

STATE OF CALIFORNIA

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

FACT SHEET
WASTE DISCHARGE REQUIREMENTS
for
OWENS-ILLINOIS, INC.
(OWENS-BROCKWAY GLASS CONTAINER)

NPDES Permit No.: CA0056464
Public Notice No.: 04-053

FACILITY ADDRESS

Owens-Brockway Glass Container
2901 Fruitland Avenue
Vernon, CA 90058

FACILITY MAILING ADDRESS

Owens-Brockway Glass Container
2901 Fruitland Avenue
Vernon, CA 90058
Contact: Anthony DeFazio
Telephone: (323) 586-4207

I. Public Participation

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

A. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments should be submitted either in person or by mail to:

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

To be fully responded to by staff and considered by the Regional Board, written comments should be received at the Regional Board offices by 5:00 p.m. on October 11, 2004.

B. Public Hearing

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

Date: November 4, 2004
Time: 9:00 A.M.
Location: Metropolitan Water District of Southern California
700 North Alameda Street
Los Angeles, CA

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

Please be aware that dates and venues may change. Our web address is www.swrcb.ca.gov/rwqcb4 where you can access the current agenda for changes in dates and locations.

C. Waste Discharge Requirements Appeals

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

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

D. Information and Copying

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

E. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Board, reference this facility, and provide a name, address, and phone number.

II. Introduction

Owens-Illinois, Inc. (hereinafter Owens or Discharger) discharges process and non-process wastewater from its Owens-Brockway Glass Container (Facility) to the Los Angeles River, a water of the United States above the Estuary via a city storm drain on the north side of Fruitland Avenue. The wastes discharged from the Facility are regulated under the WDRs and NPDES permit contained in Order No. 97-017 (NPDES Permit No. CA0056464). Order No. 97-017 expired on February 10, 2002.

Owens filed a ROWD on October 23, 2001, and applied for renewal of its WDRs and NPDES permit. A revised ROWD was submitted on April 20, 2004. The tentative Order is the reissuance of the WDRs and NPDES permit for discharges from Owens.

An NPDES permit compliance evaluation inspection (CEI) was conducted on August 26, 2003, to observe operations, verify information submitted in the ROWD, and collect additional data to develop permit limitations and requirements.

III. Description of Facility and Waste Discharge

Owens operates the Owens-Brockway Glass Container located at 2901 Fruitland Avenue, Vernon, California. Operations at the Facility include the manufacturing of glass containers from raw materials and recycled glass, primarily for the food and beverage industries. The Facility manufactures flint (clear), amber (brown) and emerald (green) bottles for Miller Brewing Company from both new material consisting primarily of silica sand and soda ash, and recycled glass. While water is not a component of the final product, it is used throughout the manufacturing process for supporting equipment and plant operations.

Owens proposes to discharge up to 515,300 gallons per day (gpd) of wastewater (i.e., process and non-process water) through Discharge Serial No. 001 to the storm drain in Fruitland Avenue thence to Los Angeles River, a water of the United States above the Estuary. All wastewater flows to a junction vault in the sidewalk and into the storm drain on the north side of Fruitland Avenue. The wastes discharged include the following:

- a) up to 500,000 gpd of furnace drain water;

Furnace drain water is discharged for a 2-day period whenever a drain is required. Furnace draining is infrequent and occurs every 5 to 10 years per furnace. There are two furnaces at the Facility, Furnace B and C. These furnaces are never drained concurrently. In the event of concurrent furnace draining, the Owens must notify the Regional Board and obtain approval prior to draining both furnaces. The furnace draining occurred on December 1986, December 1996, December 2001 and February 2003.

Furnace drain water is generated when the Facility changes the color of the bottles produced. During a furnace drain, glass is discharged into a flume of City water flowing into a holding area in the basement. No chemicals are added. Water contacts only glass and

the concrete furnace floor prior to discharge from the basement sump. Water is then directed to the vault in the sidewalk then to Discharge Serial No. 001.

- b) up to 5,300 gpd of fire protection system test water;

The fire protection system is tested approximately once per month and test water is de-chlorinated or otherwise treated, as required, prior to discharge.

- c) up to 10,000 gpd of oxygen plant (Plant No. 1) vacuum pump seal water; and

There are three oxygen plants in the Facility (Plant Nos. 1, 2, and 3), and only the wastewater from Plant No. 1 is discharged to the storm drain. Plant No. 2 has been permanently shut down, and Plant No. 3 generates oxygen without water usage.

Oxygen Plant No. 1 vacuum pumps and silencers are designed to operate using approximately 20,000 gpd of freshwater. To reduce the amount of water required in the process, vacuum pump seal water from Oxygen Plant No. 1 has been directed into a re-circulating system. Bleed water from the seal water re-circulating system is collected in the No.1 sump on the western side of the oxygen plant utility bridge. From the sump, the bleed water is pumped to the roof drainage downspout in the glass plant which flows to the front driveway strip drain and in the storm drain vault in the sidewalk on Fruitland Avenue. There is no treatment of the wastewater prior to discharge, other than adding water softener to the re-circulating system.

Brine from the softener regeneration is collected in a separate sump No. 2 on the east side of the utility bridge, and is discharge to the sanitary sewer.

- d) storm water runoff.

Storm water runoff is regulated under the NPDES General Permit for Storm Water Discharges Associated with Industrial Activity [State Water Resources Control Board (State Board) Order No. 97-03-DWQ, NPDES Permit No. CAS000001]. During rain event, a portion of the storm water runoff is collected in the equipment wash pad and is directed to the cullet water pump sump via rain diversion, then to pump sump, metered, and is discharged to the sanitary sewer. In instances in which rainfall in the equipment wash pad area exceeds one inch, water is no longer pumped to the cullet water pump sump then to sanitary sewer, and instead it is directed to the storm drain. In addition to storm water generated at the equipment wash pad area, the facility's roof drain water and surface drainage around the facility is also directed to Discharge Serial No. 001 via the junction vault in the sidewalk.

The existing Order No. 97-017 permitted Owens to discharge excess wastewater (i.e., cooling tower bleed-off water or reverse osmosis water) from the reclaimed water tank to the storm drain. The reclaimed water tank has been removed and these waste streams are discharged to the sanitary sewer system. In addition, Discharge Serial No. 002, as described in the existing Order

No. 97-017 for discharges of wastewater from Plant No. 2 was not implemented and no discharge occurred from this discharge point. Furthermore, the ROWD does not contain any reference to a second discharge point (Discharge Serial No. 002). Therefore, this Order eliminates the discharge point Discharge Serial No. 002.

Because water for Plant No. 1 is recirculated within the immediate oxygen plant premises water recycling in the glass plant is no longer feasible.

Most of the plant process water is discharged to the sanitary sewer under a joint permit issued by the City of Vernon and the Los Angeles County Sanitation District, Permit No. 01029. The wastes discharge to the sanitary sewer consist of contact cooling water from glass shearing and glass cullet cooling operations.

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

Effluent limitations contained in the existing permit for Discharge Serial No. 001 and representative monitoring data from the previous permit term are presented in the following table. The data characterize discharges of oxygen plant vacuum pump seal water. Included in the table are constituents that were detected in the effluent of the oxygen plant vacuum pump seal water but currently do not have an effluent limitation:

Constituent (units)	Maximum Daily Effluent Limitations (MDELs)	Monitoring Data (July 1996 – October 2002) Range of Reported Values
pH (s.u.)	--	6.6 – 8.97
Biochemical Oxygen Demand (BOD ₅ 20°C) (mg/L)	30	<3 – <10
BOD ₅ 20°C (lbs/day) ¹	87	NR
Chemical Oxygen Demand ² (mg/L)	--	6 – 23
Total Organic Carbon ² (mg/L)	--	0.63 – 2.62
Oil and Grease (mg/L) ³	15	<5 – 30
Oil and Grease (lbs/day) ¹	43.50	NR
Total Suspended Solids (TSS) (mg/L)	75	<5 – 35
TSS (lbs/day) ¹	217.50	NR
Settleable Solids (ml/L/Hr)	0.2	<0.1 – <0.5
Turbidity (NTU)	75	0.1 – 1.8
Total Dissolved Solids (mg/L)	1,500	425 – 654
Total Dissolved Solids (lbs/day) ¹	4,350	NR
Residual Chlorine (mg/L)	0.1	<100
Total Chromium (mg/L)	0.05	NR
Total Chromium (lbs/day) ¹	1.45	NR
Fluoride (mg/L)	1.0	0.42 – 0.69
Fluoride (lbs/day) ¹	3.0	NR
Chloride (mg/L)	150	0.40 – 0.134
Chloride (lbs/day) ¹	435	NR
Sulfate (mg/L)	350	0.42 – 0.120
Sulfate (lbs/day) ¹	1,015	NR

Constituent (units)	Maximum Daily Effluent Limitations (MDELS)	Monitoring Data (July 1996 – October 2002) Range of Reported Values
Nitrate + Nitrite (mg/L)	8	0.16 – 2.35
Nitrate + Nitrite (lbs/day) ¹	23	NR
Antimony (mg/L) ²	--	<0.006 – 0.014
Arsenic (mg/L)	0.05	<0.003 – 0.027
Ammonia ² (mg/L)	--	0.13 – 0.33
Bis(2-ethylhexyl)Phthalate ² (mg/L)	--	<0.01 – 0.017
Cadmium (mg/L)	0.01	<0.004 – <0.05
Chromium III (mg/L)	0.05	<0.01 – <0.05
Chromium VI ² (mg/L)	--	<0.01 – < 0.20
Copper (mg/L)	1.0	<0.04 – 0.1
Lead (mg/L)	0.05	<0.002 – 0.01
Mercury (mg/L)	0.002	<0.0002 – <0.002
Methy Tertiary Butyl Ether (MTBE) ² (mg/L)	--	0.0054
Selenium (mg/L)	0.01	<0.04 – 0.013
Silver (mg/L)	0.05	<0.004 – <0.05
Zinc (mg/L)	5.0	0.049 – 0.18
PCBs (Total) (µg/L)	--	3.5 – 70
2,3,7,8 – TCDD (µg/L)	--	2.1E-9 – 1.9E-6
Acute Toxicity (% Survival)	⁴	100%

NR = Not Reported

"- -" = No limitation is provided in the existing Order

¹ Mass-based effluent limitations in Order No. 97-017 were based on 408,100 gpd maximum discharge flow rate. The Discharger did not report discharge data in units of mass (e.g., lbs/day).

² No limitations exist in the existing Order but the parameter was detected in the effluent.

³ Oil and grease concentrations exceeded the permit limitation once on May, 30, 1997.

⁴ The existing Order requires the Discharger to sample for acute toxicity annually. Only one sample result was provided for September 16, 1999. Further, the permit states that toxicity tests should be conducted between the months of October through March. Based on the review of available data, this testing requirement was not met.

The effluent monitoring data indicate that the effluent limitation for oil and grease of 15 mg/L was exceeded in May 1997. The reported value for oil and grease was 30 mg/L. The Discharger is delinquent in submitting acute toxicity monitoring report. In addition, numerous parameters were not monitored as required by Order No. 97-017. The parameters were temperature, total waste flow, turbidity, TDS, residual chlorine, fluoride, chloride, sulfate, nitrate + nitrite (as N), mercury, toxicity and all priority pollutants (2001 1st Annual Report); BOD, temperature, oil and grease, settleable solids, TDS and TSS (2002 1st Quarter); BOD, temperature, oil and grease, pH, settleable solids, TSS, TDS, residual chlorine, fluoride, chloride, sulfate, nitrate + nitrite (N), and toxicity; (2002 2nd Quarter Report); BOD, temperature, oil and grease, pH, TSS, and TDS (2002 3rd Quarter); temperature, waste flow, oil and grease, pH, TSS, TDS, chlorine, fluoride, chloride, and sulfate (2002 4th Quarter). These identified violations are being evaluated for appropriate enforcement actions.

Sampling results on February 26, 2002 and October 2, 2002, indicated that 2,3,7,8 – TCDD was

detected. In May 1997, there were eight pollutants detected for which there are currently no effluent limitations. Those pollutants include: chemical oxygen demand (COD), total organic carbon, antimony, ammonia, bis(2-ethylhexyl)phthalate, chromium (VI), methyl tertiary butyl ether (MTBE), and PCBs.

The Discharger also reported that methyl-ethyl-ketone (MEK) was hauled off-site for disposal. MEK is used in the process to clean the ink jet machines that date stamp the glass bottles. Stannous chloride (e.g., tin) is also used in the process to temper the glass before entering the ovens. Other materials that are shipped off-site for disposal and used in the process include: chromium, liquid containing selenium, and nickel.

The Discharger characterized the storm water effluent from Discharge Serial No. 001 in Section V, Part A of EPA Form 2C as follows:

Constituent (units)	Reported Maximum Daily Value
Flow (gpd)	10,000
Total Suspended Solids (TSS) (mg/L)	< 1
Temperature (winter and summer) (deg. C)	32/38
Sulfate (as SO ₄) (mg/L)	120
Aluminum (mg/L)	0.109
Boron (mg/L)	0.290
Iron, Total (mg/L)	0.175
Magnesium (mg/L)	0.668
Copper, Total (mg/L)	0.035
Lead, Total (mg/L)	0.006
Zinc, Total (mg/L)	0.082

All other pollutants listed in Section V, Part B of EPA Form 2C are marked “non-detect” or “believed absent”.

Effluent limitations are contained in the existing permit for Discharge Serial No. 002. However, Discharge Serial No. 002, as described in the previous permit, was never implemented and discharge never occurred from that point. Therefore, monitoring data for this location do not exist.

IV. Applicable Plans, Policies, Laws and Regulations

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

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

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

3. On June 13, 1994, the Regional Board adopted a revised *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan). The Basin Plan contains water quality objectives and beneficial uses for inland surface waters and for the Pacific Ocean. The immediate receiving body for the permitted discharge covered by this permit is a storm drain that conveys wastewater to the Los Angeles River. The Basin Plan contains beneficial uses and water quality objectives for the Los Angeles River. The beneficial uses listed in the Basin Plan for the Los Angeles River (H.U. 405.15) are:

Existing uses: industrial service supply, water contact recreation, non-contact water recreation, and warm freshwater habitat.

Potential uses: municipal and domestic water supply*, and wildlife habitat.

4. **Ammonia Basin Plan Amendment.** The 1994 Basin Plan provided water quality objectives for ammonia to protect aquatic life, in Tables 3-1 through Tables 3-4. However, those ammonia objectives were revised on April 25, 2002, by the Regional Board with the adoption of Resolution No. 2002-011, *Amendment to the Water Quality Control Plan for the Los Angeles Region to Update the Ammonia Objectives for Inland Surface Waters (Including Enclosed Bays, Estuaries and Wetlands) with Beneficial Use Designations for Protection of Aquatic Life*. The Ammonia Basin Plan amendment was approved by the State Board, the Office of Administrative Law, and United States Environmental Protection Agency (U.S. EPA) on April 30, 2003, June 5, 2003, and June 19, 2003, respectively. Although the revised ammonia water quality objectives may be less stringent than those contained in the 1994 Basin Plan, they are still protective of aquatic life and are consistent with U.S. EPA's 1999 ammonia criteria update.
5. The State Water Resources Control Board (State Board) adopted a *Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California* (Thermal Plan) on May 18, 1972, and amended this plan on September 18, 1975. This plan contains temperature objectives for inland surface waters.
6. On May 18, 2000, the U.S. EPA promulgated numeric criteria for priority pollutants for the State of California [known as the *California Toxics Rule* (CTR) and codified as 40 CFR Section 131.38]. In the CTR, U.S. EPA promulgated criteria that protect the general population at an incremental cancer risk level of one in a million (10^{-6}), for all priority toxic pollutants regulated as carcinogens. The CTR also allows for a schedule of compliance not to exceed 5 years from the date of permit renewal for an existing discharger if the Discharger demonstrates that it is infeasible to promptly comply with the effluent limitations derived from the CTR criteria.

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7. On March 2, 2000, State Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP was effective on April 28, 2000, with respect to the priority pollutant criteria promulgated for California by the U.S. EPA through National Toxics Rule (NTR) and to the priority pollutant objectives established by the Regional Boards in their basin plans, with the exception of the provision on alternate test procedures for individual discharges that have been approved by the U.S. EPA Regional Administrator. The alternate test procedures provision was effective on May 22, 2000. The SIP was effective on May 18, 2000, with respect to the priority pollutant criteria promulgated by the U.S. EPA through the CTR. The SIP requires the dischargers' submittal of data sufficient to conduct the determination of priority pollutants requiring water quality-based effluent limits (WQBELs) and to calculate the effluent limitations. The CTR criteria for the protection of freshwater aquatic life or human health for consumption of organisms, whichever are more stringent, are used to develop the effluent limitations in the proposed Order to protect the beneficial uses of the Los Angeles River.
8. 40 CFR Part 426 specifies effluent limitations and requirements applicable to discharges resulting from the process by which raw materials are melted in a furnace and mechanically processed into glass containers. The discharges covered under this proposed Order are considered process wastewater because they are the result of glass manufacturing processes and come into contact with raw and manufactured materials.
9. 40 CFR section 122.44(d)(1)(vi)(A) requires the establishment of numeric effluent limitations to attain and maintain applicable narrative water quality criteria to protect the designated beneficial uses. Where numeric water quality objectives have not been established in the Basin Plan, 40 CFR section 122.44(d) specifies that WQBELs may be set based on U.S. EPA criteria and supplemented, where necessary, by other relevant information to attain and maintain narrative water quality criteria to fully protect designated beneficial uses.
10. State and Federal anti-backsliding and anti-degradation policies require that Regional Board actions to protect the water quality of a water body and to ensure that the water body will not be further degraded. The anti-backsliding provisions are specified in sections 402(o) and 303 (d)(4) of the CWA and in 40 CFR section 122.44(l). Those provisions require a reissued permit to be as stringent as the previous permit with some exceptions where effluent limitations may be relaxed.
11. Effluent limitations are established in accordance with Parts 301, 304, 306, and 307 of the Federal CWA, and amendments thereto. These requirements, as they are met, will maintain and protect the beneficial uses of the Los Angeles River.
12. Existing waste discharge requirements are contained in Board Order No. 97-017, adopted by the Regional Board on March 3, 1997. In some cases, permit conditions (effluent limitations and other special conditions) established in the existing waste discharge requirements have been carried over in the proposed Order.

V. Regulatory Basis for Effluent Limitations

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of the discharge of pollutants is established through NPDES permits that contain effluent limitations and standards. The CWA establishes two principal bases for effluent limitations. First, dischargers are required to meet technology-based effluent limitations that reflect the best controls available considering costs and economic impact. Second, they are required to meet WQBELs that are developed to protect applicable designated uses of the receiving water. The CWA requires that technology-based effluent limitations be established based on several levels of control:

- Best practicable treatment control technology (BPT) is based on the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.
- Best available technology economically achievable (BAT) represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.
- Best conventional pollutant control technology (BCT) is a standard for the control from existing industrial point sources of conventional pollutants, which are BOD, TSS, fecal coliform, pH, and oil and grease. The BCT standard is established after considering the “cost reasonableness” of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.
- New source performance standards (NSPS) represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires EPA to develop effluent limitations, guidelines and standards (ELGs) representing application of BPT, BCT, BAT, and NSPS. Section 402(a)(1) of the CWA and 40 CFR section 125.3 of the NPDES regulations authorize the use of best professional judgment (BPJ) to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern.

Under 40 CFR section 426.80, ELGs exist for the glass container manufacturing subcategory and regulate oil and grease, TSS and pH. The degree of effluent reduction attained by the application of the best practicable control technology currently available (BPT) is based on the pounds of glass produced per 1,000 pounds of furnace pull. According to 40 CFR section 426.81, furnace pull is defined as the amount of glass drawn from the glass furnace or furnaces.

If a reasonable potential exists for pollutants in a discharge to exceed water quality standards, WQBELs are also required under 40 CFR section 122.44(d)(1)(i). WQBELs are established after determining that technology-based limitations are not stringent enough to ensure that state water quality standards are met for the receiving water. WQBELs are based on the designated use of the receiving water, water quality criteria necessary to support the designated uses, and the state's anti-degradation policy. For discharges to inland surface waters, enclosed bays, and estuaries, the SIP establishes specific implementation procedures for determining reasonable potential and establishing WQBELs for priority pollutant criteria promulgated by U.S. EPA through the CTR and NTR, as well as the Basin Plan.

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

1. **Pollutants of Concern**

The CWA requires that any pollutant that may be discharged by a point source in quantities of concern must be regulated through an NPDES permit. Further, the NPDES regulations and SIP require regulation of any pollutant that (1) causes; (2) has the reasonable potential to cause; or (3) contributes to the exceedance of a receiving water quality criteria or objective. The SIP includes provisions for priority pollutant criteria promulgated by U.S. EPA in the CTR and NTR, and for those priority pollutants outlined in the Basin Plan.

Owens operates a glass manufacturing facility. The effluent consists of furnace drain water, oxygen plant vacuum pump seal water, fire protection system test water and storm water runoff. City-supplied water is used in the fire protection system tests and therefore, the pollutants of concern in the discharge from Owens may include residual chlorine, solids, and metals.

Effluent limitations for Discharge Serial No. 001 in the existing Order were established for BOD₅, oil and grease, TSS, settleable solids, and turbidity, because they are parameters typically used to characterize wastewater. These contaminants may be present in the discharge because of the nature of the operations (glass manufacturing) and equipment used in the Facility. The existing Order establishes a limit for residual chlorine; City tap water is used in the process and may account for this constituent found in the waste stream. City tap water is also used in the fire protection test system and is discharged during testing activities. Therefore, there is potential for the above mentioned constituents to be present in the effluent and are considered pollutants of concern, and effluent limitations for these parameters will remain in this Order.

Other pollutants of concern in the final effluent include: arsenic, cadmium, total chromium, chromium, copper, lead, mercury, selenium, silver, chloride, fluoride, total dissolved solids, nitrate-nitrogen plus nitrite-nitrogen (nitrogen), and sulfate. The effluent limitations for these constituents were carried over from the existing Order. These contaminants may be present in the discharge because of the nature of the operations (glass manufacturing) and equipment used in the Facility.

Based on published documentation¹, typical effluent characteristics from glass manufacturing operations include pH, TSS, COD, oil and grease, lead, arsenic, antimony, fluorides, and total metals. In addition, U.S. EPA identifies² the following raw materials associated with glass manufacturing: hydrogen fluoride and fluoride-donating salts for etching; strong oxidizing corrosives such as nitric acid to produce the correct oxidation states in the pigment metals; amines and strong reducing agents; heavy metals containing arsenic, cobalt, zinc, thorium, and uranium for pigmentation in addition to specialty organic dyes. The U.S. EPA suggests using the following analytical parameters for sampling local wells at abandoned glass manufacturing operations: antimony, arsenic, beryllium, cadmium, chromium (hexavalent/total), copper, lead, mercury, nickel, selenium, silver, thallium and zinc. The existing Order includes effluent limitations for constituents that are typically found in the effluent of glass manufacturers such as arsenic, cadmium, chromium (hexavalent/total), copper, lead, mercury, selenium, silver and zinc.

Effluent limitations or monitoring requirements are established in the proposed Order to address these pollutants of concern, where appropriate.

2. **Technology-Based Effluent Limits**

40 CFR Part 426 establishes effluent limitations and requirements for the Glass Container Manufacturing point source category. The applicability discussion in the regulation indicates that the category applies to discharges resulting from the process by which raw materials are melted in a furnace and mechanically processed into glass containers. Therefore, the ELGs are applicable to furnace draining activities but are not applicable to other waste streams produced at the facility (e.g., oxygen plant vacuum pump seal water, fire protection system test water, and storm water runoff). This Order includes ELG-based limits for the furnace draining activities. The existing Order did not include effluent limitations derived from the ELGs.

40 CFR Part 426 establishes pollutant effluent limitations and standards for direct discharge point sources. The limitations contained in 40 CFR Part 426 represent the degree of effluent reduction attainable by the application of the best practicable control technology currently available. Production data is needed to determine the mass-based effluent limitations for process wastewaters. The ELG calculations were based on the production data from 2001, 2002 and 2003, and were used in developing effluent limitations in accordance with 40 CFR Section 426.86. In the case of oil and grease and TSS, the mass-based effluent limitations were determined by multiplying the concentration listed in 40 CFR section 426.82 by the pounds per day of glass produced at Owens. 40 CFR Part 426.82 also specifies a pH range between 6.0 – 9.0.

An Internal Outfall No. 01A shall be established in the proposed Order to identify a sampling location for the processed wastewater. An internal outfall shall be established for intermittent furnace drain water prior to combining with other waters of the facility (e.g., the strip drain in the

¹ The World Bank, Pollution Prevention and Abatement Handbook, "Glass Manufacturing," July 1998.

² USEPA, Region III, "Mid-Atlantic Brownfields – Glass Manufacturing." December 3, 1999.

driveway or the junction vault in the sidewalk), and prior to discharging to Discharge Serial No. 001.

Rationale for Effluent Limitations for Internal Outfall No. 01A

The effluent limitations established in the proposed Order are applicable to intermittent discharges of furnace draining through NPDES Internal Outfall No. 01A and are as follows:

Constituent	Units	Average Monthly Effluent Limitations (AMELs)	Maximum Daily Effluent Limitations (MDELs)	Rationale
pH	Standard units	--	Between 6.0 – 9.0	40CFR426.82
Oil and Grease	Lbs/day ¹	24	49	40CFR426.82
	mg/L ²	6	12	
Total Suspended Solids	Lbs/day ¹	55	115	40CFR426.82
	mg/L ²	13	28	

¹
² The effluent limitations in lbs/day are based on 40 CFR section 426.82 and are applicable to furnace drain wastewater only. See attachment F-A of the Factsheet for the calculations.

³ The effluent limitations in concentration (mg/L) are calculated based on the maximum flow of 500,000 gpd, using the formula:

$$m = 8.34 C_i Q$$

where: m = mass discharge for a pollutant, lbs/day
C_i = concentration for a pollutant, mg/L
Q = discharge flow rate, million gallons per day (mgd)

The calculations for the mass-based effluent limits for oil and grease and TSS are shown in **Attachment F-A – Calculation of Effluent Limitations in Accordance with 40 CFR section 426.82**. These effluent limitations are applicable to the discharge of oil and grease, and TSS from the Internal Outfall 01A, and do not apply to final discharges from Discharge Serial No. 001.³ Further, compliance with the ELG-based effluent limitations will be determined at a point following the furnace draining process, and prior to combination with other waste streams (i.e., oxygen plant vacuum pump seal water, fire protection system test water, and storm water runoff) in the strip drain in the driveway or in the junction vault in the sidewalk.

The proposed Order requires the Discharger to continue to develop and implement, consistent with the existing permit requirements, a *Storm Water Pollution Prevention Plan (SWPPP)*. The SWPPP will outline site-specific management processes for minimizing storm water runoff

³ All final discharges, which may or may not include furnace drain water, must comply with the final effluent limitations associated with Discharge Serial No. 001.

contamination and for preventing contaminated storm water runoff from being discharged directly into surface waters.

National ELGs have not been developed for fire protection system test water, oxygen plant vacuum pump seal water, and storm water runoff from glass manufacturers. Also, data are not available to apply best professional judgment (BPJ) to develop technology-based effluent limitations. Therefore, pursuant to 40 CFR section 122.44(k), the Regional Board will require the Discharger to develop and implement best management practices (BMPs) to address storm water and non-storm water discharges (i.e., oxygen plant vacuum pump seal water, fire protection system test and water). In the absence of established ELGs, and with the combination of the SWPPP and BMPs, the existing permit limitations based on past performance and BPJ will serve as the equivalent of technology-based effluent limitations to carry out the purposes and intent of the CWA.

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

As specified in 40 CFR section 122.44(d)(1)(i), permits are required to include WQBELs for toxic pollutants (including toxicity) that are or may be discharged at levels which cause, have reasonable potential to cause, or contribute to an excursion above any state water quality standard. The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses for the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria (that are contained in other state plans and policies, or U.S. EPA water quality criteria contained in the CTR and NTR). The specific procedures for determining reasonable potential, and if necessary for calculating WQBELs, are contained in the SIP for non-storm water discharges.

The CTR contains both saltwater and freshwater criteria. According to 40 CFR section 131.38(c)(3), freshwater criteria apply at salinities of 1 part per thousand (ppt) and below at locations where this occurs 95 percent or more of the time; saltwater criteria apply at salinities of 10 ppt and above at locations where this occurs 95 percent or more of the time; and at salinities between 1 and 10 ppt, the more stringent of the two apply. The CTR criteria for protection of freshwater aquatic life or human health for consumption of organisms, whichever are more stringent, are used to develop the effluent limitations in the proposed Order to protect the beneficial uses of the Los Angeles River, above the Estuary.

Some water quality criteria are hardness-dependent. The Discharger provided hardness data as part of their required monitoring for priority pollutants regulated in the CTR (as required by a letter dated August 3, 2001 from the Regional Board). The hardness value of 272 mg/L as CaCO₃ was assumed in the RPA to determine certain freshwater criteria and to calculate WQBELs for certain priority pollutants.

(a) Reasonable Potential Analysis (RPA)

In accordance with Section 1.3 of the SIP, the Regional Board conducts a reasonable potential analysis for each priority pollutant with an applicable criterion or objective to

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

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

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

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

The RPA was performed for the priority pollutants for which effluent data were available. The Regional Board issued a letter on August 3, 2001, that required Owens to monitor for priority pollutants regulated in the CTR. Monitoring data collected in accordance with these requirements were available for the period from February 26, 2002 through October 2, 2002 for oxygen plant vacuum pump seal water. Two data sets from September 28, 2001 and December 26, 2001 were provided for furnace drain water. In addition, data submitted with discharge monitoring reports for the period from July 1996 through April 2002 were considered in the analysis and also characterized oxygen plant vacuum pump seal water. Analytical data from the Discharger were used in the RPA for oxygen plant vacuum pump seal water and are included in **Attachment F-B**.

Based on the RPA and available facility data for oxygen plant vacuum pump seal water, reasonable potential to exceed water quality criteria was demonstrated for copper, thallium, bis(2-ethylhexyl)phthalate, cyanide, and 2,3,7,8-TCDD (dioxin). Reasonable potential for thallium, cyanide, and 2,3,7,8-TCDD was triggered based on background concentrations. Refer to **Attachment F-B** for a summary of the RPA and associated effluent limitation calculations.

(b) Calculating WQBELs

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

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

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

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

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

The 2002 303(d) list classifies the Los Angeles River as impaired. The facility discharges within Reach 2 of the Los Angeles River, which includes Carson to Figueroa Streets. The pollutants of concern for Reach 2 of the Los Angeles River include: ammonia, coliform, lead, nutrients, odors, oil and scum/foam. TMDL development is scheduled for metals, bacteria and organics in the future.

(d) Whole Effluent Toxicity

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

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be

maintained free of toxic substances in concentrations that are lethal to or produce other detrimental responses by aquatic organisms. Detrimental response includes but is not limited to decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota. The existing Order does not contain acute toxicity limitations but does contain monitoring requirements for Discharge Serial Nos. 001 and 002. One sampling result for acute toxicity was provided (e.g., 100% survival) for the permit term. However, based on the information provided, the Discharger did not comply with the annual monitoring requirements, nor did the Discharger sample for acute toxicity during the required sampling period.

In accordance with the Basin Plan, acute toxicity limitations dictate that the average survival in undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test having less than 70% survival. Consistent with Basin Plan requirements, the proposed Order includes acute toxicity limitations and monitoring requirements.

The discharges at the Owens facility occur intermittently. Therefore, the discharge is not expected to contribute to long-term toxic effects. Intermittent discharges are likely to have short-term toxic effects. Therefore, as previously stated, Owens will be required to conduct acute toxicity testing and monitoring in accordance with the Basin Plan.

4. **Specific Rationale for Each Numerical Effluent Limitations - Discharge Serial No. 001**

Section 402(o) of the Clean Water Act and 40 CFR 122.44(l) require that effluent limitations standards or conditions in re-issued permits are at least as stringent as in the existing permit. Effluent limitation for the pH was established in this permit and was based on the Basin Plan. The effluent limitations for temperature was established based on the new information available which indicates that the 100^oF temperature is not protective of aquatic organisms. A survey was completed for several kinds of fish and the 86^oF temperature was found to be protective. The Basin Plan lists temperature requirements for the receiving waters. The limits for the conventional pollutants, residual chlorine, minerals and metals are based carried over from the existing permit. These constituents are considered to be pollutants of concern due to the nature of operation (glass manufacturing) at the site and the wastes discharged to surface waters. In addition, effluent limitations for phenols and sulfides were added because of the nature of operations (glass manufacturing), storage and handling of materials and equipment at the site, and the wastes discharged to surface waters.

In compliance with section 122.45(d), permit limitations shall be expressed, unless impracticable, as both average monthly effluent limitations and maximum daily effluent limitations. Therefore, average monthly effluent limitations (AMELs) are established in the Order for certain pollutants. These average monthly effluent limitations are based on BPJ and are consistent with current individual permits adopted by the Regional Board to industrial facilities of a similar nature. In addition, Section 402(o) of the Clean Water Act and 40 CFR 122.44(l) require that effluent limitations standards or conditions in reissued permits be at

least as stringent as those in the existing permit. Thus, average monthly limitations are now established in the proposed Order for oil and grease, TSS, BOD, settleable solids, and turbidity. For priority pollutants, AMELs are established in accordance with the requirements contained in the SIP and based on the applicable water quality criteria contained in the CTR.,

The Discharger submitted effluent monitoring data for CTR priority pollutants for the discharge of oxygen plant vacuum pump seal water and receiving water monitoring data. Based on these data, reasonable potential was determined for copper, thallium, cyanide, 2,3,7,8-TCDD (dioxin), and bis(2-ethylhexyl)phthalate. For copper, the existing permit limitation was compared to the CTR-based WQBELs and the more stringent limitations were chosen and are therefore established in the proposed Order. In addition, CTR-based WQBELs are established for bis(2-ethylhexyl)phthalate, cyanide, thallium, and 2,3,7,8-TCDD (dioxin).

Water quality-based effluent limitations at Discharge Serial No. 001 will be applied to all discharges, including combined or individual waste streams, from Owens (e.g., furnace drain water, oxygen plant vacuum pump seal water, fire protection system test water, and storm water runoff).

(a) Final Effluent Limitations - Discharge Serial No. 001

The final effluent limitations apply to all final discharges from Owens, including individual or combined waste streams. The following Table presents the effluent limitations and the specific rationales for pollutants that are expected to be present in the discharge:

Constituents	Units	Discharge Limitations		Rationale
		Monthly Average ¹	Daily Maximum	
pH	pH Units	6.5 – 8.5		Basin Plan ²
Temperature	^o F	86		Thermal Plan, BPJ ³
Total suspended solids	Mg/L	50	75	BPJ ³
Turbidity	NTU	50	75	BPJ ³
BOD ₅ 20°C	Mg/L	20	30	E, BPJ ³
Oil and grease	Mg/L	10	15	E, BPJ ³
Settleable solids	MI/L	0.1	0.2	E, BPJ ³
Residual chlorine	Mg/L	---	0.1	E
Phenols	Mg/L	---	1.0	BPJ
Sulfides	Mg/L	---	0.1	BPJ
Fluoride	Mg/L	---	1.0	E
Total dissolved solids	Mg/L	---	1500	E
Sulfate	Mg/L	---	350	E
Chloride	Mg/L	---	150	E
Nitrite-nitrogen plus nitrite nitrogen (as Nitrogen)	Mg/L	---	8	E
Copper ⁴	µg/L	15	30	CTR
Thallium	µg/L	6	13	CTR
Cyanide	µg/L	3	8	CTR

Constituents	Units	Discharge Limitations		Rationale
		Monthly Average ¹	Daily Maximum	
2,3,7,8-TCDD	µg/L	2.8E-8	1.4E-8	CTR
Bis(2-ethylhexyl)Phthalate	µg/L	6	12	CTR
Arsenic ⁴	µg/L	---	50	E
Cadmium ⁴	µg/L	---	10	E
Total Chromium ⁴	µg/L	---	50	E
Chromium ⁴	µg/L	---	50	E
Lead ⁴	µg/L	---	50	E
Mercury	µg/L	---	2	E
Selenium ⁴	µg/L	---	10	E
Silver ⁴	µg/L	---	50	E
Acute toxicity	% survival	Average survival for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test producing less than 70% survival.		Basin Plan ²

¹ Average monthly effluent limitations are established in the Order for certain pollutants. These average monthly effluent limitations are based on BPJ and are consistent with current individual permits adopted by the Regional Board to industrial facilities of a similar nature. In addition, Section 402(o) of the Clean Water Act and 40 CFR 122.44(l) require that effluent limitations standards or conditions in reissued permits be at least as stringent as those in the existing permit.

² Basin Plan Objectives are instantaneous maximum concentrations of pollutants that when not exceeded are protective of the beneficial uses of the particular water body. They are generally set at the level required to protect the most sensitive beneficial use or at an even lower level based on antidegradation principles.

³ BPJ = Best Professional Judgement is the method used by permit writers to develop technology-based NPDES permit conditions on a case-by-case basis using all reasonably available and relevant data. BPJ limits are established in cases where effluent limitation guidelines are not available for a particular pollutant of concern. Authorization for BPJ limits is found under section 401(a)(1) of the Clean Water Act and under 40 CFR 125.3.

For Temperature:

The new temperature effluent limit is reflective of new information available which indicates that the 100°F temperature is not protective of aquatic organisms. A survey was completed for several kinds of fish and the 86°F temperature was found to be protective. The Basin Plan lists temperature requirements for the receiving waters.

⁴ Discharge limitations for these metals are expressed as total recoverable

E - Existing Permit.

CTR - California Toxics Rule

(b) Interim Effluent Limitations and Compliance Schedule for All Discharges to Discharge Serial No. 001

The Discharger may not be able to achieve immediate compliance with the WQBELs for bis(2-ethylhexyl)phthalate and copper. Data submitted in self-monitoring reports indicate that these constituents have been detected at concentrations greater than the new limits proposed in this Order. The Discharger may not be able to achieve immediate compliance with the effluent limitations based on CTR criterion for these constituents.

40 CFR 131.38(e) provides conditions under which interim effluent limits and compliance schedules may be issued. The CTR and SIP allow inclusion of an interim limit with a specific compliance schedule included in a NPDES permit for priority pollutants if the limit for the priority pollutant is CTR-based. Numeric interim limitations for the pollutants shall be based on current treatment facility performance. Interim limits for bis(2-ethylhexyl)phthalate and copper have been included in this Order. During the compliance period, the current treatment facility performance is imposed as the interim effluent limitations.

The SIP requires that the Regional Board establish other interim requirements, such as requiring the discharger to develop a pollutant minimization plan and/or source control measures, and participate in the activities necessary to develop final effluent limitations. When interim requirements have been completed, the Regional Board shall calculate final WQBELs for that pollutant based on the collected data, reopen the permit, and include the final effluent limitations in the permit provisions. Once final limitations become effective, the interim limitations will no longer apply. The interim limitations shall be effective until November 4, 2006, after which, the Discharger shall demonstrate compliance with the final effluent limitations.

Within six months from the effective date of the Order, the Discharger must prepare and submit a compliance plan that describes the steps that will be taken to ensure compliance with the final effluent limitations. Once final limitations become effective, the interim limitation will no longer apply. The Discharger is also required to submit to the Regional Board quarterly progress reports describing the progress of studies and or actions undertaken to reduce these compounds in the effluent, and to achieve compliance with the final limitations in this Order by the deadline specified in provision I.B.5. of the Order. The first annual progress report shall be submitted at the same time the annual summary report is due, as required in Section I.B of Monitoring and Reporting Program (*M&RP*) No. 6079.

From the effective date of this Order until November 4, 2006, all final discharges, including individual or combined waste streams from Discharge Serial No. 001, in excess of the following interim effluent limitations is prohibited:

Constituents	Units	30-day Average Discharge Limitations	Rationale
Bis(2-ethylhexyl) Phthalate	µg/L	17	MEC
Copper ¹	µg/L	100	MEC

¹ Discharge limitation for copper is expressed as total recoverable.

MEC= Maximum Effluent Concentration

5. **Monitoring Requirements**

The existing *M&RP* established separate monitoring requirements for Discharge Serial Nos. 001 and 002. As stated previously, plans for Discharge Serial No. 002 were not implemented and discharge never occurred from that location. The existing *M&RP* required monthly monitoring for temperature, total waste flow, oil and grease, BOD, pH, turbidity, settleable solids, TSS, and total dissolved solids (TDS) for discharges through Discharge Serial No. 001. The current *M&RP* required quarterly monitoring at Discharge Serial No. 001 for residual chlorine, fluoride, chloride, sulfate, nitrate+nitrite (as N), arsenic, cadmium, total chromium, copper, lead, mercury, selenium, silver, and zinc. It also required monitoring for priority pollutants once during the life of the permit.

(a) Effluent Monitoring For Furnace Drain Water Internal Outfall 01A

Monitoring shall occur at Internal Outfall 01A (Furnace Drain Water), prior to combining with other wastewater within the facility, to further characterize the waste stream and to determine compliance with the ELG-based effluent limitations. Most of the pollutants (i.e., conventional pollutants, minerals, phenols, sulfides, metals, remaining priority pollutants, MEK and the flow rate) are monitored once per discharge events.

(b) Effluent Monitoring For Discharge Serial No. 001

To demonstrate compliance with effluent limitations established in the permit and to assess the impact of the discharge on the beneficial uses of the receiving water, the proposed permit prescribed effluent monitoring in monthly basis for temperature, oil and grease, BOD, pH, turbidity, settleable solids, TSS, TDS, copper, and bis(2-ethylhexyl)phthalate. The monitoring frequency for copper has been increased from quarterly to monthly to determine compliance with interim effluent limitations. The monitoring frequency for flow has been increased from monthly to daily. Quarterly monitoring is prescribed for residual chlorine, fluoride, chloride, sulfate, phenols, sulfides, nitrate-nitrogen + nitrite-nitrogen (as

Nitrogen), arsenic, cadmium, total chromium, chromium VI, chromium, lead, mercury, selenium, silver, zinc, thallium, and cyanide. Methyl-ethyl-ketone was added to the monitoring requirements because it is used in the manufacturing process. It is used to clean ink jet machines that stamped the dates of the glass bottles. TCDD will be monitored in semi-annual basis. The remaining priority pollutants, acute toxicity and hardness are monitored annually. Hardness was added because it is necessary in calculating the WQBELs and as required in the SIP.

(c) Effluent Monitoring for Storm Water Runoff

The proposed Order requires the Discharger to collect a sample of storm water runoff at a point after the Rain Diversion prior to entering the storm drain. Most of the pollutants (i.e., conventional pollutants, minerals, phenols, sulfides, metals, remaining priority pollutants, MEK and the flow rate) are monitored once per discharge events.

In addition to the effluent monitoring for storm water runoff, the Discharger is also required to conduct rainfall monitoring and visual observation of all discharge points at least one storm event per month that produces a significant storm water discharge. The Discharger shall observe the presence of floating and suspended materials, oil and grease, discoloration, turbidity, and odor. A "significant storm water discharge" is a continuous discharge of storm water for a minimum of one hour, or the intermittent discharge of storm water for a minimum of three hours in a 12-hour period.