California Regional Water Quality Control Board

San Francisco Bay Region

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Alan C. Lloyd, Ph.D.
Agency Secretary

Arnold Schwarzenegger
Governor

ORDER NO. R2-2006-0014
NPDES NO. CA0005321

The following Discharger is authorized to discharge in accordance with the conditions set forth in this Order:

Discharger	**BAE Systems San Francisco Ship Repair**
Name of Facility	**BAE Systems San Francisco Ship Repair**
Facility Address	**Foot of 20th Street, Pier 70**
	San Francisco, CA 94120
	San Francisco County

The Discharger is authorized to discharge from the following discharge points as set forth below:

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Surface runoff from Drydock 1 during submergence	37 °, 45 ', 48 " N	122 °, 23 ', 01 " W	Lower San Francisco Bay
002	Surface runoff from Drydock 2 during submergence	37 °, 45 ', 49 " N	122 °, 22 ', 53 " W	Lower San Francisco Bay
003	Non-contact cooling water from Drydock No. 1	37 °, 45 ', 48 " N	122 °, 23 ', 01 " W	Lower San Francisco Bay
004	Non-contact cooling water from Drydock No. 2	37 °, 45 ', 49 " N	122 °, 22 ', 53 " W	Lower San Francisco Bay
005	Integral ballast water from Drydock No. 1	37 °, 45 ', 48 " N	122 °, 23 ', 01 " W	Lower San Francisco Bay
006	Integral ballast water from Drydock No. 2	37 °, 45 ', 49 " N	122 °, 22 ', 53 " W	Lower San Francisco Bay
007	Pressure relief from the saltwater fire protection system	37 °, 45 ', 45 " N	122 °, 23 ', 00 " W	Lower San Francisco Bay

This Order was adopted by the Regional Water Board on:	**March 8, 2006**
This Order shall become effective on:	**May 1, 2006**
This Order shall expire on:	**April 30, 2011**
The U.S. Environmental Protection Agency (U.S. EPA) and the Regional Water Board have classified this discharge as a minor discharge.	
The Discharger shall file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of the Order expiration date as application for issuance of new waste discharge requirements.	

IT IS HEREBY ORDERED that Order No. 01-021 is rescinded upon the effective date of this Order except for enforcement purposes, and, in order to meet the provisions contained in Division 7 of the California Water Code (CWC) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA), and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

I, Bruce Wolfe, Executive Officer, do hereby certify the following is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on March 8, 2006.

Bruce H. Wolfe

Bruce H. Wolfe, Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

REGION 2, SAN FRANCISCO BAY REGION

ORDER NO. R2-2006-0014
NPDES NO. CA0030121

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I. FACILITY INFORMATION

The following Discharger is authorized to discharge in accordance with the conditions set forth in this Order:

Discharger	BAE Systems San Francisco Ship Repair
Name of Facility	BAE Systems San Francisco Ship Repair
Facility Address	Foot of 20th Street, Pier 70 San Francisco, CA 94107-3005
Facility Contact, Title, and Phone	Sean Riley, Environmental Manager, 415-861-7447 Ext 450
Mailing Address	BAE Systems San Francisco Ship Repair P.O. Box 7644 San Francisco, CA 94120-7644
Type of Facility	Ship building and repair
Facility Design Flow	Not applicable

II. FINDINGS

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

A. **Background.** BAE Systems San Francisco Ship Repair, formerly San Francisco Drydock, Inc., (hereinafter the Discharger) is currently discharging under Order No. 99-035, as amended by Order No. 01-021, and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0005321. The Discharger submitted a Report of Waste Discharge, dated November 26, 2003, and applied for an NPDES permit renewal to discharge to the Lower San Francisco Bay from its drydock facility located at the foot of 20th Street in San Francisco.

B. **Facility Description.** The Discharger's facility is located on the western waterfront of San Francisco Bay on about 12 acres of land, leased from the San Francisco Port District, at the foot of 20th Street in San Francisco. Facilities on the site include production shops, a warehouse, administrative offices, piers, a wharf, and drydocks, which support the repair and overhaul of large U.S. Naval and commercial vessels. Untreated wastewater, which is discharged to the Lower San Francisco Bay, waters of the United States, consists of (1) Bay water that washes over the drydocks when they are submerged, (2) once-through non-contact cooling water from on-ship environmental systems, (3) drydock ballast water, and (4) once through fire protection water. Attachment B provides a location map of the area around the facility. Attachment C provides a wastewater flow schematic of the facility.

C. **Legal Authorities.** This Order is issued pursuant to CWA Section 402 and implementing regulations adopted by the U.S. Environmental Protection Agency (U.S. EPA) and CWC Chapter 5.5, Division 7. It shall serve as an NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements pursuant to CWC Article 4, Chapter 4 for discharges that are not subject to regulation under CWA Section 402.

D. Background and Rationale for Requirements. The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and through special studies. Attachments A through F contain background information and detailed rationale for Order requirements and are hereby incorporated into this Order and, thus, constitute part of the Findings for this Order.

E. California Environmental Quality Act (CEQA). This action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with CWC Section 13389.

F. Technology-Based Effluent Limitations. The Code of Federal Regulations (CFR) at 40 CFR 122.44 (a) requires that permits include technology-based limitations and standards, when such limitations and standards are applicable. Because there are no technology-based effluent limitations or new source performance standards established for the shipyard industry, the Regional Water Board may use best professional judgment (BPJ), pursuant to authority established by CWA Section 402 (a) (1) (B), and in accordance with requirements established at 40 CFR 125.3. This Order does not include technology-based effluent limitations; a detailed discussion is included in the Fact Sheet (Attachment F).

G. Water Quality-Based Effluent Limitations. 40 CFR 122.44 (d) requires that permits, when necessary, include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water. Where numeric water quality objectives have not been established, 40 CFR 122.44 (d) specifies that WQBELs may be established using U.S. EPA criteria guidance under CWA Section 304 (a), proposed State criteria or a State policy interpreting narrative criteria supplemented with other relevant information, or an indicator parameter. This Order does not include water quality-based effluent limitations; a detailed discussion is included in the Fact Sheet (Attachment F).

H. Best Management Practices. Best Management Practices (BMPs) are defined by NPDES regulations at 40 CFR 122.2 as schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. The inclusion of BMPs as requirements in discharge permits is authorized by CWA Section 304 (e); and in accordance with NPDES regulations at 40 CFR 122.44 (k), BMPs can be used to control or abate the discharge of pollutants in several circumstances, including, when numeric effluent limitations are infeasible.

I. Water Quality Control Plans. The Regional Water Board adopted a *Water Quality Control Plan for the San Francisco Bay Region* (the Basin Plan, 1995) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Beneficial uses applicable to the Lower San Francisco Bay within the South Bay Watershed, and based on known uses of the receiving waters, are as follows.

- Ocean, Commercial and Sport Fishing
- Estuarine Habitat

- Industrial Service Supply
- Fish Migration
- Navigation
- Preservation of Rare and Endangered Species
- Water Contact Recreation
- Non Contact Water Recreation
- Shellfish Harvesting
- Wildlife Habitat

The State Water Resources Control Board (the State Board) adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for inland surface waters, which are applicable to the receiving waters.

Requirements of this Order specifically implement the applicable water quality control plans.

J. 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. The CTR was adopted on May 18, 2000 and amended on February 13, 2001. These rules include water quality criteria for priority pollutants and are applicable to these discharges.

K. State Implementation Policy. On March 2, 2000, the State Water Resources Control Board (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 was effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the U.S. EPA through the NTR and to the priority pollutant objectives established by the Regional Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by the U.S. EPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP became effective on May 18, 2000. The SIP includes procedures for determining the need for and calculating WQBELs and requires dischargers to submit data sufficient to do so.

L. Compliance Schedules and Interim Requirements. Section 2.1 of the SIP provides that, based on a discharger's request and demonstration that it is infeasible for an existing discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under Section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued nor may it extend beyond 10 years from the effective date of the SIP (or May 18, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds one year, the permit must include interim numeric limitations for that constituent. Where permitted by the Basin Plan, compliance schedules and interim effluent limitations or discharge specifications may also be granted to allow time to implement a new or revised water quality objective.

Because this Order does not include effluent limitations but requires primarily implementation of BMPs to control the discharge of pollutants, compliance schedules and interim effluent limitations are not applicable; and therefore, are not included in this Order.

M. Anti-Degradation Policy. 40 CFR 131.12 requires that State water quality standards include an anti-degradation policy consistent with the federal policy. The State Water Board established California's anti-degradation policy in State Board Resolution 68-16, which incorporates the requirements of the federal anti-degradation policy. Resolution 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. As discussed in detail in the Fact Sheet, Attachment F, the permitted discharge is consistent with the anti-degradation provision of 40 CFR 131.12 and State Board Resolution 68-16.

N. Anti-Backsliding Requirements. CWA Sections 402 (o) (2) and 303 (d) (4) and federal regulations at 40 CFR 122.44 (l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All conditions of this Order are at least as stringent as the conditions in the previous Order and are therefore consistent with the anti-backsliding requirements of the CWA and federal regulations.

O. Monitoring and Reporting. 40 CFR 122.48 requires all NPDES permits to specify requirements for recording and reporting monitoring results. CWA Sections 13267 and 13383 authorize the Regional Boards to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.

P. Standard and Special Provisions. Standard Provisions, which in accordance with 40 CFR 122.41 and 40 CFR 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment D. The Regional Water Board has also included in this Order special provisions applicable to the Discharger. Rationale for the special provisions contained in this Order is provided in the attached Fact Sheet (Attachment F).

Q. Notification of Interested Parties. The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet (Attachment F) of this Order.

R. Consideration of Public Comment. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the public hearing are provided in the Fact Sheet (Attachment F) of this Order.

III. DISCHARGE PROHIBITIONS

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

B. Discharge of sanitary wastewater to waters of the State is prohibited.

C. Discharge of solid materials and solid wastes, spent abrasive and paint residues, and marine fouling organisms to waters of the State is prohibited.

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

E. The discharge of ship ballast water, during cleaning of ship ballast tanks, from vessels that are in drydock, is prohibited.

F. Discharge of any pressure washing water, boiler drainage, or any process water that is used or accumulated in the drydock area to waters of the State is prohibited.

G. Discharge of wastes not described as drydock washwater, non-contact cooling water, drydock integral ballast water, or water from the fire protection system, as described by this Order and the attached Fact Sheet, to waters of the State is prohibited.

H. During storm events, BAE Systems San Francisco Ship Repair shall not discharge process water to the sewer systems of the City of San Francisco unless specifically approved by the General Manager of the San Francisco Public Utilities Commission.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations—Discharge Points 001 and 002

1. The discharge of pollutants from Outfall Nos. 001 and 002 shall be prevented or minimized through implementation of a Best Management Practices/Pollution Prevention Program, as described by provision VI. C. 1, below.

2. Prior to submergence of any portion of either of the floating drydocks, the Discharger shall remove spent abrasives, paint residues, and other debris, particulate, and waste from those portions of the drydock floors, which are reasonably accessible, to a degree achievable by scraping, broom cleaning, pressure washing, or other methods that are appropriate for removing pollutants. After a vessel has been removed from a drydock, the remaining area of the floor which was previously inaccessible, shall be cleaned by scraping, broom cleaning, pressure washing or other methods that are appropriate for removing pollutants, as soon as practical and prior to the introduction of another vessel. This provision shall not apply in cases wherein a vessel must be introduced into the drydock on an emergency basis, such as to prevent sinking or leakage of oil or other materials. The Executive Officer shall be notified of such emergency circumstances.

B. Effluent Limitations—Discharge Points 003, 004, 005, 006, 007

1. The discharge of pollutants from Outfall Nos. 003 through 007 shall be prevented or minimized through implementation of a Best Management Practices/Pollution Prevention Program, as described by provision VI. C. 1, below.

2. The Discharger shall include BMPs to minimize the exposure of pollutants (e.g. metals) and to minimize discharge of heated water (at least below 86°F).

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

Receiving water limitations are based upon water quality objectives contained in the Basin Plan. As such, they are a required part of this Order. The discharge shall not cause the following conditions in the Lower San Francisco Bay.

1. The discharge of waste shall not cause the following conditions to exist in receiving waters.

   a. Floating, suspended, or deposited macroscopic particulate matter or foam.

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

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

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

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

2. The discharge of waste shall not cause the following limitations to be exceeded in receiving waters within 1 foot of the water surface.

a. Dissolved Oxygen	5.0 mg/L, minimum. The median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation. When natural factors cause concentrations less than that specified above, then the discharge shall not cause further reduction in ambient dissolved oxygen concentrations.
b. Dissolved Sulfide	0.1 mg/L, maximum
c. pH	The pH shall not be depressed below 6.5 nor raised above 8.5, nor caused to vary from normal ambient pH levels by more than 0.5 units.
d. Un-ionized Ammonia	0.025 mg/L as N, annual median, 0.4 mg/L as N, maximum
e. Nutrients	Waters shall not contain biostimulatory substances in concentrations that

	promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

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

VI. PROVISIONS

A. Standard Provisions

1. The Discharger shall comply with all U.S. EPA Standard Provisions for NPDES permits included in Attachment D of this Order.

2. Neither the treatment nor the discharge of pollutants shall create pollution, contamination, or nuisance as defined by CWC Section 13050.

3. The discharge of any radiological, chemical, or biological warfare agent is prohibited.

4. Wastewater collection, treatment, storage, and disposal systems shall be operated in a manner that precludes public contact with wastewater. Where exclusion of the public is not appropriate, warning signs shall be posted.

5. The Discharger shall submit, maintain, and implement a Best Management Practices (BMP) Program in accordance with VI. C. 1, below. The BMP Program shall be consistent with the requirements of U.S. EPA regulation 40 CFR 125, Subpart K and the general guidance contained in the NPDES Best Management Guidance Document, U.S. EPA Report No. 600/9-79-045, December 1979 (revised June 1981).

6. Permit Compliance and Rescission of Previous Waste Discharge Requirements. The Discharger shall comply with all sections of this Order beginning on May 1, 2006. Requirements prescribed by this Order supersede the requirements prescribed by Order No. 99-035, as amended by Order No. 01-021. Order Nos. 99-035 and 01-021 are hereby rescinded upon the effective date of this Order.

7. Contingency Plan, Review and Status Reports

   a. The Discharger shall maintain a Contingency Plan as required by Board Resolution 74-10 (available at http://www.waterboards.ca.gov/sanfrancisco/Download.htm). Resolution 74-10 requires that measures be taken under such circumstances as power outage, employee strikes, earthquakes, fires, and vandalism to assure that wastes are not unnecessarily discharged, or discharged untreated or inadequately treated. The discharge of pollutants in violation of this Order where the Discharger has failed

to develop and/or adequately implement a contingency plan will be the basis for considering such discharge a willful and negligent violation of this Order pursuant to CWC Section 13387.

As Resolution 74-10 is directed primarily towards dischargers which collect and treat wastewaters before discharging (e.g., municipal wastewater treatment plants), the Discharger shall develop and maintain a Contingency Plan only to assure implementation of best management practices under such circumstances as contemplated by the Resolution. The Contingency Plan must address all applicable requirements of Resolution 74-10, including the potential circumstances of electric power failure. Safeguards shall be described to assure that, in the event of electric power reduction, loss, or failure, the Discharger will comply with the terms and conditions of this Order.

b. The Discharger shall regularly review, and update as necessary, the Contingency Plan so that it remains useful and relevant to current equipment and operation practices. Reviews of the plan shall be conducted annually, and updates shall be completed as necessary.

c. As part of the Annual Report, (as described in the MRP, VI. Reporting Requirements), the Discharger shall describe the current status of its Contingency Plan review and update. The description should include a list of revisions, or a statement that no changes are needed.

8. New WQOs

As new or revised WQOs come into effect for the Bay and contiguous waterbodies (whether statewide, regional, or site specific), effluent limitations in this Order will be modified as necessary to reflect updated WQOs. Adoption of effluent limitations contained in this Order is not intended to restrict in any way future modifications based on legally adopted WQOs.

9. Change in Control or Ownership

In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Regional Water Board. To assume responsibility for and operations under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. Failure to submit the request shall be considered a discharge without waste discharge requirements, a violation of the California Water Code.

10. Permit Reopener

The Regional Water Board may modify or reopen this Order and Permit prior to its expiration date in any of the following circumstances:

a. If present or future investigations demonstrate that the discharge(s) governed by this Order and permit have a reasonable potential to cause or contribute to adverse impacts on water quality and/or beneficial uses of the receiving waters;

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

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

The Discharger may request permit modification based on (b) and (c) above. The Discharger shall include in any such request an antidegradation and antibacksliding analysis.

11. NPDES Permit

This Order shall serve as an NPDES permit pursuant to CWA Section 402 or amendments thereto, and shall become effective on May 1, 2006, provided the U.S. EPA Regional Administrator has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

12. Order Expiration and Reapplication

a. This Order expires April 30, 2011.

b. In accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code, the Discharger must file a Report of Waste Discharge no later than 180 days before the expiration date of this Order as application for reissuance of this permit and waste discharge requirements.

B. Monitoring and Reporting Program Requirements

The Discharger shall comply with the Monitoring and Reporting Program, and future revisions thereto, in Attachment E of this Order.

C. Special Provisions

1. Best Management Practices/Pollution Prevention Program

The Discharger shall implement a Best Management Practices/Pollution Prevention Program to identify and evaluate sources of wastes and pollutants associated with activities at the dry dock facility and to identify and implement site-specific best

management practices (BMPs) to reduce or prevent the discharge of wastes and pollutants to surface waters. The BMP/PPP Program shall include the development, annual updating, and implementation of a BMP Plan. The BMP Plan shall be consistent with the general guidance contained in U.S. EPA's *Guidance Manual for Developing Best Management Practices* (EPA 833-B-93-004) and shall be submitted to the Executive Officer within 6 months following adoption of this Order. The BMP Plan shall include the following elements.

a. Characterization of Discharges

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

b. Identification of Best Management Practices

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

The Discharger shall consider:

- Preventative BMPs - measures to reduce or eliminate the generation of pollutants and waste,
- Control BMPs - measures to control or manage pollutants and waste after they are generated and before they come into contact with water, including measures to prevent leaks and spills and measures to contain dust and particulate material,
- Treatment BMPs - measures to remove pollutants and waste from water released to the Lower San Francisco Bay, and
- Response BMPs - measures to respond to leaks, spills, and other releases with containment, control, and cleanup measures to prevent or minimize the potential for the discharge of pollutants and to minimize the adverse effects of such discharges.

The BMP Plan shall address the following shipyard activities, if applicable, at the dry dock facility.

- Control of large solid materials
- Abrasive blasting
- Oil, grease, and fuel transfers
- Paint and solvent use
- Dust and overspray

- Over water activities
- Storm drain inlet protection
- Hose, piping, and fitting use and maintenance
- Segregation of water from debris
- Hydroblasting
- Material and waste storage
- Sewage disposal
- Gray water disposal
- Oily bilge and ballast water disposal
- Floating drydock, graving dock, and shipbuilding way cleanup
- Sally port protection
- Discharges resulting from wind, tidal action, and site runoff
- Leaks and spills
- Waste disposal
- Recovery of ship launch grease/wax
- Other activities with potential to result in discharges of wastes or pollutants to the Lower San Francisco Bay

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

i. Site boundaries and structures,

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

iii. Areas of industrial activity where discharges originate. The Site Map shall include the locations of material handling and processing areas; waste treatment, storage, and disposal areas; dust or particulate generating areas; cleaning and rinsing areas; and other areas of industrial activity which are potential pollutant sources.

d. Annual Comprehensive Site Compliance Evaluation

The Discharger shall conduct at least one comprehensive site compliance evaluation per year to determine the effectiveness of the Best Management Practices Program. Evaluations shall be conducted not less than 8 or more than 16 months apart. The BMP/PPP Program shall be revised, as appropriate, and the revisions implemented within 90 days of the evaluation. Evaluations shall include the following.

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

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

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

iv. An evaluation report that includes, (i) identification of personnel performing the evaluation, (ii) the date of the evaluation, (iii) necessary Program revisions, (iv) incidents of non-compliance and the corrective actions taken, and (vi) a certification that the Discharger is in compliance with this Order. If the above certification cannot be provided, the evaluation report shall include an explanation as to why the Discharger is not in compliance with this Order. The evaluation report shall be submitted as part of the annual report (see Monitoring and Reporting Program), be retained for at least five years, and be signed and certified in accordance with the requirements of this Order.

At least thirty days prior to conducting its Comprehensive Site Compliance Evaluation, the Discharger shall notify appropriate Regional Water Board NPDES staff person of its intent to conduct the evaluation, so that a representative of the Regional Water Board may accompany the Discharger during its inspection of the facility and its review of best management practices

ATTACHMENTS

Attachment A—Definitions A-1

Attachment B—Topographic Map B-1

Attachment C—Flow Schematic C-1

Attachment D—Federal Standard Provisions D-1

Attachment E—Monitoring and Reporting Program (MRP) E-1

Attachment F—Fact Sheet F-1

ATTACHMENT A—DEFINITIONS

1. Bypass means the intentional diversion of waste streams from any portion of treatment facility.

2. Daily Discharge means:

   a. For flow rate measurements, the average flow rate measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling.

   b. For pollutant measurements, the concentration or mass emission rate measured during a calendar day or during any 24-hour period reasonably representative of the calendar day for purposes of sampling.

3. Daily Maximum Limit means the maximum acceptable daily discharge. For pollutant measurements, unless otherwise specified, the results to be compared to the daily maximum limit are based on composite samples.

4. DDT and Derivatives shall mean the sum of the p,p' and o,p' isomers of DDT, DDD (TDE), and DDE.

5. Duly Authorized Representative is one whose:

   a. Authorization is made in writing by a principal executive officer or ranking elected official;

   b. Authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as general manager in a partnership, 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.); and

   c. Written authorization is submitted to the U.S. EPA Region 9. If an authorization becomes no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements above must be submitted to the Board and U.S. EPA Region 9 prior to or together with any reports, information, or applications to be signed by an authorized representative.

6. Hazardous Substance means any substance designated as such at 40 CFR 116 pursuant to Section 311 of the Clean Water Act.

7. HCH shall mean the sum of the alpha, beta, gama (Lindane), and delta isomers of hexachlorocyclohexane.

8. Inadequately Treated Waste is wastewater receiving partial treatment but failing to meet discharge requirements.

9. Incompatible Pollutants are:

   a. Pollutants which create a fire or explosion hazard in a treatment works;

   b. Pollutants which will cause corrosive structural damage to a treatment works, or wastewaters with pH lower than 5.0 pH units, unless the facilities are specifically designed to accommodate such wastewater;

   c. Solid or viscous pollutants in amounts which will cause obstruction to the flow in a treatment works resulting in interference;

   d. Any pollutant, including oxygen-demanding pollutants (e.g., BOD) released into the wastewater system at a flow rate and/or pollutant concentration which will cause interference with a wastewater treatment facility.

   e. Heat in amounts which will inhibit biological activity in a wastewater treatment facility and result in interference, or heat in such quantities that the temperature at the wastewater treatment facility exceeds 40°C (104°F) unless the works is designed to accommodate such heat or the Board approves alternate temperature limits.

10. Indirect Discharger means a non-domestic discharger introducing pollutants into a publicly owned treatment and disposal system.

11 Initial Dilution is the process which results in the rapid and irreversible turbulent mixing of wastewater with receiving water around the point of discharge.

12. Mass Emission Rate is obtained from the following calculation for any calendar day:

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

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

In which N is the number of samples analyzed in any calendar day. Qi and Ci are the flow rate (mgd) and the constituent concentration (mg/L), respectively, which are associated with each of the N grab samples which may be taken in any calendar day. If a composite sample is taken, Ci is the concentration measured in the composite sample and Qi is the average flow rate occurring during the period over which samples are composited. The daily concentration measured over any calendar day of all constituents shall be determined from the flow-weighted average of the same constituents in the combined waste streams as follows:

$$C_d = \text{average daily concentration} = \frac{1}{Q_t} \left(\sum_{i=1}^{N} Q_i C_i \right)$$

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

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

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

15. POTW means Publicly Owned Treatment Works.

16. POTW Removal Efficiency is expressed as the percentage of the ratio of pollutants removed by the treatment facilities to pollutants entering the treatment facilities. Removal efficiencies of a treatment plant shall be determined using monthly averages of pollutant concentration of influent and effluent samples collected at about the same time and using the following equation (or its equivalent):

    Removal Efficiency (%) = 100 x [1 - (Effluent Conc./Influent Conc.)]

    When preferred, the Discharger may substitute mass loadings and mass emissions for the concentrations.

17. Priority Pollutants are those constituents referred to at 40 CFR 122, Appendix D, and listed in the U.S. EPA NPDES Application Form 2C, (dated 6/80) Items V-3 through V -9.

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

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

20. Toxic Pollutant means any pollutant listed as toxic under CWA Section 307 (a) (1) or at 40 CFR 401.15.

21. Total Identifiable Chlorinated Hydrocarbons (TICH) shall be measured by summing the individual concentrations of DDT, DDD, DDE, aldrin, BHC, chlordane, endrin, heptachlor, lindane, dieldrin, PCBs and other identifiable chlorinated hydrocarbons.

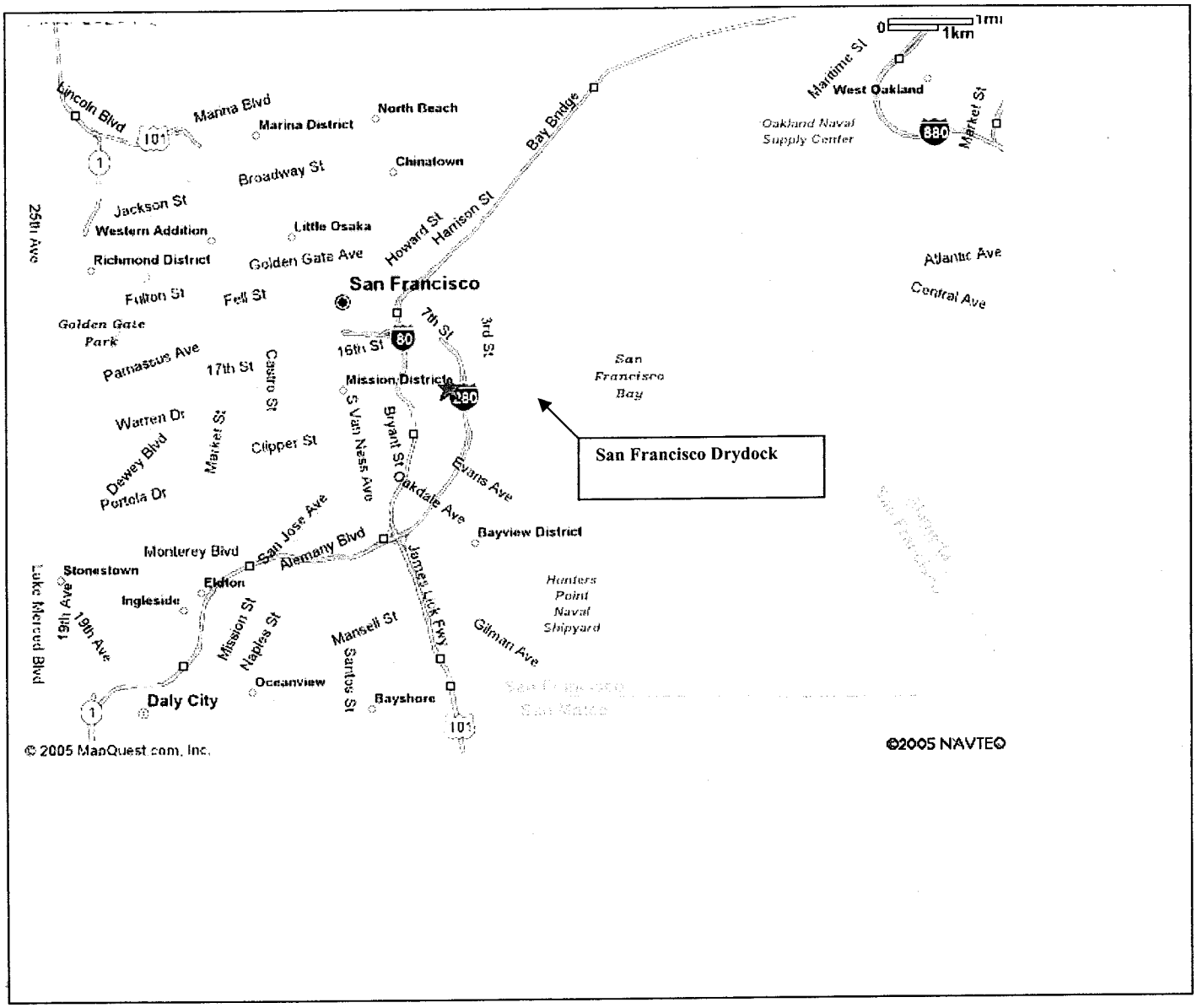
22. Severe Property Damage means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass or overflow. It does not mean economic loss caused by delays in production.

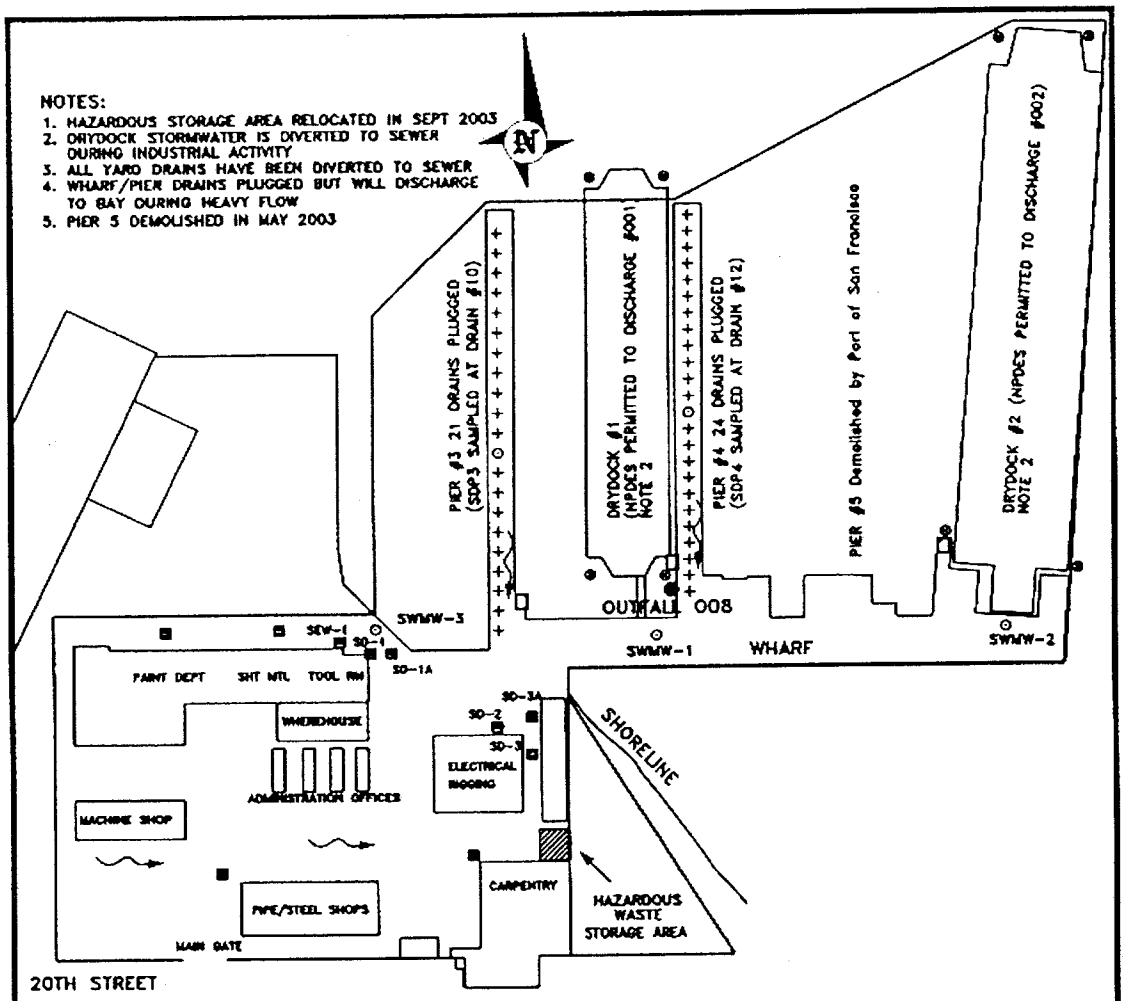
23. Untreated Waste is defined as raw wastewater.

24. Upset means an exceptional incident in which there is unintentional temporary noncompliance with effluent technology based permit limitations in the order and permit because of factors beyond the reasonable control of the discharger. It 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.

25. Waste, Waste Discharge, Discharge of Waste, and Discharge are used interchangeably in this Order and permit. The requirements of this Order and permit are applicable to the entire volume of water, and the material therein, which is disposed of to surface and ground waters of the State of California.

Attachment B – Location Map





SAN FRANCISCO DRYDOCK, INC

SAN FRANCISCO DRYDOCK, INC.

REV.	DESCRIPTION	BY	DATE
0	BMP-NOI MAP	SH	1/29/98
1	NPDES PERMIT RENEWAL	SH	11/21/03

TITLE: NPDES Permit Renewal

LOCATION: FOOT OF 20th STREET SAN FRANCISCO, CA 94107

SCALE: 1" = 240' (0 – 240)

FIGURE: 1

ATTACHMENT D—FEDERAL STANDARD PROVISIONS

I. Standard Provisions—Permit Compliance

A. Duty to Comply

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

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

B. Need to Halt or Reduce Activity Not a Defense

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

C. Duty to Mitigate

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

D. Proper Operation and Maintenance

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

E. Property Rights

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

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

F. Inspection and Entry

The Discharger shall allow the Regional Board, State Water Resources Control Board (SWRCB), the U.S. EPA, and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to [40 CFR §122.41 (i)] [CWC 13383 (c)]:

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

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

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

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

G. Bypass

1. Definitions

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

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

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

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

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

b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance [40 CFR §122.41 (m) (4) (B)]; and

c. The Discharger submitted notice to the Regional Water Board as required under Standard Provision—Permit Compliance I.G.5 below [40 CFR §122.41 (m) (4) (C)].

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

5. Notice

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

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

H. Upset

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

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph H.2 of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review [40 CFR §122.41 (n) (2)].

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

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

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

c. The Discharger submitted notice of the upset as required in Standard Provisions—Reporting V.E.2.b [40 CFR §122.41 (n) (3) (iii)]; and

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

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

II. STANDARD PROVISIONS—PERMIT ACTION

A. General

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

B. Duty to Reapply

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

C. Transfers

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

III. STANDARD PROVISIONS—MONITORING

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

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

IV. STANDARD PROVISIONS—RECORDS

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

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements [40 CFR §122.41 (j) (3) (i)];
2. The individual(s) who performed the sampling or measurements [40 CFR §122.41 (j) (3) (ii)];
3. The date(s) analyses were performed [40 CFR §122.41 (j) (3) (iii)];
4. The individual(s) who performed the analyses [40 CFR §122.41 (j) (3) (iv)];
5. The analytical techniques or methods used [40 CFR §122.41 (j) (3) (v)]; and
6. The results of such analyses [40 CFR §122.41 (j) (3) (vi)].

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

1. The name and address of any permit applicant or Discharger [40 CFR §122.7 (b) (1)]; and
2. Permit applications and attachments, permits and effluent data [40 CFR §122.7 (b) (2)].

V. STANDARD PROVISIONS—REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Board, SWRCB, or U.S. EPA within a reasonable time, any information which the Regional Water Board, SWRCB, 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, SWRCB, or U.S. EPA copies of records required to be kept by this Order [40 CFR §122.41 (h)] [CWC 13267].

thus be either a named individual or any individual occupying a named position) [40 CFR §122.22 (b) (2)]; and

c. The written authorization is submitted to the Regional Board, SWRCB, or USEPA [40 CFR §122.22 (b) (3)].

4. If an authorization under paragraph (3.) of this provision 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 paragraph (3.) of this provision must be submitted to the Regional Water Board, State Water Board or U.S. EPA prior to or together with any reports, information, or applications, to be signed by an authorized representative [40 CFR §122.22 (c)].

5. Any person signing a document under paragraph (2) or (3) of this provision shall make the following certification:

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

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program in this Order [40 CFR §122.41 (l) (4)].

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

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

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

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, SWRCB, and/or U.S. EPA shall be signed and certified in accordance with paragraph (2.) and (3.) of this provision [40 CFR §122.41 (k)].

2. All permit applications shall be signed as follows:

   a. For a corporation: 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 CFR §122.22 (a) (1)];

   b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively [40 CFR §122.22 (a) (2)]; or

   c. For a municipality, State, federal, or other public agency: 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 CFR §122.22 (a) (3)].

3. All reports required by this Order and other information requested by the Regional Board, State Water Board, or U.S. EPA shall be signed by a person described in paragraph (b) of this provision, 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 paragraph (2.) of this provision [40 CFR §122.22 (b) (1)];

   b. The authorization specified 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

D. Compliance Schedules

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

E. Twenty-Four Hour Reporting

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

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

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

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

   c. Violation of a maximum daily discharge limitation for any of the pollutants listed in this Order to be reported within 24 hours [40 CFR §122.41 (l) (6) (ii) (C)].

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

F. Planned Changes

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

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

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in this Order nor to notification requirements

under 40 CFR Part 122.42 (a) (1) (see Additional Provisions—Notification Levels VII.A.1) [40 CFR §122.41 (l) (1) (ii)].

3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan [40 CFR §122.41 (l) (1) (iii)].

G. Anticipated Noncompliance

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

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions—Reporting E.3, E.4, and E.5 at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision—Reporting V.E [40 CFR §122.41 (l) (7)].

I. Other Information

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

VI. STANDARD PROVISIONS—ENFORCEMENT

A. The CWA provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402 (a) (3) or 402 (b) (8) of the Act, is subject to a civil penalty not to exceed $25,000 per day for each violation. The CWA provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402 (a) (3) or 402 (b) (8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the

case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309 (c) (3) (B) (iii) of the Clean Water Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions [40 CFR §122.41 (a) (2)] [CWC 13385 and 13387].

B. Any person may be assessed an administrative penalty by the Regional Water Board for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000 [40 CFR §122.41 (a) (3)].

C. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both [40 CFR §122.41 (j) (5)].

D. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both [40 CFR §122.41 (k) (2)].

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 CFR §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 CFR §122.42 (a) (1)]:

   a. 100 micrograms per liter (µg/L) [40 CFR §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 CFR §122.42 (a) (1) (ii)];

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

   d. The level established by the Regional Water Board in accordance with 40 CFR §122.44 (f) [40 CFR §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 CFR §122.42 (a) (2)]:

   a. 500 micrograms per liter (µg/L) [40 CFR §122.42 (a) (2) (i)];

   b. 1 milligram per liter (mg/L) for antimony [40 CFR §122.42 (a) (2) (ii)];

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

   d. The level established by the Regional Water Board in accordance with 40 CFR §122.44 (f) [40 CFR §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 CFR §122.42 (b)]:

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to Sections 301 or 306 of the CWA if it were directly discharging those pollutants [40 CFR §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 the Order [40 CFR §122.42 (b) (2)].

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 CFR §122.42 (b) (3)].

ATTACHMENT E—MONITORING AND REPORTING PROGRAM

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ATTACHMENT E—MONITORING AND REPORTING PROGRAM (MRP)

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

I. GENERAL MONITORING PROVISIONS

A. Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring locations specified below and, unless otherwise specified, before the monitored flow joins or is diluted by any other waste stream, body of water, or substance. Monitoring locations shall not be changed without notification to and the approval of this Regional Water Board.

B. Appropriate flow measurement devices and methods consistent with accepted scientific practices shall be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than ±10 percent from true discharge rates throughout the range of expected discharge volumes. Guidance in selection, installation, calibration and operation of acceptable flow measurement devices can be obtained from the following references:

1. *A Guide to Methods and Standards for the Measurement of Water Flow*, U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 421, May 1975, 96 pp. (Available from the U.S. Government Printing Office, Washington, D.C. 20402. Order by SD Catalog No. C13.10:421.)

2. *Water Measurement Manual*, U.S. Department of Interior, Bureau of Reclamation, Second Edition, Revised Reprint, 1974, 327 pp. (Available from the U.S. Government Printing Office, Washington D.C. 20402. Order by Catalog No. 172.19/2:W29/2, Stock No. S/N 24003-0027.)

3. *Flow Measurement in Open Channels and Closed Conduits*, U.S. Department of Commerce, National Bureau of Standards, NBS Special Publication 484, October 1977, 982 pp. (Available in paper copy or microfiche from National Technical Information Services (NTIS) Springfield, VA 22151. Order by NTIS No. PB-273 535/5ST.)

4. *NPDES Compliance Sampling Manual*, U.S. Environmental Protection Agency, Office of Water Enforcement, Publication MCD-51, 1977, 140 pp. (Available from the General Services Administration (8FFS), Centralized Mailing Lists Services, Building 41, Denver Federal Center, CO 80225.)

C. All analyses shall be performed in a laboratory certified to perform such analyses by the California Department of Health Services.

D. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. All flow measurement devices shall be calibrated at least once per year to ensure continued accuracy of the devices.

E. Monitoring results, including noncompliance, shall be reported at intervals and in a manner specified in this Monitoring and Reporting Program.

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the BMPs, discharge specifications, and other requirements in this Order:

Discharge Point Name	Monitoring Location Name	Monitoring Location Description (include Latitude and Longitude when available)
001	M-001	Floor area of Dry Dock No. 1, which is submerged during vessel release
002	M-002	Floor area of Dry Dock No. 2, which is submerged during vessel release
003	M-003	Drydock No. 1, discharge of non-contact cooling water before contact with receiving water
004	M-004	Drydock No. 1, discharge of non-contact cooling water before contact with receiving water
005	M-005	Ballast water from Dry Dock No.1 discharged as the dry dock is raised
006	M-006	Ballast water from Dry Dock No.2 discharged as the dry dock is raised
007	M-007	Discharge from the fire protection system before contact with receiving water
Receiving Water	R-001	Bay water at a sufficient distance from the BAE Systems San Francisco Ship Repair facility to be representative of background water quality conditions

III. INFLUENT MONITORING REQUIREMENTS

Influent monitoring will not be required, as receiving water monitoring requirements, described below, will provide data that is representative of receiving water and influent water quality.

IV. EFFLUENT MONITORING REQUIREMENTS

A. Monitoring Location M-001 and M-002

1. Prior to submergence of any portion of a dry dock, the Discharger shall record the results of a pre-submergence inspection noting any conditions requiring correction prior to submergence. Inspection reports shall identify the inspector's name and title.

2. One time per year, the Discharger shall attempt to collect washwater samples from the surface of either drydock, as the dry dock is being submerged. Washwater samples shall be representative of Bay water that initially washes over the drydock surfaces and shall be analyzed in accordance with the following schedule. In the event a washwater sample was not collected during the year, the Discharger shall provide the rationale for not collecting the washwaster sample in the annual report

(see Fact sheet for details regarding the Discharger's safety concerns regarding collection of washwater samples)

Parameter	Units	Sample Type	Minimum Sampling Frequency
Total Suspended Solids	mg/L	grab	1X / year
Settleable Solids	ml/L	grab	1X / year
Metals [1]	µg/L	grab	1X / year

1 Metals are those identified as Compound Nos. 1 – 13 by the California Toxics Rule at 40 CFR 131.38 (b) – antimony, arsenic, beryllium, cadmium, chromium (3), chromium (6), copper, lead, mercury, nickel, selenium, silver, thallium, and zinc. Analytical results shall be reported as total recoverable metal

B. Monitoring Location M-003 and M-004

1. The Discharger must monitor flow rate of non-contact cooling water discharges, and on an annual basis, summarize the number of ships that discharged non-contact cooling water; the minimum, mean, and maximum flow rate (gpm) observed; and the minimum, mean, and maximum duration (days) of the discharges during the previous year.

V. RECEIVING WATER MONITORING REQUIREMENTS

A. Monitoring Location R-001

1. One time during the term of this Order the Discharger shall collect a receiving water sample at Monitoring Location R-001, simultaneously with collection of an effluent sample, as required by IV. A. 2, above. The location of the Monitoring Location R-001 shall be recorded and reported with sample results. Receiving water samples shall be analyzed for settleable and total suspended solids and for the 13 metals identified as Compound Nos. 1- 13 by the California Toxics Rule at 40 CFR 131.38 (b).

VI. LAND DISCHARGE MONITORING REQUIREMENTS

This section of the MRP is not applicable to the Discharger, as this Order does not apply to discharges to land.

VII. RECLAMATION MONITORING REQUIREMENTS

This section of the MRP is not applicable to the Discharger, as this Order does not apply to reclaimed wastewater.

VIII. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

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

B. Self Monitoring Reports

1. The Discharger shall submit annual Self Monitoring Reports, which include the results of all required monitoring as well as the report of the annual Comprehensive Site Compliance Evaluation. Annual reports shall be due on February 1 following each calendar year.

2. Monitoring periods for all required monitoring shall commence upon the effective date of this Order, with the first annual report due on February 1, 2007.

3. The Discharger shall report with each sample result the applicable Minimum Level (ML) and the laboratory current Method Detection Limit (MDL) as determined by procedures in 40 CFR Part 136.

4. The Discharger shall arrange all reported data in tabular form so that the specified information is readily discernible. The data shall be summarized in such a manner as to clearly illustrate whether the facility is operating in compliance with waste discharge requirements.

5. Water quality data shall be reported in the first Self Monitoring Report to be submitted flowing receipt of the analytical data. The Discharger shall discuss the water quality data as it reflects the effectiveness of the facility's BMP Program.

6. The Discharger shall attach a cover letter to its Self Monitoring Report. The information contained in the cover letter shall clearly identify violations of the WDRs, discuss corrective actions taken or planned and the proposed time schedule of corrective actions. Identified violations should include a description of the requirement that was violated and a description of the violation.

7. Monitoring results must be reported on forms approved by this Regional Water Board. Duplicate copies of the monitoring reports, signed and certified as required by the standard provisions (Attachment D) must be submitted to the address listed below.

Submit monitoring reports to:
State Water Resources Control Board
Discharge Monitoring Report Processing Center
Post Office Box 671
Sacramento, CA 95812

ATTACHMENT F—FACT SHEET

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ATTACHMENT F—FACT SHEET

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

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

WDID	2 386015001
File #	2169.6015
Discharger	BAE Systems San Francisco Ship Repair
Name of Facility	BAE Systems San Francisco Ship Repair
Facility Address	Foot of 20th Street, Pier 70 San Francisco, CA 94107-3005 San Francisco County
Facility Contact, Title and Phone	Sean Riley, Environmental Manager, 415-861-7447
Authorized Person to Sign and Submit Reports	Sean Riley, Environmental Manager, 415-861-7447
Mailing Address	P.O. Box 7644, San Francisco, CA 94120-7644
Billing Address	P.O. Box 7644, San Francisco, CA 94120-7644
Type of Facility	Dry dock
Classification	Minor
Threat to Water Quality	
Complexity	
Fee Code	
Construction Requirements	N
Industry Class	
Ownership Type	PRIV
Funded	
Pretreatment Program	N
Reclamation Requirements	
Baseline Flow	
Design Flow	
Waste Type 1	
Waste Type 2	
Watershed	South Bay Watershed
Waterbody	Lower San Francisco Bay
Receiving Water Type	
Hydrologic Unit	

BAE Systems San Francisco Ship Repair is located on the western waterfront of San Francisco Bay on about 12 acres of land, leased from the San Francisco Port District, at the foot of 20th Street in San Francisco. Facilities on the site include production shops, a warehouse,

administrative offices, piers, a wharf, and drydocks, which support the repair and overhaul of large U.S. Naval and commercial vessels.

This Order regulates the discharge of wastewaters to the Lower San Francisco Bay, waters of the United States, from the BAE Systems San Francisco Ship Repair facility. This Order also rescinds the requirements of Regional Water Board Order No. 99-035, as amended by Order No. 01-021, which was adopted on February 21, 2001 and previously regulated these discharges to the Bay.

The Discharger filed a Report of Waste Discharge and submitted an application for renewal of its Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit on November 26, 2003.

II. FACILITY DESCRIPTION

A. Treatment Process Description and Discharge Points

The United States Environmental Protection Agency (U.S. EPA) and the Regional Water Quality Control Board, San Francisco Bay Region (the Regional Water Board) have classified this facility as a minor discharger.

At the facility, two drydocks, with capacities of 21,000 and 65,000 tons, are used to conduct repair and maintenance activity, which cannot be conducted while a vessel is waterborne. Such activities include exterior hull repair, preservation (abrasive blasting and/or hydroblasting and painting), and repair or replacement of valves and fittings below the waterline. Drydocking and ship launching is accomplished using integral ballast tanks to take in (lower the drydock) and discharge (raise the drydock) seawater. From 2000 – 2003, Drydock No. 1, the Eureka Drydock, was raised an average of 18 times per year, and Drydock No. 2 was raised an average of 22 times per year.

All discharges from shore-side activities are to the local storm and sanitary sewer systems. Scuppers and drains are built into Piers 3 and 4 and the main wharf to control storm water discharges to the Bay. Pier 1 is constructed of wood and is no longer in use; and there is no Pier 2. The wastewaters described by the following table are generated by Bay-side activities at the site and are addressed by this Order.

Wastewaters that are discharged to the Bay currently do not receive treatment and occur through the outfalls described in the following table. Process wastewaters from Bay-side activities (hydroblasting water from surface preparation, tank cleaning wastewaters, and storm water runoff from the drydock areas) are collected and discharged to the local sanitary sewer system, and therefore, are not addressed by this Order.

Discharge Point	Location	Wastewater
001	latitude 37° 45' 48" longitude 122° 23' 01"	Drydock No. 1 Washwater. Spent abrasives, paint residues, and other particulate can remain after sweeping and washing Drydock No. 1, which has a surface area of 58,400 square feet. These wastes may be carried into the Bay when the drydock is submerged. Estimates of discharge volumes are

Discharge Point	Location	Wastewater
		not available.
002	latitude 37° 45' 49" longitude 122° 22' 53"	Drydock No. 2 Washwater. Spent abrasives, paint residues, and other particulate can remain after sweeping and washing Drydock No. 2, which has a surface area of 720,000 square feet.. These wastes may be carried into the Bay when the drydock is submerged to release a vessel. Estimates of discharge volumes are not available.
003	latitude 37° 45' 48" longitude 122° 23' 01"	Drydock No. 1 Non-Contact Cooling Water. When being serviced, some vessels continue to operate on-board environmental systems (air conditioning, heating, and refrigeration). Once through cooling water for these systems is provided via the Discharger's salt water, fire protection system. This cooling water contacts only a ship's cooling water piping and heat exchange surfaces to dissipate heat, before being discharged to the Bay through Outfall No. E-003. Estimates of discharge volumes are not available.
004	latitude 37° 45' 49" longitude 122° 22' 53"	Drydock No. 2 Non-Contact Cooling Water. When being serviced, some vessels continue to operate on-board environmental systems (air conditioning, heating, and refrigeration). Once through cooling water for these systems is provided via the Discharger's salt water, fire protection system. This cooling water contacts only a ship's cooling water piping and heat exchange surfaces to dissipate heat, before being discharged to the Bay through Outfall No. E-004. Estimates of discharge volumes are not available.
005	latitude 37° 45' 48" longitude 122° 23' 01"	Drydock No. 1 Integral Ballast Water. Approximately 30 million gallons of integral ballast water is discharged from Drydock No. 1 for every drydock evolution. Ballast water is used to submerge the drydock in order to bring in a vessel, and discharge occurs through Outfall No. E-006 as the vessel is raised. The integral ballast tanks are enclosed and contact only Bay water during use. This drydock is raised 18 times per year (average) and 9,506,000 gallons are discharged per docking event.
006	latitude 37° 45' 49" longitude 122° 22' 53"	Drydock No. 2 Integral Ballast Water. Approximately 30 million gallons of integral ballast water is discharged from Drydock No. 2 for every drydock evolution. Ballast water is used to submerge the drydock in order to bring in a vessel, and discharge occurs through Outfall No. E-007 as the vessel is raised. The integral ballast tanks are enclosed and contact only Bay water during use. This drydock is raised 22 times per year (average) and 27,215,000 gallons are discharged per docking event.
007	latitude 37° 45' 45" longitude 122° 23' 00"	Fire Protection System. Pressure relief from the fire protection system results in an intermittent discharge of Bay water through outfall No. E-008 approximately 300 days per year at a rate of 200 gallons per minute (gpm) for 24 hours per day. Discharge occurs approximately 300 days per year for 24 hours per day. The Discharger estimates that flow through Outfall Nos. E-003, E-004, and E-008 totals 200 gpm.

Attachment B to the Order is a topographic map, which shows the regional location of the BAE Systems San Francisco Ship Repair facility. Attachment C to the Order is a wastewater flow schematic of the facility.

B. Discharge Points and Receiving Waters

The beneficial uses of the Lower San Francisco Bay within the South Bay Watershed, as identified in the *Water Quality Control Plan, San Francisco Bay Basin* (the Basin Plan, 1995), and based on known uses of the receiving waters, are:

- Ocean, Commercial and Sport Fishing
- Estuarine Habitat
- Industrial Service Supply
- Fish Migration
- Navigation
- Preservation of Rare and Endangered Species
- Water Contact Recreation
- Non Contact Water Recreation
- Shellfish Harvesting
- Wildlife Habitat

The San Francisco Bay, south of the Bay Bridge, is marine water with salinity concentrations consistently greater than 10 ppt.

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

1. Requirements of Order No. 01-021

   Order No. 01-021 established an effluent limitation for temperature (86° F) in wastewaters discharged from Outfall Nos. 003 and 004; and it established a narrative effluent limitation for particulate material discharged from Outfall Nos. 001 and 002, which limited particulate matter in the discharge to a residual amount remaining after thorough cleaning of drydock surfaces. Order No. 01-021 also required the Discharger to develop and implement stormwater pollution prevention and best management plans and to conduct sediment quality and cooling water best management plan studies. Self monitoring requirements included water quality monitoring of the receiving water and effluent discharged through Outfall Nos. 003 and 004.

2. Effluent Characterization, Outfall Nos. E-001 and E-002

   Prior to submergence, Drydock Nos. 1 and 2 are cleaned and then inspected for the presence of trash, debris, and industrial pollutants. The condition of the drydocks before submergence has been documented by photographs, which generally show clean surface conditions before drydocks are lowered. The Discharger did not collect samples at these locations due to safety concerns.

3. Effluent Characterization, Outfall Nos. E-003 and E-004

Since 2002, two non-contact cooling water effluent samples (both collected at E-004) have been analyzed for conventional parameters with the following results.

Date Sampled	May 7, 2002	Sept 24, 2002
Ammonia (mg/L N)	0.16	-
Unionized Ammonia (mg/L N)	0.0050	-
Cyanide (mg/L)	< 0.005	0.015
Oil and Grease (mg/L)	< 5	< 5
pH (pH Units)	7.9	7.8
Settleable Solids (ml/L/hr)	< 0.1	< 0.1
Total Suspended Solids (mg/L)	65	79
Turbidity (NTUs)	12	4.2

Since 2002, whole effluent toxicity in non-contact cooling water has been examined one time, showing compliance with the acute toxicity standard of the Basin Plan.

Sample Station	Date Sampled	Results
E-004	September 24, 2002	95 percent survival in 96 hour tests using three spine stickle back

On March 31, 2003, the Discharger submitted a Cooling Water Best Management Plan Special Study Report to the Regional Water Board. For this study, non-contact cooling water was sampled from eight ships in 2001 – 2002 and analyzed for the priority toxic pollutants. Analytical results, which were generated by this study, are summarized in the following tables. Blank cells in the tables indicate that data was not generated.

Priority Pollutants in Non-Contact Cooling Water (mg/L)								
Ship			**Legend of the Seas**		**Regal Princess**		**SS Navigator**	
Date	**5/7/02**		**9/24/02**		**9/18/02**		**12/13/02**	
	Intake or Receiving Water	Effluent	Intake or Receiving Water	Effluent	Intake or Receiving Water	Effluent	Intake or Receiving Water	Effluent
Sample Station	I-002	E-004	I-001	E-004	I-002 and R-001		R-001 and I-002	E-004
Aluminum	ND	ND	ND	0.1	ND		ND	ND
Arsenic	0.07	0.079	0.11	ND	0.073		0.00263	0.00221
Antimony	ND	ND	ND	ND	ND		ND	ND
Beryllium	ND	ND	ND	ND	ND		ND	ND
Cadmium	ND	ND	ND	ND	ND		ND	ND
Chromium	ND	ND	ND	ND	ND		ND	ND
Copper	ND	ND	ND	ND	0.053		0.012	0.054

Lead	ND	ND	ND	ND	ND		ND	ND
Nickel	ND	ND	ND	0.052	ND		ND	ND
Selenium	0.19	0.19	0.21	0.19	0.21		0.000229	0.000239
Silver	ND	ND	ND	ND	ND		ND	ND
Thallium	ND	ND	ND	ND	ND		ND	ND
Zinc	0.18	0.18	ND	0.33	ND		ND	0.88
Methylene Chloride							0.56	0.51

Priority Pollutants in Non-Contact Cooling Water (mg/L)										
Ship	**Dole Ship**		**Viking Serenade**		**Guatemala**		**Veen Dam Job**		**Morgenthau**	
Date	**1/9/01**		**4/4/01**		**7/12/01**		**10/4/01**		**12/3/01**	
	Intake or Receiving Water	**Effluent**	**Intake or Receiving Water**	**Effluent**	**Intake or Receiving Water**	**Effluent**	**Intake or Receiving Water**	**Effluent**	**Intake or Receiving Water**	**Effluent**
Sample Station					I-002	E-004	I-002	E-004		
Aluminum		ND		0.352	ND	ND	ND	ND		ND
Arsenic		ND		ND	ND	ND	ND	ND		ND
Antimony		ND		ND	ND	ND	ND	ND		ND
Beryllium		ND		ND	ND	ND	ND	ND		ND
Cadmium		ND		ND	ND	ND	ND	ND		ND
Chromium		ND		ND	ND	ND	ND	ND		ND
Copper		ND		0.0155	ND	ND	ND	ND		ND
Lead		ND		ND	ND	ND	ND	ND		ND
Nickel		ND		ND	ND	ND	ND	ND		ND
Selenium		ND		ND	ND	ND	ND	ND		ND
Silver		ND		ND	ND	ND	ND	ND		ND
Thalliujm		ND		ND	ND	ND	ND	ND		ND
Zinc		ND		ND	ND	ND	ND	ND		ND

4. Sediment Characterization

Order No. 01-021 required the Discharger to monitor sediment quality near the drydock facilities for organotin compounds, copper, lead, zinc, and toxicity. Two sample locations per dry dock were required, and results were to be compared to a reference sample collected in a location free from the effects of the Discharger's activities. Results of sediment characterization performed during the term of Order No. 00-021 are presented below. Sample locations 1A and 1B are at the offshore and nearshore ends, respectively, of Drydock No. 1; and sample locations 2A and 2B are at the offshore and nearshore ends, respectively, of Drydock No. 2.

During the term of the Order No. 01-021, only one reference/control sediment sample was collected and analyzed. Five metals were analyzed with the following results.

Sediment Characterization - Control/Reference Location

	Units	**1998**
Cadmium	mg/dry kg	< 0.26
Chromium (6)	mg/dry kg	< 0.05
Copper	mg/dry kg	44

Lead	mg/dry kg	29
Zinc	mg/dry kg	110

Between 1998 and 2004, sediment samples near the drydock facilities were collected five times and analyzed for sixteen metals and the organotin compounds with the following results. Blank cells in the tables indicate that data was not generated.

Sediment Characterization – Drydock No. 1

		1A					1B				
	Units	**1998**	**1999**	**2000**	**2002**	**2004**	**1998**	**1999**	**2000**	**2002**	**2004**
Aluminum	mg/dry kg		offscale	Offscale (44,900)				62,000	offscale		
Arsenic	mg/dry kg		11.4	88.5 (8.89)				12	10.1		
Cadmium	mg/dry kg	< 0.29	0.07	0.23 (0.38)	0.32	0.27	0.29	< 0.05	0.24	0.31	0.27
Chromium	mg/dry kg		145	123 (103)				136	144		
Chromium (6)	mg/dry kg	< 0.06	< 1.0	< 1.0	< 0.05	< .05	< 0.05	< 1.0	< 1.0	0.14	< .05
Copper	mg/dry kg	69	62.4	< 1.0	57.6	72.1	100	77.4	96.9	58.3	59.4
Iron	mg/dry kg		51,000	42,700 (33,800)				50,900	45,800		
Lead	mg/dry kg	27	23.1	19.3 (17.8)	25.7	27.3	29	24.6	20.7	26.1	24.2
Mercury	mg/dry kg		0.31	0.205 (< 0.01)				0.33	0.22		
Nickel	mg/dry kg		112	990 (73.2)				112	103		
Selenium	mg/dry kg		0.56	0.17 (0.56)				0.53	0.47		
Silver	mg/dry kg		0.37	0.24 (< 0.01)				0.4	0.27		
Thallium	mg/dry kg		0.27	0.16 (0.18)				0.3	0.2		
Titanium	mg/dry kg			1,210 (1,350)					1,470		
Tin (total)	mg/dry kg		2.72	2.72 (2.31)				2.69	2.87		
Zinc	mg/dry kg	130	124	134 (100)	128	145	120	131	106	129	134
Tetrabutyltin	ng/dry kg	< 2,900	< 10	< 2	< 1	< 1	< 2,700	< 10	< 2	< 1	< 1
Tributyltin	ng/dry kg	< 2,900	< 10	< 2	17.2	1.7	4,900 (5,200)	38 (10)	< 2	22.8	8.4
Dibutyltin	ng/dry kg	< 2,900	< 10	< 2	< 1	< 1	< 2,700	< 10	< 2	< 1	< 1
Monobutyltin	ng/dry kg	< 2,900	< 10	< 2	< 1	< 1	< 2,700	< 10	< 2	< 1	< 1

Sediment Characterization – Drydock No. 2

		2A					2B				
	Units	1998	1999	2000	2002	2004	1998	1999	2000	2002	2004
Aluminum	mg/dry kg		70,900	offscale				76,300 (78,600)	offscale		
Arsenic	mg/dry kg		12.2	7.96				12.4 (12.3)	8.67 (9.16)		
Cadmium	mg/dry kg	< 0.25	0.06	0.22	0.3	0.26	< 0.26	0.12 (< 0.05)	0.24 (0.26)	0.27 (0.28)	0.25
Chromium	mg/dry kg		146	118				155 (158)	125 (137)		
Chromium (6)	mg/dry kg	< 0.05	< 1.0	< 1.0	< .05	< .05	< 0.05	< 1.0	< 1.0	0.25	< .05
Copper	mg/dry kg	71	87.5	95.5	47	62.2	68 (71)	63.7 (64)	63 (57)	51.2 (50.8)	53.4 (58.8)
Iron	mg/dry kg		50.900	40,900				53,100 (53,300)	40,700 (42,600)		
Lead	mg/dry kg	29	22.3	16.3	20.5	22.9	23 (31)	23.9 (23)	15.9 (17.7)	23.8 (23.6)	20.8 (21.7)
Mercury	mg/dry kg		0.32	0.183				0.34 (0.32)	0.19 (0.21)		
Nickel	mg/dry kg		113	89.1				119 118	89.9 (97.7)		
Selenium	mg/dry kg		1.13	0.34				0.77 0.49	0.86 (0.44)		
Silver	mg/dry kg		0.31	0.22				0.31 (0.30)	0.23 (0.24)		
Thallium	mg/dry kg		0.32	0.16				0.33 (0.32)	0.17 (0.19)		
Tin (total)	mg/dry kg		2.66	2.12				2.82 (2.93)	2.32 (2.49)		
Titanium	mg/dry kg			1,380					1,280 (1,410)		
Zinc	mg/dry kg	120	138	82.8	103	123	120	133 (132)	87.2 (92.8)	125 (121)	119 (124)
Tetrabutyltin	ng/dry kg	< 2,500	< 10	< 2	< 1	< 1	< 2,600	< 10		< 1	< 1
Tributyltin	ng/dry kg	< 2,500	50	< 2	546	143	2,900	8		66.7 (45.6)	32 (104)
Dibutyltin	ng/dry kg	< 2,500	< 10	< 2	< 1	3.9	< 2,600	< 10		< 1	< 1
Monobutyltin	ng/dry kg	< 2,500	< 10	< 2	< 1	< 1	< 2,600	< 10		< 1	< 1

Note: Analytical results in parentheses are results of duplicate analyses. All results of metals analyses are as reported by CRG Marine Laboratories, Inc.

Between 1998 and 2004, sediment samples were collected five times and analyzed for toxicity using Ampelisca Abdita, and grain size was determined with the following results. Blank cells in the tables indicate that data was not generated.

Sediment Characterization – Solid Phase Bioassay Results, Ampelisca Abdita

Sample Location	Percent Survival				
	1998	1999	2000	2002	2004
Control/Reference	90	91	91	91	90
1A	93	91	91	89	86
1B	92	89	89	96	90
2A	98	87	87	85	79
2B	98	92	92	86	81

Sediment Characterization – Grain Size

Sample Location	Grain Size	Percent Grain Size				
		1998	1999	2000	2002	2004
Control / Reference	**Gravel (≥ 1000 µ)**	**3.0**				
	Sand (> 32 µ and < 1000 µ)	40.4				
	Silt (≤ 32 µ to 3.9 µ)	25.3				
	Clay (≤ 1.95 µ)	31.4				
1A	Gravel	0.0	0.0	0.0		
	Sand	2.6	0.0	0.0		
	Silt	33.8	67.1	32.9		
	Clay	63.5	32.5	67.3		
1B	Gravel	0.1	0.0	0.0		
	Sand	2.4	0.0	0.0		
	Silt	33.6	73.1	26.6		
	Clay	63.9	26.6	74.1		
2A	Gravel	0.1	0.0	0.0		
	Sand	2.4	0.0	0.0		
	Silt	33.6	69.8	36.2		
	Clay	63.9	30.4	63.9		
2B	Gravel	0.1	0.0	0.0		
	Sand	4.0	0.0	0.0		
	Silt	35.6	78.0	36.2		
	Clay	60.3	19.4	63.8		

The Regional Water Board staff has reviewed the sediment data collected by the Discharger to assess potential impacts, evaluate the effectiveness of BMPs/control measures, and determine the need for continued monitoring. Sediment data can be difficult to evaluate because of the lack of national criteria for determining impacts. The Regional Water Board also acknowledges that the Discharger has collected only limited background data, and sediment data from samples collected in the vicinity of discharges from the facility show a broad range of detected values. The sediment data, however, does not suggest that discharges from the facility are causing levels of concern to aquatic life. In addition, sediment toxicity data are generally within the

range of the control/reference location. The limitations and BMP requirements included in this Order should limit particulate and associated metal loadings to the Bay, and the Regional Water Board has therefore eliminated sediment monitoring requirements for the Discharger.

5. Effluent Characterization, Outfall Nos. E-006, E-007, and E-008

   No monitoring was required by Order No. 01-021 or has been performed during the term of the Order on discharges from Outfall Nos. E-006 and E-007 (integral ballast water from Drydock Nos. 1 and 2), and E-008 (pressure relief from the saltwater fire protection system).

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in the proposed Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This Order is issued pursuant to Clean Water Act (CWA) Section 402 and implementing regulations adopted by the U.S. Environmental Protection Agency (U.S. EPA) and California Water Code (CWC) Chapter 5.5, Division 7. It shall serve as an NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements pursuant to CWC Article 4, Chapter 4 for discharges that are not subject to regulation under CWA Section 402.

B. California Environmental Quality Act (CEQA)

This action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with Section 13389 of the CWC.

C. State and Federal Regulations, Policies, and Plans

1. Basin Plan. In 1995, the Regional Water Board adopted the Basin Plan that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Beneficial uses applicable to the Lower San Francisco Bay within the South Bay Watershed, and based on known uses of the receiving waters, are as follows.

   - Ocean, Commercial and Sport Fishing
   - Estuarine Habitat
   - Industrial Service Supply
   - Fish Migration
   - Navigation
   - Preservation of Rare and Endangered Species

- Water Contact Recreation
- Non Contact Water Recreation
- Shellfish Harvesting
- Wildlife Habitat

2. **Thermal Plan.** The State Water Board adopted a Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for inland surface waters, which are applicable to the receiving waters.

   Requirements of this Order specifically implement the applicable Water Quality Control Plans.

3. **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. The CTR was adopted on May 18, 2000 and amended on February 13, 2001. These rules include water quality criteria for priority pollutants and are applicable to this discharge.

4. **State Implementation Policy.** On March 2, 2000, State 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 was effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the U.S. EPA through the NTR and to the priority pollutant objectives established by the Regional Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by U.S. EPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP became effective on May 18, 2000. The SIP requires that dischargers submit data sufficient to determine which priority pollutants require water quality-based effluent limitations (WQBELs) and to calculate the effluent limitations. The SIP includes procedures for determining the need for and calculating WQBELs and requires dischargers to submit data sufficient to do so.

5. **Anti-Degradation Policy.** 40 CFR 131.12 requires that State water quality standards include an anti-degradation policy consistent with the federal policy. The State Water Board established California's anti-degradation policy in State Water Board Resolution 68-16, which incorporates the requirements of the federal anti-degradation policy. Resolution 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The permitted discharge is consistent with the anti-degradation provision of 40 CFR 131.12 and State Water Board Resolution 68-16.

6. **Anti-Backsliding Requirements.** CWA Sections 402 (o) (2) and 303 (d) (4) and federal regulations at 40 CFR 122.44 (l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to

be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed.

7. **Monitoring and Reporting Requirements.** 40 CFR 122.48 requires all NPDES permits to specify requirements for recording and reporting monitoring results. CWC Sections 13267 and 13383 authorize the boards to require technical and monitoring reports. The Monitoring and Reporting Program (Attachment E to the Order) establishes monitoring and reporting requirements to implement federal and State requirements.

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

On June 6, 2003, the U.S. EPA approved a revised list of impaired water bodies prepared by the State, pursuant to Section 303 (d) of the CWA, which requires identification of specific water bodies that are not expected to meet water quality standards after implementation of technology-based effluent limitations on point sources. The pollutants impairing Lower San Francisco Bay include chlordane, DDT, diazinon, dieldrin, dioxin compounds, exotic species, furan compounds, mercury, and dioxin-like and non dioxin-like PCBs.

The SIP requires final effluent limitations for all 303 (d)-listed pollutants to be based on total maximum daily loads (TMDLs) and associated wasteload allocations (WLAs). The SIP and U.S. EPA regulations also require that final concentration-based WQBELs be included for all pollutants having reasonable potential to cause or contribute to an exceedence of applicable water quality standards (having reasonable potential or RP). The SIP requires that where the discharger has demonstrated infeasibility to meet the final WQBELs, interim performance-based limitations (IPBLs) or previous Order limitations (whichever are more stringent) be established in the new Order, together with a compliance schedule that shall remain in effect until final effluent limitations are effective. The SIP also requires the inclusion of appropriate provisions for waste minimization and source control where interim limitations are established. A reasonable potential analysis did not show pollutants, which impair Lower San Francisco Bay, at concentrations having the reasonable potential to cause or contribute to exceedences of applicable water quality standards. The Order does not include effluent limitations for any 303 (d) listed pollutants.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source discharges to control the amount of conventional, nonconventional, and toxic pollutants that are discharged into the waters of the United States. The control of the discharge of pollutants is established through effluent limitations and other requirements in NPDES permits. Based on 40CFR 122.3 Exclusions, which describes the types of discharges that do not require NPDES permits, discharges 003, 004,and 007 of this Order do not have effluent limitations. The exclusion applies to "discharge incidental to the normal operation of a vessel" which applies to a vessel's discharge of non-contact cooling water and discharge from the fire protection systems (discharges 003, 004, and 007). However, the Regional Water Board requires the implementation of BMPs on these discharges to minimize impacts to water quality.

Water quality objectives, criteria, calculations, and requirements contained in the Order are based on several resources, which include the following.

- Sections 301 through 305, and 307 of the Federal *Water Pollution Control Act*, and amendments thereto, as applicable;
- The Regional Water Board's June 21, 1995 *Water Quality Control Plan San Francisco Bay Basin (Region 2)* (the Basin Plan);
- The State Water Board's March 2, 2000 *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (the State Implementation Plan or SIP), and as subsequently approved by the Office of Administrative Law and the U.S. EPA;
- The U.S. EPA's May 18, 2000 *Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California* (the California Toxics Rule—the CTR, codified at 40 CFR 131.38);
- The U.S. EPA's National Toxics Rule, codified at 40 CFR 131.36,
- The U.S. EPA's *Quality Criteria for Water* [EPA 440/5-86-001, 1986], and subsequent amendments, (the U.S. EPA Gold Book);
- Applicable U.S. EPA regulations pertaining to NPDES permits and water quality standards [40 CFR Parts 122 and 131];
- U.S. EPA's December 27, 2002 *Revision of National Recommended Water Quality Criteria* compilation [Federal Register Vol. 67, No. 249, pp. 79091-79095]; and
- The Regional Board staff's Best Professional Judgment (BPJ), as authorized by CWA Section 402 (a) (1) (B).

A. Discharge Prohibitions

Following are the specific bases for the discharge prohibitions established by this Order.

1. Prohibition A.1 (no discharges other than as described in the permit): As described by State Water Board Order WQO 2002-0012, such a prohibition is appropriate, as the CWA requires enforcement of all water quality standards, including those not expressed as effluent limitations.
2. Prohibitions A.2 (no discharge of sanitary wastyewater): This prohibition is retained from Order No. 01-021.
3. Prohibition A.3 (no discharge of solids and particulates): This prohibition is retained from Order No. 01-021.

4. Prohibition A.4 (no discharge of floating materials): This prohibition is retained from Order No. 01-021.

5. Prohibition A.5 (no discharge of residual ship ballast water, from vessels while they are in drydock): This prohibition is retained from Order No. 01-021. The ballast water must be in compliance with California regulations (Marine Invasive Species Act). This requires exchange at sea for ocean-going vessels. While the ship is dry-docked, if repairs and maintenance of ship's ballast tanks are necessary, any residual ballast water and all sedimentation that may exist are removed to on-shore facilities for processing. However, the ballast water discharged from a vessel during docking is necessary to maintain the ships stability during the process. As the vessel is being raised, ballast tanks are emptied. This is done for two reasons: (1) in some cases the ship cannot be raised with the ballast water (the ship is too heavy with the ballast water); (2) it is sometimes necessary to perform repairs and maintenance inside ballast tanks after the ship is dry-docked.

6. Prohibition A.6 (no discharge of process wastewater): This prohibition is retained from Order No. 01-021.

7. Prohibition A.7 (no discharge of wastewater not addressed by the permit): This prohibition requires the Discharger to describe new discharges to the Regional Water Board so that they may be addressed with appropriate limitations and conditions by amendment to the Order. The prohibition acknowledges that the current Order has been written to address specific discharges that have been described by the Discharger. Discharges not brought to the attention of the Regional Water Board or otherwise considered in the preparation of this Order must be addressed by new waste discharge requirements or amendment of this Order.

8. Prohibition A.8 (no discharge of process wastewater to the sanitary sewer during storm events without approval): This prohibition is retained from Order No. 99-035.

B. Technology-Based Effluent Limitations

1. Scope and Authority

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

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

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

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

- New source performance standards (NSPS) that 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 (ELGs) representing application of BPT, BCT, BAT, and NSPS. CWA Section 402 (a) (1) and 40 CFR 125.3 of the NPDES regulations authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern. Where BPJ is used, the permit writer must consider specific factors outlined in 40 CFR 125.3.

2. Applicable Technology-Based Effluent Limitations

The previous order did not include technology-based effluent limitations. There are also no applicable technology-based ELGs established for the shipyard industry, and the Regional Water Board has not established such limitations in this Order using BPJ.

C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

As specified by the NPDES regulations at 40 CFR 122.44 (d) (1) (i), permits must include WQBELs for pollutants, including toxicity, that are or may be discharged at levels that cause, have reasonable potential to cause, or contribute to an excursion above any state water quality standard. The process for determining reasonable potential (the reasonable potential analysis or RPA) and calculating WQBELs, when necessary, is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or water quality criteria contained in the CTR and NTR.

2. Reasonable Potential Analysis (RPA)

a. Water Quality Criteria (WQC) and Objectives (WQOs). The RPA uses Basin Plan WQOs, including narrative toxicity objectives in the Basin Plan, and applicable WQC in the CTR and NTR, or site-specific objectives (SSOs) if

available, after adjusting for site-specific hardness and translators, if applicable. The governing WQOs/WQC are shown in the following tables.

b. Methodology. The RPA uses the methods and procedures prescribed in Section 1.3 of the SIP. Regional Water Board staff has analyzed available information, including the nature of facility operations and the shipyard industry in general, to determine if the discharges show reasonable potential with respect to the governing WQOs or WQC.

c. Effluent and Background Data. This Order details 7 types of discharges, following is the rationale for why data was not collected or not used for the RPA.

Discharges 001 and 002 ((dry dock washwater). The Discharger did not collect data from this discharge point. Collecting samples from the dry dock floor during a docking evolution creates significant safety concerns. The most critical stage of submerging a dry dock is when the water initially washes on to the dry dock floor, at this point the dry dock stability is at its minimum. This is due to the in-rush of water over the dry dock surface, adversely influencing the buoyancy, and having a small sampling boat during this critical stage is not safe.

Discharges 003 and 004 (non-contact cooling water). Although the Discharger did collect five samples, Regional Water Board staff did not use the data in the RPA. As stated above, this type of discharge is excluded from requiring an NPDES permit as it considered to be "incidental to the normal operation of a vessel" (40CFR122.3)

Discharges 005, 006, and 007 (integral ballast water and fire protection system). The Discharger was not required to collect data because there is minimal opportunity for the introduction of pollutants to water discharged from the integral ballast tanks of the drydocks and from the fire protection system.

d. RPA Determination. For Discharges 001 and 002, based on its understanding of industry practices and similar facilities, the Regional Water Board has determined that there is reasonable potential for particulate material to be washed into the Bay, when drydocks are submerged. The Regional Water Board has also determined that such particulate material may contain metals, common to the shipyard industry, at concentrations that could cause or contribute to exceedances of applicable WQOs or criteria for metals from the NTR, CTR, and/or the Basin Plan.

The Regional Water Board has also based its determination of reasonable potential on descriptions, by the Oregon Department of Environmental Quality and the U.S. EPA Office of Enforcement and Assurance, of the generation of numerous pollutants during vessel maintenance and overhaul work—pollutants that can remain in residual amounts on drydock surfaces after cleanup. (Best Management Practices for Oregon Shipyards, Oregon Department of Environmental Quality, 2000 and EPA Office of Compliance Sector Notebook

Project: Profile of the Shipbuilding and Repair Industry, U.S. EPA Office of Enforcement and Compliance Assurance, 1997).

For Discharges 003 and 004, the RPA determination is not applicable.

For Discharges 005, 006 and 007, the Regional Water Board has determined that that there is currently no reasonable potential for these discharges to contribute to exceedances of applicable WQOs/WQC.

3. Final Water Quality Based Effluent Limitations

a. Outfall Nos. 001 and 002

The RPA shows that discharges from Outfall Nos. 001 and 002 exhibit reasonable potential for metals.

The Regional Water Board has determined that the establishment and enforcement of numeric effluent limitations for Outfall Nos. 001 and 002 is infeasible, due to the difficulties of collecting representative effluent samples and of determining and applying concentration and mass emission limitations. The Regional Water Board has further determined that such discharges are most appropriately controlled by Best Management Practices (BMPs) instead of numeric effluent limitations. The inclusion of BMPs as requirements in discharge permits is authorized by CWA Section 304 (e); and in accordance with NPDES regulations at 40 CFR 122.44 (k), BMPs can be used to control or abate the discharge of pollutants, when numeric effluent limitations are infeasible.

The Monitoring and Reporting Program, which accompanies this Order as Attachment E, requires periodic monitoring for metals and suspended solids in washwater samples to assess the effectiveness of the required BMP program. The Regional Water Board will also review the monitoring data to assess performance. If the data shows that BMPs do not adequately control discharges of particulate and metals, the Order can be reopened to include numeric effluent limitations and/or other conditions, as necessary. Monitoring data will also be considered at the time of permit reissuance.

b. Outfall Nos. 003 and 004

This discharge is excluded from the NPDES permit, however, the Discharger has agreed to implement BMPs, so as to minimize impacts to water quality.

c. Outfall Nos. 005, 006, 007

Numeric effluent limitations are not being established for these discharges by the Order; however, the facility's BMP plan must address these discharges, in particular, the possibility of discharging corrosion product from the drydock ballast tanks and from the fire protection system.

4. Interim Effluent Limitations (Not applicable)

The SIP and the Basin Plan authorize compliance schedules in a permit if an existing discharger cannot immediately comply with a new and more stringent effluent limitation. Both the SIP and the Basin Plan require the discharger to demonstrate the infeasibility of achieving immediate compliance with the new limitation to qualify for a compliance schedule. The SIP and Basin Plan require the following documentation to be submitted to the Board to support a finding of infeasibility.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

1. Receiving water limitations C.1 and C.2 (conditions to be avoided): These limitations are based on the previous Order and the narrative/numerical objectives contained in Chapter 3 of the Basin Plan, pages 3-2 – 3-5.

2. Receiving water limitation C.3 (compliance with State Law): This requirement is in the previous Order, requires compliance with Federal and State law, and is self-explanatory.

VI. MONITORING AND REPORTING REQUIREMENTS

40 CFR 122.48 requires all NPDES permits to specify recording and reporting of monitoring results. CWC Sections 13267 and 13383 authorize the boards to require technical and monitoring reports. The Monitoring and Reporting Program, Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following text provides the rationale for the monitoring and reporting requirements contained in the Monitoring and Reporting Program for this facility.

A. Influent Monitoring

Influent monitoring will not be required, as receiving water monitoring requirements will provide data that is representative of receiving water and influent water quality.

B. Effluent Monitoring

This Order requires an attempt to monitor water that washes over drydock surfaces (Outfall Nos. 001 and 002) on an annual basis to monitoring the effectiveness of the Best Management Practices Program. If a sample is obtained, washwater must be analyzed for settleable and total suspended solids and for thirteen metals - antimony, arsenic, beryllium, cadmium, chromium(3), chromium (6), copper, lead, mercury, nickel, selenium, silver, thallium, and zinc. When updating its BMP Plan, the Discharger must consider effluent data to assess the effectiveness of the facility's BMP Program.

In this Order, for Outfall Nos. 003 and 004, the Discharger must monitor flow rate of non-contact cooling water discharges, and on an annual basis, summarize the number of ships that discharged non-contact cooling water; the minimum, mean, and maximum flow rate

(gpm) observed; and the minimum, mean, and maximum duration (days) of the discharges during the previous year.

C. Receiving Water Monitoring

Order No. 01-021 had required the following monitoring at two receiving water monitoring stations

Pollutant	Monitoring Frequency
Settleable Solids	two times per year
Oil & Grease	two times per year
Total Suspended Solids	two times per year
Acute Toxicity	two times per year
Turbidity	two times per year
pH	two times per year
Dissolved Oxygen	two times per year
Temperature	two times per year
Arsenic, Cadmium, Chromium, Copper, Cyanide, Lead, Nickel, Silver, Zinc	two times per year
Tributyltin	two times per year
Un-ionized Ammonia	two times per year
Chlorinated Hydrocarbons	two times per year

This Order requires receiving water monitoring primarily to establish background water quality conditions. Because receiving water quality will remain relatively stabile in the Bay, the frequency of receiving water monitoring is limited to one monitoring event during the term of the Order.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which in accordance with 40 CFR 122.41and 40 CFR 122.42, apply to all NPDES discharges and must be included in every NPDES permit, are provided in Attachment D to the Order. The Order also includes several provisions which are standard to NPDES permits issued by the Regional Water Board.

B. Special Provisions

1. Best Management Practices and Pollution Prevention

   The Regional Water Board has determined that all discharges from the BAE Systems San Francisco Ship Repair facility are most appropriately controlled by Best Management Practices. The inclusion of BMPs as requirements in discharge permits is authorized by CWA Section 304 (e); and in accordance with NPDES regulations at 40 CFR 122.44 (k), BMPs can be used to control or abate the discharge of pollutants, when numeric effluent limitations are infeasible.

VIII. PUBLIC PARTICIPATION

The Regional Water Board is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for BAE Systems San Francisco Ship Repair. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Water Board has notified the permittee and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through a public notice in a local newspaper servicing San Francisco County.

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments should be submitted either in person or by mail to the Executive Office at the Regional Water Board at the address above on the cover page of this Order.

To be considered by the Regional Water Board and to receive a full response from the Regional Water Board staff, written comments should be received at the Regional Water Board offices by 5:00 p.m. on January 31, 2006.

C. Public Hearing

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

Date:	March 8, 2006
Time:	9:00 AM
Location:	Auditorium, Elihu Harris State Building 1515 Clay Street Oakland, California 94612

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

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

D. Waste Discharge Requirements Petitions

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

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

E. Information and Copying

The Report of Waste Discharge (RWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board 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 Board, reference this facility, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Gina Kathuria at (510) 622-2378 or by email at gkathuria@waterboards.ca.gov.