compliance with this Order. The Discharger shall retain each evaluation report for at least five years. The Discharger shall sign it and certify it in accordance with the requirements of Attachment D, Section V.B, to this Order.

At least 30 days prior to conducting its Comprehensive Site Compliance Evaluation, the Discharger shall notify the Regional Water Board of its intent to conduct the evaluation, so a representative of the Regional Water Board may accompany the Discharger during its inspection of the facility and review of its BMPs.

3. Best Management Practices Plan Triggers and Required Actions in Response to Trigger Exceedance

a. Review BMPs and Accelerate Monitoring

If the wipe test monitoring required in the MRP (Attachment E) shows exceedance of any triggers shown in Table 6, the Discharger shall review the BMPs in the BMP Plan with its staff to remind staff of the importance of properly following the BMPs, and to refresh staff's familiarity with the BMPs to ensure they more diligently implement the BMPs. The Discharger shall also accelerate monitoring as follows:

- for exceedance of any trigger in Table 6 by less than two (2) times the trigger, accelerate to monthly frequency (or, if the dry dock is not submerged for more than one month, until the next time the dry dock will be submerged); or

- for exceedance of any trigger in Table 6 by greater than or equal to two (2) times the trigger, or for exceedance of the trigger at any magnitude for more than ten (10) pollutants in one monitoring event, the Discharger shall sample prior to each submergence of dry dock after work on a vessel.

The Discharger shall continue the accelerated monitoring as required above until at least one monitoring event demonstrates that all triggers in Table 6 are met. At that time, the Discharger shall continue to diligently implement the BMPs in the BMP Plan and resume the regular monitoring schedule specified in the MRP (Attachment E).

b. Enhance BMPs with Pressure Washing

The Discharger shall enhance the BMPs for the next and subsequent dry dock uses if any of the following trigger exceedances occur:

- Exceedance of any trigger in Table 6 for three (3) consecutive months (or successive submersions) during accelerated monitoring, or

- Seven (7) or more of ten (10) monitoring events (including both routine and accelerated) show exceedance of any trigger in Table 6, or

- Five (5) or more of ten (10) monitoring events (including both routine and accelerated) show exceedance of the trigger in Table 6 by three (3) times the trigger for any pollutant (including a different pollutant in different monitoring events).

The BMPs enhancement shall, at a minimum, add pressure washing of the dry dock deck surface. (In this context, "pressure washing" refers to a jet of water at approximately 1800 pounds per square inch [psi], compared to "power washing," which involves water at approximately 100 psi and is an already-required Control BMP in the BMP Plan.) In this instance, the Discharger shall collect the wash water and dispose of it via the sanitary sewer or other means and shall not discharge the wash water to waters of the State. The Discharger shall update its BMP Plan to incorporate the new measures within 30 days of receiving results meeting the conditions set forth above.

c. Evaluate and Implement (if Feasible) Further Enhancement of BMPs

If any of the trigger exceedance conditions in Provision VI.3.b. continue to occur based on monitoring following the addition of pressure washing, the Discharger shall further evaluate the BMPs, its staff's proper implementation of those BMPs, and the feasibility of resurfacing the concrete dry dock with a material more amenable to cleaning. The Discharger shall update its BMP Plan to include any remaining technically and economically-achievable control measures and provide a schedule for resurfacing the dry dock surface, if feasible, within 30 days of receiving results exceeding the triggers a third time during accelerated monitoring.

d. Final Evaluation of Efforts

If any trigger exceedances continue to occur based on monitoring following the addition of pressure washing to the BMP Plan and implementation of any remaining control measures identified in Provision VI.3.c., including resurfacing the dry dock surface, if

feasible, the Discharger may request that the Executive Officer evaluate its efforts. If warranted, the Executive Officer may authorize the Discharger to return to the routine monitoring frequency in the MRP or cease conducting wipe tests. Such authorization must be in writing. The Regional Water Board may consider the Discharger's efforts and revise the triggers with the next permit reissuance so the triggers continue to provide feedback regarding how thoroughly the BMPs and pollution prevention plan are being implemented.

e. Wipe Test Triggers for Accelerated Monitoring and Other Actions

Table 6. Triggers for Wipe Samples

Analyte	Trigger: µg/square foot of deck surface
Antimony	1,200,000
Arsenic	10,000
Cadmium	330
Chromium	64,000
Hexavalent Chromium	3,100
Copper	1,000
Lead	1,000
Mercury	7.0
Nickel	8,300
Selenium	1,400
Silver	610
Thallium	1,800
Zinc	24,000
Tributyltin	2.0
PCB	140

ATTACHMENT A – DEFINITIONS

Arithmetic Mean (μ)
Also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

Arithmetic mean = $\mu = \Sigma x / n$ where: Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

Average Monthly Effluent Limitation (AMEL)
The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL)
The highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Bioaccumulative
Those substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

Carcinogenic
Carcinogenic pollutants are substances that are known to cause cancer in living organisms.

Coefficient of Variation (CV)
CV is a measure of the data variability and is calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

Daily Discharge
Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in this Order), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

Detected, but Not Quantified (DNQ)
DNQ are those sample results less than the RL, but greater than or equal to the laboratory's MDL.

Dilution Credit
Dilution Credit is the amount of dilution granted to a discharge in the calculation of a water quality-based effluent limitation, based on the allowance of a specified mixing zone. It is calculated from the dilution ratio or determined through conducting a mixing zone study or modeling of the discharge and receiving water.

Effluent Concentration Allowance (ECA)
ECA is a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as waste load allocation (WLA) as used in USEPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

Enclosed Bays
Enclosed Bays means indentations along the coast that enclose an area of oceanic water within distinct headlands or harbor works. Enclosed bays include all bays where the narrowest distance between the headlands or outermost harbor works is less than 75 percent of the greatest dimension of the enclosed portion of San Francisco Bay. Enclosed bays include, but are not limited to, Humboldt Bay, Bodega Harbor, Tomales Bay, Drake's Estero, San Francisco Bay, Morro Bay, Los Angeles-Long Beach Harbor, Upper and Lower Newport Bay, Mission Bay, and San Diego Bay. Enclosed bays do not include inland surface waters or ocean waters.

Estimated Chemical Concentration
The estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

Estuaries
Estuaries means waters, including coastal lagoons, located at the mouths of streams that serve as areas of mixing for fresh and ocean waters. Coastal lagoons and mouths of streams that are temporarily separated from the ocean by sandbars shall be considered estuaries. Estuarine waters shall be considered to extend from a bay or the open ocean to a point upstream where there is no significant mixing of fresh water and seawater. Estuarine waters include, but are not limited to, the Sacramento-San Joaquin Delta, as defined in California Water Code section 12220, Suisun Bay, Carquinez Strait downstream to the Carquinez Bridge, and appropriate areas of the Smith, Mad, Eel, Noyo, Russian, Klamath, San Diego, and Otay rivers. Estuaries do not include inland surface waters or ocean waters.

Inland Surface Waters
All surface waters of the State that do not include the ocean, enclosed bays, or estuaries.

Instantaneous Maximum Effluent Limitation
The highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation
The lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

Maximum Daily Effluent Limitation (MDEL)
The highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

Median
The middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (n) is odd, then the median = $X_{(n+1)/2}$. If n is even, then the median = $(X_{n/2} + X_{(n/2)+1})/2$ (i.e., the midpoint between the $n/2$ and $n/2+1$).

Method Detection Limit (MDL)
MDL is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in title 40 of the Code of Federal Regulations (40 CFR), Part 136, Attachment B, revised as of July 3, 1999.

Minimize
When used in context of a technical requirement, "minimize" is to reduce or eliminate through the use of control measures to the extent technologically and economically achievable.

Minimum Level (ML)
ML is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Mixing Zone
Mixing Zone is a limited volume of receiving water that is allocated for mixing with a wastewater discharge where water quality criteria can be exceeded without causing adverse effects to the overall water body.

Not Detected (ND)
Sample results less than the laboratory's MDL.

Ocean Waters
The territorial marine waters of the State as defined by California law to the extent these waters are outside of enclosed bays, estuaries, and coastal lagoons. Discharges to ocean waters are regulated in accordance with the State Water Board's California Ocean Plan.

Persistent Pollutants
Persistent pollutants are substances for which degradation or decomposition in the environment is nonexistent or very slow.

Pollutant Minimization Program (PMP)
PMP means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures

as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to California Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

Pollution Prevention
Pollution Prevention means any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in California Water Code section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State or Regional Water Board.

Reporting Level (RL)
RL is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from Appendix 4 of the SIP in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

Satellite Collection System
The portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility that a sanitary sewer system is tributary to.

Source of Drinking Water
Any water designated as municipal or domestic supply (MUN) in a Regional Water Board Basin Plan.

Standard Deviation (σ)
Standard Deviation is a measure of variability that is calculated as follows:

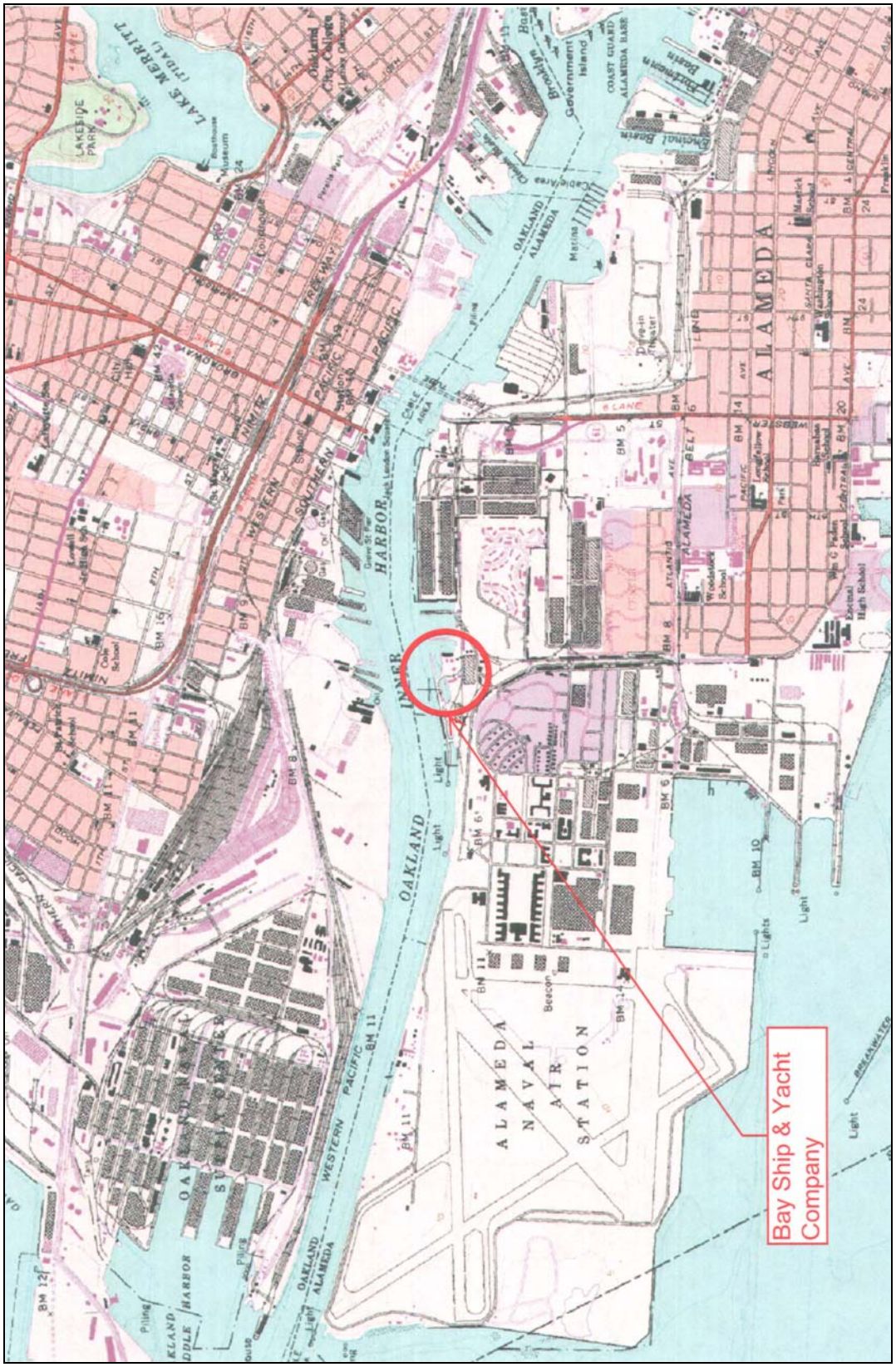
$$\sigma = (\sum[(x - \mu)^2]/(n - 1))^{0.5}$$

where:
x is the observed value;
μ is the arithmetic mean of the observed values; and
n is the number of samples.

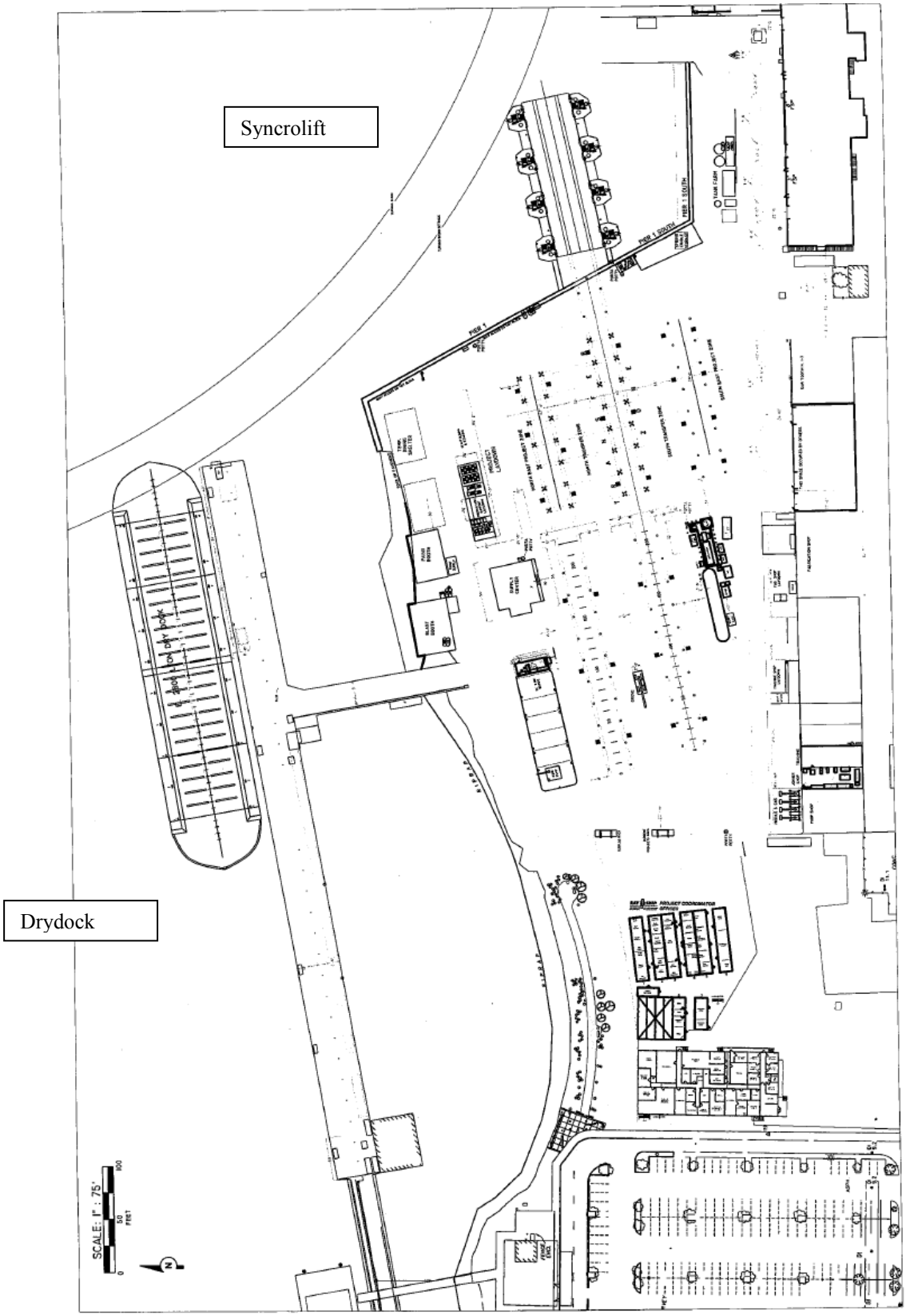
Toxicity Reduction Evaluation (TRE)
TRE is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data

relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

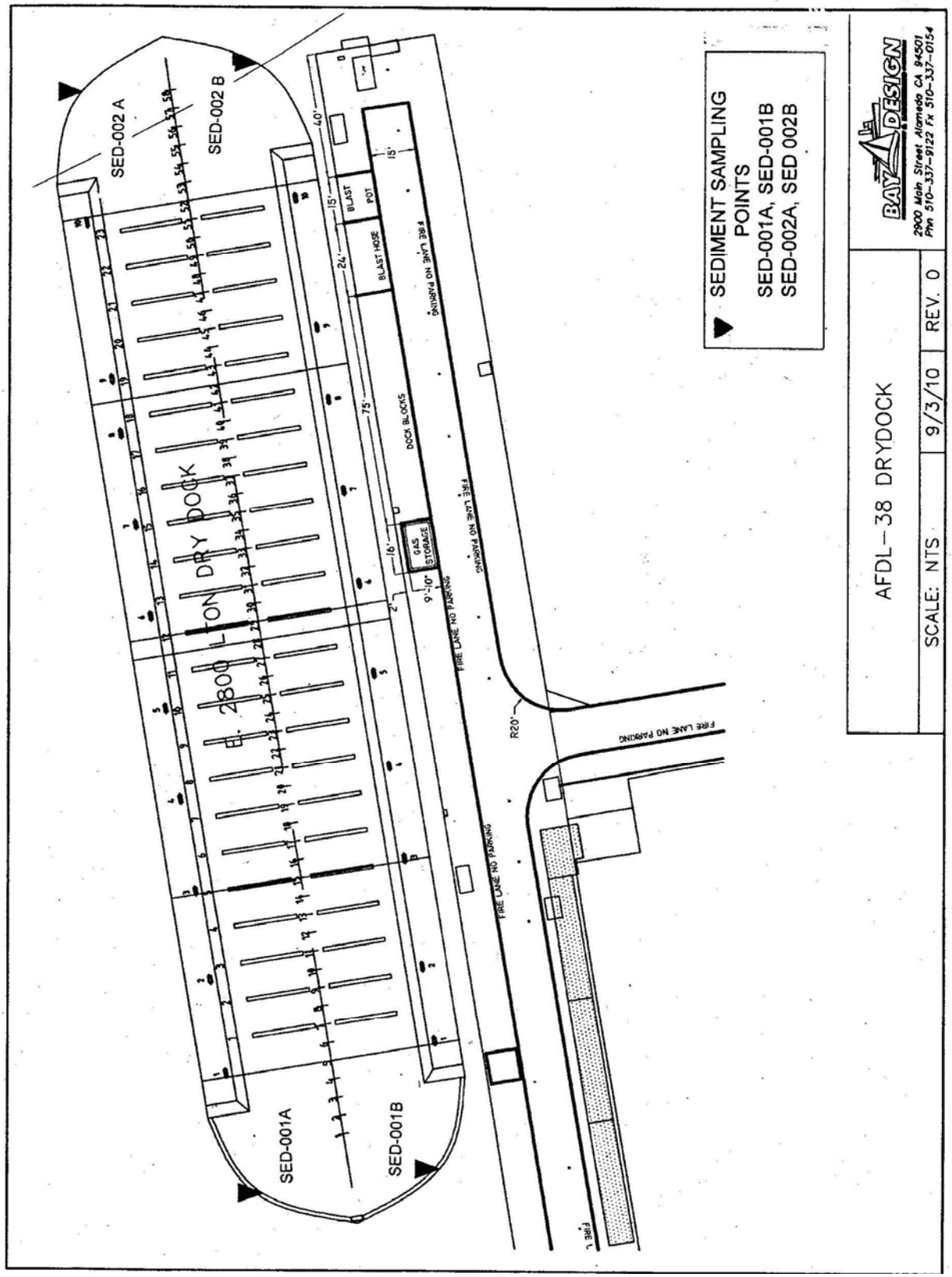
ATTACHMENT B – LOCATION OF FACILITY



ATTACHMENT C-1 – PLAN VIEW OF SITE



ATTACHMENT C-2 PLAN VIEW SHOWING SAMPLING LOCATIONS



ATTACHMENT D –STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (40 CFR 122.41(a).)

2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 CFR 122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 CFR 122.41(c).)

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 CFR 122.41(d).)

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order (40 CFR 122.41(e)).

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 CFR 122.41(g).)

2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 CFR 122.5(c).)

F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (40 CFR 122.41(i); Water. Code, § 13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (40 CFR 122.41(i)(1));

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (40 CFR 122.41(i)(2));

3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (40 CFR 122.41(i)(3)); and

4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (40 CFR 122.41(i)(4).)

G. Bypass

1. Definitions

   a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 CFR 122.41(m)(1)(i).)

   b. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 CFR 122.41(m)(1)(ii).)

2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 CFR 122.41(m)(2).)

3. Prohibition of bypass. Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless (40 CFR 122.41(m)(4)(i)):

   a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 CFR 122.41(m)(4)(i)(A));

   b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment

should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 CFR 122.41(m)(4)(i)(B)); and

c. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 CFR 122.41(m)(4)(i)(C).)

4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 CFR 122.41(m)(4)(ii).)

5. Notice

a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. (40 CFR 122.41(m)(3)(i).)

b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 CFR 122.41(m)(3)(ii).)

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 CFR 122.41(n)(1).)

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 CFR 122.41(n)(2).).

2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 CFR 122.41(n)(3)):

a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 CFR 122.41(n)(3)(i));

b. The permitted facility was, at the time, being properly operated (40 CFR 122.41(n)(3)(ii));

c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 CFR 122.41(n)(3)(iii)); and

d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 CFR 122.41(n)(3)(iv).)

3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 CFR 122.41(n)(4).)

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 CFR 122.41(f).)

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 CFR 122.41(b).)

C. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of this Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 CFR 122.41(l)(3); 122.61.)

III. STANDARD PROVISIONS – MONITORING

A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 CFR 122.41(j)(1).)

B. Monitoring results must be conducted according to test procedures under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503 unless other test procedures have been specified in this Order. (40 CFR 122.41(j)(4); 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time. (40 CFR 122.41(j)(2).)

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements (40 CFR 122.41(j)(3)(i));

2. The individual(s) who performed the sampling or measurements (40 CFR 122.41(j)(3)(ii));

3. The date(s) analyses were performed (40 CFR 122.41(j)(3)(iii));

4. The individual(s) who performed the analyses (40 CFR 122.41(j)(3)(iv));

5. The analytical techniques or methods used (40 CFR 122.41(j)(3)(v)); and

6. The results of such analyses. (40 CFR 122.41(j)(3)(vi).)

C. Claims of confidentiality for the following information will be denied (40 CFR 122.7(b)):

1. The name and address of any permit applicant or Discharger (40 CFR 122.7(b)(1)); and

2. Permit applications and attachments, permits and effluent data. (40 CFR 122.7(b)(2).)

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, State Water Board, or USEPA within a reasonable time, any information which the Regional Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board, State Water Board, or USEPA copies of records required to be kept by this Order. (40 CFR 122.41(h); Water. Code, § 13267.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 CFR 122.41(k).)

2. All permit applications shall be signed by either a responsible corporate officer. For purposes of this provision, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures . (40 CFR 122.22(a)(1).)

3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in Standard

Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 CFR 122.22(b)(1));

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 CFR 122.22(b)(2)); and

c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 CFR 122.22(b)(3).)

4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 CFR 122.22(c).)

5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 CFR 122.22(d).)

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 CFR 122.22(l)(4).)

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 CFR 122.41(l)(4)(i).)

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503, or as specified in this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board. (40 CFR 122.41(l)(4)(ii).)

4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 CFR 122.41(l)(4)(iii).)

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 CFR 122.41(l)(5).)

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 CFR 122.41(l)(6)(i).)

2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 CFR 122.41(l)(6)(ii)):

   a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 CFR 122.41(l)(6)(ii)(A).)

   b. Any upset that exceeds any effluent limitation in this Order. (40 CFR 122.41(l)(6)(ii)(B).)

3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 CFR 122.41(l)(6)(iii).)

F. Planned Changes

The Discharger shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 CFR 122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 CFR 122.41(l)(1)(i)); or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject neither to effluent limitations in this Order nor to notification requirements under section 122.42(a)(1) (see Additional Provisions – Notification Levels VII.A.1). (40 CFR 122.41(l)(1)(ii).)

3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including

notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 CFR 122.41(l)(1)(iii).)

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements. (40 CFR 122.41(l)(2).)

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. (40 CFR 122.41(l)(7).)

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information. (40 CFR 122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

A. The Regional Water Board is authorized to enforce the terms of this Order under several provisions of the Water Code, including, but not limited to, sections 13385, 13386, and 13387.

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Non-Municipal Facilities

Existing manufacturing, commercial, mining, and silvicultural dischargers shall notify the Regional Water Board as soon as they know or have reason to believe (40 C.F.R. § 122.42(a)):

1. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 C.F.R. § 122.42(a)(1)):

a. 100 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(1)(i));

b. 200 µg/L for acrolein and acrylonitrile; 500 µg/L for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(1)(ii));

c. Five (5) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(1)(iii)); or

d. The level established by the Regional Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(1)(iv).)

2. That any activity has occurred or will occur that would result in the discharge, on a non-routine or infrequent basis, of any toxic pollutant that is not limited in this Order, if that discharge will exceed the highest of the following "notification levels" (40 C.F.R. § 122.42(a)(2)):

a. 500 micrograms per liter (µg/L) (40 C.F.R. § 122.42(a)(2)(i));

b. 1 milligram per liter (mg/L) for antimony (40 C.F.R. § 122.42(a)(2)(ii));

c. Ten (10) times the maximum concentration value reported for that pollutant in the Report of Waste Discharge (40 C.F.R. § 122.42(a)(2)(iii)); or

d. The level established by the Regional Water Board in accordance with section 122.44(f). (40 C.F.R. § 122.42(a)(2)(iv).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

Table of Contents

I. General Monitoring Provisions E-2
II. Monitoring Locations E-2
III. Monitoring of Dry Dock Surfaces E-2
IV. Monitoring of Cooling Water Discharges E-4
V. Receiving Water Monitoring Requirements E-4
VI. Sediment Monitoring Requirements E-5
VII. Data Analysis E-5
VIII. Reporting Requirements E-6
A. General Monitoring and Reporting Requirements E-6
B. Self Monitoring Reports (SMRs) E-6
C. Discharge Monitoring Reports (DMRs) E-7

Tables

Table E-1. Monitoring Station Locations E-2
Table E-2. Receiving Water Monitoring – RSW-001 and RSW-002 ..... E-4
Table E-3. Sediment Monitoring – SED-001A, SED-001B, SED-002A, and SED-002B, and RSW-001 ..... E-5

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

40 CFR 122.48 requires that all NPDES permits specify monitoring and reporting requirements. California Water Code sections 13267 and 13383 also authorize the Regional Water Board to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements that implement federal and California regulations.

I. GENERAL MONITORING PROVISIONS

A. The Discharger shall comply with this MRP. The Executive Officer may amend this MRP pursuant to 40 CFR 122.62, 122.63, and 124.5. If any discrepancies exist between the MRP and the Regional Standard Provisions, the MRP prevails.

B. The Discharger shall conduct all monitoring in accordance with Attachment D, Section III, as supplemented by Attachment G of this Order. Equivalent test methods must be more sensitive than those specified in 40 CFR 136, must be specified in the permit, and must be approved for use by the Executive Officer, following consultation with the State Water Board Quality Assurance Program.

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with this Order.

Table E-1. Monitoring Station Locations

Type of Sampling Location	Monitoring Location Name	Monitoring Location Description
Discharge (Exposed deck of dry dock)	EFF-001	Randomly selected areas (three, each at least a one foot square) on the deck of the dry dock that have been exposed to wastes from operations.
Discharge	EFF-003	The location immediately prior to where the cooling water meets the receiving water.
Background receiving water and background sediment	RSW-001	Receiving water location at end of the pier at the foot of Marina Square Drive, Alameda.
Receiving water at perimeter of dry dock	RSW-002	Receiving water location near the perimeter of dry dock, close to sampling point SED-001B.
Dry dock vicinity sediment sample	SED-001A SED-001B SED-002 A SED-002 B	Two sample locations at each end of the dry dock. Samples are composited before analysis.

III. MONITORING OF DRY DOCK SURFACES

A. Prior to submergence of the dry dock, the Discharger shall observe the cleanliness of dry dock surfaces. Observations shall be recorded with the date and time of dry dock use and other observations relevant to the discharge of wastes. The Discharger shall note any conditions requiring correction, such as the presence of waste materials. The Discharger must correct any such condition prior to flooding. Inspection reports shall identify the inspector's name, title, and any corrective actions taken.

B Sampling of the dry dock surface, after cleaning and prior to submergence, is required twice per calendar year, not less than 4.5 months apart. Sampling shall be performed by collecting wipe samples from dry dock surfaces exposed to waste.

1. Wipe Sampling Locations

Sample locations shall be selected by a randomized grid procedure, and locations shall be recorded and reported in quarterly self-monitoring reports. To assess the amount of pollutant remaining on the deck after cleaning and before submergence, three areas shall be selected randomly from a grid on the deck of the dry dock. At each grid location, wipe samples will be collected for analysis of CTR metals (for definition, see Table E-2, below) and, if necessary, PCBs and tributyltin (TBT) from five adjoining square foot areas. The adjoining wipe samples shall be considered as one set of wipe samples to meet the analytical requirements of this Order. Three sample sets are required for each sampling event for monitoring location EFF-001. The methodology shall follow USEPA recommended procedures including, but not limited to, EPA/600/R-07/004 January 2007, EPA/540/P-91/008 OSWER Directive 9360.4-07, January 1991, and 40 CFR 761.123.

2. Wipe Sampling Procedures

Samples shall be collected using commercially available wipe test kits for the collection of CTR metals, PCBs, and TBT. The results of the analyses shall be reported as µg/square foot.

To assess the efficacy of the wipe sampling procedures, once every three years, starting in 2011, three sets of randomly selected and identified adjacent areas of one square foot on the deck surface shall be wipe sampled prior to cleaning and, twice each year, all the pollutants identified in Table 6 shall be analyzed after cleaning. If TBT or PCBs are not detected in these wipe samples, then biannual sampling and analysis need not include these pollutants.

3. Wipe Sampling Details

The wipe samples for the CTR metals (excluding mercury and hexavalent chromium) shall be collected using a lead dust sampling wipe, 5” by 7¾”, pre-moistened with water, polysorbate 20, methylparaben, and propylparaben and placed in a sterile digestion tube.

The wipe sample for mercury shall be collected using a pre-moistened lead dust sampling wipe (described above) and placed in a separate sterile digestion tube.

The wipe sample for hexavalent chromium shall be collected using a sterile 4” by 4” gauze sponge moistened, but not saturated, with deionized water.

The wipe sample for PCB analysis shall be collected using a sterile 4” by 4” gauze sponge moistened with hexane. This sample is placed in a separate sterile glass jar for analysis.

The wipe sample for TBT analysis shall be collected using a sterile 4” by 4” gauze sponge moistened with deionized water. This sample shall be placed in a separate sterile glass jar for analysis.

4. Wipe Sample Reporting and Triggers

All the wipe sampling data collected shall be compared to the triggers and reported in the quarterly and annual reports.

C. If, on the basis of operational experience, the sampling protocol specified in Section III.B, above, proves unworkable or unreliable, the Discharger may propose an alternate procedure. The Discharger may commence use of the alternate procedure with Executive Officer approval.

IV. MONITORING OF COOLING WATER DISCHARGES

The Discharger shall conduct monitoring at Monitoring Location EFF-003 when discharging at Discharge Point 003 as described in Table E-2, below.

Table E-2. Monitoring of Cooling Water Discharges – EFF-003

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow[1]	gal/min	Continuous	Once per week
Temperature[2][3]	ºF	Grab	Once per week

Legend to Table E-2:

Unit Abbreviations:

gal/min = gallons per minute

ºF = degrees Farenheit

Footnotes to Table E-2:

[1] In addition to reporting the flow rate, the Discharger shall report the start and end times for each cooling water discharge and its duration.

[2] In addition to reporting the effluent temperature, the Discharger shall report the difference between the effluent temperature and the corresponding temperature measured at RSW-002.

[3] The Discharger may choose not to measure temperature at Monitoring Location EFF-003 if the Discharge Point 003 effluent is sprayed over the water to promote evaporative cooling.

V. RECEIVING WATER MONITORING REQUIREMENTS

The Discharger shall conduct receiving water monitoring at monitoring locations RSW-001 and RSW-002 as described in Table E-3, below.

Table E-3. Receiving Water Monitoring – RSW-001 and RSW-002

Parameter	Units	Sample Type[1]	Minimum Sampling Frequency
Settleable Solids	mL/L	Grab	Annually
Total Suspended Solids	mg/L	Grab	Annually
CTR Metals[2]	µg/L	Grab	Annually
PCBs	µg/L	Grab	Annually
Tributyltin	µg/L	Grab	Annually
Temperature[3]	ºF	Grab	Once per week when also measuring temperature at EFF-003

Legend to Table E-3:

Unit Abbreviations:

mL/L	=	milliliters per liter
mg/L	=	milligrams per liter
µg/L	=	micrograms per liter

Footnotes to Table E-3:

[1] Samples shall be collected concurrently and under the same tidal conditions and on the same day after samples are collected at EFF-001.

[2] Those elements identified by the CTR at 40 CFR 131.38(b) as Compound Numbers 1-13: antimony, arsenic, beryllium, cadmium, chromium (III), chromium (VI), copper, lead, mercury, nickel, selenium, silver, thallium, and zinc.

[3] To be measured at RSW-002 only.

VI. SEDIMENT MONITORING REQUIREMENTS

The Discharger shall conduct sediment monitoring on a sediment sample composited from sampling points SED-001A, SED-001B, SED-002A, and SED-002B, and a separate sample collected from location RSW-001 as described in Table E-4, below.

Table E-4. Sediment Monitoring – SED-001A, SED-001B, SED-002A, and SED-002B, and RSW-001

Parameter	Units	Sample Type	Minimum Sampling Frequency
CTR Metals[1]	µg/L	[2]	Annually
PCBs	µg/L	[2]	Annually
Tributyltin	µg/L	[2]	Annually

Footnotes to Table E-4:

[1] Those elements identified by the CTR at 40 CFR 131.38(b) as Compound Numbers 1-13: antimony, arsenic, beryllium, cadmium, chromium (III), chromium (VI), copper, lead, mercury, nickel, selenium, silver, thallium, and zinc.

[2] Sediment samples from the dry dock (SED-001A, -001B, -002A, -002B) shall be composited from at least 4 surface grab samples.

Sediment samples from the remote monitoring location (RSW-001) shall be grab samples from the top 2-3 centimeters of sediment. The background monitoring location shall be selected to be representative of background conditions in the Bay unaffected by discharges from the facility. Sediment sampling shall occur outside the influence of dredging operations.

VII. DATA ANALYSIS

In each quarterly report, the Discharger shall report how many times the dry dock has been submerged after vessel servicing operations and describe activities prior to each time the dock is submerged. This will include a description of the vessels serviced and documentation vouching for deck clean-up, according to the BMP Plan prior to each submergence. If wipe samples are collected and analyzed in that period then information on the specific nature of the service on vessels immediately prior to sampling shall be identified along with sampling data along with sampling data from previous sampling events. If receiving water and sediment samples are collected in that quarter, the results shall be reported along with the data from previous sampling events. The Discharger shall identify trends, if any, in pollutant concentrations found in wipe samples, sediments, or receiving water.

This Order requires the Discharger to compare data from each sampling event to Table 6 triggers and identify trends, if any. The Discharger shall report this information, with commentary, as

appropriate, in the Annual Report. In addition, if wipe samples analysis results indicate any of the triggers specified in Table 6 are exceeded, then the Discharger must identify the exceedance in the transmittal letter of the quarterly report, and as required by the Order, comply with Provision VI.C.3 of the Order.

VIII. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

The Discharger shall comply with all Standard Provisions (Attachment D) and the Regional Standard Provisions (Attachment G) related to monitoring, reporting, and recordkeeping.

B. Self Monitoring Reports (SMRs)

1. At any time during the term of this Order, the State or Regional Water Board may notify the Discharger to electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). Until such notification is given, the Discharger shall submit SMRs on paper and, or electronically, as directed, as PDF files to the Regional Water Board. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

2. The Discharger shall report in the SMR the results of all monitoring specified in this MRP under sections III through VII. The Discharger shall submit quarterly SMRs, including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. Quarterly SMRs shall be due 30 days after the end of each calendar quarter. If the Discharger monitors any pollutant more frequently than required by this Order, the Discharger shall include the results of such monitoring in the calculations and reporting of the data submitted in the SMR. Annual SMRs shall be due February 1 of each year, covering the previous calendar year. The report shall contain the relevant items described in the Regional Standard Provisions (Attachment G).

3. Quarterly Monitoring periods for reporting shall be January 1 through March 31, April 1 through June 30, July 1 through September 30 and October 1 through December 31. The Discharger shall submit quarterly monitoring reports within 30 days after the end of the reporting period. Annual reports shall commence on the effective date of the Order and cover the period January 1 through December 31, and be submitted by February 1 of the following year.

4. The Discharger shall submit SMRs in accordance with the following requirements:

The Discharger shall arrange all reported data in a tabular format. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.

The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall (1) clearly identify violations of the waste discharge requirements or any

exceedance of Table 6 triggers, (2) discuss corrective actions taken or planned, and (3) propose time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation. If there are no violations the letter shall clearly so state.

SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below:

Executive Officer
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, CA 94612
ATTN: NPDES Permit

C. Discharge Monitoring Reports (DMRs)

1. As described in Section VI.B.1 above, at any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit SMRs that will satisfy federal requirements for submittal of DMRs. Until such notification is given, the Discharger shall submit DMRs in accordance with the requirements described below.

2. Once notified by the State or Regional Water Board, the Discharger shall submit hard copy DMRs. DMRs must be signed and certified as required by the Standard Provisions (Attachment D). The Discharger shall submit the original DMR and one copy of the DMR to one of the addresses listed below:

Standard Mail	FedEx/UPS/Other Private Carriers
State Water Resources Control Board Division of Water Quality c/o DMR Processing Center PO Box 100 Sacramento, CA 95812-1000	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center 1001 I Street, 15th Floor Sacramento, CA 95814

3. All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self-generated will not be accepted unless they follow the exact same format of EPA Form 3320-1.

ATTACHMENT F - FACT SHEET

Table of Contents

I. Permit Information F-3
II. Facility Description F-4
A. Description of Wastewater F-4
B. Discharge Point and Receiving Waters F-5
C. Summary of Existing Requirements and Self-Monitoring Report Data F-6
D. Compliance Summary F-6
E. Planned Changes F-6
III. Applicable Plans, Policies, and Regulations F-6
A. Legal Authorities F-6
B. California Environmental Quality Act (CEQA) F-7
C. State and Federal Regulations, Policies, and Plans F-7
D. Impaired Water Bodies on CWA 303(d) List F-9
IV. Rationale For Effluent Limitations and Discharge Specifications F-9
A. Discharge Prohibitions F-9
B. Basin Plan Discharge Prohibition 1 ..... F-10
C. Technology-Based Effluent Limitations F-10
D. Water Quality-Based Effluent Limitations (WQBELs) F-12
1. Scope and Authority F-12
2. Applicable Beneficial Uses and WQOs F-12
3. Determining the Need for WQBELs F-13
4. WQBELs F-14
V. Rationale for Receiving Water Limitations F-15
A. Surface Water F-15
B. Groundwater F-15
VI. Rationale for Monitoring and Reporting Requirements F-15
A. Effluent and Dry Dock Surface Monitoring F-16
B. Monitoring of Cooling Water Discharges F-16
C. Receiving Water Monitoring F-16
D. Sediment Monitoring F-17
E. Other Monitoring Requirements F-17
VII. Rationale for Provisions F-17
A. Standard Provisions F-17
B. MRP Requirements F-17
C. Special Provisions F-17
1. Re-opener Provisions F-17
2. Best Management Practices and Pollution Minimization Program F-18
VIII. Public Participation F-19
A. Notification of Interested Parties F-19
B. Written Comments F-19
C. Public Hearing F-19
D. Waste Discharge Requirements Petitions F-20
E. Information and Copying F-20
F. Register of Interested Persons F-20
G. Additional Information F-20

List of Tables

Table F-1. Facility Information....F-3
Table F-2. Outfall Locations....F-5
Table F-3. Basin Plan Beneficial Uses....F-7
Table F-4. Factors Considered Pursuant to 40 CFR 125.3(d)(1)....F-11
Table F-5. Water Quality Criteria (WQC) and Wipe Sample Triggers....F-18

ATTACHMENT F – FACT SHEET

As described in Section II of this Order, this Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for dischargers in California. Only those sections or subsections of this Order that are specifically identified as "not applicable" have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as "not applicable" fully apply to this Discharger.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	2 019334001
Discharger	Bay Ship and Yacht Company
Name of Facility	Bay Ship and Yacht Company
Facility Address	2900 Main Street, Suite 2100
	Alameda, CA 94501
	Alameda County
CIWQS Place Number	208897
Facility Contact, Title, Phone	Benjamin Perry-Thistle; Environmental, Safety, and Health Manager, 510-337-9122 x 245; Email: bperry-thistle@bay-ship.com
Authorized Person to Sign and Submit Reports	Same as above
CIWQS Party Number	305514
Mailing Address	2900 Main Street, Suite 2100, Alameda, CA 94501
Billing Address	Same as Mailing Address
Type of Facility	Dry dock; Ship Building and Repair
Major or Minor Facility	Minor
Threat to Water Quality	2
Complexity	C
Pretreatment Program	No
Reclamation Requirements	No
Mercury Discharge Requirements	No
Facility Permitted Flow	N/A
Facility Design Flow	N/A
Watershed	Lower San Francisco Bay
Receiving Water	Lower San Francisco Bay
Receiving Water Type	Marine
Service Areas	N/A
Service Area Population	N/A

A. Bay Ship and Yacht Company (hereinafter the Discharger) owns and operates a ship building and repair business, and discharges from a floating dry dock to Oakland Inner Harbor in Lower San Francisco Bay.

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. The discharge of wastewater from the dry dock to Lower San Francisco Bay, a water of the State and the United States, has previously been regulated by Order No. R2-2005-0039 (NPDES Permit No. CA0030121), which was adopted on September 21, 2005; became effective on November 1, 2005; and expired on October 31, 2010.

C. The Discharger filed a Report of Waste Discharge and submitted an application for renewal of its waste discharge requirements and National Pollutant Discharge Elimination System (NPDES) permit dated April 30, 2010. The application was deemed complete, and the previous Order was administratively extended.

II. FACILITY DESCRIPTION

A. Description of Wastewater

1. **Facility Description.** The Discharger owns and operates a ship building and repair facility. The Discharger builds, repairs, and performs maintenance on various seagoing vessels. Facilities include one double wall floating dry dock and one Syncrolift platform for removing vessels from the water for repair. The Syncrolift platform replaced a second dry dock that the previous permit had covered but no longer exists. The Syncrolift does not discharge wastewaters to San Francisco Bay. The U.S. National Park Service owns the reinforced concrete dry dock and leases it to the Discharger, which is responsible for compliance to the extent described and authorized by California Water Code (CWC) Division 7. A machine shop, pipe shop, metal fabrication shop, and storage sheds support the ship repair operations.

   The dry dock is lowered by flooding integral ballast compartments with San Francisco Bay water. One or more vessels requiring maintenance or repair are secured, and blocks to support the vessels when out of the water are put in place. The dry dock is then raised by pumping out the water from the integral ballast compartments back into San Francisco Bay. The dry dock has a reinforced concrete deck, and the Discharger performs work on the vessel over this deck. During and after vessel servicing, Best Management Practices (BMPs) are implemented to minimize the discharge of potential pollutants.

   The Syncrolift platform was installed during the term of the previous permit. It consists of a slatted wooden deck with installed rail beds and is supported by steel cribbing. The platform is lowered and raised by eight electric powered winches with support cabling attached to the cribbing of the platform. After a vessel is removed from the water, the Discharger tows it on the rails from the platform over the water to the dock-side ship repair area where all maintenance is performed. After repair is complete, the Discharger cleans the rail cradles and vessel and tows it back to the platform for re-submergence. The Syncrolift platform operates without discharge of ballast water.

Ship repair operations include blasting and repainting, overhauls, conversions, and alterations (*EPA Office of Compliance Sector Notebook Project: Profile of the Shipbuilding and Repair Industry*, 1997). Dry docks enable repairs below the ship's water line. Process wastewaters generated during repair, including hydro-blasting and dry dock wash water, are collected in sumps at the lower end of the dry dock and pumped to a filter treatment system for treatment prior to discharge to the sanitary sewer system. Therefore, this Order does not cover such discharges.

2. **Discharge Description and Location**. The Discharger discharges from a floating dry dock to Oakland Inner Harbor in Lower San Francisco Bay. Discharges occur at Discharge Point 001 when the dry dock is submerged and San Francisco Bay water flows over the dry dock deck that could carry particles and other residual material. Discharges occur at Discharge Point 002 when San Francisco Bay water is discharged from the integral ballast tank to raise the dry dock. The discharge of ballast water occurs at a rate of 40,000 gallons per minute; a total of 2.5 million gallons of ballast water is discharged per docking. This ballast water is contained throughout and is not exposed to potential pollutants from the activities on the dry dock. When larger ships are in dry dock, the ship's crew may continue to live on board. On such occasions, once-through non-contact cooling water obtained from Oakland Inner Harbor is provided to maintain on-board services, such as air conditioning. This results in a discharge of thermal waste at Discharge Point 003. This occurs roughly two or three times per year. There is also a fire suppression system for emergency use that utilizes water from Oakland Inner Harbor. Occasional testing, for periods of about ten minutes, of the fire suppression pump, rated at 500 gallons per minute, results in discharges at Discharge Point 004. This occurs roughly six to eight times per year.

3. **Storm Water Discharge.** The Discharger is covered under the State Water Board's statewide NPDES permit for storm water discharges associated with industrial activities (NPDES General Permit No. CAS000001); therefore, this Order does not cover storm water discharges.

Attachment B provides a map of the area around the facility. Attachment C-1 provides a site plan, and C-2 shows the dry dock in more detail and locations of sediment sampling.

B. Discharge Point and Receiving Waters

The location of the discharge point and the receiving water are shown in Table F-2 below.

Table F-2. Outfall Locations

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Surface runoff from dry dock deck during submergence	37º 47′ 29.5″ N	122º 17′ 30.8″ W	Oakland Inner Harbor, Lower San Francisco Bay
002	Integral ballast water from dry dock	37º 47′ 29.5″ N	122º 17′ 30.8″ W	Oakland Inner Harbor, Lower San Francisco Bay
003	Non-contact cooling water	37° 47′ 29.5″ N	122° 17′ 30.8″ W	Oakland Inner Harbor, Lower San Francisco Bay
004	Fire suppression water	37° 47′ 29.5″ N	122° 17′ 30.8″ W	Oakland Inner Harbor, Lower San Francisco Bay

C. Summary of Existing Requirements and Self-Monitoring Report Data

The previous permit (Order No. R2-2005-0039) did not contain numeric effluent limitations. It contained discharge prohibitions and surface water limitations in receiving waters, and implementation of Best Management Practices to ensure that the dry dock surfaces were clean and free of pollutants prior to submergence.

The Monitoring and Reporting Program also required annual collection of washwater samples from the deck of the dry dock and its analysis for settleable solids, total suspended solids, and 13 metals. In addition, it required one-time receiving water monitoring, annual remote sediment sampling, and annual sediment sampling near the perimeter of the dry dock.

Data collected over the past three years showed that wash water showed varying levels of arsenic, copper, and zinc that were measurably greater than the one background sample of receiving water collected in only one year, 2006. In one year, lead and chromium (2008) were also detected but the chromium level was just above the reporting limit. The sediment samples collected at a location next to the dry dock and at a remote location both contained levels of arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, and zinc. Antimony, hexavalent chromium, selenium, and thallium were not detected. In all detected cases, levels in the sediment were slightly higher than those in the background sediment.

Since the sampling data indicated that the operations were having an impact on pollutant levels in water flooding the deck on submergence and in sediment collected near the dry dock, monitoring of the operations has been enhanced in this Order with a requirement that management practices be changed if sampling results exceed trigger levels.

D. Compliance Summary

Previous permit Provision VI.C.1 required the Discharger to submit its Best Management Practices (BMP) Plan to the Executive Officer, which it did on February 1, 2006.

E. Planned Changes

The Discharger is not planning any changes to the facility within the term of this Order.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

This Order's requirements are based on the requirements and authorities described below.

A. Legal Authorities

This Order is issued pursuant to federal Clean Water Act (CWA) section 402 and implementing regulations and California Water Code (CWC) chapter 5.5, division 7 (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this facility to surface waters. This Order also serves as waste discharge requirements pursuant to CWC article 4, chapter 4, division 7 (commencing with section 13260).

B. California Environmental Quality Act (CEQA)

Under CWC section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA.

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plan.** The *Water Quality Control Plan for the San Francisco Bay Basin* (hereinafter the Basin Plan) is the Regional Water Board's master water quality control planning document. It designates beneficial uses and water quality objectives (WQOs) for waters of the State, including surface waters and groundwater. It also includes programs of implementation to achieve the WQOs. The Basin Plan was adopted by the Regional Water Board and approved by the State Water Board, the USEPA and the Office of Administrative Law, as required. Requirements of this Order implement the Basin Plan.

   The Basin Plan identifies beneficial uses for the receiving water for this discharge, Lower San Francisco Bay. The Basin Plan implements State Water Board Resolution No. 88-63, which establishes State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Because of marine influence in Lower San Francisco Bay, total dissolved solids levels exceed 3,000 milligrams per liter (mg/L) and thereby meet an exception to State Water Board Resolution No. 88-63. The MUN designation therefore does not apply to Lower San Francisco Bay.

   The Basin Plan beneficial uses of Lower San Francisco Bay are listed in Table F-4, below.

Table F-3. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Uses
001, 002	Lower San Francisco Bay	Industrial Service Supply (IND) Ocean, Commercial, and Sport Fishing (COMM) Shellfish Harvesting (SHELL) Estuarine Habitat (EST) Fish Migration (MIGR) Preservation of Rare and Endangered Species (RARE) Fish Spawning (SPWN) Wildlife Habitat (WILD) Water Contact Recreation (REC1) Non-Contact Water Recreation (REC2) Navigation (NAV)

On September 18, 1975, the State Water Board adopted the Water Quality Control Plan for Control of Temperature in the Coastal Interstate Waters and Enclosed Bays and Estuaries of California (hereinafter the Thermal Plan). The Thermal Plan contains objectives governing cooling water discharges, providing different and specific numeric and narrative water quality objectives for new and existing discharges.

The State Water Board's *Water Quality Control Plan for Enclosed Bays and Estuaries—Part 1, Sediment Quality* became effective on August 25, 2009. This plan supersedes other narrative sediment quality objectives and establishes new sediment quality objectives and

related implementation provisions for specifically defined sediments in most bays and estuaries.

2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995, and November 9, 1999. About 40 NTR criteria applied in California. On May 18, 2000, USEPA adopted the CTR, promulgating new toxics criteria for California and, in addition, incorporating the previously adopted NTR criteria applicable in the State, and amended it on February 13, 2001. These rules contain WQC for priority pollutants.

3. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (hereinafter the State Implementation Policy [SIP]*).* The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria promulgated through the NTR and to the WQOs established in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria promulgated through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

4. **Compliance Schedules and Interim Requirements.** The State Water Board adopted Resolution No. 2008-0025, titled "Policy for Compliance Schedules in National Pollutant Discharge Elimination System Permits." Under limited circumstances, this policy allows the Regional Water Board to grant a compliance schedule based on a discharger's request and demonstration that it is infeasible to comply immediately with certain effluent limits. This Order does not contain a compliance schedule or any interim effluent limit for any constituent.

5. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes [40 CFR 131.21, 65 Fed. Reg. 24641 (April 27, 2000)]. Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

6. **Antidegradation Policy.** NPDES regulations at 40 CFR 131.12 require that State WQS include an antidegradation policy consistent with federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution 68-16, which incorporates federal antidegradation policy where federal policy applies under federal law and requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies.

7. **Anti-Backsliding Requirements.** CWA Sections 402(o)(2) and 303(d)(4) and 40 CFR 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.

D. Impaired Water Bodies on CWA 303(d) List

In November 2006, USEPA approved a list of impaired water bodies pursuant to provisions of CWA section 303(d), which requires identification of specific water bodies where it is expected that water quality standards will not be met after implementation of technology-based effluent limitations on point sources. This list (hereinafter the 303(d) List) contains Lower San Francisco Bay as a waterbody impaired by chlordane, DDT, dieldrin, dioxin compounds, exotic species, furan compounds, mercury, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), dioxin-like PCBs, and selenium. The State Water Board approved an updated list on August 4, 2010, but USEPA has yet to approve it.

The SIP requires final effluent limitations for all 303(d)-listed pollutants to be consistent with Total Maximum Daily Loads (TMDLs) and associated wasteload allocations. A TMDL for mercury became effective on February 12, 2008, and a TMDL for PCBs became effective on March 29, 2010. Neither TMDL contains wasteload allocations for this discharge.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the NPDES regulations: 40 CFR Section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 CFR section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative WQC to protect the beneficial uses of the receiving water. Several specific factors affecting the development of limitations and requirements in this Order are discussed as follows.

A. Discharge Prohibitions

1. **Discharge Prohibition III.A (No discharge other than that described in this Order):** This prohibition is the same as in the previous permit and is based on CWC section 13260, which requires filing a Report of Waste Discharge before discharges can occur. Discharges not described in the Report of Waste Discharge, and subsequently in this Order, are prohibited.

2. **Discharge Prohibition III.B (No discharge of sanitary wastewater):** This prohibition is retained from the previous permit and is based on CWC section 13260, which requires filing a Report of Waste Discharge before discharges can occur. The Discharger's Report of Waste Discharge does not indicate any plan to discharge sanitary wastewater. Discharges not described in the Report of Waste Discharge, and subsequently in this Order, are prohibited.

3. **Discharge Prohibition III.C (No discharge of solid materials and wastes, spent abrasive and paint residue, and marine fouling organisms):** This prohibition is based on Basin Plan Table 4-1 discharge Prohibitions 6 and 9, which prohibit discharges of stable toxic and deleterious substances, and silt, sand and clay. The rationale for these prohibitions is to minimize the discharge of persistent toxic pollutants into State waters and to minimize discharges of materials that may cause deleterious bottom deposits. This prohibition is retained from the previous permit.

4. **Discharge Prohibition III. D (No discharge of floating materials):** Basin Plan Table 4-1 Discharge Prohibitions 8 and 13 prohibit the discharge of floating oil or other floating materials, and the discharge of oil or any residual petroleum product, to protect birds and other wildlife from the possible toxic effects of floating oil or oil deposits. This prohibition is retained from the previous permit.

5. **Discharge Prohibition III.E (No discharge of ship ballast water from vessels in dry dock):** This prohibition is retained from the previous permit. CWC section 13260 requires filing a Report of Waste Discharge before discharges can occur. The Discharger's Report of Waste Discharge does not indicate any plan to discharge ship ballast water. Discharges not described in the Report of Waste Discharge, and subsequently in this Order, are prohibited.

6 **Discharge Prohibition III.F (No discharge of process wastewater):** This prohibition is retained from the previous permit. Process wastewater is to be collected and treated prior to discharge to the sanitary sewer system in accordance with a pretreatment permit.

B. Basin Plan Discharge Prohibition 1

Basin Plan Discharge Prohibition 1 states that it shall be prohibited to discharge "any wastewater which has particular characteristics of concern to beneficial uses at any point at which the wastewater does not receive a minimum initial dilution of at least 10:1…" This prohibition is to provide an added degree of protection from the continuous effect of discharges and provide a buffer against the effects of abnormal discharges caused by temporary plant upsets or malfunctions. As explained in Basin Plan Section 4.2, the Regional Water Board reviews requests for exceptions to this prohibition based in part on the reliability of a discharger's system in preventing inadequately treated wastewater from being discharged to the receiving water.

There are four discharges from this facility: water having contact with the deck surface of the dry dock, discharge 001; water from the ballast tanks, discharge 002; once-through non-contact cooling water, discharge 003; and emergency fire suppression water, discharge 004. Water from the ballast tanks, cooling water, and fire suppression water are water drawn from San Francisco Bay and then returned; they do not contain pollutants of concern and thus are not subject to Prohibition 1. Water that runs over the deck of the dry dock has not been processed through a treatment plant subject to upset, thus it too is not subject to the prohibition. If it were, it would qualify for an exception because providing initial dilution of at least 10:1 would be impracticable for this type of facility, and such an inordinate burden placed on the Discharger would not result in greater water quality protection than implementation of the BMP Plan required in provisions VI.C.2 and 3 of the Order.

C. Technology-Based Effluent Limitations

The CWA requires that technology-based effluent limitations be established in several levels of control:

a. Best practicable treatment control technology (BPT) represents the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.

b. Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.

c. Best conventional pollutant control technology (BCT) represents the control from existing industrial point source of conventional pollutants, including BOD, TSS, total coliform, pH and oil and grease. The BCT standard is established after considering the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and the cost effectiveness of additional industrial treatment beyond BPT.

d. New source performance standards (NSPS) represent the best available demonstrated control technology standards. NSPS represents state-of-the-art treatment technology for new sources.

The CWA requires USEPA to develop effluent limitations, guidelines, and standards representing application of BPT, BAT, BCT, and NSPS. However, CWA 402(a)(1) and 40 CFR 125.3 authorize the use of best professional judgment (BPJ) to derived technology-based effluent limitations on a case-by-case basis where effluent limit guidelines are not available for certain industrial categories. USEPA has not issued effluent limit guidelines for the ship building and repair industry; however, USEPA conducted an extensive study of the ship building and repair industry and issued the *Development Document for Proposed Best Management Practices for the Shipbuilding and Repair Industry: Dry docks Point Source Category* (December 1979). USEPA concluded that: "This industry is such that numerical effluent limitations are impractical and difficult to apply in a manner which could be monitored…" and "…Best Management Practices (BMP) have been developed for general application, and should be considered as guidance in lieu of numerical limitations." Therefore, this Order contains narrative (BMP-based) requirements for Discharge Points 001 and 002 that represent BPT controls based on BPJ. In setting these limits, the factors specified in section 125.3(d), as shown in the table below, were considered.

Table F-4. Factors Considered Pursuant to 40 CFR 125.3(d)(1)

Factors	Considerations
(i) Total cost of technology in relation to benefits to be achieved	Thorough cleaning of dry dock surfaces using brushes and vacuums is achievable in the context of dry dock operations. Readily available motorized equipment can be used to remove potential pollutants, providing a substantial benefit relative to the total cost incurred.
(ii) Age of equipment and facilities involved	The dry dock is old; it is owned by the U.S. National Park Service and cannot be readily altered. However new and effective equipment (brooms, power washers, etc.) can be used to collect and remove potential pollutants.
(iii) Process employed	Methodical cleaning operations can be specified in the BMP Plan and can be readily monitored for compliance. No unusual or technically challenging processes are required (proper planning and scheduling of activities is most important).
(iv) Engineering aspects of application of control techniques	The process of sweeping, scrubbing, and cleaning the dry dock surfaces does not lend itself to more sophisticated engineering controls.
(v) Process changes	The Discharger has been cleaning the surfaces of the dry dock after ship maintenance operations and prior to submergence for years. No specific process changes would be required.

(vi) Non-water quality environmental impact (including energy requirements)	Waste solids from the dry dock would continue to be removed from the site and recycled or properly disposed as appropriate.

D. Water Quality-Based Effluent Limitations (WQBELs)

WQBELs are derived to implement WQOs that protect beneficial uses. Both the beneficial uses and the WQOs have been approved pursuant to federal law. Most beneficial uses and WQOs contained in the Basin Plan were approved under State law and submitted to and approved by USEPA prior to May 30, 2000. Any WQOs and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the [Clean Water] Act" pursuant to 40 CFR 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than the applicable WQS for purposes of the CWA.

1. Scope and Authority

40 CFR 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an excursion of a WQS, including numeric and narrative objectives within a standard. As specified in 40 CFR 122.44(d)(1)(i), permits are required to include WQBELs for all pollutants "which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any state water quality standard."The process for determining "reasonable potential" and calculating WQBELs when necessary is intended to protect the designated beneficial uses of the receiving water as specified in the Basin Plan, and achieve applicable WQOs contained in other state plans and policies, and WQC contained in the CTR and NTR.

2. Applicable Beneficial Uses and WQOs

The WQOs applicable to the receiving water for this discharge are from the Basin Plan; the CTR, established by USEPA at 40 CFR 131.38; and the NTR, established by USEPA at 40 CFR 131.36. Some pollutants have WQC and WQOs established by more than one of these three sources.

a. Basin Plan. The Basin Plan specifies numeric WQOs for 10 priority toxic pollutants, as well as narrative WQOs for toxicity and bioaccumulation in order to protect beneficial uses. The pollutants for which the Basin Plan specifies numeric objectives are arsenic, cadmium, chromium (VI), copper in marine and freshwater, lead, mercury, nickel, silver, zinc, and cyanide. The narrative toxicity objective states, "All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms." The bioaccumulation objective states, "Controllable water quality factors shall not cause a detrimental increase in concentrations of toxic substances found in bottom sediments or aquatic life. Effects on aquatic organisms, wildlife, and human health will be considered." Effluent limitations and provisions contained in this Order are designed to implement these objectives, based on available information.

b. CTR. The CTR specifies numeric aquatic life criteria for 23 priority toxic pollutants and numeric human health criteria for 57 priority toxic pollutants. These criteria apply to all inland surface waters and enclosed bays and estuaries of San Francisco Bay Region, although Basin Plan Tables 3-3 and 3-4 include numeric objectives for certain of these priority toxic pollutants, which supersede criteria of the CTR. Human health criteria are further identified as "water and organisms" and "organisms only." The CTR criteria for "organisms only" apply for this discharge because the receiving water is not a source of drinking water.

c. NTR. The NTR establishes numeric aquatic life criteria for selenium and numeric human health criteria for 33 toxic organic pollutants for waters of San Francisco Bay upstream to and including Suisun Bay and the Sacramento River-San Joaquin River Delta. These criteria apply to the Oakland Inner Harbor, which is part of Lower San Francisco Bay.

d. Basin Plan Receiving Water Salinity Policy. The Basin Plan (like the CTR and the NTR) states that the salinity characteristics (i.e., freshwater vs. saltwater) of the receiving water shall be considered in determining the applicable WQC. Freshwater criteria shall apply to discharges to waters with salinities equal to or less than one part per thousand (ppt) at least 95 percent of the time. Saltwater criteria shall apply to discharges to waters with salinities equal to or greater than 10 ppt at least 95 percent of the time in a normal water year. For discharges to water with salinities in between these two categories, or tidally-influenced freshwaters that support estuarine beneficial uses, the criteria shall be the lower of the salt or freshwater criteria (the latter calculated based on ambient hardness) for each substance.

Lower San Francisco Bay is a marine environment based on salinity data collected at the Regional Monitoring Program's Yerba Buena station from March 1993 to August 2006. Data indicate that the salinity was greater than 10 ppt in all 25 samples.

e. Site-Specific Metals Translators (SSTs). NPDES regulations at 40 CFR 122.45(c) require that effluent limitations for metals be expressed as total recoverable metal. Since applicable WQC for metals are typically expressed as dissolved metal, translators must be used to convert metals concentrations from dissolved to total recoverable and vice versa. The CTR includes default translators that may be used for NPDES permits.

f. Sediment Quality Objectives. The *Water Quality Control Plan for Enclosed Bays and Estuaries—Part 1, Sediment Quality* contains a narrative WQO, "Pollutants in sediments shall not be present in quantities that, alone or in combination, are toxic to benthic communities in bays and estuaries of California." This WQO is to be implemented by integrating three lines of evidence: sediment toxicity, benthic community condition, and sediment chemistry. The Policy requires that if the Regional Water Board determines that a discharge has reasonable potential to cause or contribute to an exceedance of this WQO, it is to impose the WQO as a receiving water limit.

3. Determining the Need for WQBELs

Assessing whether a pollutant has "Reasonable Potential" is the fundamental step in determining whether or not a WQBEL is required. Using the methods prescribed in SIP

section 1.3, available effluent and receiving water data were analyzed to determine if facility discharges show Reasonable Potential. Data representative of effluent quality were unavailable due to the nature of the facility; therefore, this Reasonable Potential Analysis (RPA) is based on the nature of facility operations and the shipyard industry in general.

a. **Discharge Point 001.** For discharges at Discharge Point 001, based on industry practices and operations at similar facilities, there is Reasonable Potential for residual material to be washed into the receiving water when the dry dock is flooded during submergence. Such particulate material may contain metals common to the shipyard industry, and PCBs and tributyltin at concentrations that could cause or contribute to exceedances of applicable WQOs or criteria for metals from the NTR, CTR, and Basin Plan.

   This determination is based on descriptions by the Oregon Department of Environmental Quality and USEPA Office of Enforcement and Compliance Assurance of the generation of pollutants during vessel maintenance and overhaul work (*Best Management Practices for Oregon Shipyards*, Oregon Department of Environmental Quality, 2000; *U.S. EPA Office of Compliance Sector Notebook Project: Profile of the Shipbuilding and Repair Industry*, U.S. EPA Office of Enforcement and Compliance Assurance, 1997). Pollutants that can remain in residual amounts on dry dock surfaces after cleanup, and the paint and preservative coatings found on both interior and exterior surfaces of a ship, particularly on older ships, may contain toxic compounds, such as PCBs, heavy metals (e.g., lead, barium, cadmium, chromium, and zinc), and pesticides (*A Guide for Ship Scrappers*, U.S. Office of Enforcement and Assurance, 2000, EPA 315-B-00-001).

b. **Discharge Point 002.** For discharges at Discharge Point 002, provided Best Management Practices are followed, there is no Reasonable Potential because there is no opportunity to introduce pollutants when water enters and then is discharged from the integral ballast tanks of the dry dock.

c. **Discharge Point 003.** For discharges at Discharge Point 003, there is Reasonable Potential because the temperature of the salt water discharge could exceed the limit specified in the Thermal Plan, 4ºF above the temperature of the receiving water.

d. **Discharge Point 004.** For discharges at Discharge Point 004, provided Best Management Practices are followed, there is no Reasonable Potential because there is no opportunity to introduce pollutants when water enters and then is discharged from the fire suppression system.

4. WQBELs

The RPA determined that discharges from Discharge Point 001 exhibit reasonable potential for metals, PCBs, and tributyltin. However, the establishment and enforcement of numeric effluent limitations at Discharge Point 001 is infeasible due to the difficulties of collecting representative effluent samples, and of determining and applying concentration or mass-based limitations. The Discharger's releases are most appropriately controlled by Best Management Practices (BMPs). CWA Section 304(e) authorizes the inclusion of BMPs as requirements in discharge permits, and in accordance with 40 CFR 122.44(k), BMPs can be used to control or abate the discharge of pollutants when numeric effluent limitations are infeasible. This Order, therefore, contains narrative discharge specifications, as in the

previous permit, which requires implementation of a BMP Program. It also retains the narrative discharge requirement to remove particulates and residuals from the dry dock through methods that could include scraping, sweeping, and power washing prior to submergence of any portion of the dry dock. This is based on the guidance provided in *USEPA Development Document for Proposed Best Management Practices for the Ship Building and Repair Industry: Dry docks Point Source Category* (1979).

For cooling water discharges at Discharge Point 003, the limitation of 4ºF above the temperature of the receiving water is based on Thermal Plan, Specific Water Quality Objectives, Section 4.B.

E. Anti-backsliding and Antidegradation

All effluent limitations in this Order for Discharge Points 001 and 002 are as at least as stringent as those contained in the previous permit. Discharge Points 003 and 004 are new. However, these new discharges will not reduce existing water quality. Both contain no pollutants (except heat) other than those removed from San Francisco Bay at the intake. Given the infrequent nature and exceedingly small flow of the cooling water discharges, their thermal effects will be inconsequential, particularly since this Order contains a temperature limitation based on the Thermal Plan. Therefore, consistent with Administrative Procedures Update No. 90-004 (Antidegradation Policy Implementation for NPDES Permitting, July 2, 1990), no further antidegradation analysis is required.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

Receiving water limitations are based on Basin Plan WQOs and are a required part of this Order. Receiving water limitations V.A.1 and V.A.2 are based on the narrative and numeric objectives contained in Basin Plan Chapter 3. Receiving water limitation V.A.3 is retained from the previous permit and requires compliance with federal and State water quality standards.

B. Groundwater

Not Applicable.

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

40 CFR 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. CWC sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The MRP (Attachment E) establishes monitoring and reporting requirements to implement federal and State requirements.

The MRP is a standard requirement in almost all NPDES permits issued by the Regional Water Board, including this Order. It contains definitions of terms and sets requirements for reporting of routine monitoring data in accordance with NPDES regulations, the CWC, and State and Regional Water Board policies.

The principal purposes of a monitoring program are to:

- document compliance with waste discharge requirements and prohibitions established by the Regional Water Board,
- facilitate self-policing by the discharger in the prevention and abatement of pollution arising from waste discharge,
- develop or assist in the development of limitations, discharge prohibitions, national standards of performance, pretreatment and toxicity standards, and other standards, and
- prepare water and wastewater quality inventories.

The MRP is a standard requirement in almost all NPDES permits, including this Order. It contains definitions of terms, specifies general sampling and analytical protocols, and sets out requirements for reporting of spills, violations, and routine monitoring data in accordance with NPDES regulations, the CWC, and State and Regional Water Board policies. The MRP also defines the sampling stations and monitoring frequencies, the pollutants to be monitored, and additional reporting requirements. Pollutants to be monitored include all parameters for which effluent limitations are specified. Monitoring for additional constituents, for which no effluent limitations are established, is also required to provide data for future completion of RPAs for them and confirmation that BMPs are implemented effectively.

The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

A. Effluent and Dry Dock Surface Monitoring

The MRP retains requirements for assessing the impact of pollutants on waters flooding the surface of the dry dock. However, instead of collecting samples of the water that flows over the deck of the dry dock as it is being submerged, which poses safety risks to operators and raises questions of reproducibility, this Order requires the collection of wipe samples from randomly selected locations on the dry dock deck that could be affected by ship building, repair, and maintenance operations. Wipe tests will indicate the effectiveness of BMPs in removing pollutants from the dry dock before it is submerged. Wipe samples are to be collected using both organic and aqueous solvents as described in Attachment E III.B. Analysis of wipe samples yields pollutant values in terms of $\mu g/ft^2$ of deck surface for comparison with triggers set forth in Provision VI.C.3 of the Order and described further in section VII.C.2 below.

B. Monitoring of Cooling Water Discharges

The MRP contains new requirements to monitor flows and temperatures associated with any once-through non-contact cooling water discharges. This monitoring is not required when not discharging or when spraying the effluent over the water to promote evaporative cooling.

C. Receiving Water Monitoring

The monitoring frequency at a background location in the receiving water has been increased from once during the permit term to annually to facilitate the observation of any possible trends in the receiving water. PCBs and tributyltin monitoring has been added to allow determination of background receiving water concentrations. Temperature monitoring has been added to

determine compliance with the effluent temperature limit at Discharge Point 003. At the same time, the receiving water, immediately adjacent to the dry dock, is also to be sampled.

D. Sediment Monitoring

Sediment monitoring requirements are retained from the previous permit. Because tributyltin and PCBs are persistent pollutants and possibly present in facility discharges, monitoring for these parameters in sediment is required.

E. Other Monitoring Requirements

The data analysis requirement is new. The previous permit required the Discharger only to report the sampling data. This Order requires the Discharger to evaluate the data on a temporal basis to identify trends, if any. In addition, if wipe samples analysis results indicate that any of the triggers are exceeded, then the Discharger is to comply with Provision VI.C.3 of the Order.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which, in accordance with 40 CFR 122.41and 122.42 apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachments D. The Discharger must comply with all standard provisions and with those additional conditions that apply under 40 CFR 122.42

40 CFR 122.41(a)(1) and (b) through (n) establish conditions that apply to all state-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with section 123.25 this Order omits federal conditions that address enforcement authority specified in sections 122.41(j)(5) and (k)(2) because the enforcement authority under CWC is more stringent. In lieu of these conditions, this Order incorporates by reference CWC section 13387(e).

Regional Standard Provision, and Monitoring and Reporting Requirements (Supplement to Attachment D) also apply to this discharge permit and are provided in Attachment G.

B. MRP Requirements

The Discharger is required to monitor the permitted discharges in order to evaluate compliance with permit conditions. Monitoring requirements are contained in the MRP (Attachment E) and the Regional Standard Provisions (Attachment G) of this Order and in Section VI.D above This provision requires compliance with these documents and is based on 40 CFR 122.63.

C. Special Provisions

1. Re-opener Provisions

These provisions are based on 40 CFR 123 and allow future modification of this Order and its effluent limitations as necessary to respond to updated information.

2. Best Management Practices and Pollution Minimization Program

The Discharger's discharges are most appropriately controlled through BMPs and pollution prevention. The inclusion of BMPs as requirements in discharge permits is authorized by CWA Section 304(e), and in accordance with NPDES regulations at 40 CFR 122.44(k), BMPs can be used to control or abate the discharge of pollutants when numeric effluent limitations are infeasible.

The MRP requires the Discharger to test wipe samples from the dry dock deck after cleaning and compare the results with triggers set forth in the Order. The purposes of these tests and triggers are (1) to provide feedback regarding how thoroughly the BMPs and pollution prevention plan are being implemented and (2) to indicate whether additional BMPs may be appropriate. The triggers are not effluent limitations and are not intended to evaluate whether the discharge could cause or contribute to exceedences of water quality objectives in the receiving water. This Order requires receiving water monitoring to assess the water quality effects of the discharge.

The triggers are derived from water quality criteria by multiplying the criteria by a volume of water into which the pollutants on the surface would be mixed. Typically, the fully submerged dry dock surface lies below about 20 feet of water. This water mixes with pollutants remaining on the dry dock deck after cleaning. To provide a margin of safety in calculating the triggers, the triggers are based on half the depth at full submersion: about 10 ft or 300 cm of water. In other words, the pollutants (measured in µg) on one square foot of area (930 cm^2) would be mixed into 930 cm^2 x 300 cm of water. The triggers in Table F-5 are the water quality criteria in µg/L multiplied by 279 sq ft/L. The water quality criteria are from the Basin Plan, CTR established by USEPA at 40CFR 131.38 and for tributyltin, WQC are discussed in EPA 822-R-03-031, December 2003 Ambient Aquatic Life Water Quality Criteria for Tributyltin (TBT) – Final.

Table F-5. Water Quality Criteria (WQC) and Wipe Sample Triggers

Analyte	WQC, µg/L	Triggers,: µg/sq ft of deck surface
Antimony	4300	1,200,000
Arsenic	36	10,000
Cadmium	1.2	330
Chromium	230	64,000
Hexavalent Chromium	11	3,100
Copper	3.7	1,000
Lead	3.7	1,000
Mercury	0.025	7.0
Nickel	30	8,300
Selenium	5.0	1,400
Silver	2.2	610
Thallium	6.3	1,800
Zinc	86	24,000
Tributyltin	0.0074	2.0
PCBs	<0.5	<140

The Order contains accelerated monitoring requirements and BMP enhancements to ensure, if necessary, that pollutants on the dry dock deck surface are removed to the extent technologically and economically feasible. The levels specified for warranted accelerated monitoring (e.g., 2 times trigger level) or BMP enhancements (e.g., 7 of 10 events) are based on what will reasonably capture substantive exceedances that would warrant the response actions required, versus less substantive exceedances that may be due to sampling and analytical variability.

When no further improvements can be implemented, the Order allows the Executive Officer to authorize the Discharger to return to the routine monitoring frequency in the MRP or cease conducting wipe tests. Under such circumstances, the Regional Water Board may consider the Discharger's efforts and revise the triggers with the next permit reissuance so the triggers continue to provide feedback regarding how thoroughly the BMPs and pollution prevention plan are being implemented.

VIII. PUBLIC PARTICIPATION

The Regional Water Board is considering the issuance of waste discharge requirements that will serve as an NPDES permit for the Bay Ship and Yacht Company. As a step in the waste discharge requirements adoption process, Regional Water Board staff has developed tentative waste discharge requirements. The Regional Water Board encourages public participation in the waste discharge requirements adoption process.

A. Notification of Interested Parties

The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through the Alameda Times Star**.**

B. Written Comments

Staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative waste discharge requirements. Comments must be submitted either in person or by mail to the Executive Officer at the Regional Water Board at the address provided on the cover page of this Order.

To receive full consideration and a response from Regional Water Board staff, written comments should be received at the Regional Water Board offices by 5:00 p.m. by **November 15, 2010.**

C. Public Hearing

The Regional Water Board will hold a public hearing on the tentative waste discharge requirements during its regular Board meeting on the following date and time and at the following location:

Date:	February 9, 2011
Time:	9:00 am
Location:	Elihu Harris State Office Building 1515 Clay Street, 1st Floor Auditorium Oakland, CA 94612

Contact: Derek Whitworth, (510) 622-2349, email DWhitworth@waterboards.ca.gov

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge, waste discharge requirements, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our Web address is http://www.waterboards.ca.gov/sanfranciscobay where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water l Board to review the decision of the Regional Water Board regarding the final waste discharge requirements. The petition must be submitted within 30 days of the Regional Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

E. Information and Copying

The Report of Waste Discharge, related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:45 a.m. and 5:00 p.m., Monday through Thursday for the first three weeks of a month, and Monday through Friday for the rest of the month. Copying of documents may be arranged by calling 510-622-2300.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the waste discharge requirements and NPDES permit should contact the Regional Water Board, reference this facility, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Derek Whitworth at 510-622-2349 or e-mail at DWhitworth@waterboards.ca.gov.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ATTACHMENT G
REGIONAL STANDARD PROVISIONS, AND MONITORING AND REPORTING REQUIREMENTS (SUPPLEMENT TO ATTACHMENT D)

For

NPDES WASTEWATER DISCHARGE PERMITS

March 2010

Table of Contents

I. STANDARD PROVISIONS - PERMIT COMPLIANCE G-3
- A. Duty to Comply G-3
- B. Need to Halt or Reduce Activity Not a Defense G-3
- C. Duty to Mitigate G-3
  - 1. Contingency Plan G-3
  - 2. Spill Prevention Plan G-4
- D. Proper Operation & Maintenance G-4
  - 1. Operation and Maintenance (O&M) Manual G-4
  - 2. Wastewater Facilities Status Report G-5
  - 3. Proper Supervision and Operation of Publicly Owned Treatment Works (POTWs) G-5
- E. Property Rights G-5
- F. Inspection and Entry G-5
- G. Bypass G-5
- H. Upset G-5
- I. Other G-5
- J. Storm Water G-5
  - 1. Storm Water Pollution Prevention Plan (SWPP Plan) G-6
  - 2. Source Identification G-6
  - 3. Storm Water Management Controls G-7
  - 4. Annual Verification of SWPP Plan G-8
- K. Biosolids Management G-8

II. STANDARD PROVISIONS – PERMIT ACTION G-9

III. STANDARD PROVISIONS – MONITORING G-9
- A. Sampling and Analyses G-9
  - 1. Use of Certified Laboratories G-9
  - 2. Use of Appropriate Minimum Levels G-9
  - 3. Frequency of Monitoring G-10
- B. Biosolids Monitoring G-12
  - 1. Biosolids Monitoring Frequency G-13
  - 2. Biosolids Pollutants to Monitor G-13
- C. Standard Observations G-13
  - 1. Receiving Water Observations G-13
  - 2. Wastewater Effluent Observations G-14
  - 3. Beach and Shoreline Observations G-14
  - 4. Land Retention or Disposal Area Observations G-14
  - 5. Periphery of Waste Treatment and/or Disposal Facilities Observations G-14

IV. STANDARD PROVISIONS – RECORDS G-14
- A. Records to be Maintained G-14
- B. Records of monitoring information shall include G-15
  - 1. Analytical Information G-15
  - 2. Flow Monitoring Data G-15

3. Wastewater Treatment Process Solids G-15
4. Disinfection Process G-15
5. Treatment Process Bypasses G-16
6. Treatment Facility Overflows G-16
C. Claims of Confidentiality – Not Supplemented G-16
V. STANDARD PROVISIONS – REPORTING G-16
A. Duty to Provide Information G-16
B. Signatory and Certification Requirements G-16
C. Monitoring Reports G-16
1. Self Monitoring Reports G-17
D. Compliance Schedules G-21
E. Twenty-Four Hour Reporting G-21
1. Spill of Oil or Other Hazardous Material Reports G-21
2. Unauthorized Discharges from Municipal Wastewater Treatment Plants G-22
F. Planned Changes G-24
G. Anticipated Noncompliance G-24
H. Other Noncompliance G-25
I. Other Information G-25
VI. STANDARD PROVISIONS – ENFORCEMENT G-25
VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS G-25
VIII. DEFINITIONS G-25

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

REGIONAL STANDARD PROVISIONS, AND MONITORING AND REPORTING REQUIREMENTS (SUPPLEMENT TO ATTACHMENT D)

FOR

NPDES WASTEWATER DISCHARGE PERMITS

APPLICABILITY

This document applies to dischargers covered by a National Pollutant Discharge Elimination System (NPDES) permit. This document does not apply to Municipal Separate Storm Sewer System (MS4) NPDES permits.

The purpose of this document is to supplement the requirements of Attachment D, Standard Provisions. The requirements in this supplemental document are designed to ensure permit compliance through preventative planning, monitoring, recordkeeping, and reporting. In addition, this document requires proper characterization of issues as they arise, and timely and full responses to problems encountered. To provide clarity on which sections of Attachment D this document supplements, this document is arranged in the same format as Attachment D.

I. STANDARD PROVISIONS - PERMIT COMPLIANCE

A. Duty to Comply

Not Supplemented

B. Need to Halt or Reduce Activity Not a Defense

Not Supplemented

C. Duty to Mitigate

This supplements I.C. of Standard Provisions (Attachment D)

1. Contingency Plan
   The Discharger shall maintain a Contingency Plan as originally required by Regional Water Board Resolution 74-10 and as prudent in accordance with current municipal facility emergency planning. The Contingency Plan shall describe procedures to ensure that existing facilities remain in, or are rapidly returned to, operation in the event of a process failure or emergency incident, such as employee strike, strike by suppliers of chemicals or maintenance services, power outage, vandalism, earthquake, or fire. The Discharger may combine the Contingency Plan and Spill Prevention Plan into one document. Discharge in violation of the permit where the Discharger has failed to develop and implement a Contingency Plan as described below will be the basis for considering the discharge a willful and negligent

violation of the permit pursuant to California Water Code Section 13387. The Contingency Plan shall, at a minimum, contain the provisions of a. through g. below.

a. Provision of personnel for continued operation and maintenance of sewerage facilities during employee strikes or strikes against contractors providing services.

b. Maintenance of adequate chemicals or other supplies and spare parts necessary for continued operations of sewerage facilities.

c. Provisions of emergency standby power.

d. Protection against vandalism.

e. Expeditious action to repair failures of, or damage to, equipment and sewer lines.

f. Report of spills and discharges of untreated or inadequately treated wastes, including measures taken to clean up the effects of such discharges.

g. Programs for maintenance, replacement, and surveillance of physical condition of equipment, facilities, and sewer lines.

2. Spill Prevention Plan
The Discharger shall maintain a Spill Prevention Plan to prevent accidental discharges and minimize the effects of such events. The Spill Prevention Plan shall:

a. Identify the possible sources of accidental discharge, untreated or partially treated waste bypass, and polluted drainage;

b. Evaluate the effectiveness of present facilities and procedures, and state when they became operational; and

c. Predict the effectiveness of the proposed facilities and procedures, and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational.

This Regional Water Board, after review of the Contingency and Spill Prevention Plans or their updated revisions, may establish conditions it deems necessary to control accidental discharges and to minimize the effects of such events. Such conditions may be incorporated as part of the permit upon notice to the Discharger.

D. Proper Operation & Maintenance

This supplements I.D of Standard Provisions (Attachment D)

1. Operation and Maintenance (O&M) Manual
The Discharger shall maintain an O&M Manual to provide the plant and regulatory personnel with a source of information describing all equipment, recommended operational strategies, process control monitoring, and maintenance activities. To remain a useful and relevant document, the O&M Manual shall be kept updated to reflect significant changes in treatment facility equipment and operational practices. The O&M Manual shall be maintained in usable

condition and be available for reference and use by all relevant personnel and Regional Water Board staff.

2. Wastewater Facilities Status Report
   The Discharger shall regularly review, revise, or update, as necessary, its Wastewater Facilities Status Report. This report shall document how the Discharger operates and maintains its wastewater collection, treatment, and disposal facilities to ensure that all facilities are adequately staffed, supervised, financed, operated, maintained, repaired, and upgraded as necessary to provide adequate and reliable transport, treatment, and disposal of all wastewater from both existing and planned future wastewater sources under the Discharger's service responsibilities.

3. Proper Supervision and Operation of Publicly Owned Treatment Works (POTWs)
   POTWs shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to Division 4, Chapter 14, Title 23 of the California Code of Regulations.

E. Property Rights

Not Supplemented

F. Inspection and Entry

Not Supplemented

G. Bypass

Not Supplemented

H. Upset

Not Supplemented

I. Other

This section is an addition to Standard Provisions (Attachment D)

1. Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or nuisance as defined by California Water Code Section 13050.

2. Collection, treatment, storage, and disposal systems shall be operated in a manner that precludes public contact with wastewater, except in cases where excluding the public are infeasible, such as private property. If public contact with wastewater could reasonably occur on public property, warning signs shall be posted.

3. If the Discharger submits a timely and complete Report of Waste Discharge for permit reissuance, this permit continues in force and effect until a new permit is issued or the Regional Water Board rescinds the permit.

J. Storm Water

This section is an addition to Standard Provisions (Attachment D)

These provisions apply to facilities that do not direct all storm water flows from the facility to the wastewater treatment plant headworks.

1. Storm Water Pollution Prevention Plan (SWPP Plan)
   The SWPP Plan shall be designed in accordance with good engineering practices and shall address the following objectives:

   a. To identify pollutant sources that may affect the quality of storm water discharges; and

   b. To identify, assign, and implement control measures and management practices to reduce pollutants in storm water discharges.

   The SWPP Plan may be combined with the existing Spill Prevention Plan as required in accordance with Section C.2. The SWPP Plan shall be retained on-site and made available upon request of a representative of the Regional Water Board.

2. Source Identification
   The SWPP Plan shall provide a description of potential sources that may be expected to add significant quantities of pollutants to storm water discharges, or may result in non-storm water discharges from the facility. The SWPP Plan shall include, at a minimum, the following items:

   a. A topographical map (or other acceptable map if a topographical map is unavailable), extending one-quarter mile beyond the property boundaries of the facility, showing the wastewater treatment facility process areas, surface water bodies (including springs and wells), and discharge point(s) where the facility's storm water discharges to a municipal storm drain system or other points of discharge to waters of the State. The requirements of this paragraph may be included in the site map required under the following paragraph if appropriate.

   b. A site map showing the following:

      (1) Storm water conveyance, drainage, and discharge structures;

      (2) An outline of the storm water drainage areas for each storm water discharge point;

      (3) Paved areas and buildings;

      (4) Areas of actual or potential pollutant contact with storm water or release to storm water, including but not limited to outdoor storage and process areas; material loading, unloading, and access areas; and waste treatment, storage, and disposal areas;

      (5) Location of existing storm water structural control measures (i.e., berms, coverings, etc.);

      (6) Surface water locations, including springs and wetlands; and

      (7) Vehicle service areas.

c. A narrative description of the following:

(1) Wastewater treatment process activity areas;

(2) Materials, equipment, and vehicle management practices employed to minimize contact of significant materials of concern with storm water discharges;

(3) Material storage, loading, unloading, and access areas;

(4) Existing structural and non-structural control measures (if any) to reduce pollutants in storm water discharges; and

(5) Methods of on-site storage and disposal of significant materials.

d. A list of pollutants that have a reasonable potential to be present in storm water discharges in significant quantities.

3. Storm Water Management Controls
The SWPP Plan shall describe the storm water management controls appropriate for the facility and a time schedule for fully implementing such controls. The appropriateness and priorities of controls in the SWPP Plan shall reflect identified potential sources of pollutants. The description of storm water management controls to be implemented shall include, as appropriate:

a. Storm water pollution prevention personnel

Identify specific individuals (and job titles) that are responsible for developing, implementing, and reviewing the SWPP Plan.

b. Good housekeeping

Good housekeeping requires the maintenance of clean, orderly facility areas that discharge storm water. Material handling areas shall be inspected and cleaned to reduce the potential for pollutants to enter the storm drain conveyance system.

c. Spill prevention and response

Identify areas where significant materials can spill into or otherwise enter storm water conveyance systems and their accompanying drainage points. Specific material handling procedures, storage requirements, and cleanup equipment and procedures shall be identified, as appropriate. The necessary equipment to implement a cleanup shall be available, and personnel shall be trained in proper response, containment, and cleanup of spills. Internal reporting procedures for spills of significant materials shall be established.

d. Source control

Source controls include, for example, elimination or reduction of the use of toxic pollutants, covering of pollutant source areas, sweeping of paved areas, containment of potential pollutants, labeling of all storm drain inlets with “No Dumping” signs, isolation

or separation of industrial and non-industrial pollutant sources so that runoff from these areas does not mix, etc.

e. Storm water management practices

Storm water management practices are practices other than those that control the sources of pollutants. Such practices include treatment or conveyance structures, such as drop inlets, channels, retention and detention basins, treatment vaults, infiltration galleries, filters, oil/water separators, etc. Based on assessment of the potential of various sources to contribute pollutants to storm water discharges in significant quantities, additional storm water management practices to remove pollutants from storm water discharges shall be implemented and design criteria shall be described.

f. Sediment and erosion control

Measures to minimize erosion around the storm water drainage and discharge points, such as riprap, revegetation, slope stabilization, etc., shall be described.

g. Employee training

Employee training programs shall inform all personnel responsible for implementing the SWPP Plan. Training shall address spill response, good housekeeping, and material management practices. New employee and refresher training schedules shall be identified.

h. Inspections

All inspections shall be done by trained personnel. Material handling areas shall be inspected for evidence of, or the potential for, pollutants entering storm water discharges. A tracking or follow up procedure shall be used to ensure appropriate response has been taken in response to an inspection. Inspections and maintenance activities shall be documented and recorded. Inspection records shall be retained for five years.

i. Records

A tracking and follow-up procedure shall be described to ensure that adequate response and corrective actions have been taken in response to inspections.

4. Annual Verification of SWPP Plan
An annual facility inspection shall be conducted to verify that all elements of the SWPP Plan are accurate and up-to-date. The results of this review shall be reported in the Annual Report to the Regional Water Board described in Section V.C.f.

K. Biosolids Management

This section is an addition to Standard Provisions (Attachment D)

Biosolids must meet the following requirements prior to land application. The Discharger must either demonstrate compliance or, if it sends the biosolids to another party for further treatment or distribution, must give the recipient the information necessary to ensure compliance.

1. Exceptional quality biosolids meet the pollutant concentration limits in Table III of 40 CFR Part 503.13, Class A pathogen limits, and one of the vector attraction reduction requirements in 503.33(b)(1)-(b)(8). Such biosolids do not have to be tracked further for compliance with general requirements (503.12) and management practices (503.14).

2. Biosolids used for agricultural land, forest, or reclamation shall meet the pollutant limits in Table I (ceiling concentrations) and Table II or Table III (cumulative loadings or pollutant concentration limits) of 503.13. They shall also meet the general requirements (503.12) and management practices (503.14) (if not exceptional quality biosolids) for Class A or Class B pathogen levels with associated access restrictions (503.32) and one of the 10 vector attraction reduction requirements in 503.33(b)(1)-(b)(10).

3. Biosolids used for lawn or home gardens must meet exceptional quality biosolids limits.

4. Biosolids sold or given away in a bag or other container must meet the pollutant limits in either Table III or Table IV (pollutant concentration limits or annual pollutant loading rate limits) of 503.13. If Table IV is used, a label or information sheet must be attached to the biosolids packing that explains Table IV (see 503.14). The biosolids must also meet the Class A pathogen limits and one of the vector attraction reduction requirements in 503.33(b)(1)-(b)(8).

II. STANDARD PROVISIONS – PERMIT ACTION

Not Supplemented

III. STANDARD PROVISIONS – MONITORING

A. Sampling and Analyses

This section is a supplement to III.A and III.B of Standard Provisions (Attachment D)

1. Use of Certified Laboratories
   Water and waste analyses shall be performed by a laboratory certified for these analyses in accordance with California Water Code Section 13176.

2. Use of Appropriate Minimum Levels
   Table C lists the suggested analytical methods for the 126 priority pollutants and other toxic pollutants that should be used, unless a particular method or minimum level (ML) is required in the MRP.

   For priority pollutant monitoring, when there is more than one ML value for a given substance, the Discharger may select any one of the analytical methods cited in Table C for compliance determination, or any other method described in 40 CFR part 136 or approved by USEPA (such as the 1600 series) if authorized by the Regional Water Board. However, the ML must be below the effluent limitation and water quality objective. If no ML value is below the effluent limitation and water quality objective, then the method must achieve an ML no greater than the lowest ML value indicated in Table C. All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

3. Frequency of Monitoring
The minimum schedule of sampling analysis is specified in the MRP portion of the permit.

a. Timing of Sample Collection

(1) The Discharger shall collect samples of influent on varying days selected at random and shall not include any plant recirculation or other sidestream wastes, unless otherwise stipulated by the MRP.

(2) The Discharger shall collect samples of effluent on days coincident with influent sampling unless otherwise stipulated by the MRP or the Executive Officer. The Executive Officer may approve an alternative sampling plan if it is demonstrated to be representative of plant discharge flow and in compliance with all other permit requirements.

(3) The Discharger shall collect grab samples of effluent during periods of day-time maximum peak effluent flows (or peak flows through secondary treatment units for facilities that recycle effluent flows).

(4) Effluent sampling for conventional pollutants shall occur on at least one day of any multiple-day bioassay test the MRP requires. During the course of the test, on at least one day, the Discharger shall collect and retain samples of the discharge. In the event a bioassay test does not comply with permit limits, the Discharger shall analyze these retained samples for pollutants that could be toxic to aquatic life and for which it has effluent limits.

(a). The Discharger shall perform bioassay tests on final effluent samples; when chlorine is used for disinfection, bioassay tests shall be performed on effluent after chlorination-dechlorination; and

(b) The Discharger shall analyze for total ammonia nitrogen and calculate the amount of un-ionized ammonia whenever test results fail to meet the percent survival specified in the permit.

b. Conditions Triggering Accelerated Monitoring

(1) If the results from two consecutive samples of a constituent monitored in a 30-day period exceed the monthly average limit for any parameter (or if the required sampling frequency is once per month and the monthly sample exceeds the monthly average limit), the Discharger shall, within 24 hours after the results are received, increase its sampling frequency to daily until the results from the additional sampling show that the parameter is in compliance with the monthly average limit.

(2) If any maximum daily limit is exceeded, the Discharger shall increase its sampling frequency to daily within 24 hours after the results are received that indicate the exceedance of the maximum daily limit until two samples collected on consecutive days show compliance with the maximum daily limit.

(3) If final or intermediate results of an acute bioassay test indicate a violation or threatened violation (e.g., the percentage of surviving test organisms of any single

acute bioassay test is less than 70 percent), the Discharger shall initiate a new test as soon as practical, and the Discharger shall investigate the cause of the mortalities and report its findings in the next self monitoring report (SMR).

(4) The Discharger shall calibrate chlorine residual analyzers against grab samples as frequently as necessary to maintain accurate control and reliable operation. If an effluent violation is detected, the Discharger shall collect grab samples at least every 30 minutes until compliance with the limit is achieved, unless the Discharger monitors chlorine residual continuously. In such cases, the Discharger shall continue to conduct continuous monitoring as required by its permit.

(5) When a bypass occurs (except one subject to provision III.A.3.b.6 below), the Discharger shall monitor flows and collect samples on a daily basis for all constituents at affected discharge points that have effluent limits for the duration of the bypass (including acute toxicity using static renewals), except chronic toxicity, unless otherwise stipulated by the MRP.

(6) Unless otherwise stipulated by the MRP, when a bypass approved pursuant to Attachment D, Standard Provisions, Sections I.G.2 or I.G.4, occurs, the Discharger shall monitor flows and, using appropriate procedures as specified in the MRP, collect and retain samples for affected discharge points on a daily basis for the duration of the bypass. The Discharger shall analyze for total suspended solids (TSS) using 24-hour composites (or more frequent increments) and for bacteria indicators with effluent limits using grab samples. If TSS exceeds 45 mg/L in any composite sample, the Discharger shall also analyze the retained samples for that discharge for all other constituents that have effluent limits, except oil and grease, mercury, dioxin-TEQ, and acute and chronic toxicity. Additionally, at least once each year, the Discharger shall analyze the retained samples for one approved bypass discharge event for all other constituents that have effluent limits, except oil and grease, mercury, dioxin-TEQ, and acute and chronic toxicity. This monitoring shall be in addition to the minimum monitoring specified in the MRP.

c. Storm Water Monitoring

The requirements of this section only apply to facilities that are not covered by an NPDES permit for storm water discharges and where not all site storm drainage from process areas (i.e., areas of the treatment facility where chemicals or wastewater could come in contact with storm water) is directed to the headworks. For storm water not directed to the headworks during the wet season (October 1 to April 30), the Discharger shall:

(1) Conduct visual observations of the storm water discharge locations during daylight hours at least once per month during a storm event that produces significant storm water discharge to observe the presence of floating and suspended materials, oil and grease, discoloration, turbidity, and odor, etc.

(2) Measure (or estimate) the total volume of storm water discharge, collect grab samples of storm water discharge from at least two storm events that produce significant storm

water discharge, and analyze the samples for oil and grease, pH, TSS, and specific conductance.

The grab samples shall be taken during the first 30 minutes of the discharge. If collection of the grab samples during the first 30 minutes is impracticable, grab samples may be taken during the first hour of the discharge, and the Discharger shall explain in the Annual Report why the grab sample(s) could not be taken in the first 30 minutes.

(3) Testing for the presence of non-storm water discharges shall be conducted no less than twice during the dry season (May 1 to September 30) at all storm water discharge locations. Tests may include visual observations of flows, stains, sludges, odors, and other abnormal conditions; dye tests; TV line surveys; or analysis and validation of accurate piping schematics. Records shall be maintained describing the method used, date of testing, locations observed, and test results.

(4) Samples shall be collected from all locations where storm water is discharged. Samples shall represent the quality and quantity of storm water discharged from the facility. If a facility discharges storm water at multiple locations, the Discharger may sample a reduced number of locations if it establishes and documents through the monitoring program that storm water discharges from different locations are substantially identical.

(5) Records of all storm water monitoring information and copies of all reports required by the permit shall be retained for a period of at least three years from the date of sample, observation, or report.

d. Receiving Water Monitoring

The requirements of this section only apply when the MRP requires receiving water sampling.

(1) Receiving water samples shall be collected on days coincident with effluent sampling for conventional pollutants.

(2) Receiving water samples shall be collected at each station on each sampling day during the period within one hour following low slack water. Where sampling during lower slack water is impractical, sampling shall be performed during higher slack water. Samples shall be collected within the discharge plume and down current of the discharge point so as to be representative, unless otherwise stipulated in the MRP.

(3) Samples shall be collected within one foot of the surface of the receiving water, unless otherwise stipulated in the MRP.

B. Biosolids Monitoring

This section supplements III.B of Standard Provisions (Attachment D)

When biosolids are sent to a landfill, sent to a surface disposal site, or applied to land as a soil amendment, they must be monitored as follows:

1. Biosolids Monitoring Frequency
   Biosolids disposal must be monitored at the following frequency:

Metric tons biosolids/365 days	Frequency
0-290	Once per year
290-1500	Quarterly
1500-15,000	Six times per year
Over 15,000	Once per month

(Metric tons are on a dry weight basis)

2. Biosolids Pollutants to Monitor
   Biosolids shall be monitored for the following constituents:

   Land Application: arsenic, cadmium, copper, mercury, molybdenum, nickel, lead, selenium, and zinc

   Municipal Landfill: Paint filter test (pursuant to 40 CFR 258)

   Biosolids-only Landfill or Surface Disposal Site (if no liner and leachate system): arsenic, chromium, and nickel

C. Standard Observations

This section is an addition to III of Standard Provisions (Attachment D)

1. Receiving Water Observations
   The requirements of this section only apply when the MRP requires standard observations of the receiving water. Standard observations shall include the following:

   a. *Floating and suspended materials* (e.g., oil, grease, algae, and other macroscopic particulate matter): presence or absence, source, and size of affected area.

   b. *Discoloration and turbidity*: description of color, source, and size of affected area.

   c. *Odor*: presence or absence, characterization, source, distance of travel, and wind direction.

   d. *Beneficial water use*: presence of water-associated waterfowl or wildlife, fisherpeople, and other recreational activities in the vicinity of each sampling station.

   e. *Hydrographic condition*: time and height of corrected high and low tides (corrected to nearest National Oceanic and Atmospheric Administration location for the sampling date and time of sample collection).

   f. *Weather conditions*:

      (1) Air temperature; and

      (2) Total precipitation during the five days prior to observation.

2. Wastewater Effluent Observations
   The requirements of this section only apply when the MRP requires wastewater effluent standard observations. Standard observations shall include the following:

   a. *Floating and suspended material of wastewater origin* (e.g., oil, grease, algae, and other macroscopic particulate matter): presence or absence.

   b. *Odor*: presence or absence, characterization, source, distance of travel, and wind direction.

3. Beach and Shoreline Observations
   The requirements of this section only apply when the MRP requires beach and shoreline standard observations. Standard observations shall include the following:

   a. *Material of wastewater origin*: presence or absence, description of material, estimated size of affected area, and source.

   b. *Beneficial use*: estimate number of people participating in recreational water contact, non-water contact, or fishing activities.

4. Land Retention or Disposal Area Observations
   The requirements of this section only apply to facilities with on-site surface impoundments or disposal areas that are in use. This section applies to both liquid and solid wastes, whether confined or unconfined. The Discharger shall conduct the following for each impoundment:

   a. Determine the amount of freeboard at the lowest point of dikes confining liquid wastes.

   b. Report evidence of leaching liquid from area of confinement and estimated size of affected area. Show affected area on a sketch and volume of flow (e.g., gallons per minute [gpm]).

   c. Regarding odor, describe presence or absence, characterization, source, distance of travel, and wind direction.

   d. Estimate number of waterfowl and other water-associated birds in the disposal area and vicinity.

5. Periphery of Waste Treatment and/or Disposal Facilities Observations
   The requirements of this section only apply when the MRP specifies periphery standard observations. Standard observations shall include the following:

   a. *Odor*: presence or absence, characterization, source, and distance of travel.

   b. *Weather conditions*: wind direction and estimated velocity.

IV. STANDARD PROVISIONS – RECORDS

A. Records to be Maintained

This supplements IV.A of Standard Provisions (Attachment D)

The Discharger shall maintain records in a manner and at a location (e.g., wastewater treatment plant or Discharger offices) such that the records are accessible to Regional Water Board staff. The minimum period of retention specified in Section IV, Records, of the Federal Standard Provisions shall be extended during the course of any unresolved litigation regarding the subject discharge, or when requested by the Regional Water Board or Regional Administrator of USEPA, Region IX.

A copy of the permit shall be maintained at the discharge facility and be available at all times to operating personnel.

B. Records of monitoring information shall include

This supplements IV.B of Standard Provision (Attachment D)

1. Analytical Information
   Records shall include analytical method detection limits, minimum levels, reporting levels, and related quantification parameters.

2. Flow Monitoring Data
   For all required flow monitoring (e.g., influent and effluent flows), the additional records shall include the following, unless otherwise stipulated by the MRP:

   a. Total volume for each day; and

   b. Maximum, minimum, and average daily flows for each calendar month.

3. Wastewater Treatment Process Solids
   a. For each treatment unit process that involves solids removal from the wastewater stream, records shall include the following:

      (1) Total volume or mass of solids removed from each collection unit (e.g., grit, skimmings, undigested biosolids, or combination) for each calendar month or other time period as appropriate, but not to exceed annually; and

      (2) Final disposition of such solids (e.g., landfill, other subsequent treatment unit).

   b. For final dewatered biosolids from the treatment plant as a whole, records shall include the following:

      (1) Total volume or mass of dewatered biosolids for each calendar month;

      (2) Solids content of the dewatered biosolids; and

      (3) Final disposition of dewatered biosolids (disposal location and disposal method).

4. Disinfection Process
   For the disinfection process, these additional records shall be maintained documenting process operation and performance:

   a. For bacteriological analyses:

      (1) Wastewater flow rate at the time of sample collection; and

(2) Required statistical parameters for cumulative bacterial values (e.g., moving median or geometric mean for the number of samples or sampling period identified in this Order).

b. For the chlorination process, when chlorine is used for disinfection, at least daily average values for the following:

(1) Chlorine residual of treated wastewater as it enters the contact basin (mg/L);

(2) Chlorine dosage (kg/day); and

(3) Dechlorination chemical dosage (kg/day).

5. Treatment Process Bypasses
A chronological log of all treatment process bypasses, including wet weather blending, shall include the following:

a. Identification of the treatment process bypassed;

b. Dates and times of bypass beginning and end;

c. Total bypass duration;

d. Estimated total bypass volume; and

e. Description of, or reference to other reports describing, the bypass event, the cause, the corrective actions taken (except for wet weather blending that is in compliance with permit conditions), and any additional monitoring conducted.

6. Treatment Facility Overflows
This section applies to records for overflows at the treatment facility. This includes the headworks and all units and appurtenances downstream. The Discharger shall retain a chronological log of overflows at the treatment facility and records supporting the information provided in section V.E.2.

C. Claims of Confidentiality – Not Supplemented

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

Not Supplemented

B. Signatory and Certification Requirements

Not Supplemented

C. Monitoring Reports

This section supplements V.C of Standard Provisions (Attachment D)

1. Self Monitoring Reports
For each reporting period established in the MRP, the Discharger shall submit an SMR to the Regional Water Board in accordance with the requirements listed in this document and at the frequency the MRP specifies. The purpose of the SMR is to document treatment performance, effluent quality, and compliance with the waste discharge requirements of this Order.

a. Transmittal letter

Each SMR shall be submitted with a transmittal letter. This letter shall include the following:

(1) Identification of all violations of effluent limits or other waste discharge requirements found during the reporting period;

(2) Details regarding violations: parameters, magnitude, test results, frequency, and dates;

(3) Causes of violations;

(4) Discussion of corrective actions taken or planned to resolve violations and prevent recurrences, and dates or time schedule of action implementation (if previous reports have been submitted that address corrective actions, reference to the earlier reports is satisfactory);

(5) Data invalidation (Data should not be submitted in an SMR if it does not meet quality assurance/quality control standards. However, if the Discharger wishes to invalidate any measurement after it was submitted in an SMR, a letter shall identify the measurement suspected to be invalid and state the Discharger's intent to submit, within 60 days, a formal request to invalidate the measurement. This request shall include the original measurement in question, the reason for invalidating the measurement, all relevant documentation that supports invalidation [e.g., laboratory sheet, log entry, test results, etc.], and discussion of the corrective actions taken or planned [with a time schedule for completion] to prevent recurrence of the sampling or measurement problem.);

(6) If the Discharger blends, the letter shall describe the duration of blending events and certify whether blended effluent was in compliance with the conditions for blending; and

(7) Signature (The transmittal letter shall be signed according to Section V.B of this Order, Attachment D – Standard Provisions.).

b. Compliance evaluation summary

Each report shall include a compliance evaluation summary. This summary shall include each parameter for which the permit specifies effluent limits, the number of samples taken during the monitoring period, and the number of samples that exceed applicable effluent limits.

c. Results of analyses and observations

(1) Tabulations of all required analyses and observations, including parameter, date, time, sample station, type of sample, test result, method detection limit, method minimum level, and method reporting level, if applicable, signed by the laboratory director or other responsible official.

(2) When determining compliance with an average monthly effluent limitation and more than one sample result is available in a month, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of detected but not quantified (DNQ) or nondetect (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

(a) The data set shall be ranked from low to high, reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

(b) The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

If a sample result, or the arithmetic mean or median of multiple sample results, is below the reporting limit, and there is evidence that the priority pollutant is present in the effluent above an effluent limitation and the Discharger conducts a Pollutant Minimization Program, the Discharger shall not be deemed out of compliance.

(3) Dioxin-TEQ Reporting: The Discharger shall report for each dioxin and furan congener the analytical results of effluent monitoring, including the quantifiable limit (reporting level), the method detection limit, and the measured concentration. The Discharger shall report all measured values of individual congeners, including data qualifiers. When calculating dioxin-TEQ, the Discharger shall set congener concentrations below the minimum levels (ML) to zero. The Discharger shall calculate and report dioxin-TEQs using the following formula, where the MLs, toxicity equivalency factors (TEFs), and bioaccumulation equivalency factors (BEFs) are as provided in Table A:

$$\text{Dioxin-TEQ} = \Sigma\,(C_x \text{ x } TEF_x \text{ x } BEF_x)$$

where: C_x = measured or estimated concentration of congener x
TEF_x = toxicity equivalency factor for congener x
BEFx = bioaccumulation equivalency factor for congener x

Table A

Minimum Levels, Toxicity Equivalency Factors,
and Bioaccumulation Equivalency Factors

Dioxin or Furan Congener	Minimum Level (pg/L)	1998 Toxicity Equivalency Factor (TEF)	Bioaccumulation Equivalency Factor (BEF)
2,3,7,8-TCDD	10	1.0	1.0
1,2,3,7,8-PeCDD	50	1.0	0.9
1,2,3,4,7,8-HxCDD	50	0.1	0.3
1,2,3,6,7,8-HxCDD	50	0.1	0.1
1,2,3,7,8,9-HxCDD	50	0.1	0.1
1,2,3,4,6,7,8-HpCDD	50	0.01	0.05
OCDD	100	0.0001	0.01
2,3,7,8-TCDF	10	0.1	0.8
1,2,3,7,8-PeCDF	50	0.05	0.2
2,3,4,7,8-PeCDF	50	0.5	1.6
1,2,3,4,7,8-HxCDF	50	0.1	0.08
1,2,3,6,7,8-HxCDF	50	0.1	0.2
1,2,3,7,8,9-HxCDF	50	0.1	0.6
2,3,4,6,7,8-HxCDF	50	0.1	0.7
1,2,3,4,6,7,8-HpCDF	50	0.01	0.01
1,2,3,4,7,8,9-HpCDF	50	0.01	0.4
OCDF	100	0.0001	0.02

d. Data reporting for results not yet available

The Discharger shall make all reasonable efforts to obtain analytical data for required parameter sampling in a timely manner. Certain analyses require additional time to complete analytical processes and report results. For cases where required monitoring parameters require additional time to complete analytical processes and reports, and results are not available in time to be included in the SMR for the subject monitoring period, the Discharger shall describe such circumstances in the SMR and include the data for these parameters and relevant discussions of any observed exceedances in the next SMR due after the results are available.

e. Flow data

The Discharger shall provide flow data tabulation pursuant to Section IV.B.2.

f. Annual self monitoring report requirements

By the date specified in the MRP, the Discharger shall submit an annual report to the Regional Water Board covering the previous calendar year. The report shall contain the following:

(1) Annual compliance summary table of treatment plant performance, including documentation of any blending events;

(2) Comprehensive discussion of treatment plant performance and compliance with the permit (This discussion shall include any corrective actions taken or planned, such as changes to facility equipment or operation practices that may be needed to achieve compliance, and any other actions taken or planned that are intended to improve performance and reliability of the Discharger's wastewater collection, treatment, or disposal practices.);

(3) Both tabular and graphical summaries of the monitoring data for the previous year if parameters are monitored at a frequency of monthly or greater;

(4) List of approved analyses, including the following:

(a) List of analyses for which the Discharger is certified;

(b) List of analyses performed for the Discharger by a separate certified laboratory (copies of reports signed by the laboratory director of that laboratory shall not be submitted but be retained onsite); and

(c) List of "waived" analyses, as approved;

(5) Plan view drawing or map showing the Discharger's facility, flow routing, and sampling and observation station locations;

(6) Results of annual facility inspection to verify that all elements of the SWPP Plan are accurate and up to date (only required if the Discharger does not route all storm water to the headworks of its wastewater treatment plant); and

(7) Results of facility report reviews (The Discharger shall regularly review, revise, and update, as necessary, the O&M Manual, the Contingency Plan, the Spill Prevention Plan, and Wastewater Facilities Status Report so that these documents remain useful and relevant to current practices. At a minimum, reviews shall be conducted annually. The Discharger shall include, in each Annual Report, a description or summary of review and evaluation procedures, recommended or planned actions, and an estimated time schedule for implementing these actions. The Discharger shall complete changes to these documents to ensure they are up-to-date.).

g. Report submittal

The Discharger shall submit SMRs to:
California Regional Water Quality Control Board
San Francisco Bay Region

1515 Clay Street, Suite 1400
Oakland, CA 94612
Attn: NPDES Wastewater Division

h. Reporting data in electronic format

The Discharger has the option to submit all monitoring results in an electronic reporting format approved by the Executive Officer. If the Discharger chooses to submit SMRs electronically, the following shall apply:

(1) *Reporting Method*: The Discharger shall submit SMRs electronically via a process approved by the Executive Officer (see, for example, the letter dated December 17, 1999, "Official Implementation of Electronic Reporting System [ERS]" and the progress report letter dated December 17, 2000).

(2) *Monthly or Quarterly Reporting Requirements*: For each reporting period (monthly or quarterly as specified in the MRP), the Discharger shall submit an electronic SMR to the Regional Water Board in accordance with the provisions of Section V.C.1.a-e, except for requirements under Section V.C.1.c(1) where ERS does not have fields for dischargers to input certain information (e.g., sample time). However, until USEPA approves the electronic signature or other signature technologies, Dischargers that use ERS shall submit a hard copy of the original transmittal letter, an ERS printout of the data sheet, and a violation report (a receipt of the electronic transmittal shall be retained by the Discharger). This electronic SMR submittal suffices for the signed tabulations specified under Section V.C.1.c(1).

(3) *Annual Reporting Requirements*: Dischargers who have submitted data using the ERS for at least one calendar year are exempt from submitting the portion of the annual report required under Section V.C.1.f(1) and (3).

D. Compliance Schedules

Not supplemented

E. Twenty-Four Hour Reporting

This section supplements V.E of Standard Provision (Attachment D)

1. Spill of Oil or Other Hazardous Material Reports
   a. Within 24 hours of becoming aware of a spill of oil or other hazardous material that is not contained onsite and completely cleaned up, the Discharger shall report by telephone to the Regional Water Board at (510) 622-2369.

   b. The Discharger shall also report such spills to the State Office of Emergency Services [telephone (800) 852-7550] only when the spills are in accordance with applicable reporting quantities for hazardous materials.

   c. The Discharger shall submit a written report to the Regional Water Board within five working days following telephone notification unless directed otherwise by Regional

Water Board staff. A report submitted electronically is acceptable. The written report shall include the following:

(1) Date and time of spill, and duration if known;

(2) Location of spill (street address or description of location);

(3) Nature of material spilled;

(4) Quantity of material involved;

(5) Receiving water body affected, if any;

(6) Cause of spill;

(7) Estimated size of affected area;

(8) Observed impacts to receiving waters (e.g., oil sheen, fish kill, water discoloration);

(9) Corrective actions taken to contain, minimize, or clean up the spill;

(10) Future corrective actions planned to be taken to prevent recurrence, and schedule of implementation; and

(11) Persons or agencies notified.

2. Unauthorized Discharges from Municipal Wastewater Treatment Plants[1]
The following requirements apply to municipal wastewater treatment plants that experience an unauthorized discharge at their treatment facilities and are consistent with and supersede requirements imposed on the Discharger by the Executive Officer by letter of May 1, 2008, issued pursuant to California Water Code Section 13383.

a. Two (2)-Hour Notification

For any unauthorized discharges that result in a discharge to a drainage channel or a surface water, the Discharger shall, as soon as possible, but not later than two (2) hours after becoming aware of the discharge, notify the State Office of Emergency Services (telephone 800-852-7550), the local health officers or directors of environmental health with jurisdiction over the affected water bodies, and the Regional Water Board. The notification to the Regional Water Board shall be via the Regional Water Board's online reporting system at www.wbers.net, and shall include the following:

(1) Incident description and cause;

(2) Location of threatened or involved waterway(s) or storm drains;

(3) Date and time the unauthorized discharge started;

[1] California Code of Regulations, Title 23, Section 2250(b), defines an unauthorized discharge to be a discharge, not regulated by waste discharge requirements, of treated, partially treated, or untreated wastewater resulting from the intentional or unintentional diversion of wastewater from a collection, treatment or disposal system.

(4) Estimated quantity and duration of the unauthorized discharge (to the extent known), and the estimated amount recovered;

(5) Level of treatment prior to discharge (e.g., raw wastewater, primary treated, undisinfected secondary treated, and so on); and

(6) Identity of the person reporting the unauthorized discharge.

b. 24-hour Certification

Within 24 hours, the Discharger shall certify to the Regional Water Board, at www.wbers.net, that the State Office of Emergency Services and the local health officers or directors of environmental health with jurisdiction over the affected water bodies have been notified of the unauthorized discharge.

c. 5-Day Written Report

Within five business days, the Discharger shall submit a written report, via the Regional Water Board's online reporting system at www.wbers.net, that includes, in addition to the information required above, the following:

(1) Methods used to delineate the geographical extent of the unauthorized discharge within receiving waters;

(2) Efforts implemented to minimize public exposure to the unauthorized discharge;

(3) Visual observations of the impacts (if any) noted in the receiving waters (e.g., fish kill, discoloration of water) and the extent of sampling if conducted;

(4) Corrective measures taken to minimize the impact of the unauthorized discharge;

(5) Measures to be taken to minimize the chances of a similar unauthorized discharge occurring in the future;

(6) Summary of Spill Prevention Plan or O&M Manual modifications to be made, if necessary, to minimize the chances of future unauthorized discharges; and

(7) Quantity and duration of the unauthorized discharge, and the amount recovered.

d. Communication Protocol

To clarify the multiple levels of notification, certification, and reporting, the current communication requirements for unauthorized discharges from municipal wastewater treatment plants are summarized in Table B that follows.

Table B

Summary of Communication Requirements for Unauthorized Discharges[1] from Municipal Wastewater Treatment Plants

Discharger is required to:	Agency Receiving Information	Time frame	Method for Contact
1. Notify	California Emergency Management Agency (Cal EMA)	As soon as possible, but not later than **2 hours** after becoming aware of the unauthorized discharge.	Telephone – (800) 852-7550 (obtain a control number from Cal EMA)
	Local health department	As soon as possible, but not later than **2 hours** after becoming aware of the unauthorized discharge.	Depends on local health department
	Regional Water Board	As soon as possible, but not later than **2 hours** after becoming aware of the unauthorized discharge.	Electronic[2] www.wbers.net
2. Certify	Regional Water Board	As soon as possible, but not later than **24 hours** after becoming aware of the unauthorized discharge.	Electronic[3] www.wbers.net
3. Report	Regional Water Board	Within **5 business days** of becoming aware of the unauthorized discharge.	Electronic[4] www.wbers.net

F. Planned Changes

Not supplemented

G. Anticipated Noncompliance

Not supplemented

[1] California Code of Regulations, Title 23, Section 2250(b), defines an unauthorized discharge to be a discharge, not regulated by waste discharge requirements, of treated, partially treated, or untreated wastewater resulting from the intentional or unintentional diversion of wastewater from a collection, treatment or disposal system.

[2] In the event that the Discharger is unable to provide online notification within 2 hours of becoming aware of an unauthorized discharge, it shall phone the Regional Water Board's spill hotline at (510) 622-2369 and convey the same information contained in the notification form. In addition, within 3 business days of becoming aware of the unauthorized discharge, the Discharger shall enter the notification information into the Regional Water Board's online system in electronic format.

[3] In most instances, the 2-hour notification will also satisfy 24-hour certification requirements. This is because the notification form includes fields for documenting that OES and the local health department have been contacted. In other words, if the Discharger is able to complete all the fields in the notification form within 2 hours, certification requirements are also satisfied. In the event that the Discharger is unable to provide online certification within 24 hours of becoming aware of an unauthorized discharge, it shall phone the Regional Water Board's spill hotline at (510) 622-2369 and convey the same information contained in the certification form. In addition, within 3 business days of becoming aware of the unauthorized discharge, the Discharger shall enter the certification information into the Regional Water Board's online system in electronic format.

[4] If the Discharger cannot satisfy the 5-day reporting requirements via the Regional Water Board's online reporting system, it shall submit a written report (preferably electronically in pdf) to the appropriate Regional Water Board case manager. In cases where the Discharger cannot satisfy the 5-day reporting requirements via the online reporting system, it must still complete the Regional Water Board's online reporting requirements within 15 calendar days of becoming aware of the unauthorized discharge.

H. Other Noncompliance

Not supplemented

I. Other Information

Not supplemented

VI. STANDARD PROVISIONS – ENFORCEMENT

Not Supplemented

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

Not Supplemented

VIII. DEFINITIONS

This section is an addition to Standard Provisions (Attachment D)

More definitions can be found in Attachment A of this NPDES Permit.

1. Arithmetic Calculations

   a. Geometric mean is the antilog of the log mean or the back-transformed mean of the logarithmically transformed variables, which is equivalent to the multiplication of the antilogarithms. The geometric mean can be calculated with either of the following equations:

   $$\text{Geometric Mean} = Anti\log\left(\frac{1}{N}\sum_{i=1}^{N} Log(C_i)\right)$$

   or

   $$\text{Geometric Mean} = (C_1 * C_2 * \ldots * C_N)^{1/N}$$

   Where "N" is the number of data points for the period analyzed and "C" is the concentration for each of the "N" data points.

   b. Mass emission rate is obtained from the following calculation for any calendar day:

   $$\text{Mass emission rate (lb/day)} = \frac{8.345}{N}\sum_{i=1}^{N} Q_i C_i$$

   $$\text{Mass emission rate (kg/day)} = \frac{3.785}{N}\sum_{i=1}^{N} Q_i C_i$$

   In which "N" is the number of samples analyzed in any calendar day and "Q_i" and "C_i" are the flow rate (MGD) and the constituent concentration (mg/L) associated with each of the "N" grab samples that may be taken in any calendar day. If a composite sample is taken, "C_i" is the concentration measured in the composite sample and "Q_i" is the average flow rate

occurring during the period over which the samples are composited. The daily concentration of a constituent measured over any calendar day shall be determined from the flow-weighted average of the same constituent in the combined waste streams as follows:

$$C_d = \text{Average daily concentration} = \frac{1}{Q_t}\sum_{i=1}^{N} Q_i C_i$$

In which "N" is the number of component waste streams and "Q" and "C" are the flow rate (MGD) and the constituent concentration (mg/L) associated with each of the "N" waste streams. "Q_t" is the total flow rate of the combined waste streams.

c. Maximum allowable mass emission rate, whether for a 24-hour, weekly 7-day, monthly 30-day, or 6-month period, is a limitation expressed as a daily rate determined with the formulas in the paragraph above, using the effluent concentration limit specified in the permit for the period and the specified allowable flow.

d. POTW removal efficiency is the ratio of pollutants removed by the treatment facilities to pollutants entering the treatment facilities (expressed as a percentage). The Discharger shall determine removal efficiencies using monthly averages (by calendar month unless otherwise specified) of pollutant concentration of influent and effluent samples collected at about the same time and using the following equation (or its equivalent):

Removal Efficiency (%) = 100 × [1-(Effluent Concentration/Influent Concentration)]

2. Biosolids means the solids, semi-liquid suspensions of solids, residues, screenings, grit, scum, and precipitates separated from or created in wastewater by the unit processes of a treatment system. It also includes, but is not limited to, all supernatant, filtrate, centrate, decantate, and thickener overflow and underflow in the solids handling parts of the wastewater treatment system.

3. Blending is the practice of recombining wastewater that has been biologically treated with wastewater that has bypassed around biological treatment units.

4. Bottom sediment sample is (1) a separate grab sample taken at each sampling station for the determination of selected physical-chemical parameters, or (2) four grab samples collected from different locations in the immediate vicinity of a sampling station while the boat is anchored and analyzed separately for macroinvertebrates.

5. Composite sample is a sample composed of individual grab samples collected manually or by an automatic sampling device on the basis of time or flow as specified in the MRP. For flow-based composites, the proportion of each grab sample included in the composite sample shall be within plus or minus five percent (+/-5%) of the representative flow rate of the waste stream being measured at the time of grab sample collection. Alternatively, equal volume grab samples may be individually analyzed with the flow-weighted average calculated by averaging flow-weighted ratios of each grab sample analytical result. Grab samples comprising time-based composite samples shall be collected at intervals not greater than those specified in the MRP. The quantity of each grab sample comprising a time-based composite sample shall be a set of flow proportional volumes as specified in the MRP. If a particular time-based or flow-based composite sampling protocol is not specified in the MRP, the Discharger shall determine and implement the most representative sampling protocol for the given parameter subject to Executive Officer approval.

6. Depth-integrated sample is defined as a water or waste sample collected by allowing a sampling device to fill during a vertical traverse in the waste or receiving water body being sampled. The Discharger shall collect depth-integrated samples in such a manner that the collected sample will be representative of the waste or water body at that sampling point.

7. Flow sample is an accurate measurement of the average daily flow volume using a properly calibrated and maintained flow measuring device.

8. Grab sample is an individual sample collected in a short period of time not exceeding 15 minutes. Grab samples represent only the condition that exists at the time the wastewater is collected.

9. Initial dilution is the process that results in the rapid and irreversible turbulent mixing of wastewater with receiving water around the point of discharge.

10. Overflow is the intentional or unintentional spilling or forcing out of untreated or partially treated wastes from a transport system (e.g., through manholes, at pump stations, and at collection points) upstream from the treatment plant headworks or from any part of a treatment plant facility.

11. Priority pollutants are those constituents referred to in 40 CFR Part 122 as promulgated in the Federal Register, Vol. 65, No. 97, Thursday, May 18, 2000, also known as the California Toxics Rule, the presence or discharge of which could reasonably be expected to interfere with maintaining designated uses.

12. Storm water means storm water runoff, snow melt runoff, and surface runoff and drainage. It excludes infiltration and runoff from agricultural land.

13. Toxic pollutant means any pollutant listed as toxic under federal Clean Water Act section 307(a)(1) or under 40 CFR 401.15.

14. Untreated waste is raw wastewater.

15, Waste, waste discharge, discharge of waste, and discharge are used interchangeably in the permit. The requirements of the permit apply to the entire volume of water, and the material therein, that is disposed of to surface and ground waters of the State of California.

Table C

List of Monitoring Parameters and Analytical Methods

CTR No.	Pollutant/Parameter	Analytical Method[5]	Minimum Levels[6] (µg/l)											
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP
1.	Antimony	204.2					10	5	50	0.5	5	0.5		1000
2.	Arsenic	206.3				20		2	10	2	2	1		1000
3.	Beryllium						20	0.5	2	0.5	1			1000
4.	Cadmium	200 or 213					10	0.5	10	0.25	0.5			1000
5a.	Chromium (total)	SM 3500					50	2	10	0.5	1			
5b.	Chromium (VI)	SM 3500				10	5							1000
6.	Copper	200.9					25	5	10	0.5	2			1000
7.	Lead	200.9					20	5	5	0.5	2			10,000
8.	Mercury	1631 (note)[7]												
9.	Nickel	249.2					50	5	20	1	5			1000
10.	Selenium	200.8 or SM 3114B or C						5	10	2	5	1		1000
11.	Silver	272.2					10	1	10	0.25	2			1000
12.	Thallium	279.2					10	2	10	1	5			1000
13.	Zinc	200 or 289					20		20	1	10			
14.	Cyanide	SM 4500 CN^- C or I				5								
15.	Asbestos (only required for dischargers to MUN waters)[8]	0100.2 [9]												
16.	2,3,7,8-TCDD and 17 congeners (Dioxin)	1613												
17.	Acrolein	603	2.0	5										
18.	Acrylonitrile	603	2.0	2										
19.	Benzene	602	0.5	2										
33.	Ethylbenzene	602	0.5	2										
39.	Toluene	602	0.5	2										
20.	Bromoform	601	0.5	2										
21.	Carbon Tetrachloride	601	0.5	2										
22.	Chlorobenzene	601	0.5	2										
23.	Chlorodibromomethane	601	0.5	2										

[5] The suggested method is the USEPA Method unless otherwise specified (SM = Standard Methods). The Discharger may use another USEPA-approved or recognized method if that method has a level of quantification below the applicable water quality objective. Where no method is suggested, the Discharger has the discretion to use any standard method.

[6] Minimum levels are from the *State Implementation Policy*. They are the concentration of the lowest calibration standard for that technique based on a survey of contract laboratories. Laboratory techniques are defined as follows: GC = Gas Chromatography; GCMS = Gas Chromatography/Mass Spectrometry; LC = High Pressure Liquid Chromatography; Color = Colorimetric; FAA = Flame Atomic Absorption; GFAA = Graphite Furnace Atomic Absorption; ICP = Inductively Coupled Plasma; ICPMS = Inductively Coupled Plasma/Mass Spectrometry; SPGFAA = Stabilized Platform Graphite Furnace Atomic Absorption (i.e., USEPA 200.9); Hydride = Gaseous Hydride Atomic Absorption; CVAA = Cold Vapor Atomic Absorption; DCP = Direct Current Plasma.

[7] The Discharger shall use ultra-clean sampling (USEPA Method 1669) and ultra-clean analytical methods (USEPA Method 1631) for mercury monitoring. The minimum level for mercury is 2 ng/l (or 0.002 ug/l).

[8] MUN = Municipal and Domestic Supply. This designation, if applicable, is in the Findings of the permit.

[9] *Determination of Asbestos Structures over 10 [micrometers] in Length in Drinking Water Using MCE Filters*, USEPA 600/R-94-134, June 1994.

CTR No.	Pollutant/Parameter	Analytical Method[5]	Minimum Levels[6] (µg/l)											
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP
24.	Chloroethane	601	0.5	2										
25.	2-Chloroethylvinyl Ether	601	1	1										
26.	Chloroform	601	0.5	2										
75.	1,2-Dichlorobenzene	601	0.5	2										
76.	1,3-Dichlorobenzene	601	0.5	2										
77.	1,4-Dichlorobenzene	601	0.5	2										
27.	Dichlorobromomethane	601	0.5	2										
28.	1,1-Dichloroethane	601	0.5	1										
29.	1,2-Dichloroethane	601	0.5	2										
30.	1,1-Dichloroethylene or 1,1-Dichloroethene	601	0.5	2										
31.	1,2-Dichloropropane	601	0.5	1										
32.	1,3-Dichloropropylene or 1,3-Dichloropropene	601	0.5	2										
34.	Methyl Bromide or Bromomethane	601	1.0	2										
35.	Methyl Chloride or Chloromethane	601	0.5	2										
36.	Methylene Chloride or Dichlorormethane	601	0.5	2										
37.	1,1,2,2-Tetrachloroethane	601	0.5	1										
38.	Tetrachloroethylene	601	0.5	2										
40.	1,2-Trans-Dichloroethylene	601	0.5	1										
41.	1,1,1-Trichloroethane	601	0.5	2										
42.	1,1,2-Trichloroethane	601	0.5	2										
43.	Trichloroethene	601	0.5	2										
44.	Vinyl Chloride	601	0.5	2										
45.	2-Chlorophenol	604	2	5										
46.	2,4-Dichlorophenol	604	1	5										
47.	2,4-Dimethylphenol	604	1	2										
48.	2-Methyl-4,6-Dinitrophenol or Dinitro-2-methylphenol	604	10	5										
49.	2,4-Dinitrophenol	604	5	5										
50.	2-Nitrophenol	604		10										
51.	4-Nitrophenol	604	5	10										
52.	3-Methyl-4-Chlorophenol	604	5	1										
53.	Pentachlorophenol	604	1	5										
54.	Phenol	604	1	1		50								
55.	2,4,6-Trichlorophenol	604	10	10										
56.	Acenaphthene	610 HPLC	1	1	0.5									
57.	Acenaphthylene	610 HPLC		10	0.2									
58.	Anthracene	610 HPLC		10	2									
60.	Benzo(a)Anthracene or 1,2 Benzanthracene	610 HPLC	10	5										
61.	Benzo(a)Pyrene	610 HPLC		10	2									
62.	Benzo(b)Fluoranthene or 3,4 Benzofluoranthene	610 HPLC		10	10									
63.	Benzo(ghi)Perylene	610 HPLC		5	0.1									

CTR No.	Pollutant/Parameter	Analytical Method[5]	Minimum Levels[6] (µg/l)											
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP
64.	Benzo(k)Fluoranthene	610 HPLC		10	2									
74.	Dibenzo(a,h)Anthracene	610 HPLC		10	0.1									
86.	Fluoranthene	610 HPLC	10	1	0.05									
87.	Fluorene	610 HPLC		10	0.1									
92.	Indeno(1,2,3-cd) Pyrene	610 HPLC		10	0.05									
100.	Pyrene	610 HPLC		10	0.05									
68.	Bis(2-Ethylhexyl)Phthalate	606 or 625	10	5										
70.	Butylbenzyl Phthalate	606 or 625	10	10										
79.	Diethyl Phthalate	606 or 625	10	2										
80.	Dimethyl Phthalate	606 or 625	10	2										
81.	Di-n-Butyl Phthalate	606 or 625		10										
84.	Di-n-Octyl Phthalate	606 or 625		10										
59.	Benzidine	625		5										
65.	Bis(2-Chloroethoxy)Methane	625		5										
66.	Bis(2-Chloroethyl)Ether	625	10	1										
67.	Bis(2-Chloroisopropyl)Ether	625	10	2										
69.	4-Bromophenyl Phenyl Ether	625	10	5										
71.	2-Chloronaphthalene	625		10										
72.	4-Chlorophenyl Phenyl Ether	625		5										
73.	Chrysene	625		10	5									
78.	3,3'-Dichlorobenzidine	625		5										
82.	2,4-Dinitrotoluene	625	10	5										
83.	2,6-Dinitrotoluene	625		5										
85.	1,2-Diphenylhydrazine (note)[10]	625		1										
88.	Hexachlorobenzene	625	5	1										
89.	Hexachlorobutadiene	625	5	1										
90.	Hexachlorocyclopentadiene	625	5	5										
91.	Hexachloroethane	625	5	1										
93.	Isophorone	625	10	1										
94.	Naphthalene	625	10	1	0.2									
95.	Nitrobenzene	625	10	1										
96.	N-Nitrosodimethylamine	625	10	5										
97.	N-Nitrosodi-n-Propylamine	625	10	5										
98.	N-Nitrosodiphenylamine	625	10	1										
99.	Phenanthrene	625		5	0.05									
101.	1,2,4-Trichlorobenzene	625	1	5										
102.	Aldrin	608	0.005											
103.	α-BHC	608	0.01											
104.	β-BHC	608	0.005											
105.	γ-BHC (Lindane)	608	0.02											
106.	δ-BHC	608	0.005											
107.	Chlordane	608	0.1											
108.	4,4'-DDT	608	0.01											
109.	4,4'-DDE	608	0.05											

[10] Measurement for 1,2-Diphenylhydrazine may use azobenzene as a screen: if azobenzene is measured at >1 ug/l, then the Discharger shall analyze for 1,2-Diphenylhydrazine.

CTR No.	Pollutant/Parameter	Analytical Method[5]	Minimum Levels[6] (µg/l)											
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP
110.	4,4'-DDD	608	0.05											
111.	Dieldrin	608	0.01											
112.	Endosulfan (alpha)	608	0.02											
113.	Endosulfan (beta)	608	0.01											
114.	Endosulfan Sulfate	608	0.05											
115.	Endrin	608	0.01											
116.	Endrin Aldehyde	608	0.01											
117.	Heptachlor	608	0.01											
118.	Heptachlor Epoxide	608	0.01											
119-125	PCBs: Aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260	608	0.5											
126.	Toxaphene	608	0.5											