

STATE OF CALIFORNIA

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION
320 W. 4th Street, Suite 200, Los Angeles

FACT SHEET
WASTE DISCHARGE REQUIREMENTS
for
AL LARSON BOAT SHOP

NPDES Permit No.: CA0061051
Public Notice No.: 07-022

FACILITY ADDRESS

Al Larson Boat Shop
Berth 258, 1046 Seaside Avenue
Terminal Island, CA 90731

FACILITY MAILING ADDRESS

Al Larson Boat Shop
Berth 258, 1046 Seaside Avenue
Terminal Island, CA 90731
Contact: Jack Wall
Telephone: (310) 514-4100

I. Public Participation

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for the above-referenced facility. As an initial step in the WDR process, the Regional Board staff has developed tentative WDRs. The Regional Board encourages public participation in the WDR adoption process.

A. 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:

Executive Officer
California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

To be fully responded to by staff and considered by the Regional Board, written comments should be received at the Regional Board offices by 5:00 p.m. on May 15, 2007. The comments should also be submitted in Word format to cowens@waterboards.ca.gov.

B. Public Hearing

The Regional 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: June 7, 2007
Time: 9 A.M.
Location: The Metropolitan Water District, Board Room
700 North Alameda Street
Los Angeles, California

Interested persons are invited to attend. At the public hearing, the Regional 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 www.swrcb.ca.gov/rwgcb4 where you can access the current agenda for changes in dates and locations.

C. Waste Discharge Requirements Appeals

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

State Water Resources Control Board, Office of Chief Counsel
ATTN: Elizabeth Miller Jennings
1001 I Street, 22nd Floor
Sacramento, CA 95814

D. Information and Copying

The Report of Waste Discharge (ROWD), related documents, tentative effluent limitations and special conditions, comments received, and other information are on file and may be inspected at 320 West 4th Street, Suite 200, Los Angeles, California 90013, at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Los Angeles Regional Board by calling (213) 576-6600.

E. 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.

II. Introduction

Al Larson Boat Shop (hereinafter ALBS or Discharger) discharges wastewater to Fish Harbor located within the Los Angeles Harbor, a water of the United States. Wastes discharged from ALBS are regulated by the WDRs and NPDES permit contained in Board Order No. 97-079 (NPDES Permit No. CA0061051).

ALBS filed a report of waste discharge (ROWD) initially on June 14, 2002. Additional updates were submitted on April 19, 2004, July 20, 2004, November 17, 2004, and finally on February 9, 2007. The completed ROWD serves as the application for renewal of its WDRs and NPDES permit. This Order is the reissuance of the WDRs and NPDES permit for discharges from ALBS. An NPDES permit Compliance Evaluation Inspection (CEI) was conducted on January 7, 2004. This CEI also serves as a permitting site visit to observe operations and collect additional data to develop permit limitations and conditions.

III. Description of Facility and Waste Discharge

ALBS operates a marina, boat cleaning and repair facility located at Berth 258, at the entrance of Fish Harbor, or 1046 Seaside Avenue, Terminal Island, California. The facility discharges process wastewater (i.e., low-pressure water blasting wastewater), harbor water, and storm water.

ALBS operates four marine ways and one submersible dry dock to perform general repair and maintenance of various types of sea going vessels. Because of the nature of ship repair, and maintenance facilities and activities, there are a number of pathways by which pollutants and wastes from these facilities and activities could be discharged to the Harbor. These repair facilities are located on, or immediately adjacent to, Fish Harbor and many of these activities are conducted outside. The marine ways enable vessels to be drawn up out of the water and worked on in dry dock conditions. The facility also includes repair shops housing activities such as carpentry, welding, machining, electrical, and painting operations.

Both dry sandblasting and low-pressure water blasting are conducted on the dry dock and at the four marine ways. Low-pressure water blasting (3,000 psi) is used on the marine ways and drydock to remove marine life from the vessel exterior. Wastewater generated during the low-pressure waterblasting operations at Marine Ways 1, 2, and 3 are collected and discharged to the City of Los Angeles sewer system. Wastewater from Marine Way 4 is discharged through Discharge Serial No. 001. Harbor water that washes over Marine Way 4 during flooding, and which may be contaminated with spent sandblast grit and dry paint chips, also flows into Fish Harbor. The Discharger estimates that harbor waters flood the area twelve (12) times per year. In addition, storm water runoff, which may be contaminated with residual spent sandblast grit and dry paint chips, also flows into Fish Harbor.

The existing permit describes modification plans that will prevent sandblast grit/dry paint chips and wastewater from entering Fish Harbor. In the first project, Marine Ways 1, 2, and 3 were modified to include a totally enclosed steel floor with sumps to restrict any wastewater and debris from falling into the Harbor. Marine Way 4 could not be enclosed due to its length, width, and

general situation. As an alternative, the concrete flooring was extended with containment berms. This allows material that does enter the wash water (including marine growth and a small amount of grit) to be trapped at the end of the way by a berm in place across the end of the concrete area. Material collected there is retrieved after maintenance activities on the vessel are complete which may take several days. The retrieved materials are stored prior to being recycled or disposed of offsite. These modifications were completed and the findings in this permit reflects those changes to the facility operations.

Discharges from Marine Way 4 are in violation of the Clean Water Act. Modifications to that area are required to bring the facility into compliance. The ROWD submitted on February 9, 2007, provides a plan to move the railway inland such that vessels that are repaired at that location are taken completely out of the water. The plan requires that the Port of Long Beach move the street adjacent the facility (Seaside Avenue) into the vacated property formerly owned by Souhwest Marine. The estimated time to move the street and the operations from Marine Railway No. 4 is eight months.

Storm water discharges associated with industrial activity at ship repair and maintenance sites constitute one potentially significant pathway by which pollutants and wastes could be discharged to the Harbor. Storm water is directed through an on-site storm drain to a man-made trough and is subsequently discharged into Fish Harbor. The storm water discharge from the facility has been regulated under the general NPDES permit for storm water discharges associated with industrial activities [State Water Resources Control Board (State Board) Order No. 97-03-DWQ, NPDES Permit No. CAS 0000001, adopted on April 17, 1997] and the Discharger has developed and implemented a Storm Water Pollution Prevention Plan (SWPPP) in accordance with this general NPDES permit. This proposed Order will regulate the ALBS discharge of storm water to Fish Harbor through Discharge Serial No. 002, a point within a storm drain located on a concrete platform outside the machine shop.

In the previous Order, there were no effluent limitations stipulated for the flow of the wastewater generated onsite. This Order prescribes concentration and mass limitations for low-pressure water blasting wastewater discharges and therefore a maximum flow has been designated. During low-pressure water blasting activities the water-jetting machine flows at a rate of six (6) gallons per minute. A typical low-pressure water blasting lasts from three (3) to four (4) hours and there is approximately one boat washing per day. Therefore, a maximum of 1,440 gallons per day (gpd) per operation is discharged. Storm water maximum flow rates were not established, thus mass limitations were not established for storm water discharges.

ALBS discharges process water (low-pressure water blasting wastewater) to Fish Harbor, through Discharge Serial No. 001. Some grit, particulate matter, paint chips and other debris are also discharged to Fish Harbor at Marine Way 4 (Discharge Serial No. 001). Fish Harbor is part of the Los Angeles Inner Harbor, a water of the United States. Los Angeles Inner Harbor is also one of the Los Angeles County Coastal Waters.

The Regional Board and U.S. EPA have classified the ALBS facility as a minor discharge.

The effluent data presented in the following table from low-pressure water blasting activities were provided as an addendum to the permit renewal application on April 14, 2004.

Constituent (units)	Maximum Daily Value Reported Effluent Concentration ¹
Aluminum (mg/L)	0.33
Copper (µg/L)	2,000
Iron (mg/L)	6.7
Lead (µg/L)	17
Magnesium (mg/L)	1,200
Titanium (mg/L)	0.015
Zinc (µg/L)	530
Chemical oxygen demand (COD) (mg/L)	5,200
Sulfate (mg/L)	2,500
Total organic carbon (TOC) (mg/L)	4.0
Total suspended solids (TSS) (mg/L)	77

1 This table only presents pollutants reported above analytical detection limits. All other pollutants were reported as not detected.

The existing Order established effluent limitations for acute toxicity in wastewater and harbor water such that the average survival in effluent for any three consecutive 96-hour or continuous flow bioassay tests using threespine stickleback (*Gasterosteus aculeatus*) shall be at least 90 percent, with no single test producing less than 70 percent survival. For the period from November 1997 to November 2003, the results ranged from 0 percent survival to 100 percent survival for samples collected during low-pressure water blasting activities and from 70 percent survival to 100 percent survival for samples collected during sandblasting activities. The monitoring data collected during low-pressure water activities indicate that the single sample effluent limitations for acute toxicity were exceeded on: November 26, 1997 (0 percent survival); June 25, 1998 (15 percent survival); and December 11, 2001 (45 percent survival). In addition, the three-sample mean effluent limitation for acute toxicity was exceeded nine times for low-pressure water blasting activities (June 25, 1998, September 24, 1998, and December 8, 1998, May, 28, 1999, September 13, 1999, November 22, 1999, December 11, 1999, December 28, 1999, and February 27, 2002) and four times for sandblasting activities (December 1, 1999, July 17, 2000, November 7, 2000, and July 24, 2003). On November 29, 2005 the acute toxicity test yielded a zero % survival rate. The toxicity was linked to squid waste present in the marina. A news article in the Daily Breeze newspaper indicated that the waste was dumped by commercial fishing operations. Identified violations are being evaluated for appropriate enforcement actions.

On February 21, 2002, the Regional Board sent a letter to ALBS to request monitoring of priority pollutants regulated under the California Toxics Rule for four quarters (from March 2002 to March 2003). In a letter dated April 18, 2002, the Discharger requested an exemption from this requirement. On December 19, 2002, between the Regional Board and the Discharger, the Regional Board confirmed that priority pollutant monitoring is required and an exemption could not be granted. A letter dated December 30, 2002, from the Discharger to the Regional Board stated that due to the late date of the decision, the Discharger could only perform two samplings before the end of the scheduled monitoring program. One sampling would be performed during

the low-pressure water blasting process and one sampling would be accomplished during rainfall.

Monitoring data from February 4, 2003, (low-pressure water blasting) and February 12, 2003, (storm water) are presented in the Tables below. The Tables below summarize reported effluent concentrations for those pollutants that were reported as detected (all other pollutants were reported as below detection levels).

On March 30, 2006, a Notice of Violation was issued to ALBS citing a permit violation (ROWD not submitted 180 days prior to permit expiration date), records violation (no Storm Water Pollution Prevention Plan (SWPPP) and insufficient storm water monitoring and reporting during the year 2002). The NOV requested a response by May 2, 2006. The Discharger submitted a response to the Executive Officer on April 19, 2006, which included corrective and preventative actions to bring Al Larson Boat Shop’s discharge into compliance as per Order 97-079, sampling procedures, and a map detailing sample locations.

The Discharger indicated that the sample identified as “water washing—source” was collected at the point where the effluent generated during the low-pressure water blasting activity enters the receiving water and that the sample identified as “water washing—discharge” was collected 25 feet from the point at which the effluent enters the receiving water. The sample identified as “storm water—source” was collected at the point where storm water enters the receiving water and the sample identified as “storm water—discharge” was collected 25 feet from the point at which the storm water enters the receiving water.

“Water washing—discharge” (Receiving Water)

Constituent (units)	Reported Effluent Concentration (February 2003)
Antimony (µg/L)	9.6
Arsenic (µg/L)	6.8
Total chromium (µg/L)	1.8
Copper (µg/L)	23
Nickel (µg/L)	2.8

“Water washing—source” (Effluent Discharge)

Constituent (units)	Reported Effluent Concentration (February 2003)
Total chromium (µg/L)	2.8
Copper (µg/L)	1,200
Lead (µg/L)	6.8
Nickel (µg/L)	4
Zinc (µg/L)	67

“Storm water—discharge” (Receiving Water)

Constituent (units)	Reported Effluent Concentration (February 2003)
Copper (µg/L)	170
Lead (µg/L)	6.6
Nickel (µg/L)	3.6
Zinc (µg/L)	86
1,1,1 Trichloroethane (µg/L)	0.25

“Storm water—source” (Discharge)

Constituent (units)	Reported Effluent Concentration (February 2003)
Antimony (µg/L)	14
Arsenic (µg/L)	9.8
Total Chromium (µg/L)	27
Copper (µg/L)	17,000
Lead (µg/L)	46
Mercury (µg/L)	0.39
Nickel (µg/L)	21
Zinc (µg/L)	940
Ethylbenzene (µg/L)	0.17
Toluene (µg/L)	0.22
1,1,1-Trichloroethane (µg/L)	0.33

The following findings were documented during the CEI conducted on January 7, 2004.

- Housekeeping was poor.
- The SWPPP was missing a site map, topographic map, date, and signature.
- The facility has not been recording rainfall, documenting employee training, conducting visual housekeeping inspections, or documenting preventative maintenance.
- Various NPDES records were not available on-site.
- Oil sheens were observed in the receiving water.
- Storm water sampling location did not appear to be representative of the storm water discharge.

IV. Applicable Plans, Policies, Laws, and Regulations

The requirements contained in the proposed Order are based on the requirements and authorities contained in the following:

1. The federal Clean Water Act (CWA). The federal Clean Water Act requires that any point source discharges of pollutants to a water of the United States must be done in conformance with an NPDES permit. NPDES permits establish effluent limitations that incorporate various requirements of the CWA designed to protect water quality.
2. Title 40, Code of Regulations (40 CFR) – Protection of Environment, Chapter I, Environmental Protection Agency, Subchapter D, Water Programs, Parts 122-125 and

Subchapter N, Effluent Guidelines. These CWA regulations provide effluent limitations for certain dischargers and establish procedures for NPDES permitting, including how to establish effluent limitations for certain pollutants discharged.

3. On June 13, 1994, the Regional Board adopted a revised *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan). The Basin Plan contains water quality objectives and beneficial uses for coastal waters and for the Pacific Ocean. The immediate receiving water body for the permitted discharge covered by this permit is the Fish Harbor, which then conveys water to the Los Angeles Inner Harbor. The Basin Plan contains beneficial uses and water quality objectives for the Los Angeles Inner Harbor. The beneficial uses listed in the Basin Plan for “all other inner areas” are:

Los Angeles-Long Beach Harbor (all other inner areas) – Hydro Unit No. 405.12

Existing uses: Industrial uses, navigational uses, non-contact water recreation, commercial and sports fishing, marine habitat, wildlife habitat, and preservation of rare, threatened or endangered species.

Potential uses: Water contact recreation, and shellfish harvesting.

4. **Ammonia Basin Plan Amendment.** The 1994 Basin Plan provided water quality objectives for ammonia to protect aquatic life, in Tables 3-1 through 3-4. However, those ammonia objectives were revised on March 4, 2004, by the Regional Water Board with the adoption of Resolution No. 2004-022, Amendment to the *Water Quality Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters Not Characteristic of Freshwater (including enclosed bays, estuaries and wetlands) with the Beneficial Use designations for protection of “Aquatic Life”*. The ammonia Basin Plan amendment was approved by the Office of Administrative Law on September 15, 2004 and by USEPA on May 19, 2005. The amendment revised the Basin Plan by updating the ammonia objectives for inland surface waters not characteristic of freshwater such that they are consistent with the USEPA “*Ambient Water Quality Criteria for Ammonia (Saltwater) – 1989.*” The amendment revised the regulatory provisions of the Basin Plan by adding language to Chapter 3, “Water Quality Objectives.”

The amendment contains objectives for a 4-day average concentration of un-ionized ammonia of 0.035 mg/L, and a 1-hour average concentration of un-ionized ammonia of 0.233 mg/L. The objectives are fixed concentrations of un-ionized ammonia, independent of pH, temperature, or salinity. The amendment also contains an implementation procedure to convert un-ionized ammonia objectives to total ammonia effluent limitations. The implementation plan as outlined is to be used to determine the appropriate effluent limit for Total Nitrogen.

5. **Water Quality Control Policy for Enclosed Bays and Estuaries of California (State Board Resolution No. 74-43).** In May 1974, the State Board adopted Resolution 74-43 which lists principles of management that include the State Board’s desire to phase out all discharges (exclusive of cooling waters) to enclosed bays and estuaries as soon as

practicable. This Order includes prohibitions in compliance with the aforementioned policy including a prohibition of discharges of rubbish or refuse into surface waters at any place where they would be eventually transported to enclosed bays and estuaries.

6. **Thermal Plan.** The State Water Resources Control Board (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.

Subsequently, a white paper was developed by Regional Water Board staff entitled *Temperature and Dissolved Oxygen Impacts on Biota in Tidal Estuaries and Enclosed Bays in the Los Angeles Region*. The white paper evaluated the optimum temperatures for steelhead, topsmelt, ghost shrimp, brown rock crab, jackknife clam, and blue mussel. A survey was completed for several kinds of fish and the 86 °F temperature was found to be protective. The new temperature effluent limitation was developed that is reflective of new information available that indicates that the 100 °F temperature is not protective of aquatic organisms, but that 86°F is protective.

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

7. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.
8. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements included in this Order implement the SIP.

The SIP requires the Discharger's submittal of data sufficient to conduct the determination of priority pollutants requiring water quality-based effluent limits (WQBELs) and to calculate the effluent limitations. The CTR criteria for salt water or human health for consumption of organisms, whichever is more stringent, are used to develop the effluent limitations in this Order to protect the beneficial uses of Fish Harbor of Los Angeles Inner Harbor.

9. **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 five 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 Order must include interim numeric limitations for that constituent or parameter. Where allowed 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. This Order includes compliance schedules and interim effluent limitations
10. **Antidegradation Policy.** Section 131.12 requires that State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16, which incorporates the requirements of the federal antidegradation policy. Resolution No. 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 antidegradation provision of section 131.12 and State Water Board Resolution 68-16.
11. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at section 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.
12. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes. (40 C.F.R. § 131.21; 65 Fed. Reg. 24641 (April 27, 2000).) Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000 may be used for CWA purposes, whether or not approved by USEPA.
13. **Monitoring and Reporting Requirements.** 40 CFR Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWA authorize the Regional Water Boards to require technical and monitoring reports. The MRP establishes monitoring and reporting requirements to implement federal and State requirements. This MRP is provided in Attachment T.
14. **Stringency of Requirements for Individual Pollutants.** This Order contains restrictions on individual pollutants that are no more stringent than required by the federal CWA. Individual pollutant restrictions consist of technology-based restrictions and water quality-based

effluent limitations. The technology-based effluent limitations consist of restrictions on biochemical oxygen demand (BOD), oil and grease, total suspended solids (TSS), and turbidity. Restrictions on BOD, oil and grease, TSS, and turbidity are specified in federal regulations as discussed in section IV.B in the Fact Sheet, and the permit's technology-based pollutant restrictions are no more stringent than required by the CWA. Water quality-based effluent limitations (WQBELs) have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant WQBELs were derived from the CTR, the CTR is the applicable standard pursuant to section 131.38. The scientific procedures for calculating the individual WQBELs are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. All beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the technology-based requirements of the CWA and the applicable water quality standards for purposes of the CWA.

15. Under 40 CFR 122.44(d), Water Quality Standards and State Requirements, "Limitations must control all pollutants or pollutant parameters (either conventional, non-conventional, or toxic pollutants), which the Director [permitting authority] determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality." Where numeric effluent limitations for a pollutant or pollutant parameter have not been established in the applicable state water quality control plan, 40 CFR section 122.44(d)(1)(vi) specifies that WQBELs may be set based on U.S. EPA criteria, and may be supplemented where necessary by other relevant information to attain and maintain narrative water quality criteria, and to fully protect designated beneficial uses
16. 40 CFR §122.44(d)(1)(vi)(A) requires the establishment of numeric effluent limitations to attain and maintain applicable narrative water quality criteria to protect the designated beneficial uses. Where numeric water quality objectives have not been established in the Basin Plan, 40 CFR section 122.44(d) specifies that WQBELs may be set based on U.S. EPA criteria and supplemented, where necessary, by other relevant information to attain and maintain narrative water quality criteria to fully protect designated beneficial uses.
17. Effluent limitations are established in accordance with sections 301, 304, 306, and 307 of the federal CWA, and amendments thereto. These requirements, as they are met, will maintain and protect the beneficial uses of Fish Harbor of Los Angeles Inner Harbor.
18. Existing waste discharge requirements contained in Board Order No. 97-079, adopted by the Regional Board on June 16, 1997. In some cases, permit conditions (effluent limitations and other special conditions) established in the existing waste discharge requirements have been carried over to this permit.

V. Regulatory Basis for Effluent Limitations

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 NPDES permits that contain effluent limitations. The CWA establishes two principal bases for effluent limitations. First, dischargers are required to meet technology-based effluent limitations that reflect the best controls available considering costs and economic impact. Second, they are required to meet WQBELs that are developed to protect applicable designated uses of the receiving water.

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

- 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 BOD₅, 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 EPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BCT, BAT, and NSPS. Section 402(a)(1) of the CWA 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.

If a reasonable potential exists for pollutants in a discharge to exceed water quality standards, WQBELs are also required under 40 CFR 122.44(d)(1)(i). WQBELs are established after determining that technology-based limitations are not stringent enough to ensure that state water quality standards are met for the receiving water. WQBELs are based on the designated use of the receiving water, water quality criteria necessary to support the designated uses, and the state’s antidegradation policy. For discharges that are composed entirely of storm water, such as a portion of the potential discharges from ALBS to inland surface waters, enclosed bays, and

estuaries, the U.S. EPA's Technical Support Document for Water Quality-Based Toxics Control (TSD) of 1991 (USEPA/505/2-90-001) established procedures for determining reasonable potential and establishing WQBELs for priority pollutant criteria promulgated by U.S. EPA through the CTR and NTR, as well as the Basin Plan. With respect to a reasonable potential analysis, the TSD identifies an appropriate step-wise approach that can be used to determine whether a discharge comprised of storm water has a reasonable potential. For discharges to inland surface waters, enclosed bays, and estuaries, that are not composed of storm water (i.e., low-pressure water blasting) the SIP establishes specific implementation procedures for determining reasonable potential and establishing WQBELs for priority pollutant criteria promulgated by U.S. EPA through the CTR and NTR, as well as the Basin Plan.

There are several other specific factors affecting the development of limitations and requirements in the proposed Order. These are discussed as follows:

1. **Pollutants of Concern**

The CWA requires that any pollutant that may be discharged by a point source in quantities of concern must be regulated through an NPDES permit. Further, the NPDES regulations require regulation of any pollutant that (1) causes; (2) has the reasonable potential to cause; or (3) contributes to the exceedance of a receiving water quality criteria or objective.

The existing permit contained effluent limitations for acute toxicity. The materials used during sand blasting and low-pressure water blasting activities, and the substances removed from the boats, may contribute to acute toxicity; therefore acute toxicity will remain a pollutant of concern in the proposed permit. However, based on the Discharger's nature of operations, certain conventional and non-conventional pollutants (i.e., suspended solids, oil and grease, settleable solids, BOD₅@ 20°C, turbidity, sulfides, and phenols) are pollutants of concern because they have the potential to be in the discharge from the ALBS facility. In addition, tributyltin, metals, total petroleum hydrocarbons, chemical oxygen demand, total organic carbon, and specific conductivity could be pollutants of concern because these are pollutants commonly associated with discharges from marina and boat repair facilities. It should be noted that chemical oxygen demand was found at high levels during the term of the previous Order. In addition, in the permit application Form 2C, the Discharger listed epichlorohydrin and xylene as pollutants known to be present, believed to be discharged, or that may be discharged from the outfall. Total copper, total lead, and total zinc were listed as substances used or manufactured as an intermediate or final product or byproduct, and were present in the discharge from ALBS. Epichlorohydrin, xylene, copper, lead, and zinc will be considered pollutants of concern.

2. **Technology-Based Effluent Limitations**

There are no national ELGs for boat repair and cleaning facilities. The Regional Board recently issued NPDES permits to boat repair facilities in the region that included numeric effluent limitations for conventional and nonconventional pollutants. These limitations are

based on Best Professional Judgement (BPJ) and are believed to be representative of available treatment or management options (i.e., best management practices and structural controls).

Consistent with permits developed for boat cleaning and repair facilities in the Los Angeles Region, the Regional Board has determined that technology-based effluent limitations based on BPJ for conventional and nonconventional pollutants (i.e., suspended solids, oil and grease, settleable solids, BOD₅ @ 20°C, sulfide, phenols, and turbidity) are appropriate for this facility and will be established in this permit.

This permit will require the Discharger to update and continue to implement, consistent with the existing permit requirements, a *Storm Water Pollution Prevention Plan* (SWPPP). The SWPPP will outline site-specific management processes for minimizing storm water runoff contamination and for preventing contaminated storm water runoff from being discharged directly into surface waters. Because storm water discharges do occur at the ALBS facility, this permit will require that ALBS continue to implement a SWPPP. The SWPPP should address the following specific areas of concern: spent grit storage and handling, oil spills, drum storage, and chemical storage.

Pursuant to 40 CFR 122.44(k), the Regional Board will require the Discharger to develop and implement a Best Management Practices Plan (BMPP). The combination of the SWPPP and BMPP and permit limitations based on past performance and reflecting BPJ will serve as the equivalent of technology-based effluent limitations, in the absence of established ELGs, in order to carry out the purposes and intent of the CWA. The BMPP should address employee education and training, record maintenance including observation records and preventative maintenance records, and notification of spills to the Regional Board. The BMPP shall also include a provision to capture spent abrasive and any other solids resulting from sand blasting activities.

Under the existing Order, during the sandblasting operations, spent sandblast grit and/or dry paint chips were discharged directly into Fish Harbor, a tributary of the Los Angeles Inner Harbor, a water of the United States. Under the proposed Order, spent sandblast grit and/or dry paint chip solids are prohibited from entering the receiving water and must be collected prior to entering the receiving water and disposed of off-site. These materials are prohibited from entering the receiving water in order to prevent the direct discharge of toxic materials to the receiving water.

3. **Water Quality-Based Effluent Limitations**

As specified in 40 CFR § 122.44(d)(1)(i), permits are required to include WQBELs for pollutants (including toxicity) that are or may be discharged at levels which cause, have reasonable potential to cause, or contribute to an excursion above any state water quality standard. The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses for 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 U.S. EPA water quality criteria

contained in the CTR and NTR). The procedures for determining reasonable potential, and if necessary for calculating WQBELs, are contained in the TSD for storm water discharges and the SIP for non-storm water discharges.

However, the TSD in Section 3.3.8 **Effluent Characterization for Specific Chemicals** on page 64 states that “The statistical approach shown in Box 3-2 or an analogous approach developed by a regulatory authority can be used to determine the reasonable potential.” Hence, staff may use the statistical protocol outlined in the SIP to evaluate statistical reasonable potential for the storm water only discharges.

(a) Reasonable Potential Analysis (RPA)

The Regional Board conducts a reasonable potential analysis for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the permit. The Regional Board analyzed effluent data to determine if a pollutant in a discharge has a reasonable potential to cause or contribute to an excursion above a state water quality standard. For all parameters that have reasonable potential, numeric WQBELs are required. The RPA considers water quality objectives outlined in the CTR, NTR, as well as the Basin Plan. To conduct the RPA, the Regional Board has identified the maximum observed effluent concentration (MEC) for each constituent, based on data provided by the Discharger.

Section 1.3 of the SIP provides the procedures for determining reasonable potential to exceed applicable water quality criteria and objectives. The SIP specifies three triggers to complete an RPA and determine that a WQBEL is needed:

- 1) Trigger 1 – If the MEC is greater than or equal to the CTR water quality criteria or applicable objective (C), a limitation is needed.
- 2) Trigger 2 – If $MEC < C$ and background water quality (B) $> C$, a limitation is needed.
- 3) Trigger 3 – If other related information such as CWA 303(d) listing for a pollutant, discharger type, compliance history, etc. indicates that a WQBEL is required.

Sufficient effluent and ambient data are needed to conduct a complete RPA. If data are not sufficient, the Discharger will be required to gather the appropriate data for the Regional Board to conduct the RPA. Upon review of the data, and if the Regional Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification.

As stated previously, ALBS has submitted data for one quarter only, and therefore, there are insufficient monitoring data available to perform a complete RPA for the priority pollutants. The TSD (for storm water discharges) and SIP (for non-storm water discharges) require the dischargers to submit sufficient data to conduct the

determination of priority pollutants requiring WQBELS and to calculate the effluent limitations. This permit includes monitoring requirements to obtain the necessary data. It should be noted that although the Regional Board has determined there are insufficient data to complete an RPA, monitoring data submitted with the permit renewal application exceed the CTR water quality criteria. Therefore a partial RPA was completed using the data available.

Outfalls 001 The analysis of the wastewater data yielded three constituents with detected concentrations above the CTR-based WQBELS: copper, lead, and zinc. Since the maximum detected concentrations for these constituents exceeded the criteria, Trigger 1 for reasonable potential was activated and an effluent limit was required. Since the data available demonstrates reasonable potential for these constituents, effluent limits for these constituents have been developed and are included in this Order.

Outfall 002. Storm water discharges from ALBS were monitored during one sampling event. The data collected indicates that the concentrations of copper, lead, mercury nickel and zinc exceeds the WQBELS. Since there is only one data set available this permit does not include effluent limits for the storm water only discharges.

Prior to the proposed Order the storm water only discharges from the facility were regulated using the general NPDES permit for storm water discharges associated with industrial activities. The data collected and observations made during the CEI indicate that current operations, the current SWPPP and the BMPs are not adequately addressing the potential transport of contaminants offsite by storm water runoff. The permit requires updates to the SWPPP, the BMPs and it requires additional sampling of the storm water only discharges. The data will be used to perform the statistical RPA on the storm water only discharges from the facility.

(b) Calculating WQBELS

If a reasonable potential exists to exceed applicable water quality criteria or objectives, then a WQBEL must be established in accordance with one of three procedures contained in Section 5.4 of the TSD and Section 1.4 of the SIP. These procedures include:

- 1) If applicable and available, use of the wasteload allocation (WLA) established as part of a total maximum daily load (TMDL).
- 2) Use of a steady-state model to derive maximum daily effluent limitations (MDELs) and average monthly effluent limitations (AMELs).
- 3) Where sufficient effluent and receiving water data exist, use of a dynamic model which has been approved by the Regional Board.

(c) Impaired Water Bodies in 303 (d) List

Section 303(d) of the CWA requires states to identify specific water bodies where water quality standards are not expected to be met after implementation of technology-based effluent limitations on point sources. For all 303(d)-listed water bodies and pollutants, the Regional Board plans to develop and adopt TMDLs that will specify WLAs for point sources and load allocations (LAs) for non-point sources, as appropriate.

U.S. EPA approved the State's 303(d) list of impaired water bodies on July 25, 2003. Certain receiving waters in the Los Angeles and Ventura County watersheds do not fully support beneficial uses and therefore have been classified as impaired on the 2002 303(d) list.

Fish Harbor is located in Los Angeles County Coastal Area within the Los Angeles Inner Harbor. The 2002 State Board's California 303(d) List classifies Fish Harbor of Los Angeles Inner Harbor as impaired. The pollutants of concern detected in fish tissue, sediment, and the water column include DDT, PAHs, and PCBs.

(d) Whole Effluent Toxicity

Whole Effluent Toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach allows for protection of the narrative "no toxics in toxic amounts" criterion while implementing numeric criteria for toxicity. There are two types of WET tests: acute and chronic. An acute toxicity test is conducted over a short time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and measures mortality, reproduction, and growth.

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental response on aquatic organisms. Detrimental response includes but is not limited to decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota. The existing permit contains acute toxicity limitations and monitoring and reporting requirements. As discussed previously, acute toxicity data collected during sand blasting and hydroblasting activities were available from the period from November 1997 to November 2003. The single sample results ranged from 0 percent survival to 100 percent survival for samples collected during low-pressure water blasting activities and from 70 percent survival to 100 percent survival for samples collected during sandblasting activities. The three-sample mean results from low-pressure water blasting activities ranged from 32 percent survival to 100 percent survival, and the three-sample mean results from sand blasting activities ranged from 83 percent survival to 100 percent survival. It should be noted that the previous Order required threespine stickleback, (*Gasterosteus aculeatus*) to be used as the test species. The proposed Order will require the use of topsmelt (*Atherinops*

affinis) to be used, consistent with U.S. EPA's *Short-term Method for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, First Edition, August 1995 (EPA/600/R-95/136) or a more recent edition to ensure compliance in 100 percent effluent. Topsmelt is listed as an alternative test species for marine and estuarine species in *U.S. EPA's Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, October 2002 (EPA/821-R-02-012).

In accordance with the Basin Plan, acute toxicity limitations dictate that the average survival in undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test having less than 70% survival. Consistent with the Basin Plan, this Order carries over acute toxicity limitations and monitoring requirements. The reason for the toxicity exceedances in the low-pressure water blasting discharge is unclear. Because of the uncertainty of the cause of the toxicity exceedances and because a different test species will be used during this Order term, this Order will require an accelerated acute toxicity monitoring frequency for low-pressure water blasting for the first six (6) months of the Order term. This Order will also require an accelerated monitoring frequency for storm water during the first six (6) months of the Order to determine the level of toxicity in the storm water discharge. The accelerated acute toxicity monitoring requirements are discussed in more detail in Part VI.C of the *M&RP*.

The discharges at the ALBS facility occur periodically, after low-pressure water blasting activities or after storm events; they are not continuous. The discharge at the ALBS facility is not expected to contribute to long-term toxic effects; therefore, the Discharger will not be required to monitor for chronic toxicity. Intermittent discharges are likely to have short-term effects; therefore, ALBS will be required to conduct quarterly acute toxicity monitoring.

4. **Specific Rationale for Each Numerical Effluent Limitation**

Section 402(o) of the Clean Water Act and 40 CFR 122.44(l) require that effluent limitations standards or conditions in re-issued permits are at least as stringent as in the existing permit. Therefore, the existing effluent limitations for acute toxicity are carried over to this permit. The effluent limitations for pH and temperature are based on the Regional Board's interpretation of the Basin Plan. Based on the nature of the Discharger's boat cleaning and maintenance operations, this Order prescribes effluent limitations for conventional and non-conventional pollutants (i.e., suspended solids, oil and grease, settleable solids, BOD₅ @ 20°C, sulfide, phenols, and turbidity). Effluent limitations for TSS, turbidity, BOD, oil and grease, settleable solids, sulfides, total petroleum hydrocarbons and phenols are based on effluent limitations contained in Orders recently adopted by the Regional Board for discharges from boat repair and maintenance facilities in the Los Angeles region. Storm water discharged from the facility also has the potential to contain those constituents because it might come into direct contact with spent blast materials, materials removed from boats during washing, and the docks and marine ways.

Therefore, effluent limitations for these conventional and non-conventional pollutants also will be prescribed for storm water discharges.

In compliance with 40 CFR §122.45(f), mass-based limitations have also been established in the proposed Order for conventional and non-conventional pollutants in the discharge of low-pressure water blasting wastewater. Generally, mass-based limitations ensure that proper treatment, and not dilution is employed to comply with the final effluent concentration limitations. When calculating the mass-based limitations for discharges, the appropriate flow, daily maximum limitations for daily maximum mass calculations, and the monthly average limitations when calculating the monthly average mass, should be substituted in the following equation:

$$\text{Mass (lbs/day)} = \text{flow rate (MGD)} \times 8.34 \times \text{effluent limitation (mg/L)}$$

where: mass = mass limitation for a pollutant (lbs/day)
 effluent limitation = concentration limitation for a pollutant (mg/L)
 flow rate = discharge flow rate (MGD)

For purposes of establishing mass-based effluent limitations for discharges resulting from low-pressure water blasting activities in this Order, the maximum discharge flow rate, 1,440 gpd (0.00144 MGD), was used. As stated earlier, this flow rate was determined based on the duration of low-pressure water blasting activities.

- A. Effluent Limits Outfall 001. The two sampling events reported were evaluated and three constituents: copper, lead, and zinc, had reasonable potential. The constituents are associated with discharges from boat maintenance and washing operations; they are typically associated with the paint chips and grit generated during these operations.

The following effluent limitations established in this Order are applicable to wastewater (low-pressure water blasting) discharges from the NPDES Discharge Serial No. 001.

Constituent (units)	Average Monthly Discharge Limitations		Maximum Daily Discharge Limitations		Rationale ¹
	Concentration	Mass ²	Concentration	Mass ²	
pH (standard units)	--	--	Between 6.5 – 8.5	--	BP
Temperature (°F)	--	--	86	--	BP, BPJ
Total suspended solids (mg/L)	50	0.6	75	0.9	BPJ
Turbidity (NTU)	50	--	75	--	BPJ
BOD ₅ @ 20°C (mg/L)	20	0.2	30	0.4	BPJ
Oil and grease (mg/L)	10	0.1	15	0.2	BPJ

Constituent (units)	Average Monthly Discharge Limitations		Maximum Daily Discharge Limitations		Rationale ¹
	Concentration	Mass ²	Concentration	Mass ²	
Settleable solids (ml/L)	0.1	--	0.3	--	BPJ
Sulfide (mg/L)	--	--	1.0	0.01	BPJ
Phenols ³ (mg/L)	--	--	1.0	0.01	BPJ
Copper (µg/L)	2.9	0.00003	5.8	0.00007	CTR
Lead (µg/L)	7.0	0.00008	14	0.0002	CTR
Zinc (µg/L)	47.4	0.0006	95	0.001	CTR
Total petroleum hydrocarbons (µg/L)	--	--	100	0.0012	BPJ
Acute Toxicity (% survival)	--	--	4	--	E, BP

¹ BP = Basin Plan, E = Existing Permit, BPJ = Best Professional Judgment
² The mass-based effluent limitations for pollutants are based on a maximum low-pressure water blasting discharge flow rate of 1,440 gpd (0.00144 mgd). The units are lbs/day.
³ Total phenols measured by EPA Method 420.1 or 420.2 (using the 4AAP method).
⁴ Average survival in effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test producing less than 70 % survival.

B. Effluent Limits Outfall 002. The storm water discharge is not continuous (i.e., it is periodic in nature). For this reason, mass-based limitations for storm water discharges are not established in this Order, pursuant to CFR 122.45(f)(iii). The effluent limitations for storm water discharges from Discharge Serial No. 002 are:

Constituent (units)	Average Monthly Discharge Limitations	Maximum Daily Discharge Limitations	Rationale ¹
pH (standard units)	--	Between 6.5 – 8.5	BP
Temperature (°F)	--	86	BP, BPJ
Total suspended solids (mg/L)	50	75	BPJ
Turbidity (NTU)	50	75	BPJ
BOD ₅ @ 20 °C (mg/L)	20	30	BPJ
Oil and grease (mg/L)	10	15	BPJ
Settleable solids (ml/L)	0.1	0.3	BPJ
Sulfide (mg/L)	--	1.0	BPJ
Phenols ² (mg/L)	--	1.0	BPJ

Constituent (units)	Average Monthly Discharge Limitations	Maximum Daily Discharge Limitations	Rationale ¹
Total petroleum hydrocarbons (µg/L)	--	100	BPJ
Acute Toxicity (% survival)	--	3	E, BP

¹ BP = Basin Plan, E = Existing Permit, BPJ = Best Professional Judgment

² Total phenols measured by EPA Method 420.1 or 420.2 (using the 4AAP method).

³ Average survival in effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test producing less than 70 % survival.

C. Compliance Schedule

Based on effluent monitoring data submitted by the Discharger, a comparison between the MEC and calculated AMEL values shows that the Discharger will be unable to consistently comply with effluent limitations established in the proposed Order for copper, lead and zinc for discharges from Outfalls 001. Hence, interim limits have been prescribed for these constituents. As a result, the proposed Order contains a compliance schedule that allows the Discharger up to two years to comply with the revised effluent limitations.

This Order establishes interim monitoring requirements such as requiring the Discharger to develop a pollutant minimization plan and/or source control measures and participate in the activities necessary to achieve the final effluent limitations. These interim limitations shall be effective until July 27, 2009, after which, the Discharger shall demonstrate compliance with the final effluent limitations.

The interim limitations shall be the MEC reported in data previously collected at the site since the current Order (Order No. 97-079 does not include limits for these constituents). It should be noted that the Board might take appropriate enforcement actions if interim limitations and requirements are not met.

From the effective date of this Order until July 27, 2007, discharges of the wastewater from Discharge Outfalls 001 in excess of the following is prohibited:

Constituent (units)	Daily Maximum Concentration	Mass (lbs/day)	Rationale ¹
Copper ² (µg/L)	2000	0.02	MEC
Lead ² (µg/L)	17	0.0002	MEC
Zinc ² (µg/L)	530	0.006	MEC

¹ MEC = Maximum Effluent Concentration

² Results are total recoverable.

The Discharger will be required to develop and implement a compliance plan that will identify the measures that will be taken to reduce the concentrations of the constituents with interim effluent limits. This plan should evaluate options to achieve compliance with the revised permit limitations. These options can include, for example, evaluating

and updating available treatment unit processes, upgrading the system if necessary, and maintaining proper operation and maintenance of the treatment system.

5. **Monitoring Requirements**

The previous permit for ALBS required quarterly monitoring for acute toxicity. The existing *M&RP* also required ALBS to monitor the sediment at three locations every 2 years for sediment grain size, copper, lead, and zinc.

The Regional Board also issued a letter on February 21, 2002, that required ALBS to monitor for priority pollutants regulated in the CTR, and submit the data by April 15, 2003. As stated previously, ALBS provided monitoring data collected during two sampling events in February 2003. Monitoring requirements are discussed in greater detail in Section III of the *M&RP*.

(a) Effluent Monitoring

As stated previously, effluent monitoring data indicate the Discharger has exceeded acute toxicity effluent limitations. To demonstrate compliance with effluent limitations established in the permit, this Order establishes accelerated monitoring requirements for acute toxicity in the discharges of low-pressure water blasting and storm water. The proposed Order establishes monthly monitoring for the first six months following permit adoption. The results of these samples must then be compared to the acute toxicity limits. If non-compliance is observed, the Discharger must perform an approved toxicity identification evaluation/toxicity reduction evaluation (TIE/TRE). If compliance is observed, the Discharger may revert to quarterly toxicity testing following the initial 6-month period.

Furthermore, the Discharger is required to monitor for pH and temperature once per discharge, but not to exceed once per month (i.e., monthly). In addition, for suspended solids, turbidity, BOD₅ @20°C, oil and grease, settleable solids, sulfide, phenols, and metals (i.e., antimony, arsenic, beryllium, cadmium, copper, chromium III, chromium VI, lead, mercury, nickel, selenium, silver, and zinc) a monitoring frequency of once per discharge but not to exceed more than once per 3 months (i.e., quarterly) is required.

As discussed previously, there are insufficient effluent monitoring data for CTR priority pollutants to complete the RPA. If data are unavailable or insufficient to conduct the RPA the Regional Board will establish interim requirements that require additional monitoring in place of a WQBEL. The proposed Order requires the Discharger to conduct interim monitoring for all CTR priority pollutants (as listed in the *M&RP*) for the first two years of the permit, until July 27, 2009, or until otherwise directed by the Regional Board. As stated previously, the Discharger shall ensure that at least four samples are collected and analyzed in this interim monitoring period (once per discharge event, not to exceed two samples per year for the first two years of the permit), the results of which shall be submitted in accordance with the reporting schedule provided in the *M&RP*. The Regional Board will use the additional data to

conduct the RPA and determine if a WQBEL is required, and may reopen the permit to incorporate additional effluent limitations and requirements, if necessary. Upon completion of the required interim monitoring, the Discharger will be required to continue monitoring for priority pollutants, annually (once per discharge event, not to exceed one sample per year).

The Discharger shall take a sample during a low-pressure water blasting event, from the point beneath the ways (or drydock) where the greatest volume of discharge is entering Fish Harbor. A clean steel plate will be placed on to the floor of the ways at the water line. The 5-gallon sample will be taken by means of a peristaltic pump with cleaned teflon tubing, resting on the steel plate at a depth of no more than two inches. The sample will only be taken while process discharge is entering the Harbor.

The following shall constitute the effluent monitoring program for discharge of process water (low-pressure water blasting wastewater) through NPDES Discharge Serial Nos. 001:

Constituent	Units	Type of Sample	Sampling frequency ¹
Flow	gal/day	estimated	once per discharge event ²
pH	Standard units	grab	once per discharge event ²
Temperature	°F	grab	once per discharge event ²
Total suspended solids	mg/L	grab	once per discharge event ²
Turbidity	NTU	grab	once per discharge event ²
Biochemical oxygen demand (BOD ₅ @ 20°C)	mg/L	grab	once per discharge event ²
Oil and grease	mg/L	grab	once per discharge event ²
Settleable solids	ml/L	grab	once per discharge event ²
Sulfide	mg/L	grab	once per discharge event ²
Phenols ⁴³	mg/L	grab	once per discharge event ²
Antimony	µg/L	grab	once per discharge event ²
Arsenic ⁵⁴	µg/L	grab	once per discharge event ²
Beryllium	µg/L	grab	once per discharge event ²
Cadmium ⁵⁴	µg/L	grab	once per discharge event ²
Copper ⁵⁴	µg/L	grab	once per discharge event ²
Chromium III ⁵⁴	µg/L	grab	once per discharge event ²
Chromium VI ⁵⁴	µg/L	grab	once per discharge event ²
Lead ⁵⁴	µg/L	grab	once per discharge event ²
Mercury	µg/L	grab	once per discharge event ²
Nickel ⁵⁴	µg/L	grab	once per discharge event ²
Selenium	µg/L	grab	once per discharge event ²
Silver ⁵⁴	µg/L	grab	once per discharge event ²
Zinc ⁵	µg/L	grab	once per discharge event ²
Ammonia (as N)	mg/L	grab	once per discharge event ²
Toxicity-acute	% survival	grab	monthly ⁵
Total Petroleum Hydrocarbons ^{8Z}	µg/L	grab	once per discharge event ²
Remaining CTR Priority Pollutants (See Section VIII of <i>M&RP</i>)	µg/L	grab	once per discharge event ⁶

¹ The Discharger shall monitor for all pollutants/parameters during the first discharge event upon adoption of this Order.

² To be monitored once per discharge but no more than one set of samples per month is required.

³ Total phenols measured by EPA Method 420.1 or 420.2 (using the 4AAP method).

⁴ Measured as total recoverable.

⁵ The Discharger is required to collect and analyze discharges of storm water for acute toxicity monthly for the first six (6) months following permit adoption. The results of these analyses must be compared to the acute toxicity limitation. If toxicity exceeds the limitation [as defined in Order No. R4-2007-0030, Section I.B.3.a.(i)], then the Discharger shall immediately implement accelerated testing as specified in Section I.B.3.a.(ii) which includes conducting six additional tests over a 6-week period. If toxicity levels comply with the effluent limitation, then the Discharger may resume annual monitoring.

⁶ CTR priority pollutants: For the first 2 years of the Order term (interim monitoring period) monitoring is required once per discharge (but no more than two samples per calendar year are required). For the remainder of the Order term, monitoring is required once per discharge (but no more than one sample per calendar year is required). All samples shall be collected during the months October – May.

⁷ Total petroleum hydrocarbons include all fuels, gasoline, diesel and jet fuel. Analysis should be completed using EPA 418.1 and EPA 8015 (modified) methods.

(b) Storm Water Monitoring

The Discharger is required to measure and record the rainfall each day of the month. The Discharger is also required to conduct visual observations of all storm water discharges of all storm water discharge locations to observe the presence of floating and suspended materials, oil and grease, discoloration, turbidity and odor.

ALBS is required to monitor for conventional pollutants, metals, tributyltin, chemical oxygen demand, total petroleum hydrocarbons, total organic carbon, and conductivity twice a year to ensure that measures to prevent storm water pollution as described and implemented through the SWPPP are effective. Further, to determine if storm water contributes acute toxicity, monthly monitoring is required for the first six months following permit adoption. The results of these samples must then be compared to the acute toxicity limits. If non-compliance is observed, the Discharger must perform an approved toxicity identification evaluation/toxicity reduction evaluation (TIE/TRE). If compliance is observed, the Discharger may revert to quarterly toxicity testing following the initial six-month period.

As discussed previously, there is insufficient storm water discharge monitoring data for CTR priority pollutants to complete the RPA. If data are unavailable or insufficient to conduct the RPA the Regional Board establishes interim requirements that require additional monitoring in place of a WQBEL. The proposed Order requires the Discharger to conduct interim monitoring for all CTR priority pollutants (as listed in the M&RP) for the first two years of the permit, until July 27, 2009, or until otherwise directed by the Regional Board. As stated previously, the Discharger shall ensure that at least four samples are collected and analyzed in this interim monitoring period (once per discharge event, not to exceed two samples per year for the first two years of the permit), the results of which shall be submitted in accordance with the reporting schedule provided in the M&RP. The Regional Board will use the additional data to conduct the RPA and determine if a WQBEL is required, and may reopen the permit to incorporate additional effluent limitations and requirements, if necessary. Upon completion of the required interim monitoring, the Discharger will be required to

continue monitoring for priority pollutants, annually (once per discharge event, not to exceed one sample per year).

Storm water samples shall be collected at a point within the on-site storm water drain (Discharge Serial No. 002) located on a concrete platform outside the machine shop prior entry into the receiving water. Upon sufficient rainfall, the piping leading to the Harbor waters within the storm drain is blocked and water sample is collected. Water samples shall be collected into the appropriate containers that comply with the requirements, including the preservation techniques and holding times as specified in 40 CFR Part 136. The block in the storm drain is removed after the collection of the water samples.

The following shall constitute the effluent monitoring program for the discharge of storm water through Discharge Serial No. 002.

Constituent	Units	Type of Sample	Sampling frequency
Flow	gal/day	estimated	once per discharge event ¹
pH	Standard units	grab	once per discharge event ¹
Total suspended solids	mg/L	grab	once per discharge event ¹
Oil and grease	mg/L	grab	once per discharge event ¹
Turbidity	mg/L	grab	once per discharge event ¹
Biochemical oxygen demand (BOD ₅ @ 20 °C)	mg/L	grab	once per discharge event ¹
Sulfide	mg/L	grab	once per discharge event ¹
Phenols ²	mg/L	grab	once per discharge event ¹
Settleable solids	ml/L	grab	once per discharge event ¹
Antimony	µg/L	grab	once per discharge event ¹
Arsenic ³	µg/L	grab	once per discharge event ¹
Beryllium	µg/L	grab	once per discharge event ¹
Cadmium ³	µg/L	grab	once per discharge event ¹
Copper ³	µg/L	grab	once per discharge event ¹
Chromium III ³	µg/L	grab	once per discharge event ¹
Chromium VI ³	µg/L	grab	once per discharge event ¹
Lead ³	µg/L	grab	once per discharge event ¹
Nickel ³	µg/L	grab	once per discharge event ¹
Selenium	µg/L	grab	once per discharge event ¹
Silver ³	µg/L	grab	once per discharge event ¹
Zinc ³	µg/L	grab	once per discharge event ¹
Tributyltin	µg/L	grab	once per discharge event ¹
Ammonia as (N)	mg/L	grab	once per discharge event ¹
Total petroleum hydrocarbons (TPH) ⁶	mg/L	grab	once per discharge event ¹
Chemical oxygen demand (COD)	mg/L	grab	once per discharge event ¹
Total organic carbon (TOC)	mg/L	grab	once per discharge event ¹
Conductivity	µmhos/cm	measurement	once per discharge event ¹
Toxicity-Acute	% survival	grab	monthly ⁴
Remaining CTR Priority Pollutants (See Section VIII in the <i>M&RP</i>)	µg/L	grab	once per discharge event ⁵

- ¹ During periods of storm water discharge, samples shall be collected during the first hour of the discharge. Each separate period of storm water discharge shall be sampled but no more than 2 samples per year are required.
- ² Total phenols measured by EPA Method 420.1 or 420.2 (using the 4AAP method).
- ³ Measured as total recoverable.
- ⁴ The Discharger is required to collect and analyze discharges of storm water for acute toxicity monthly for the first six (6) months following permit adoption. The results of these analyses must be compared to the acute toxicity limitation. If toxicity exceeds the limitation [as defined in Order No. R4-2007-0030, Section I.B.3.a.(i)], then the Discharger shall immediately implement accelerated testing as specified in Section I.B.3.a.(ii) which includes conducting six additional tests over a 6-week period. If toxicity levels comply with the effluent limitation, then the Discharger may resume annual monitoring.
- ⁵ CTR priority pollutants: For the first two years of the Order term (interim monitoring period) monitoring is required once per discharge (but no more than two samples per calendar year are required). For the remainder of the Order term, monitoring is required once per discharge (but no more than one sample per calendar year is required). All samples shall be collected during the months October – May.
- ⁶ Total petroleum hydrocarbons includes all fuels, gasoline, diesel and jet fuel. Analysis should be completed using EPA 418.1 and EPA 8015 (modified) methods.

(c) Receiving Water Monitoring

The Discharger is required to perform general observations of the receiving water when discharges occur and report the observations in the quarterly monitoring reports. The Regional Board, in assessing potential impacts of future discharges, will use data from these observations. If no discharge occurred during the observation period, this shall be reported. Observations shall be descriptive where applicable, such that colors, approximate amounts, or types of materials are apparent. The following observations are required:

- Tidal stage, time, and date of monitoring;
- Weather conditions;
- Color of water;
- Appearance of oil films or grease, or floatable materials;
- Extent of visible turbidity or color patches;
- Direction of tidal flow;
- Description of odor, if any, of the receiving water; and
- Presence and activity of California Least Tern and California Brown Pelican.

In addition to general observations listed above, the Discharger is required to monitor the receiving water for the California Toxics Rule priority pollutants, to determine reasonable potential. Pursuant to the California Water Code, section 13267, the Discharger is required to submit data sufficient for: (1) determining if WQBELs for priority pollutants are required, and (2) to calculate effluent limitations, if required. The SIP requires and the TSD recommends that the data be provided. Therefore, the Discharger shall conduct the following interim monitoring program for the receiving water for all California Toxics Rule priority pollutants for two years (i.e., until July 27, 2009), or until otherwise directed by the Regional Board. The Discharger shall ensure that at least four samples of the receiving water are collected and analyzed in this interim monitoring period; the results of monitoring for reasonable potential determination shall be submitted in accordance with Section I.A of the Monitoring and

Reporting Program. Receiving water sampling shall be conducted at the same time as the effluent (low-pressure water blasting) or the storm water discharge (sample during the first two discharge events of the calendar year). The receiving water monitoring location shall be within 50 feet upstream of the discharge point into the receiving water (Fish Harbor of Los Angeles Inner Harbor) or outside the influence of the discharge.

Monitoring requirements for receiving water are discussed in greater detail in Section VII and VIII of the M&RP.

(d) 2,3,7,8-TCDD Monitoring for Reasonable Potential Determination

The Regional Board is requiring, as part of the *M&RP*, that the Discharger conduct effluent monitoring of storm water and low-pressure water blasting discharges and receiving water monitoring for 2,3,7,8-TCDD, twice during the permit term (once during a low-pressure water blasting discharge event, and once during a storm event). Samples shall be collected during the months of October through May. This Order requires monitoring for 2,3,7,8 TCDD and the sixteen (16) congeners listed in the table in Section VIII.A. of the *M&RP*. The Discharger is required to calculate Toxic Equivalence (TEQ) for each congener by multiplying its analytical concentration by the appropriate Toxicity Equivalent Factors (TEF).

(e) Sediment Monitoring

Pollutants in the discharge from ALBS have the potential to accumulate and persist in the sediment, which can adversely impact aquatic life. Consistent with requirements contained in Orders recently adopted by the Regional Board for discharges from boat repair and maintenance facilities in the Los Angeles region, to assess the impact of the discharge to the beneficial uses of the receiving waters, the Discharger is required to monitor certain metals, total organic carbon, tributyltin, total petroleum hydrocarbons, polychlorinated biphenyls/polychlorinated terphenyls (PCBs/PCTs), PAHs, grain size, and paint chips. Surface grab samples containing the upper two (2) centimeters of sediment shall be taken from an Ekman grab (or by another method approved by the Executive Officer) collected at each station and analyzed for the following:

Constituent	Units	Stations ¹	Type of Sample	Sampling Frequency
Arsenic	mg/kg dry wt.	R1, R2, R3	grab	once every 2 years
Cadmium	mg/kg dry wt.	R1, R2, R3	grab	once every 2 years
Copper	mg/kg dry wt.	R1, R2, R3	grab	once every 2 years
Chromium	mg/kg dry wt.	R1, R2, R3	grab	once every 2 years
Lead	mg/kg dry wt.	R1, R2, R3	grab	once every 2 years
Nickel	mg/kg dry wt.	R1, R2, R3	grab	once every 2 years
Silver	mg/kg dry wt.	R1, R2, R3	grab	once every 2 years
Zinc	mg/kg dry wt.	R1, R2, R3	grab	once every 2 years
Tributyltin	mg/kg dry wt.	R1, R2, R3	grab	once every 2 years
Total organic carbon	mg/kg dry wt.	R1, R2, R3	grab	once every 2 years
TPH ²	mg/kg dry wt.	R1, R2, R3	grab	once every 2 years
PCBs/PCTs ³	mg/kg dry wt.	R1, R2, R3	grab	once every 2 years

Constituent	Units	Stations ¹	Type of Sample	Sampling Frequency
PAH ⁴	mg/kg dry wt.	R1, R2, R3	grab	once every 2 years
Grain size	mg/kg dry wt.	R1, R2, R3	grab	once every 2 years
Paint chips	mg/kg dry wt.	R1, R2, R3	grab	once every 2 years

¹ R1 = at the south end of ways, off of finger pier, R2 = At north end of ways, off of finger pier, R3 = Within Al Larson Marina, off of dock.

² Total petroleum hydrocarbons.

³ Polychlorinated biphenyls/polychlorinated terphenyls.

⁴ Polynuclear aromatic hydrocarbons (Sum of acenaphthene, acenaphthylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(ghi)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)fluoranthene, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, and pyrene).

(f) Best Management Practices Plan

The implementation of the BMPP is expected to be adequate to achieve compliance with water quality standards.

The Discharger is required to develop a plan and implement it to capture 0.1 inch of the first storm water flush from high risk areas to be disposed of to the POTW or to an off-site disposal facility.

The Discharger is also required to develop and implement a plan that includes BMPs to capture all solids (spent sand grit and paint chips) generated during sandblasting activities to prevent them from entering the receiving water. These solids must be disposed of at an off-site disposal facility, and the Discharger is required to provide documentation of this disposal.

Furthermore, the Discharger shall implement the Storm Water Pollution Prevention Plan Requirements (SWPPP) as is enumerated in Attachment A of the WDR Order No. R4-2007-0030.