ORDER No. R2-2017-0027
NPDES PERMIT No. CAG032012

GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGES FROM DRY DOCK OPERATIONS

Table 1. Administrative Information

This Order was adopted by the California Regional Water Quality Control Board, San Francisco Bay Region (Regional Water Board), on:	July 12, 2017
This Order shall become effective on:	September 1, 2017
This Order shall expire on:	August 31, 2022
CIWQS Place Number	778728
CIWQS Regulatory Measure Number	413127
The U.S. Environmental Protection Agency (U.S. EPA) and the Regional Water Board have classified the discharges under this general National Pollutant Discharge Elimination System (NPDES) permit (General Permit) as minor discharges based on the discharges' impact to receiving waters.	
To obtain coverage under this General Permit, prospective Dischargers must submit a Notice of Intent (NOI) form as shown in Attachment B and a filing fee equivalent to the first year's annual fee. If the NOI is complete, the Regional Water Board Executive Officer will issue an Authorization to Discharge to the Discharger.	
Authorized Dischargers that intend to continue discharging after August 31, 2022, shall file a new NOI form no later than November 31, 2021. Discharges for which coverage is extended will become subject to a reissued order upon Executive Officer authorization.	

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

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Bruce H. Wolfe**,** Executive Officer

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I. SCOPE OF GENERAL PERMIT

These Waste Discharge Requirements (WDRs) shall serve as an NPDES General Permit for discharges associated with the operation of floating and graving dry docks used for repairing, constructing, and dismantling marine vessels. This General Permit covers the following discharges:

1. Water that washes over dry dock decks after cleaning when the dry docks are submerged or flooded,
2. Non-contact cooling water from ships awaiting maintenance in dry docks,
3. Integral ballast water discharged from floating dry docks,
4. Salt water fire suppression water,
5. Stormwater falling on dry dock surfaces after cleaning, and
6. Stormwater from landside facilities associated with dry docks.

This General Permit does not cover:

1. Sanitary wastewaters (sewage),
2. Process wastewaters used in ship dismantling operations,
3. Seepage water from graving dry dock walls,
4. Seepage water from graving dry dock caissons,
5. Ballast water from vessels in dry dock, and
6. Stormwater runoff from dry dock surfaces prior to cleaning.

Attachment F (Fact Sheet) sections I and II provide additional information describing covered facilities and discharges.

II. FINDINGS

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

A. Legal Authorities. This Order serves as WDRs pursuant to California Water Code (Water Code) article 4, chapter 4, division 7 (commencing with § 13260). This Order is also issued pursuant to federal Clean Water Act (CWA) section 402 and implementing regulations adopted by U.S. EPA and Water Code chapter 5.5, division 7 (commencing with § 13370).

B. Background and Rationale for Requirements. The Regional Water Board developed the requirements in this Order based on information obtained through monitoring and reporting programs and other available information. The Fact Sheet contains background information and rationale for the requirements in this Order, and is hereby incorporated into, and constitutes findings for, this Order. Attachments A through E are also incorporated into this Order.

C. Provisions and Requirements Implementing State Law. No provisions or requirements in this Order are included to implement State law only.

D. Notification of Interested Parties. The Regional Water Board notified prospective enrollees and interested agencies and persons of its intent to prescribe these WDRs and provided an opportunity to submit written comments and recommendations. The Fact Sheet provides details regarding the notification.

E. Consideration of Public Comment. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharges. The Fact Sheet provides details regarding the public hearing.

THEREFORE, IT IS HEREBY ORDERED that Order No. R2-2012-0050 (previous order) is rescinded upon the effective date of this Order, except for enforcement purposes, and in order to meet the provisions of Water Code division 7 (commencing with § 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, Dischargers authorized to discharge pursuant to this Order shall comply with the requirements in this Order. This action in no way prevents the Regional Water Board from taking enforcement action for violations of the previous order.

III. DISCHARGE PROHIBITIONS

A. Discharge of waste at a location or in a manner different than described in an NOI and Authorization to Discharge is prohibited.

B. Discharge of sanitary wastewater (sewage) is prohibited.

C. Discharge of solid materials and solid wastes, spent abrasives, or paint residues to waters of the State is prohibited.

D. Discharge of oil and other petroleum products, or other floating materials, from any activity that may cause sheen, 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 power washing or pressure washing water, boiler drainage, or process water used or accumulated in dry dock areas is prohibited.

G. Discharge of graving dock seepage water from dry dock walls or caissons or stormwater runoff from dry dock surfaces when vessels are being processed, is prohibited.

H. Discharge of fire suppression water (for purposes of system testing or pressure relief) into a receiving water from which it did not originate, or that contains chemical additives, is prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Each Discharger shall prevent or minimize the discharge of pollutants from any surface of its floating dry docks during submergence or, for a graving dry dock, when opening its caisson by implementing a Best Management Practices Program as described in Provisions VI.C.4 and VI.C.5.

B. Each Discharger that discharges non-contact cooling water shall implement a Best Management Practices Program as described in Provision VI.C.6.

C. On an ongoing basis, each Discharger shall remove spent abrasives, paint residues, and other debris, particulate matter, and waste from those portions of its dry dock surfaces that are reasonably accessible to the degree achievable by scraping, broom cleaning, and power washing.

Prior to submergence, or flooding, any remaining area of the dry dock deck that was previously inaccessible shall be cleaned by scraping, broom cleaning, and power or pressure washing as soon as practical. The Discharger may then submerge, or flood, the dry dock and bring in another vessel for repair and maintenance.

This provision shall not apply in cases wherein a vessel must be introduced into the dry dock on an emergency basis, such as to prevent sinking or leakage of oil or another hazardous material. Dischargers shall notify the Regional Water Board's spill hotline at (510) 622-2369 of such emergency circumstances.

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

V. RECEIVING WATER LIMITATIONS

A. Discharges shall not cause the following conditions to exist in receiving waters:

1. Floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses;

2. Alteration of suspended sediment in such a manner as to cause nuisance, or to adversely affect beneficial uses, or to cause detrimental increase in the concentrations of toxic pollutants in sediments or aquatic life;

3. Suspended material in concentrations that cause nuisance or adversely affect beneficial uses;

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

5. Alteration of temperature beyond present natural background levels;

6. Changes in turbidity that cause nuisance or adversely affect beneficial uses or increases from normal background light penetration or turbidity greater than 10 percent in areas where natural turbidity is greater than 50 nephelometric turbidity units;

7. Coloration that causes nuisance or adversely affects beneficial uses;

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

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

B. Discharges shall not cause the following limits to be exceeded in receiving waters within one foot of the water surface:

1. Dissolved Oxygen. The following dissolved oxygen limitations shall apply:

Downstream of Carquinez Bridge: 5.0 mg/L, minimum
Upstream of Carquinez Bridge: 7.0 mg/L, minimum

Moreover, the median dissolved oxygen concentration for any three consecutive calendar months shall not be less than 80 percent of the dissolved oxygen content at saturation. When natural factors cause concentrations less than those specified above, discharges shall not further reduce ambient dissolved oxygen concentrations.

2. **Dissolved Sulfide.** Dissolved sulfide shall not exceed natural background levels (0.1 mg/L maximum).

3. **pH.** Receiving water pH shall not be depressed below 6.5 nor raised above 8.5. Moreover, discharges shall not change normal, ambient pH more than 0.5 pH units.

4. **Nutrients.** Receiving 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.

C. Discharges shall not cause a violation of any water quality standard for receiving waters adopted by the Regional Water Board or State Water Resources Control Board (State Water Board) as required by the CWA and regulations adopted thereunder.

VI. PROVISIONS

A. Standard Provisions

The Discharger shall comply with the "Standard Provisions" in Attachment D.

B. Monitoring and Reporting Provisions

The Discharger shall comply with the Monitoring and Reporting Program (MRP) in Attachment E, and future revisions thereto, and applicable sampling and reporting requirements in Attachment D. The Executive Officer may specify additional monitoring requirements in individual Authorizations to Discharge.

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 demonstrate that the discharges governed by this Order have or will have, or will cease to have, a reasonable potential to cause or contribute to adverse impacts on water quality or beneficial uses of the receiving waters.

b. If new or revised water quality standards or total maximum daily loads (TMDLs) come into effect for San Francisco Bay or contiguous waters (whether statewide, regional, or site-specific). In such cases, effluent limitations in this Order may be modified as necessary to reflect the updated water quality standards or TMDL wasteload allocations. Adoption of the effluent limitations in this Order is not intended to restrict in any way

future modifications based on legally-adopted water quality standards 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 State Water Board precedential decisions, new policies, new laws, or new regulations are adopted.

e. If an administrative or judicial decision on a separate NPDES permit or WDRs addresses requirements similar to those applicable to these discharges.

f. Or as otherwise authorized by law.

A Discharger may request a permit modification based on any of the circumstances above. With any such request, the Discharger shall include antidegradation and anti-backsliding analyses.

2. Application for General Permit Coverage and Authorization to Discharge

a. Notice of Intent. A prospective discharger seeking Authorization to Discharge pursuant to this Order shall complete and submit the appropriate NOI forms in Attachments B and C. The Executive Officer may modify the NOI forms in Attachments B and C or require additional information prior to authorizing any discharge. Dischargers authorized to discharge under the previous order that also submitted an NOI at the end of the previous order term need not submit a new NOI form in Attachment B to continue their authorization to discharge from dry docks. For landside industrial stormwater coverage, Dischargers shall complete and submit the NOI form in Attachment C.

b. Authorization to Discharge. If the Executive Officer concludes that a proposed discharge is eligible for coverage under this Order, the Executive Officer will issue an Authorization to Discharge. Upon the effective date of the Authorization to Discharge, the Discharger shall comply with the requirements of this Order and its attachments. Dischargers authorized to discharge under the previous order as of the effective date of this Order shall be deemed to be authorized to discharge under this Order and shall comply with the requirements of this Order and its attachments. Any non-compliance with this Order's requirements shall constitute a violation of the CWA and Water Code and may be grounds for enforcement; termination, revocation and reissuance, or modification of the Authorization to Discharge; issuance of an individual permit; or denial of an application for reissuance.

c. Facility Modifications. At least 90 days prior to any significant facility modification, the Discharger proposing the modification shall submit a modified NOI form (e.g., a mark-up of the original NOI form showing all changes and including a new signature and date). The Discharger shall include a letter describing the changes, their purpose, when they are to go into effect, and any new or additional measures taken or planned to prevent potential non-compliance with this Order's requirements.

d. Application to Extend Coverage. A Discharger that intends to continue discharging after the expiration date stated on the first page of this Order shall file a new NOI form no

later than November 31, 2021.

e. Discharge Termination. A Discharger may terminate its coverage under this Order by submitting a letter rescinding its NOI and stating the reason for termination. The Executive Officer may also terminate or revoke coverage under this Order for any of the causes specified for an individual permit as set forth in 40 C.F.R. section 122.28(b)(3). After providing notice and opportunity for a hearing, coverage under this Order may be terminated or modified for cause, including, but not limited to, the following:

i. Violation of any term or condition of this Order,

ii. Misrepresentation or failure to disclose all relevant facts in obtaining coverage under this Order, or

iii. Change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

f. Need for Individual NPDES Permit. The Executive Officer may require any Discharger authorized to discharge pursuant to this Order to subsequently apply for and obtain an individual NPDES permit in the following circumstances:

i. The Discharger is not in compliance with the requirements of this Order,

ii. A change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollutants from the facility,

iii. Effluent limitation guidelines are promulgated for the discharges covered by this Order,

iv. A new or revised water quality control plan containing requirements applicable to the discharge is approved,

v. The requirements of 40 C.F.R. section 122.28(a) (the circumstances under which the Regional Water Board is authorized to issue a general permit) are not met, or

vi. Any other condition specified in 40 C.F.R. section 122.28(b)(3) is met.

3. Contingency Plan

Each Discharger shall maintain a Contingency Plan that describes procedures to ensure that its facilities remain in, or are rapidly returned to, operation in the event of equipment failure or another type of emergency, such as an employee strike, a strike by suppliers or maintenance services, a power outage, vandalism, an earthquake, or a fire. The Contingency Plan shall, at a minimum, contain the provisions below:

a. Provision of personnel for cleaning and testing dry dock surfaces during employee strikes or strikes against contractors providing services;

b. Maintenance of adequate supplies necessary for cleaning and testing dry dock surfaces;

c. Provision of emergency standby power;

d. Protection against vandalism;

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

f. Report of spills and discharges of waste, including measures taken to clean up the effects of such discharges.

Each Discharger shall regularly review, revise, and update, as necessary, its Contingency Plan so the document remains useful and relevant to current practices. At a minimum, the Discharger shall review the Contingency Plan annually. The Discharger shall include, in each Annual Report, a description or summary of its review and evaluation procedures, recommended or planned actions, and an estimated time schedule for implementing any improvements. The Discharger shall update these documents as necessary.

4. Best Management Practices for Cleaning Dry Dock Surfaces

Prior to commencing dry dock operations pursuant to this Order, each Discharger shall prepare and implement a Best Management Practices (BMPs) Plan that clearly describes its cleaning procedures, which must include sweeping, vacuuming, and power washing. The Discharger shall implement its BMPs Plan to identify and evaluate sources of wastes and pollutants associated with facility activities and shall continue to identify and implement site-specific BMPs to reduce or prevent the discharge of wastes and pollutants. The BMPs Plan shall include provisions for developing, annually updating, and implementing the BMPs Plan in a manner consistent with the general guidance contained in U.S. EPA's *Guidance Manual for Developing Best Management Practices* (EPA 833-B-93-004). The BMPs Plan shall address potential discharges from all discharge points and must include the following elements:

a. Discharge Characterization. The BMPs Plan shall narratively assess all individual activities conducted at the site, potential pollutant sources associated with each activity, and the nature of the pollutants that could be discharged.

b. BMP Identification. The BMPs Plan shall narratively describe the BMPs to be implemented at the site to control pollutant discharges. BMPs shall be identified and described for each potential pollutant source, including the anticipated effectiveness of each BMP. Dischargers shall consider, and include as appropriate, the following:

i. Preventative BMPs – measures to reduce or eliminate the generation of pollutants and waste, including measures to prevent leaks and spills;

ii. 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 contain dust and particulate material;

iii. Response to Release BMPs – measures to respond to leaks, spills, and other releases with containment, control, and cleanup measures to prevent or minimize the potential for pollutant discharge and any adverse effects of such discharge;

iv. Dry Dock Surface Monitoring BMPs – measures to monitor dry dock surfaces, as described in the MRP; and

v. Response to Trigger Exceedance BMPs – measures to be taken in response to dry dock surface monitoring results that exceed the trigger specified Provision VI.C.6.

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

- Control of large solid materials;
- Abrasive blasting;
- Oil, grease, and fuel transfer;
- 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;
- Graving dock cleanup;
- Discharges resulting from wind, tidal action, and site runoff;
- Leaks and spills;
- Waste disposal;
- Recovery of ship launch grease/wax;
- Cathodic protection and anode handling and storage;
- Hull cleaning; and
- Other activities with potential to result in the discharge of wastes or pollutants to the receiving water.

c. Site Map. The BMPs Plan shall include a site map that includes:

i. Address, city, and county;

ii. Site boundaries and structures;

iii. Runoff collection and conveyance system locations, and points of discharge; and

iv. Areas of industrial activity where discharges originate.

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

d. Annual Comprehensive Site Compliance Evaluation. Each Discharger shall conduct at least one comprehensive site compliance evaluation per calendar year to determine the effectiveness of its BMPs Plan and submit an evaluation report with each annual report submitted pursuant to MRP section VII.B.2.b. The Discharger shall revise its BMPs Plan as appropriate based on the evaluation. The Discharger shall submit a description of

revisions to the Executive Officer and implement them within 30 days of the evaluation.

Evaluations shall be conducted not less than 8 months nor more than 16 months apart. At least 30 days prior to conducting each evaluation, the Discharger shall notify the Regional Water Board of its intent to conduct the evaluation so a Regional Water Board representative is presented with an opportunity to accompany the Discharger during its facility inspection and its BMP review. Evaluations shall include the following:

i. Review of all visual observation records, inspection records, and sampling and analysis records;

ii. Visual inspection of all potential pollutant sources for, or the potential for, pollutant discharges;

iii. Review and evaluation of all BMPs to determine whether they are adequate, whether they are properly implemented and maintained, and whether additional BMPs are needed;

iv. Review of wipe test procedures to ensure they are quantitatively detecting residual contaminates. If a review indicates that changes to the sampling procedures are necessary, the Discharger shall implement the changes following written approval of the Executive Officer.

Evaluation reports shall include the following:

- Identification of personnel performing the evaluation,
- Date of 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 certification that the Discharger is in compliance with this Order cannot be provided, the evaluation report shall include an explanation as to why the Discharger is not in compliance with this Order.)

Each Discharger shall sign and certify its report in accordance with Attachment D section V.B and retain each report for at least 5 years.

5. Best Management Practices for Responses to Trigger Exceedances

a. BMP Review. If the wipe test monitoring required by MRP section III.B shows an exceedance of a copper trigger of 1,800 micrograms per square foot (µg/sq.ft.), within 7 days of discovering the trigger exceedance, the Discharger shall review the BMPs in the BMPs Plan with its staff to (1) remind the staff of the importance of properly following the BMPs and (2) refresh the staff's familiarity with the BMPs to ensure that they are diligently implemented. This review shall be documented in the subsequent quarterly self-monitoring report, which shall include the following information:

i. Date the wipe test was performed, date the monitoring results were received, and date on which the BMPs were reviewed;

ii. BMPs reviewed and how those BMPs relate to the trigger exceedance; and

iii. Brief description of the staff addressed through the review.

b. Accelerated Monitoring. If the wipe test monitoring required by MRP section III.B shows an exceedance of the copper trigger of 1,800 µg/sq.ft., the Discharger shall conduct accelerated monitoring as follows until three consecutive monitoring events provide results below the trigger:

i. For results that exceed the trigger by less than two times the trigger (i.e., results from 1,800 µg/sq.ft. through 3,600 µg/sq.ft.), the accelerated monitoring frequency shall be monthly (or, if the dry dock is not flooded or submerged for more than a month, until the next flooding or submergence event); or

ii. For results that exceed the trigger by more than two times the trigger (i.e., results above 3,600 µg/sq.ft.), the accelerated monitoring frequency shall be once before each flooding or submergence event after working on any vessel in dry dock.

c. BMP Enhancement with Pressure Washing. If the copper trigger is exceeded during accelerated monitoring, the Discharger shall enhance its BMPs for the next and subsequent dry dock uses. The BMPs enhancement shall, at a minimum, add pressure washing of all areas where industrial activity occurs on the dry dock deck surfaces prior to submersion. "Pressure washing" means using a water jet of at least 1,500 pounds per square inch (psi) (compared to "power washing," which means using a water jet of approximately 60 to 100 psi). The Discharger shall collect pressure washing wash water and dispose of it via the sanitary sewer or another authorized means (i.e., not discharge it to waters of the U.S.). The Discharger shall update its BMPs Plan to incorporate the enhanced BMPs within 30 days of learning that the copper trigger is exceeded during accelerated monitoring.

d. Further BMP Enhancement. If the copper trigger of 1,800 µg/sq.ft. is exceeded following the implementation of pressure washing, the Discharger shall further evaluate its BMPs, its staff's implementation of the BMPs, and the feasibility of resurfacing the dry dock with a material more amenable to cleaning. The Discharger shall update its BMPs 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 trigger following the implementation of pressure washing.

e. No Further Action. When no further technically- and economically-achievable control measures can be implemented, the Executive Officer may authorize a Discharger to return to the routine monitoring frequency indicated in MRP section III.B.3 or cease conducting wipe tests altogether.

6. Best Management Practices for Non-Contact Cooling Water

Prior to discharging any non-contact cooling water, each Discharger that discharges non-contact cooling water shall establish and implement a BMPs Plan that describes steps to ensure that non-contact cooling water discharges will not adversely affect the receiving water.

The BMPs Plan shall narratively describe the BMPs to be implemented to control the discharge of thermal waste in non-contact cooling water. The BMPs Plan shall evaluate the anticipated effectiveness of each BMP. The Discharger shall consider (1) measures to reduce the generation of non-contact cooling water and (2) measures to dissipate thermal waste before discharge to surface waters. Such measures shall include use of shore-side power when available and feasible. Additional measures could include evaporative cooling (e.g., spraying the non-contact cooling water over the receiving water surface). The BMPs Plan shall ensure that non-contact cooling water discharges are no warmer than 86 degrees Fahrenheit and no more than 4 degrees Fahrenheit above the natural receiving water temperature by the time the water reaches the receiving waters.

The Discharger shall conduct a compliance evaluation each year to determine the effectiveness of the BMPs Plan for non-contact cooling water and convey this information with the annual report required by MRP section VII.B.2.b. The Discharger shall revise its BMPs Plan as appropriate, and describe any revisions in the annual report.

7. Best Management Practices for Landside Stormwater

If the Discharger has enrolled for coverage of its landside (non-dry dock) industrial stormwater discharges, it shall comply with the following requirements:

a. Stormwater Pollution Prevention Plan (SWPPP). The Discharger shall prepare a SWPPP that includes the following elements:

- Facility name and contact information,
- SWPPP performance standards,
- Planning and organization,
- Site map,
- List of industrial materials,
- Description of potential pollution sources,
- Assessment of potential pollutant sources,
- Minimum Best Management Practices,
- Advanced Best Management Practices, if applicable,
- Monitoring implementation plan,
- Annual comprehensive facility evaluation, and
- Date SWPPP initially prepared and dates of each SWPPP amendment.

The SWPPP shall be designed in accordance with good engineering practices and shall address the following objectives:

- Identify and evaluate all pollutant sources that may affect stormwater discharge quality; and
- Identify, assign, and implement control measures and management practices to reduce pollutants in stormwater discharges.

The SWPPP shall be retained onsite, revised whenever necessary, and made available upon request of any Regional Water Board representative.

b. Best Management Practices (BMPs). The Discharger shall select, design, install, and maintain BMPs that reduce or prevent discharges of pollutants in stormwater in a manner

that reflects best industry practice considering technological availability and economic practicability and achievability. The SWPPP shall identify these BMPs, including, at a minimum, the following:

i. Good Housekeeping. The Discharger shall do the following:

(a) Observe all outdoor areas associated with industrial activity; including stormwater discharge locations, drainage areas, conveyance systems, waste handling/disposal areas, and perimeter areas affected by off-facility materials or stormwater run-on to determine housekeeping needs. Any identified debris, waste, spills, tracked materials, or leaked materials shall be cleaned and disposed of properly;

(b) Minimize or prevent material tracking;

(c) Minimize dust generated from industrial materials or activities;

(d) Ensure that all facility areas impacted by rinse/wash waters are cleaned as soon as possible;

(e) Cover all stored industrial materials that can be readily mobilized by contact with stormwater;

(f) Contain all stored non-solid industrial materials or wastes (e.g., particulates, powders, shredded paper) that can be transported or dispersed by the wind or contact with stormwater;

(g) Prevent disposal of any rinse/wash waters or industrial materials into the stormwater conveyance system;

(h) Minimize stormwater discharges from non-industrial areas (e.g., stormwater flows from employee parking area) that contact industrial areas of the facility; and,

(i) Minimize authorized non-stormwater discharges from non-industrial areas (e.g., potable water, fire hydrant testing) that contact industrial areas of the facility.

ii. Preventive Maintenance. The Discharger shall identify all equipment and systems used outdoors that may spill or leak pollutants, observe the identified equipment and systems to detect leaks or identify conditions that may result in the development of leaks, establish an appropriate schedule for maintenance of identified equipment and systems, and establish procedures for prompt maintenance and repair of equipment and maintenance of systems when conditions exist that may result in the development of spills or leaks.

iii. Spill and Leak Prevention and Response. The Discharger shall establish procedures and controls to minimize spills and leaks; develop and implement spill and leak response procedures to prevent industrial materials from discharging through the stormwater conveyance system (spilled or leaked industrial materials shall be cleaned promptly and disposed of properly);

identify and describe all necessary and appropriate spill and leak response equipment, locations of spill and leak response equipment, and spill or leak response equipment maintenance procedures; and identify and train appropriate spill and leak response personnel.

iv. **Material Handling and Waste Management.** The Discharger shall do the following:

(a) Prevent or minimize handling of industrial materials or wastes that can be readily mobilized by contact with stormwater during a storm;

(b) Contain all stored non-solid industrial materials or wastes (e.g., particulates, powders, shredded paper) that can be transported or dispersed by the wind or contact with stormwater;

(c) Cover industrial waste disposal containers and industrial material storage containers that contain industrial materials when not in use;

(d) Divert run-on and stormwater generated from within the facility away from all stockpiled materials;

(e) Clean all spills of industrial materials or wastes that occur during handling in accordance with spill response procedures; and,

(f) Observe and clean, as appropriate, any outdoor material or waste handling equipment or containers that can be contaminated by contact with industrial materials or wastes.

v. **Erosion and Sediment Control.** The Discharger shall implement effective wind erosion controls; provide effective stabilization for inactive areas, finished slopes, and other erodible areas prior to a forecasted storms; maintain effective perimeter controls and stabilize site entrances and exits to sufficiently control discharges of erodible materials; and divert run-on and stormwater generated from within the facility away from erodible materials.

vi. **Employee Training.** The Discharger shall ensure that all personnel implementing the SWPPP are properly trained with respect to BMP implementation, BMP effectiveness evaluations, visual observations, and monitoring activities. The Discharger shall identify which personnel need to be trained, their responsibilities, and the type of training they are to receive and maintain documentation of completed training and the personnel that received the training with the SWPPP.

vii. **Quality Assurance and Record Keeping.** The Discharger shall develop and implement management procedures to ensure that appropriate personnel implement all SWPPP elements; develop methods of tracking and recording BMP implementation; and maintain BMP implementation records, training records, and records related to any spills and clean-up related response activities for a minimum of five years.

c. Annual Stormwater Report. The Discharger shall submit an Annual Stormwater Report by July 15 each year providing data for the previous year (July 1 through June 30). The Annual Stormwater Report shall, at a minimum, include the following:

i. Identification of any non-compliance within the reporting year, with discussion of response actions;

ii. Tabulated summary of all monitoring results (see MRP section VI) and visual observations taken during inspections;

iii. Comprehensive discussion of source identification and control programs for oil and grease, pH, TSS, aluminum, copper, lead, zinc, and any other chemical constituents that should not be present in stormwater; and

iv. Comprehensive discussion of corrective actions taken or planned, including but not limited to a summary of BMP changes implemented during the previous year and changes planned for the following year.

d. Stormwater Monitoring and Action Levels. The Discharger shall monitor the following parameters as described in the MRP:

Table 2. Stormwater Action Levels

Parameter	Unit	Action Level
pH	standard units	6.0-9.0 [1]
Total Suspended Solids	mg/L	100
Oil & Grease	mg/L	15
Aluminum, Total Recoverable	µg/L	750
Copper, Total Recoverable	µg/L	33
Lead, Total Recoverable	µg/L	260
Zinc, Total Recoverable	µg/L	260

Footnote:

[1] Values below or above this range require action.

Upon measurement of a pollutant at Monitoring Location STW-00n in excess of an action level above, the Discharger shall review the SWPPP to identify appropriate modifications to existing BMPs or additional BMPs as necessary to reduce pollutant discharge concentrations to levels below the action level. The Discharger shall revise the SWPPP accordingly before the next storm, if possible, or as soon as practical, and in no event later than three months following the exceedance.

If, upon subsequent monitoring, the pollutant measured at Monitoring Location STW-00n continues to exceed the action level above, the Discharger shall further evaluate its BMPs and update its SWPPP accordingly to include enhanced BMPs. Enhanced BMPs may include exposure minimization BMPs (e.g., shelters that prevent stormwater contact with industrial materials or activities), stormwater containment or discharge reduction BMPs (e.g., BMPs that divert, infiltrate, reuse, contain, retain, or reduce stormwater runoff volumes), or treatment control BMPs (e.g., mechanical, chemical, biological, or other treatment technologies). BMP enhancement shall continue until either the pollutant measured at Monitoring Location STW-00n is maintained below the action level above or

the Discharger has implemented all technically and economically-achievable control measures. In any case, the Discharger shall document its actions within its Annual Stormwater Report.

ATTACHMENT A – DEFINITIONS

Arithmetic Mean (μ)
Also called the average, 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.

Daily Discharge
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 the permit) 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 is considered the result for the calendar day in which the 24-hour period ends.

Detected, but Not Quantified (DNQ)
Sample result less than the RL, but greater than or equal to the laboratory's MDL. Sample results reported as DNQ are estimated concentrations.

Enclosed Bay
Indentation along the coast that encloses an area of oceanic water within a 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 the 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
Concentration that results from the confirmed detection of the substance below the minimum level (ML) value by the analytical method.

Estuaries
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 are considered estuaries. Estuarine waters are 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 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.

Median
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 n/2 and n/2+1).

Method Detection Limit (MDL)
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 40 C.F.R. part 136, Attachment B, revised as of July 3, 1999.

Minimum Level (ML)
Concentration at which the entire analytical system gives 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
Limited volume of receiving water 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.

Pollution Prevention
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 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 Water Board or Regional Water Board.

Reporting Level (RL)
ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order, including an additional factor if applicable as discussed herein. 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 SIP Appendix 4 in accordance with SIP section 2.4.2 or established in accordance with SIP section 2.4.3. 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.

ATTACHMENT B – NOTICE OF INTENT FORM FOR DRY DOCKS

This **NOTICE OF INTENT** form shall be completed and submitted to apply for authorization or reauthorization to discharge from dry dock facilities under NPDES Permit No. CAG032012 (Dry Dock General Permit) to waters of the United States.

I. OWNER INFORMATION AND CERTIFICATION

The following certification shall be signed in accordance with Attachment D section V.B.2. The Discharger hereby agrees to comply with and be responsible for all conditions specified in the Dry Dock General Permit.

<table>
<tr><td colspan="4">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 C.F.R. § 122.22(d).)</td></tr>
<tr><td colspan="2">Signature</td><td colspan="2">Date</td></tr>
<tr><td colspan="2">Printed Name</td><td colspan="2">Title</td></tr>
<tr><td colspan="2">Owner Type (Check One)

☐Public
☐ Private
☐Other, specify type:</td><td colspan="2">New or Previously Authorized Facility (check one)

☐New Facility
☐Previously Authorized Facility</td></tr>
<tr><td colspan="4">Company / Owner Name</td></tr>
<tr><td colspan="2">Mailing Address</td><td colspan="2">Phone No.</td></tr>
<tr><td>City</td><td>County</td><td colspan="2">Zip Code</td></tr>
<tr><td colspan="4">Contact Person Name and Title</td></tr>
<tr><td colspan="2">Contact Person Email</td><td colspan="2">Contact Person Phone No.</td></tr>
</table>

☐Check here if additional owners information is attached to this form.

II. FACILITY OPERATOR INFORMATION

Facility Operator Name (if there is more than one operator, each operator must submit a separate Notice of Intent)		Facility Operator Type (Check One) ☐ Public ☐Private ☐Other, specify type:	
Facility Name	Facility Address		
City	State	Zip Code	Phone No.
Contact Person's Name and Title			
Contact Person's Email		Contact Person's Phone No.	
Duly Authorized Representative: The following individual (or any individual occupying the position listed below) may act as the facility's duly authorized representative, and may sign and certify submittals in accordance with Attachment D section V.B.3.a-c. This individual shall be responsible for the overall operation of the facility or for facility environmental matters. Name			
Title			
Company/Organization			
Street Address			
City	State	Zip Code	Phone No.
Email			

☐ Check here if information for additional operators is attached to this form.

III. BILLING INFORMATION

Facility Operator Name	**Check one**: ☐ **Owner** ☐**Operator**		
Mailing Street Address			
City	State	Zip Code	Phone No.
Contact Person Name			
Contact Person Email	Contact Person Phone No.		

IV. DESCRIPTION OF OPERATIONS

Description of Operations

Complete table to describe operations, filling in rows as needed. Include the types of discharge and attach additional sheets as needed.

Dry Dock No.	Type (floating or graving)	Maximum Number of Vessels Per Year	Maximum Size of Vessels Per Year
1			
2			
3			
4			
5			

Types of Discharge (select all discharge types that apply)

Identify type of discharge by checking appropriate boxes and providing details.

☐ Integral Ballast Water
Frequency of discharge: _____
Maximum volume per dry dock submersion: _____
Number of dry dock submersions per year: _____
Average daily discharge flow (gallons/day) when discharging: _____

☐ Non-Contact Cooling Water
Frequency of Discharge: _____
Maximum flow: _____ (gallons/day) Million gallons per year: _____
Average daily discharge flow (gallons/day) when discharging: _____

☐ Salt Water Fire Suppression Water
Frequency of discharge: _____
Maximum flow: _____ (gallons/day) Million gallons per year: _____
Average daily discharge flow (gallons/day) when discharging: _____

☐ Stormwater from Dry Dock Surfaces *After* Cleaning

☐ Specify any other discharges and provide daily and annual total flows:

V. DRY DOCK DIMENSIONS AND CAPACITIES

Dry Dock No.	Average Submerged or Immersed Depth (feet)	Width at Top (feet)	Length to Outer Sill or Caisson (feet)	Capacity (million gallons)
1				
2				
3				
4				
5				

☐ Check here if information for additional dry docks is attached to this form.

VI. RECEIVING WATERS, DISCHARGE POINTS, AND MONITORING LOCATIONS*

Provide the name of the receiving water and the latitude and longitude for each point described in the table below. Attach additional sheets for additional receiving waters, discharge points, and sampling points.

RECEIVING WATER NAME:

* See Attachment E section II and Table E-1.

MONITORING LOCATIONS		
Receiving Water Monitoring Location (near Dry Dock) (one location per dry dock)	**Latitude (degrees, to five decimal places)**	**Longitude (degrees, to five decimal places)**
RSW-00*n*[(1)]		
Background Water Monitoring Location (one location per facility)	**Latitude (degrees, to five decimal places)**	**Longitude (degrees, to five decimal places)**
RSW-00(N+1)[(1)]		
Sediment Monitoring Locations for Each Dry Dock No. *n*[(2)]	**Latitude (degrees, to five decimal places)**	**Longitude (degrees, to five decimal places)**
SED-00*n*[(1)]		
Background Sediment Monitoring Location (one location per facility)	**Latitude (degrees, to five decimal places)**	**Longitude (degrees, to five decimal places)**
SED-00(N+1)[(1)]		

(1) "*n*" is the number designation of the dry dock. "N" is the total number of dry docks at the facility. For example, if there are two floating dry docks, the location names must be as follows:

- Receiving water monitoring locations: RSW-001 and RSW-002
- Background water monitoring location: RSW-003
- Sediment monitoring locations: SED-001 and SED-002
- Background sediment monitoring location: SED-003

Regardless of the number of dry docks, only one background water and one background sediment location are required.

(2) Sediment samples must be monitored at one location per dry dock.

VII. MONITORING DATA

Summarize monitoring data collected during the past five years, including receiving water samples collected near each dry dock, background water samples, and wipe samples. For new facilities, report analytical results for receiving water near each dry dock. Provide a separate data summary table for each sample location.

Receiving Water Data at Dry Dock *n*
Location ID No. (i.e., RSW-00*n*): _____

Parameter	Highest Value	Range	Units	Test Method	Method Detection Limit	Number of Samples
Total Suspended Solids						
Settleable Solids						
Oil and Grease						
Chromium III						
Chromium VI						
Copper						
Lead						
Nickel						
Zinc						
PCBs						
Tributyltin						

Background Water Data
Location ID No. (i.e., RSW-00[N+1]): _____

Parameter	Highest Value	Range	Units	Test Method	Method Detection Limit	Number of Samples
Total Suspended Solids						
Settleable Solids						
Oil and Grease						
Chromium III						
Chromium VI						
Copper						
Lead						
Nickel						
Zinc						
PCBs						
Tributyltin						

Wipe Sample Data

Parameter	Highest Value	Range	Units	Test Method	Method Detection Limit	Number of Samples
Chromium III						
Chromium VI						
Copper						
Lead						
Nickel						
Zinc						
PCBs						
Tributyltin						

VIII. VICINITY MAP AND SITE LAYOUT MAP

Include vicinity map and site layout map. The vicinity map must show facility location and surrounding landmarks. Site layout map must be topographic with the following information:

1. Legal facility boundaries;
2. Location and identification number of each dry dock;
3. Discharge points for integral ballast water used for submersion,
4. Discharge points of non-contact cooling water;
5. Receiving water sample locations for each dry dock;
6. Background water sample location;
7. Sediment sample locations for each dry dock; and
8. Background sediment sample location.

IX. APPLICATION FEE AND MAILING INSTRUCTIONS

Submit check payable to "State Water Resources Control Board" for appropriate application fee to this address:

San Francisco Bay Regional Water Quality Control Board
Attn: NPDES Wastewater Division
1515 Clay Street, Suite 1400
Oakland, CA 94612

For current fee for general NPDES permit category 3, see Water Code § 2200(b)(9) (http://www.waterboards.ca.gov/resources/fees/).

Submit this form (with signature and attachments) via email to R2NPDES.GeneralPermits@waterboards.ca.gov or as otherwise indicated at www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/general_permits.shtml.

ATTACHMENT C – NOTICE OF INTENT FORM FOR LANDSIDE STORMWATER

This **NOTICE OF INTENT** form shall be completed and submitted to apply for authorization or reauthorization to discharge stormwater associated with landside industrial activities at dry dock facilities under NPDES Permit No. CAG032012 (Dry Dock General Permit) to waters of the United States.

I. OWNER INFORMATION AND CERTIFICATION

The following certification shall be signed in accordance with Attachment D section V.B.2. The Discharger hereby agrees to comply with and be responsible for all conditions specified in the Dry Dock General Permit.

<table>
<tr><td colspan="4">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 C.F.R. § 122.22(d).)</td></tr>
<tr><td colspan="2">Signature</td><td colspan="2">Date</td></tr>
<tr><td colspan="2">Printed Name</td><td colspan="2">Title</td></tr>
<tr><td colspan="2">Owner Type (Check One)

☐Public
☐ Private
☐Other, specify type:</td><td colspan="2">New or Previously Authorized Facility (check one)

☐New Facility
☐Previously Authorized Facility</td></tr>
<tr><td colspan="4">Company / Owner Name</td></tr>
<tr><td colspan="2">Mailing Address</td><td colspan="2">Phone No.</td></tr>
<tr><td>City</td><td>County</td><td colspan="2">Zip Code</td></tr>
<tr><td colspan="4">Contact Person Name and Title</td></tr>
<tr><td colspan="2">Contact Person Email</td><td colspan="2">Contact Person Phone No.</td></tr>
</table>

☐Check here if additional owners information is attached to this form.

II. FACILITY OPERATOR INFORMATION

Facility Operator Name (if there is more than one operator, each operator must submit a separate Notice of Intent)			Facility Operator Type (Check One) ☐ Public ☐Private ☐Other, specify type:
Facility Name	Facility Address		
City	State	Zip Code	Phone No.
Site Size (acres):	Industrial Area Exposed to Stormwater (acres):	Percent of Site Impervious (including rooftops):	
Contact Person's Name and Title			
Contact Person's Email			Contact Person's Phone No.
Duly Authorized Representative: The following individual (or any individual occupying the position listed below) may act as the facility's duly authorized representative, and may sign and certify submittals in accordance with Attachment D section V.B.3.a-c. This individual shall be responsible for the overall operation of the facility or for facility environmental matters. Name			
Title			
Company/Organization			
Street Address			
City	State	Zip Code	Phone No.
Email			

☐ Check here if information for additional operators is attached to this form.

III. DISCHARGE INFORMATION, RECEIVING WATERS, AND MONITORING LOCATIONS

DISCHARGE INFORMATION	
Discharge to Receiving Water: ☐ Direct ☐ Via storm drain system	**Storm drain system owner:**
RECEIVING WATER NAME:	

MONITORING LOCATIONS		
Stormwater Monitoring Location Name (STW-00n)	**Latitude (degrees, to five decimal places)**	**Longitude (degrees, to five decimal places)**
STW-001		

(1) Identify one monitoring location for each stormwater discharge point.

☐ Check here if information for additional monitoring locations is attached to this form.

IV. SITE LAYOUT MAP

Include a site layout map. The site layout map must show facility location and surrounding landmarks, including storm drain system, stormwater discharge points. Site layout map must be topographic with the following information:

1. Legal facility boundaries;
2. Location and identification number of each dry dock;
3. Landside stormwater discharge point(s);
4. Landside stormwater monitoring location(s) (i.e., STW-00n);
5. Landside stormwater drainage area(s); and
6. Receiving Water

V. APPLICATION MAILING INSTRUCTIONS

Submit this form (with signature and attachments) via email to R2NPDES.GeneralPermits@waterboards.ca.gov or as otherwise indicated at www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/general_permits.shtml.

ATTACHMENT D –STANDARD PROVISIONS

I. STANDARD PROVISIONS—PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the terms, requirements, and 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; or a combination thereof. (40 C.F.R. § 122.41(a); Wat. Code §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)

2. The Discharger shall comply with effluent standards or prohibitions established under CWA section 307(a) for toxic pollutants 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 C.F.R. § 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 C.F.R. § 122.41(c).)

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 C.F.R. § 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 C.F.R. § 122.41(e).)

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 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 C.F.R. § 122.5(c).)

F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, U.S. EPA, 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 (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i); Wat. Code, §§ 13267, 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 (33 U.S.C. § 1318(a)(4)(B)(i); 40 C.F.R. § 122.41(i)(1); Wat. Code, §§ 13267, 13383);

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(2); Wat. Code, §§ 13267, 13383);

3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (33 U.S.C. § 1318(a)(4)(B)(ii); 40 C.F.R. § 122.41(i)(3); Wat. Code, §§ 13267, 13383); 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. (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i)(4); Wat. Code, 13267, 13383.)

G. Bypass

1. Definitions

a. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.41(m)(4)(i)):

a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.41(m)(4)(i)(C).)

4. Approval. 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 C.F.R. § 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 prior notice, if possible at least 10 days before the date of the bypass. The notice shall be sent to the Regional Water Board. As of December 21, 2020, a notice shall also be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J below. Notices shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(m)(3)(i).)

b. Unanticipated bypass. The Discharger shall submit a notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). The notice shall be sent to the Regional Water Board. As of December 21, 2020, a notice shall also be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J below. Notices shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.41(n)(3)):

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

b. The permitted facility was, at the time, being properly operated (40 C.F.R. § 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 C.F.R. § 122.41(n)(3)(iii)); and

d. The Discharger complied with any remedial measures required under Standard Provisions—Permit Compliance I.C above. (40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 the 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 C.F.R. §§ 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 C.F.R. § 122.41(j)(1).)

B. Monitoring must be conducted according to test procedures approved under 40 C.F.R. part 136 for the analyses of pollutants unless another method is required under 40 C.F.R. chapter 1, subchapter N. Monitoring must be conducted according to sufficiently sensitive test methods approved under 40 C.F.R. part 136 for the analysis of pollutants or pollutant parameters or required under 40 C.F.R. chapter 1, subchapter N. For the purposes of this paragraph, a method is sufficiently sensitive when:

1. The method minimum level (ML) is at or below the level of the effluent limitation established in the permit for the measured pollutant or pollutant parameter, and either (a) the method ML is at or below the level of the applicable water quality criterion for the measured pollutant or pollutant parameter, or (b) the method ML is above the applicable water quality criterion but the amount of the pollutant or pollutant parameter in a facility's discharge is

high enough that the method detects and quantifies the level of the pollutant or pollutant parameter in the discharge; or

2. The method has the lowest ML of the analytical methods approved under 40 C.F.R. part 136 or required under 40 C.F.R. chapter 1, subchapter N, for the measured pollutant or pollutant parameter.

In the case of pollutants or pollutant parameters for which there are no approved methods under 40 C.F.R. part 136 or otherwise required under 40 C.F.R. chapter 1, subchapter N, monitoring must be conducted according to a test procedure specified in this Order for such pollutants or pollutant parameters. (40 C.F.R. §§ 122.21(e)(3), 122.41(j)(4), 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS—RECORDS

A. 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's Executive Officer at any time. (40 C.F.R. § 122.41(j)(2).)

B. Records of monitoring information shall include the following:

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

2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));

3. The date(s) the analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));

4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));

5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and

6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

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

1. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and

2. Permit applications and attachments, permits, and effluent data. (40 C.F.R. § 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 U.S. EPA within a reasonable time, any information which the Regional Water Board, State Water Board, or U.S. EPA 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 U.S. EPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, §§ 13267, 13383.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or U.S. EPA shall be signed and certified in accordance with Standard Provisions—Reporting V.B.2, V.B.3, V.B.4, V.B.5, and V.B.6 below. (40 C.F.R. § 122.41(k).)

2. For a corporation, all permit applications shall be signed by a responsible corporate officer. For the purpose of this section, 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 C.F.R. § 122.22(a)(1).)

For a partnership or sole proprietorship, all permit applications shall be signed by a general partner or the proprietor, respectively. (40 C.F.R. § 122.22(a)(2).)

For a municipality, State, federal, or other public agency, all permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA). (40 C.F.R. § 122.22(a)(3).).

3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or U.S. EPA 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 C.F.R. § 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 C.F.R. § 122.22(b)(2)); and

c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 122.22(d).)

6. Any person providing the electronic signature for documents described in Standard Provisions – V.B.1, V.B.2, or V.B.3 that are submitted electronically shall meet all relevant requirements of Standard Provisions – Reporting V.B, and shall ensure that all relevant requirements of 40 C.F.R. part 3 (Cross-Media Electronic Reporting) and 40 C.F.R. part 127 (NPDES Electronic Reporting Requirements) are met for that submission. (40 C.F.R § 122.22(e).)

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program in this Order. (40 C.F.R. § 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. As of December 21, 2016, all reports and forms must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J and comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(l)(4)(i).)

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 C.F.R. part 136, or another method required for an industry-specific waste stream under 40 C.F.R. chapter 1, subchapter N, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Regional Water Board or State Water Board (40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 report shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The report 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.

For noncompliance related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports must include the data described above (with the exception of time of discovery) as well as the type of event (i.e., combined sewer overflow, sanitary sewer overflow, or bypass event), type of overflow structure (e.g., manhole, combined sewer overflow outfall), discharge volume untreated by the treatment works treating domestic sewage, types of human health and environmental impacts of the event, and whether the noncompliance was related to wet weather.

As of December 21, 2020, all reports related to combined sewer overflows, sanitary sewer overflows, or bypass events must be submitted to the Regional Water Board and must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J. The reports shall comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. The Regional Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 122.41(l)(6)(i).)

2. The following shall be included as information that must be reported within 24 hours:

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

b. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 40 C.F.R. section 122.29(b) (40 C.F.R. § 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 to effluent limitations in this Order. (Alternatively, for an existing manufacturing, commercial, mining, or silvicultural discharge as referenced in 40 C.F.R. section 122.42(a), this notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under 40 C.F.R. section 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1).) (40 C.F.R. § 122.41(l)(1)(ii).)

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 this Order's requirements. (40 C.F.R. § 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. For noncompliance related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting V.E and the applicable required data in appendix A to 40 C.F.R. part 127. The Regional Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 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 U.S. EPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

J. Initial Recipient for Electronic Reporting Data

The owner, operator, or duly authorized representative is required to electronically submit NPDES information specified in appendix A to 40 C.F.R. part 127 to the initial recipient defined in 40 C.F.R. section 127.2(b). U.S. EPA will identify and publish the list of initial recipients on its website and in the Federal Register, by state and by NPDES data group (see 40 C.F.R. § 127.2(c)). U.S. EPA will update and maintain this list. (40 C.F.R. § 122.41(l)(9).)

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 13268, 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).)

B. Publicly-Owned Treatment Works (POTWs)

All POTWs shall provide adequate notice to the Regional Water Board of the following (40 C.F.R. § 122.42(b)):

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to CWA sections 301 or 306 if it were directly discharging those pollutants (40 C.F.R. § 122.42(b)(1)); and

2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of this Order. (40 C.F.R. § 122.42(b)(2).)

3. Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW. (40 C.F.R. § 122.42(b)(3).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

Clean Water Act section 308 and 40 C.F.R. sections 122.41(h), 122.41(j)-(l), 122.44(i), and 122.48 require that all NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This MRP establishes monitoring, reporting, and recordkeeping requirements that implement federal and State laws and regulations.

I. GENERAL MONITORING PROVISIONS

A. The Discharger shall comply with this MRP. The Executive Officer may amend this MRP pursuant to 40 C.F.R. sections 122.62, 122.63, and 124.5.

B. The Discharger shall conduct all monitoring in accordance with Attachment D section III. Equivalent test methods must be more sensitive than those specified in 40 C.F.R. part 136 and must be specified in this Order or the Discharger's Authorization to Discharge. Water and waste analyses shall be performed by a laboratory certified for these analyses in accordance with Water Code section 13176.

C. All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

II. MONITORING LOCATIONS

The Discharger shall establish monitoring locations as set forth below to demonstrate compliance with this Order:

Table E-1. Monitoring Locations

Monitoring Location Type	Monitoring Location Name[1]	Monitoring Location Description
Exposed Deck of Dry Dock n	EFF-00n	Randomly selected areas on dry dock n deck that have been exposed to wastes from operations (three areas at a minimum, each a minimum of one square foot).
Receiving Water at Dry Dock n	RSW-00n	Water near the perimeter or end of dry dock n, close to monitoring location SED-00nA, SED-00nB, SED-00nC, or SED-00nD for floating dry docks or SED-00nA or SED-00nB for graving dry docks.
Background Water	RSW-00(N+1)	Water location at sufficient distance from dry dock to represent background conditions (same as Monitoring Location SED-00[N+1]).
Sediment at Dry Dock n	SED-00n	For each dry dock, one location where representative sediment samples may be collected at the perimeter of dry dock n.
Background Sediment	SED-00(N+1)	Sediment location at sufficient distance from dry dock to represent background conditions (same as Monitoring Location RSW-00[N+1]).
Stormwater n	STW-00n	Point or points for each stormwater discharge point prior to contact with receiving water, where a representative stormwater sample can be obtained.

Footnote:

[1] "*n*" is the number designation of the dry dock. "N" is the total number of dry docks at the facility. For example, if there are two floating dry docks, the location names must be as follows:

- Receiving water monitoring locations: RSW-001 and RSW-002
- Background water monitoring location: RSW-003
- Sediment monitoring locations: SED-001 and SED-002
- Background sediment monitoring location: SED-003

Regardless of the number of dry docks, only one background water and one background sediment location are required.

III. DRY DOCK SURFACE MONITORING

A. Prior to each incident of flooding or submergence of each dry dock, each Discharger shall observe the cleanliness of the dry dock surfaces. The Discharger shall record observations 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 shall correct any such condition prior to dry dock flooding or submergence. Inspection reports shall identify the inspector's name, title, and any corrective actions taken.

B. Each Discharger shall conduct monitoring at Monitoring Locations EFF-00*n* as described below:

1. Wipe Sampling Locations

Three samples are required for each sampling event for Monitoring Locations EFF-00*n*. Prior to each sampling event, sample locations shall be selected by a randomized grid procedure. Sample locations shall be recorded and reported in quarterly self-monitoring reports. To assess the amount of pollutant remaining on the dry dock after cleaning and before submergence, three areas shall be selected randomly from a grid on the dry dock deck. At each area, wipe samples shall be collected for analysis of copper and, when necessary, tributyltin.

2. Wipe Sampling Procedures

Samples shall be collected using commercially available wipe test kits for the collection of metals. The results of the analyses shall be reported as µg/sq.ft. The Discharger shall follow U.S. EPA-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 C.F.R. section 761.123.

3. Wipe Sampling Frequency

Dry dock surfaces shall be sampled for copper quarterly at each dry dock whenever vessel cleaning was conducted during the quarter. This monitoring shall occur after the cleaning and no more than four days prior to flooding or submergence of the dry dock.

4. Wipe Sample Trigger

a. Copper wipe data shall be compared to the copper trigger of 1,800 µg/sq.ft.

b. Quarterly wipe sample data, including results from any accelerated monitoring, shall be reported in quarterly self-monitoring reports (see MRP section VII.B).

c. Wipe sample data obtained over the course of the calendar year shall be tabulated, summarized, and provided in annual reports (see MRP section VII.B).

d. Analytical methods shall be identified in monitoring reports. Analytical methods shall be adequately sensitive to detect pollutants at concentrations below the trigger.

5. Wipe Sampling Details

The wipe sample shall be collected using a lead dust sampling wipe, 5" by 7.75", pre-moistened with water, polysorbate 20, methylparaben, and propylparaben and placed in a sterile digestion tube.

C. If the sampling protocol specified in section III.B proves unworkable or unreliable, a Discharger may propose an alternate procedure. The Discharger may commence use of the alternate procedure with written Executive Officer approval. The dry dock wipe tests should be coordinated with receiving water sampling to maximize the usefulness of the data set in determining if dry dock operations are resulting in water quality objective exceedances within the receiving water.

IV. RECEIVING WATER MONITORING

The Discharger shall monitor receiving waters at Monitoring Locations RSW-00*n* and background location RSW-00(N+1) as specified below:

Table E-2. Receiving Water Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency[1]
Total Suspended Solids[1]	mg/L	Grab	1/Year
Settleable Solids[1]	mg/L	Grab	1/Year
Oil and Grease[1]	mg/L	Grab	1/Year
Metals, Total Recoverable[2]	µg/L	Grab	1/Year
PCBs	µg/L	Grab	1/Year
Tributyltin	µg/L	Grab	1/Year
Standard Observations[3]	--	--	1/Event

Abbreviations:

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

Footnotes:

[1] Receiving water monitoring shall be performed as soon as feasible following a flooding/submergence event, and no more than 6 hours following the flooding/submergence event. Receiving water monitoring shall be performed at least once each year for a flooding/submergence event for which dry dock deck wipe samples have been collected, as described in MRP section III.

[2] Metals shall include chromium III, chromium VI, copper, lead, nickel, and zinc.

[3] Standard observations shall include the following:

a. Floating and suspended materials (e.g., oil, grease, algae, sand, 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 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: air temperature, total precipitation during previous five days, and, if there is a meteorological station onsite, total precipitation on day of observation.

V. SEDIMENT MONITORING

The Discharger shall perform annual sediment monitoring to evaluate sediment toxicity, benthic community condition, and sediment chemistry. Sediment sampling shall occur outside the influence of any dredging, if possible. Dredging activity in the vicinity of the monitoring locations during sampling shall be discussed in annual reports.

A. Monitoring Locations. The Discharger shall conduct sediment monitoring at Monitoring Locations SED-00*n* and SED-00(N+1).

B. Field Procedures. For sediment toxicity and chemistry analyses, grab samples shall be collected from the upper 5 centimeters (cm) of the sediment surface. For benthic community conditions analyses, grab samples shall be collected with a minimum penetration depth of 5 cm and the entire sample contents shall be collected. In all cases, sediment samples shall be screened through a 0.5 millimeter-mesh screen.

C. Test Methods. All samples shall be tested as described in *Water Quality Control Plan for Enclosed Bays and Estuaries, Part 1 Sediment Quality*, sections V.E (Laboratory Testing), V.F (Sediment Toxicity), V.G (Benthic Community Condition), and V.H (Sediment Chemistry). Sediment chemistry samples shall be tested for the analytes below:

Table E-3. Sediment Monitoring

Parameter	Units	Sample Type	Minimum Sampling Frequency
Total Organic Carbon	mg/kg	Grab	1/Year
Percent Fines	percent	Grab	1/Year
Metals, Total Recoverable[1]	µg/kg	Grab	1/Year
PCBs	µg/kg	Grab	1/Year
Pesticides[2]	µg/kg	Grab	1/Year
PAHs[2]	µg/kg	Grab	1/Year
Tributyltin	µg/kg	Grab	1/Year

Abbreviations:

µg/kg = micrograms per kilogram
mg/kg = milligrams per kilogram

Footnotes:

[1] Metals include cadmium, chromium III, chromium VI, copper, lead, mercury, nickel, and zinc.

[2] Pesticides and PAHs include those listed in *Water Quality Control Plan for Enclosed Bays and Estuaries, Part 1 Sediment Quality*, Attachment A.

D. Regional Coordination. The Discharger may, at its option, choose to coordinate sediment monitoring with the Regional Monitoring Program to collect and analyze sediment samples. If coordinating with the Regional Monitoring Program, the Discharger may monitor at the frequency chosen by the Regional Monitoring Program for its regional monitoring purposes (i.e., discharger sediment samples may be collected and analyzed with Regional Monitoring

Program sediment samples), but in no case shall the monitoring frequency be less than once. If the Discharger chooses to coordinate with the Regional Monitoring Program, it shall indicate so and describe the coordination in its annual report submitted pursuant to MRP section VII.B.2.b.

VI. LANDSIDE STORMWATER MONITORING

If the Discharger has enrolled for coverage of its landside (non-dry dock) industrial stormwater discharges, it shall conduct stormwater monitoring as specified below:

Table E-4. Landside Stormwater Monitoring

Parameter	Unit	Sample Type	Minimum Sampling Frequency
pH	standard units	Grab	4 Storms/Year
Total Suspended Solids	mg/L	Grab	4 Storms/Year
Oil and Grease	mg/L	Grab	4 Storms/Year
Aluminum, Total Recoverable	µg/L	Grab	4 Storms/Year
Copper, Total Recoverable	µg/L	Grab	4 Storms/Year
Lead, Total Recoverable	µg/L	Grab	4 Storms/Year
Zinc, Total Recoverable	µg/L	Grab	4 Storms/Year
Sampling Event Visual Observations [1]	--	--	4 Storms/Year
BMP Visual Observations [2]	--	--	1/Month

Abbreviation:

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

Footnotes:

[1] See MRP section VI.B.
[2] See MRP section VI.C.

A. Sample Collection and Frequency. The Discharger shall conduct stormwater monitoring at all locations identified in its Notice of Intent form (e.g., Monitoring Location STW-00*n*). Grab samples shall be collected when the precipitation event produces a discharge from at least one drainage area and the precipitation event is preceded by 48 hours with no discharge from any drainage area. Samples shall be taken during the first 30 minutes of the discharge. If collection 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 Stormwater Report why the grab samples could not be taken within the first 30 minutes. Samples shall represent the quality and quantity of stormwater discharged from the facility.

The Discharger shall collect and analyze samples from four storms every year, as follows: two storms between July 1 and December 31 and two storms between January 1 and June 30.

B. Sampling Event Visual Observations. The Discharger shall make the following observations when collecting stormwater samples:

1. Floating and suspended materials: presence or absence of floating material, such as oil, grease, algae, and other macroscopic particulate matter.

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

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

4. Weather conditions. Air temperature and total precipitation during the five days prior to observation.

C. BMP Visual Observations. The Discharger shall visually observe equipment, storage areas, and BMPs within each drainage area for the presence or indication of prior, current, or potential unauthorized non-stormwater discharges and their sources; and correct BMP implementation if necessary.

The monthly visual observations shall be conducted during daylight hours of scheduled facility operating hours and on days without precipitation. The Discharger shall provide an explanation in the Annual Stormwater Report for any uncompleted monthly visual observations.

VII. REPORTING

A. General Reporting Requirements

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

B. Self-Monitoring Reports (SMRs)

1. **Format.** The Discharger shall submit self-monitoring reports (SMRs) and cover letters via email to R2NPDES.GeneralPermits@waterboards.ca.gov and as further instructed in its Authorization to Discharge. However, 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) website (http://www.waterboards.ca.gov/ciwqs/index.html). The CIWQS website will provide additional information for SMR submittal in the event of a planned service interruption.

2. **Due Dates and Contents.** The Discharger shall submit quarterly SMRs and annual reports by the due dates and with the contents specified below:

   a. **Quarterly SMRs —** Quarterly SMRs shall be due 30 days after the end of each calendar quarter, covering that calendar quarter. The quarterly SMR shall contain the items listed below:

      i. Cover letter that includes the following information:

         (a) Clear identification of any violations or a clear statement that there were no violations.

         (b) Compliance evaluation summary that identifies the following:

            - Types of samples obtained during the monitoring period,
            - Number and concentrations of samples that exceed the trigger,
            - Violations of any prohibition, effluent limitation, discharge specification, or receiving water limitation, and

- Any failure to follow the BMPs Plans.

(c) Detailed description of any violations, their causes, and proposed time schedule for corrective actions taken or planned to resolve the violations and prevent recurrence. If previous reports address the corrective actions, then reference the earlier reports.

(f) Signature and certification in accordance with Attachment D sections V.B and V.C.

ii. All new monitoring results obtained since submitting the last SMR. If the analytical data for samples collected during a quarter are unavailable for incorporation into that quarterly SMR, then the status of laboratory reports shall be reported and the data shall be included in the next quarterly SMR.

iii. Tabulated results of all monitoring specified in the MRP, including wipe, receiving water, standard observations, and sediment monitoring, as follows:

- Standard Observations. The Discharger shall tabulate standard observations to show the location, date of observation, and compliance or lack thereof for each observation listed in MRP section II and MRP Table E-2, footnote 3.

- Analytical Results. The Discharger shall arrange all analytical and field test results in tabular format to illustrate clearly compliance or lack thereof with the effluent limits, receiving water limits, and trigger. Tabulated monitoring data shall include the monitoring location name (e.g., EFF-00*n*, SED-00*n*A, RSW-00*n*), sampling date, sample type, parameter, test results, units, corresponding analytical method detection limits, minimum levels, reporting levels, and related quantification parameters as signed by the laboratory director or other responsible laboratory official. Laboratory reports shall be included in an appendix.

v. Explanation of the circumstances of any dredging activity in the vicinity of the sediment sampling locations (see MRP section V).

vi. Monitoring results for any pollutant sampled more frequently than required by this Order.

vii. Clear statement whether dry dock cleaning procedures in the BMPs Plan were followed.

viii. Dry dock flooding or submergence data in tabulated format. Tabulated data shall also include the dry dock identification number/name, vessel names and types, docking dates, and undocking dates. Each dry dock shall be listed in the table; if a dry dock was not flooded or submerged during the quarter, this information shall be documented in the table.

ix. Identification, in tabular format, of each vessel that discharged non-contact cooling water to the receiving water. Tabulated data shall include an estimate of the daily flow in gallons per day, the duration of discharge, and whether and how the BMPs in the BMPs Plan were used to lower the temperature prior to discharge.

b. Annual Reports — Annual reports shall be due February 15 each year, covering the previous calendar year. Annual reports shall cover the period of January 1 through December 31. Annual reports shall contain the items described below:

i. Annual compliance summary.

ii. Comprehensive discussion of performance and compliance. This summary shall include any corrective actions taken or planned, such as changes to equipment or operations that may be needed to achieve compliance and any other actions taken or planned that are intended to improve the performance and reliability of the Discharger's practices.

iii. Both tabular (one year) and graphical (five years) summaries of monitoring data (the Discharger shall identify trends, if any, in pollutant concentrations found in effluent or receiving water samples for previous years.) An annual summary of all data shall be provided electronically in a CIWQS-compatible format.

iv. Annual Contingency Plan Review Report as required by Provision VI.C.4 of the Order.

v. Annual Comprehensive Site Compliance Evaluation Report as required by Provision VI.C.5.d of the Order.

vi. Annual Non-Contact Cooling Water Compliance Evaluation Report as required by Provision VI.C.7 of the Order.

3. **Monitoring Periods.** Monitoring periods for all required monitoring shall be completed as set forth in the table below:

Table E-5. Monitoring Periods

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period
1/Event for wipe sampling	Effective date of Authorization to Discharge	After dry dock deck cleaning and no more than four days prior to dry dock flooding or submergence
1/Year	Closest January 1 before or after effective date of Authorization to Discharge [1]	January 1 through December 31
Once	Effective date of Authorization to Discharge	Once such that the results are reported with the new NOI form required on the first page of the Order

Footnote:

[1] Monitoring performed before the effective date of an Authorization to Discharge may be used to satisfy the monitoring required by this Order.

4. RL and MDL Reporting for Receiving Water and Sediment Sampling. The Discharger shall report with each receiving water sample result the Reporting Level (RL) and Method Detection Limit (MDL) as determined by the procedure in 40 C.F.R. part 136. The Discharger may select any analytical methods described in 40 C.F.R. part 136; however, the RLs shall be below applicable water quality objectives. Otherwise, RLs shall be as low as possible. The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

a. Sample results greater than or equal to the RL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported. For purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (± a percentage of the reported value), numerical ranges (low to high), or any other means the laboratory considers appropriate.

c. Sample results less than the laboratory's MDL shall be reported as "Not Detected" or "ND."

d. The Discharger shall instruct laboratories to establish calibration standards so that the lowest calibration standard is at or below the minimum level specified below (or its equivalent if there is differential treatment of samples relative to calibration standards). At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve. The table below lists minimum levels for priority pollutants:

Table E-6. Minimum Levels

CTR No.	Pollutant/Parameter	Suggested Analytical Method [1]	Minimum Level (µg/l) [2]
	Aluminum, Total Recoverable	200.5	4.9
5a	Chromium (III)	SM 3500	---
5b	Chromium (VI)	SM 3500	10
	Chromium (total) [3]	SM 3500	10
6	Copper, Total Recoverable	200.9	5.0
7	Lead, Total Recoverable	200.9	5.0
9	Nickel, Total Recoverable	249.2	5.0
13	Zinc, Total Recoverable	200 or 289	20
119-125	PCBs: Aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260	608 and 1668C	0.50

Footnotes:

[1] The suggested method is the U.S. EPA Method unless otherwise specified (SM = Standard Methods). The Discharger may use another U.S. EPA 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 may use any standard method.

[2] Minimum levels are from the State Implementation Policy or, for aluminum, U.S. EPA Method 200.5

[3] Analysis for total chromium may be substituted for analysis of chromium (III) and chromium (VI) if the concentration measured is below the lowest hexavalent chromium water quality criterion (11 µg/l).

C. Discharge Monitoring Reports (DMRs)

1. The Dischargers shall submit all self-monitoring reports using the submittal method specified in the Authorization to Discharge letter.

2. At any time during the term of this Order, the State Water Board or Regional Water Board may notify the Discharger to electronically submit DMRs using the State or Regional Water Board's CIWQS website (http://www.waterboards.ca.gov/ciwqs/index.html). Once notified

by the State Water Board or Regional Water Board, the Discharger shall submit the monitoring reports as required.

D. Violations and Unauthorized Discharges

1. In accordance with Attachment D section V.E, the Discharger shall notify the Regional Water Board of certain violations and unauthorized discharges within 24 hours. Dischargers shall provide this notification by telephoning Regional Water Board staff responsible for overseeing implementation of this Order (see Attachment B, NOI Form section X) or by calling the California Office of Emergency Services (800-852-7550). The Discharger shall also notify the California Office of Emergency Services in accordance with applicable reportable quantities for hazardous materials.

2. In accordance with Attachment D section V.E, the Discharger shall submit written reports concerning certain violations and unauthorized discharges within five days. Such written reports may be submitted electronically and shall include the following:

a. Date and time of violation or spill, and duration if known;

b. Location of violation or spill (street address or description of location);

c. Nature of violation or material spilled;

d. Quantity of any material involved;

e. Receiving water body affected, if any;

f. Cause of violation or spill;

g. Estimated size of affected area;

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

i. Corrective actions taken to correct violation or to contain, minimize, or clean up spill;

j. Future corrective actions planned to prevent recurrence and implementation schedule; and

k. Persons or agencies notified.

ATTACHMENT F - FACT SHEET

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ATTACHMENT F – FACT SHEET

This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order. As described in section II.B of the Order, the Regional Water Board incorporates this Fact Sheet as its findings supporting the issuance of the Order.

I. PERMIT INFORMATION

A. This Order regulates discharges from dry dock operations. It reissues NPDES General Permit No. CAG032012, which the Regional Water Board adopted through Order No. R2-2012-0050 (previous order) on June 13, 2012. The previous order became effective August 1, 2012.

B. Site owners and operators that complete a NOI and apply for an Authorization to Discharge under this Order, and that are granted such authorization, are hereinafter called "Dischargers." For purposes of this Order, references to "discharger" or "permittee" in applicable federal and State laws, regulations, plans, and policies are held to be equivalent to references to Discharger herein.

II. FACILITY DESCRIPTIONS

A. Facility and Discharge Descriptions

1. **Facility Descriptions.** This Order is for dry dock operations located within the San Francisco Bay Region. Dischargers that enroll under this Order use graving dry docks or floating dry docks to get ships and other vessels into and out of the water.

   a. **Floating Dry Docks.** With a floating dry dock, the vessel is moved into position over supports on the dry dock deck, which is partially submerged under the vessel. The water is then pumped out of ballast tanks into adjacent waters to raise the dry dock and vessel out of the water. After work is completed, the process is reversed (ballast tanks are filled) to submerge the dry dock and refloat the vessel.

   b. **Graving Dry Docks.** When a graving dry dock is flooded, a vessel is brought into the dry dock and positioned onto support blocks. The dock end is closed with a caisson (dry dock "door"), and the dock is emptied of all water via a sump pump that discharges the water. The vessel is then left standing freely on the support blocks. Water is pumped back into the dry dock when work is completed to refloat the vessel. The caisson is opened, and the vessel may leave the dry dock.

2. **Discharge Descriptions.** This Order covers the following types of discharges:

   a. **Discharges from Dry Dock Surfaces.** Discharges regulated by this Order consist of water that washes over the dry docks when they are submerged or flooded. Water flowing over dry dock surfaces can carry particulates and other residual material. Shipyard activities can involve many sources of pollutants, including blast abrasives, paint chips, cutting and welding slag, paper trash, discarded materials, sediment, marine growth, oil, solvents, and plastics. When work on a vessel is complete, the dry dock deck, or floor, is swept, and debris that ends up on the dry dock floor is removed prior to the next cycling of the dry dock. Any residual particulate matter remaining on the floor of the dry dock after cleanup has the potential to contact water when the dry dock is submerged or flooded.

b. Discharges from Integral Ballast Water. Floating dry docks use integral ballast water to raise and lower vessels into and out of the water. Currently, the largest floating dry dock in the San Francisco Bay Region requires about 22 million gallons of integral ballast water to raise and lower the dry dock.

c. Discharges from Non-Contact Cooling Water. This Order covers non-contact cooling water associated with vessels undergoing maintenance and repair. Such vessels may have crew living on-board while in dry dock. In those situations, on-board equipment, such as heating, air conditioning, and power generation equipment, continues to operate. This equipment requires cooling water to remove waste heat. This cooling water is pumped from adjacent surface water, through heat exchangers, and then returned to the same water body.

d. Discharges from Salt Water Fire Suppression Water. This Order covers salt water fire suppression water. Dischargers may occasionally release over-pressure from salt water fire protection systems. The source of this water is the same as the receiving water. The systems circulate salt water for fire suppression when needed. Currently, the largest such fire suppression system in the San Francisco Bay Region discharges at a rate of about 150,000 gallons per day.

e. Discharges of Stormwater from Dry Dock Surfaces after Cleaning. When no shipyard activity is occurring and the dry docks are clean, stormwater runoff from dry dock surfaces may be discharged.

f. Discharges of Stormwater from Landside Facilities Associated with Dry Docks. This Order covers stormwater discharges from onshore structures and surfaces, including piers, associated with dry dock facilities. Runoff from these industrial areas may carry particulate and residual material, including blast abrasives, paint chips, cutting and welding slag, paper trash, discarded materials, sediment, marine growth, oil, solvents, and plastics. Dischargers may enroll landside stormwater discharges under this Order or retain coverage under the statewide General Permit for Storm Water Discharges Associated with Industrial Activities (Industrial General Permit), Order No. 2014-0057-DWQ, NPDES No. CAS000001. Dischargers terminate coverage under the Industrial General Permit for any landside stormwater discharges covered under this Order as of the effective date of an Authorization to Discharge.

This Order does not cover process water used in ship dismantling operations, seepage water from graving dry dock walls, seepage water from graving dry dock caissons, ballast water from vessels in dry dock, and stormwater runoff from dry dock surfaces collected in dry dock sumps. This Order also does not cover sanitary wastewater. Such wastewaters must be disposed of in accordance with applicable federal, State, and local laws and other requirements. The State Water Board developed the Industrial General Permit for stormwater discharges associated with industrial activities. Stormwater discharges not commingled with other wastewaters may be covered under the Industrial General Permit .

B. Discharge Points and Receiving Waters

Dischargers may discharge to any receiving waters in the San Francisco Bay Region, which for purposes of this Order includes Central, Lower, and South San Francisco Bay; San Pablo Bay;

Carquinez Strait; Mare Island Strait; Suisun Bay; and the Sacramento-San Joaquin Delta. The NOI form in Attachment B requires Dischargers to specify their discharge locations and to provide a map or diagram indicating the discharge path to surface waters.

C. Previous Requirements

The previous order did not contain numeric effluent limitations. It included discharge prohibitions, receiving water limitations, narrative effluent limitations, and provisions requiring the implementation of Best Management Practices (BMPs) to ensure that dry dock surfaces are clean and free of pollutants prior to submergence. As a component of the required BMPs, the previous order required routine collection of wipe samples of dry dock surfaces prior to the submergence or flooding of the dry dock. It required Dischargers to analyze the samples for metals that potentially result from ship repair, rebuilding, and dismantling operations; polychlorinated biphenyls (PCBs); and tributyltin. It also contained triggers, exceedance of which required Dischargers to reexamine and, if possible, improve their cleaning procedures to reduce residual contaminants on dry dock surfaces. Wipe sample test results are summarized below:

Table F-1. Wipe Sample Test Results

Parameter	Bay Ship & Yacht Range (µg/sq. ft.)	BAE Systems Ship Repair Range (µg/sq. ft.)	Mare Island Range (µg/sq. ft.)
Antimony	NA	<0.74 – 0.93J	NA
Arsenic	NA	<0.78 – 3.1	NA
Cadmium	<0.25 – 1.1	<0.25 – 0.36	NA
Chromium III	<0.50 – 31	0.46J – 13	<0.5 – 30
Chromium VI	<0.50 – 0.00	<0.00 – 1.7	<10
Copper	36 – 11,000	9.5 – 140,000	2.7 – 6,500
Lead	<0.25 – 110	<0.27 – 19	<0.5 – 94
Mercury	NA	<0.02 – 0.01J	NA
Nickel	<1.0 – 130	0.34J – 14	<0.5 – 60
Selenium	NA	<0.88 – 1.7J	NA
Silver	NA	<0.28 – 0.77J	NA
Thallium	NA	<0.21	NA
Zinc	46 – 14,000	20.7 – 50,000	8.2 – 3,900
Tributyltin	<0.02	<0.01 – 0.26	<0.00 – 0.01
Polychlorinated Biphenyls (PCBs)	<5.1	<2.3	<3.5

Notations:

NA = Not available
< = Not detected above detection limit provided
J = Estimated value; reported value below reporting level

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

A. Legal Authorities

This Order serves as Waste Discharge Requirements (WDRs) pursuant to California Water Code article 4, chapter 4, division 7 (commencing with § 13260). This Order is also issued pursuant to Clean Water Act (CWA) section 402 and implementing regulations adopted by U.S. EPA and Water Code chapter 5.5, division 7 (commencing with § 13370). It shall serve as an NPDES permit for point source discharges to surface waters from enrolled facilities.

B. California Environmental Quality Act

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act, Public Resources Code division 13, chapter 3 (commencing with § 21100).

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plan.** The Regional Water Board adopted the *Water Quality Control Plan for the San Francisco Bay Basin* (Basin Plan), which designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Requirements in this Order implement the Basin Plan. In addition, this Order implements State Water Board Resolution No. 88-63, which established State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Receiving water beneficial uses include the following:

   - Agricultural Supply
   - Areas of Special Biological Significance
   - Cold Freshwater Habitat
   - Ocean, Commercial and Sport Fishing
   - Estuarine Habitat
   - Freshwater Replenishment
   - Groundwater Recharge
   - Industrial Service Supply
   - Marine Habitat
   - Fish Migration
   - Municipal and Domestic Supply
   - Navigation
   - Industrial Process Supply
   - Preservation of Rare or Endangered Species
   - Water Contact Recreation
   - Non-Contact Water Recreation
   - Shellfish Harvesting
   - Fish Spawning
   - Warm Freshwater Habitat
   - Wildlife Habitat

2. **Thermal Plan.** The State Water Board adopted the *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California* (Thermal Plan) on January 7, 1971, and amended this plan on September 18, 1975. This plan contains temperature objectives for surface waters. It defines "thermal waste" as cooling water and industrial process water used for the purpose of transporting waste heat; therefore, some discharges covered by this Order are thermal wastes subject to the Thermal Plan. Requirements of this Order implement the Thermal Plan.

3. **Sediment Quality.** The State Water Board adopted the *Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1, Sediment Quality* on September 16, 2008, and it 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. This Order implements the sediment quality objectives of this plan.

4. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** U.S. EPA adopted the NTR on December 22, 1992, and amended it on May 4, 1995 and November 9, 1999. About 40 criteria in the NTR apply in California. On May 18, 2000, U.S. EPA adopted the CTR. The CTR promulgated new toxics criteria for California and incorporated the previously

adopted NTR criteria that applied in the State. U.S. EPA amended the CTR on February 13, 2001. These rules contain water quality criteria for priority pollutants.

5. **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* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000, with respect to the priority pollutant criteria U.S. EPA promulgated for California through the NTR and the priority pollutant objectives the Regional Water Board established in the Basin Plan. The SIP became effective on May 18, 2000, with respect to the priority pollutant criteria U.S. EPA 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.

6. **Antidegradation Policy.** Federal regulations at 40 C.F.R. section 131.12 requires that state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy through State Water Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California," which is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality 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. Permitted discharges must be consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16.

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

8. **Endangered Species Act Requirements.** 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 §§ 2050 to 2097) or the federal Endangered Species Act (16 U.S.C.A. §§ 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, including protecting rare, threatened, or endangered species. The Discharger is responsible for meeting all applicable Endangered Species Act requirements.

D. Impaired Waters on CWA 303(d) List

In July 2015, U.S. EPA approved a list of impaired water bodies prepared pursuant to CWA section 303(d), which requires the 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 (the 303[d] list) includes San Francisco Bay as a waterbody impaired by chlordane, DDT, dieldrin, dioxin compounds, furan compounds, invasive species, mercury, selenium, and dioxin-like and non dioxin-like PCBs. Where the Regional Water Board has not done so already, it plans to adopt Total Maximum Daily Loads (TMDLs) for water

bodies on the 303(d) list. TMDLs establish wasteload allocations for point sources and load allocations for non-point sources and are established to achieve the water quality standards for the impaired water bodies.

The SIP requires effluent limitations for all 303(d)-listed pollutants to be consistent with TMDLs and associated wasteload allocations. A TMDL for mercury became effective February 12, 2008, and a TMDL for PCBs became effective March 29, 2010. Neither TMDL contains wasteload allocations for dry docks because dry docks are not known to be significant sources of mercury. Likewise, dry docks are not known to be significant sources of chlordane, DDT, dieldrin, dioxin compounds, furan compounds, invasive species, or selenium. Dry docks could be a source of PCBs, but receiving water and sediment monitoring completed during the previous order term did not detect any.

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 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: 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of receiving waters.

A. Discharge Prohibitions

1. Prohibitions in this Order

a. Discharge Prohibition III.A. (No discharge other than as described in NOI and Authorization to Discharge): This prohibition is based on 40 C.F.R. section 122.21(a), duty to apply, and Water Code section 13260, which requires filing an application and Report of Waste Discharge before discharge can occur. Discharges not described in an NOI and Authorization to Discharge are prohibited.

b. Discharge Prohibition III.B. (No discharge of sanitary wastewater): This prohibition is necessary because the requirements of this Order do not address sanitary wastewater. Sanitary wastewater discharges must meet secondary treatment standards and other requirements. This Order‘s requirements do not implement these standards so sanitary discharges are prohibited.

c. Discharge Prohibition III.C. (No discharge of solid materials and wastes, spent abrasive, paint residues, and marine fouling organisms): This prohibition is based on Basin Plan Table 4-1, Discharge Prohibitions 6 and 7, which prohibit discharges of stable toxic and deleterious substances and discharges of solid wastes. The rationale for this prohibition is to minimize the discharge of persistent toxic pollutants and solid wastes.

d. Discharge Prohibition III.D. (No discharge of oil and floating materials): This prohibition is based on Basin Plan Table 4-1, Discharge Prohibitions 8 and 13, which

prohibit the discharge of oil and other petroleum products, and other floating materials, to protect birds and other wildlife from possible toxic effects.

e. Discharge Prohibition III.E. (No discharge of ballast water from vessels in dry dock): This prohibition is necessary because ballast water from vessels in dry dock may contain invasive species and the requirements of this Order do not reflect the discharge of such ballast water.

f. Discharge Prohibition III.F (No discharge of power washing or pressure washing water, boiler drainage, or other process wastewater): This prohibition is based on Basin Plan Prohibition 6, which limits the discharge of any persistent toxicants. Wash waters are to be collected for discharge to a sanitary sewer system or through other legal means not subject to this Order. This prohibition is necessary because the requirements of this Order do not reflect the discharge of power washing or pressure washing water, boiler drainage, or any process water; thus, this Order prohibits these discharges.

g. Discharge Prohibition III.G (No discharge of seepage water or stormwater): This prohibition is necessary because the requirements of the Order do not address seepage water or stormwater. Seepage or stormwater could contain pollutants not controlled by the BMPs specified in this Order; thus, this Order may not sufficiently protect water quality if seepage water or stormwater were discharged.

h. Discharge Prohibition III.H (No discharge of fire suppression water containing chemical additives): This prohibition is based on 40 C.F.R. section 122.21(a), duty to apply, and Water Code section 13260, which requires filing an application and Report of Waste Discharge before discharge can occur. Discharge of pollutants not contemplated during the development of this Order are prohibited.

2. Exception to Basin Plan Discharge Prohibition 1

Basin Plan Discharge Prohibition 1 prohibits discharge of "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 intended 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 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. Basin Plan section 4.2 allows exceptions when an inordinate burden would be placed on a discharger relative to the beneficial uses protected and an equivalent level of environmental protection can be achieved by alternate means.

The 10:1 dilution ratio was designed to accommodate treatment plant upsets. Discharges associated with water having contact with dry dock deck surfaces during and after submergence or flooding are not continuous and not subject to upset. Industrial stormwater is likewise not subject to upset. Integral ballast water, non-contact cooling water from vessels in dry dock, and salt water fire suppression water are all drawn from the receiving water and then returned. No pollutants of concern are added other than waste heat in cooling water. None of these discharges is continuous, and none is subject to upset. Providing an initial

dilution of at least 10:1 would not result in greater water quality protection than implementing the BMPs required by Provision VI.C.7 of the Order.

B. Technology-Based Effluent Limitations

CWA section 301(b) and 40 C.F.R. section 122.44 require that permits include conditions meeting technology-based requirements at a minimum and any more stringent effluent limitations necessary to meet water quality standards. The CWA requires that technology-based effluent limitations be established based on several levels of control:

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

2. **Best available technology economically achievable (BAT)**. 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.

3. **Best conventional pollutant control technology (BCT)**. BCT represents the control from existing industrial point sources of conventional pollutants, including biochemical oxygen demand, total suspended solids, fecal coliform, pH, and oil and grease. BCT standards are established after considering a two-part reasonableness test. The first test compares the relationship between the costs of attaining a reduction in effluent discharge and the resulting benefits. The second test examines the cost and level of reduction of pollutants from the discharge from publicly-owned treatment works to the cost and level of reduction of such pollutants from a class or category of industrial sources. Effluent limitations must be reasonable under both tests.

4. **New source performance standards (NSPS)**. NSPS represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires U.S. EPA to develop effluent limitations, guidelines, and standards representing application of BPT, BAT, BCT, and NSPS. CWA section 402(a)(1) and 40 C.F.R. section 125.3 authorize the use of best professional judgment to derive technology-based effluent limitations on a case-by-case basis when U.S. EPA has not promulgated effluent limitations, guidelines, and standards. When best professional judgment is used, the Regional Water Board must consider specific factors outlined in 40 C.F.R. section 125.3.

U.S. EPA has not issued effluent limit guidelines for the ship building and repair industry; however, U.S. EPA 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). U.S. EPA concluded, "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 (Provisions VI.C.5 through VI.C.7) contains narrative BMP-based requirements that represent BPT controls based on best

professional judgment. In setting these limits, the factors specified in 40 CFR 125.3(d) were considered:

Table F-2. Factors Considered Pursuant to 40 C.F.R. section 125.3(d)(1)

Factors	Considerations
Cost relative to benefits	The cost of imposing these limits is reasonable given that existing Dischargers can comply through their existing processes. 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.
Age of equipment and facilities involved	These limits can be met with existing equipment and facilities. Dry docks, some of which may be old, cannot be readily altered. However, new and effective equipment (brooms, power washers, etc.) can be used to collect and remove potential pollutants.
Process employed	These limits can be met with existing processes. 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).
Engineering aspects of application of control techniques	The existing controls are practicable and capable of meeting these limits. The process of sweeping, scrubbing, and cleaning dry dock surfaces does not lend itself to more sophisticated engineering controls.
Process changes	No process changes are necessary to meet these limits. Existing dry dock operators have been cleaning the surfaces of their dry docks after ship maintenance operations and prior to submergence for years. No specific process changes are required.
Non-water-quality environmental impact (including energy requirements)	Because no process changes are necessary, no non-water-quality impacts are foreseeable. Waste materials would continue to be removed from dry docks and recycled or properly disposed of as appropriate.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

CWA section 301(b) and 40 C.F.R. section 122.44(d) require that permits include limitations more stringent than federal technology-based requirements where necessary to achieve applicable water quality standards. According to 40 C.F.R. section 122.44(d)(1)(i), permits must include effluent limitations for all pollutants that are or may be discharged at levels that have a 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, WQBELs must be established using (1) U.S. EPA 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, such as a proposed state criterion or policy interpreting a narrative criterion, supplemented with relevant information (40 C.F.R. § 122.44[d][1][vi]). The process for determining reasonable potential and calculating WQBELs is intended to achieve applicable water quality objectives and criteria and to protect designated uses of receiving waters as specified in the Basin Plan. This Order imposes WQBELs for pollutants with reasonable potential to cause or contribute to exceedances of water quality standards. 40 C.F.R. section 122.44(k) allows use of BMPs in place of numeric effluent limitations when numeric effluent limitations are

infeasible, as is the case with discharges from dry dock surfaces and landside industrial stormwater discharges.

2. Beneficial Uses and Water Quality Criteria and Objectives

Fact Sheet section III.C.1 identifies the potential beneficial uses of the receiving waters for discharges subject to this Order. Water quality criteria and objectives to protect these beneficial uses are described below:

a. Basin Plan. The Basin Plan specifies numeric water quality objectives for many pollutants to protect aquatic life (see Basin Plan section 3.3.21). It also specifies narrative water quality objectives, such as the narrative toxicity objective: "All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms."

b. CTR. The CTR specifies numeric aquatic life and human health criteria for numerous priority pollutants. These criteria apply to inland surface waters and enclosed bays and estuaries. Some human health criteria are for consumption of "water and organisms" and others are for consumption of "organisms only." Waters with the municipal or domestic supply beneficial use designation are subject to the "water and organisms" criteria.

c. NTR. The NTR establishes numeric aquatic life criteria for a number of pollutants for San Francisco Bay waters upstream to and including Suisun Bay and the San Joaquin-Sacramento River Delta.

d. Thermal Plan. The Thermal Plan defines specific water quality objectives for specific circumstances. Although the objectives differ somewhat for enclosed bays versus estuaries, and existing discharges versus new discharges, they essentially require the following:

- Discharge temperatures must protect beneficial uses;
- Discharge temperatures may be no more than 4 degrees Fahrenheit (°F) above the natural temperature of the receiving waters; and
- Discharge temperatures may not be higher than 86°F.

e. Sediment Quality Objectives. The *Water Quality Control Plan for Enclosed Bays and Estuaries—Part 1, Sediment Quality* contains a narrative water quality objective: "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 objective 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 objective, it is to impose the objective as a receiving water limit.

3. Need for WQBELs

Assessing whether a pollutant has reasonable potential to exceed a water quality objective is the fundamental step in determining whether a WQBEL is required. Data representative of

effluent quality are unavailable due to the nature of the discharges; therefore, this reasonable potential analysis is based on the nature of dry dock operations and the shipyard industry in general.

a. Discharges from Dry Dock Surfaces. Based on industry practices and operations, there is reasonable potential for residual material to be washed into the receiving water when a dry dock is submerged or flooded. Such material may contain metals common to the shipyard industry (e.g., chromium, copper, lead, nickel, and zinc) and tributyltin at concentrations that could cause or contribute to exceedances of water quality objectives. This determination is based on the following Oregon Department of Environmental Quality and U.S. EPA Office of Enforcement and Compliance Assurance documents, which provide descriptions of the pollutants generated during vessel maintenance and overhaul work:

i. *Best Management Practices for Oregon Shipyards*, Oregon Department of Environmental Quality, 2000;

ii. *USEPA Office of Compliance Sector Notebook Project: Profile of the Shipbuilding and Repair Industry*, U.S. EPA Office of Enforcement and Compliance Assurance, 1997; and

iii. *A Guide for Ship Scrappers*, U.S. Office of Enforcement and Compliance Assurance, 2000, EPA 315-B-00-001.

These documents also suggest that PCBs could be discharged from dry docks, but receiving water and sediment monitoring completed during the previous order term did not detect PCBs.

b. Integral Ballast Water. Integral ballast water is water drawn from the receiving water, stored in the ballasts of a floating dry dock, and returned to the receiving water. There is no reasonable potential for any pollutant because there is no opportunity to introduce any pollutant to a floating dry dock's integral ballasts.

c. Non-Contact Cooling Water. Vessels in dry dock may continue to operate on-board heating and cooling systems that use non-contact cooling water taken from the adjacent surface water and return it to the same water body. In such cases, the returned cooling water contains waste heat that is then dissipated into the receiving water. There is thus reasonable potential for this waste heat to exceed Thermal Plan water quality objectives.

d. Salt Water Fire Suppression Water. Fire suppression water is drawn from the receiving water and immediately returned to the receiving water. There is no reasonable potential for any pollutant because there is no opportunity to introduce any pollutant before the water is discharged.

e. Stormwater from Dry Dock Surfaces after Cleaning. There is no reasonable potential for stormwater collected from dry dock surfaces after cleaning takes place if the BMPs required by Provisions VI.C.5 and VI.C.7 of the Order are implemented, because these BMPs would remove any pollutants from the dry dock surfaces.

f. Sediment Discharges. Pollutants in some receiving water sediments may be present in quantities that alone or in combination are toxic to benthic communities. Efforts are underway to identify stressors causing such conditions. However, to date, there is no evidence directly linking compromised sediment conditions to the discharges subject to this Order. Sediment chemistry, as a single line of evidence, is not sufficient to assess sediment quality impacts; therefore, the Regional Water Board cannot draw a conclusion about Reasonable Potential for the discharges to cause or contribute to exceedances of the sediment quality objectives. MRP section V requires the Discharger to perform sediment monitoring to evaluate sediment toxicity, benthic community condition, and sediment chemistry. The integration of these three lines of evidence is consistent with the *Water Quality Control Plan for Enclosed Bays and Estuaries, Part 1 Sediment Quality*. The Regional Monitoring Program also continues to monitor San Francisco Bay sediment and seeks to identify stressors responsible for degraded sediment quality.

g. Landside Stormwater Discharges. There is reasonable potential for stormwater collected from landside surfaces to cause or contribute to exceedances of water quality objectives because runoff may carry pollutants (e.g., particulate material, metals, oil and grease) washed off from onshore equipment, structures, and surfaces associated with dry dock facilities.

4. WQBELs

Dry dock discharges of thermal wastes, metals common to the shipyard industry (e.g., chromium, copper, lead, nickel, and zinc), and tributyltin exhibit reasonable potential to cause or contribute to exceedances of water quality objectives. Similarly, landside stormwater discharges containing metals (e.g., aluminum, chromium, copper, lead, nickel, and zinc), oil and grease, and particulate material can cause or contribute to exceedances of water quality objectives. However, the establishment, evaluation, and enforcement of numeric effluent limitations for these pollutants are infeasible because representative effluent samples cannot readily be obtained from these types of discharges. These discharges are most appropriately controlled through BMPs, as set forth in Provisions VI.C.4 through VI.C.7 of the Order. CWA section 304(e) authorizes the use of BMPs as narrative effluent limitations. In accordance with 40 C.F.R. section 122.44(k), BMPs can be used to control or abate the discharge of pollutants when numeric effluent limitations are infeasible, or when BMPs are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. This Order, therefore, contains narrative discharge specifications that require implementation of BMPs (e.g., cleaning) that cover the pollutants with reasonable potential.

D. Discharge Specification Considerations

1. **Anti-backsliding**. The effluent limits (i.e., BMPs) and other requirements of this Order comply with anti-backsliding requirements because they are at least as stringent as those in the previous order. Although this Order reduces the number of constituents to be monitored through wipe sampling, the BMP requirements (e.g., cleaning dock surfaces) remain the same.

2. **Antidegradation**. This Order is consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution No. 68-16. It continues the status quo with

respect to the discharges authorized in the previous order. It does not degrade water quality by allowing industrial stormwater discharges because it retains essentially the same requirements for SWPPPs and BMPs as those in the Industrial General Permit. It does not allow for a reduced level of treatment or increase effluent limitations. It holds Dischargers to the same performance as the previous order. Therefore, further analysis and findings authorizing degradation are unnecessary.

3. **Stringency of Requirements for Individual Pollutants**. This Order contains both technology-based effluent limits and WQBELs. The technology-based requirements implement minimum applicable federal technology-based requirements. In addition, this Order contains more stringent effluent limitations as necessary to meet water quality standards. Collectively, this Order's restrictions are no more stringent than required to implement CWA requirements.

   This Order's requirements have been derived to implement water quality objectives that protect beneficial uses. The beneficial uses and water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that WQBELs were derived from the CTR, the CTR is the applicable standard pursuant to 40 C.F.R. section 131.38. U.S. EPA approved most Basin Plan beneficial uses and water quality objectives prior to May 30, 2000. Beneficial uses and water quality objectives submitted to U.S. EPA prior to May 30, 2000, but not approved by U.S. EPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 C.F.R. section 131.21(c)(1). U.S. EPA approved the remaining beneficial uses and water quality objectives so they are applicable water quality standards pursuant to 40 C.F.R. section 131.21(c)(2).

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

The receiving water limits are based on the water quality objectives listed in Basin Plan chapter 3 and are intended to ensure that receiving waters meet water quality standards in accordance with the CWA and regulations adopted thereunder.

VI. RATIONALE FOR PROVISIONS

A. Standard Provisions

Attachment D contains standard provisions that apply to all NPDES permits in accordance with 40 C.F.R. section 122.41 and additional conditions applicable to specific categories of permits in accordance with 40 C.F.R. section 122.42. Dischargers must comply with these provisions. The conditions set forth in 40 C.F.R. sections 122.41(a)(1) and (b) through (n) apply to all state-issued NPDES permits and must be incorporated into the permits either expressly or by reference.

In accordance with 40 C.F.R. section 123.25(a)(12), states may omit or modify conditions to impose more stringent requirements. This Order contains provisions that supplement the federal standard provisions in Attachment D. This Order omits federal conditions that address enforcement authority specified in 40 C.F.R. sections 122.41(j)(5) and (k)(2) because the State's enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates Water Code section 13387(e) by reference.

B. Monitoring and Reporting Provisions

CWA section 308 and 40 C.F.R. sections 122.41(h), 122.41(j)-(l), 122.44(i), and 122.48 require that NPDES permits specify monitoring and reporting requirements. Water Code sections 13267 and 13383 also authorize the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program (MRP) in Attachment E establishes monitoring, reporting, and recordkeeping requirements that implement federal and State requirements. For more information regarding these requirements, see Fact Sheet section VII.

C. Special Provisions

1. Reopener Provisions

These provisions are based on 40 C.F.R. sections 122.62 and 122.63 and allow modification of this Order and its effluent limitations as necessary in response to updated water quality objectives, regulations, or other new and relevant information that may become available in the future, and other circumstances as allowed by law.

2. Application for General Permit Coverage and Authorization to Discharge

These provisions require submittal of an NOI form and compliance with this Order upon receipt of an Authorization to Discharge, and are based on 40 C.F.R. section 122.28(b). Likewise, they allow the Executive Officer to terminate an Authorization to Discharge based on 40 C.F.R. section 122.28(b). The provision allowing the Executive Officer to require an individual permit is based on 40 C.F.R. section 122.28(b)(3).

3. Contingency Plan

The requirement to develop a Contingency Plan to ensure proper facility operation in the event of an emergency is based on Regional Water Board Resolution 74-10. Discharge in violation of this Order where the Discharger has failed to develop and implement a Contingency Plan as the Order requires could be the basis for considering the discharge a willful and negligent violation of the Order pursuant to Water Code section 13387.

4. Best Management Practices for Cleaning Dry Dock Surfaces

Provision VI.C.5 is based on CWA section 304(e) and 40 CFR 122.44(k), which allow use of BMPs to control or abate pollutant discharges when numeric effluent limitations are infeasible. The narrative discharge specifications in this Order call for removing particulates and residuals from dry docks through scraping, sweeping, and pressure washing and taking other appropriate actions prior to submergence or flooding of any portion of a dry dock. These measures are based on guidance provided in U.S. EPA's *Development Document for Proposed Best Management Practices for the Ship Building and Repair Industry: Dry docks Point Source Category* (1979).

5. Best Management Practices for Responses to Trigger Exceedances

Provision VI.C.5 requires Dischargers to compare the results of wipe sample tests from dry dock decks and floors after cleaning to a copper trigger set forth in the Order

(1,800 micrograms per square foot [µg/sq.ft.]). The purposes of the trigger are (1) to provide feedback regarding how thoroughly the BMPs are being implemented and (2) to indicate whether additional BMPs may be appropriate. Accelerated monitoring requirements and BMP enhancements ensure, if necessary, that pollutants on dry dock deck surfaces are removed to the extent technologically and economically feasible. When no further BMP enhancements can be implemented, this Order allows the Executive Officer to authorize a Discharger to return to the routine monitoring frequency indicated in MRP section III.B.3 or cease conducting wipe tests altogether. Under such circumstances, the Regional Water Board may consider the Discharger's efforts and revise the trigger with the next permit reissuance, so the trigger continues to provide feedback regarding how thoroughly the BMPs are implemented.

The trigger is not an effluent limitation and is not intended to evaluate whether discharges could cause or contribute to exceedances of water quality objectives in the receiving water. This Order requires receiving water monitoring to assess the effects of the discharge on receiving water quality.

The previous order contained triggers for additional pollutants, but data collected between 2013 and July 2016 indicate that copper is a reliable indicator of BMP implementation. Only copper and zinc were detected in wipe tests at levels greater than the previous triggers. Copper was detected far more frequently than zinc and, when found, exceeded its trigger by significantly greater magnitudes than zinc. Because BMPs that control copper also control zinc, testing for copper alone is sufficient to evaluate BMP implementation.

The trigger is calculated to relate the residual copper found on a wipe sample to a concentration potentially discharged to receiving waters after flooding or submergence. The water volume in a column of water directly above the wipe sample area is assumed to mix completely with any copper remaining on the dry dock deck or floor after cleaning. The flooded or submerged depth varies among dry docks. For a floating dry dock, the fully submerged dry dock deck lies below 20 to 40 feet of water. For a graving dry dock, the dry dock floor lies below at most 40 feet of water. To allow for a margin of safety, the copper trigger is based on one half of the depth at full submersion of the Bay Ship & Yacht dry dock in Alameda, currently the smallest dry dock in the Region. This is 10 feet or about 300 centimeters (cm) of water. The copper (measured in micrograms) on 1.0 square foot (930 square centimeters, cm2) of dry dock area would be mixed into about 280,000 cubic centimeters of water (930 cm2 x 300 cm of water).

The copper trigger is based on the freshwater chronic toxicity criterion (6.6 micrograms per liter) in the Basin Plan Table 3-4, and the CTR assuming a hardness value of 48 milligrams of calcium carbonate (mg $CaCO_3$). This is the lowest hardness recorded at two Regional Monitoring Program sampling stations (Napa River and Davis Point) relatively close to the dry docks at Mare Island. Water at this location tends to be fresher and have lower hardness than water near the other existing dry docks in the Region. The freshwater criterion is roughly the same as the saltwater criterion.

The trigger is calculated by multiplying the water quality criterion (6.6 µg/L) by the water column volume above one square foot (280 liters) to obtain 1,800 µg/sq.ft. The use of the

dissolved freshwater criterion without using a translator or conversion factor to estimate total recoverable copper is conservative.

6. Best Management Practices for Non-Contact Cooling Water

Occasional low-volume non-contact cooling water discharges are most appropriately controlled through BMPs, as authorized by CWA section 304(e) and 40 CFR 122.44(k). BMPs are the simplest way to ensure that the Thermal Plan water quality objectives are met.

7. Best Management Practices for Landside Stormwater

a. Stormwater Pollution Prevention Plan. This provision is based on Basin Plan section 4.8 and is consistent with the requirements of the Industrial General Permit.

b. Best Management Practices. This provision is based on U.S. EPA regulations in 40 C.F.R. section 122.44 (k), which refer to U.S. EPA's Guidance Manual for Developing Best Management Practices (October 1993, EPA 833-B-93-004). Dischargers are required to incorporate a Best Management Practices Manual by reference into their SWPPPs.

c. Annual Stormwater Report. This provision is necessary to evaluate the Discharger's compliance with the above stormwater requirements.

d. Stormwater Monitoring and Actions Levels. This provision establishes pollutant concentrations in landside stormwater discharges to be used to evaluate BMP effectiveness. These requirements are consistent with, and at least as stringent as, the requirements of the Industrial General Permit.

VII. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Attachment E contains the MRP for this Order. It specifies sampling stations, pollutants to be monitored, monitoring frequencies, and reporting requirements. The following provides the rationale for these requirements:

A. Dry Dock Surface Monitoring. The MRP establishes requirements for assessing the impact of pollutants on water flooding dry dock surfaces. It does not require direct sampling of water flushing over dry dock surfaces because collecting such samples may be unsafe and because it is impractical to control the amount of water relative to the affected surface area during these very dynamic operations, particularly for floating dry docks. Instead, the MRP requires Dischargers to collect wipe samples from randomly selected locations on the dry docks that could be affected by ship building, repair, and maintenance operations. Wipe tests will indicate the effectiveness of the BMPs in removing potential pollutants from the dry docks before they are submerged or flooded. Wipe samples are to be collected using solvents as described in MRP section III. Analysis of wipe samples yields pollutant values expressed in terms of μg/sq. ft. These values can be compared with the copper trigger set forth in Provision VI.C.5 of the Order and described in Fact Sheet section VI.C.5.b.

The previous order required wipe testing for additional pollutants, but, as explained in Fact Sheet section VI.C.5, available data indicate that copper is a reliable indicator of BMP implementation; therefore, this Order no longer requires monitoring for the other pollutants.

B. Receiving Water Monitoring. Receiving water monitoring is necessary to characterize the effects discharges could have on receiving waters and, in some cases, to evaluate compliance with receiving water limits. The MRP requires receiving water monitoring to establish background water quality conditions to evaluate whether dry docks are the cause of observed receiving water conditions. Because receiving water quality will likely remain relatively stable in San Francisco Bay, the frequency of background monitoring is limited to once per year.

During the previous permit term, receiving water monitoring was not correlated directly to dry dock cycling events in which dry dock wipe tests were also collected. Thus, it was impossible to evaluate receiving water data to determine if dry docks contributed to receiving water conditions. This Order requires that dry dock wipe tests be coordinated with receiving water sampling to maximize the usefulness of the data. As specified in MRP Table E-2 (footnotes) receiving water monitoring is to be performed as soon as feasible following a flooding or submergence event, and no more than 6 hours following the event.

C. Sediment Monitoring. The MRP requires collection of sediment samples near dry docks. It also requires sediment monitoring farther from the dry docks to establish background conditions. Sediment samples are needed to determine sediment toxicity, benthic community conditions, and sediment chemistry and to generate data for future comparison with the sediment quality objectives. This Order allows Dischargers to choose to coordinate with the Regional Monitoring Program to collect and analyze sediment samples (i.e., discharger sediment samples may be collected and analyzed together with Regional Monitoring Program sediment samples).

D. Landside Stormwater Monitoring. Landside stormwater monitoring is necessary to evaluate BMP effectiveness and to determine whether additional BMPs are necessary to control landside stormwater discharges.

E. Other Monitoring Requirements. This Order requires each Discharger to evaluate sampling data on a temporal basis to identify trends, if any. In addition, if wipe sample results indicate that the copper trigger is exceeded, the Discharger must comply with additional requirements specified in Provision VI.C.6 of the Order.

VIII. PUBLIC PARTICIPATION

The Regional Water Board considered the issuance of WDRs that will serve as an NPDES permit for dry dock facilities in the San Francisco Bay Region. As a step in the WDRs adoption process, the Regional Water Board developed tentative WDRs and encouraged public participation in the WDRs adoption process.

A. Notification of Interested Parties. The Regional Water Board notified Dischargers and interested agencies and persons of its intent to prescribe WDRs and provided an opportunity to submit written comments and recommendations. Notification was provided through the *Vallejo Times-Herald*. The public had access to the agenda and any changes in dates and locations through the Regional Water Board website at www.waterboards.ca.gov/sanfranciscobay.

B. Written Comments. Interested persons were invited to submit written comments concerning the tentative WDRs as explained through the notification process. Comments were due either in person or by mail at the Regional Water Board office at 1515 Clay Street, Suite 1400, Oakland, California 94612, to the attention of Marcos De La Cruz.

For full staff response and Regional Water Board consideration, the written comments were due at the Regional Water Board office by 5:00 p.m. on June 16, 2017.

C. Public Hearing. The Regional Water Board held a public hearing on the tentative WDRs during its regular meeting at the following date and time, and at the following location:

Date:	Wednesday, July 12, 2017
Time:	9:00 a.m.
Location:	Elihu Harris State Office Building 1515 Clay Street, 1st Floor Auditorium Oakland, CA 94612
Contact:	Marcos De la Cruz, (510) 622-2365, marcos.delacruz@waterboards.ca.gov

Interested persons were invited to attend. At the public hearing, the Regional Water Board heard testimony pertinent to the discharges, WDRs, and permit. For accuracy of the record, important testimony was requested to be in writing.

Dates and venues change. The Regional Water Board web address is www.waterboards.ca.gov/sanfranciscobay, where one could access the current agenda for changes in dates and locations.

D. Reconsideration of Waste Discharge Requirements. Any aggrieved person may petition the State Water Board to review the Regional Water Board decision regarding the final WDRs. The State Water Board must receive the petition at the following address within 30 calendar days of the Regional Water Board action:

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

For instructions on how to file a petition for review, see www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml.

E. Information and Copying. Supporting documents and comments received are on file and may be inspected at the address above at any time between 9:00 a.m. and 5:00 p.m., Monday through Friday. 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 WDRs and NPDES permit should contact the Regional Water Board, reference the general permit, and provide a name, address, and phone number.

G. Additional Information. Requests for additional information or questions regarding this Order should be directed to Marcos De La Cruz at (510) 622-2365 or marcos.delacruz@waterboards.ca.gov.