



**OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
OREGON TITLE V OPERATING PERMIT**

Northwest Region
700 NE Multnomah St., Suite 600
Portland, OR 97232
(503) 229-5263

Issued in accordance with provisions of ORS 468A.040
and based on land use compatibility findings included in the permit record.

ISSUED TO:

Owens-Brockway Glass Container Inc.
9710 NE Glass Plant Road
Portland, OR 97220

INFORMATION RELIED UPON:

EPA Order, Petition No. X-2020-2
Application No. 34117
MAO AQ/V-NWR-2020-208
SAFO 2021-08-09

PLANT SITE LOCATION:

9710 NE Glass Plant Road
Portland, OR 97220

LAND USE COMPATIBILITY STATEMENT:

Issued by: City of Portland
Dated: 03/14/1995

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

Joshua Alexander, Northwest Region Air Quality Permits Manager

Date

Nature of Business

SIC

NAICS

Container Glass Manufacturing

3221

327213

RESPONSIBLE OFFICIAL

Title: Plant Manager

FACILITY CONTACT PERSON

Title: EHS Manager/Plant Engineer

Phone: (567) 336-3429/3430

Table of Contents

LIST OF ABBREVIATIONS THAT MAY BE USED IN THIS PERMIT	3
PERMITTED ACTIVITIES	4
EMISSIONS UNIT (EU) AND POLLUTION CONTROL DEVICE (PCD) IDENTIFICATION	4
EMISSION LIMITS AND STANDARDS, TESTING, MONITORING, AND RECORDKEEPING REQUIREMENTS	6
PLANT SITE EMISSION LIMITS	22
EMISSION FEES	28
GENERAL TESTING REQUIREMENTS	28
GENERAL MONITORING AND RECORDKEEPING REQUIREMENTS	29
REPORTING REQUIREMENTS	31
NON-APPLICABLE REQUIREMENTS	36
GENERAL CONDITIONS	38

LIST OF ABBREVIATIONS THAT MAY BE USED IN THIS PERMIT

ACDP	Air Contaminant Discharge Permit	NSPS	New Source Performance Standard
ASTM	American Society for Testing and Materials	NSR	New Source Review
AQMA	Air Quality Maintenance Area	O2	oxygen
calendar year	The 12-month period beginning January 1st and ending December 31st	OAR	Oregon Administrative Rules
CAO	Cleaner Air Oregon	ORS	Oregon Revised Statutes
CFR	Code of Federal Regulations	O&M	operation and maintenance
CO	carbon monoxide	Pb	lead
CO2e	carbon dioxide equivalent	PCD	pollution control device
CPMS	continuous parameter monitoring system	PM	particulate matter
DEQ	Oregon Department of Environmental Quality	PM10	particulate matter less than 10 microns in size
dscf	dry standard cubic foot	PM2.5	particulate matter less than 2.5 microns in size
EF	emission factor	ppm	part per million
EPA	US Environmental Protection Agency	PSD	Prevention of Significant Deterioration
FCAA	Federal Clean Air Act	PSEL	Plant Site Emission Limit
Gal	gallon(s)	PTE	Potential to Emit
GDF	gasoline dispensing facility	RACT	Reasonably Available Control Technology
GHG	greenhouse gas	scf	standard cubic foot
gr/dscf	grains per dry standard cubic foot	SER	Significant Emission Rate
HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040	SERP	source emission reduction plan
HCFC	halogenated chloro-fluoro-carbon	SAFO	Stipulated Agreement and Final Order
ID	identification number	SIC	Standard Industrial Code
I&M	inspection and maintenance	SIP	State Implementation Plan
Lb	pound(s)	SO2	sulfur dioxide
MAO	Mutual Agreement and Final Order	Special Control Area	as defined in OAR 340-204-0070
MBT	Mono-butyl-tin trichloride	ST	Source test
MMBtu	million British thermal units	TACT	Typically Achievable Control Technology
NA	not applicable	VE	visible emissions
NESHAP	National Emissions Standards for Hazardous Air Pollutants	VOC	volatile organic compound
NOX	nitrogen oxides	year	A period consisting of any 12-consecutive calendar months

PERMITTED ACTIVITIES

1. Until such time as this permit expires or is modified or revoked, the permittee is allowed to discharge air contaminants from those processes and activities directly related to or associated with air contaminant source(s) in accordance with the requirements, limitations, and conditions of this permit. [OAR 340-218-0010 and 340-218-0120(2)]
2. All conditions in this permit are federally enforceable, meaning that they are enforceable by DEQ, EPA, and citizens under the Clean Air Act, except Conditions 9, 10, 11, 40, G5, G9, and G30 - G35 (OAR 340-248-0005 through 340-248-0180) are enforceable by only the state. [OAR 340-218-0060]

EMISSIONS UNIT (EU) AND POLLUTION CONTROL DEVICE (PCD) IDENTIFICATION

3. Prior to the construction and operation of the Catalytic Ceramic Filter (CCF) air pollution control system, the emissions units (EU) and pollution control devices (PCD) regulated by this permit are the following [OAR 340-218-0040(3)]:

EU ID	EMISSIONS UNIT (EU) Description	EU Device ID	PCD	PCD ID
EU1	Raw material (excluding in-house cullet) handling activities including unloading conveyor/elevator & storage silos	--	Truck shed baghouse Batch baghouse	RMBH-1 RMBH-2
EU2	Cullet crusher (in-house only)	CC5	None	--
EU3	Raw material blending equipment including conveyors/elevators, weigh bin hopper & surge bin, mixers/chargers.	--	Batch baghouse	RMBH-2
EU4	Glass melting furnace D (GM4) GM4 Refiner 1-2 ¹ GM4 Forehearth 1-2 ¹	GM4 R4 FH4	No control	--
EU5	Hot end surface treatment units	HEST1 - 2	HEST Abatement (NH ₃ injected baghouse)	HEST-A --
EU6	Natural gas combustion sources: Lehr 1-2 Mold burnout/curing oven Mold heat oven Quick fire oven	LH4 MO-1 MH-1 QF-1	None	--
EU7	Boiler	B1	None	--
EU9	Mold swabbers	MS	None	--
EU10	Machine repair dust collector at the machine repair area. Mold bench dust collector at the mold repair bench area.		Baghouse Baghouse	MRD-1 MBD-1
EU20	Plasma torch cutting of metal		None	--

¹ Natural gas combustion emissions from GM4 Refiner (R4) and Forehearth (FH4) are discharged separately from the furnace stack.

EU ID	EMISSIONS UNIT (EU) Description	EU Device ID	PCD	PCD ID
EU30	Heated parts cleaning tank		None	--

4. In addition to the emission units and control devices listed in Condition 3, Catalytic Ceramic Filters and auxiliary emission devices approved in Construction ACDP 26-1876-CS-01 and regulated by this permit are the following: [MAO NO. AQ/V-NWR-2020-208]

4.a. Emission Units:

EU ID	EMISSIONS UNIT (EU) Description	EU Device ID	PCD	PCD ID
EU4	Glass melting furnace D (GM4)	GM4	Catalytic Ceramic Filters	CCF
EU11	Dry sorbent Silo	SS02	Static Filters	SSF02
EU12	CCF Solids Handling Facility: Bulk Bagging Weigh Hopper Waste Silo Waste Receiver Feeder Filter	BB03 WH04 WS06 WR07 FF08	Static Filters	BB03 WH04 WS06 WR07 FF08

4.b. The CCF air pollution control system:

CCF Devices Description	Pollutant(s) Controlled	Emission Point ID
Sorbent Silo (SS02) with Static Dust Filter (EU-11)	PM	SSF02
NG direct-fired, inline Duct Burner with temperature control	--	CCF
Sorbent Injection in duct work	SO ₂	CCF
Ammonia Storage tank	--	Enclosed sys.
Ammonia Injection (in ductwork): The injection rate controlled by measuring the inlet NO _x rate	NO _x	CCF
Catalytic Ceramic Filters (CCF)	PM SO ₂ NO _x	CCF
Solids Handling (EU-12) Bulk Bagging Weigh Hopper Waste Silo Waste Receiver Feeder Filter [Note – PM Control by Static Dust Filter, NOL-TEC Model 279 or equivalent]	PM	BB03 WH04 WS06 WR07 FF08

EMISSION LIMITS AND STANDARDS, TESTING, MONITORING, AND RECORDKEEPING REQUIREMENTS

The following tables and conditions contain the applicable requirements along with testing, monitoring, and recordkeeping requirements for the emissions units to which those requirements apply.

Summary of Facility-wide Emission Limits and Standards

Applicable Requirement	Condition No.	Pollutant/Parameter	Limit/Standard	Monitoring Requirement	Monitoring Condition
340-206-0050	5	Pollutants Specified	SERP	Recordkeeping	6
340-208-0210	7	Fugitive Dust	Preventive maintenance	I&M Recordkeeping	8
340-208-0300	9	Air Contaminants	Not Cause a Nuisance	Complaint Investigation Recordkeeping	11
340-208-0450	10	PM >250m	No Observable Deposition Off -Site	Complaint Investigation Recordkeeping	11
40 CFR Part 68	12	Risk Management	Risk Management Plan	N/A	12
OAR 340-202-0050	13	PM _{2.5} , SO ₂ , NO _x	NAAQS	Modelling Analysis, Recordkeeping	14 & 15

5. **SOURCE EMISSION REDUCTION PLAN:** In the event an Air Pollution Alert, Warning, or Emergency Episode for the pollutant specified below is declared in the Portland area by the Department, the permittee must take action appropriate to the episode condition as described below. The permittee must take such action when the permittee first becomes aware of such a declaration whether through news media, direct contact with the Department, or from other sources. This Condition no longer applies after the CCF control is installed and operating. [OAR 340-206-0050]

<u>Episode Level</u>	<u>Pollutant</u>	<u>Action to be taken</u>
<u>Alert:</u>	<u>Any pollutant</u>	1. Review SERP to prepare for possible further action. 2. Postpone any scheduled increase in production. 3. Actively promote and organize carpools for employees.
<u>Warning:</u>	<u>PM₁₀</u>	1. Reduce production wherever feasible. 2. Postpone any maintenance on furnace or boiler firing system.
	<u>CO</u>	1. Organize carpooling to achieve at least 3 passengers per vehicle
	<u>Ozone</u>	1. Prohibit spray painting operations.

<u>Emergency:</u>	<u>Any pollutant</u>	<ol style="list-style-type: none"> 1. Cease production and place glass furnaces on a shutdown status, except maintain the minimum temperature to prevent glass solidification. 2. Reduce the number of employees at the plant to a skeleton crew to prevent damage to process equipment and to provide security.
--------------------------	----------------------	--

6. **Monitoring Requirement:** The permittee must maintain a log summarizing actions-taken during an applicable air pollution episode pursuant to Condition 5.

7. **Fugitive Dust Control Requirement:** The permittee must not cause or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired or demolished; or any equipment to be operated, without taking reasonable precautions to prevent particulate matter from becoming airborne.
 - 7.a. Such reasonable precautions may include, but not be limited to the following: [OAR 340-208-0210(1)]
 - 7.a.i. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land;
 - 7.a.ii. Application of water, or other suitable chemicals on unpaved roads, materials stockpiles, and other surfaces which can create airborne dusts;
 - 7.a.iii. Full or partial enclosure of materials stockpiles in cases where application of water or chemicals are not sufficient to prevent particulate matter from becoming airborne;
 - 7.a.iv. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials;
 - 7.a.v. Adequate containment during sandblasting or other similar operations;
 - 7.a.vi. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; and
 - 7.a.vii. Prompt removal from paved streets of earth or other material that does or may become airborne.
 - 7.b. Upon request by DEQ, the permittee must develop a fugitive emission control plan for approval by DEQ if the above precautions are not adequate, and implement the plan whenever fugitive emissions leave the property for more than 18 seconds in a six-minute period.

8. **Monitoring Requirement:** The permittee must visually survey the area where any sources of excess fugitive visible emissions including but not limited to material transport and storage equipment, raw material unloading and handling area, cullet crushers, etc. The visible emissions survey must be conducted daily during periods when the potential for visible emissions exists such as when materials are being unloaded or when waste bins are

being emptied, and during dry high-wind days. For the purpose of this survey, excess fugitive emissions are considered to be any visible emissions that leave the plant site boundaries for more than 18 seconds in a six-minute period. The person conducting the observation must follow the procedures of EPA Method 22. If sources of visible emissions are identified, the permittee must:

- 8.a. Immediately take corrective action to minimize the fugitive emissions, including but not limited to those actions identified in Condition 7; or
- 8.b. Develop a DEQ approved fugitive emission control plan upon request by DEQ and implement the plan whenever fugitive emissions leave the property for more than 18 seconds in a six-minute period. [OAR 340-218-0050(3)]
- 8.c. Recordkeeping: The permittee must maintain records of the fugitive emissions surveys, corrective actions (if necessary), and/or the results of any EPA Method 22 tests.

Nuisance Conditions

9. Applicable Requirement: The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by DEQ personnel. [OAR 340-208-0300] This condition is enforceable only by the State.
10. Applicable Requirement: The permittee must not cause or permit the deposition of any particulate matter larger than 250 microns in size at sufficient duration or quantity as to create an observable deposition upon the real property of another person. [OAR 340-208-0450] This condition is enforceable only by the State.
11. Monitoring Requirement: The permittee must maintain a log of each complaint received by the permittee in person, in writing, by telephone or through other means that specifically refer to air pollution or odor concerns associated with and during the operation of the permitted facility. Documentation must include date of contact, time and description of observed pollution or odor condition, location of receptor, status of plant operation during the observed period, and time of response to complainant. A plant representative must immediately (i.e., within one business day) investigate the condition following the receipt of the nuisance complaint and a plant representative must provide a response to the complainant within 24 hours, if possible. This condition is only enforceable by the state. [OAR 340-218-0050(3)(a)]

Accidental Release Prevention/Risk Management Plan

12. Applicable Requirement: Should this stationary source become subject to the accidental release prevention regulations in 40 CFR Part 68, then the permittee must submit a risk management plan (RMP) by the date specified in 40 CFR 68.10 and comply with the plan and all other applicable Part 68 requirements. [40 CFR Part 68]

National Ambient Air Quality Standard (NAAQS) Impact Analysis Conditions

13. The permittee must comply with the following conditions limiting glass production rates to protect NAAQS. [ORS 468A.025(4), OAR 340-226-140(1), OAR 340-202-0050(2)]
 - 13.a. The annual glass production must not exceed 70,000 tons in any consecutive 12-month period.
 - 13.b. The daily glass production must not exceed 190.8 tons per day.
 - 13.c. The hourly glass production must not exceed 7.95 tons glass per hour.
14. Monitoring and Recordkeeping Requirement: The permittee must monitor and maintain records of the following material and process parameters:
 - 14.a. Hourly glass production (tons/hr);
 - 14.b. Daily glass production (tons/day);
 - 14.c. Monthly glass production (tons/month); and
 - 14.d. Annual glass production (tons/consecutive 12-month period)
15. NAAQS Verification Modeling [CACDP 26-1876-CS-01, No.12]
 - 15.a. No later than 6 months after the CCF pollution control system is built and operating, unless otherwise approved by DEQ in writing, the permittee may perform air dispersion modeling analysis based on updated facility profile and emission points to demonstrate compliance with National Ambient Air Quality Standards (NAAQS).
 - 15.b. The stack dimensions and the emission points of the completed CCF air pollution control system must be included with the construction completion notice submitted to DEQ.
 - 15.c. A site survey, or similar documentation containing the as-built stack dimensions, must be maintained on-site and kept for the life of the source.
 - 15.d. The permittee must sufficiently restrict public access to the source at the ambient air boundary relied upon in the air dispersion modeling analysis for the NAAQS compliance demonstration. The vertices of the boundary must be located at the coordinates as referenced in the permittee's December 17, 2021, air dispersion modelling submittal.
 - 15.e. A site survey, or similar documentation containing the locations of the boundary vertices, must be maintained on-site and kept for the life of the source. If the boundary dimensions change (plus or minus 5 meters), the permittee must notify DEQ prior to start-up of any emission unit and, if requested, submit a revised air dispersion modeling analysis to DEQ to ensure that the source will not interfere with the attainment or maintenance of the ambient air quality standards.
 - 15.f. DEQ may modify or remove the production limits specified in Condition 13 and associated monitoring specified in Condition 14 provided the updated modelling

analysis determines the production restrictions are no longer needed to meet the NAAQS.

16. Schedule to install and operate CCF system: The permittee must comply with the following schedule for installing and operating the CCF system set forth in and as may be modified by DEQ pursuant to Mutual Agreement and Final Order No. AQ/V-NWR-2020-208, fully executed on October 22, 2021. [ACDP 26-1876-CS-01, OAR 340-218-0080(4)]
- 16.a. By September 9, 2023, complete construction drawings and submit a copy to DEQ;
- 16.b. By December 9, 2023, begin on-site construction at the Facility to install the CCF system and submit written notification of the construction start date to DEQ. This notification also meets the NSPS notification required in 40 CFR 60.296(a);
- 16.c. By May 9, 2024:
- 16.c.i. Complete the installation of the CCF system on GM4 and submit a Construction Completion Notice to DEQ; and
- 16.c.ii. Operate the CCF system on GM4 in compliance with the applicable requirements of this permit.
- 16.d. Submit monthly progress reports to DEQ until the CCF system is installed and operating. The monthly progress reports must be submitted within ten business days after the close of the previous calendar month and must document progress on the engineering, permitting, purchasing, site preparation, construction and installation of the CCF system.
- 16.e. Submit written notification to DEQ within one business day of commencing operation of the CCF system according to Condition 16.c.ii.

Requirements for GM4 Furnace and CCF

Applicable Requirement	Condition Number	Pollutant/Parameter	Limit/Standard	Monitoring Requirement	Monitoring Condition
340-226-0210(2)	17	PM/PM ₁₀	0.10 gr/scf	Source Testing COMS	18
40 CFR 60.293(b)	19.a	PM/PM ₁₀	1 lb PM/ton glass	Source Testing COMS	20
40 CFR 60.292	19.b	PM/PM ₁₀	0.2 lb PM/ton glass	Source Testing	20
MAO: AQ/V-NWR-2020-208	19.c	PM/PM ₁₀	95% Removal	Source Testing	20
40 CFR 60.293(c)	21.e or 21.f	PM/PM ₁₀	Opacity Value	COMS	21
40 CFR 60.7	22	(Visible Emissions)	Recordkeeping Reporting	Recordkeeping Reporting	22

Applicable Requirement	Condition Number	Pollutant/Parameter	Limit/Standard	Monitoring Requirement	Monitoring Condition
MAO: AQ/V-NWR-2020-208	23	Interim Opacity Limit	8.5% opacity, 3-hour block average	COMS	23
340-208-0110(7)	24	Visible emissions	20% opacity, 6-minute block average	COMS	25
AQ/V-NWR-11-092	27	Opacity	Corrective Action Plan	I&M Recordkeeping	27
40 CFR 63.11451	28	Metal HAPs	0.02 lb HAPs/ton glass manufacturing metal HAPs)	Source Testing Recordkeeping	29, 30

17. **TOTAL PARTICULATE MATTER EMISSIONS STANDARD FOR GM4 FURNACE AND CCF:**

The permittee must not cause or allow emissions of particulate matter in excess of 0.10 grains per dry standard cubic foot (gr/dscf), from glass melting furnace GM4 operating either with or without the CCF controls. Particulate matter emissions must be determined from the source testing conducted per Condition 18, which may coincide with (filterable PM) source test performed per Condition 20. [OAR 340-226-0210]

18. **MONITORING AND TESTING REQUIREMENTS:** The permittee must perform testing and monitoring to determine compliance with the Total PM limit specified in Condition 17 in accordance with the following methods and procedures: [OAR 340-218-0050(3); MAO No. AQ/V-NWR-2020-208]

18.a. **Uncontrolled GM4:** Within 1-year from the date of the permit issuance and every 1-year thereafter until the GM4 furnace is operating with the CCF pollution controls, the permittee must determine the total PM emissions from GM4 by conducting source testing using EPA Methods 5 and 202, or DEQ Method 5 in accordance with the methods and procedures established in Conditions 43 and 44. If the permittee installs and begins operating the CCF pollution controls in accordance with Condition 16.c, then the permittee shall perform testing in accordance with Condition 18.b instead of this Condition 18.a.

18.b. **GM4 operating with CCF:** Within 90 days of installing and operating the CCF pollution controls, and every 5-years thereafter, the permittee must determine the total PM emissions from GM4/CCF by conducting source testing using EPA Methods 5 and 202, or DEQ Method 5 in accordance with the methods and procedures established in Conditions 43 and 44.

19. **FILTERABLE PARTICULATE MATTER NSPS EMISSIONS STANDARD FOR GM4 AND NSPS AND MAO EMISSION STANDARDS FOR CCF:**

19.a. **Uncontrolled GM4:** Before the CCF pollution control system is installed and operating per Condition 16, the emissions of filterable particulate matter from glass melting furnace GM4 operating without the CCF controls must not exceed 0.5 grams per kilogram of glass produced (1 lb PM/ton glass), as measured in

accordance with methods and procedures specified in Condition 20. [40 CFR 60.293(b)(1)]

19.b. GM4 operating with CCF: After the CCF pollution control system is installed and operating, the emissions of filterable particulate matter from GM4/CCF must not exceed 0.1 grams per kilogram of glass produced (0.2 lb PM/ton glass), as measured in accordance with methods and procedures specified in Condition 20. [40 CFR 60.292]

19.c. GM4 operating with CCF: After the CCF pollution control system is installed and operating, the emissions of filterable particulate matter entering CCF must be reduced by at least 95 percent, as measured in accordance with methods and procedures specified in Condition 20. [MAO No. AQ/V-NWR-2020-208]

20. **TESTING REQUIREMENT FOR GM4 AND CCF**: The permittee must determine the filterable PM emissions from GM4 in accordance with the following methods, procedures, and frequency: [OAR 340-212-0120; MAO No. AQ/V-NWR-2020-208]

20.a. Uncontrolled GM4: Within 1-year from the date of the permit issuance and every 1-year thereafter until the GM4 furnace is operating with the CCF pollution controls, the permittee must determine the uncontrolled filterable-PM emissions from GM4 are in compliance with the filterable PM standard of “0.5 grams Filterable PM per kilogram of glass produced” specified in Condition 19.a. If the permittee installs and begins operating the CCF pollution controls in accordance with Condition 16.c, then the permittee shall perform testing in accordance with Condition 20.b instead of this Condition 20.a.

20.b. GM4 operating with CCF: Within 90 days of installing and operating the CCF pollution controls, and every 24-months thereafter except as specified in Condition 20.b.ii, the permittee must determine the filterable-PM emissions from GM4/CCF are in compliance with the filterable PM standard of “0.1 grams Filterable PM per kilogram of glass produced” specified in Condition 19.b; and the 95% removal efficiency specified in Condition 19.c.

20.b.i. The 95% removal efficiency must be determined by comparing the PM emissions (lbs/unit) in exhaust from the CCF stack to the PM load at the inlet to the CCF system filters.

20.b.ii. If the removal efficiency determined from two consecutive source tests is 98% or better, the permittee may reduce the testing frequency to once every 5-years.

20.c. To enable testing, permittee must design and install, in accordance with EPA Method 1, accessible sampling ports at the inlet and the outlet to the CCF control device;

20.d. Compute the filterable PM emission rate from EU4 using the following equation:

$$E = ((c_s Q_{sd}) - A) / P + E_{R\&FH}$$

where:

E = emission rate of particulate matter, g/kg

c_s = concentration of particulate matter, g/dscm

Q_{sd} = volumetric flow rate, dscm/hr

A = zero production rate correction, 227 g/hr

P = glass production rate, kg/hr

$E_{R\&FH}$ = Additional PM emissions from NG combustion from refiner and forehearths, default value = 9.4×10^{-4} g/kg

- 20.e. Use EPA method 5 to determine the PM concentration (c_s) and volumetric flow rate (Q_{sd}) of the effluent gas. The sampling time and sample volume for each run must be at least 60 minutes and 0.90 dscm (31.8 dscf); and
- 20.f. Use direct measurement or material balance using good engineering practice to determine the amount of glass pulled during the performance test.

21. **NSPS - CONTINUOUS OPACITY MONITORING REQUIREMENT FOR GM4 FURNACE WITHOUT CCF:**

Until the GM4 furnace is operating with the CCF pollution controls, the permittee must use continuous opacity monitoring system (COMS) to measure the opacity values corresponding to visible emissions discharged into the atmosphere from the glass-melting furnace GM4. [40 CFR 60.293(c)]

- 21.a. The opacity value must be measured based on 6-minute averaging.
- 21.b. On a daily basis, calibrate the COMS according to the manufacturer's specifications.
- 21.c. On an annual basis, calibrate the COMS according to the procedures specified in 40 CFR 60, Appendix B, Performance Specification 1 (PS-1). The alternative procedures must be approved by DEQ in writing.
- 21.d. All opacity readings including the records of "excess emissions" as defined in Condition 22.a must be compiled and readily accessible for inspection by the DEQ staff.
- 21.e. **Opacity Value:** The 99 percent upper confidence level for Furnace D at the time of permit issuance and according to 40 CFR 60.293(e) is 6.3%, based on a source test conducted in June 2020.
- 21.f. **Opacity Value:** The permittee may redetermine the Opacity Value for furnace GM4 in Condition 21.e by subsequent source testing in accordance with 40 CFR 60.293 (e).

22. **NSPS - REPORTING REQUIREMENT FOR GM4 FURNACE WITHOUT CCF:** Until the GM4 furnace is operating with the CCF pollution controls, the permittee must report to DEQ and EPA of all "excess emissions" determined from COMS readings of Condition 21 in accordance with the procedures specified in this condition. [40 CFR 60.7 (d) & (e); 40 CFR 60.293(c)(5)]

- 22.a. For the purpose of the notification required under this condition (but not for purpose of Condition 52), “excess emissions” are all of the opacity values based on a 6-minute average that exceed the Opacity Value corresponding to the 99 percent upper confidence level determined in Condition 21.e or 21.f.
- 22.b. Submit quarterly summary reports (i.e., every 3-month; 1st quarter is January through March) that include a summary of excess emissions, if any, for the preceding quarter, including the following information:
- 22.b.i. Title-V reporting form **R1002-A** signed by responsible official;
 - 22.b.ii. duration of excess emissions (minutes) and corresponding date and time;
 - 22.b.iii. explanation of the cause of excess emissions such as startup/shutdown, process problems, and/or other known and unknown causes;
 - 22.b.iv. total duration of excess emissions during the reporting period;
 - 22.b.v. total operating time of furnace GM4;
 - 22.b.vi. the percentage (%) of excess emissions in comparison to total furnace operating time;
 - 22.b.vii. the percentage (%) of COMS downtime, if any, in comparison to total furnace operating time; and
 - 22.b.viii. submit the quarterly report by no later than 30 days after the end of preceding quarter.
- 22.c. Reduce the frequency of excess emission reporting to semi-annually, and submit the report no later than 30 days after the end of preceding 6-month period, if the following conditions are met: [40 CFR 60.7(d)(1)]
- 22.c.i. The total duration of excess emissions determined in Condition 22.b.vi is less than 1% of the total furnace operating time for the entire year; and
 - 22.c.ii. COMS downtime determined in Condition 22.b.vii for the same period is less than 5% of the total furnace operating time;
- 22.d. If total duration of excess emissions or COMS downtime determined in Condition 22.b.vi or 22.b.vii is equal to or greater than their respective percentage limit shown in Condition 22.c.i or 22.c.ii, increase the frequency of excess emission reporting to quarterly. In addition, the excess emission reporting must conform to requirements specified in 40 CFR 60.7(c), in lieu of quarterly summary report described in Condition 22.b.
23. Interim Opacity Limit for GM4 Furnace without CCF: Until the GM4 furnace is operating with the CCF pollution controls, the permittee must meet the following conditions: [MAO No. AQ/V-NWR-2020-208]
- 23.a. The average opacity of Furnace GM4 emissions, as measured by the COMS, must not exceed 8.5%, excluding any uncombined water, for any three hour block period

- (i.e., the average of the thirty consecutive six-minute periods within the block must not exceed 8.5%); and
- 23.b. Submit six-minute COMS data for Furnace D to DEQ for each calendar quarter, by no later than 30 days after the end of the preceding quarter. The submittal must identify any three hour block period (the average of thirty consecutive six-minute averages) that exceed 8.5%, excluding any uncombined water, provide an explanation for the cause of the elevated opacity during that period, and describe any corrective actions taken. The report must include:
- 23.b.i. total duration of excess emissions during the reporting period;
 - 23.b.ii. total operating time of furnace GM4; and
 - 23.b.iii. the percentage (%) of excess emissions in comparison to total furnace operating time.
24. **VISIBLE EMISSIONS LIMIT FOR GM4 OR GM4/CCF:** The permittee must not cause or allow the emissions of any air contaminant into the atmosphere that is equal to or greater than 20% opacity based on 6-minute average, excluding uncombined water, from emission points of the glass melting furnace GM4,; or GM4/CCF (i.e., CCF stack). Opacity must be measured in accordance with Condition 25 for GM4 uncontrolled. After the CCF controls and operating, opacity will be monitored in accordance with Condition 26. [OAR 340-208-0110]
25. **MONITOR AND RECORD FOR GM4 WITHOUT CCF:** Before the CCF controls are installed and operating, the permittee must monitor visible emissions from GM4 (before CCF) in accordance with the procedures, test methods, and frequencies specified in this condition.
- 25.a. The opacity reading obtained from the continuous opacity monitoring system (COMS) must be used to demonstrate compliance with the applicable 20% opacity limit specified in Condition 24.
 - 25.b. The visible emissions must be measured based on the average of 24 consecutive observations recorded at 15-second interval, or more frequently, which comprise a six-minute block. Six-minute blocks need not be consecutive in time and in no case may two blocks overlap.
 - 25.c. The COMS must be calibrated for daily instrument zero and upscale drift checks in accordance with Procedure-3 established in 40 CFR part 60, Appendix F.
 - 25.d. The quarterly performance audits must be performed on COMS in accordance with Procedure-3 established in 40 CFR part 60, Appendix F.
 - 25.e. On a weekly basis, inspect optical surfaces of the Optical Head and Retro Assemblies and the sampling ports. Check the lens and purge air filters. Clean the lens and ports, and replace the filter as necessary.
 - 25.f. The COMS must be maintained and operated in accordance with the procedures outlined in COMS Preventative Maintenance Plan submitted per Section II, Paragraph 3.d of Mutual Agreement and Final Order AQ/V-NWR-2020-208 and approved by DEQ on January 11, 2022.

- 25.g. All COMS data including the records of exceedances of the 20% opacity limit must be kept at the plant site for inspection. Monitor and record all date(s) corresponding to the exceedance period(s), if any.
26. **MONITOR AND RECORD FOR GM4 WITH CCF:** After the CCF controls are installed and operating, the permittee must monitor visible emissions from CCF (controlled GM4) in accordance with the procedures, test methods, and frequencies specified in this condition; or, at permittee's election, permittee may continue to utilize COMS as specified in condition 25:
- 26.a. The permittee must conduct a six (6) minute visible emission survey using the procedures outlined in EPA Method 22, starting with a minimum frequency of once per day. The minimum monitoring frequency specified is also the required interval between two consecutive monitoring periods, except as noted in condition 26.e.
- 26.b. All visible emissions observations must be conducted during operating conditions that have the potential to create visible emissions.
- 26.c. If visible emission is detected for more than 5% (18 seconds) of the survey time, check the equipment for malfunction and correct the problem; then re-check for visible emissions within an hour. If visible emissions persist for more than 5% of the time, an EPA Method 9 test must be conducted immediately for a six (6) minute period in accordance with the Department's Source Sampling Manual. If any of the observations during the specified 6-minute period exceed the applicable 20% opacity limit, the observation period shall continue until 60 minutes of observations have been completed or until an exceedance of the opacity limit has been documented.
- 26.d. If the observer is unable to conduct the visible emission survey per EPA Method 22 and/or modified EPA Method 9 tests due to visual interference caused by other visible emissions sources (e.g., fugitive emissions during high wind conditions) or due to weather conditions such as fog, heavy rain, or snow, the observer shall note such conditions on the data observation sheet and make at least three attempts in same day to conduct the surveys and/or tests at approximately 2 hours intervals throughout the day. If no observations are made for that day, the observer shall continue to attempt to conduct the visible emission survey and/or modified EPA Method 9 daily until a valid observation is made.
- 26.e. **Reduced Monitoring:** If Method-22 visible emissions surveys conducted during 10 consecutive observation days show no visible emissions, the permittee may reduce the minimum monitoring frequency to once per week. If visible emissions are detected during the weekly visible emissions surveys or when requested by the DEQ inspector, the observations for that source of visible emissions must start over with daily surveys, as noted in Condition 26.a.

27. Corrective Action Plan applicable to GM4 without CCF: To prevent visible emissions from exceeding the 20% opacity limit set forth in Condition 24, until the CCF controls are installed and operating, the permittee must continue to comply with the corrective action plan approved by DEQ by letter dated April 17, 2012, as amended by DEQ letters dated July 10, 2013, October 29, 2013, May 28, 2015, and September 2, 2015, and any further amendments approved by DEQ in writing. Monthly reports regarding implementation of the corrective action plan must be submitted to DEQ by the fifteenth of each month. [AQ/V-NWR-11-092]
- In addition, the permittee must adhere to the following operational constraints:
- 27.a. Until the CCF controls are installed and operating, shut off the gas whenever COMS reads the opacity exceeding 14% for more than 90 seconds; and
- 27.b. The monthly report must include any changes to the corrective actions implemented (e.g., covers on cullet piles).
28. **NESHAP SUBPART SSSSSS - METAL HAPs EMISSIONS LIMIT:** The permittee must limit the mass emission rate of production-based metal HAP (i.e., glass manufacturing metal HAP as defined in §63.11459) based on a 3-hour block average to less than 0.02 pounds per ton of glass produced (0.02 lbs HAP/ton glass). [40 CFR §63.11451]
- 28.a. Production based metal HAP includes an oxide or other compound of any of the following metals intentionally added as raw materials: arsenic, cadmium, chromium, lead, manganese, and nickel. Production based metal HAP do not include metals that are naturally present in the raw materials as trace constituents or contaminants of other substances, as defined in §63.11459. Cullet and materials that are recovered from the process stream and recycled into the glass formulation are not considered to be raw materials.
- 28.b. Alternative NESHAP PM limit for GM4 operating with CCF: In lieu of the 0.02 lbs metal HAPs/ton glass limit, the permittee may choose to limit the mass emission rate of filterable PM based on a 3-hour block average to less than 0.2 pounds per ton of glass produced (0.2 lbs PM/ton glass), as determined from testing performed in accordance with Condition 20.b.
29. **TESTING REQUIREMENTS:** Within 90 days of producing any green glass containing more than 0.17% chromium that has not been tested previously, except as specified in Condition 28.b, the permittee must determine the production-based metal HAP emissions from glass melting furnace D (GM4) in accordance with the methods and procedures specified in Conditions 29.a through 29.c:
- 29.a. Perform Source testing while the furnace is operating at the maximum production rate; and while producing glass that has the highest potential to emit the production-based metal HAP as specified in condition 28.a.

- 29.b. Conduct at least three separate test runs. For each test run lasting at least one hour, compute the production-based metal HAP emission rate at the furnace stack using Method 29 of 40 CFR part 60, appendix A-8.
- 29.c. Compute the 3-hour block average production-based metal HAP mass emission rate as the average of the production-based metal HAP mass emission rates for each test run:

$$\text{MPM} = \text{ERM} / \text{P} \quad [\text{Equation 2, } [\S 63.11452(\text{b})(14)(\text{iv})]]$$

where:

MPM = Production based metal HAP emission rate, lbs HAP/ton glass

ERM = Sum of the production-based metal HAP emission rate as measured per Condition 29.a, lbs/hr

P = glass production rate, tons/hr

30. **MONITOR AND RECORD:** The permittee must perform all required monitoring from the time the affected furnace is charged with any one of the production-based metal HAP and continue until the end of transition period.
- 30.a. The transition period begins when the furnace is charged with raw materials that do not contain any of the production-based metal HAP and ends when the furnace begins producing salable non-affected glass (i.e., amber colored glass).
- 30.b. Monitor and record the rate of production-based metal HAP added to the glass batch formulation as a percentage (%), for each batch formulation used.
- 30.c. Compare the production-based metal HAP raw material feed rate (%) to the highest feed rate used during source testing in Condition 29.a.
- 30.d. Until the source test results of Condition 29 becomes available, compare the production-based metal HAP raw material feed rate to the feed rate used during the 12/08/2008 source test, which was used for the initial notification.
- 30.e. Use the equation below to estimate the HAP emission rate:

$$E_{\text{HAP}} = \frac{E_{\text{HAP-ST}} * \text{FEED}_{\text{HAP}}}{\text{FEED}_{\text{HAP-ST}}} \quad (\text{lbs HAP/ton glass})$$

where

E_{HAP} = Metal HAP emission rate

$E_{\text{HAP-ST}}$ = Metal HAP emission rate from applicable source test of Condition 29 or 30.d

FEED_{HAP} = Production based metal HAP raw material feed rate

$\text{FEED}_{\text{HAP-ST}}$ = Metal HAP raw material feed rate during applicable source test of Condition 29 or 30.d

- 30.f. All records of this condition must be kept on site and available for review by DEQ.

- 30.g. Report the highest E_{HAP} noted each month with the annual report submitted per Condition 56.b.
- 30.h. Additional Monitoring and Reporting after CCF: [40 CFR 63.11454]
- 30.h.i. The Monitoring system must meet the requirements of 40 CFR 63.11454(a); and
- 30.h.ii. Monitor the inlet temperature to the CCF according to 40 CFR 63.11454(c); or
- 30.h.iii. submit a written request for alternative monitoring conforming to 40 CFR 63.11454(g).

Requirements for EU6 Fuel Burning Equipment and EU7 Boiler

Applicable Requirement	Condition Number	Pollutant/Parameter	Limit/Standard	Monitoring Requirement	Monitoring Condition
340-228-0210(2)(a)(B)(ii) or (b)(B)	31	PM	0.15 gr/dscf, (EU7) 0.14 gr/dscf (EU6)	VE Recordkeeping	32 waiver
340-208-0110	32	Opacity	< 20%, 6 min avg.	VE Recordkeeping	
340-226-0110	33	All	Natural Gas only	Recordkeeping	39.a

31. PARTICULATE MATTER EMISSIONS STANDARD FOR EU7 BOILER & EU6 OVENS: The permittee must not emit particulate matter emissions in excess of the following limits:
- 31.a. 0.15 grains per dry standard cubic foot for EU7 Boiler (B1). [OAR 340-228-0210 (2)(a)(B)(ii)]
- 31.b. 0.14 grains per dry standard cubic foot for EU6 Natural Gas Combustion Sources, specifically mold burnout/curing oven (MO-1), mold heat oven (MH-1), and quick fire oven (QF-1). [OAR 340-228-0210 (2)(b)(B)]
32. VISIBLE EMISSIONS LIMIT FOR EU6 & EU7: The permittee must not cause or allow the emissions of any air contaminant into the atmosphere that is equal to or greater than 20% opacity based on 6-minute average from EU6 and EU7 fuel burning equipment and/or boiler when operated. Visible emissions must be monitored in accordance with the same methods and frequencies specified in Conditions 26.a through 26.e, except as noted below: [OAR 340-208-0110(3)]
- Monitoring waived for EU6 and EU7 burning natural gas: As long as the EU6 and/or EU7 fuel burning equipment burns only natural gas or LPG, visible emissions from that equipment is assumed to be in compliance with the 20% opacity limit; and the visible emissions survey required by this condition is waived for that equipment. For the purpose of fuel-usage verification, the permittee is required to monitor and record the type(s) of fuel used in EU6 and EU7, as specified in condition 39.a.

33. **FUEL REQUIREMENTS FOR EU7 BOILER:** The permittee must not burn any fuel other than natural gas or LPG; and must monitor the quantity of natural gas and LPG used per Condition 39.a. [OAR 340-226-0110]

Requirements for Baghouses

PCD ID	Applicable Requirements		Pollutant/ Parameter	Limit/ Standard	Monitoring Requirements	
	OAR /40CFR	Cond.			Method	Cond.
RMBH-1, RMBH-2, HEST-A, MBD-1, MRD-1	340-226-0210	34	PM/PM ₁₀	0.15 gr/scf	VE Recordkeeping	36
RMBH-1, RMBH-2, HEST-A, MBD-1, MRD-1	340-208-0110	35	Opacity	< 20%, 6- min Avg.	VE Recordkeeping	

34. **PARTICULATE MATTER EMISSIONS STANDARD FOR ALL BAGHOUSE:** The permittee must not emit particulate matter emissions from any non-fuel burning equipment installed, constructed, or modified before June 1, 1970, in excess of 0.15 grains per dry standard cubic foot. Non-fuel burning equipment include baghouses RMBH-2, RMBH-1, MBD-1, MRD-1, and HEST-A. [OAR 340-226-0210(2)(a)]
35. **VISIBLE EMISSIONS LIMIT FOR BAGHOUSES:** The permittee must not cause or allow the emissions of any air contaminant into the atmosphere that is equal to or greater than 20% opacity based on 6-minute average from baghouses RMBH-2, RMBH-1, MBD-1, MRD-1, and HEST-A, when operated. Visible emissions must be monitored in accordance with methods and frequencies specified in Condition 36. [OAR 340-208-0110]
36. **MONITORING AND RECORDKEEPING REQUIREMENTS:** The permittee must monitor visible emissions from each discharge stack of all baghouses (e.g., RMBH-2) identified in conditions 34 and 35 in accordance with the procedures, test methods, and frequencies specified in this condition:
- 36.a. The permittee must conduct a six (6) minute visible emission survey at each monitoring point using the procedures outlined in EPA Method 22, starting with a minimum frequency of once per calendar week. The minimum monitoring frequency specified is also the required interval between two consecutive monitoring periods, except as noted in condition 36.g.
- 36.b. All visible emissions observations must be conducted during operating conditions that have the potential to create visible emissions (e.g., during loading/unloading for RMBH, etc.).
- 36.c. If visible emissions, from an individual monitoring point, are detected for more than 5% (18 seconds) of the survey time, check the equipment for malfunction and

correct the problem; then re-check for visible emissions within four hours. If visible emissions persist for more than 5% of the time, an EPA Method 9 test must be conducted on that monitoring point for a six (6) minute period in accordance with the Department's Source Sampling Manual. If any of the observations during the specified 6-minute period exceed the applicable 20% opacity limit, the observation period shall continue until 60 minutes of observations have been completed or until an exceedance of the opacity limit has been documented.

- 36.d. If the observer is unable to conduct the visible emission survey per EPA Method 22 and/or modified EPA Method 9 tests due to visual interference caused by other visible emissions sources (e.g., fugitive emissions during high wind conditions) or due to weather conditions such as fog, heavy rain, or snow, the observer shall note such conditions on the data observation sheet and make at least three attempts in same day to conduct the surveys and/or tests at approximately 2 hours intervals throughout the day. If no observations are made for that day, the observer shall continue to attempt to conduct the visible emission survey and/or modified EPA Method 9 daily until a valid observation is made.
- 36.e. Maintenance Requirements for All Baghouses: If the opacity exceedance is noted, or when the pressure drop falls outside the normal operating range, within 24 hours of the noted exceedance, the permittee must follow up with an investigation and determine the cause of the problem, and take corrective actions as necessary to resolve the problem:
- 36.e.i. Check the baghouse operations for any malfunction and correct the malfunction if present.
 - 36.e.ii. Perform any needed maintenance and housekeeping activities to minimize and/or prevent fugitive emissions associated with the material handling activities.
 - 36.e.iii. Change the bags annually, or when the pressure drop falls outside the normal operating range, whichever comes first.
- 36.f. Monitoring and Recording requirements for baghouses RMBH2 and HEST-A:
- 36.f.i. Monitor and record the pressure drops of RMBH2 and HEST-A baghouse on a daily basis.
 - 36.f.ii. Conduct a brief-walkabout inspection of material collection equipment and surrounding area including the RMBH2 ductwork/conveyor gangway for any maintenance and/or repair items; and promptly follow up with necessary maintenance and/or repair works.
 - 36.f.iii. Record in a log the daily pressure drop readings; and any maintenance and/or repair works performed.
- 36.g. Reduced Monitoring: If Method-22 visible emissions surveys conducted during 10 consecutive observation weeks show no visible emissions for a particular source, the permittee may reduce the minimum monitoring frequency to once per month

for that source. Anytime the monthly visible emissions survey shows any visible emissions, or when requested by DEQ, the observations for that source of visible emissions shall start over with weekly surveys, as noted in Condition 36.a.

Insignificant Activities Requirements

- 37. Applicable Requirement: DEQ acknowledges that insignificant emissions units (IEUs) identified by rule as either categorically insignificant activities or aggregate insignificant emissions as defined in OAR 340-200-0020 exist at facilities required to obtain an Oregon Title V Operating Permit. IEUs must comply with all applicable requirements. In general, the requirements that could apply to IEUs are incorporated as follows:
 - 37.a. OAR 340-208-0110 (20% opacity)
 - 37.b. OAR 340-228-0210 (0.10 gr/dscf corrected to 12% CO₂ or 50% excess air for fuel burning equipment)
 - 37.c. OAR 340-226-0210 (0.10 gr/dscf for non-fugitive, non-fuel burning equipment)
 - 37.d. Unless otherwise specified in this permit or an applicable requirement, DEQ is not requiring any testing, monitoring, recordkeeping, or reporting for the applicable emissions limits and standards that apply to IEUs. However, if testing were performed for compliance purposes, the permittee would be required to use the test methods identified in and perform the testing in accordance with DEQ’s Source Sampling Manual.

PLANT SITE EMISSION LIMITS

- 38. The permittee must not cause or allow plant site emissions to exceed the following limits for any 12 consecutive calendar month period: [OAR 340-222-0035 through OAR 340-222-0041]
 - 38.a. The permittee must not cause or allow plant site emissions to exceed the following: [Stipulated Agreement and Final Order No. 26-1876, fully executed on August 9, 2021, entered under OAR 340-223-0110]

Pollutant	PM/PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	VOC	GHG (CO _{2e})	Pb
PSEL (tons/yr)	55	52	108	137	11	2.7	36,500	0.3

- 38.b. On and after January 1, 2022, the allowable PM, SO₂, and NO_x emissions for all defunct furnaces A (GM1), B (GM2), and C (GM3) remaining after internal offset are permanently removed from the netting basis. [Stipulated Agreement and Final

Order No. 26-1876, fully executed on August 9, 2021, entered under OAR 340-223-0110]

38.c. On and after July 31, 2025, total combined PSEL for PM₁₀ + NO_x + SO₂ must be less than 275 tons/yr. [Stipulated Agreement and Final Order No. 26-1876, fully executed on August 9, 2021, entered under OAR 340-223-0110]

38.d. After the CCF controls are installed and operating, the permittee must not cause or allow plant site emissions to exceed the following, as determined using EFs provided in Condition 39.b.iii unless otherwise determined through source testing performed per Condition 44 and approved in writing by DEQ:

Pollutant	PM/PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	VOC	GHG (CO _{2e})	Pb
PSEL (tons/yr)	24	24	39	64	14	2.9	39,500	TBD

TBD – To be determined by source testing

39. **MONITOR AND RECORD:** The permittee must determine compliance with the Plant Site Emissions Limits specified in Condition 38 in accordance with the procedures, test methods, and frequencies identified in this condition. The permittee must retain records of all parameters used to determine compliance with the PSEL. [OAR 340-218-0050(3)]

39.a. The permittee must monitor and maintain monthly and annual records of the following material and process parameters:

Operating Parameter (P _i)	EU ID	Min. Frequency	Method	
Raw Materials (tons) Processed, excluding in-house cullet	P ₁	EU1	Monthly	Recordkeeping
Cullet (tons) Processed In-house	P ₂	EU2	Monthly	Recordkeeping
Raw Materials (tons) Processed	P ₃	EU3	Monthly	Recordkeeping
Glass (tons) Melted Natural Gas (10 ⁶ ft ³) Burned	P ₄	EU4 R4, FH3, FH4	Monthly	Production Records, Fuel Usage from Meter/Gauge Readings, etc.
MBTT (tons) Used (HEST1-4).	P ₅	EU5	Monthly	Recordkeeping
Natural Gas (10 ⁶ ft ³) Burned	P ₆	EU6	Monthly	Fuel Usage Estimates from Meter/Gauge Readings.
Natural Gas (10 ⁶ ft ³) Burned Fuel Oil (gallons) Burned	P ₇	EU7	Monthly	
Swab Materials (lbs) Used	P ₉	EU9	Monthly	Recordkeeping
Estimated Hours of Operations.	P ₁₀	EU10	Monthly	Recordkeeping

39.b. At the end of each month, calculate the monthly emissions from each of the emissions units identified by applying operating parameter (P_i) identified in Condition 39.a and the emission factors identified for that unit and specific pollutant specified in this Condition 39.b below:

$$E_{MO,i} = P_i EF_{i,j} K$$

where: $E_{MO,i}$ = monthly pollutant emissions from individual EU_i ;
lbs/month, or tons/month.

P_i = operating parameters identified in Condition 39.a

$EF_{i,j}$ = emission factor for the pollutant and EU_i identified

K = Conversion factor; 1 ton/2,000 lbs

Emissions of fine particulate matter, $PM_{2.5}$ from GM4 is

$$E_{PM_{2.5}} = 0.92 \times E_{PM_{10}}, \text{ before CCF}$$

$$E_{PM_{2.5}} = E_{PM_{10}}, \text{ after CCF}$$

39.b.i. Emission Factors (EF_i) for Process emissions units EU1, EU2, EU3, EU5, EU9, EU10

EU ID	PM_{10}	SO_2	VOC	Unit
EU1	18×10^{-4}	--	--	lbs/ton raw materials
EU2	8.6×10^{-2}	--	--	lbs/ton cullet
EU3	18×10^{-4}	--	--	lbs/ton raw materials
EU5	22	--	90	lbs/ton MBTT used
EU9	1	--	--	lbs/lb swab material
EU10	0.2	--	--	lbs/hr operated ^(-A-)

^(-A-) Multiply EF to estimated number of hours operated in month or year. Default = 8760 hrs/yr.

39.b.ii. Emission Factors (EF_i) for GM4 before CCF

EU ID	PM_{10} (1)	SO_2	NO_x	CO	VOC	Pb	UNIT
GM4	0.8	2.9	3.7	4×10^{-3}	9×10^{-3}	5.6×10^{-3}	lbs/ton glass

⁽¹⁾ 96% of PM/PM_{10} is considered to be $PM_{2.5}$

Non-stack emissions from refiner R4 and forehearths FH3-FH4 are reported separately in Condition 39.b.iv.

39.b.iii. Emission Factors (EF_i) for GM4 after CCF: The permittee may submit an application for a permit amendment to update the emission factors below using the data from the source test required in Condition 44.

EU ID	PM_{10} (1)	SO_2	NO_x	CO	VOC	Pb	UNIT
GM4	0.2	0.8	1.2	4×10^{-3}	9×10^{-3}	5.6×10^{-3}	lbs/ton glass

⁽¹⁾ 100% of PM/PM_{10} is considered to be $PM_{2.5}$ after CCF

Non-stack emissions from refiner R4 and forehearths FH3-FH4 are reported separately in Condition 39.b.iv.

39.b.iv. Emission Factors (EF_i) for Natural gas combustion units EU6, EU7, and EU4 Refines (R4) and Forehearths (FH3, FH4)

EU ID	Fuel	PM₁₀	SO₂	NO_x	CO	VOC	UNIT
R4, FH4, EU6, EU7	Nat. Gas	2.5	1.7	100	84	5.5	lbs/10 ⁶ ft ³
EU7	Dist. Oil	2	142 (%S)	20	5	0.56	lbs/10 ³ gal

39.c. The compliance with the annual PSELs set forth in Condition 38 is determined 12 times per year. Emissions calculations must be performed each month, by the end of the 15th day of the following month, for the preceding 12 consecutive calendar months. Add up the monthly emissions for each criteria pollutant for the previous 12 month period using the equation below:

$$E_{\text{Annual}} = \sum_{\text{Past 12-month}} E_{\text{MO},i}$$

39.d. The emissions factors listed in Condition 39.b, by themselves, are not enforceable limits. The operating parameters monitored per Conditions 39.a and emission factors provided in condition 39.b shall only be used to determine compliance with PSELs.

40. **CAO SOURCE RISK LIMITS** [OAR 340-245-0100(6)(d) & 340-245-0110] This condition is enforceable only by the State.
- 40.a. The permittee must limit the GM4's Arsenic emission rate based on a 3-hour block average to no more than 5.56×10^{-4} pounds per ton of glass produced.
- 40.b. The permittee must limit the GM4's Lead emission rate based on a 3-hour block average to no more than 6.51×10^{-3} pounds per ton of glass produced.
- 40.c. The permittee must limit the GM4's glass production to no more than 70,000 tons in any consecutive 12-month period.
- 40.d. The permittee must limit the GM4's glass production to no more than 190.8 tons in any consecutive 24-hour period.
- 40.e. The permittee must limit plasma torch cutting (EU-20) to no more than ten hours in any consecutive 12-month period.
- 40.f. The permittee must limit plasma torch cutting (EU-20) to no more than eighteen minutes in any calendar day.
- 40.g. **Testing Requirements:** Within 90 days of installing and operating the CCF controls, which may coincide with the NESHAP testing specified in Condition 29, the permittee must determine the emission rates of the following toxic air contaminants using the test methods specified: [OAR 340-245-0100(6)(d) & (e)]
- 40.g.i. EPA Method 29 for the metals listed below:
- i. Antimony (CASRN: 7440-36-0);
 - ii. Arsenic (CASRN: 7440-38-2);
 - iii. Beryllium (CASRN: 7440-41-7);
 - iv. Cadmium (CASRN: 7440-43-9);
 - v. Chromium (CASRN: 7440-47-3);
 - vi. Cobalt (CASRN: 7440-48-4);
 - vii. Copper (CASRN: 7440-50-8);
 - viii. Lead (CASRN: 7440-92-1);
 - ix. Manganese (CASRN: 7439-96-5);
 - x. Mercury (CASRN: 7439-97-6);
 - xi. Nickel (CASRN: 7440-02-0);
 - xii. Selenium (CASRN: 7782-49-2); and
 - xiii. Vanadium (CASRN: 7440-62-2);
- 40.g.ii. At permittee's election, permittee may also test for hexavalent chromium (CASRN: 18540-29-9) by EPA SW 846 Method 0061 or other DEQ approved method if permittee seeks to isolate Cr+6 from total Cr.
- 40.h. **Monitoring and Recordkeeping Requirements:** The permittee must monitor and record the following parameters on a monthly basis:

- 40.h.i. EU4 GM4 Furnace consecutive 12-month glass production (tons/yr)
- 40.h.ii. EU6 fuel burning equipment NG usage
- 40.h.iii. EU7 Boiler NG usage
- 40.h.iv. EU5 Hot End Surface Treatment: MBTT usage in pounds
- 40.h.v. EU10 welding:
 - i. Nickel Spray Welding – pound material used
 - ii. Welding – pound welding material used
- 40.h.vi. EU1 Sand usage (tons/yr)
- 40.h.vii. EU1 Limestone usage (tons/yr)
- 40.h.viii. EU1 Baghouse operating time (hrs/yr)
- 40.h.ix. EU20 Plasma torch cutting operating time (hrs/yr & minutes/calendar day)
- 40.i. **Reporting Requirements:** The permittee must submit the following with the annual report required in Condition 56.b:
 - 40.i.i. A summary of the parameters monitored in Condition 40.h; and
 - 40.i.ii. Annual Zoning and Exposure Location Verification form AQ540 (<https://www.oregon.gov/deq/daq/cao/Documents/AQ540Form.pdf>) or other approved forms that include statements verifying the following: [OAR 340-245-0100(7)(c), (8)(a)(F) and (G)]:
 - i. Change in zoning within 1.5 kilometers and whether that change increases the source risk; or
 - ii. Change in land use and whether that change increases the source risk.

Greenhouse Gas Emissions

- 41. The permittee must calculate greenhouse gas emissions in metric tons and short tons, by the end of the 15th day of the following month, for each 12-consecutive calendar month period to determine compliance with the GHG PSEL by using the following: [OAR 340-215-0040]
 - 41.a. DEQ Fuel Combustion Greenhouse Gas Calculator
<https://www.oregon.gov/deq/FilterDocs/ghgCalculatorFuelCombust.xlsx>;
 - 41.b. EPA emission quantification methodologies as prescribed in 40 CFR Part 98 subparts E through UU;

- 41.c. <https://ccdsupport.com/confluence/display/help/Optional+Calculation+Spreadsheet+Instructions>; or
- 41.d. An alternative calculation method approved in writing by DEQ.

EMISSION FEES

- 42. Emission fees will be based on the Plant Site Emissions Limits, unless permittee elects to report actual emissions for one or more permitted processes/pollutants. [OAR 340-220-0090]

GENERAL TESTING REQUIREMENTS

- 43. Unless otherwise specified in this permit, the permittee must conduct all testing in accordance with DEQ's Source Sampling Manual. [OAR 340-212-0120]
 - 43.a. Unless otherwise specified by a state or federal regulation, the permittee must submit a source test plan to DEQ at least 30 days prior to the date of the test. The test plan must be prepared in accordance with DEQ's Source Sampling Manual and address any planned variations or alternatives to prescribed test methods. Permittee should be aware, if significant variations are requested, it may require more than 30 days for DEQ to grant approval and may require EPA approval in addition to approval by DEQ.
 - 43.b. Only regular operating staff may adjust the processes or emission control device parameters during a compliance source test and within two (2) hours prior to the tests. Any operating adjustments made during a compliance source test, which are a result of consultation during the tests with source testing personnel, equipment vendors, or consultants, may render the source test invalid.
 - 43.c. Unless otherwise specified by permit condition or DEQ approved source test plan, all compliance source tests must be performed as follows:
 - 43.c.i. At least 90% of the design capacity for new or modified equipment;
 - 43.c.ii. At least 90% of the maximum production capacity for existing equipment;
 - 43.c.iii. At 90% of the normal maximum operating rate for existing equipment. At 90% of the normal maximum operating rate for existing equipment. For purposes of this permit, the normal maximum operating rate is defined as the 90th percentile of the average hourly operating rates during a 12 month period immediately preceding the source test. Data supporting the normal maximum operating rate must be included with the source test report.

- 43.d. Each source test must consist of at least three (3) test runs and the emissions results must be reported as the arithmetic average of all valid test runs. If for reasons beyond the control of the permittee a test run is invalid, DEQ may accept two (2) test runs for demonstrating compliance with the emission limit or standard.
- 43.e. Source test reports prepared in accordance with DEQ’s Source Sampling Manual must be submitted to DEQ within 45 days of completing any required source test, unless a different time period is approved in the source test plan submitted prior to the source test.
- 44. GM4/CCF EMISSION FACTOR VERIFICATION TESTING REQUIREMENTS: Within 90 days of installing and operating the CCF system, the permittee must verify the accuracy of the PM/PM₁₀/PM_{2.5}, SO₂, NO_x, CO, and VOC emission factors used to determine compliance with the PSEL by testing in accordance with the methods specified for the pollutants identified. [OAR 340-218-0050(3)]

EU/PCD	Pollutants	Method(s) ⁻¹⁻
GM4/CCF	Total & Filterable PM/PM ₁₀ /PM _{2.5}	DEQ Method 5 or EPA Methods 5/202
	SO ₂	EPA Method 6C
	NO _x	EPA Method 7E
	CO	EPA Method 10
	VOC	EPA Method 25A
	Volumetric Flow Rate	EPA Method 1-4
	Metals including Cr/Cr ⁺⁶ , Pb, As, Cd, Mn, Ni, Hg, Cu, Co, Se, Sb, Be, V	EPA Method 29 ⁻²⁻
	Opacity	EPA Method 9

-1- The Analytical Methods listed in this table may be substituted with another method if approved in writing by DEQ.

-2- Chromium (Cr) detected using EPA Method 29 shall be considered hexavalent chromium (Cr⁺⁶) unless EPA SW-486 Method 0061 or other DEQ approved method is used to isolate Cr⁺⁶ from total Cr.

GENERAL MONITORING AND RECORDKEEPING REQUIREMENTS

General Monitoring Requirements

- 45. The permittee must not knowingly render inaccurate any required monitoring device or method. [OAR 340-218-0050(3)(a)(E)]
- 46. The permittee must use the same methods to determine compliance as those used to determine actual emissions for fee purposes and can be no less rigorous than the requirements of OAR 340-218-0080. [OAR 340-218-0050(3)(a)(F)]

47. The permittee must comply with the monitoring requirements on the date of permit issuance unless otherwise specified in the permit or an applicable requirement. [OAR 340-218-0050(3)(a)(G)]

General Recordkeeping Requirements

48. The permittee must maintain the following general records of testing and monitoring required by this permit: [OAR 340-218-0050(3)(b)(A)]
- 48.a. The date, place as defined in the permit, and time of sampling or measurements;
 - 48.b. The date(s) analyses were performed;
 - 48.c. The company or entity that performed the analyses;
 - 48.d. The analytical techniques or methods used;
 - 48.e. The results of such analyses;
 - 48.f. The operating conditions as existing at the time of sampling or measurement;
 - 48.g. The records of quality assurance for continuous monitoring systems (including but not limited to quality control activities, audits, calibration drifts); and
 - 48.h. source-specific recordkeeping requirements stated elsewhere throughout the permit that include the following:
 - 48.h.i. Records of actions taken, if any, per SERP;
 - 48.h.ii. visual inspection results, and a summary of corrective actions taken, if any;
 - 48.h.iii. nuisance complaint log and investigation reports, if any;
 - 48.h.iv. visible emissions observation reports for emissions units identified;
 - 48.h.v. records of the type and daily and/or monthly records of the product and amount of fuels used, as defined in the permit; and
 - 48.h.vi. source test summary reports and results.
49. Unless otherwise specified by permit condition, the permittee must make every effort to maintain 100 percent of the records required by the permit. If information is not obtained or recorded for legitimate reasons (e.g., the monitor or data acquisition system malfunctions due to a power outage), the missing record(s) will not be considered a permit deviation provided the amount of data lost does not exceed 10% of the averaging periods in a reporting period or 10% of the total operating hours in a reporting period, if no averaging time is specified. Upon discovering a required record is missing, the permittee must document the reason for the missing record. In addition, any missing record that can be recovered from other available information will not be considered a missing record. [OAR 340-214-0110, 340-214-0114, and 340-218-0050(3)(b)]

50. The permittee must comply with the recordkeeping requirements on the date of permit issuance unless otherwise specified in the permit or an applicable requirement. [OAR 340-218-0050(3)(b)(C)]
51. Unless otherwise specified, the permittee must retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. All existing records required by the previous Air Contaminant Discharge Permit or Oregon Title V Operating Permit must also be retained for five (5) years from the date of the monitoring sample, measurement, report, or application. [OAR 340-218-0050(3)(b)(B)]

REPORTING REQUIREMENTS

General Reporting Requirements

52. Excess Emissions Reporting: The permittee must report all excess emissions as follows: [OAR 340-214-0300 through 340-214-0360]
 - 52.a. Immediately (within 1 hour of the event) notify DEQ of an excess emission event by phone, email, or facsimile; and
 - 52.b. Within 15 days of the excess emissions event, submit a written report that contains the following information: [OAR 340-214-0340(1)]
 - 52.b.i. The date and time of the beginning of the excess emissions event and the duration or best estimate of the time until return to normal operation;
 - 52.b.ii. The date and time the permittee notified DEQ of the event;
 - 52.b.iii. The equipment involved;
 - 52.b.iv. Whether the event occurred during startup, shutdown, maintenance, or as a result of a breakdown, malfunction, or emergency;
 - 52.b.v. Steps taken to mitigate emissions and corrective action taken, including whether the approved procedures for a planned startup, shutdown, or maintenance activity were followed;
 - 52.b.vi. The magnitude and duration of each occurrence of excess emissions during the course of an event and the increase over normal rates or concentrations as determined by continuous monitoring or best estimate (supported by operating data and calculations);
 - 52.b.vii. The final resolution of the cause of the excess emissions; and

- 52.b.viii. Where applicable, evidence supporting any claim that emissions in excess of technology-based limits were due to any emergency pursuant to OAR 340-214-0360.
- 52.c. If there is an ongoing excess emission caused by an upset or breakdown, the permittee must immediately take action to minimize emissions by reducing or ceasing operation of the equipment or facility, unless doing so could result in physical damage to the equipment or facility, or cause injury to employees. In no case may the permittee operate more than 48 hours after the beginning of the excess emissions, unless continued operation is approved by DEQ in accordance with OAR 340-214-0330(4).
- 52.d. In the event of any excess emissions which are of a nature that could endanger public health and occur during non-business hours, weekends, or holidays, the permittee must immediately notify DEQ by calling the Oregon Emergency Response System (OERs). The current number is 1-800-452-0311.
- 52.e. If startups, shutdowns, or scheduled maintenance may result in excess emissions, the permittee must submit startup, shutdown, or scheduled maintenance procedures used to minimize excess emissions to DEQ for prior authorization, as required in OAR 340-214-0310 and 340-214-0320. New or modified procedures must be received by DEQ in writing at least 72 hours prior to the first occurrence of the excess emission event. The permittee must abide by the approved procedures and have a copy available at all times.
- 52.f. Once DEQ approves startup/shutdown procedures, the permittee must notify DEQ of planned startup/shutdown or scheduled maintenance events only if required by permit condition or if it results in excess emissions. When notice is required by this condition, it must be made in accordance with Condition 52.52.a.
- 52.g. The permittee must continue to maintain a log of all excess emissions in accordance with OAR 340-214-0340(3). However, the permittee is not required to submit the detailed log with the semi-annual and annual monitoring reports. The permittee is only required to submit a brief summary listing the date, time, and the affected emissions units for each excess emission that occurred during the reporting period. [OAR 340-218-0050(3)(c)]
53. Permit Deviations Reporting: The permittee must promptly report deviations from permit requirements that do not cause excess emissions, including those attributable to upset conditions, as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. "Prompt" means within 15 days of the deviation. Deviations that cause excess emissions, as specified in OAR 340-214-0300 through 340-214-0360 must be reported in accordance with Condition 52. [OAR 340-218-0050(3)(c)(B)]
54. All required reports must be certified by a responsible official consistent with OAR 340-218-0040(5); [OAR 340-218-0050(3)(c)(D)]

55. Reporting requirements must commence on the date of permit issuance unless otherwise specified in the permit. [OAR 340-218-0050(3)(c)(E)]

Addresses of regulatory agencies are the following, unless otherwise instructed:

<p>Submit all notices and applications that do not include payment to the DEQ Northwest Region Air Quality Permit Coordinator.</p> <p>Submit all reports (<i>annual reports, source test plans and reports, etc.</i>) to DEQ’s Northwest Region Air Quality Permits Division.</p> <p>DEQ – Northwest Region Air Quality Permit Division 700 NE Multnomah Street Suite 600 Portland, OR 97232</p> <p>Telephone: (503) 229-5582 nwraqpermits@deq.oregon.gov</p>	<p>Submit payments for invoices, applications to modify the permit, and any other payments to DEQ’s Business Office:</p> <p>DEQ –Financial Services Revenue Section - NWR 700 NE Multnomah Street Suite 600 Portland, OR 97232 503-229-5359</p>	<p>Submit all reports for EPA requirements to:</p> <p>US Environmental Protection Agency Enforcement and Compliance Assurance Division Region 10 (20-C04) 1200 Sixth Avenue, Suite 155 Seattle, WA 98101</p>
--	---	--

Semi-annual and Annual Reports

56. The permittee must submit two (2) paper copies and one (1) electronic copy of reports of any required monitoring at least every 6 months, completed on forms approved by DEQ. Six month periods are January 1 to June 30, and July 1 to December 31. If the report due date falls on a weekend or Monday holiday, the permittee must submit their report on the next business day. One paper copy of the report must be submitted to the EPA and two copies (one paper copy and one electronic copy) to the DEQ regional office. All instances of deviations from permit requirements must be clearly identified in such reports: [OAR 340-218-0050(3)(c)(A) and 340-218-0080(6)(d)]
- 56.a. The first semi-annual report is due on July 30 and must include the semi-annual compliance certification, OAR 340-218-0080.
- 56.b. The annual report is due on February 15 and must consist of the following:
- 56.b.i. The emission fee report; [OAR 340-220-0100]
 - 56.b.ii. The NO_x and VOC emission statement, if applicable; [OAR 340-214-0220];

- 56.b.iii. A summary of the excess emissions log; [OAR 340-214-0340]
- 56.b.iv. The second semi-annual compliance certification; [OAR 340-218-0080]
- 56.b.v. The annual certification that the risk management plan is being properly implemented; [OAR 340-218-0080(7)]
- 56.b.vi. Annual emissions of regulated air pollutants for which PSELs have been established for the calendar year; [OAR 340-222-0080(5)]
- 56.b.vii. Annual emissions of hazardous air pollutants for the calendar year; [OAR 340-222-0080(5) or OAR 340-214-0110 or OAR 340-218-0050(3)(d)]
- 56.b.viii. CAO reporting requirements specified in Condition 40.i; and
- 56.b.ix. Other annual reporting requirements:

EMISSIONS UNIT	PARAMETERS	UNIT
Plant-wide Basis	Monthly Summary of emissions of each criteria pollutant	“tons/year” noted at the end of each month
EU1	Monthly Summary of raw material usage	tons/month
EU2	Monthly Summary of cullet processed	tons/month
EU3	Monthly Summary of material processed	tons/month
EU4	Monthly Summary of glass produced, including amount, type(s), color code(s) and percent chromium Highest Consecutive 24-Hour Glass Production during the calendar year Highest Hourly Glass Production during the month and date Monthly Summary of NG used Monthly Summary of highest E _{HAP}	tons/month type(s),color code(s), % chromium for each type tons/day, date(s) & times tons/hour, date 10 ⁶ ft ³ NG/month Lbs HAP/ton glass
EU5	Monthly Summary of MBTT usage, - if any	tons/month
EU6	Monthly Summary of NG usage	10 ⁶ ft ³ NG/month
EU7	Monthly Summary of NG usage Monthly Summary of fuel oil usage	10 ⁶ ft ³ NG/month gallons/month
EU9	Monthly Summary of swab material usage	lbs/month
EU10	Estimate Number of hours operated	hours/month
RMBH2 Baghouse HEST-A Baghouse	Monthly Summary of highest, lowest, and average pressure drop recorded	inches of water

57. The semi-annual compliance certification must include the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable): [OAR 340-218-0080(6)(c)]

- 57.a. The identification of each term or condition of the permit that is the basis of the certification;
- 57.b. The identification of the method(s) or other means used by the permittee for determining the compliance status with each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. Such methods and other means must include, at a minimum, the methods and means required under OAR 340-218-0050(3). *Note: Certification of compliance with the monitoring conditions in the permit is sufficient to meet this requirement, except when the permittee must certify compliance with new applicable requirements that are incorporated by reference into the permit. When certifying compliance with new applicable requirements that are not yet in the permit, the permittee must provide the information required by this condition.* If necessary, the permittee must identify any other material information that must be included in the certification to comply with section 113(c)(2) of the FCAA, which prohibits knowingly making a false certification or omitting material information;
- 57.c. The status of compliance with terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent. The certification must be based on the method or means designated in Condition 57.b of this rule. The certification must identify each deviation and take it into account in the compliance certification. The certification must also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance, as defined under OAR 340-200-0020 and 40 CFR part 64, occurred; and
- 57.d. Such other facts as DEQ may require to determine the compliance status of the source.
58. Greenhouse Gas Registration and Reporting: If the calendar year emission rate of greenhouse gases (CO₂e) is greater than or equal to 2,756 tons (2,500 metric tons), the permittee must register and report its greenhouse gas emissions with DEQ in accordance with OAR 340-215. The greenhouse gas report must be certified by the responsible official consistent with OAR 340-218-0040(5).
59. Notwithstanding any other provision contained in any applicable requirement, the permittee may use monitoring as required under OAR 340-218-0050(3) and incorporated into the permit, in addition to any specified compliance methods, for the purpose of submitting compliance certifications. [OAR 340-218-0080(6)(e)]

NON-APPLICABLE REQUIREMENTS

60. The following State and Federal air quality requirements are not applicable to this facility for the reasons stated. [OAR 340-218-0110]

60.a. The following OARs are not applicable because the source is not in the source category cited in the rules:

Division	202	All
Division	204	0010 – 0060
Division	210	0100 – 0120
Division	218	0090, 0100
Division	230	All
Division	232	0080 – 0230 except 0180
Division	234	All
Division	236	All
Division	242	0500 – 0520, 0600 – 0630
Division	244	0200, 0232 – 0252
Division	256	All except 0010, 0150, 0160
Division	258	0400

60.b. The following OARs are not applicable because the source is outside the special control area, non-attainment area or county cited in the rules:

Division	240	0100 – 0360
----------	------------	-------------

60.c. The following OARs are not applicable because the source does not have specific emissions units cited in the rules:

Division	208	0550
Division	228	0200
Division	232	0050

60.d. The following OARs are not applicable because the source does not sell, distribute, use, or make available for use, the fuel type cited in the rules:

Division	204	0090
Division	228	0100, 0120
Division	258	0110 – 0300
Division	260	0030

60.e. The following OARs are not applicable because the method/procedure is not used by the facility:

Division	214	0130
Division	222	0060
Division	226	0400
Division	244	0100 – 0180

60.f. The following federal regulations are not applicable to the permittee at the time of permit issuance because the source is not in the source category cited in the rules:

40 CFR Parts 55, 57,
40 CFR Part 60 except subpart CC, A, and the Appendices,
40 CFR Part 61 except subparts A, M, and the Appendices,
40 CFR Part 62 except subparts A, MM
40 CFR Part 63 except subpart 6S, A, and the Appendices,
40 CFR Parts 68, 72, 73, 75, 76, 77, 78
40 CFR Part 82 (except subpart F),
40 CFR Parts 85 through 89,
Section 129 of the FCAA, Solid Waste,
Section 183(e) of the FCAA, Consumer and commercial products,
Section 183(f) of the FCAA, Tank Vessels.

GENERAL CONDITIONS

G1. General Provision

Terms not otherwise defined in this permit have the meaning assigned to such terms in the referenced regulation.

G2. Reference materials

Where referenced in this permit, the versions of the following materials are effective as of the dates noted unless otherwise specified in this permit:

G2.a. Source Sampling Manual; November 15, 2018.

G2.b. Continuous Monitoring Manual; April 16, 2015 - State Implementation Plan Volume 3, Appendix A6; and

G2.c. All state and federal regulations as in effect on the date of issuance of this permit.

G3. Applicable Requirements

Oregon Title V Operating Permits do not replace requirements in Air Contaminant Discharge Permits (ACDP) issued to the source even if the ACDP(s) have expired. For a source operating under a Title V permit, requirements established in an earlier ACDP remain in effect notwithstanding expiration of the ACDP or Title V permit, unless a provision expires by its terms or unless a provision is modified or terminated following the procedures used to establish the requirement initially. Source specific requirements, including, but not limited to TACT, RACT, BACT, and LAER requirements, established in an ACDP must be incorporated into the Oregon Title V Operating Permit and any revisions to those requirements must follow the procedures used to establish the requirement initially.

G4. Compliance [OAR 340-218-0040(3)(n)(C), 340-218-0050(6), and 340-218-0080(4)]

G4.a. The permittee must comply with all conditions of this permit. Any permit condition noncompliance constitutes a violation of the Federal Clean Air Act and/or state rules and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application. Any noncompliance with a permit condition specifically designated as enforceable only by the state constitutes a violation of state rules only and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application.

G4.b. Any schedule of compliance for applicable requirements with which the source is not in compliance at the time of permit issuance is supplemental to, and does not sanction noncompliance with the applicable requirements on which it is based.

G4.c. For applicable requirements that will become effective during the permit term, the source must meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement.

G5. Masking Emissions:

The permittee must not install or use any device or other means designed to mask the emission of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement. [OAR 340-208-0400] This condition is enforceable only by the State.

G6. Credible Evidence:

Notwithstanding any other provisions contained in any applicable requirement, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any such applicable requirements. [OAR 340-214-0120]

G7. Certification [OAR 340-214-0110, 340-218-0040(5), 340-218-0050(3)(c)(D), and 340-218-0080(2)]

Any document submitted to DEQ or EPA pursuant to this permit must contain certification by a responsible official of truth, accuracy, and completeness. All certifications must state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. The permittee must promptly, upon discovery, report to DEQ a material error or omission in these records, reports, plans, or other documents.

G8. Open Burning [OAR Chapter 340, Division 264]

The permittee is prohibited from conducting open burning, except as may be allowed by OAR 340-264-0020 through 340-264-0200.

G9. Asbestos [40 CFR Part 61, Subpart M (federally enforceable), OAR Chapter 340-248-0005 through 340-248-0180 (state-only enforceable) and 340-248-0205 through 340-248-0280]

The permittee must comply with OAR Chapter 340, Division 248, and 40 CFR Part 61, Subpart M when conducting any renovation or demolition activities at the facility.

G10. Stratospheric Ozone and Climate Protection [40 CFR 82 Subpart F, OAR 340-260-0040]

The permittee must comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, Recycling and Emissions Reduction.

G11. Permit Shield [OAR 340-218-0110]

G11.a. Compliance with the conditions of the permit is deemed compliance with any applicable requirements as of the date of permit issuance provided that:

G11.a.i. Such applicable requirements are included and are specifically identified in the permit, or

G11.a.ii. DEQ, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

G11.b. Nothing in this rule or in any federal operating permit alters or affects the following:

G11.b.i. The provisions of ORS 468.115 (enforcement in cases of emergency) and ORS 468.035 (function of department);

G11.b.ii. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

G11.b.iii. The applicable requirements of the national acid rain program, consistent with section 408(a) of the FCAA; or

G11.b.iv. The ability of DEQ to obtain information from a source pursuant to ORS 468.095 (investigatory authority, entry on premises, status of records).

G11.c. Sources are not shielded from applicable requirements that are enacted during the permit term, unless such applicable requirements are incorporated into the permit by administrative amendment, as provided in OAR 340-218-0150(1)(h), significant permit modification, or reopening for cause by DEQ.

G12. Inspection and Entry [OAR 340-218-0080(3)]

Upon presentation of credentials and other documents as may be required by law, the permittee must allow DEQ, or an authorized representative (including an authorized contractor acting as a representative of the EPA Administrator), to perform the following:

G12.a. Enter upon the permittee's premises where an Oregon Title V Operating Permit program source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

G12.b. Have access to and copy, at reasonable times, any records that must be kept under conditions of the permit;

G12.c. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

G12.d. As authorized by the FCAA or state rules, sample or monitor, at reasonable times, substances or parameters, for the purposes of assuring compliance with the permit or applicable requirements.

G13. Fee Payment [OAR 340-220-0010, and 340-220-0030 through 340-220-0190]

The permittee must pay an annual base fee and an annual emission fee for particulates, sulfur dioxide, nitrogen oxides, and volatile organic compounds. The permittee must submit payment to the Department of Environmental Quality, Financial Services, 700 NE

Multnomah Street, Suite #600, Portland, OR 97232, within 30 days of date DEQ mails the fee invoice or August 1 of the year following the calendar year for which emission fees are paid, whichever is later. Disputes must be submitted in writing to DEQ. Payment must be made regardless of the dispute. User-based fees will be charged for specific activities (e.g., computer modeling review, ambient monitoring review, etc.) requested by the permittee.

G14. Off-Permit Changes to the Source [OAR 340-218-0140(2)]

G14.a. The permittee must monitor for, and record, any off-permit change to the source that:

G14.a.i. Is not addressed or prohibited by the permit;

G14.a.ii. Is not a Title I modification;

G14.a.iii. Is not subject to any requirements under Title IV of the FCAA;

G14.a.iv. Meets all applicable requirements;

G14.a.v. Does not violate any existing permit term or condition; and

G14.a.vi. May result in emissions of regulated air pollutants subject to an applicable requirement but not otherwise regulated under this permit or may result in insignificant changes as defined in OAR 340-200-0020.

G14.b. A contemporaneous notification, if required under OAR 340-218-0140(2)(b), must be submitted to DEQ and the EPA.

G14.c. The permittee must keep a record describing off-permit changes made at the facility that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those off-permit changes.

G14.d. The permit shield of Condition G11 does not extend to off-permit changes.

G15. Section 502(b)(10) Changes to the Source [OAR 340-218-0140(3)]

G15.a. The permittee must monitor for, and record, any section 502(b)(10) change to the source, which is defined as a change that would contravene an express permit term but would not:

G15.a.i. Violate an applicable requirement;

G15.a.ii. Contravene a federally enforceable permit term or condition that is a monitoring, recordkeeping, reporting, or compliance certification requirement; or

G15.a.iii. Be a Title I modification.

G15.b. A minimum 7-day advance notification must be submitted to DEQ and the EPA in accordance with OAR 340-218-0140(3)(b).

G15.c. The permit shield of Condition G11 does not extend to section 502(b)(10) changes.

G16. Administrative Amendment [OAR 340-218-0150]

Administrative amendments to this permit must be requested and granted in accordance with OAR 340-218-0150. The permittee must promptly submit an application for the following types of administrative amendments upon becoming aware of the need for one, but no later than 60 days of such event:

G16.a. Legal change of the registered name of the company with the Corporations Division of the State of Oregon, or

G16.b. Sale or exchange of the activity or facility.

G17. Minor Permit Modification [OAR 340-218-0170]

The permittee must submit an application for a minor permit modification in accordance with OAR 340-218-0170.

G18. Significant Permit Modification [OAR 340-218-0180]

The permittee must submit an application for a significant permit modification in accordance with OAR 340-218-0180

G19. Staying Permit Conditions [OAR 340-218-0050(6)(c)]

Notwithstanding Conditions G16 and G17, the filing of a request by the permittee for a permit modification, revocation and re-issuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

G20. Construction/Operation Modification [OAR 340-218-0190]

The permittee must obtain approval from DEQ prior to construction or modification of any stationary source or air pollution control equipment in accordance with OAR 340-210-0205 through OAR 340-210-0250 and OAR 340-245-0060(4)(c).

G21. New Source Review Modification [OAR 340-224-0010]

The permittee may not begin construction of a major source or a major modification of any stationary source without having received an Air Contaminant Discharge Permit (ACDP) from DEQ and having satisfied the requirements of OAR 340, Division 224.

G22. Need to Halt or Reduce Activity Not a Defense [OAR 340-218-0050(6)(b)]

The need to halt or reduce activity will not be a defense. It will not be a defense for a permittee 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 permit.

G23. Duty to Provide Information [OAR 340-218-0050(6)(e) and OAR 340-214-0110]

The permittee must furnish to DEQ, within a reasonable time, any information that DEQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee must also furnish to DEQ copies of records required to be retained by the permit or, for information claimed to be confidential, the permittee may furnish such records to DEQ along with a claim of confidentiality.

G24. Reopening for Cause [OAR 340-218-0050(6)(c) and 340-218-0200]

G24.a. The permit may be modified, revoked, reopened and reissued, or terminated for cause as determined by DEQ.

G24.b. A permit must be reopened and revised under any of the circumstances listed in OAR 340-218-0200(1)(a).

G24.c. Proceedings to reopen and reissue a permit must follow the same procedures as apply to initial permit issuance and affect only those parts of the permit for which cause to reopen exists.

G25. Severability Clause [OAR 340-218-0050(5)]

Upon any administrative or judicial challenge, all the emission limits, specific and general conditions, monitoring, recordkeeping, and reporting requirements of this permit, except those being challenged, remain valid and must be complied with.

G26. Permit Renewal and Expiration [OAR 340-218-0040(1)(a)(D) and 340-218-0130]

G26.a. This permit expires at the end of its term, unless a timely and complete renewal application is submitted as described below. Permit expiration terminates the permittee's right to operate.

G26.b. Applications for renewal must be submitted at least 12 months before the expiration of this permit, unless DEQ requests an earlier submittal. If more than 12 months is required to process a permit renewal application, DEQ must provide no less than six (6) months for the owner or operator to prepare an application.

G26.c. Provided the permittee submits a timely and complete renewal application, this permit will remain in effect until final action has been taken on the renewal application to issue or deny the permit.

G27. Permit Transference [OAR 340-218-0150(1)(d)]

The permit is not transferable to any person except as provided in OAR 340-218-0150(1)(d).

G28. Property Rights [OAR 340-200-0020 and 340-218-0050(6)(d)]

The permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion

of personal rights, nor any infringement of federal, state, or local laws or regulations, except as provided in OAR 340-218-0110.

G29. Permit Availability [OAR 340-200-0020 and 340-218-0120(2)]

The permittee must have available at facility at all times a copy of the Oregon Title V Operating Permit and must provide a copy of the permit to DEQ or an authorized representative upon request.

G30. The permittee must reassess, and submit to DEQ, the source risk for cancer, chronic noncancer, and acute noncancer risk in accordance with OAR 340-245-0100(8)(e) by no later than 60 days after the following [OAR 340-245-0100(8)(a)(F)]:

G30.a. Zoning changes approved and effective within 1.5 kilometers of the source that could increase risk; or

G30.b. Land use has changed in a way that could increase risk in any area in which land uses were excluded from the permittee's Cleaner Air Oregon risk assessment under OAR 340-245-0210(1)(a)(F) because such area was not used in a manner allowed by the applicable zoning.

G31. The permittee must reassess, and submit to DEQ, the source risk for cancer, chronic noncancer, and acute noncancer risk in accordance with OAR 340-245-0100(8)(e) based on any of the following:

G31.a. The permittee becomes aware that corrections or additional information are needed to revise or update the original risk assessment [OAR 340-245-0100(8)(a)(H)];

G31.b. The permittee proposes to modify any physical feature of the source that was used as a modeling parameter in the risk assessment that may increase risk [OAR 340-245-0100(8)(a)(D)];

G31.c. When notified in writing by DEQ that a Risk Based Concentration in OAR 340-245-8010 Table 2 for a Toxic Air Contaminant that is emitted by this source has been added or the value lowered, leading to a substantial increase in risk [OAR 340-245-0100(8)(b)(B)];

G31.d. When notified in writing by DEQ that the risk assessment procedures in division 245 have changed in a way that would substantially increase risk, or substantially impact the implementation or effectiveness of the Risk Reduction Plan [OAR 340-245-0100(8)(b)(C)]; or

G31.e. When notified in writing by DEQ that a previous risk assessment contains errors or omissions that, when corrected, could increase the risk [OAR 340-245-0100(8)(b)(A)].

G32. The permittee must apply for approval under OAR 340 Division 210 and submit fees as required under OAR 340-245-0100(8)(g) and Condition 55 for the construction and

modification of an Exempt TEU that is subject to National Emission Standards for Hazardous Air Pollutants or New Source Performance Standard requirements [OAR 340-245-0060(4)(c)(A)].

G33. The permittee must apply for a permit modification under OAR 340 Division 218 and submit fees as required under OAR 340-245-0100(8)(g) and Condition 55 (business office address) for the following:

G33.a. Construct or modify a TEU that is:

G33.a.i. Aggregated under OAR 340-245-0060(4)(c)(B)(iii); or

G33.a.ii. Significant under OAR 340-245-0060(4)(c)(C)(i);

G33.b. Modify an established Source Risk Limit or any risk limits or conditions required by division 245 [OAR 340-245-0100(8)(a)(B)];

G33.c. Request an extension to a compliance date as outlined in OAR 340-245-0100(8)(a)(C);

G33.d. Terminate postponement of risk reduction established under OAR 340-245-0150 [OAR 340-245-0100(8)(a)(E)]; or

G33.e. Modify air monitoring requirements established under OAR 340-245-0230 [OAR 340-245-0100(8)(a)(G)].

G34. If DEQ has provided notice to the permittee that a modification under OAR 340-245-0100(8)(b) is required, the permittee must submit the necessary information required under OAR 340-245-0100(3) to DEQ 90 days after the date that DEQ sends such written notice. [OAR 340-245-0100(8)(c)]

G35. The permittee may request an extension for submittals required under Conditions G30 through G34 in accordance with OAR 340-245-0030(3) by submitting a written request no fewer than 15-days prior to the submittal deadline.

All inquiries should be directed to:

Northwest Region Air Quality Permit Division
700 NE Multnomah Street, Ste. 600
Portland, OR 97232

Telephone: (503) 229-5582

nwraqpermits@deq.oregon.gov

General Provisions

Table 1	
Part 60 Standards of Performance for New Stationary Sources	
Subpart A – General Provisions	
§60.1	Applicability.
§60.2	Definitions.
§60.3	§Units and abbreviations.
§60.4	Address.
§60.5	Determination of construction or modification.
§60.6	Review of plans.
§60.7	Notification and record keeping.
§60.8	Performance tests.
§60.9	Availability of information.
§60.10	State authority.
§60.11	Compliance with standards and maintenance requirements.
§60.12	Circumvention.
§60.13	Monitoring requirements.
§60.14	Modification.
§60.15	Reconstruction.
§60.16	Priority list.
§60.17	Incorporations by reference.
§60.18	General control device and work practice requirements.
§60.19	General notification and reporting requirements.
Table 1 to Subpart A of Part 60	Detection Sensitivity Levels (grams per hour)

Table 1 Part 63 National Emission Standards for Hazardous Air Pollutants for Source Categories Subpart A – General Provisions	
§63.1	Applicability.
§63.2	Definitions.
§63.3	Units and Abbreviations.
§63.4	Prohibited Activities and Circumvention.
§63.5	Pre-Construction Review and Notification Requirements.
§63.6	Compliance with Standards and Maintenance Requirements.
§63.7	Performance Testing Requirements.
§63.8	Monitoring Requirements.
§63.9	Notification Requirements.
§63.10	Recordkeeping and Reporting Requirements.
§63.11	Control Device and Work Practice Requirements.
§63.12	State Authority and Delegations.
§63.13	Addresses of State Air Pollution Control Agencies and EPA Regional Offices.
§63.14	Incorporations by Reference.
§63.15	Availability of Information and Confidentiality.
§63.16	Performance Track Provisions.
Table 1 to Subpart A of Part 63	Detection Sensitivity Levels (grams per hour)

General Provisions to Subpart SSSSSS

Citation	Subject
§ 63.1(a), (b), (c)(1), (c)(2), (c)(5), (e)	Applicability.
§ 63.2	Definitions.
§ 63.3	Units and Abbreviations.
§ 63.4	Prohibited Activities.
§ 63.5	Construction/Reconstruction.
§ 63.6(a), (b)(1)-(b)(5), (b)(7), (c)(1), (c)(2), (c)(5), (e)(1), (f), (g), (i), (j)	Compliance with Standards and Maintenance Requirements.
§ 63.7	Performance Testing Requirements.
§ 63.8(a)(1), (a)(2), (b), (c)(1)-(c)(4), (c)(7)(i)(B), (c)(7)(ii), (c)(8), (d), (e)(1), (e)(4), (f)	Monitoring Requirements.
§ 63.9(a), (b)(1)(i)-(b)(2)(v), (b)(5), (c), (d), (h)-(j)	Notification Requirements.
§ 63.10(a), (b)(1), (b)(2)(i)-(b)(2)(xii)	Recordkeeping and Reporting Requirements.
§ 63.10(b)(2)(xiv), (c), (f)	Documentation for Initial Notification and Notification of Compliance Status.
§ 63.12	State Authority and Delegations.
§ 63.13	Addresses.
§ 63.14	Incorporations by Reference.
§ 63.15	Availability of Information.
§ 63.16	Performance Track Provisions.