

**STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION**

TIME SCHEDULE ORDER NO. R4-2016-YYYY

**REQUIRING OWENS-BROCKWAY GLASS CONTAINER INC.
(OWENS-BROCKWAY GLASS CONTAINER INC. FACILITY)
TO COMPLY WITH REQUIREMENTS PRESCRIBED IN
ORDER NO. R4-2016-0122
(NPDES PERMIT NO. CA0056464)**

The California Regional Water Quality Control Board, Los Angeles Region, (hereinafter, Regional Water Board) finds:

1. Owens-Brockway Glass Container Inc. (hereinafter, Discharger or Owens-Brockway) is the owner and operator of Owens-Brockway Glass Container Inc. Facility (hereinafter Facility), a glass container manufacturing facility located at 2901 Fruitland Avenue, Vernon, California.
2. Owens-Brockway manufactures 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 from both new materials – consisting primarily of silica sand and soda ash, and recycled glass. The Facility discharges all process wastewater to the sanitary sewer or it is transported for offsite disposal.
3. The Facility discharges storm water to the Los Angeles River, a water of the United States. The discharge was previously regulated by Order No. R4-2010-0087 (adopted on June 3, 2010), as amended by Order No. R4-2010-0087-R on February 2, 2012, and expired on May 10, 2015.
4. On March 10, 2016, the Regional Water Board adopted Order No. R4-2016-0122, which renewed the waste discharge requirements for the Owens-Brockway Glass Container Inc. Facility. Order No. R4-2016-0122 serves as a permit under the National Pollutant Discharge Elimination System program (NPDES No. CA0056464) and regulates the discharge of storm water at the Facility. The permit authorizes the discharge of up to 0.843 million gallons per day (MGD) of storm water through two discharge points [Discharge Points 001 (0.163 MGD), and 002 (0.680 MGD)], to the Los Angeles River, a water of the United States. Order No. R4-2016-0122 becomes effective on June 1, 2016.
5. For Discharge Point 001, Order No. R4-2016-0122 prescribes new effluent limitations for antimony, chromium VI, pentachlorophenol and PCBs and more stringent effluent limitations for arsenic (mass-based only), cadmium (wet weather), copper (wet weather), lead (wet weather), mercury, selenium, thallium, zinc (wet weather), bis(2-ethylhexyl)phthalate; and TCDD equivalents (mass-based only). Order No. R4-2016-0122 also prescribes more stringent effluent limitations for copper (wet weather), lead (wet weather), selenium, bis(2-ethylhexyl)phthalate, zinc (wet weather); and TCDD equivalents (mass-based only) for Discharge Point 002. The new and/or more stringent effluent limitations for Discharge Points 001 and 002 are identified in Table 1 below:

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Table 1. New and/or More Stringent Final Effluent Limitations Contained in Order No. R4-2016-0122

Parameter	Units	Final Effluent Limitations	Rationale ²
		Maximum Daily	
Discharge Point 001			
Antimony, Total Recoverable	µg/L	6	MCL
	lbs/day ¹	0.0084	
Arsenic, Total Recoverable	µg/L	--- ³	MCL
	lbs/day ¹	0.014	
Cadmium, Total Recoverable (Wet Weather)	µg/L	3.1	TMDL
	lbs/day ¹	0.004	
Chromium (VI)	µg/L	16	CTR
	lbs/day ¹	0.022	
Copper, Total Recoverable (Wet Weather)	µg/L	17	TMDL
	lbs/day ¹	0.024	
Lead, Total Recoverable (Wet Weather)	µg/L	62	TMDL
	lbs/day ¹	0.09	
Mercury, Total Recoverable	µg/L	0.102	CTR
	lbs/day ¹	0.00014	
Selenium, Total Recoverable	µg/L	8.2	CTR
	lbs/day ¹	0.011	
Thallium	µg/L	2	MCL
	lbs/day ¹	0.003	
Zinc, Total Recoverable (Wet Weather)	µg/L	159	TMDL
	lbs/day ¹	0.22	
Pentachlorophenol	µg/L	1	MCL
	lbs/day ¹	0.0014	
Bis(2-ethylhexyl)Phthalate	µg/L	4	MCL
	lbs/day ¹	0.006	
PCBs	µg/L	0.00034	CTR
	lbs/day ¹	4.6E-07	
TCDD Equivalents	µg/L	--- ³	CTR
	lbs/day ¹	3.8E-11	
Discharge Point 002			
Copper, Total Recoverable (Wet Weather)	µg/L	17	TMDL
	lbs/day ¹	0.1	
Lead, Total Recoverable (Wet Weather)	µg/L	62	TMDL
	lbs/day ¹	0.35	
Selenium, Total Recoverable	µg/L	8.2	CTR

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Parameter	Units	Final Effluent Limitations	Rationale ²
		Maximum Daily	
	lbs/day ¹	0.05	
Zinc, Total Recoverable (Wet Weather)	µg/L	159	TMDL
	lbs/day ¹	0.9	
Bis(2-ethylhexyl)phthalate	µg/L	4	MCL
	lbs/day ¹	0.02	
TCDD Equivalents	µg/L	--- ³	CTR
	lbs/day ¹	1.6E-10	

¹ The mass-based effluent limitations in lbs/day were calculated using the concentration limits and the maximum storm water flow rate of 0.163 MGD for Discharge Point 001 and 0.680 MGD for Discharge Point 002.

² MCL = Maximum Contaminant Level; CTR = California Toxics Rule; TMDL = Los Angeles River Total Maximum Daily Load.

³ The concentration-based effluent limitations for these pollutants are not new or more stringent and therefore are not addressed by this TSO.

The new and/or more stringent effluent limitations prescribed in Order No. R4-2016-0122 are the result of an evaluation for reasonable potential of pollutant concentrations in the Facility's discharge. Groundwater recharge (GWR) of the underlying Los Angeles Coastal Plain's Central Groundwater Basin is also a beneficial use for the receiving water body (Los Angeles River Reach 2). The GWR beneficial use is protected using Maximum Contaminant Levels (MCLs). The effluent limitations for antimony, arsenic, thallium, bis(2-ethylhexyl)phthalate, and pentachlorophenol are based on the MCLs. The effluent limitations for chromium (VI), mercury, selenium, TCDD equivalents, and PCBs are based on the California Toxics Rule (CTR) to protect the beneficial uses of the receiving water. The wet weather effluent limitations for cadmium, copper, lead, and zinc are based on the Los Angeles River Metals TMDL.

- On March 28, 2016, the Discharger submitted a written request to the Regional Water Board for a time schedule order (TSO) and included a preliminary work plan schedule to implement a TSO. The Discharger indicated that it will be infeasible to achieve immediate compliance with the MCLs and the CTR-based effluent limitations established in Order No. R4-2016-0122. In addition, during the February 16, 2016, meeting between Regional Water Board and Owens-Brockway Glass Container Inc. representatives, Owens-Brockway requested interim effluent limitations and additional time to comply with the new and/or more stringent effluent limitations. The Discharger requested interim effluent limitations for the following pollutants: antimony, arsenic, cadmium (wet weather), chromium VI, copper (wet weather), lead (wet weather), mercury, selenium, thallium, zinc (wet weather), bis(2-ethylhexyl)phthalate, TCDD equivalents, pentachlorophenol, and PCBs for Discharge Point 001. For Discharge Point

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002, the Discharger requested interim effluent limitations for copper (wet weather), lead (wet weather), selenium, zinc (wet weather), bis(2-ethylhexyl)phthalate, and TCDD equivalents.¹

7. California Water Code (CWC) section 13300 states:

“Whenever a regional board finds that a discharge of waste is taking place or threatening to take place that violates or will violate requirements prescribed by the regional board, or the state board, or that the waste collection, treatment, or disposal facilities of a discharger are approaching capacity, the board may require the discharger to submit for approval of the board, with such modifications as it may deem necessary, a detailed time schedule of specific actions the discharger shall take in order to correct or prevent a violation of requirements.”

8. Monitoring data submitted by the Discharger during the period of December 2010 through January 2016 indicate that Owens-Brockway is not able to comply with the new and/or more stringent final effluent limitations prescribed in Order No. R4-2016-0122 for the pollutants identified in Table 1 above. Accordingly, pursuant to CWC section 13300, a discharge of waste is taking place and/or threatens to take place that violates or will violate requirements prescribed by the Regional Water Board.

9. CWC section 13385, subdivisions (h) and (i), require the Regional Water Board to impose mandatory minimum penalties upon dischargers that violate certain effluent limitations. Section 13385(j)(3) exempts violations of an effluent limitation from mandatory minimum penalties "where the waste discharge is in compliance with either a cease and desist order issued pursuant to Section 13301 or a time schedule order issued pursuant to Section 13300, *if all of the [specified] requirements are met.*" (emphasis added).

10. In order to comply with its waste discharge requirements and NPDES permit, the Discharger has completed a number of storm water drainage improvement projects and other measures to improve the quality of storm water discharges at the Facility. The Discharger has also submitted a work plan and schedule to implement additional measures and best management practices (BMPs), including Facility modifications and source reductions projects, to comply with permit requirements. The Facility modifications and source reduction projects, as well as the preliminary schedules, are listed below:

Completed Projects – Phase 1

In early 2015, the Discharger replaced an open top drain trench located in the parking lot near Discharge Point 001 with underground piping, catch basins, and manholes to eliminate a major source of sediment loading in storm water discharges. The old cracked concrete and asphalt in the area (approximately 2,000 square feet) was replaced with new concrete

¹ The Discharger also requested interim effluent limitations for nickel at Discharge Point 001, and arsenic, cadmium (wet weather), mercury, pentachlorophenol, and PCBs for Discharge Point 002. The monitoring data submitted for these pollutants does not indicate that the Discharger will be unable to comply with the final effluent limitations in Order No. R4-2016-0122 at those discharge locations. Therefore, this TSO does not address nickel at Discharge Point 001, nor does it address arsenic, cadmium (wet weather), mercury, pentachlorophenol, and PCBs for Discharge Point 002. The concentration-based limitations for arsenic at Discharge Point 001 and TCDD equivalents at Discharge Points 001 and 002 are not new or more stringent. Therefore, this TSO does not address these limitations.

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to improve the storm water drainage flow. During dry periods, rubber mats are placed over the manhole grates to prevent sediment from entering and accumulating in the catch basins. The Discharger replaced seals, gaskets, fittings, valves, piping, and ductwork associated with its furnace air pollution control equipment to eliminate discharges of sodium carbonate (trona) granules from the scrubber and electrostatic precipitator onto the surrounding pavement. A berm was also constructed on the pavement surrounding the area used for washing the equipment to capture the wash water for off-site disposal.

Underway Projects – Phases 2, 3, and 4

Phase 2 – Renovations of EFF-002 Drainage Area – In November 2015, the Discharger began a construction project to improve the drainage for storm water discharges through Discharge Point 002. The project includes installation of new drainage pipes, catch basins, manholes, and replacing the discharge point. It also includes removal of accumulated sediment and glass from the ground surface, and re-contouring of the ground surface. Approximately 72,000 square feet of concrete will be installed in areas that were previously unpaved or as a replacement for old, cracked concrete and asphalt. The paving and drainage improvement project for Discharge Point 002 is on-going. The Discharger anticipates that this phase will be completed in the second quarter of 2016.

Phase 3 - Installation of New Furnace Air Pollution Control Equipment to be located within a building - The facility's existing furnace air pollution control equipment is a closed loop system in which dry scrubbers use trona material to remove sulfur oxides from the furnace exhaust stream; electrostatic precipitators (EP) then remove the trona from the exhaust and return the trona to the glass melting furnaces as batch material. Discharges of trona granules from this system may adversely affect storm water quality. Due to the age and condition of the existing scrubbers and EPs, the Discharger intends to replace the system with a new state-of-the-art system that will be located within a building. Construction for this project is scheduled to begin in late 2016 or early 2017 with startup of the new furnace air pollution control equipment in mid-year 2017.

Phase 4 - Removal of Existing Exposed Furnace Air Pollution Control Equipment - After construction of the new furnace air pollution control equipment is completed and the system is brought on-line at the conclusion of Phase 3, the existing air pollution control scrubber and EP devices and all related structures and equipment will be removed by the earlier of fourth quarter 2018 or after the successful start-up, performance test and demonstrated stable operation of the new furnace air pollution control equipment.

It is anticipated that the Discharger will be in compliance with all final effluent limitations in Order No. R4-2016-0122 upon completion of Phases 2, 3 and 4. However, if necessary, the Discharger will implement additional BMPs, including new or modified housekeeping BMPs, the addition of catch basin filters, and/or storm water diversion and capture to maintain compliance with final effluent limitations.

Additional Environmental Improvements

In 2017 and 2018, the Discharger plans to re-brick both of the glass melting furnaces and will also update the furnace computer control systems to continue their operation as state-of-the-art oxyfuel glass melting furnaces. These furnace projects will include the replacement of piping and ductwork for the furnace exhaust and the raw material delivery systems. All of these changes

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will reduce the potential for dry materials to discharge from the glass manufacturing operation, thereby eliminating another source of pollutants in storm water discharges.

11. The Regional Water Board issues this TSO in recognition that the Discharger needs time to make infrastructure changes and implement appropriate control measures as described above. Through this TSO, the Discharger will be required to comply with the final effluent limitations in Table 1 no later than June 2, 2019.
12. In accordance with CWC section 13385(j)(3)(B)(i), the Regional Water Board finds that: (a) the final effluent limitations identified in Table 1 are new and/or more stringent limitations in Order No. R4-2016-0122, (b) the Discharger needs to implement new or modified control measures in order to comply with the new and/or more stringent effluent limitations, and (c) the new or modified control measures cannot be designed, installed, and put into operation within 30 calendar days.
13. Since the time schedule for completion of actions necessary to bring the waste discharge into compliance exceeds one year from the effective date of this TSO, this TSO includes interim requirements and the dates for their achievement. The interim requirements include both interim effluent limitations, identified in Table 2 of this TSO, and actions and milestones leading to compliance with the final effluent limitations for these pollutants. This TSO does not exceed five years.
14. The interim effluent limitations established in Table 2 of this TSO are based on the Facility's current performance data. The Discharger is also required to undertake specific actions to put the Discharger on the path towards compliance with the final effluent limitations in Table 1. The established time schedule is as short as possible, taking into account the technological, operation, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the final effluent limitations in Table 1. This TSO will provide the necessary time for the Discharger to make infrastructure changes and implement appropriate control measures or make necessary modifications to its operations to bring the Facility into full compliance with the final effluent limitations identified in Table 1 for pollutants discharged through Discharge Points 001 and 002.
15. CWC section 13385(j)(3)(D) requires the Discharger to prepare and implement a Pollution Prevention Plan (PPP) pursuant to CWC section 13263.3. Therefore, a PPP will be necessary for the pollutants addressed in this TSO.
16. A TSO is appropriate in these circumstances to allow time for the Discharger to complete facility modifications and necessary control measures that will bring the Facility into compliance with the final effluent limitations identified in Table 1. These facility modifications and control measures cannot be designed, installed, and put into operation within 30 calendar days. The temporary exceedances allowed by this TSO are in the public interest given the significant environmental benefits associated with implementing new more effective best management practices, installing new air pollution control equipment and promptly achieving compliance with the final effluent limitations for these pollutants for discharges of storm water through Discharge Points 001 and 002.
17. Pursuant to CWC section 13385(j)(3), full compliance with the requirements of this TSO exempts the Discharger from mandatory minimum penalties only for violations of the final effluent limitations for pollutants contained in Order No. R4-2016-0122 where interim effluent

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limitations have been included in Table 2 of this TSO and that occur while this TSO is effective.

18. This TSO concerns an existing facility and does not significantly alter the status with respect to the facility. This TSO is also being taken for the protection of the environment. Therefore, issuance of this TSO is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21100, et seq.) in accordance with sections 15301 and 15321(a)(2) of Title 14 of the California Code of Regulations (CCR).
19. The Regional Water Board has notified the Discharger, interested agencies, and persons of its intent to issue this TSO concerning compliance with waste discharge requirements and accepted written comments. The Regional Water Board considered all comments pertinent to this matter.
20. Any person aggrieved by this action of the Regional Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with CWC section 13320 and CCR, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

IT IS HEREBY ORDERED that, pursuant to California Water Code section 13300, Owens-Brockway Glass Container Inc., as the owner and operator of the Owens-Brockway Glass Container, Inc. Facility, shall comply with the requirements listed below to ensure its discharges comply with the final effluent limitations contained in Order No. R4-2016-0122, as identified in Table 1.

1. Comply immediately with the following interim effluent limitations for Discharge Points 001 and 002, which shall be deemed effective from the effective date of this TSO to June 1, 2019:

Table 2. Interim Effluent Limitations

Parameter	Units	Interim Effluent Limitations
		Maximum Daily
<i>Discharge Point 001</i>		
Antimony, Total Recoverable	µg/L	13 ²
	lbs/day ¹	0.018
Arsenic, Total Recoverable	---	Not Applicable
	lbs/day ¹	0.094 ³
Cadmium, Total Recoverable (Wet Weather)	µg/L	24.2 ³
	lbs/day ¹	0.033
Chromium (VI)	µg/L	30 ²
	lbs/day ¹	0.041

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Parameter	Units	Interim Effluent Limitations
		Maximum Daily
Copper, Total Recoverable (Wet Weather)	µg/L	72 ³
	lbs/day ¹	0.098
Lead, Total Recoverable (Wet Weather)	µg/L	189 ³
	lbs/day ¹	0.26
Mercury, Total Recoverable	µg/L	0.16 ²
	lbs/day ¹	0.0002
Selenium, Total Recoverable	µg/L	42 ²
	lbs/day ¹	0.057
Thallium	µg/L	11 ²
	lbs/day ¹	0.015
Zinc, Total Recoverable (Wet Weather)	µg/L	1806.5 ³
	lbs/day ¹	2.46
Pentachlorophenol	µg/L	5.2 ²
	lbs/day ¹	0.007
Bis(2-ethylhexyl)Phthalate	µg/L	9.8 ³
	lbs/day ¹	0.013
PCBs	µg/L	0.72 ²
	lbs/day ¹	0.001
TCDD Equivalents	---	Not Applicable
	lbs/day ¹	1.26E-08 ²
Discharge Point 002		
Copper, Total Recoverable (Wet Weather)	µg/L	47.7 ⁴
	lbs/day ¹	0.27
Lead, Total Recoverable (Wet Weather)	µg/L	129 ⁴
	lbs/day ¹	0.73
Selenium, Total Recoverable	µg/L	260 ⁴
	lbs/day ¹	1.48
Zinc, Total Recoverable (Wet Weather)	µg/L	970 ⁵
	lbs/day ¹	5.5
Bis(2-ethylhexyl)Phthalate	µg/L	5.1 ⁶
	lbs/day ¹	0.029
TCDD Equivalents	---	Not Applicable
	lbs/day ¹	5.12E-08 ⁵

¹ The mass-based effluent limitations in lbs/day were calculated using the concentration limits and the maximum storm water flow rate of 0.163 MGD for Discharge Point 001 and 0.680 MGD for Discharge Point 002.

² The interim effluent limitations were based on the maximum effluent concentration (MEC) from the Facility's monitoring data collected from Discharge Point 001 in December 2010 through January 2016.

- ³ The interim effluent limitations were derived from the Facility's monitoring data collected from Discharge Point 001 in December 2010 through January 2016 (excluding outliers) using the 99th percentile.
- ⁴ The interim effluent limitations were derived from the Facility's monitoring data collected from Discharge Point 002 in January 2013 through January 2016 using the 99th percentile.
- ⁵ The interim effluent limitations were based on the MEC from the Facility's monitoring data collected from Discharge Point 002 in January 2013 through January 2016.
- ⁶ The interim effluent limitations were based on the MEC from the Facility's monitoring data collected from Discharge Point 002 in January 2013 through January 2016 (excluding an outlier of 170 for bis(2-ethylhexyl)phthalate).

2. Comply with the actions and milestones as stipulated below:

No.	Task	Deadline
1.	Complete renovation of the drainage area for Discharge Point 002.	December 31, 2016
2.	Complete installation of New Furnace Air Pollution Control Equipment, including startup and performance test.	December 31, 2018
3	Remove Existing Exposed Furnace Air Pollution Control Equipment.	December 31, 2018
4	Additional Environmental Improvements: a. Re-brick glass melting furnaces. b. Replace piping and ductwork for furnace exhaust and raw material delivery systems. c. Update the furnace computer control systems.	May 31, 2019

3. Achieve full compliance with the final effluent limitations in Order No. R4-2016-0122, as identified in Table 1, as soon as possible, but no later than June 2, 2019.
4. Submit as soon as possible, but no later than September 1, 2016, a Pollution Prevention Plan (PPP), with time schedule for implementation, for approval by the Executive Officer pursuant to CWC section 13263.3.
5. Submit semiannual progress reports of efforts taken towards compliance with the final effluent limitations for the pollutants identified in Table 1 above. The reports shall summarize the progress to date, activities conducted during the reporting period, and the activities planned for the upcoming reporting period. Each report shall be submitted to this Regional Water Board by August 15th and February 15th for the reporting period of January 1st through June 30th and July 1st through December 31st, respectively, and include milestones completed and any new pertinent updates. The first semiannual report, covering the activities from June 1, 2016, through December 31, 2016, shall be received by the Regional Water Board on February 15, 2017.

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6. Submit a final report on the implementation and evaluation of the selected actions/measures by September 1, 2019. The report shall include: a) a description of the actions/measures selected, b) the monitoring data collected after the implementation of the selected actions/measures including treatment process, if any, and c) an evaluation of the effectiveness of the selected actions/measures.
7. Any person signing a document submitted under this TSO 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.”
8. If the Discharger fails to comply with any provision of this TSO, the Regional Water Board may take any further action authorized by law. The Executive Officer, or his/her delegee, may take appropriate administrative enforcement action pursuant, but not limited to, CWC sections 13350 and 13385. The Regional Board may also refer any violations to the Attorney General for judicial enforcement, including injunction and civil monetary remedies.
9. All other provisions of Order No. R4-2016-0122 not in conflict with this TSO are in full force and effect.
10. The Regional Water Board may reopen this TSO at its discretion or at the request of the Discharger, if warranted. Lack of progress towards compliance with this TSO may be cause for the Regional Water Board to modify the conditions of this TSO.
11. This Time Schedule Order becomes effective immediately upon issuance and it expires on June 2, 2019.

IT IS SO ORDERED.

Samuel Unger, P.E.
Executive Officer

Date

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