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
SOUTHWEST MARINE, INC.
(San Pedro Division)

NPDES Permit No.: CA0000868
Public Notice No.: 02-019

FACILITY ADDRESS

Southwest Marine, Inc.
San Pedro Division
985 South Seaside Ave.,
Terminal Island, 90731

FACILITY MAILING ADDRESS

Southwest Marine, Inc.
San Pedro Division
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Terminal Island, CA 90731
Contact Person: Sandor Halvax
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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 January 3, 2003.

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: January 30, 2003
Time: 9:00 a.m.
Location: Metropolitan Water District of Southern California,
700 North Alameda Street, Board Room,
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.

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
Senior Staff Counsel
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

Southwest Marine, Inc. (hereinafter Southwest Marine or Discharger) discharges wastes from its San Pedro Division ship repair facility under waste discharge requirements contained in Order No. 95-143 adopted by this Regional Board on October 30, 1995. Order No. 95-143 serves as the NPDES permit (NPDES No. CA0000868).

Southwest Marine has filed a report of ROWD and has applied for renewal of its waste discharge requirements and NPDES permit. Regional Board staff performed a compliance inspection at the Southwest Marine's facility on January 18, 2001. No violations were noted during the inspection.

III. Description of the Facility

Southwest Marine operates a ship repair facility located at 985 South Seaside Avenue, Terminal Island, California. The facility occupies approximately 9 acres and is comprised of 800 square feet pier space, production shops, warehousing, administration, parking, and piers 1, 2, and 3, within which two floating dry docks (Nos.1 and 2) are berthed and operated. The dry docks are used to dryberth vessels for inspection, repair, and maintenance activity. Dry Dock No. 2 was permanently out commission in 2002.

The dry-docking of vessels starts with the configuration of the keel blocks in the dry docks to fit the vessels being serviced. Then the enclosed ballast tanks under the floating dry docks are filled with seawater until the dry dock is submerged. The vessel is then brought into position on top of the keel block. At his point, the water is pumped out of the dry dock ballast tanks and the dry dock, along with the vessel, emerges from the water. The vessel is then ready to be repaired.

The vessel repair/maintenance activities generally include exterior hull repair, preservation (abrasive blasting and/or hydroblasting and painting), and repair/replacement of valves and fittings below the water line. The wastes from this activities may include, hydroblast wastewater, condensate, waste oil/oily debris, oily bilge, spent abrasive, liquid paint waste, solid paint debris (rags, clothing, brushes, rollers), and paint debris. These wastes are stored in baker tanks and hauled to a disposal site. Sanitary wastes and a portion of hydroblast and condensate wastewater are discharged to the sanitary sewer.

The Regional Board and the United States Environmental Protection Agency (USEPA) have classified the Southwest Marine as a minor discharge.

IV. Description of Wastes Discharge and Outfalls

Southwest Marine discharges wastes to the Los Angeles Harbor Main Channel through five outfalls (Discharge Serial Nos. 001, 003, 004, and 005) located at the southwestern end of Terminal Island (Latitude 33^{o} 49' 56" North, Longitude 118^{o} 16' 13" West). Due to the proximity of the outfalls to each other, the latitude and longitude are considered the same.

The previous permits described Discharge No. 001 as the outfall located at Berth 240Z in Terminal Island. This outfall was used to discharge non-contact, air compressor cooling water (seawater) and bilge water (from vessels in the dry dock) that was treated in an oil/water separator. In a letter dated November 5, 1998, Southwest Marine informed the Regional Board that this outfall was taken out of service and the wastes are hauled to a disposal site. In the ROWD, the former discharge points 002, 003, 004, 005, and 006 are now named as 001, 002, 003, 004, and 005, respectively. Since Dry Dock No. 2 was decommissioned, discharge point 002 is no longer in used.

The wastes discharged to the Los Angeles Harbor Main Channel include:

a. Spent abrasive, paint rust, petroleum products, marine growth, and general refuse that remain after cleaning Dry Dock #1. These wastes may be carried into the Los Angeles Harbor when the dry dock is submerged to release the vessel, or when storm water or other water from the vessel run off the dry dock floor while the dock is still afloat. The dry dock is submerged 38 times per year.

b. Approximately 5 million gallons (MG) of ballast water (seawater taken from the Harbor) is discharged from Dry Dock #1, for every dry dock submergence. Ballast water is used to submerge the dry docks in order to bring in the vessels. Because the ballast tanks are enclosed and no chemical additive is used, this is a discharge of seawater.

   The ballast water from Dry Dock #1 is discharged into the Los Angeles Harbor through Discharge Serial Nos. 001.

d. Non-contact cooling water of up to 720,000 gallons per day (gpd) from each of the three Piers, (i.e., Pier #1, #2, and #3) is discharged into the Los Angeles Harbor through Discharge Serial Nos. 003, 004, and 005, respectively. Some of the vessels being serviced maintain operation of environmental systems on board (air conditioning, heating, and refrigeration). These systems require cooling water flow to operate correctly. Seawater is collected through a fire main system and used for cooling the vessels' operating system. This water comes into contact with the ship piping system and heat generated by these systems, prior to being discharged back to the harbor. No chemicals are added to the system.

e. Storm water runoff which may include the "first flush[1]" of storm water runoff from high risk[2] areas of the facility.

   The permit requires the Discharger to implement measures to capture the first flush of storm water from high risk areas of the facility.

   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 facilities are located on or immediately adjacent to Los Angeles Harbor and that many such activities are conducted outdoors. 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.

The storm water discharge from the facility is 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. CAS000001, 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 Order will now regulate the Southwest Marine's discharge of storm water to the Los Angeles Harbor.

In addition to the waste streams mentioned above, Southwest Marine also discharges some process wastes into the sanitary sewers or hauled offsite for proper disposal. These wastes consist of hydroblasting or hydrostatic testing water from the surface preparation process and tank cleaning process, condensate wastewater, boiler blowdown, oily bilge/ballast wastewater from vessels, salt box water, waste oil, abrasive sandblasting, liquid paint waste, solid paint waste, oily debris (rags/absorbent clay), and paint debris. These discharges are not regulated under this permit. Marine fouling organisms from painted surface (i.e., ship hulls) are hauled

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[1] Storm water runoff normally conveys a disproportionate concentration of pollutants in the initial period runoff is generated during "storm event", commonly referred to as "first flush". Storm event means a rainfall event that produces more than 0.1 inch of precipitation and that, which is separated from the previous storm event by at least 72 hours of dry weather.

[2] High risk areas are areas where wastes or pollutants from ship repair, modification, and maintenance activities are subject to exposure to precipitation, run-on, and /or runoff. The wastes or pollutants include, but are not limited to abrasive blast grit material, primer, paint, paint chips, solvents, oils fuels, sludges, detergents, cleaners, hazardous substances, toxic pollutants, non-conventional pollutants, materials of petroleum origin, or other substances that are designated as hazardous under Section 101 (14) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), or any chemical the facility is required to report pursuant to Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA)]. The high risk areas shall include but not limited to all storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage/maintenance areas, 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 sources of pollutants.

offsite for proper disposal.

V. Discharge Quality

A. The effluent characteristics of ballast water as reported in the ROWD are as follows:

Constituent	Units	Daily Maximum
Flow	MG[1]	5
Biochemical oxygen demand (BOD)	mg/L	30
Total suspended solids (TSS)	mg/L	29
Chemical oxygen demand (COD)	mg/L	840
Total residual chlorine	mg/L	<0.1
Oil and grease	mg/L	<1.7
pH	Std units	7.0
Total organic carbon (TOC)	mg/L	4.1
Ammonia (as N)	mg/L	<0.5
Temperature - Winter	^{o}C	13.39

[1] MG - million gallons

B. The effluent characteristics of non-contact cooling water as reported in the ROWD are as follows:

Constituent	Units	Daily Maximum
Flow	mgd	0.72
BOD	mg/L	2.9
TSS	mg/L	39
COD	mg/L	1200
Oil and grease	mg/L	<1.0
pH	Std units	7.9
TOC	mg/L	1.5
Ammonia (as N)	mg/L	<0.50
Temperature - Winter	^{o}C	14.23

C. The receiving water (water samples were collected on February 28, 2001) characteristics as reported in the ROWD are as follows:

Constituent	Units	Daily Maximum

BOD	mg/L	27
TSS	mg/L	18
COD	mg/L	630
Total residual chlorine	mg/L	0.1
Oil and grease	mg/L	<1.0
pH	Std units	7.0
TOC	mg/L	2.3
Ammonia (as N)	mg/L	<0.5
Temperature - Winter	^{o}C	13.72

VI. Applicable Plans, Policies, and Regulations

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

A. The Federal Clean Water Act (CWA). The CWA 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.

B. Title 40, Code of Federal 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 by Southwest Marine.

C. 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 of the Los Angeles Harbor Main Channel :

Existing: industrial service supply, navigation, non-contact water recreation, commercial and sport fishing, marine habitat, and rare, threatened, or endangered species.

Potential: water contact recreation, and shellfish harvesting.

D. 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.

E. On May 18, 2000, the U.S. Environmental Protection Agency (USEPA) promulgated numeric criteria for priority pollutants for the State of California [known as the *California Toxics Rule* (CTR) and codified as 40 CFR section 131.38]. In the CTR, USEPA promulgated criteria that protect the general population at an incremental cancer risk level of one in a million (10^{-6}), for all priority toxic pollutants regulated as carcinogens. The CTR also provides a schedule of compliance not to exceed 5 years from the date of permit renewal for an existing discharger if the discharger demonstrates that it is infeasible to promptly comply with the CTR criteria.

F. On March 2, 2000, the 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 USEPA through the National Toxics Rule (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 USEPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP was effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The SIP requires the dischargers' submittal of data sufficient to conduct the determination of priority pollutants requiring Water Quality-Based Effluent Limitations (WQBELs) and to calculate the effluent limitations. The CTR criteria for saltwater 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 the Los Angeles Harbor.

G. 40 CFR section 122.44(d)(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 USEPA criteria and supplemented, where necessary, by other relevant information to attain and maintain narrative water quality criteria to fully protect designated beneficial uses.

H. State and Federal antibacksliding and antidegradation policies that require Regional Board actions to protect the water quality of a water body and to ensure that the waterbody will not be further degraded. The antibacksliding provisions are specified in section 402(o) of the CWA and in 40 CFR, section 122.44(l). Those provisions require a reissued permit to be as stringent as the previous permit with some exceptions where effluent limitations may be relaxed.

I. 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 the Los Angeles Harbor.

J. Existing waste discharge requirements contained in Board Order No. 95-143, adopted by the Regional Board on October 30, 1995. 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.

VII. 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 and standards. 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 beneficial uses of the receiving water.

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 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 not composed entirely of storm water, such as the potential discharges to inland surface waters, enclosed bays, and estuaries, the SIP establishes specific implementation procedures for determining reasonable potential and establishing WQBELs for priority pollutant criteria promulgated by USEPA through the CTR and NTR, as well as the Basin Plan. With respect to a reasonable potential analysis, the SIP identifies a appropriate step-wise approach that can be used to determine whether a discharge has a reasonable potential. The approach used in the SIP is equally valid for determining the reasonable potential for discharges comprised entirely of storm water discharges.

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

A. 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 and SIP 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 SIP includes provisions for priority pollutant criteria promulgated by USEPA in the CTR and NTR, and for those priority pollutants outlined in the Basin Plan.

The existing permit prescribed effluent limitations as well as effluent monitoring for the wastes discharged only in Discharge 001 that was taken out of service (see Item IV, paragraph 2). There were no effluent limitations nor effluent monitoring prescribed for the wastes discharged to the other outfalls. However, based on the Discharger's nature of operations, this Order prescribes effluent limitations for conventional pollutants, i.e., suspended solids, oil and grease, settleable solids, BOD, and turbidity. No effluent limitations were also prescribed for toxic pollutants in the current permit. The proposed permit prescribed interim monitoring to obtain the necessary data to conduct the determination of toxic pollutants requiring WQBELs and to calculate the effluent limitations.

B. Technology-Based Effluent Limitations

The existing permit for the Southwest Marine's facility required the Discharger to develop and implement a SWPPP. The SWPPP outlines site-specific management processes for minimizing storm water runoff contamination and for preventing contaminated storm water runoff from being discharged directly into surface waters. Since Southwest Marine discharges storm water (see item IV.e., paragraph 3 above), the proposed permit requires Southwest Marine to update and continue to implement their SWPPP and *Best Management Practices Plan* (BMPPs). The combination of the SWPPP and BMPP and existing 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.

C. Water Quality-Based Effluent Limitations

As specified in 40 CFR 122.44(d)(1)(i), permits are required to include WQBELs for toxic 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 USEPA water quality criteria contained in the CTR and NTR). The specific procedures for determining reasonable potential, and if necessary for calculating WQBELs, are contained in the SIP for non-storm water discharges.

The CTR contains both saltwater and freshwater criteria. According to 40 CFR 131.38(c)(3), freshwater criteria apply at salinities of 1 part per thousand (ppt) and below at locations where this occurs 95 percent or more of the time; saltwater criteria apply at salinities of 10 ppt and above at locations where this occurs 95 percent or more of the time; and at salinities between 1 and 10 ppt the more stringent of the two apply. The CTR criteria for saltwater or human health for consumption of organisms, whichever is more stringent, will be used to prescribe the effluent limitations (after determining reasonable potential and that WQBELS are necessary) in this Order to protect the beneficial uses of the Los Angeles Harbor.

1. Reasonable Potential Analysis (RPA)

In accordance with Section 1.3 of the SIP, the Regional Board will conduct a reasonable potential analysis (RPA) for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the permit. The Regional Board would analyze 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 a 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 must identify 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 water applicable water quality criteria and objectives. The SIP specifies three triggers to complete a RPA:

a. Trigger 1 – If the MEC is greater than or equal to the CTR water quality criteria or applicable objective (C), a limitation is needed.

b. Trigger 2 – If MEC<C and background water quality (B) > C, a limitation is needed.

c. Trigger 3 – If other related information such as CWA 303(d) listing for a pollutant, discharge 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.

2. 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 1.4 of the SIP. These procedures include:

a. If applicable and available, use of the wasteload allocation (WLA) established as part of a total maximum daily load (TMDL).

b. Use of a steady-state model to derive maximum daily effluent limitations (MDELs) and average monthly effluent limitations (AMELs).

c. Where sufficient effluent and receiving water data exist, use of a dynamic model that has been approved by the Regional Board.

3. 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.

The USEPA has approved the State's 303(d) list of impaired water bodies. 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 1998 303(d) list and have been scheduled for TMDL development.

The 1998 California 303(d) list, identified the following pollutants of concern for Los Angeles/Long Beach Harbors: dichloro-diphenyl trichloroethane (DDT), polychlorinated biphenyls (PCBs), and polycyclic aromatic hydrocarbons (PAHs).

4. 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 does not contain toxicity limitations or monitoring requirements.

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.

In addition to the Basin Plan requirements, Section 4 of the SIP states that a chronic toxicity effluent limitation is required in permits for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters. The discharges at the Southwest Marine's facility occur when the drydocks are

submerged and the vessels aboard the drydocks needs cooling water for the systems, during storm events; they are not continuous. Intermittent discharges are likely to have short-term toxic effects; therefore, to be consistent with Basin Plan requirements, the proposed Order includes acute toxicity limitations and testing.

D. Specific Rational 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. Based on the Discharger's nature of operations, this Order prescribes effluent limitations for conventional pollutants, i.e., suspended solids, oil and grease, settleable solids, BOD, and turbidity.

There were no effluent limitations nor monitoring prescribed for priority pollutants in the existing permit. As such, there is no available monitoring data to perform RPA for the priority pollutants. The CTR and SIP require the dischargers to submit sufficient data to conduct the determination of priority pollutants requiring WQBELs and to calculate the effluent limitations. The proposed permit includes an interim monitoring requirements to obtain the necessary data.

E. Monitoring Requirements

The previous permit did not require monitoring for priority pollutants. According to Section 1.3 of the SIP, if data are unavailable or insufficient to conduct the RPA, the Regional Board must establish interim requirements that require additional monitoring for the pollutants in place of a WQBEL. Upon completion of the required monitoring, the Regional Board must use the gathered data to conduct the RPA and determine if a WQBEL is required. As prescribed in the Monitoring and Reporting Program, the Regional Board shall require periodic monitoring for pollutants for which criteria or objectives apply and for which no effluent limitations have been established.

1. Effluent Monitoring

To assess the impact of the discharge to the beneficial uses of the receiving waters, the Discharger is required to monitor the conventional and priority pollutants. Monitoring of these pollutants will characterize the wastes discharged.

2. Effluent Monitoring for Reasonable Potential Determination

In compliance with the SIP, 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. Further, the SIP requires that the data be provided no later than May 2003 or until otherwise required by the Regional Board. In order to collect

sufficient data to perform the RPA, the Discharger is required to conduct an interim monitoring program for all CTR priority pollutants until March 2004. As described in the Monitoring and Reporting Program, monitoring reports must be submitted quarterly.

3. Sediment Monitoring

To assess the impact of the discharge to the beneficial uses of the receiving waters, the Discharger is required to monitor metals, total organic carbon, tributyltin, total petroleum hydrocarbons, polychlorinated biphynels/polychlorinated terphenyls (PCBs/PCTs), PAHs, and paint chips.

4. Storm Water Monitoring and Reporting

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.

Southwest Marine is required to monitor conventional pollutants, metals, tributyltin, chemical oxygen demand, total petroleum hydrocarbons, total organic carbons and conductivity twice a year and once per year for acute toxicity.

F. Best Management Practices Plan

The implementation of BMPPs is adequate to achieve compliance with BAT/BCT and 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 POTW or to an offsite disposal facility.

Furthermore, the Discharger shall implement the SWPPP as is enumerated in Attachment M of the WDR Order No. R4-2003-0023.