ORDER No. R2-2016-0045
NPDES No. CA0030228

The following discharger is subject to waste discharge requirements (WDRs) set forth in this Order:

Table 1. Discharger Information

Discharger	Schnitzer Steel Industries, Inc.
Facility Name	Schnitzer Steel Products Company
Facility Address	1101 Embarcadero West Oakland, CA, 94607 Alameda County
CIWQS Place Number	255924

Table 2. Discharge Locations

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Treated process water, cooling water, dust suppression water, wash water, and stormwater	37.7962°	-122.2887°	Oakland Inner Harbor

Table 3. Administrative Information

This Order was adopted on:	November 9, 2016
This Order shall become effective on:	January 1, 2017
This Order shall expire on:	December 31, 2021
The Discharger shall file a Report of Waste Discharge as an application for reissuance of WDRs in accordance with California Code of Regulations, title 23, and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	April 5, 2021
The U.S. Environmental Protection Agency (U.S. EPA) and the California Regional Water Quality Control Board, San Francisco Bay Region, have classified this discharge as follows:	Minor

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

Digitally signed by Bruce H. Wolfe
Date: 2016.11.14 16:41:47 -08'00'

Bruce H. Wolfe, Executive Officer

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Tables

Attachments

I. FACILITY INFORMATION

Information describing the Schnitzer Steel Industries, Inc.'s (Discharger's) Schnitzer Steel Products Company (Facility) is summarized in Table 1 and Fact Sheet (Attachment F) sections I and II.

II. FINDINGS

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

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

B. Background and Rationale for Requirements. The Regional Water Board developed the requirements in this Order based on information the Discharger submitted as part of its application and other available information. The Fact Sheet contains background information and rationale for the requirements in this Order and is hereby incorporated into and constitutes findings for this Order. Attachments A through E and G are also incorporated into this Order.

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

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

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

THEREFORE, IT IS HEREBY ORDERED that in order to meet the provisions of California Water Code division 7 (commencing with § 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. As of the effective date of this Order, this Order rescinds the Discharger's coverage under State Water Resources Control Board (State Water Board) Order No. 2014-0057-DWQ (*Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities*, NPDES Permit No. CAS000001), except for enforcement purposes. The requirements of this Order shall supersede the requirements prescribed in that general permit as it applies to this Discharger as of the effective date of this Order. This Order does not affect any other order applicable to the Discharger or Facility, including but not limited to Cleanup and Abatement Order No. R2-2013-1001.

III. DISCHARGE PROHIBITIONS

A. Discharge of treated wastewater at a location or in a manner different from that described in Fact Sheet sections I, II.A, and II.B, Attachments B and C, and elsewhere in this Order is prohibited.

B. Discharge at Discharge Point No. 001 is prohibited whenever the Discharger is allowed to discharge wastewater to the East Bay Municipal Utility District (EBMUD) wastewater treatment plant via the sanitary sewer.

C. Discharge greater than 600 gallons per minute (gpm) is prohibited at Discharge Point No. 001.

D. Bypass of untreated or partially-treated effluent to waters of the United States is prohibited, except as provided for in Attachment D section I.G of this Order.

E. Discharge of untreated stormwater, process wastewater, or waste materials (e.g., dust suppression water, wash water, spilled product, fugitive dust, dirt, rubbish, refuse, or debris), except as authorized by this Order, directly or indirectly to waters of the United States is prohibited. Incidental dust suppression water droplets, incidental spilled product from ship loading activity, fugitive dust or dirt, or wind-blown debris may be discharged provided that the Discharger fully complies with Provisions VI.C.6.d and VI.C.8 of the Order.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. The Discharger shall comply with the following effluent limitations at Discharge Point No. 001, with compliance measured at Monitoring Location EFF-001 as described in the Monitoring and Reporting Program (MRP) (Attachment E):

Table 4. Effluent Limitations

Parameter	Units	Effluent Limitations			
		Average Monthly [2]	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Total Suspended Solids (TSS)	mg/L	30	45	---	---
pH	standard units	---	---	6.5	8.5
Oil and Grease	mg/L	10	20	---	---
Copper	µg/L	6.2	12	---	---
Acute Toxicity [1]	percent survival	---	---	70	---

Unit Abbreviations:

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

Footnotes:

[1] Acute toxicity tests shall measure the survival of test organisms in 96-hour bioassays of undiluted effluent. Bioassay shall be performed using the most up-to-date U.S. EPA protocols and species as specified in the MRP. A bioassay test showing survival of less than 70% shall represent a violation of this effluent limit.

[2] Compliance with average monthly effluent limitations shall be based on at least two monitoring results collected within the same calendar month. If a second sample cannot be collected within a calendar month because no additional discharge event occurs within the month, then the single sample shall only be used to evaluate compliance with the maximum daily effluent limit.

B. In accordance with Provision VI.C.6, the Discharger shall implement Best Management Practices (BMPs) to the extent practicable as part of a Water Pollution Prevention Plan (WPPP) to control its discharges as necessary to meet applicable water quality standards. BMPs shall

reflect best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT) to reduce or prevent discharges of pollutants in a manner that reflects best industry practice considering technological availability and economic practicability and achievability. Likewise, Provision VI.C.4 sets forth additional controls necessary to implement BAT and BCT.

V. RECEIVING WATER LIMITATIONS

A. The discharge shall not cause the following conditions to exist in receiving waters at any place:

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

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

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

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

5. Alteration of temperature beyond present natural background levels;

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

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

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

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

B. The discharge shall not cause the following limits to be exceeded in receiving waters at any place within one foot of the water surface:

1. Dissolved Oxygen — 5.0 mg/L, minimum

The median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the dissolved oxygen content at saturation. When natural factors cause concentrations less than that specified above, the discharge shall not cause further reduction in ambient dissolved oxygen concentrations.

2. Dissolved Sulfide — Natural background levels

3.	pH	The pH shall not be depressed below 6.5 or raised above 8.5. The discharge shall not cause changes greater than 0.5 pH units in normal ambient pH levels.
4.	Nutrients	Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

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

VI. PROVISIONS

A. Standard Provisions

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

2. The Discharger shall comply with all applicable provisions of the "Regional Standard Provisions, and Monitoring and Reporting Requirements for NPDES Wastewater Discharge Permits" in Attachment G.

B. Monitoring and Reporting

The Discharger shall comply with the MRP (Attachment E), and future revisions thereto, and applicable sampling and reporting requirements in Attachments D and G.

C. Special Provisions

1. Reopener Provisions

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

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

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

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

d. If State Water Board adopts precedential decisions, new policies, new laws, or new regulations are adopted.

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

f. Or as otherwise authorized by law.

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

2. Effluent Characterization Study and Report

a. Study Elements. The Discharger shall characterize and evaluate the discharge from the following discharge point to verify that the "no" or "unknown" reasonable potential analysis conclusions of this Order remain valid and to inform the next permit reissuance. The Discharger shall collect representative samples at the monitoring location set forth below, as defined in the MRP, at no less than the frequency specified below:

Discharge Point	Monitoring Location	Minimum Frequency
001	EFF-001	Once

The samples shall be analyzed for the priority pollutants listed in Attachment G, Table C, except for those priority pollutants with effluent limitations where the MRP already requires monitoring. Compliance with this requirement shall be achieved in accordance with the specifications of Attachment G sections III.A.1 and III.A.2.

b. Reporting Requirements

i. The Discharger shall, within 45 days of receipt of analytical results, report the following in the transmittal letter for the appropriate self-monitoring report:

(a) Indication that a sample for this characterization study was collected; and

(b) Identity of priority pollutants detected at or above applicable water quality criteria (see Fact Sheet Table F-5 for the criteria) and the detected concentrations of those pollutants.

ii. The Discharger shall summarize the data evaluation and submit a final report that presents all these data with its application for permit reissuance.

3. Pollutant Minimization Program

a. The Discharger shall develop and conduct a Pollutant Minimization Program as further described below when there is evidence that a priority pollutant is present in the effluent above an effluent limitation (e.g., sample results reported as detected but not quantified [DNQ] when the effluent limitation is less than the method detection limit [MDL], sample results from analytical methods more sensitive than those methods required by this Order in accordance with State Implementation Policy (SIP) sections 2.4.2 or 2.4.3,

presence of whole effluent toxicity, health advisories for fish consumption, or results of benthic or aquatic organism tissue sampling) and either:

i. A sample result is reported as DNQ and the effluent limitation is less than the Reporting Level (RL); or

ii. A sample result is reported as not detected (ND) and the effluent limitation is less than the MDL, using definitions in Attachment A and reporting protocols described in the MRP.

b. If triggered by the reasons set forth in Provision VI.C.3.a, above, the Discharger's Pollutant Minimization Program shall include, but not be limited to, the following actions and submittals:

i. Annual review and semi-annual monitoring of potential sources of the reportable priority pollutants, which may include fish tissue monitoring and other bio-uptake sampling or alternative measures when source monitoring is unlikely to produce useful analytical data;

ii. Quarterly monitoring for the reportable priority pollutants in the influent to the wastewater treatment system. The Executive Officer may approve commensurate alternative measures when influent monitoring is unlikely to produce useful analytical data;

iii. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutants in the effluent at or below the effluent limitation;

iv. Implementation of appropriate cost-effective control measures for the reportable priority pollutants, consistent with the control strategy; and

v. Inclusion of the following specific items in the annual report:

(a) All Pollutant Minimization Program monitoring results for the previous year;
(b) List of potential sources of the reportable priority pollutants;
(c) Summary of all actions undertaken pursuant to the control strategy; and
(d) Description of actions to be taken in the following year.

4. Treatment System Optimization

a. The Discharger shall optimize its treatment system to maximize pollutant removal using inventoried stormwater, inventoried process wastewater, or simulated stormwater consisting of existing process wastewater diluted with potable water, as appropriate. Treated effluent generated from the study shall be discharged to the EBMUD wastewater treatment plant via the sanitary sewer.

By July 1, 2017, the Discharger shall submit a report documenting the steps taken to optimize its system. The report shall, at a minimum, contain the following elements:

i. Process Control Parameters. The report shall identify process control parameters (e.g., detention time or pH) critical to pollutant removal during each treatment phase

(i.e., preliminary clarification, electrocoagulation, clarification and filtration, and carbon polishing).

ii. Optimal Operating Conditions. The report shall identify optimal operating conditions and process monitoring parameters that allow for adjustments to optimize pollutant removal for each treatment phase. The Discharger may conduct treatability studies that vary control parameters to identify conditions that best remove pollutants during each treatment phase. The Discharger shall also optimize the entire treatment system considering all treatment phases, including carbon polishing, to optimize pollutant removal (i.e., the optimal conditions for individual treatment phases may not optimize conditions for the entire treatment system).

b. After July 1, 2017, when discharging at Discharge Point No. 001, the Discharger shall at all times operate the treatment system in the manner that optimizes pollutant removal.

5. Storage and Treatment Standard Operation and Maintenance Procedures

By September 1, 2017, the Discharger shall develop and commence implementation of standard operation and maintenance procedures for the wastewater storage and treatment system as described below (in addition to complying with the operations and maintenance requirements of Attachments D and G, sections I.D). The procedures shall be consistent with the results of treatment optimization required by Provision VI.C.4. The Discharger shall maintain a copy of the standard operation and maintenance procedures at the Facility, update it as necessary, and notify the Regional Water Board of significant revisions.

The standard operation and maintenance procedures shall, at a minimum, contain the following elements:

a. Scrap acceptance criteria to ensure that Discharger operators screen all incoming scrap metal to minimize to the extent reasonably practicable hazardous or radioactive material and other pollutants that can adversely affect treatment system effluent quality;

b. Procedures to ensure that onsite wastewater storage (i.e., storage within the 1.2-million-gallon storage tank and any additional onsite storage structures that may be built in the future) and reuse are optimized so as to minimize discharges to Discharge Point No. 001 and to minimize onsite ponding to the extent practicable (e.g., by preemptively discharging excess wastewater to the sanitary sewer when significant rain is anticipated and by efficiently transferring ponded water to the 1.2-million-gallon storage tank);

c. Operational parameters and settings to ensure that the system is operating optimally when discharge to Discharge Point No. 001 is necessary (e.g., control parameters to maintain when discharging to Discharge Point No. 001 versus the sanitary sewer);

d. Monitoring protocols to ensure compliance with the MRP;

e. Maintenance requirements (e.g., criteria that trigger removal of sludge, backwash of filters, and regeneration of activated carbon; and inspection and replacement frequency of critical equipment); and

f. Operator training (e.g., refresher training before the wet season begins each year).

6. Water Pollution Prevention Plan

This provision supersedes the requirements of Attachment G sections I.C.2 and I.J.

By April 1, 2017, the Discharger shall develop, submit, and commence implementation of a facility-wide Water Pollution Prevention Plan (WPPP) that contains the following elements as described further below: (a) site map, (b) list of industrial materials, (c) potential pollutant sources, (d) best management practices (BMPs), (e) monitoring plan, (f) annual evaluation, and (g) annual report. The WPPP shall set forth BMPs for stormwater, process wastewater, and process-related materials to comply with discharge limitations, including Discharge Prohibition III.E of this Order, and to achieve the following objectives:

- Collect, convey, and retain stormwater and process wastewater onsite for reuse to the extent practicable;

- Reduce or prevent pollutants in stormwater and process wastewater delivered to the onsite wastewater treatment system; and

- To the extent practicable, prevent offsite discharges that could directly or indirectly affect waters of the United States.

The Discharger shall maintain a copy of the WPPP at the Facility, update it as necessary, and notify the Regional Water Board of significant revisions within 30 days of making such revisions.

Prior to submitting the WPPP, the Discharger shall comply with provisions X and XI.A of NPDES Permit No. CAS000001 (State Water Board Order No. 2014-0057-DWQ). After the Discharger submits the WPPP, compliance with provisions X and XI.A of NPDES Permit No. CAS000001 shall no longer be required.

a. Site Map. The WPPP shall contain one or more site maps that illustrate the following:

i. Facility boundary and stormwater and process wastewater drainage areas, including the flow direction of each drainage area, areas of soil erosion (i.e., unpaved soil or soil with compromised pavement), and nearby surface water bodies and municipal storm drain inlets;

ii. Locations of stormwater and process wastewater collection and conveyance systems, associated treatment systems, discharge locations, and direction of flow;

iii. Locations of structural control measures (e.g., storage tanks, catch basins, berms, detention ponds, secondary containment, oil/water separators, and diversion barriers) that affect stormwater and process wastewater flows;

iv. Impervious areas, including paved areas, buildings, covered storage areas, and other roofed structures;

v. Locations where materials are directly exposed to precipitation or wind, and locations where significant spills or leaks have occurred;

vi. Industrial storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage and maintenance areas, material handling, conveyance, and processing areas, waste treatment and storage areas, dust or particulate generating areas, cleaning and materials reuse areas, and other areas of industrial activity that may have potential pollutant sources.

b. List of Industrial Materials. The WPPP shall include a list of industrial materials or wastes handled at the Facility and the locations where each material is stored, received, shipped, and handled, as well as the typical quantities and handling frequencies.

c. Potential Pollutant Sources. The WPPP shall contain the following elements:

i. Description of Potential Pollutant Sources

(a) Industrial Processes. The WPPP shall describe each industrial process, including shredding, dust suppression, ship loading, equipment washdown, and any other activities that generate water that drains to stormwater or process wastewater conveyance systems. The WPPP shall describe the type, characteristics, and approximate quantity of industrial materials used in or resulting from each process. The WPPP shall identify and describe areas protected by containment structures and the corresponding containment capacity.

(b) Material Handling and Storage Areas. The WPPP shall describe each material handling and storage area, including the type, characteristics, and quantity of industrial materials or wastes handled or stored; the shipping, receiving, and loading procedures; the spill or leak prevention and response procedures; and the areas protected by containment structures and corresponding containment capacity.

(c) Dust, Particulate, Debris, and Refuse Generating Activities. The WPPP shall identify all industrial activities that generate dust, particulate, debris, or refuse that may be deposited within the Facility boundaries or at offsite locations that could directly or indirectly affect waters of the United States. These activities shall include, but not be limited to, onsite material transfer, ship loading and unloading, shredding, and Joint Products Plant operations. The WPPP shall describe such activities, locations where these materials may accumulate, source types, and characteristics.

(d) Significant Spills and Leaks. The WPPP shall identify Facility areas where spills or leaks can likely occur. The WPPP shall list the following for the previous five years:

(1) any industrial materials that have spilled or leaked in significant quantities and have been discharged to (or had the potential to discharge to) waters of the United States; and

(2) any toxic chemicals identified in 40 C.F.R. section 302 that have been reported on U.S. EPA Form R, as well as any oil or hazardous substances in excess of reportable quantities (40 C.F.R. §§ 110, 117, and 302) discharged to waters of the United States.

In each case, the WPPP shall include the location, characteristics, and approximate quantity of the materials spilled or leaked; approximate quantity of the materials discharged; the cleanup or remedial actions that occurred or are planned; the approximate remaining quantity of materials that have the potential to be discharged; and the preventive measures taken to ensure that spills or leaks do not recur.

(e) Erodible Surfaces. The WPPP shall describe Facility locations where soil or other particulate erosion may be caused by industrial activity (e.g., truck traffic) or contact with water or wind. These locations shall, at a minimum, include areas of unpaved soil or soil with compromised pavement.

ii. Assessment of Potential Pollutant Sources

(a) The WPPP shall include a narrative assessment of all areas of industrial activity with potential industrial pollutant sources. At a minimum, the assessment shall include the following:

(1) Facility areas with likely pollutant sources, including but not limited to areas where wastewater or waste materials (e.g., dust suppression water, wash water, spilled product, fugitive dust, dirt, rubbish, refuse, or debris) could directly or indirectly affect waters of the United States;

(2) Pollutants likely to be present;

(3) Approximate quantity, physical characteristics, and location of each industrial material handled, produced, processed, stored, recycled, or disposed;

(4) Degree to which the pollutants associated with those materials may be discharged directly or indirectly (e.g., through contact with water or wind) to waters of the United States;

(5) Direct and indirect pathways (e.g., through contact with water or wind) by which pollutants may be discharged to waters of the United States;

(6) Sampling, visual observation, and inspection records; and

(7) Effectiveness of existing BMPs in meeting the WPPP objectives.

(b) Based on the assessment above, the WPPP shall identify any Facility areas where the minimum BMPs described in Provision VI.C.6.d.i below will not adequately meet the WPPP objectives. The Discharger shall identify and implement, to the extent feasible, advanced BMPs as described in Provision VI.C.6.d.ii below for such areas.

(c) Based on the assessment above, the WPPP shall identify any drainage areas with no exposure to industrial activities and materials.

d. Best Management Practices. The WPPP shall describe BMPs as required below:

i. Minimum BMPs. The Discharger shall implement and maintain each of the following minimum BMPs to the extent practicable. The Discharger shall select, design, install, and implement BMPs in a manner that reflects best industry practice considering technological availability and economic practicability and achievability to meet the WPPP objectives and applicable effluent limits.

(a) Good Housekeeping. The Discharger shall undertake the following:

(1) Observe outdoor areas to determine housekeeping needs. These areas shall include stormwater and process wastewater drainage areas, conveyance systems, areas around ship loading operations, and materials handling and storage areas. They shall also include offsite areas in the vicinity of the Facility, including Embarcadero West and adjacent neighboring properties. If access to neighboring properties cannot be arranged, observations shall be made to the extent possible from reasonably accessible areas. Any dust, debris, waste, spills, leaks, or tracked materials associated with the Discharger's operations shall be cleaned up and disposed of properly;

(2) Minimize or prevent material tracking (e.g., by trucks);

(3) Minimize or control dust, particulate, debris, and refuse generated from industrial materials or activities; and

(4) Sweep paved surfaces to minimize the potential for pollutants to be tracked offsite.

(b) Preventive Maintenance. The Discharger shall undertake the following:

(1) Identify all equipment and systems used outdoors that may spill or leak pollutants;

(2) Observe the identified equipment and systems to detect leaks and identify conditions that may result in the development of leaks;

(3) Establish an appropriate schedule for maintenance of identified equipment and systems; and

(4) Establish procedures for prompt maintenance and repair of equipment and maintenance of systems when conditions exist that may result in the development of spills or leaks.

(c) Spill and Leak Prevention and Response. The Discharger shall undertake the following:

(1) Establish procedures and controls to minimize spills and leaks;

(2) Develop and implement spill and leak response procedures to prevent industrial materials from discharging through the water conveyance systems (spilled or leaked industrial materials shall be cleaned promptly and disposed of properly);

(3) Identify and describe all necessary and appropriate spill and leak response equipment, locations of spill and leak response equipment, and spill or leak response equipment maintenance procedures; and

(4) Identify and train appropriate spill and leak response personnel.

(d) Material Handling and Waste Management. The Discharger shall undertake the following:

(1) Screen all incoming scrap to minimize the chance of accepting materials that could be significant sources of pollutants (see Provision VI.C.5.a);

(2) Prevent or minimize handling of industrial materials or wastes that can be readily mobilized by contact with water or wind;

(3) Cover, contain, or otherwise manage all stored industrial materials (including but not limited to non-solid industrial materials or wastes, such as particulates, powders, shredded material, etc.) that can be readily mobilized, transported, or dispersed by contact with water or wind;

(4) Cover or close industrial waste disposal containers and industrial material storage containers when not in use;

(5) Divert stormwater and process wastewater away from stockpiled materials;

(6) Employ measures to reduce ponding of stormwater and process wastewater in the vicinity of stockpiled materials;

(7) Clean up all spills of industrial materials or wastes that occur during handling in accordance with the spill response procedures in Provision VI.C.6.d.i(c) above; and

(8) Observe and clean, as appropriate, any outdoor material or waste handling equipment or containers (e.g., conveyor system, skiff pan) that can be contaminated by contact with industrial materials or wastes.

(e) Erosion and Sediment Controls. For each erodible surface location identified in Provision VI.C.6.c.i(e) above, the Discharger shall undertake the following:

(1) Implement effective wind erosion controls;

(2) Provide effective stabilization for inactive areas, finished slopes, and other erodible areas prior to forecasted storms;

(3) Maintain effective perimeter controls and stabilize all site entrances and exits to sufficiently control erodible materials that could be discharged or tracked offsite (e.g., by using paving, wheel washes, and sweeping); and

(4) Divert stormwater and process wastewater generated from within the Facility away from all erodible materials.

(f) Employee Training Program. The Discharger shall undertake the following:

(1) Ensure that all personnel implementing the various WPPP compliance activities are properly trained to implement WPPP requirements, including but not limited to BMP implementation, BMP effectiveness evaluations, visual observations, and monitoring activities. Appropriate staff shall be trained by a Qualified Industrial Stormwater Practitioner who has completed State Water Board-sponsored or approved training and has registered in the State Water Board's Stormwater Multiple Application and Report Tracking System (SMARTS);

(2) Prepare or acquire appropriate training manuals or training materials;

(3) Identify which personnel need to be trained, their responsibilities, and the type of training they shall receive;

(4) Provide a training schedule; and

(5) Maintain documentation of all completed training classes and the personnel that received training.

(g) Quality Assurance and Record Keeping. The Discharger shall undertake the following:

(1) Develop and implement management procedures to ensure that appropriate staff implements all WPPP elements;

(2) Develop a method of tracking and recording the implementation of the BMPs identified in the WPPP; and

(3) Maintain the BMP implementation records, training records, and records related to any spills and cleanup-related response activities for a minimum of five years.

ii. Advanced BMPs. In addition to implementing the minimum BMPs described above, the Discharger shall, to the extent practicable, implement and maintain additional advanced BMPs necessary to achieve WPPP objectives and to comply with discharge limitations, including Discharge Prohibition III.E of this Order. The Discharger shall do so in a manner that reflects BAT and BCT (i.e., best industry practice considering technological availability and economic practicability and achievability). One example of a possible advanced BMP would be to pressure wash Embarcadero West from the Facility main gate to the non-ferrous customer gate to minimize offsite tracking of pollutants and capture rinse water for return to the Facility.

iii. BMP Descriptions

(a) The WPPP shall describe BMPs being implemented at the Facility, including the following:

(1) The pollutants or waste material that the BMP is designed to reduce or prevent;

(2) The frequency, times of day, or conditions when the BMP is scheduled for implementation;

(3) The locations within each area of industrial activity or industrial pollutant source where the BMP shall be implemented;

(4) The individual or position responsible for implementing the BMP;

(5) The procedures, including maintenance procedures, and instructions to implement the BMP effectively;

(6) The equipment and tools necessary to implement the BMP effectively; and

(7) BMPs that may require more frequent visual observations beyond those described in Provision VI.C.6.e.ii below.

(b) The WPPP shall identify and justify each minimum BMP or applicable advanced BMP not being implemented at the Facility (i.e., because the BMP does not reflect best industry practice considering technological availability and economic practicability and achievability).

(c) The WPPP shall identify any BMPs implemented in lieu of any of the minimum or applicable advanced BMPs.

iv. BMP Summary Table. The WPPP shall include a table summarizing each identified area of industrial activity, the associated industrial pollutant sources, the industrial pollutants, and the BMPs being implemented.

e. Monitoring Plan. The WPPP shall contain a Monitoring Plan describing how the Discharger will evaluate the effectiveness of WPPP implementation and determine what changes to the WPPP may be needed, if any. The Monitoring Plan shall contain the following elements: (i) areas to be monitored, (ii) visual observations, (iii) monitoring team, (iv) records and reporting, and (v) WPPP revisions. Provision VI.C.6.e.vi, below, provides a mechanism for reducing these monitoring requirements if appropriate.

i. Areas to Be Monitored. The Monitoring Plan shall include a list of areas to be monitored considering the potential pollutant sources identified in accordance with Provision VI.C.6.c, above. The list shall include the following:

(a) Onsite drainage areas, including outdoor industrial equipment and storage areas, outdoor industrial activity areas, and other potential industrial pollutant sources;

(b) Areas associated with ship loading operations;

(c) Areas where industrial wheel washes are operating; and

(d) Offsite areas adjacent to the Facility, including Embarcadero West and adjacent neighboring properties. If access to neighboring properties cannot be arranged,

monitoring shall be conducted to the extent possible from reasonably accessible areas.

ii. Visual Observations

(a) At least once each calendar month, the Discharger shall visually observe each area listed pursuant to section VI.C.6.e.i, above, for the presence or indication of prior, current, or potential unauthorized discharges to waters of the United States.

(b) The Discharger shall assess the potential source of any observed prior, current, or potential unauthorized discharge and the effectiveness of related BMPs.

(c) The Discharger shall record visual observations, potential sources of unauthorized discharges, and comments regarding BMP effectiveness on a standard form that the Discharger shall develop for this purpose and include within the Monitoring Plan.

(d) Visual observations shall be conducted during daylight and during Facility operations.

iii. Monitoring Team. The Monitoring Plan shall identify team members assigned to conduct the monitoring, describe their roles, and establish training protocols.

iv. Records and Reporting

(a) The Discharger shall summarize visual observations in quarterly SMRs and the WPPP Annual Report (see Provision VI.C.6.g below).

(b) The Discharger shall maintain all records throughout the life of this Order and for a minimum of five years. Records shall include the date, approximate time, locations observed or recorded, presence and probable source of any observed pollutants, and any response action or additional WPPP revisions necessary in response to the visual observations and enhanced monitoring.

v. Corrective Actions and WPPP Revisions. The Discharger shall take corrective actions, and review and revise the WPPP as necessary, when visual observations indicate that pollutant sources have not been adequately controlled to prevent unauthorized discharges.

vi. Reduced Monitoring. With the written concurrence of the Executive Officer, the Discharger may reduce the frequency of visual observations commensurate with reductions in the potential for pollutants to be directly or indirectly discharged to waters of the United States. For example, monitoring may be reduced if there is documented evidence that BMPs are effective and reliably implemented. Likewise, monitoring may be eliminated to the extent that any site improvements eliminate the potential for discharges to waters of the United States.

f. Annual Evaluation. The WPPP shall commit the Discharger to conduct at least one Annual Evaluation for each reporting year (July 1 through June 30). If the Discharger conducts an Annual Evaluation fewer than 8 months or more than 16 months after it

conducts the previous Annual Evaluation, it shall document its justification for doing so. Based on each Annual Evaluation, the Discharger shall revise the WPPP as appropriate and implement the revisions within 90 days of completing the Annual Evaluation. At a minimum, each Annual Evaluation shall consist of the following:

i. Review of all visual observation, sampling results, and inspection records for the previous reporting year;

ii. Inspection of all areas of industrial activity and associated potential pollutant sources for evidence of, or the potential for, pollutants or waste materials travelling offsite;

iii. Inspection of all drainage areas previously identified as having no exposure to industrial activities and materials;

iv. Inspection of equipment needed to implement BMPs;

v. Inspection of any BMPs; and

vi. Review and effectiveness assessment of all BMPs for each area of industrial activity and associated potential pollutant sources to determine if BMPs are properly designed, implemented, and effective.

g. Annual Report. The WPPP shall commit the Discharger to certify and submit an Annual Report no later than July 30 following each reporting year (July 1 through June 30). The Discharger shall include the following in each Annual Report:

i. Compliance Checklist that indicates whether the Discharger complies with, and has addressed all applicable requirements of, this Order;

ii. Explanation for any non-compliance, as indicated in the Compliance Checklist;

iii. Identification, including page numbers or sections, of all revisions made to the WPPP within the reporting year;

iv. Date of the Annual Evaluation; and

v. Summary of visual observations.

7. Onsite Storage Capacity

a. Onsite Storage Capacity Requirements. The Discharger shall maintain the capacity to store stormwater and wastewater within the 1.2-million-gallon storage tank, and any additional onsite storage structures that may be built in the future, as necessary to achieve WPPP objectives (see Provision VI.C.6) in a manner that reflects BAT and BCT (i.e., best industry practice considering technological availability and economic practicability and achievability).

b. Draft Work Plan. By July 1, 2017, the Discharger shall submit a draft work plan to the Regional Water Board for a study to determine the volume of onsite storage required to meet the onsite storage capacity requirement above. The study shall evaluate a range of storms of varying frequency and duration as determined from local, historical rainfall

records. At a minimum, the study shall consider 25-year, 50-year, and 100-year return frequency storms. The work plan shall describe the analytical approach to be used, including how onsite water movement, tides, sea level rise, and flooding will be assessed. The study shall not include infiltration as available onsite storage. Likewise, the study shall not include onsite ponding (other than within storage structures specifically constructed to store stormwater and wastewater) as available onsite storage. Calculations shall include safety factors. All hydrologic calculations shall be certified by a California-licensed professional engineer.

The study shall identify technologically available implementation alternatives capable of meeting the onsite storage needs for the storms considered and estimate the cost for each alternative. The study shall recommend an alternative that maximizes onsite storage based on best industry practice considering economic practicability and achievability.

c. Final Work Plan. By August 1, 2017, the Discharger shall incorporate Regional Water Board comments, if any; submit a final work plan; and commence work plan implementation.

d. Interim Report. By January 1, 2018, the Discharger shall submit an interim report with its findings, including the recommendation for the volume of onsite storage required to meet the onsite storage capacity requirement above and the costs associated with the various alternatives considered. The report shall identify improvements necessary to implement the recommended alternative (e.g., improved stormwater conveyance), if any. If improvements are necessary, it shall also set forth a schedule for implementation to be completed no later than October 1, 2018. The Executive Officer may extend this deadline up to two years if the Discharger demonstrates that necessary improvements cannot feasibly be completed sooner (e.g., to accommodate any uncertainties associated with remaining Cleanup and Abatement Order No. R2-2013-1001 requirements or with other improvements required by this Order). The Discharger shall implement the recommended alternative in accordance with the schedule.

e. Final Report. By April 1, 2019, the Discharger shall submit a Final Report documenting all work completed to comply with the onsite storage requirements above. The Executive Officer may extend this deadline up to two years if the Discharger demonstrates that necessary improvements cannot feasibly be completed sooner (e.g., to accommodate any remaining Cleanup and Abatement Order No. R2-2013-1001 requirements or other improvements required by this Order). The Final Report may be the same as the Interim Report if no improvements are necessary.

8. Wooden Pier Conveyor System Containment

The Discharger shall fully contain the wooden pier conveyor system such that all industrial stormwater and process wastewater are collected and transferred upland via the stormwater conveyance system, and all spilled product, dust, dirt, rubbish, refuse, and debris are captured for recycling or offsite disposal.

a. Work Plan. By September 1, 2017, the Discharger shall submit a work plan to the Regional Water Board that identifies tasks required to fully contain the wooden pier conveyor system, as described above, and sets forth a schedule for implementation that

achieves full containment no later than October 1, 2019. At a minimum, tasks shall include completion of (1) interim improvements to the conveyor system, wooden pier, and surrounding area; (2) design and engineering studies required to identify all work necessary to implement long-term improvements (e.g., wooden pier bearing capacity study); and (3) long-term improvements.

b. Final Report. By January 1, 2020, the Discharger shall submit a Final Report documenting all work completed to fully contain the wooden pier conveyor system. The Executive Officer may extend this deadline by one-year increments if the Discharger demonstrates that necessary improvements cannot feasibly be completed by October 1, 2019, due to constraints related to project phasing or the structural integrity of the wooden pier, unavoidable delays in obtaining permits or other authorizations, or other circumstances beyond the Discharger's control.

9. Structural Improvements

a. Work Plan. By September 1, 2017, the Discharger shall submit a work plan to the Regional Water Board that identifies tasks required to implement the upgrades described below and sets forth a schedule for complete implementation no later than October 1, 2019. The Executive Officer may extend the deadline for complete implementation by one-year increments if the Discharger demonstrates that necessary improvements cannot feasibly be completed by October 1, 2019, due to constraints related to project phasing, unavoidable delays in obtaining permits or other authorizations, or other circumstances beyond the Discharger's control.

i. Stockpile Management. To the extent practicable, the Discharger shall implement measures (e.g., berms) to divert stormwater and process wastewater away from stockpiled industrial materials to minimize offsite tracking of pollutants and pollutant loads at the treatment system.

ii. Paving. The Discharger shall install paving (or repair, restore, or otherwise maintain existing paving) at the Facility to minimize offsite tracking of pollutants and pollutant loads at the treatment system. At a minimum, the work plan shall: (1) identify areas where degraded pavement will be repaired and restored; (2) identify areas where additional surfaces will paved; (3) document the rationale for each unpaved area not to be paved; (4) include grading and drainage plans with typical cross-sections; (5) include figures showing flow directions and stormwater conveyance system inlets; and (6) describe how the work will be coordinated with any remaining soil and groundwater monitoring activities required by Cleanup and Abatement Order No. R2-2013-1001 and subsequent Regional Water Board orders, if any.

iii. Drainage Upgrades. The Discharger shall install drainage improvements to Embarcadero West immediately adjacent to the Facility (i.e., between the Facility main gate and the non-ferrous "peddler" entrance) to collect and convey stormwater and wash water to the onsite stormwater management system for recycling or treatment.

b. Final Report. By January 1, 2020, the Discharger shall submit a Final Report documenting all work completed to implement the proposed paving and drainage

improvements. The Executive Officer may extend this deadline by one-year increments if the Discharger demonstrates that necessary improvements cannot feasibly be completed by January 1, 2020.

ATTACHMENT A – DEFINITIONS

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

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

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

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

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

Carcinogenic
Known to cause cancer in living organisms.

Coefficient of Variation
Measure of data variability calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Method Detection Limit (MDL)
Minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in in 40 C.F.R. part 136, Attachment B, revised as of July 3, 1999.

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

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

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

Persistent Pollutants
Substances for which degradation or decomposition in the environment is nonexistent or very slow.

Pollutant Minimization Program
Program of waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the Pollutant Minimization Program is to reduce all potential sources of a priority pollutant through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. Cost effectiveness may be considered when establishing the requirements of a Pollutant Minimization Program. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), is considered to fulfill Pollutant Minimization Program requirements.

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

Reporting Level (RL)
ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order, including an additional factor if applicable as discussed herein. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from SIP Appendix 4 in accordance with SIP section 2.4.2 or established in accordance with SIP section 2.4.3. The ML is based

on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

Source of Drinking Water
Any water designated as having a municipal or domestic supply (MUN) beneficial use.

Standard Deviation (σ)
Measure of variability calculated as follows:

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

where:

x is the observed value;

μ is the arithmetic mean of the observed values; and

n is the number of samples.

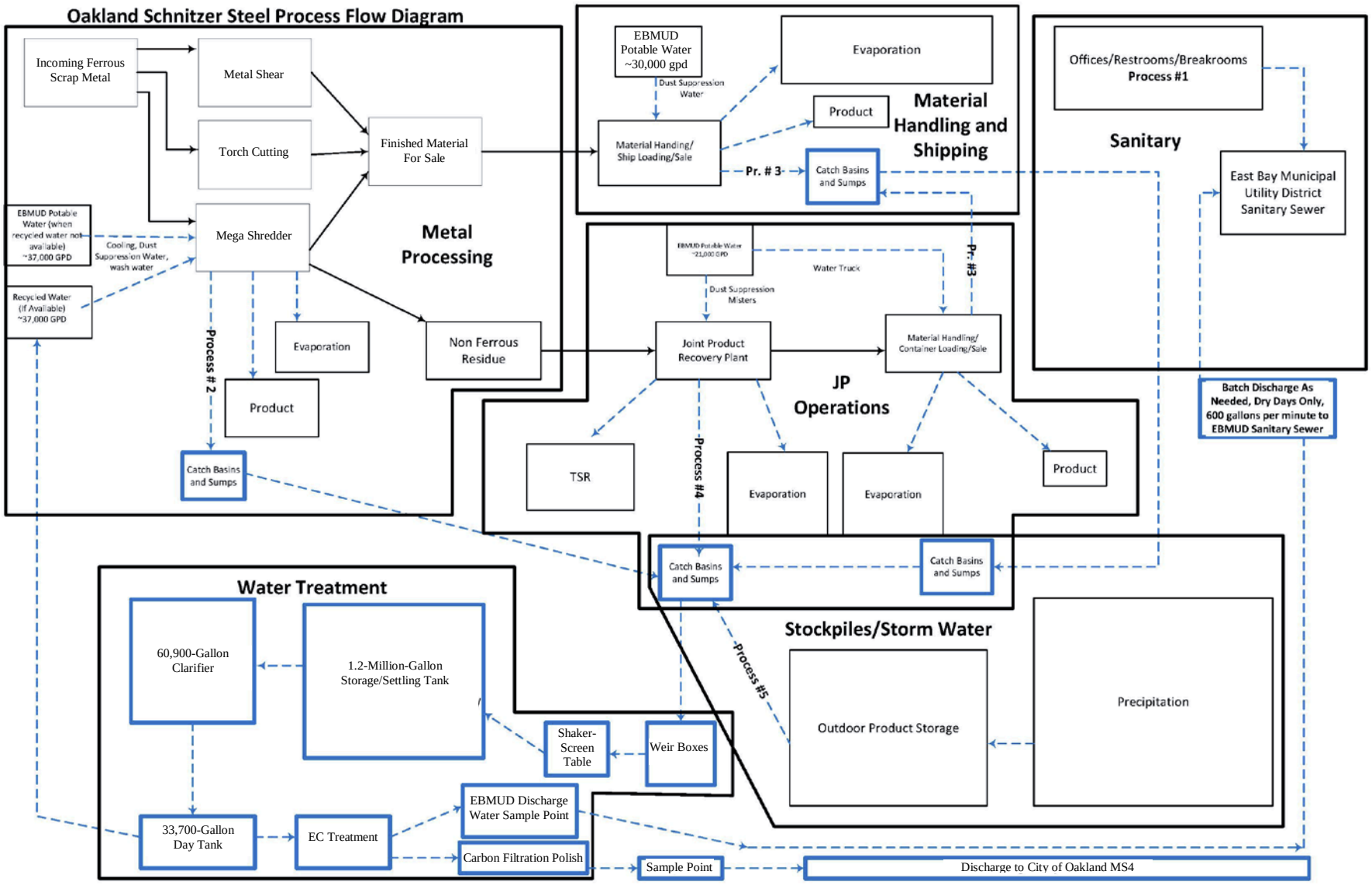
Toxicity Reduction Evaluation (TRE)
Study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. A TIE is a set of procedures to identify the specific chemicals responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.

ATTACHMENT B – FACILITY MAP

ATTACHMENT B – FACILITY MAP

Due to the dynamic nature of the Discharger's operations, certain activities (e.g., parking) and material storage locations (e.g., heavy melting steel storage, bonus storage, aggregate storage) are subject to change. Facility locations not subject to change include Discharge Point No. 001, the treatment system and related appurtenances, and the storm sewer connection.

ATTACHMENT C – PROCESS FLOW DIAGRAM



ATTACHMENT D –STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the terms, requirements, and conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application; or a combination thereof. (40 C.F.R. § 122.41(a); Wat. Code §§ 13261, 13263, 13265, 13268, 13000, 13001, 13304, 13350, 13385.)

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

B. Need to Halt or Reduce Activity Not a Defense

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

C. Duty to Mitigate

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

D. Proper Operation and Maintenance

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

E. Property Rights

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

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

F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, U.S. EPA, or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i); Wat. Code, §§ 13267, 13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (33 U.S.C. § 1318(a)(4)(B)(i); 40 C.F.R. § 122.41(i)(1); Wat. Code, §§ 13267, 13383);

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

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

4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (33 U.S.C. § 1318(a)(4)(B); 40 C.F.R. § 122.41(i)(4); Wat. Code, 13267, 13383.)

G. Bypass

1. Definitions

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

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

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

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

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

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

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

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

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

5. Notice

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

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

H. Upset

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

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

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

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

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

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

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

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

II. STANDARD PROVISIONS—PERMIT ACTION

A. General

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

B. Duty to Reapply

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

C. Transfers

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

III. STANDARD PROVISIONS—MONITORING

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

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

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

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

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

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

IV. STANDARD PROVISIONS—RECORDS

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

B. Records of monitoring information shall include the following:

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

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

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

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

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

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

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

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

2. Permit applications and attachments, permits, and effluent data. (40 C.F.R. § 122.7(b)(2).)

V. STANDARD PROVISIONS—REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, State Water Board, or U.S. EPA within a reasonable time, any information which the Regional Water Board, State Water Board, or U.S. EPA may request to determine whether cause exists for modifying, revoking and reissuing, or

terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board, State Water Board, or U.S. EPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, §§ 13267, 13383.)

B. Signatory and Certification Requirements

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

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

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

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

3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or U.S. EPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

a. The authorization is made in writing by a person described in Standard Provisions—Reporting V.B.2 above (40 C.F.R. § 122.22(b)(1));

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

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

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

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

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

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

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program in this Order. (40 C.F.R. § 122.22(l)(4).)

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board for reporting the results of monitoring, sludge use, or disposal practices. As of December 21, 2016, all reports and forms must be submitted electronically to the initial recipient defined in Standard Provisions – Reporting V.J and comply with 40 C.F.R. part 3, 40 C.F.R. section 122.22, and 40 C.F.R. part 127. (40 C.F.R. § 122.41(l)(4)(i).)

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 C.F.R. part 136, or another method required for an industry-specific waste stream under 40 C.F.R. chapter 1, subchapters N or O, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board. (40 C.F.R. § 122.41(l)(4)(ii).)

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

D. Compliance Schedules

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

E. Twenty-Four Hour Reporting

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

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

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

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

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

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

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

F. Planned Changes

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

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

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (Alternatively, for an existing manufacturing, commercial, mining, or silvicultural discharge as referenced in 40 C.F.R. section 122.42(a), this notification applies to pollutants that are subject neither to effluent limitations in this Order nor to notification requirements under 40 C.F.R. section 122.42(a)(1) (see Additional Provisions—Notification Levels VII.A.1).) (40 C.F.R. § 122.41(l)(1)(ii).)

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

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with this Order's requirements. (40 C.F.R. § 122.41(l)(2).)

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions—Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision—Reporting V.E above. For noncompliance related to combined sewer overflows, sanitary sewer overflows, or bypass events, these reports shall contain the information described in Standard Provision – Reporting V.E and the applicable required data in appendix A to 40 C.F.R. part 127. The Regional Water Board may also require the Discharger to electronically submit reports not related to combined sewer overflows, sanitary sewer overflows, or bypass events under this section. (40 C.F.R. § 122.41(l)(7).)

I. Other Information

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

J. Initial Recipient for Electronic Reporting Data

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

VI. STANDARD PROVISIONS—ENFORCEMENT

A. The Regional Water Board is authorized to enforce the terms of this Order under several provisions of the Water Code, including, but not limited to, sections 13268, 13385, 13386, and 13387.

VII. ADDITIONAL PROVISIONS—NOTIFICATION LEVELS

A. Non-Municipal Facilities

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

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

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

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

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

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

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

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

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

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

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

B. Publicly-Owned Treatment Works (POTWs)

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

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

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

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

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

Contents

Tables

ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

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

I. GENERAL MONITORING PROVISIONS

A. The Discharger shall comply with this MRP. The Executive Officer may amend this MRP pursuant to 40 C.F.R. sections 122.62, 122.63, and 124.5. If any discrepancies exist between this MRP and the "Regional Standard Provisions, and Monitoring and Reporting Requirements (Supplement to Attachment D) for NPDES Wastewater Discharge Permits" (Attachment G), this MRP shall prevail.

B. The Discharger shall conduct all monitoring in accordance with Attachment D, section III, as supplemented by Attachment G. Equivalent test methods must be more sensitive than those specified in 40 C.F.R. section 136 and must be specified in this permit.

II. MONITORING LOCATION

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

Table E-1. Monitoring Location

Sampling Location Type	Monitoring Location Name	Monitoring Location Description [1]
Effluent	EFF-001	A point following all phases of treatment and prior to discharge to the City of Oakland storm sewer at which all waste tributary is present.

III. EFFLUENT MONITORING REQUIREMENTS

When discharging, the Discharger shall monitor effluent at Monitoring Location EFF-001 as follows:

Table E-2. Effluent Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency
Flow [1]	gpm, hours, gallons	Continuous	Continuous
Turbidity	NTU	Grab	1/Day
pH	standard units	Grab	1/Day
Total Suspended Solids	mg/L	Grab	1/Event and at least 2/Year
Total Organic Carbon [2]	mg/L	Grab	1/Event and at least 2/Year
Oil and Grease [3]	mg/L	Grab	1/Event and at least 2/Year
Aluminum	µg/L	Grab	1/Event and at least 2/Year
Iron	µg/L	Grab	1/Event and at least 2/Year
Copper	µg/L	Grab	1/Event and at least 2/Year
Lead	µg/L	Grab	1/Event and at least 2/Year
Zinc	µg/L	Grab	1/Event and at least 2/Year
Acute Toxicity [4]	percent survival	Grab	1/Year

Unit Abbreviations:

gpm = gallons per minute
NTU = nephelometric turbidity units
mg/L = milligrams per liter
µg/L = micrograms per liter

Sample Type:

Continuous = measured continuously
Grab = grab sample

Sampling Frequency:

Continuous = measured continuously
1/Day = once per day (24-hour period)
1/Year = once per year
1/Event and at least 2/Year = once during every discharge of at least 4 hours in duration and at least twice per year regardless of discharge duration

Footnotes:

[1] Flow shall be monitored continuously during discharge and the following information shall be reported in self-monitoring reports:
- Average flow (gpm)
- Duration of discharge event (hours)
- Total flow per discharge event (gallons)

[2] Chemical oxygen demand may be measured in lieu of total organic carbon.

[3] Oil and grease sampling and analysis shall be conducted in accordance with U.S. EPA Method 1664A.

[4] Acute toxicity bioassay tests shall be performed in accordance with MRP section IV.A below.

IV. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

The Discharger shall monitor whole effluent acute toxicity at Monitoring Location EFF-001 as follows:

A. Compliance with the acute toxicity effluent limitation shall be evaluated by measuring survival of test organisms exposed to 96-hour static renewal bioassays.

B. Test organisms shall be rainbow trout and fathead minnow. If one species is consistently less sensitive to the discharge than the other, or if acute toxicity is not observed with one species, the Executive Officer may allow monitoring using only one species (e.g., the more sensitive species).

C. Bioassays shall be performed according to the most up-to-date protocols in 40 C.F.R. part 136, currently *Methods for Measuring the Acute Toxicity of Effluents and Receiving Water to Freshwater and Marine Organisms,* 5th Edition (EPA-821-R-02-012).

D. Bioassay water monitoring shall include, on a daily basis, residual chlorine, pH, dissolved oxygen, temperature, hardness, and alkalinity. These results shall be reported. If final or intermediate results of an acute bioassay test indicate a violation or threatened violation (e.g., the percentage of surviving test organisms is less than 70 percent), the Discharger shall initiate a new test as soon as practical, investigate the cause of the mortalities, and report its findings in the next self-monitoring report. The Discharger shall repeat the test until a test fish survival rate of 70 percent or greater is observed. If the control fish survival rate is less than 90 percent, the bioassay test shall be restarted with new fish and shall continue as soon as practical until an acceptable test is completed (i.e., control fish survival rate is 90 percent or greater).

V. RECEIVING WATER MONITORING REQUIREMENTS

The Discharger shall participate in the Regional Monitoring Program (RMP), which involves collection of data on pollutants and toxicity in water, sediment, and biota of San Francisco Bay.

VI. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

The Discharger shall comply with all Standard Provisions (Attachments D and G) related to monitoring, reporting, and recordkeeping, with modifications shown in section VII, below.

B. Self-Monitoring Reports (SMRs)

1. **SMR Format.** The Discharger shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) website (http://www.waterboards.ca.gov/ciwqs/index.html). The CIWQS website will provide additional information for SMR submittal in the event of a planned service interruption for electronic submittal.

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

   a. **Quarterly SMRs —** Quarterly SMRs shall be due 30 days after the end of each calendar quarter (January 1 – March 31, April 1 – June 30, July 1 – September 30, and October 1 – December 31), covering that quarter. The quarterly SMR shall contain the applicable items described in sections V.B and V.C of both Attachments D and G of this Order. See Provision VI.C.2 (Effluent Characterization Study and Report) and Provision VI.C.6 (Water Pollution Prevention Plan) of this Order for additional information that must be reported with quarterly SMRs.

      Quarterly SMRs shall include all new monitoring results obtained since the last SMR was submitted. If the Discharger monitors any pollutant or waste discharges more frequently than required by this Order, the Discharger shall include the results of such monitoring in the calculations and reporting for the related SMR.

   b. **Annual SMR —** Annual SMRs shall be due July 30 each year, covering the previous four quarters (July 1 through June 30). The annual SMR shall contain the items described in sections V.C.1.f of Attachment G. See also Provision VI.C.2 (Effluent Characterization Study and Report) and Provision VI.C.3 (Pollutant Minimization Program) of the Order for additional information that must be reported with annual SMRs.

   c. **Specifications for Submitting SMRs to CIWQS —** The Discharger shall submit analytical results and other information using one of the following methods:

Table E-3. CIWQS Reporting

Parameter	Method of Reporting	
	EDF/CDF data upload or manual entry	Attached File
All parameters identified in influent, effluent, and receiving water monitoring tables (except Dissolved Oxygen and Temperature)	Required for all results	
Dissolved Oxygen Temperature	Required for monthly maximum and minimum results only [1]	Discharger may use this method for all results or keep records
Antimony Arsenic Beryllium Cadmium Chromium Copper Cyanide Lead Mercury Nickel Selenium Silver Thallium Zinc Dioxins and Furans (by U.S. EPA Method 1613) Other Pollutants (by U.S. EPA methods 601, 602, 608, 610, 614, 624, and 625)	Required for all results [2]	
Analytical Method	Not required (Discharger may select "data unavailable") [1]	
Collection Time Analysis Time	Not required (Discharger may select "0:00") [1]	

Footnotes:

[1] The Discharger shall continue to monitor at the minimum frequency specified in this MRP, keep records of the measurements, and make the records available upon request.

[2] These parameters require EDF/CDF data upload or manual entry regardless of whether monitoring is required by this MRP or other provisions of this Order (except for biosolids, sludge, or ash provisions).

The Discharger shall arrange all reported data in a tabular format and summarize data to clearly illustrate whether the Facility is operating in compliance with effluent limitations. The Discharger is not required to duplicate the submittal of data entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format, the Discharger shall electronically submit the data in a tabular format as an attachment.

3. **Monitoring Periods.** Monitoring periods for all required monitoring shall be as set forth below unless otherwise specified:

Table E-4. Monitoring Periods

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period
Continuous	Permit effective date	All times during discharge
1/Day	Permit effective date	All 24-hour periods during discharge, commencing with start of each discharge
1/Event	Permit effective date	From commencement of each discharge lasting 4 hours or longer until the discharge ceases
1/Week	Sunday following permit effective date or on permit effective date if on Sunday	Sunday through Saturday

Sampling Frequency	Monitoring Period Begins On…	Monitoring Period
1/Month	First day of calendar month following permit effective date or on permit effective date if on first day of month	First day of calendar month through last day of calendar month
2/Year	Nearest July 1 before or after permit effective date	July 1 through June 30
1/Year	Nearest July 1 before or after permit effective date	July 1 through June 30
Once	Permit effective date	Anytime such that results are included with application for permit reissuance

4. **RL and MDL Reporting.** The Discharger shall report with each sample result the Reporting Level (RL) and Method Detection Limit (MDL) as determined by the procedure in 40 C.F.R. part 136. The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

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

   b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

   For purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ. The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (+/- a percentage of the reported value), numerical ranges (low to high), or any other means the laboratory considers appropriate.

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

   d. The Discharger shall instruct laboratories to establish calibration standards so that the minimum level (ML) value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

5. **Compliance Determination.** Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined above and in the Fact Sheet and Attachments A, D, and G. For purposes of reporting and administrative enforcement by the Regional Water Board and State Water Board, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

C. Discharge Monitoring Reports (DMRs)

DMRs are U.S. EPA reporting requirements. The Discharger shall electronically certify and submit DMRs together with SMRs using the Electronic Self-Monitoring Reports module eSMR 2.5 or any upgraded version. Electronic DMR submittal shall be in addition to electronic SMR submittal. Information about electronic DMR submittal is available at the DMR website at http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring.

VII. MODIFICATIONS TO ATTACHMENT G

This MRP modifies Attachment G as indicated below:

A. Attachment G section V.C.1.c.2 is revised as follows:

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

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

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

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

B. Attachment G sections V.C.1.f and V.C.1.g are revised as follows, and section V.C.1.h (Reporting data in electronic format) is deleted.

f. Annual self monitoring report requirements

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

   1) Annual compliance summary table of treatment plant performance, including documentation of any blending events (this summary table is not required if the Discharger has submitted the year's monitoring results to CIWQS in electronic reporting format by EDF/CDF upload or manual entry);

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

3) Both tabular and graphical summaries of the monitoring data for the previous year if parameters are monitored at a frequency of monthly or greater (this item is not required if the Discharger has submitted the year's monitoring results to CIWQS in electronic reporting format by EDF/CDF upload or manual entry);

4) List of approved analyses, including the following:

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

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

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

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

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

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

g. Report submittal

The Discharger shall submit SMRs addressed as follows, unless the Discharger submits SMRs electronically to CIWQS:

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

h. Reporting data in electronic format – *Deleted*

ATTACHMENT F - FACT SHEET

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ATTACHMENT F – FACT SHEET

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

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility:

Table F-1. Facility Information

WDID	2 01S0067
CIWQS Place ID	255924
Discharger	Schnitzer Steel Industries, Inc.
Facility Name	Schnitzer Steel Products Company
Facility Address	1101 Embarcadero West Oakland, CA 94607
	Alameda County
Facility Contact, Title, Phone, Email	Rob Ellsworth, Regional Environmental Manager 916-705-2934, rellsworth@schn.com
Authorized Person to Sign and Submit Reports	Same as Facility contact
Mailing Address	P. O. Box 747 Oakland, CA 94604
Billing Address	Same as mailing address
Facility Type	Industrial, SIC Code 5093 (Scrap and Waste Materials)
Major or Minor Facility	Minor
Threat to Water Quality	2
Complexity	B
Pretreatment Program	No
Reclamation Requirements	Not Applicable
Permitted Flow	600 gallons per minute (gpm)
Design Flow	600 gpm (0.86 million gallons per day)
Watershed	South Bay Basin
Receiving Water	Oakland Inner Harbor
Receiving Water Type	Marine

A. Schnitzer Steel Industries, Inc., (Discharger) owns and operates the Schnitzer Steel Products Company (Facility), a 26.5-acre scrap metal recycling facility adjacent to the Oakland Inner Harbor at 1101 Embarcadero West, Oakland. Attachment B includes a map of the Facility and its surroundings. The Facility is surrounded by approximately 5,000 feet of perimeter walls. Operations at this site began in 1965.

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

B. The Facility intermittently discharges treated stormwater and process wastewater to Oakland Inner Harbor, a water of the United States within the South Bay Basin watershed. Prior to this Order, the

Facility was regulated pursuant to the *Waste Discharge Requirements for Discharges of Storm Water associates with Industrial Activities Excluding Construction Activities*, NPDES Permit No. CAS000001. This Order terminates the Discharger's coverage under the statewide permit because this Order regulates the same discharges.

C. The Discharger filed a report of waste discharge and application for Waste Discharge Requirements (WDRs) and NPDES permit on January 30, 2015, and provided supplemental information on March 31, 2015, and April 20, 2015.

II. FACILITY DESCRIPTION

A. Wastewater Treatment and Controls

1. Facility Operations. Facility operations include shredding light iron products; shearing and torch cutting heavy recyclable steel products; preparing and sorting ferrous and non-ferrous metal recycling feedstock; treating shredder residue; staging of raw scrap metal, recycled metal products, and shredder residue; and shipping finished products and treated shredder residue. Attachment B provides maps indicating the locations of specific activities, including materials storage. Attachment C provides the process flow diagram.

Bulk scrap metal is delivered to the Facility by rail and truck at the main commercial entrance at Embarcadero West, where it is inspected and designated for unloading according to the following segregated material streams:

- "Bonus" heavy melting steel material to be processed by torch cutting into smaller sizes for shipment;
- Standard grade heavy melting steel to be processed by shear cutting into smaller sizes prior to shipment; and
- Light iron products, including automobiles, appliances, and other recyclable light steel materials, to be processed by shredding prior to further processing for removal of ferrous and non-ferrous metals.

At the shredder, light iron products are shredded so that ferrous metals can be magnetically isolated from non-ferrous metals and non-metallic materials, including plastic, glass, fiber, rubber, and other non-metallic materials found in light iron products. The finished isolated ferrous metals are stockpiled and loaded into cargo ships at the Facility's docks. The remaining material, which is a combination of non-ferrous metals and non-metallic materials, known as non-ferrous raw, is further processed at the Joint Products Plant, where non-ferrous metals are separated by metal type from the non-metallic materials and stored in designated bins prior to being placed into shipping containers for transport by truck to a Port of Oakland container loading dock. The residual non-metallic material (referred to as shredder residue) is chemically stabilized using cement and silicate and transported by truck to landfills for use as alternative daily cover.

Non-bulk ferrous and non-ferrous metal scrap is received at the peddler entrance, inspected, and sorted. Larger objects are shredded and processed as described above. Smaller scrap is sorted and segregated by hand into bins. Finished products are baled or stored in cargo containers and transported by truck to a container loading dock at the Port of Oakland.

2. **Wastewater Generation**. Wastewater is generated through multiple Facility operations, including ship loading, shredding, materials handling, wheel washing, oil-water separation, and firefighting. Domestic wastewater is discharged to the local sanitary sewer system.

   a. **Ship Loading**. Ships are loaded either directly from trucks on the concrete pier crane dock with a skiff pan or through a conveyor system that runs along the wooden pier. Approximately 30,000 gallons per day of potable water is sprayed to minimize fugitive dust generated by ship loading operations, which typically occur once or twice per month for an average of three to four days per event. Spilled product, dust, dirt, rubbish, refuse, and debris are removed and disposed of offsite (see "Sludge and Solids Management," below).

      i. **Concrete Pier Crane Dock.** The pier crane dock has concrete curbs, drain inlets, and pipes and pumps that collect and convey runoff for treatment. It also has splash guards to contain water. Periodically, the pier crane dock is power-washed or swept. Runoff from dust suppression and washdown is collected by a containment system, transferred upland, and re-used onsite (see "Onsite Water Recycling," below).

      ii. **Wooden Pier Conveyor System.** The wooden pier has a shrouded conveyor system with a containment tray beneath the conveyor, rubber edge guards, and a telescoping arm that can fully extend into ships to place materials. The portion that extends over open water is enclosed. The pier is partially lined with recycled conveyor belts and surrounded by wooden beams to capture debris. The pier is swept after loading operations. Water that falls into the containment tray either evaporates or is transferred upland for onsite re-use (see "Onsite Water Recycling," below). Conditions at the wooden pier will improve with implementation of Provision VI.C.8.

   b. **Shredding**. Approximately 30,000 to 50,000 gallons per day of onsite recycled water (supplemented by potable water) is injected into the shredder to control heat and abate dust emissions. Residual water not evaporated by the latent heat of the shredding process is captured by a series of pumps and sumps and conveyed to a 1.2-million-gallon tank to be recycled (see "Onsite Water Recycling," below).

   c. **Materials Handling**. Various incoming scrap, processed scrap metal products, and process residues are stored outdoors in large stockpiles. During internal transfer and handling operations, approximately 21,000 gallons per day of potable water is sprayed on internal access roads and the working faces of the stockpiles for dust suppression. The runoff is collected by the stormwater conveyance system and re-used onsite (see "Onsite Water Recycling," below).

   d. **Wheel Washing**. Two large, custom, industrial wheel wash systems are used to clean the wheels and undercarriages of trucks entering the pier crane dock and exiting the Facility. The systems collect, treat, and reuse the wash water in a closed loop system. Periodically, potable water is supplied to the systems and sediment is emptied into a dewatering bin and disposed of offsite (see "Sludge and Solids Management," below).

   e. **Oil-Water Separation**. Three oil-water separators collect water draining from the shear area, the maintenance shop, and the northern part of the outdoor product storage area. Treated effluent from the oil-water separators is pumped to the onsite water recycling system for reuse in the metal shredding process. Free petroleum product is removed from

the oil-water separators by vacuum truck and disposed of offsite (see "Sludge and Solids Management," below).

f. Firefighting. In the event of a fire at the Facility, potable water is used to extinguish the fire. The runoff is captured by the stormwater conveyance system and re-used onsite (see "Onsite Water Recycling," below).

3. Onsite Water Recycling. The Discharger retains stormwater and process wastewater onsite for recycling and reuse. Stormwater and process wastewater are collected by means of sheet flow and a collection system consisting of drain inlets, sumps, and pump stations that collect and convey surface drainage to the center of the Facility near the shredder. Portable pumps are also used to convey ponded water to the collection system.

The comingled stormwater and process wastewater is directed to a weir box adjacent to the shredder, where solids are allowed to settle out. From there, the wastewater is pumped to another weir box for further solids settling before flowing through a screening system to remove more solids prior to storage in a 1.2-million-gallon storage tank. The wastewater in the storage tank is sent to a 60,900-gallon clarifier for additional solids removal before flowing to a 33,700-gallon day tank that serves as the feed tank for the shredder cooling and dust suppression system. The 33,700-gallon day tank also serves as a surge tank feeding the onsite wastewater treatment system. Residual solids and sediment are collected, sampled, and disposed of offsite.

The Discharger maximizes the use of onsite recycled water in the shredding operation and supplements it with potable water only when necessary (typically during the dry season). During the wet season, when the stormwater and process wastewater exceed (or could exceed) the holding capacity of the 1.2-million-gallon storage tank, the Discharger routes the wastewater for treatment before discharge (see "Wastewater Treatment and Discharge," below).

4. Wastewater Treatment and Discharge. The Discharger operates a multistage wastewater treatment system that treats excess wastewater and discharges the effluent to the sanitary sewer under East Bay Municipal Utility District (EBMUD) Wastewater Discharge Permit No. 02300311. When EBMUD allows discharge to the sanitary sewer, the Discharger may discharge an unlimited volume of water to the sanitary sewer at a maximum flow rate of 600 gallons per minute. Under the terms and conditions of the EBMUD permit, the Discharger may not discharge to the sanitary sewer during a rain event (or within 24 hours after a rain event), which is defined as any precipitation greater than a drizzle. Under such conditions, the Discharger stores the runoff and treated wastewater onsite until discharge to the sanitary sewer can resume. If rain persists or if substantial additional rain is forecast, then the Discharger further treats its wastewater by routing it through activated carbon units and discharges the polished effluent to a City of Oakland storm sewer (Discharge Point No. 001) pursuant to this Order. The Discharger actively manages its wastewater through onsite storage and by discharging to the sanitary sewer as much as possible. Discharge to the storm sewer occurs only in the event of significant or extended periods of precipitation.

The treatment system is designed to treat up to 600 gallons of wastewater per minute and includes storage and preliminary clarification, electrocoagulation, clarification and filtration, and carbon polishing. Attachment C provides a schematic process flow diagram.

a. **Storage and Preliminary Clarification**. Wastewater from the 1.2-million gallon storage tank is pumped to a 60,900-gallon preliminary clarifier. From there, the wastewater flows to the 33,700-gallon day tank prior to being sent for electrocoagulation.

b. **Electrocoagulation**. Wastewater from the pre-treatment conditioning tank is distributed through a series of electrocoagulation treatment cells, where highly charged polymeric metal hydroxides are introduced. This neutralizes the surface charges on metal or other pollutant-containing colloidal and suspended solids to facilitate agglomeration, coagulation, and subsequent separation.

c. **Clarification and Filtration**. When the wastewater leaves the electrocoagulation treatment cells, it enters a clarification system where coagulated particles are removed by gravity. The wastewater then undergoes sand filtration to further remove solids. The filtrate is pumped to a sanitary sewer connection located near the Joint Products Plant area and discharged to the sanitary sewer under the terms of the EBMUD permit.

d. **Carbon Polishing**. Any water not discharged to the sanitary sewer is passed through additional granulated activated carbon treatment to remove organics and other trace contaminants prior to discharge to the storm sewer (Discharge Point No. 001).

5. **Other Discharges.** Although this Order generally prohibits discharge of untreated stormwater, process wastewater, and waste materials, it also recognizes the potential for incidental dust suppression water droplets, incidental spilled product from ship loading activity, fugitive dust or dirt, or wind-blown debris to be discharged despite implementation of the BMPs listed in Provision VI.C.6.d of the Order.

6. **Sludge and Solids Management.** Free petroleum products generated from the oil-water separators, and residual solids and sediment generated during ship loading, wheel washing, onsite water recycling, and other housekeeping activities, are periodically removed from their containment systems. The sludge generated by the wastewater treatment system is removed on an as-needed basis (e.g., when the sludge starts to affect the effluent storage capacity). All solids and sludge are profiled and disposed of offsite at permitted landfills.

B. Discharge Point and Receiving Water

Fully-treated effluent not used onsite or discharged to the sanitary sewer is discharged to a 60-inch-diameter storm drain that traverses the eastern side of the Facility (Discharge Point No. 001). The storm drain discharges to the Oakland Inner Harbor, which is part of Lower San Francisco Bay.

C. Compliance Summary

This Order is a new NPDES permit. Prior to adoption of this Order, the Facility was regulated under NPDES Permit No. CAS000001 (industrial stormwater general permit), most recently issued through State Water Board Order No. 2014-0057-DWQ and, prior to that, State Water Board Order No. 97-03-DWQ.

A compliance inspection report dated March 29, 2012, indicates that the Discharger violated Order No. 97-03-DWQ by discharging wastes, including process sediment, industrial wastewater, and

debris from its shredding operation, into surface waters and at places where they were (or could have been) discharged to surface waters. Specifically, the pier crane dock (including the access bridge) and the ship loading conveyor did not fully contain process wastewater, process sediment, and other solids, which could have been discharged to the waters below. The Facility, which is mostly unpaved, is constructed like a large "bowl" that collects water onsite. Pooled water comes into contact with scrap, product, and waste piles and errant debris throughout the site. On March 29, 2012, various sheens were visible on the pooled water, indicating the presence of pollutants. Trucks driving through unpaved muddy areas with pooled water left wet sediment tracks on the access road leading from the site exit to Embarcadero West, which was covered with a layer of sediment and dust. Debris from the shredding operation was visible on neighboring properties adjacent to storm drains susceptible to runoff to the Oakland Inner Harbor.

On January 2, 2013, the Regional Water Board issued Cleanup and Abatement Order No. R2-2013-1001, which, among other things, required the Discharger to propose and implement best management practices (BMPs) to reduce or prevent pollutant discharges into the Oakland Inner Harbor. The Discharger submitted a new Storm Water Pollution Prevention Plan, BMP Plan, and Onsite Water Recycling Plan and Stockpile Management Plan on February 15, 2013, and revised plans on November 4, 2014, that describe the BMPs implemented at the Facility to date, including construction of a new wastewater treatment system (described in Fact Sheet section II.A.4, above) to treat stormwater not reused onsite. In subsequent correspondence dated July 2, 2015, the Regional Water Board acknowledged significant BMPs were implemented that improve water quality but stated that additional improvements are needed.

D. Planned Changes

During the term of this Order, the Discharger is considering a project to design and build enclosures for the shredder and the Joint Products Plant to minimize aerial dispersion of waste materials. This possible change is mentioned here only for informational purposes and is not a requirement of this Order *per se*, except to the extent that it pertains to compliance with this Order's requirements. Mention here does not imply Regional Water Board authorization. The Discharger may need to seek permits or permit modifications to implement this change.

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

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

B. California Environmental Quality Act. Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of the California Environmental Quality Act, Public Resources Code division 13, chapter 3 (commencing with § 21100). Compliance with the provisions of CEQA is only required for NPDES permit actions pertaining to new sources as defined by the federal Clean Water Act (i.e., sources constructed after New Source Performance Standards were published). The Facility is not a new source because U.S. EPA has not published New Source Performance Standards for this discharge category.

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plan.** The San Francisco Bay Regional Water Board (Regional Water Board) adopted *The Water Quality Control Plan for the San Francisco Bay Basin* (Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. Requirements in this Order implement the Basin Plan. In addition, this Order implements State Water Board Resolution 88-63, which established State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply (MUN). Because of the marine influence on San Francisco Bay, total dissolved solids levels in the receiving water exceed 3,000 mg/L and thereby meet an exception to State Water Board Resolution No. 88-63. The MUN designation therefore does not apply to the receiving water. Beneficial uses applicable to Oakland Inner Harbor are as follows:

Table F-2. Beneficial Uses

Discharge Point	Receiving Water	Beneficial Uses
001	Oakland Inner Harbor	Estuarine habitat (EST) Wildlife habitat (WILD) Contact water recreation (REC-1) Non-contact water recreation (REC-2) Navigation (NAV)

2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** U.S. EPA adopted the NTR on December 22, 1992, and amended it on May 4, 1995, and November 9, 1999. About 40 criteria in the NTR apply in California. On May 18, 2000, U.S. EPA adopted the CTR. The CTR promulgated new toxics criteria for California and incorporated the previously adopted NTR criteria that applied in the State. U.S. EPA amended the CTR on February 13, 2001. These rules contain water quality criteria for priority pollutants.

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

4. **Antidegradation Policy.** Federal regulations at 40 C.F.R. section 131.12 require that state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy through State Water Board Resolution 68-16, "*Statement of Policy with Respect to Maintaining High Quality of Waters in California*," which is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Basin Plan

implements, and incorporates by reference, both the State and federal antidegradation policies. Permitted discharges must be consistent with the antidegradation provisions of 40 C.F.R. section 131.12 and State Water Board Resolution 68-16.

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

6. **Endangered Species Act Requirements.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code §§ 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. §§ 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the State, including protecting rare, threatened, or endangered species. The Discharger is responsible for meeting all applicable Endangered Species Act requirements.

D. Impaired Waters on CWA 303(d) List. In October 2011, U.S. EPA approved a revised list of impaired waters prepared pursuant to CWA section 303(d), which requires identification of specific water bodies where it is expected that water quality standards will not be met after implementation of technology-based effluent limitations on point sources. Where it has not done so already, the Regional Water Board plans to adopt Total Maximum Daily Loads (TMDLs) for waters on the 303(d) list. TMDLs establish wasteload allocations for point sources and load allocations for non-point sources and are established to achieve the water quality standards for the impaired waters.

Oakland Inner Harbor is listed as impaired by chlordane, DDT, dieldrin, dioxins and furans, invasive species, mercury, PCBs, and selenium. On February 12, 2008, U.S. EPA approved a TMDL for mercury in San Francisco Bay. On March 29, 2010, U.S. EPA approved a TMDL for PCBs in San Francisco Bay. Neither TMDL contains a wasteload allocation for this discharge. Therefore, this Order prohibits mercury and PCBs discharges unless and until a watershed permit (e.g., NPDES Permit No. CA 0038849) allows them. No TMDLs have been completed yet for the other pollutants on the 303(d) list; available data do not indicate that the Facility discharges those pollutants in detectable quantities.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants discharged into waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations: 40 C.F.R. section 122.44(a) requires that permits include applicable technology-based limitations and standards; and 40 C.F.R. section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of receiving waters.

A. Discharge Prohibitions

1. **Discharge Prohibition III.A** (No discharge of treated wastewater at a location or in a manner different from that described in this Order): This prohibition is based on 40 C.F.R. section 122.21(a), duty to apply, and Water Code section 13260, which requires filing an application and Report of Waste Discharge before discharges can occur. Discharges not described in the permit application and Report of Waste Discharge, and subsequently in this Order, are prohibited.

2. **Discharge Prohibition III.B** (No discharge at Discharge Point No. 001 whenever EBMUD accepts wastewater via the sanitary sewer): Basin Plan Table 4-1, Discharge Prohibition 1, prohibits discharges not receiving a minimum of 10:1 initial dilution. This Order grants an exception to this prohibition based, in part, on the fact that the discharge is intermittent and occurs only during significant storms. This prohibition ensures that the Facility is operated as intended.

   Basin Plan section 4.2 provides for exceptions to Basin Plan Discharge Prohibition 1 under certain circumstances:

   - An inordinate burden would be placed on the Discharger relative to the beneficial uses protected, and an equivalent level of environmental protection can be achieved by alternate means;
   - A discharge is approved as part of a reclamation project;
   - Net environmental benefits will be derived as a result of the discharge; or
   - A discharge is approved as part of a groundwater cleanup project.

   The Basin Plan further states:

   > Significant factors to be considered by the Regional Water Board in reviewing requests for exceptions will be the reliability of the discharger's system in preventing inadequately treated wastewater from being discharged to the receiving water and the environmental consequences of such discharges.

   This Order grants an exception for discharges to the Oakland Inner Harbor for the following reasons:

   a. An inordinate burden would be placed on the Discharger relative to the beneficial uses protected if this Order were to require the discharge to achieve 10:1 dilution within the Oakland Inner Harbor. Constructing and operating a deepwater outfall is burdensome since the discharge occurs only during significant storms. Additionally, the municipal storm outfall is not within the control of the Discharger. Moreover, since discharge is allowed only during significant storms, there are high turbulent flows in the municipal storm system to rapidly dilute and diffuse the discharge prior to it entering the Oakland Inner Harbor, which achieves the intended purpose of Basin Plan Prohibition 1.

   b. An equivalent level of environmental protection is provided by various means: (1) the allowance of discharge only when necessary during significant storms (Prohibition III.B) when there will also be high diluting flows in the municipal storm sewer system and

receiving water; (2) the requirement for multistage treatment using electrocoagulation and other technologies including carbon adsorption (Prohibitions III.D and E, and treatment description in Fact Sheet section II.A.4, above); and (3) requirements for treatment system optimization and standard operation and maintenance procedures to ensure the highest quality of discharge (Provisions VI.C.4 and VI.C.5).

3. **Discharge Prohibition III.C** (No discharge greater than 600 gallons per minute at Discharge Point No. 001): This prohibition ensures that wastewater flows do not exceed the design capacity of the wastewater treatment facility. Discharge in excess of the design capacity could compromise treatment performance.

4. **Discharge Prohibition III.D** (No bypass of untreated or partially-treated effluent): This prohibition is based on 40 C.F.R. section 122.41(m). Bypass of treatment is prohibited except in accordance with 40 C.F.R. section 122.41(m) (see Attachment D section I.G).

5. **Discharge Prohibition III.E** (No discharge of untreated stormwater, process wastewater, or waste materials, except as authorized by this permit): This prohibition is based on Basin Plan Discharge Prohibition 7 and ensures that stormwater, process wastewater, and waste materials, such as dust suppression water, wash water, spilled product, fugitive dust, dirt, rubbish, refuse, or debris, are not discharged into the Oakland Inner Harbor or other waters of the United States. This prohibition does not pertain to incidental amounts of waste materials discharged despite implementation of the BMPs listed in Provision VI.C.6.d of the Order.

B. Technology-Based Effluent Limitations

1. Scope and Authority

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

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

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

- **Best conventional pollutant control technology (BCT).** BCT represents the control from existing industrial point sources of conventional pollutants, including biochemical oxygen demand, total suspended solids, fecal coliform, pH, and oil and grease. The BCT standards are established after considering 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).** NSPS represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires U.S. EPA to develop effluent limitations, guidelines, and standards representing application of BPT, BAT, BCT, and NSPS. U.S. EPA has done so for many types of industries but not scrap metal recycling.

Basin Plan Table 4-2 contains technology-based effluent limitations for pH, residual chlorine, settleable matter, and oil and grease that apply to all treatment facilities. It also contains effluent limitations for biochemical oxygen demand (BOD) and total suspended solids (TSS) that the Regional Water Board may, at its option, apply to non-sewage discharges as long as doing so does not preempt any of U.S. EPA's effluent limitations, guidelines, and standards.

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

2. Effluent Limitations

For discharges from Discharge Point No. 001, this Order imposes the technology-based pH and oil and grease effluent limitations from Basin Plan Table 4-2 because these limitations apply to all treatment facilities. It does not impose the residual chlorine limitation from Basin Plan Table 4-2 because the Discharger's treatment system does not involve chlorination, and any residual chlorine from potable water used onsite would dissipate before discharge. It does not impose BOD effluent limitations because the discharge does not contain sewage. Finally, it does not impose settleable matter effluent limitations because the treatment system includes sand filtration and carbon filtration in addition to sedimentation, and all but the finest suspended particulates are expected to be removed from the wastewater.

Based on best professional judgment, this Order imposes the TSS effluent limitations from Basin Plan Table 4-2 for Discharge Point No. 001 discharges because the treatment system is designed to remove metal and other pollutant-containing particular matter (electrocoagulation is a key component of the treatment train). TSS removal is a good indicator of treatment system performance. TSS is a conventional pollutant and, therefore, subject to BPT and BCT levels of control. BAT controls do not apply because they only apply to toxic and non-conventional pollutants. NSPS controls do not apply because the Facility is not a "new source" (i.e., a source created after U.S. EPA establishes NSPS effluent limitations, guidelines, and standards, which it has not done for scrap metal recycling). When using best professional judgment to impose technology-based effluent limitations based on BPT and BCT controls, 40 C.F.R. section 125.3(d) requires that the Regional Water Board consider the following factors:

Table F-3. Factors Considered Pursuant to 40 C.F.R. section 125.3(d)

Factors	Considerations
Cost relative to pollutant reduction benefits	The Discharger indicates that the treatment system cost more than $2 million to build. It expects ongoing operations and maintenance to cost approximately $1,900 per million gallons per year (or about $1,600 for each operating day). The treatment system reduces TSS concentrations from as high as 100 mg/L to less than 4 mg/L. As such, it reduces pollutant loads delivered to Discharge Point No. 001 and the sanitary sewer system.
Comparison of cost and pollutant reductions from publicly-owned treatment works to those from this Facility	The treatment system cost and pollutant reduction is comparable to those of a publicly-owned treatment works because this Order imposes the same TSS effluent limits as the Regional Water Board assigns to publicly-owned treatment works (both based on Basin Plan Table 4-2).
Age of equipment and facilities involved	The treatment system is new; construction was completed in August 2015.
Process employed	The treatment system employs electrocoagulation and other processes designed primarily to remove solids (e.g., TSS) from scrap metal recycling wastewater.
Engineering aspects of application or control techniques	Electrocoagulation effectively removes particles ranging from suspended solids to sub-micrometer colloids. It generates less volumes of sludge and the sludge is more shear resistant and more readily dewatered when compared to conventional chemical coagulation. It is a common technique used to treat industrial wastewater containing metals.
Process changes	The treatment system is new; no process changes are necessary.
Non-water quality environmental impacts (including energy requirements)	The Port of Oakland conducted an Initial Study, dated November 14, 2014, pursuant to the California Environmental Quality Act. The study concluded that treatment system construction and other site improvements could not have a significant environmental impact on the environment; therefore, the Port of Oakland certified a Negative Declaration on January 6, 2015.

Due to the intermittent nature of the discharge, this Order specifies that compliance with the average monthly effluent limits for oil and grease and TSS is to be based on at least two monitoring results collected within the same calendar month. For months during which the Discharger cannot collect a second sample due to lack of additional discharge events, compliance is to be evaluated based only on the maximum daily effluent limits.

This Order (section IV.B) cites Provision VI.C.6 as a narrative effluent limitation applicable to Discharge Point No. 001 and any other discharges that comply with Discharge Prohibition III.E of this Order. According to State Water Board Order No. 2014-0057-DWQ, which, for the most part, contains essentially the same requirements, these requirements reflect BAT and BCT to reduce or prevent discharges of pollutants in a manner that reflects best industry practice considering technological availability and economic practicability and achievability. This standard restates the standard U.S. EPA articulated in its 2015 *Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity* and its accompanying Fact Sheet. This approach is authorized by 40 C.F.R. section 122.44(k), which allows BMPs to be used in lieu of numeric effluent limitations to control or abate pollutant discharges. Because BAT is more stringent than BPT, additional measures to implement BPT are unnecessary.

Similarly, this Order (section IV.B) cites Provision VI.C.4 as a narrative effluent limitation to ensure that discharges reflect BAT and BCT.

C. Water Quality-Based Effluent Limitations

1. Scope and Authority

This Order contains Water Quality Based Effluent Limitations (WQBELs) that implement water quality objectives that protect beneficial uses. CWA section 301(b) and 40 C.F.R. section 122.44(d) require that permits include limitations more stringent than federal technology-based requirements where necessary to achieve applicable water quality standards. According to 40 C.F.R. section 122.44(d)(1)(i), permits must include effluent limitations for all pollutants that are or may be discharged at levels that have a reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective, WQBELs must be established using (1) U.S. EPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting a narrative criterion, supplemented with relevant information (40 C.F.R. § 122.44[d][1][vi]). The process for determining reasonable potential and calculating WQBELs is intended to achieve applicable water quality objectives and criteria and protect designated uses of receiving waters as specified in the Basin Plan. This Order imposes numeric effluent limitations for pollutants with reasonable potential to cause or contribute to exceedances of water quality standards.

The discussion below focuses on numeric WQBELs for Discharge Point No. 001. To the extent that this Order seeks to control other potential discharges that comply with Discharge Prohibition III.E, it is infeasible to establish numeric effluent limitations; therefore, Provision VI.C.6 of this Order also serves as a narrative WQBEL. Regulations at 40 C.F.R. section 122.44(k)(4) authorize the use of BMPs to control or abate pollutant discharges when numeric effluent limitations are infeasible. Compliance with these conditions is expected to control discharges sufficiently to meet applicable water quality standards.

2. Water Quality Criteria and Objectives

a. Basin Plan Objectives. The Basin Plan specifies numeric water quality objectives for numerous pollutants and narrative water quality objectives for others, including toxicity. The narrative toxicity objective states, “All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms.”

b. CTR Criteria. The CTR specifies numeric aquatic life and human health criteria for numerous priority pollutants. These criteria apply to inland surface waters and enclosed bays and estuaries. Some human health criteria are for consumption of “water and organisms” and others are for consumption of “organisms only.” The criteria applicable to “organisms only” apply to the Oakland Inner Harbor because it does not support the municipal or domestic supply (MUN) beneficial use (i.e., it is not a drinking water source).

c. NTR. The NTR establishes numeric aquatic life and human health criteria for a number of toxic pollutants for San Francisco Bay waters upstream to and including Suisun Bay and the Sacramento-San Joaquin Delta. The NTR criteria apply to the Oakland Inner Harbor.

d. Receiving Water Salinity. Basin Plan section 4.6.2 (like the CTR and NTR) states that the salinity characteristics (i.e., freshwater versus saltwater) of the receiving water are to be considered in determining applicable water quality objectives. Freshwater criteria apply to discharges to waters with salinities equal to or less than one part per thousand (ppt) at least 95 percent of the time. Saltwater criteria apply to discharges to waters with salinities equal to or greater than 10 ppt at least 95 percent of the time in a normal water year. For discharges to waters with salinities between these two categories, or tidally-influenced freshwaters that support estuarine beneficial uses, the water quality objectives are the lower of the salt or freshwater objectives (the latter calculated based on ambient hardness) for each substance.

The Oakland Inner Harbor is a marine water body based on salinity data collected through Regional Monitoring Program (RMP). Salinity data collected from 1993 to 2013 at Yerba Buena Island (station BC 10), the RMP monitoring location nearest the discharge point, indicates that the salinity is less than 1 parts per thousand zero percent of the time and greater than 10 parts per thousand in 100 percent of the time. The Oakland Inner Harbor is therefore a marine water, and the marine water quality criteria and objectives apply.

e. Site-Specific Metals Translators. Effluent limitations for metals must be expressed as total recoverable metal (40 C.F.R. § 122.45[c]). Since the water quality objectives for metals are typically expressed as dissolved metal, translators must be used to convert metals concentrations from dissolved to total recoverable and vice versa. The CTR contains default translators; however, site-specific conditions, such as water temperature, pH, suspended solids, and organic carbon may affect the form of metal (dissolved, non-filterable, or otherwise) present and therefore available to cause toxicity. In general, dissolved metals are more available and more toxic to aquatic life than other forms. Site-specific translators can account for site-specific conditions, thereby preventing overly stringent or under-protective water quality objectives.

As listed in the table below, this Order incorporates site-specific translators for copper from Basin Plan Table 7.2.1-2 and site-specific translators for nickel from *North of Dumbarton Bridge Copper and Nickel Development and Selection of Final Translators* (Clean Estuary Partnership, March 2005). CTR default translators were used for all other metals.

Table F-4. Site-Specific Translators

Pollutant	Acute	Chronic
Copper	0.87	0.73
Nickel	0.85	0.65

f. Sediment Quality Objectives. The *Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1, Sediment Quality* contains a narrative water quality objective: "Pollutants in sediments shall not be present in quantities that, alone or in combination,

are toxic to benthic communities in bays and estuaries of California." This objective is to be implemented by integrating three lines of evidence: sediment toxicity, benthic community condition, and sediment chemistry. The policy requires that if the Regional Water Board determines that a discharge has reasonable potential to cause or contribute to an exceedance of this objective, it is to impose the objective as a receiving water limit.

3. Need for Effluent Limitations (Reasonable Potential Analysis)

a. Available Information. When this Order was drafted, the Facility did not yet provide the full treatment described in Fact Sheet section II.A.4 and no performance data were available. Therefore, the reasonable potential analysis is based on performance data from a similar treatment system located in Surrey, British Columbia. The Surrey system closely resembles the treatment system at the Facility except that it does not contain the final carbon polishing step. Relying on Surrey facility data is, therefore, a conservative approach because the resulting reasonable potential analysis is based on data that could reflect higher pollutant concentrations than those of Facility effluent.

Data are available for three samples collected at the Surrey facility in March 2014, October 2014, and March 2015. The March 2014 data relate to volatile organics and polycyclic aromatic hydrocarbons. The October 2014 and March 2015 data relate to metals.

For ambient background data, this reasonable potential analysis relies on RMP data collected at Yerba Buena Island (station BC10) from 1993 through 2013, and additional Bay Area Clean Water Agencies data from *San Francisco Bay Ambient Water Monitoring Interim Report* (2003) and *Ambient Water Monitoring: Final CTR Sampling Update* (2004). These reports contain monitoring results from 2002 and 2003 for priority pollutants the RMP did not monitor at the time.

In some cases, reasonable potential cannot be determined because effluent data are limited or ambient background concentrations are unavailable. Provision VI.C.2 of the Order requires the Discharger to continue monitoring for these constituents in its effluent using analytical methods that provide the best feasible detection limits. When additional data become available, further analysis will be conducted to determine whether numeric effluent limitations are necessary.

b. Toxic Pollutants

i. Methodology. SIP section 1.3 sets forth the methodology used for this Order to assess whether a toxic pollutant has reasonable potential to exceed a water quality objective. The analysis begins with identifying the maximum effluent concentration (MEC) observed for each pollutant based on available effluent concentration data and the ambient background concentration (B). SIP section 1.4.3 states that ambient background concentrations are either the maximum ambient concentration observed or, for water quality objectives intended to protect human health, the arithmetic mean of observed concentrations. There are three triggers in determining reasonable potential:

- **Trigger 1** is activated if the maximum effluent concentration is greater than or equal to the lowest applicable water quality objective (MEC ≥ water quality objective).

- **Trigger 2** is activated if the ambient background concentration observed in the receiving water is greater than the water quality objective (B > water quality objective) *and* the pollutant is detected in any effluent sample.

- **Trigger 3** is activated if a review of other information indicates that a WQBEL is needed to protect beneficial uses.

ii. Analysis. The maximum effluent concentrations, most stringent applicable water quality criteria and objectives, and ambient background concentrations used in the analysis are presented in the following table, along with the reasonable potential analysis results (yes or no) for each pollutant. Reasonable potential was not determined for all pollutants because there are not water quality objectives for all pollutants. The analysis indicates that no pollutant exhibits reasonable potential to cause or contribute to exceedances of water quality objectives. However, Basin Plan section 7.2.1.2 requires copper WQBELs.

Table F-5. Reasonable Potential Analysis

CTR No.	Priority Pollutant	Governing Water Quality Objective (µg/L)	MEC or Minimum DL [1][2] (µg/L)	Maximum Background or Minimum DL [1][2] (µg/L)	RPA Result [3]
1	Antimony	4,300	6.0	1.8	No
2	Arsenic	36	0.36	2.46	No
3	Beryllium	No Criteria	<5	0.22	U
4	Cadmium	9.4	0.079	0.13	No
5a	Chromium (III)	No Criteria	<1	4.4	U
5b	Chromium (VI)	50.4	--	4.4	No
6	Copper	8.2	3.0	2.5	No [4]
7	Lead	8.5	5.7	0.8	No
8	Mercury	---	<0.2	---	--- [5]
9	Nickel	13	8.1	3.7	No
10	Selenium	5.0	<0.1	0.39	No
11	Silver	2.2	<0.05	0.052	No
12	Thallium	6.3	<0.2	0.21	No
13	Zinc	86	21.2	5.1	No
14	Cyanide	2.9	Unavailable	<0.4	U [6]
15	Asbestos	No Criteria	Unavailable	Unavailable	U
16	2,3,7,8-TCDD	1.4 x 10-8	Unavailable	$8.2x10^{-9}$	U
17	Acrolein	780	Unavailable	<0.50	U
18	Acrylonitrile	0.66	Unavailable	0.03	U
19	Benzene	71	0.98	<0.05	No
20	Bromoform	360	<1	<0.5	No
21	Carbon Tetrachloride	4.4	<0.5	0.06	No
22	Chlorobenzene	21,000	<1	<0.5	No

CTR No.	Priority Pollutant	Governing Water Quality Objective (µg/L)	MEC or Minimum DL [1][2] (µg/L)	Maximum Background or Minimum DL [1][2] (µg/L)	RPA Result [3]
23	Chlorodibromomethane	34	<1	<0.05	No
24	Chloroethane	No Criteria	<1	<0.5	U
25	2-Chloroethylvinyl ether	No Criteria	Unavailable	<0.5	U
26	Chloroform	No Criteria	Unavailable	<0.5	U
27	Dichlorobromomethane	46	<1	<0.05	No
28	1,1-Dichloroethane	No Criteria	<1	<0.05	U
29	1,2-Dichloroethane	99	<1	0.04	No
30	1,1-Dichloroethylene	3.2	<1	<0.5	No
31	1,2-Dichloropropane	39	<1	<0.05	No
32	1,3-Dichloropropylene	1,700	<1	<0.5	No
33	Ethylbenzene	29,000	3.7	<0.5	No
34	Methyl Bromide	4,000	Unavailable	<0.5	U
35	Methyl Chloride	No Criteria	Unavailable	<0.5	U
36	Methylene Chloride	1,600	Unavailable	22	U
37	1,1,2,2-Tetrachloroethane	11	<1	<0.05	No
38	Tetrachloroethylene	8.85	<1	<0.05	No
39	Toluene	200,000	16	<0.3	No
40	1,2-Trans-Dichloroethylene	140,000	Unavailable	<0.5	U
41	1,1,1-Trichloroethane	No Criteria	<1	<0.5	U
42	1,1,2-Trichloroethane	42	<1	<0.05	No
43	Trichloroethylene	81	<1	<0.5	No
44	Vinyl Chloride	525	<1	<0.5	No
45	2-Chlorophenol	400	Unavailable	<1.2	U
46	2,4-Dichlorophenol	790	0.12	<1.3	No
47	2,4-Dimethylphenol	2,300	Unavailable	<1.3	U
48	2-Methyl- 4,6-Dinitrophenol	765	Unavailable	<1.2	U
49	2,4-Dinitrophenol	14,000	Unavailable	<0.7	U
50	2-Nitrophenol	No Criteria	Unavailable	<1.3	U
51	4-Nitrophenol	No Criteria	Unavailable	<1.6	U
52	3-Methyl 4-Chlorophenol	No Criteria	Unavailable	<1.1	U
53	Pentachlorophenol	7.9	Unavailable	<1	U
54	Phenol	4,600,000	Unavailable	<1.3	U
55	2,4,6-Trichlorophenol	6.5	Unavailable	<1.3	U
56	Acenaphthene	2,700	0.15	0.0019	No
57	Acenaphthylene	No Criteria	<0.05	0.0013	U
58	Anthracene	110,000	<0.05	0.00059	No
59	Benzidine	0.00054	Unavailable	<0.0015	U
60	Benzo(a)Anthracene	0.049	<0.05	0.0053	No
61	Benzo(a)Pyrene	0.049	<0.01	0.0033	No
62	Benzo(b)Fluoranthene	0.049	<0.05	0.0046	No
63	Benzo(ghi)Perylene	No Criteria	<0.05	0.0045	U
64	Benzo(k)Fluoranthene	0.049	<0.05	0.0018	No
65	Bis(2-Chloroethoxy)Methane	No Criteria	Unavailable	<0.3	U
66	Bis(2-Chloroethyl)Ether	1.4	Unavailable	<0.00015	U

CTR No.	Priority Pollutant	Governing Water Quality Objective (µg/L)	MEC or Minimum DL [1][2] (µg/L)	Maximum Background or Minimum DL [1][2] (µg/L)	RPA Result [3]
67	Bis(2-Chloroisopropyl)Ether	170000	Unavailable	Unavailable	U
68	Bis(2-Ethylhexyl) Phthalate	5.9	Unavailable	<0.7	U
69	4-Bromophenyl Phenyl Ether	No Criteria	Unavailable	<0.23	U
70	Butylbenzyl Phthalate	5,200	Unavailable	0.0056	U
71	2-Chloronaphthalene	4,300	Unavailable	<0.3	U
72	4-Chlorophenyl Phenyl Ether	No Criteria	Unavailable	<0.3	U
73	Chrysene	0.049	<0.05	0.0028	No
74	Dibenzo(a,h)Anthracene	0.049	<0.05	0.00064	No
75	1,2-Dichlorobenzene	17,000	Unavailable	<0.3	U
76	1,3-Dichlorobenzene	2,600	Unavailable	<0.3	U
77	1,4-Dichlorobenzene	2,600	Unavailable	<0.3	U
78	3,3 Dichlorobenzidine	0.077	Unavailable	<0.001	U
79	Diethyl Phthalate	120,000	Unavailable	<0.21	U
80	Dimethyl Phthalate	2,900,000	Unavailable	<0.21	U
81	Di-n-Butyl Phthalate	12,000	Unavailable	0.016	U
82	2,4-Dinitrotoluene	9.1	Unavailable	<0.27	U
83	2,6-Dinitrotoluene	No Criteria	Unavailable	<0.29	U
84	Di-n-Octyl Phthalate	No Criteria	Unavailable	<0.38	U
85	1,2-Diphenylhydrazine	0.54	Unavailable	0.0037	U
86	Fluoranthene	370	0.079	0.011	No
87	Fluorene	14000	0.15	0.0021	No
88	Hexachlorobenzene	0.00077	Unavailable	0.000022	U
89	Hexachlorobutadiene	50	Unavailable	<0.3	U
90	Hexachlorocyclopentadiene	17,000	Unavailable	<0.3	U
91	Hexachloroethane	8.9	Unavailable	<0.2	U
92	Indeno(1,2,3-cd)Pyrene	0.049	<0.05	0.0040	No
93	Isophorone	600	Unavailable	<0.3	U
94	Naphthalene	No Criteria	3.39	0.013	U
95	Nitrobenzene	1900	Unavailable	<0.25	U
96	N-Nitrosodimethylamine	8.1	Unavailable	<0.3	U
97	N-Nitrosodi-n-Propylamine	1.4	Unavailable	<0.001	U
98	N-Nitrosodiphenylamine	16	Unavailable	<0.001	U
99	Phenanthrene	No Criteria	0.26	0.0095	U
100	Pyrene	11,000	<0.1	0.019	No
101	1,2,4-Trichlorobenzene	No Criteria	Unavailable	<0.3	U
102	Aldrin	0.00014	Unavailable	$2.8x10^{-6}$	U
103	Alpha-BHC	0.013	Unavailable	0.00050	U
104	Beta-BHC	0.046	Unavailable	0.00041	U
105	Gamma-BHC	0.063	Unavailable	0.00070	U
106	Delta-BHC	No Criteria	Unavailable	0.000053	U
107	Chlordane	0.00059	Unavailable	0.00018	U
108	4,4'-DDT	0.00059	Unavailable	0.00017	U
109	4,4'-DDE	0.00059	Unavailable	0.00069	U
110	4,4'-DDD	0.00084	Unavailable	0.00031	U

CTR No.	Priority Pollutant	Governing Water Quality Objective (µg/L)	MEC or Minimum DL [1][2] (µg/L)	Maximum Background or Minimum DL [1][2] (µg/L)	RPA Result [3]
111	Dieldrin	0.00014	Unavailable	0.00026	U
112	Alpha-Endosulfan	0.0087	Unavailable	0.000031	U
113	beta-Endosulfan	0.0087	Unavailable	0.000069	U
114	Endosulfan Sulfate	240	Unavailable	0.000082	U
115	Endrin	0.0023	Unavailable	0.000040	U
116	Endrin Aldehyde	0.81	Unavailable	Unavailable	U
117	Heptachlor	0.00021	Unavailable	0.000019	U
118	Heptachlor Epoxide	0.00011	Unavailable	0.000094	U
119-125	PCBs sum	---	---	---	--- [5]
126	Toxaphene	0.0002	Unavailable	Unavailable	U

Footnotes:

[1] The maximum effluent concentration and ambient background concentration are the actual detected concentrations unless preceded by a "<" sign, in which case the value shown is the minimum detection level (DL).

[2] The maximum effluent concentration or ambient background concentration is "Unavailable" when there are no monitoring data for the constituent.

[3] RPA Results = Yes, if MEC ≥ WQC, B > WQC and MEC is detected, or Trigger 3
= No, if MEC and B are < WQC or all effluent data are undetected
= Unknown (U), if no criteria have been promulgated or data are insufficient.

[4] Basin Plan section 7.2.1.2 requires copper WQBELs.

[5] SIP section 1.3 excludes from its RPA procedure priority pollutants for which a TMDL has been developed. Basin Plan sections 7.2.2 and 7.2.3 contain mercury and PCBs TMDLs. The urban stormwater runoff wasteload allocations for those TMDLs implicitly include all current and future permitted discharges not otherwise addressed by another allocation and unpermitted discharges within the geographic boundaries of runoff management agencies. Because the Discharger discharges treated effluent to the City of Oakland storm drain, the discharge is covered under the Alameda County Clean Water Program wasteload allocation, which is implemented through NPDES Permit No. CAS612008, *Municipal Regional Stormwater NPDES Permit*. Provisions VI.C.4 through VI.C.6 of this Order further serve to implant these wasteload allocations.

[6] Basin Plan section 4.7.2.2 does not require cyanide WQBELs because the Discharger does not use cyanide in its industrial processes and does not disinfect its effluent.

c. Whole Effluent Acute Toxicity. Basin Plan section 3.3.18 states, "There shall be no acute toxicity in ambient waters" and requires effluent limitations for whole effluent acute toxicity. As such, it is presumed that there is reasonable potential for acute toxicity in the discharge to cause or contribute to exceedance of the toxicity water quality objective in the Oakland Inner Harbor.

d. Whole Effluent Chronic Toxicity. The discharge will be intermittent and temporally limited, occurring only during precipitation when EBMUD does not allow discharge to the sanitary sewer system. As such, discharge durations will be too short to result in chronic exposures, and thus there is no reasonable potential that the discharge could cause chronic toxicity in the Oakland Inner Harbor.

e. Sediment Quality. Pollutants in some receiving water sediments may be present in quantities that alone or in combination are toxic to benthic communities. Efforts are underway to identify stressors causing such conditions. However, to date there is no evidence directly linking compromised sediment conditions to the discharges subject to this Order; therefore, the Regional Water Board cannot draw a conclusion about reasonable potential for these discharges to cause or contribute to exceedances of the

sediment quality objectives. Nevertheless, pursuant to Monitoring and Reporting Program (MRP) section V, the Discharger will participate in the RMP, which monitors San Francisco Bay sediment and seeks to identify stressors responsible for degraded sediment quality. Thus far, the monitoring has provided only limited information about potential stressors and sediment transport. The Regional Water Board is exploring options for obtaining additional information that may inform future analyses.

4. Effluent Limitations

This Order does not contain water quality-based effluent limitations (WQBELs) for constituents that do not demonstrate any reasonable potential to exceed the water quality objectives; however, Provision VI.C.2 of the Order requires monitoring for such pollutants. If concentrations are found to have increased significantly, Provision VI.C.2 requires the Discharger to investigate the sources of the increases and implement remedial measures if the increases pose a threat to receiving water quality.

a. **Copper**. Basin Plan section 7.2.1.2 requires copper WQBELs for all wastewater discharges. The copper WQBELs are based on the procedures in SIP section 1.4. Average monthly effluent limitations (AMELs) and maximum daily effluent limitations (MDELs) were calculated as shown in the table below:

Table F-6. WQBEL Calculations

Pollutant	**Copper**
Units	**µg/L**
Basis and Criteria type	Basin Plan Aquatic Life
Criteria -Acute	11
Criteria -Chronic	8.2
SSO Criteria -Acute	-----
SSO Criteria -Chronic	-----
Water Effects ratio (WER)	1
Lowest WQO	8.2
Site Specific Translator - MDEL	0.87
Site Specific Translator - AMEL	0.73
Dilution Factor (D) (if applicable)	0
No. of samples per month	4
Aquatic life criteria analysis required? (Y/N)	Y
HH criteria analysis required? (Y/N)	N
Applicable Acute WQO	12.4
Applicable Chronic WQO	11.2
HH criteria	
Background (Maximum Conc for Aquatic Life calc)	2.5
Background (Average Conc for Human Health calc)	-----
Is the pollutant on the 303d list (Y/N)?	N
ECA acute	12.4
ECA chronic	11.2
ECA HH	

Pollutant	Copper
Units	**µg/L**
Number of data points <10 or at least 80% of data reported non detect? (Y/N)	Y
Avg of effluent data points	
Std Dev of effluent data points	
CV calculated	N/A
CV (Selected) - Final	0.60
ECA acute mult99	0.32
ECA chronic mult99	0.53
LTA acute	4.0
LTA chronic	5.9
minimum of LTAs	4.0
AMEL mult95	1.6
MDEL mult99	3.1
AMEL (aq life)	6.2
MDEL(aq life)	12.4
MDEL/AMEL Multiplier	2.0
AMEL (human hlth)	
MDEL (human hlth)	
minimum of AMEL for Aq. life vs HH	6.2
minimum of MDEL for Aq. Life vs HH	12
Previous permit limit (AMEL)	-----
Previous permit limit (MDEL)	-----
Final limit - AMEL	6.2
Final limit - MDEL	12

Due to the intermittent nature of the discharge, this Order specifies that compliance with the average monthly effluent limit for copper is to be based on at least two monitoring results collected within the same calendar month. For months during which the Discharger cannot collect a second sample due to lack of additional discharge events, compliance is to be evaluated based only on the maximum daily effluent limit.

b. Whole Effluent Acute Toxicity. The acute toxicity effluent limit is based on Basin Plan Table 4-3. The test species specified in the MRP are rainbow trout and fathead minnow. If one species is consistently less sensitive to the discharge than the other, the Discharger may discontinue monitoring using the less sensitive species. The Executive Officer must first concur in writing that monitoring with only one species is appropriate.

D. Discharge Requirement Considerations

1. Anti-backsliding. CWA sections 402(o) and 303(d)(4) and 40 C.F.R. section 122.44(l) require effluent limitations in a reissued permit to be as stringent as those in the previous

permit. This is the first individual NPDES permit for the Facility (the *Waste Discharge Requirements for Discharges of Storm Water associates with Industrial Activities Excluding Construction Activities*, NPDES Permit No. CAS000001, State Water Board Order No. 97-03-DWQ, did not impose numeric limits); therefore, there is no backsliding.

2. **Antidegradation.** Antidegradation policies require that existing water quality be maintained unless degradation is justified based on specific findings. State Water Board Resolution No. 68-16 sets forth California's Antidegradation policy. Consistent with 40 C.F.R section 131.12, Resolution No. 68-16 incorporates the federal antidegradation policy. The Basin Plan implements, and incorporates by reference, the State and federal antidegradation policies. Permitted discharges must be consistent with these policies.

   In accordance with State Water Board Administrative Procedures Update No. 90-004, the potential for degradation is evaluated by comparing the receiving water quality likely to result from the new permit to the water quality baseline. The water quality baseline is the best receiving water quality that has existed since 1968 when considering Resolution No. 68-16 or since 1975 under the federal policy, unless subsequent lowering was due to regulatory action consistent with State and federal antidegradation policies. If poorer water quality was permitted, the most recent water quality resulting from permitted action is the baseline water quality. For purposes of this analysis, existing water quality is assumed to be the best that has existed since 1968 and 1975. No poorer water quality has been permitted. (Water quality in 1968 and 1975 was worse than it is now because most CWA controls, such as the secondary treatment standards for municipal wastewater treatment, were not yet in place.)

   This Order authorizes the discharges to the Oakland Inner Harbor. Based on best professional judgment and pertinent available information, the discharge will not be adverse to the intent and purpose of the antidegradation policies. For the following reasons, these discharges will not degrade existing Oakland Inner Harbor water quality:

   i. Discharges from the Facility were previously regulated pursuant to NPDES Permit No. CAS000001. Authorized discharges occur intermittently and are temporally limited. They only occur during precipitation when the Discharger cannot discharge to the sanitary sewer.

   ii. The discharge is small relative to other wet weather discharges in the area, such as those from the storm drain system into which Facility effluent flows prior to discharge, and relative to the Oakland Inner Harbor and San Francisco Bay. The treatment system design capacity is only 600 gallons per minute. The storm drain can discharge up to 27,000 gallons per minute.

   iii. The intermittent and short-term discharges to the Oakland Inner Harbor will be dispersed throughout San Francisco Bay by currents and tides and will not result in observable water quality differences, particularly after each short-term discharge ceases.

   Based on these findings, a more comprehensive antidegradation analysis is not required.

3. **Stringency of Requirements for Individual Pollutants.** This Order contains technology-based effluent limitations for certain pollutant parameters and implements minimum, applicable federal technology-based requirements. Except for copper, this Order does not

contain WQBELs for individual pollutants because no individual pollutant exhibits reasonable potential to cause or contribute to exceedances of water quality objectives.

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

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

The receiving water limitations in sections V.A and V.B of the Order are based on Basin Plan narrative and numeric water quality objectives. The receiving water limitation in section V.C of the Order requires compliance with federal and State water quality standards.

VI. RATIONALE FOR PROVISIONS

A. Standard Provisions

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

In accordance with 40 C.F.R. section 123.25(a)(12), states may omit or modify conditions to impose more stringent requirements. Attachment G contains standard provisions that supplement the federal standard provisions in Attachment D.

This Order omits federal conditions that address enforcement authority specified in 40 C.F.R. sections 122.41(j)(5) and (k)(2) because the State's enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates Water Code section 13387(e) by reference.

B. Monitoring and Reporting

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

C. Special Provisions

1. Reopener Provisions

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

2. Effluent Characterization Study and Report

This Order does not include effluent limitations for priority pollutants that do not demonstrate reasonable potential, but this provision requires the Discharger to monitor for these pollutants as described in the MRP and Attachment G. Monitoring data are necessary to verify that the "no" and "unknown" reasonable potential analysis conclusions of this Order remain valid. This requirement is authorized pursuant to Water Code section 13267 and is necessary to inform the next permit reissuance.

3. Pollutant Minimization Program

This provision is based on SIP section 2.4.5.

4. Treatment System Optimization

This provision requires the Discharger to identify critical process control parameters and to optimize pollutant removal by July 1, 2017. This requirement is necessary to justify the equivalent protection exception from Basin Plan Prohibition 1. Furthermore, it ensures that the treatment system is operated in a manner reflective of BAT and BCT (i.e., best industry practice considering technological availability and economic practicability and achievability). The treated effluent resulting from the study must be discharged to the sanitary sewer because it may contain chlorine from the potable water used to simulate the influent wastewater to be treated.

5. Storage and Treatment Standard Operation and Maintenance Procedures

This provision requires the Discharger to develop standard procedures to ensure that the Facility personnel operate and maintain the treatment system appropriately and consistently. This requirement is necessary to justify the equivalent protection exception from Basin Plan Prohibition 1.

6. Water Pollution Prevention Plan

The requirements of this provision serve as narrative effluent limitations and facilitate compliance with Discharge Prohibition III.E of this Order. In conjunction with the numeric effluent limitations listed in Table 4 of the Order, they constitute technology-based pollutant discharge controls based on best professional judgment (see Fact Sheet section IV.B). These requirements reflect best industry practice considering technological availability and economic practicability and achievability.

The WPPP, including the Best Management Practices (BMPs) requirements, closely follow the corresponding requirements of NPDES Permit No. CAS000001 (State Water Board Order No. 2014-0057-DWQ, *General Permit for Storm Water Discharges Associated with Industrial Activities*), which, in turn, closely follows U.S. EPA's *Multi-Sector General NPDES Permit for Stormwater Discharges Associated with Industrial Activity.* However, the requirements in this Order more specifically address the nature of the Facility and the potential for pollutants associated with its scrap metal processing operations to directly or indirectly reach waters of the United States (e.g., through vehicle tracking, wind transport, or ship loading or unloading).

Prior to submitting the WPPP, this provision requires the Discharger to continue complying with provisions X and XI.A of NPDES Permit No. CAS000001. The Discharger has filed a Notice of Intent and received an Authorization to Discharge pursuant to that general permit. With adoption of this Order, coverage under that permit is no longer necessary. After submitting the WPPP, continued compliance with provisions X and XI.A of NPDES Permit No. CAS000001 will also be unnecessary.

7. Onsite Storage Capacity

This provision requires the Discharger to maintain the capacity to store stormwater and wastewater within the 1.2 million-gallon storage tank and determine the volume of onsite storage necessary to achieve WPPP objectives in a manner that reflects BAT and BCT (i.e., best industry practice considering technological availability and economic practicability and achievability). This provision requires the Discharger to implement storage improvements if necessary to reflect BAT and BCT.

8. Wooden Pier Conveyor System Containment

This provision requires containment of spilled product, dust, dirt, rubbish, refuse, and debris at the wooden pier. It also requires that stormwater and process wastewater be collected and transferred upland via the stormwater conveyance system. It reflects BAT and BCT, and reduces or prevents discharges in a manner that reflects best industry practice considering technological availability and economic practicability and achievability. This standard is already achieved at the concrete pier dock.

9. Structural Improvements

This provision requires the Discharger to implement structural improvements at the Facility. It reflects BAT and BCT and reduces or prevents discharges in a manner that reflects best industry practice considering technological availability and economic practicability and achievability.

VII. MONITORING AND REPORTING PROGRAM (MRP)

Attachment E contains the MRP for this Order. It specifies sampling stations, pollutants to be monitored (including all parameters for which effluent limitations are specified), monitoring frequencies, and reporting requirements. The following provides the rationale for the MRP requirements:

A. MRP Requirements Rationale

1. **Effluent Monitoring.** Effluent flow monitoring is necessary to evaluate compliance with Discharge Prohibition III.C and to understand Facility operations. Other effluent monitoring is necessary to evaluate compliance with this Order's effluent limitations and to support future reasonable potential analyses and possible development of WQBELs during the next permit reissuance.

   Additional monitoring is necessary to evaluate treatment system performance and support possible development of technology-based effluent limits during the next permit reissuance. Turbidity monitoring assesses colloidal matter removal. Total organic carbon monitoring assesses organic pollutant removal. Monitoring of certain metals assesses metals removal. The metals to be monitored include aluminum, iron, copper, lead, and zinc. These metals are associated with the scrap metal recycling industry (*Multi-sector General Permit for Stormwater Discharges Associated with Industrial Activity*, U.S. EPA, May 27, 2009).

2. **Receiving Water Monitoring.** The Discharger is required to participate in the RMP, which involves collecting data on pollutants and toxicity in San Francisco Bay water, sediment, and biota. This monitoring is necessary to characterize the receiving water and the effects of the discharge this Order authorizes.

B. Monitoring Requirements Summary

The table below summarizes routine monitoring requirements. This table is for informational purposes only. The actual requirements are specified in the MRP and elsewhere in this Order.

Table F-7. Monitoring Requirements Summary

Parameter	Effluent	Receiving Water	Site
Flow	Continuous	---	---
Turbidity	1/Day	---	---
pH	1/Day	Support RMP	---
Total Suspended Solids	1/Event and at least 2/Year	---	---
Total Organic Carbon	1/Event and at least 2/Year	---	---
Oil and Grease	1/Event and at least 2/Year	---	---
Aluminum	1/Event and at least 2/Year	Support RMP	---
Iron	1/Event and at least 2/Year	Support RMP	---
Copper	1/Event and at least 2/Year	Support RMP	---
Lead	1/Event and at least 2/Year	Support RMP	---
Zinc	1/Event and at least 2/Year	Support RMP	---
Acute Toxicity	1/Year	--	---
Other Priority Pollutants	Once	Support RMP	---
Visual Observations	---	---	1/Month

VIII. PUBLIC PARTICIPATION

The Regional Water Board considered the issuance of this Order that will serve as an NPDES permit for the Facility. As a step in the order adoption process, Regional Water Board staff developed a tentative order and encouraged public participation in the order adoption process.

A. Notification of Interested Parties. The Regional Water Board notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through the *Oakland Tribune.* The public had access to the agenda and any changes in dates and locations through the Regional Water Board's website at http://www.waterboards.ca.gov/sanfranciscobay.

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

For full staff response and Regional Water Board consideration, the written comments were due at the Regional Water Board office by **5:00 p.m. on September 19, 2016.**

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

Date: Wednesday, November 9, 2016
Time: 9:00 a.m.
Location: Elihu Harris State Office Building
1515 Clay Street, 1st Floor Auditorium
Oakland, CA 94612

Contact: Jessica Watkins, (510) 622-2349, jessica.watkins@waterboards.ca.gov

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

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

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

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

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

E. Information and Copying. The Report of Waste Discharge, related supporting documents, and comments received are on file and may be inspected at the address above at any time between

8:00 a.m. and 5:00 p.m. (except noon to 1:00 p.m.), Monday through Friday. Copying of documents may be arranged by calling (510) 622-2300.

F. Register of Interested Persons. Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference the Facility, and provide a name, address, and phone number.

G. Additional Information. Requests for additional information or questions regarding this Order should be directed to Jessica Watkins, (510) 622-2349, jessica.watkins@waterboards.ca.gov.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ATTACHMENT G

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

For

NPDES WASTEWATER DISCHARGE PERMITS

March 2010

Contents

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

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

FOR

NPDES WASTEWATER DISCHARGE PERMITS

APPLICABILITY

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

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

I. STANDARD PROVISIONS - PERMIT COMPLIANCE

A. Duty to Comply – Not Supplemented

B. Need to Halt or Reduce Activity Not a Defense – Not Supplemented

C. Duty to Mitigate – This supplements I.C. of Standard Provisions (Attachment D)

1. Contingency Plan - The Discharger shall maintain a Contingency Plan as originally required by Regional Water Board Resolution 74-10 and as prudent in accordance with current municipal facility emergency planning. The Contingency Plan shall describe procedures to ensure that existing facilities remain in, or are rapidly returned to, operation in the event of a process failure or emergency incident, such as employee strike, strike by suppliers of chemicals or maintenance services, power outage, vandalism, earthquake, or fire. The Discharger may combine the Contingency Plan and Spill Prevention Plan into one document. Discharge in violation of the permit where the Discharger has failed to develop and implement a Contingency Plan as described below will be the basis for considering the discharge a willful and negligent violation of the permit pursuant to California Water Code Section 13387. The Contingency Plan shall, at a minimum, contain the provisions of a. through g. below.

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

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

c. Provisions of emergency standby power.

d. Protection against vandalism.

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

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

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

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

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

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

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

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

D. Proper Operation & Maintenance – This supplements I.D of Standard Provisions (Attachment D)

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

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

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

E. Property Rights – Not Supplemented

F. Inspection and Entry – Not Supplemented

G. Bypass – Not Supplemented

H. Upset – Not Supplemented

I. Other – This section is an addition to Standard Provisions (Attachment D)

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

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

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

J. Stormwater – This section is an addition to Standard Provisions (Attachment D)

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

1. Stormwater Pollution Prevention Plan (SWPP Plan)

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

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

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

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

2. Source Identification

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

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

b. A site map showing the following:

1) Stormwater conveyance, drainage, and discharge structures;

2) An outline of the stormwater drainage areas for each stormwater discharge point;

3) Paved areas and buildings;

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

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

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

7) Vehicle service areas.

c. A narrative description of the following:

1) Wastewater treatment process activity areas;

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

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

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

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

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

3. Stormwater Management Controls

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

a. Stormwater pollution prevention personnel

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

b. Good housekeeping

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

c. Spill prevention and response

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

d. Source control

Source controls include, for example, elimination or reduction of the use of toxic pollutants, covering of pollutant source areas, sweeping of paved areas, containment of potential pollutants, labeling of all storm drain inlets with “No Dumping” signs, isolation or separation of industrial and non-industrial pollutant sources so that runoff from these areas does not mix, etc.

e. Stormwater management practices

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

f. Sediment and erosion control

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

g. Employee training

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

h. Inspections

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

i. Records

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

4. Annual Verification of SWPP Plan

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

K. Biosolids Management – This section is an addition to Standard Provisions (Attachment D)

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

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

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

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

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

II. STANDARD PROVISIONS – PERMIT ACTION – Not Supplemented

III. STANDARD PROVISIONS – MONITORING

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

1. Use of Certified Laboratories

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

2. Use of Appropriate Minimum Levels

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

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

3. Frequency of Monitoring

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

a. Timing of Sample Collection

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

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

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

4) Effluent sampling for conventional pollutants shall occur on at least one day of any multiple-day bioassay test the MRP requires. During the course of the test, on at least one day, the Discharger shall collect and retain samples of the discharge. In the event a bioassay test does

not comply with permit limits, the Discharger shall analyze these retained samples for pollutants that could be toxic to aquatic life and for which it has effluent limits.

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

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

b. Conditions Triggering Accelerated Monitoring

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

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

3) If final or intermediate results of an acute bioassay test indicate a violation or threatened violation (e.g., the percentage of surviving test organisms of any single acute bioassay test is less than 70 percent), the Discharger shall initiate a new test as soon as practical, and the Discharger shall investigate the cause of the mortalities and report its findings in the next self monitoring report (SMR).

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

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

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

shall analyze the retained samples for one approved bypass discharge event for all other constituents that have effluent limits, except oil and grease, mercury, dioxin-TEQ, and acute and chronic toxicity. This monitoring shall be in addition to the minimum monitoring specified in the MRP.

c. Stormwater Monitoring

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

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

2) Measure (or estimate) the total volume of stormwater discharge, collect grab samples of stormwater discharge from at least two storm events that produce significant stormwater discharge, and analyze the samples for oil and grease, pH, TSS, and specific conductance.

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

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

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

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

d. Receiving Water Monitoring

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

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

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

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

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

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

1. Biosolids Monitoring Frequency

Biosolids disposal must be monitored at the following frequency:

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

(Metric tons are on a dry weight basis)

2. Biosolids Pollutants to Monitor

Biosolids shall be monitored for the following constituents:

- Land Application: Arsenic, cadmium, copper, mercury, molybdenum, nickel, lead, selenium, and zinc
- Municipal Landfill: Paint filter test (pursuant to 40 CFR 258)
- Biosolids-only Landfill or Surface Disposal Site (if no liner and leachate system): arsenic, chromium, and nickel

C. Standard Observations – This section is an addition to III of Standard Provisions (Attachment D)

1. Receiving Water Observations

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

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

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

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

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

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

f. *Weather conditions*:

1) Air temperature; and

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

2. Wastewater Effluent Observations

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

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

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

3. Beach and Shoreline Observations

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

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

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

4. Land Retention or Disposal Area Observations

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

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

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

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

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

5. Periphery of Waste Treatment and/or Disposal Facilities Observations

The requirements of this section only apply when the MRP specifies periphery standard observations. Standard observations shall include the following:

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

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

IV. STANDARD PROVISIONS – RECORDS

A. Records to be Maintained – This supplements IV.A of Standard Provisions (Attachment D)

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

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

B. Records of monitoring information shall include – This supplements IV.B of Standard Provision (Attachment D)

1. Analytical Information

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

2. Flow Monitoring Data

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

a. Total volume for each day; and

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

3. Wastewater Treatment Process Solids

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

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

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

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

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

2) Solids content of the dewatered biosolids; and

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

4. Disinfection Process

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

a. For bacteriological analyses:

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

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

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

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

2) Chlorine dosage (kg/day); and

3) Dechlorination chemical dosage (kg/day).

5. Treatment Process Bypasses

A chronological log of all treatment process bypasses, including wet weather blending, shall include the following:

a. Identification of the treatment process bypassed;

b. Dates and times of bypass beginning and end;

c. Total bypass duration;

d. Estimated total bypass volume; and

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

6. Treatment Facility Overflows

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

C. Claims of Confidentiality – Not Supplemented

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information – Not Supplemented

B. Signatory and Certification Requirements – Not Supplemented

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

1. Self Monitoring Reports

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

a. Transmittal letter

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

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

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

3) Causes of violations;

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

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

corrective actions taken or planned [with a time schedule for completion] to prevent recurrence of the sampling or measurement problem.);

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

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

b. Compliance evaluation summary

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

c. Results of analyses and observations

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

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

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

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

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

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

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

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

Table A

Minimum Levels, Toxicity Equivalency Factors,
and Bioaccumulation Equivalency Factors

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

d. Data reporting for results not yet available

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

e. Flow data

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

f. Annual self monitoring report requirements

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

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

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

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

4) List of approved analyses, including the following:

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

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

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

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

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

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

g. Report submittal

The Discharger shall submit SMRs to:

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

h. Reporting data in electronic format

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

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

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

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

D. Compliance Schedules – Not supplemented

E. Twenty-Four Hour Reporting – This section supplements V.E of Standard Provision (Attachment D)

1. Spill of Oil or Other Hazardous Material Reports

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

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

c. The Discharger shall submit a written report to the Regional Water Board within five working days following telephone notification unless directed otherwise by Regional Water Board staff. A report submitted electronically is acceptable. The written report shall include the following:

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

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

3) Nature of material spilled;

4) Quantity of material involved;

5) Receiving water body affected, if any;

6) Cause of spill;

7) Estimated size of affected area;

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

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

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

11) Persons or agencies notified.

2. Unauthorized Discharges from Municipal Wastewater Treatment Plants[1]

The following requirements apply to municipal wastewater treatment plants that experience an unauthorized discharge at their treatment facilities and are consistent with and supercede requirements imposed on the Discharger by the Executive Officer by letter of May 1, 2008, issued pursuant to California Water Code Section 13383.

a. Two (2)-Hour Notification

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

1) Incident description and cause;

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

3) Date and time the unauthorized discharge started;

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

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

6) Identity of the person reporting the unauthorized discharge.

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

b. 24-hour Certification

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

c. 5-Day Written Report

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

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

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

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

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

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

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

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

d. Communication Protocol

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

Table B

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

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

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

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

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

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

F. Planned Changes – Not supplemented

G. Anticipated Noncompliance – Not supplemented

H. Other Noncompliance – Not supplemented

I. Other Information – Not supplemented

VI. STANDARD PROVISION – ENFORCEMENT – Not Supplemented

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS – Not Supplemented

VIII. DEFINITIONS – This section is an addition to Standard Provisions (Attachment D)

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

1. Arithmetic Calculations

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

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

   or

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

12. Stormwater means stormwater runoff, snow melt runoff, and surface runoff and drainage. It excludes infiltration and runoff from agricultural land.

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

14. Untreated waste is raw wastewater.

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

Table C

List of Monitoring Parameters and Analytical Methods

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

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

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

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

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

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

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

CTR No.	Pollutant/Parameter	Analytical Method[5]	Minimum Levels[6] (µg/l)											
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP
24.	Chloroethane	601	0.5	2										
25.	2-Chloroethylvinyl Ether	601	1	1										
26.	Chloroform	601	0.5	2										
75.	1,2-Dichlorobenzene	601	0.5	2										
76.	1,3-Dichlorobenzene	601	0.5	2										
77.	1,4-Dichlorobenzene	601	0.5	2										
27.	Dichlorobromomethane	601	0.5	2										
28.	1,1-Dichloroethane	601	0.5	1										
29.	1,2-Dichloroethane	601	0.5	2										
30.	1,1-Dichloroethylene or 1,1-Dichloroethene	601	0.5	2										
31.	1,2-Dichloropropane	601	0.5	1										
32.	1,3-Dichloropropylene or 1,3-Dichloropropene	601	0.5	2										
34.	Methyl Bromide or Bromomethane	601	1.0	2										
35.	Methyl Chloride or Chloromethane	601	0.5	2										
36.	Methylene Chloride or Dichlorormethane	601	0.5	2										
37.	1,1,2,2-Tetrachloroethane	601	0.5	1										
38.	Tetrachloroethylene	601	0.5	2										
40.	1,2-Trans-Dichloroethylene	601	0.5	1										
41.	1,1,1-Trichloroethane	601	0.5	2										
42.	1,1,2-Trichloroethane	601	0.5	2										
43.	Trichloroethene	601	0.5	2										
44.	Vinyl Chloride	601	0.5	2										
45.	2-Chlorophenol	604	2	5										
46.	2,4-Dichlorophenol	604	1	5										
47.	2,4-Dimethylphenol	604	1	2										
48.	2-Methyl-4,6-Dinitrophenol or Dinitro-2-methylphenol	604	10	5										
49.	2,4-Dinitrophenol	604	5	5										
50.	2-Nitrophenol	604		10										
51.	4-Nitrophenol	604	5	10										
52.	3-Methyl-4-Chlorophenol	604	5	1										
53.	Pentachlorophenol	604	1	5										
54.	Phenol	604	1	1		50								
55.	2,4,6-Trichlorophenol	604	10	10										
56.	Acenaphthene	610 HPLC	1	1	0.5									
57.	Acenaphthylene	610 HPLC		10	0.2									
58.	Anthracene	610 HPLC		10	2									
60.	Benzo(a)Anthracene or 1,2 Benzanthracene	610 HPLC	10	5										
61.	Benzo(a)Pyrene	610 HPLC		10	2									
62.	Benzo(b)Fluoranthene or 3,4 Benzofluoranthene	610 HPLC		10	10									
63.	Benzo(ghi)Perylene	610 HPLC		5	0.1									
64.	Benzo(k)Fluoranthene	610 HPLC		10	2									
74.	Dibenzo(a,h)Anthracene	610 HPLC		10	0.1									
86.	Fluoranthene	610 HPLC	10	1	0.05									
87.	Fluorene	610 HPLC		10	0.1									

CTR No.	Pollutant/Parameter	Analytical Method[5]	Minimum Levels[6] (µg/l)											
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP
92.	Indeno(1,2,3-cd) Pyrene	610 HPLC		10	0.05									
100.	Pyrene	610 HPLC		10	0.05									
68.	Bis(2-Ethylhexyl)Phthalate	606 or 625	10	5										
70.	Butylbenzyl Phthalate	606 or 625	10	10										
79.	Diethyl Phthalate	606 or 625	10	2										
80.	Dimethyl Phthalate	606 or 625	10	2										
81.	Di-n-Butyl Phthalate	606 or 625		10										
84.	Di-n-Octyl Phthalate	606 or 625		10										
59.	Benzidine	625		5										
65.	Bis(2-Chloroethoxy)Methane	625		5										
66.	Bis(2-Chloroethyl)Ether	625	10	1										
67.	Bis(2-Chloroisopropyl)Ether	625	10	2										
69.	4-Bromophenyl Phenyl Ether	625	10	5										
71.	2-Chloronaphthalene	625		10										
72.	4-Chlorophenyl Phenyl Ether	625		5										
73.	Chrysene	625		10	5									
78.	3,3'-Dichlorobenzidine	625		5										
82.	2,4-Dinitrotoluene	625	10	5										
83.	2,6-Dinitrotoluene	625		5										
85.	1,2-Diphenylhydrazine (note)[11]	625		1										
88.	Hexachlorobenzene	625	5	1										
89.	Hexachlorobutadiene	625	5	1										
90.	Hexachlorocyclopentadiene	625	5	5										
91.	Hexachloroethane	625	5	1										
93.	Isophorone	625	10	1										
94.	Naphthalene	625	10	1	0.2									
95.	Nitrobenzene	625	10	1										
96.	N-Nitrosodimethylamine	625	10	5										
97.	N-Nitrosodi-n-Propylamine	625	10	5										
98.	N-Nitrosodiphenylamine	625	10	1										
99.	Phenanthrene	625		5	0.05									
101.	1,2,4-Trichlorobenzene	625	1	5										
102.	Aldrin	608	0.005											
103.	α-BHC	608	0.01											
104.	β-BHC	608	0.005											
105.	γ-BHC (Lindane)	608	0.02											
106.	δ-BHC	608	0.005											
107.	Chlordane	608	0.1											
108.	4,4'-DDT	608	0.01											
109.	4,4'-DDE	608	0.05											
110.	4,4'-DDD	608	0.05											
111.	Dieldrin	608	0.01											
112.	Endosulfan (alpha)	608	0.02											
113.	Endosulfan (beta)	608	0.01											
114.	Endosulfan Sulfate	608	0.05											

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

CTR No.	Pollutant/Parameter	Analytical Method[5]	Minimum Levels[6] (µg/l)											
			GC	GCMS	LC	Color	FAA	GFAA	ICP	ICP MS	SPGFAA	HYD RIDE	CVAA	DCP
115.	Endrin	608	0.01											
116.	Endrin Aldehyde	608	0.01											
117.	Heptachlor	608	0.01											
118.	Heptachlor Epoxide	608	0.01											
119-125	PCBs: Aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260	608	0.5											
126.	Toxaphene	608	0.5											