

LANE REGIONAL AIR PROTECTION AGENCY

1010 Main Street, Springfield, Oregon 97477 (541) 736-1056

SIMPLE AIR CONTAMINANT DISCHARGE PERMIT (SIMPLE ACDP)

Issued in accordance with provisions of Title 37, Lane Regional Air Protection Agency's Rules and Regulations, and based on the land use compatibility findings included in the permit record.

Issued To:

Aurora Innovations, LLC 29862 East Enid Road Eugene, Oregon 97402

Facility Location:

Aurora Innovations 29862 East Enid Road Eugene, Oregon 97402

Permit Number: 200053 Permit Type: Simple

SIC: 2875 - Fertilizers, Mixing Only

3295 - Minerals and Earths, Ground or Otherwise Treated (Perlite Expansion)

Issuance Date: December 15, 2022 Expiration Date: December 15, 2027 Modification Date: August 18, 2023

Issued By:

Steven A. Dietrich, Director

Effective

8-18-23 Date: _

Information Relied Upon:

Application Number: 69688 Dated: June 16, 2023

Land Use Compatibility Statement:

From: City of Eugene Date: November 2, 2012

Fee Basis:

Title 37, Table 1, Part B: 75 All other sources not listed herein which would have actual emissions, if the source were to operate uncontrolled, of 5 or more tons per year of direct PM_{2.5} or PM₁₀ located in a PM_{2.5} or PM₁₀ non-attainment or maintenance area.

Permitted Sources:

Fertilizer Production Operation including:

- (2) Natural Gas-Fired Perlite Furnaces with Cyclones/Baghouses
- (1) Soil Mixing Line with Baghouse
- (1) Soil Mixing Line with Dust Collectors
- (1) Natural Gas-Fired Evaporator

Addendum No. 1 Non-PSD/NSR Basic Technical Permit Modification

In accordance with subparagraph 37-0064(4)(b)(A), Simple Air Contaminant Discharge Permit No. 200053 is hereby amended to extend the source testing deadline for the perlite furnaces (EU: F1 and F2) from within 180 days of permit issuance to within 360 days of permit issuance (by December 10, 2023). The deadline is being extended to allow for an increase in perlite production demand such that the perlite furnaces can operate at or above 90% of the design capacity during testing (new language is in bold and underline):

Expiration Date: December 15, 2027 Modification Date: August 18, 2023

NSPS Compliance Demonstration and Source Testing

17. Within <u>360</u> days of permit issuance, the permittee must conduct an initial performance test of F1 and F2. The performance test will be used for emission factor verification purposes and for demonstrating compliance with the visible emission standards in Condition 7.a and the particulate matter standards in Condition 8.a. [40 CFR 60.736(b), LRAPA 35-0120 and LRAPA 46-535(3)(www)]

CG/rr 8/17/2023



LANE REGIONAL AIR PROTECTION AGENCY

1010 Main Street, Springfield, Oregon 97477 (541) 736-1056

SIMPLE AIR CONTAMINANT DISCHARGE PERMIT (SIMPLE ACDP)

Issued in accordance with provisions of title 37, Lane Regional Air Protection Agency's Rules and Regulations, and based on the land use compatibility findings included in the permit record.

Issued To:

Aurora Innovations, LLC 29862 East Enid Road Eugene, Oregon 97402

Facility Location:

Aurora Innovations 29862 East Enid Road Eugene, Oregon 97402

Permit Number: 200053 Permit Type: Simple

SIC: 2875 - Fertilizers, Mixing Only

3295 – Minerals and Earths, Ground or Otherwise Treated (Perlite Expansion)

<u>Issuance Date</u>: December 15, 2022 Expiration Date: December 15, 2027 Information Relied Upon:

Application Number: 66660 Dated: December 16, 2020

Land Use Compatibility Statement:

From: City of Eugene Date: November 2, 2012

Fee Basis:

Title 37, Table 1, Part B: 75

All other sources not listed herein which would have actual emissions, if the source were to operate uncontrolled, of 5 or more tons per year of direct PM_{2.5} or PM₁₀ located in a PM_{2.5} or PM₁₀ non-attainment or maintenance area.

Permitted Sources:

Fertilizer Production Operation including:

- (2) Natural Gas-Fired Perlite Furnaces with Cyclones/Baghouses
- (1) Soil Mixing Line with Baghouse
- (1) Soil Mixing Line with Dust Collectors
- (1) Natural Gas-Fired Evaporator

By: Steven A. Dietrich, Director

Effective

Date: 12-15-22

Expiration Date: December 15, 2027

Permitted Activities

Until this permit expires or is revoked, the permittee is herewith allowed to discharge exhaust gases containing contaminants only in accordance with the permit application and the requirements, limitations, and conditions contained in this permit. This specific listing of requirements, limitations, and conditions does not relieve the permittee from complying with all other rules of Lane Regional Air Protection Agency (LRAPA).

Emission Unit and Pollution Control Device (PCD) Identification

Emission units regulated by this permit are the following: 2.

EU ID	Emission Unit Description	Pollution Control Device (PCD)	
F1 & F2	Perlite Furnaces #1 and #2	2 Cyclones and 2 Baghouses	
SM1	Soil Mixing Line (Building B)	1 Baghouse	
HP1-5	Raw Material Hoppers	None	
Insignificant Activities, including:			
Soil Mixing Line (Building A) ⁽¹⁾		3 Dust Collectors – DC1, DC2 & DC3	
Evaporator ⁽²⁾		None	
Emergency Generator (3)		None	

- (1) Soil Mixing Line (Building A) [DC1-3] are insignificant emission units since the dust collectors exhaust inside the building.
- (2) The evaporator is an insignificant emission unit since it does not emit quantifiable emissions of regulated air pollutants. The natural gas burner meets the definition of a categorically insignificant activity and is excluded from PSEL compliance monitoring. [LRAPA 42-0035(5)].
- (3) The emergency generator meets the definition of a categorically insignificant activity and is excluded from PSEL compliance monitoring. [LRAPA 42-0035(5)]

Plant Site Emission Limits (PSELs)

Total emissions from all sources located at the facility must not exceed the PSELs below. The 3. PSELs apply to any 12 consecutive calendar month period. [LRAPA 42-0040]

Annual (12-month rolling) PSEL (tons per year)

Pollutant	PM	PM ₁₀	PM _{2.5}	NO _X	СО	GHG
PSEL	24	14	9	39	99	74,000

Any changes in operation that may increase emissions above the PSELs must be approved by LRAPA. Failure to do so may result in enforcement actions being taken by LRAPA. [LRAPA 42-00801

Expiration Date: December 15, 2027

PSEL Monitoring Requirements

5. **By the 15**th day of each month, the permittee must demonstrate compliance with the PSELs for the previous 12 consecutive calendar month period for each pollutant except GHGs: [LRAPA 42-0080(4)(c)]:

5.a. For emission units F1, F2, and HP1-5, the permittee must maintain throughput records of all perlite and other raw materials processed, and calculate plant site emissions using the following equation:

$$E = \sum_{i=1}^{12} \frac{P_i \cdot EF}{K}$$

Where, E = each individual pollutant emissions (tons/year);

 Σ = symbol representing "summation of;"

P_i = production throughput or process parameter;

; = each calendar month;

EF = pollutant emission factor (see Condition 6);

 Note: emission calculations must only be included for filters exhausting exterior to permittee's buildings (F1 and F2).

K = conversion factor of 2000 pounds per 1 ton.

5.b. The permittee must calculate emissions for SM1 using the maximum exit grain loading (gr/dscfm) indicated in Condition 6.

6. The permittee must use the following default emission factors for calculating pollutant emissions required in Condition 5, unless alternative emission factors are approved by LRAPA. The permittee may request or LRAPA may require using alternative emission factors provided the emission factors are based on actual test data or other documentation (e.g., AP-42 compilation of emission factors) that has been reviewed and approved by LRAPA. [LRAPA 34-016, 42-0080(3)(a), and 42-0080(4)(c)]

Emission Unit ID	Pollutant	Emission Factor	Units
	PM/PM ₁₀ /PM _{2.5}	2.5	lb/MMscf
F1 & F2 (Natural gas	СО	84	lb/MMscf
combustion)	NOx	100	lb/MMscf
F1 & F2 (Perlite Production)	PM/PM ₁₀ /PM _{2.5}	0.29	lb/ton perlite expanded
SM1	PM/PM ₁₀ /PM _{2.5}	0.008	gr/dscfm
	PM	0.00015	lb/ton
HP1-5	PM ₁₀	0.00007	lb/ton
	PM _{2.5}	0.00001	lb/ton

Aurora Innovations, LLC Permit No. 200053 Expiration Date: December 15, 2027

LRAPA and New Source Performance Standards (NSPS) and Limitations

- 7. The permittee must comply with the following visible emission limits as applicable:
 - 7.a. 40 CFR 60 Subpart UUU: For perlite furnaces (EUs: F1 and F2), the permittee must not emit or allow to be emitted any visible emissions that equal or exceed 10 percent opacity. Opacity observations must be measured as a six-minute block average using EPA Method 9. [40 CFR 60.732(b), 40 CFR 60.11(b), LRAPA 46-535(3)(a), and LRAPA 46-535(3)(www)]
 - 7.b. For sources, other than wood-fired boilers, the permittee must not emit or allow to be emitted any visible emissions that equal or exceed an average of 20 percent opacity for a period or periods aggregating more than three (3) minutes in any one (1) hour. [LRAPA 32-010(3)]
- 8. The permittee must comply with the following particulate matter emission standards as applicable:
 - 8.a. 40 CFR 60 Subpart UUU: For perlite furnaces (EUs: F1 and F2), the permittee must not cause, suffer, allow, or permit particulate matter emissions to exceed 0.040 grains per dry standard cubic foot (gr/dscf). [40 CFR 60.732(a) and LRAPA 46-535(3)(www)]
 - 8.b. For sources other than fuel burning equipment, refuse burning equipment and fugitive emissions (EU: SM1), the permittee must not cause, suffer, allow, or permit particulate matter emissions from any air contaminant source installed, constructed or modified after June 1, 1970, but prior to April 16, 2015, in excess of 0.14 grains per dry standard cubic foot (gr/dscf) if there are no representative compliance source test results. [LRAPA 32-015(2)(b)(B)]
 - 8.c. The permittee must not cause, suffer, allow, or permit the emissions of particulate matter in any one (1) hour from any process in excess of the amount shown in Table 32-8010, for the process weight rate allocated to such process. [LRAPA 32-045]
 - 9. All plant process equipment and all air contaminant collection and disposal devices, including but not limited to the F1, F2, and SM1 baghouses, must be operated and maintained at all times in a manner which minimizes air contaminant discharges. [LRAPA 32-005]
- 10. The permittee must not operate plant processes controlled by cyclones and baghouses without the control devices on-line and functioning properly. Cyclones and baghouses must be operated at all times at the highest reasonable efficiency. [LRAPA 32-007]
- 11. The permittee must perform routine maintenance of the cyclones and baghouses and keep the following records as required per Condition 27. [LRAPA 32-007]
 - 11.a. Date the maintenance occurred;
 - 11.b. Person(s) performing the maintenance;
 - 11.c. Description of the maintenance performed;
 - 11.d. The results of any inspections.
- 12. The permittee must not cause, suffer, allow 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. Such reasonable precautions may include, but are not limited to the following: [LRAPA 48-015(1)]

- 12.a. 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;
- 12.b. Application of water or other suitable chemicals on unpaved roads, material stockpiles, and other surfaces which can create airborne dusts;
- 12.c. Full or partial enclosure of material stockpiles in cases where application of water or other suitable chemicals is not sufficient to prevent particulate matter from becoming airborne;
- 12.d. Installation and use of hoods, fans and fabric filters to enclose and vent the handling of dusty materials;
- 12.e. Adequate containment during sandblasting or other similar operations;
- 12.f. The covering of moving, open-bodied trucks transporting materials likely to become airborne:
- 12.g. The prompt removal from paved streets of earth or other material which does or may become airborne.
- 13. At least once per month for a minimum period of 30 minutes, the permittee must visually survey the facility using EPA Method 22 for any sources of fugitive emissions. 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. If sources of excess fugitive emissions are identified, the permittee must immediately take corrective action to minimize the fugitive emissions, including, but not limited to, the actions in Condition 12. [LRAPA 48-015(2) and (3)]
- 14. Upon request by LRAPA, the permittee must develop an LRAPA-approved fugitive emission control plan. The plan must be implemented when visible fugitive emissions leave the property for more than 18 seconds in a six-minute period. [LRAPA 48-015(3)]
- 15. The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by LRAPA personnel. The permittee must maintain a log of each nuisance complaint received by the permittee during operation of the facility. A facility representative must immediately investigate the condition following the receipt of the nuisance complaint and provide a response to the complainant within 24 hours, if possible. [LRAPA 49-010]
- 16. Evaporator Operation and Work Practice Requirements: within 180 days of permit issuance, the permittee must develop an LRAPA-approved Operations and Maintenance plan for the evaporator, indicating the maximum bath operating temperature necessary for limiting odorous emissions which may cause a nuisance. [LRAPA 32-007(1)]

NSPS Compliance Demonstration and Source Testing

- 17. Within 180 days of permit issuance, the permittee must conduct an initial performance test of F1 and F2. The performance test will be used for emission factor verification purposes and for demonstrating compliance with the visible emission standards in Condition 7.a and the particulate matter standards in Condition 8.a. [40 CFR 60.736(b), LRAPA 35-0120 and LRAPA 46-535(3)(www)]
 - 17.a. DEQ Method 5 must be used to determine the particulate matter concentration for emission factor verification. Alternatively, particulate matter tests can be performed using EPA Methods 5 and 202. [LRAPA 35-0140]

- 17.a.i. EPA Method 5 must be used to determine the particulate matter concentration for demonstrating compliance with the particulate matter standards in Condition 8.a. The sampling time and volume for each particulate matter test run must be at least 2 hours and 1.70 dscm. [40 CFR 60.736(b)(1) and LRAPA 46-535(3)(www)]
- 17.a.ii. Particulate matter test results must be reported in grains per dry standard cubic foot (gr/dscf), pounds per hour (lb/hr), and pounds per tons of perlite expanded (lb/ton). [LRAPA 35-0120]
- 17.b. EPA Method 9 and the procedures in 40 CFR 60.11 must be used to determine opacity from stack emissions. [40 CFR 60.736(b)(2), LRAPA 46-535(3)(a), and LRAPA 46-535(3)(www)]
 - 17.b.i. For purposes of determining initial compliance, the minimum total time of EPA Method 9 observations must be thee (3) hours (thirty (30) six-minute averages) for the performance test. [40 CFR 60.11(b), LRAPA 46-535(3)(a), and LRAPA 46-535(3)(www)]
- 17.c. For the purpose of demonstrating initial compliance, opacity observations must be conducted concurrently with the particulate matter performance test. [40 CFR 60.11(e)(1), LRAPA 46-535(3)(a), and LRAPA 46-535(3)(www)]
- 17.d. The following parameters must be monitored and recorded during the source test: [LRAPA 35-0120]
 - 17.d.i. Perlite throughput (tons/hr) and target moisture content (%);
 - 17.d.ii. Natural gas usage (scf/hr);
 - 17.d.iii. Baghouse pressure drop (in. H₂O);
- 17.e. Each test run must be conducted while equipment is operating at levels that equal or exceed 90% of the design capacity. [LRAPA 35-0120(3)]
- 17.f. The performance test must be conducted in accordance with DEQ's Source Sampling Manual and the LRAPA-approved source test plan. The source test plan must be submitted at least 30 days prior to the test date and approved by the LRAPA Source Test Coordinator. Test data and results must be submitted for review to LRAPA within 60 days unless otherwise approved in the source test plan. [LRAPA 35-0120(3)]
- 17.g. Only regular operating staff may adjust the combustion system or production processes and emission control parameters during the compliance source test and within two hours prior to the source test. Any operating adjustments made during the source test, which are a result of consultation with source testing personnel, equipment vendors or consultants, may render the source test invalid. [LRAPA 35-0120(3)]

Categorically Insignificant Activities (Emergency Generator)

Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICEs) [LRAPA 44-150(5)(ffff)]

- 18. The engine is an existing affected source under Subpart ZZZZ but does not have to meet the requirements of initial notification. [40 CFR 63.6645(a)(5)]
- 19. The permittee must operate the emergency stationary RICE in accordance with the following conditions: [40 CFR 63.6640(f) and Table 2d]
 - 19.a. There is no time limit on the use of the emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(1)]

- 19.b. You may operate your emergency stationary RICE for the purpose specified in Condition 19.b.i of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Condition 19.c counts as part of the 100 hours per calendar year allowed by this condition. [40 CFR 63.6640(f)(2)]
 - 19.b.i. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by the federal, state or local government, manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition LRAPA for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [40 CFR 63.6640(f)(2)(i)]
- 19.c. Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in Condition 19.b. Except as provided in 40 CFR 63.6640(f)(4)(ii), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 63.6640(f)(4)]
- 20. The permittee must comply with the following work practice requirements as stated in 40 CFR 63 subpart ZZZZ Table 2d: [40 CFR 63.6603(a), 40 CFR Part 63 Subpart ZZZZ Table 2d, Rows 4.a through 4.c]
 - 20.a. Change oil and filter every 500 hours of operation or annually, whichever comes first.
 - 20.b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
 - 20.c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- 21. The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Condition 20.a. The oil analysis must be performed at the same frequency specified for changing the oil in in Condition 20.a. The analysis program must at a minimum analyze the following three (3) parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: [40 CFR 63.6625(i)]
 - 21.a. Total Base Number is less than 30 percent of the Total Base Number of the oil when new
 - 21.b. Viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or
 - 21.c. Percent water content (by volume) is greater than 0.5.

If all of the condemning limits in Conditions 21.a through 21.c are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the permittee must change the oil within 2 business days or before commencing operation, whichever is later. The permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the

engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63.6625(i)]

- 22. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Condition 20 or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. The permittee must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable. [40 CFR 63.6603(a), 40 CFR 63 Subpart ZZZZ Table 2d]
- 23. The permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e)(3), 40 CFR 63 Subpart ZZZZ Table 6, Row 9]
- 24. The permittee must install a non-resettable hour meter on the emergency generator if one is not already installed. [40 CFR 63.6625(f)]
- 25. During periods of startup the permittee must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63.6625(h)]
- 26. Monitoring and Recordkeeping
 - 26.a. The permittee must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the permittee operated and maintained the stationary RICE according to their own maintenance plan. [40 CFR 63.6655(e)]
 - 26.b. The permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [40 CFR 63.6655(f)]
 - 26.c. The permittee must keep records in a form suitable and readily available for expeditious review according to 40 CFR 63.10(b)(1). As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). [40 CFR 63.6660]

Monitoring and Recordkeeping Requirements

27. The permittee must monitor and maintain records for a period of at least five (5) years from the date of entry of the following information: [LRAPA 34-0160 and 42-0080]

Parameter (units)	Minimum Recording Frequency
Perlite production for each furnace (tons of expanded perlite)	Monthly

Expiration Date: December 15, 2027

Parameter (units)	Minimum Recording Frequency	
Natural gas usage (MMscf)	Monthly	
Soil Mixing throughput (tons)	Monthly	
Emission calculations as specified in Condition 5	Monthly	
Baghouse pressure drop (in. H ₂ O) readings	Weekly	
Records of baghouse and cyclone maintenance	Per occurrence	
Fugitive emission surveys	Monthly	
Records of complaints received	Per occurrence	
Upset log of all planned and unplanned excess emissions	Per occurrence	

Reporting Requirements

- 28. For each year this permit is in effect, the permittee must submit to LRAPA *by February 15th* the following information from the previous calendar year: [LRAPA 34-016 and 42-0080]
 - 28.a. Calculations of annual PM, PM₁₀, PM_{2.5}, CO and NOx emissions determined each month to demonstrate compliance with PSELs in accordance with Condition 5. The summary must include emission calculations corresponding to each 12-month rolling period in the previous calendar year.
 - 28.b. A list of changes made in facility processes, production levels, and pollution control equipment.
 - 28.c. A summary of maintenance performed on pollution control equipment.
 - 28.d. A summary of complaints related to air quality received by the permittee during the previous calendar year and their resolution.
 - 28.e. A summary of any upsets that resulted in planned and unplanned excess emissions as required by Condition G15.
- 29. The permittee must submit an annual GHG report, as applicable, in accordance with OAR 340 division 215.
- 30. Unless otherwise specified, all reports, test results, notifications, etc., required by the above terms and conditions must be reported to the following office: [LRAPA 34-016]

Lane Regional Air Protection Agency 1010 Main Street Springfield, Oregon 97477 (541) 736-1056

Fee Schedule

31. In accordance with adopted regulations, the permittee will be invoiced by October 1st each year for the Annual Fee due December 1st each year. [LRAPA 37-8020 Table 2]

CG/rr 12/15/2022

Expiration Date: December 15, 2027

ABBREVIATIONS, ACRONYMS AND DEFINTIONS

ACDP Air Contaminant Discharge Permit

ASTM American Society for Testing and Materials

AQMA Air Quality Maintenance Area

BDT Bone dry ton

CFR Code of Federal Regulations

CO Carbon monoxide

CO₂e Carbon dioxide equivalent

DEQ Oregon Department of Environmental Quality

dscf Dry standard cubic foot

EPA US Environmental Protection Agency

FCAA Federal Clean Air Act

ft² Square foot

GHG Greenhouse gases

gr/dscf Grains per dry standard cubic foot

HAP Hazardous Air Pollutant as defined by LRAPA title 12

I&M Inspection and maintenance

Ib Pound(s)

LRAPA Lane Regional Air Protection Agency

MFHAP Metal fabrication and finishing HAP means any compound of the following

metals: cadmium, chromium, lead, manganese, or nickel, or any of these metals

in the elemental form, with the exception of lead.

MM Million

MMBtu Million British thermal units

N/A Not applicable

NESHAP National Emissions Standards for Hazardous Air Pollutants

NO_X Nitrogen oxides

NSPS New Source Performance Standard

NSR New Source Review

O₂ Oxygen

OAR Oregon Administrative Rules
ORS Oregon Revised Statutes
O&M Operation and maintenance

PM Particulate matter

PM₁₀ Particulate matter less than 10 microns in size

ppm Part per million

PSD Prevention of Significant Deterioration

PSEL Plant Site Emission Limit

PTE Potential to Emit
scf Standard cubic foot
SER Significant Emission Rate
SIC Standard Industrial Code
SIP State Implementation Plan

SO₂ Sulfur dioxide

TACT Typically Achievable Control Technology

VE Visible emissions

VOC Volatile organic compound

year A period consisting of any 12- consecutive calendar months

Expiration Date: December 15, 2027

GENERAL PERMIT CONDITIONS

General Conditions and Disclaimers

- G1. A copy of the permit application and this Air Contaminant Discharge Permit (ACDP) must be available on site for inspection upon request. [LRAPA 37-0020(3)]
- G2. The permittee must allow the Director or his/her authorized representatives access to the plant site and pertinent records at all reasonable times for the purpose of making inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant discharge records and otherwise conducting necessary functions related to this permit in accordance with ORS 468.095. [LRAPA 13-020(1)(h)]
- G3. The issuance of this 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.

Performance Standards and Emission Limits

- G4. The permittee must not cause or permit the deposition of any particulate matter which is larger than 250 microns in size at sufficient duration and quantity, as to create an observable deposition upon the real property of another person. [LRAPA 32-055]
- G5. The permittee must not discharge from any source whatsoever such quantities of air contamination which cause injury or damage to any persons, the public, business or property. Such determination to be made by LRAPA. [LRAPA 32-090(1)]
- G6. The permittee must not cause or permit emission of water vapor if the water vapor causes or tends to cause detriment to the health, safety or welfare of any person or causes, or tends to cause damage to property or business. [LRAPA 32-090(2)]
- G7. The permittee must not willfully cause or permit the installation or use of any device or use of any means which, without resulting in a reduction in the total amount of air contaminants emitted, conceals emissions of air contaminants which would otherwise violate LRAPA rules.

 [LRAPA 32-050(1)]
- G8. The permittee must not cause or permit the installation or use of any device or use of any means designed to mask the emissions of an air contaminant which causes or tends to cause detriment to health, safety or welfare of any person. [LRAPA 32-050(2)]
- G9. The permittee must not allow any materials to be handled, transported, or stored; or a building, its appurtenances or road(s) to be used, constructed, altered, repaired, or demolished; or any equipment to be operated, without taking reasonable precautions to prevent particulate matter from being airborne. [LRAPA 48-015(1)]
- G10. The permittee may not cause or allow air contaminants from any source subject to regulation by LRAPA to cause nuisance. [LRAPA 49-010(1)]

Excess Emissions: General Policy

G11. Emissions of air contaminants in excess of applicable standards or permit conditions are unauthorized and are subject to enforcement action, pursuant to LRAPA 36-010 and 36-030. These rules apply to any permittee operating a source which emits air contaminants in violation of any applicable air quality rule or permit condition, including but not limited to excess emissions

resulting from the breakdown of air pollution control devices or operating equipment, process upset, startup, shutdown, or scheduled maintenance. Sources that do not emit air contaminants in excess of any applicable rule or permit condition are not subject to the recordkeeping and reporting requirements in LRAPA title 36. Emissions in excess of applicable standards are not excess emissions if the standard is in an NSPS or NESHAP and the NSPS or NESHAP exempts startups, shutdowns and malfunctions as defined in the applicable NSPS or NESHAP. [LRAPA 36-001(1)]

Excess Emissions: Notification and Record-keeping

- G12. For all other excess emissions not addressed in LRAPA Sections 36-010, 36-015, or 36-040, the following requirements apply: [LRAPA 36-020(1)]
 - a. The owner or operator, of a small source, as defined by LRAPA 36-005(7), need not notify LRAPA of excess emissions events immediately unless otherwise required by permit condition, written notice by LRAPA, or if the excess emission is of a nature that could endanger public health.
 - b. Notification must be made to the LRAPA office. The current LRAPA telephone number during regular business hours (8 a.m. 5 p.m., M-F) is (541) 736-1056. During nonbusiness hours, weekends, or holidays, the permittee must immediately notify LRAPA by calling the LRAPA Upset/Complaint Line. The current number is (541) 726-1930.
 - c. Follow-up reporting, if required by LRAPA, must contain all information required by Condition G15.
- G13. At each annual reporting period specified in this permit, or sooner if required by LRAPA, the permittee must submit a copy of the upset log entries for the reporting period, as required by Condition G15. [LRAPA 36-025(4)(a)]
- G14. Any excess emissions which could endanger public health or safety must immediately be reported to the Oregon Emergency Response System (OERS) at 1-800-452-0311.
- G15. The permittee must keep an upset log of all planned and unplanned excess emissions. The upset log must include the following: [LRAPA 36-025(3) and 36-030(1)]
 - a. date and time each event was reported to LRAPA;
 - whether the process handling equipment and the air pollution control equipment were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
 - whether repairs or corrections were made in an expeditious manner when the permittee knew or should have known that emission limits were being or were likely to be exceeded;
 - d. whether the event was one in a recurring pattern of incidents which indicate inadequate design, operation, or maintenance; and
 - e. final resolution of the cause of the excess emissions.

Upset logs must be kept by the permittee for five (5) calendar years. [LRAPA 36-025(3)]

Excess Emissions: Scheduled Maintenance

G16. If the permittee anticipates that scheduled maintenance of air contaminant sources or air pollution

Page 13 of 15

Aurora Innovations, LLC Permit No. 200053

Expiration Date: December 15, 2027

control devices may result in excess emissions, the permittee must obtain prior LRAPA authorization of procedures that will be used to minimize excess emissions. Application for approval of procedures associated with the scheduled maintenance must be submitted and received by LRAPA in writing at least seventy-two (72) hours prior to the event. The application must include the following: [LRAPA 36-015(1)]

- a. reasons explaining the need for maintenance, including but not limited to: why the maintenance activity is necessary; why it would be impractical to shut down the source operation during the maintenance activity; if applicable, why air pollution control devices must be by-passed or operated at reduced efficiency during the maintenance activity; and why the excess emissions could not be avoided through better scheduling for maintenance or through better operation and maintenance practices;
- b. identification of the specific production or emission control device or system to be maintained;
- c. identification of the nature of the air contaminants likely to be emitted during the maintenance period, and the estimated amount and duration of the excess emissions, including measures such as the use of overtime labor and contract services and equipment that will be taken to minimize the length of the maintenance period; and
- d. identification of specific procedures to be followed which will minimize excess emissions at all times during the scheduled maintenance.
- G17. No scheduled maintenance associated with the approved procedures in Condition G16 that is likely to result in excess emissions may occur during any period in which an Air Pollution Alert, Air Pollution Warning, or Air Pollution Emergency has been declared, or during an announced yellow or red woodstove advisory period, in areas determined by LRAPA as PM_{2.5} or PM₁₀ nonattainment areas. [LRAPA 36-015(6)]
- G18. In cases where LRAPA has not received notification of scheduled maintenance that is likely to cause excess emissions within the required seventy-two (72) hours prior to the event, or where such approval has not been waived pursuant to LRAPA 36-015(3), the permittee must immediately notify LRAPA by telephone of the situation, and must be subject to the requirements of Conditions G12 and G13. [LRAPA 36-015(7)]

Air Pollution Emergencies

G19. The permittee must, upon declaration of an air pollution alert, air pollution warning, or air pollution emergency, take all emission reduction measures specified in Tables 1, 2, and 3 of LRAPA title 51. Permittees responsible for a source of air contamination within a Priority I AQCR must, upon declaration of an episode condition affecting the locality of the air contamination source, take all appropriate actions specified in the applicable table and must take all appropriate actions specified in an LRAPA-approved preplanned abatement strategy for such condition which has been submitted and is on file with LRAPA. [LRAPA 51-015]

Notification of Construction/Modification

- G20. The permittee must notify LRAPA in writing using an LRAPA "Notice of Intent to Construct" form, or other permit application forms and obtain approval in accordance with LRAPA 34-010 and 34-034 through 34-038 before:
 - a. constructing, installing or establishing a new stationary source that will cause an increase in regulated pollutant emissions

b. making any physical change or change in the operation of an existing stationary source that will cause an increase, on an hourly basis at full production, in any regulated pollutant emissions; or

c. constructing or modifying any pollution control equipment.

Notification of Name Change

G21. The permittee must notify LRAPA in writing, using an LRAPA Application for Administrative Amendment to ACDP form, within 60 days after legal change of the registered name of the company with the Corporation Division of the State of Oregon. [LRAPA 37-0030(4)]

Applicable administrative fees must be submitted with an application for the name change.

Permit Renewal

- G22. Application for renewal of this permit must be submitted not less than 120 days prior to the permit expiration date for Simple ACDPs, and 180 days prior to the permit expiration date for Standard ACDP. [LRAPA 37-0040(2)(b)]
- G23. A source may not be operated after the expiration date of a permit, unless any of the following occur prior to the expiration date of the permit: [LRAPA 37-0082(1)(a)]
 - a. A timely and complete application for renewal or for an LRAPA Title V Operating Permit has been submitted; or
 - b. Another type of permit, ACDP or Title V, has been issued authorizing operation of the source.
- G24. For a source operating under an ACDP or LRAPA Title V Operating Permit, a requirement established in an earlier ACDP remains in effect notwithstanding expiration of the ACDP, unless the provision expires by its terms or unless the provision is modified or terminated according to the procedures used to establish the requirement initially. [LRAPA 37-0082(1)(c)
- G25. Any permittee who fails to submit any relevant facts or who has submitted incorrect information in a permit application must, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. [LRAPA 37-0040(4)]

Termination Conditions

- G26. This permit will be automatically terminated upon: [LRAPA 37-0082(2)]
 - a. Issuance of a renewal or new ACDP for the same activity or operation;
 - b. Written request of the permittee, if LRAPA determines that a permit is no longer required;
 - c. Failure to submit a timely application for permit renewal. Termination is effective on the permit expiration date; or;
 - d. Failure to pay annual fees within 90 days of invoice by LRAPA, unless prior arrangements for payment have been approved in writing by LRAPA.
- G27. If LRAPA determines that a permittee is in noncompliance with the terms of the permit, submitted false information in the application or other required documentation, or is in violation of any applicable rule or statute, LRAPA may revoke the permit. LRAPA will provide notice of the intent to revoke the permit to the permittee under LRAPA title 31. The notice will include the reasons why the permit will be revoked, and include an opportunity for the permittee to request a

contested case hearing prior to the revocation. A written request for hearing must be received by LRAPA within 60 days from service of the notice on the permittee, and must state the grounds of the request. The hearing will be conducted as a contested case hearing under ORS 183.413 through 183.470 and LRAPA title 14. The permit will continue in effect until the 60th day after service of the notice on the permittee, if the permittee does not timely request a hearing, or until a final order is issued if the permittee timely requests a hearing. [LRAPA 37-0082(4)(a)]

- G28. A permit automatically terminated under LRAPA 37-0082(2)(b) through (2)(d) may only be reinstated by the permittee by applying for a new permit. The permittee must also pay the applicable new source permit application fees in this title unless the owner or operator submits the renewal application within three months of the permit expiration date. [LRAPA 37-0082(3)]
- G29. If LRAPA finds there is a serious danger to the public health, safety or the environment caused by a permittee's activities, LRAPA may immediately revoke or refuse to renew the permit without prior notice or opportunity for a hearing. If no advance notice is provided, notification will be provided to the permittee as soon as possible as provided under LRAPA title 31. The notification will set forth the specific reasons for the revocation or refusal to renew and will provide an opportunity for the permittee to request a contested case hearing for review of the revocation or refusal to renew. A permittee's written request for hearing must be received by LRAPA within 90 days of service of the notice on the permittee and must state the grounds for the request. The hearing will be conducted as a contested case hearing under ORS 183.413 through 183.470 and LRAPA title 14. The revocation or refusal to renew becomes final without further action by LRAPA if a request for a hearing is not received within the 90 days. If a request for a hearing is timely received, the revocation or refusal to renew will remain in place until issuance of a final order. [LRAPA 37-0082(4)(b)]
- G30. Any hearing requested must be conducted pursuant to the rules of LRAPA. [LRAPA title 14]

Asbestos

G31. The permittee must comply with the asbestos abatement requirements in LRAPA title 43 for all activities involving asbestos-containing materials, including, but not limit to, demolition, renovation, repair, construction, and maintenance. [LRAPA title 43]

[Revised 1/12/18]