Olympic Region Clean Air Agency
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Executive Director
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Serving Clallam, Grays Harbor, Jefferson, Mason, Pacific, and Thurston counties.

Air Operating Permit (AOP)

Aquatic Company

AOP - Reopening for Cause
18RFC1287
June 26, 2020

AIR OPERATING PERMIT

Olympic Region Clean Air Agency
2940 Limited Lane NW
Olympia, WA 98502
(360) 539-7610 or 1-800-422-5623

ISSUED IN ACCORDANCE WITH:
40 CFR Part 70, Chapter 70.94 RCW, and Chapter 173-401 WAC

PERMIT NO:	18RFC1287
ISSUANCE DATE:	June 26, 2020
EXPIRATION DATE:	June 26, 2025
PERMITTEE & MAILING ADDRESS:	Aquatic Company 801 Northern Pacific Road SE Yelm, WA 98589
FACILITY LOCATION:	801 Northern Pacific Yelm, WA 98589
FACILITY DESCRIPTION:	Manufacturer of bathtubs, showers, spas and other bathware products.
ORCAA File #:	250
PRIMARY SIC:	3088

REVIEWED BY: Mark V Goodin 6/26/2020

MARK V. GOODIN
STATE OF WASHINGTON
28948
REGISTERED
PROFESSIONAL ENGINEER

APPROVED BY: Francesca McEva
6/26/2020

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I. ABBREVIATIONS

The following is a list of abbreviations used in this permit.

Administrator	EPA Region X Administrator
AOP	Air Operating Permit
AP-42	EPA Compilation of Emission Factors, AP-42, Fifth Edition, Volume I
AR#	Refers to a specific applicable requirement numbered "#"
ASTM	American Society for Testing and Materials
CFR	Code of Federal Regulations
CO	Carbon monoxide
CRTO	Rotary Concentrator and Regenerative Thermal Oxidizer
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
FCAA	Federal Clean Air Act
FRP	Fiberglass Reinforced Plastic
EU#	Refers to a specific emissions unit numbered "#"
G#	Refers to a specific general term or condition numbered "#"
grain/dscf	Concentration in terms of grains per dry standard cubic feet
HAP	Hazardous Air Pollutant
hp	Horsepower
M#	Refers to a specific monitoring term or condition numbered "#"
MACT	Maximum Achievable Control Technology
MMBtu/hr	Million British Thermal Units per hour
NESHAP	National Emission Standards for Hazardous Air Pollutants
NAICS	North American Industry Classification System
NOC	Notice of Construction
NO_x	Oxides of Nitrogen
NSPS	New Source Performance Standards
NSR	New Source Review
O&M	Operations and Maintenance Plan
ORCAA	Olympic Region Clean Air Agency
P#	Refers to a specific permit term or provision numbered "#"
PM	Particulate matter air pollution
PM_{10}	Particulate matter with aerodynamic diameter less than 10 microns
$PM_{2.5}$	Particulate matter with aerodynamic diameter less than 2.5 microns
ppm	Parts per million by volume (assumed standard and dry)
PSD	Prevention of Signification Deterioration
PW#	Refers to a plant-wide applicable requirement numbered "#"
RACT	Reasonably Available Control Technology
R#	Refers to a specific reporting term or condition numbered "#"
RCW	Revised Code of Washington
RK#	Refers to a specific record keeping term or condition numbered "#"
REQ	Requirement
RICE	Reciprocating Internal Combustion Engine
SIC	Standard Industrial Classification

S#	Refers to a specific permit shield term or provision numbered "#"
SO_2	Sulfur dioxide
TAP	Toxic Air Pollutant as defined in Chapter 173-460 WAC
TPY	Tons per year
VOC	Volatile Organic Compounds
WAC	Washington Administrative Code
§	40 CFR

[END OF SECTION]

II. REGULATORY BASIS

Pursuant to Chapter 173-401 Washington Administrative Code (WAC), the "Permittee", Aquatic Company, Inc. (Aquatic), is authorized to operate their bathware products manufacturing Facility (Facility) located at 801 Northern Pacific in Yelm, Washington, in accordance with the terms and conditions listed in this permit.

The terms and conditions in this permit contain the emission limitations, operating requirements, and monitoring recordkeeping and reporting requirements that apply to the Facility. All terms and conditions of this permit, including any provisions designed to limit potential to emit, are enforceable under the Federal Clean Air Act (FCAA) unless specifically identified as not federally enforceable in the "regulatory basis" description that follows each condition. Conditions identified as "local only" are enforceable only by Olympic Region Clean Air Agency (ORCAA). Conditions identified as "state/local only" are enforceable only by ORCAA and the State of Washington. Conditions identified as "local only", "state only", or "state/local only" are not federally enforceable.

The conditions in this permit contain abbreviated and, in some cases, paraphrased versions of the language of the applicable requirements from the underlying laws, regulations and regulatory orders. Any difference between the description of an applicable requirement in this permit compared to the corresponding law, regulation or order is provided for purposes of clarifying the underlying requirement. The legal requirement remains the underlying applicable requirement cited in the "Applicable Requirement" column of the tables and the citations contained in brackets at the end of each requirement. Any perceived conflicts between the permit and an underlying applicable requirement will be resolved by referring to the cited applicable requirement.

Unless otherwise stated, terms used in the conditions of this permit shall be defined consistent with their definitions from the corresponding referenced regulations. If not defined in the referenced regulations, terms shall be defined consistent with the definitions contained in Chapter 70.94 RCW, WAC 173-401-030, WAC 173-400-200, and ORCAA Regulation 1. Terms not defined in this permit or by applicable regulation shall be defined consistent with the Merriam-Webster's Collegiate Dictionary, Tenth Edition copyright © 2003 by Merriam-Webster Inc.

Unless otherwise stated, the versions of the referenced laws, regulations and orders cited in this permit are the versions that were in effect on the date this permit was issued.

[*END OF SECTION*]

III. EMISSION UNIT (EU) IDENTIFICATION

The following emissions units are covered under this permit.

TABLE 1: Emissions Units Covered Under Permit

Emission Unit ID#	Description	Control Equipment	Exhaust Point
EU1 (Line 1)	**Line 1:** EU1 is a distinct Fiberglass Reinforced Plastics (FRP) production line which uses gelcoat or a vacuum formed acrylic sheet as the 1st layer followed by polyester resin for subsequent laminates. Air emissions include Volatile Organic Compounds (VOC), Hazardous Air Pollutants (HAP) and particulate.	1. Spray Booths 2. Rotary Concentrator and Regenerative Thermal Oxidizer (CRTO).	CRTO Stack: Height = 30 ft (from ground) Diameter = 88 inches
EU2 (Line 2)	**Line 2:** EU2 is a distinct FRP production line which uses a gelcoat or vacuum-formed acrylic sheet as the 1st layer followed by polyester resin for subsequent laminates. All processes of EU2 are located in Building #2. Emissions include VOC, HAP and particulate.		
EU3 (Mixing)	**Mixing Operations:** EU3 includes all VOC, HAP and particulate emissions from resin and gelcoat mixing operations which support both production lines.	CRTO	
EU4 (Line 2 Tooling)	**Line 2 Parts Finishing:** EU4 includes all mechanical operations on finished parts from Line 2 which generate particulate air emissions.	Dust Collectors	N/A – exhaust within building
EU5 (Armor Coat)	**Protective Coating Application:** EU5 encompasses operations used to apply a flexible plastic coating on finished parts to protect them during shipping. The flexible plastic coating (referred to as Armor Shield) is a two-part polyurea material that is spray applied within a dedicated spray booth.	Armor Shield Spray Booth	Armor Shield Spray Booth stack: Height = 25ft from ground level Diameter = 34" Butterfly rain damper

[END OF SECTION]

IV. PERMIT ADMINISTRATION (P)

Permit administration terms and provisions govern administration of the permit and include AOP administrative and other requirements that have no ongoing compliance monitoring requirements. The Permittee must comply with the requirements listed below and must certify compliance annually. Unless the text of the term is specifically identified to be directly enforceable, the language of the cited applicable requirement takes precedence.

P1. Permit Duration. This permit is issued for a fixed term of 5 years from date of issuance.
[Origin: WAC 173-401-610]
[Authority: WAC 173-401-600(1)(b)]

P2. Federally Enforceable Requirements.

a) All terms and conditions in this air operating permit, including any provision designed to limit potential to emit, are enforceable by the Administrator and citizens under the FCAA, except as indicated in b) below.

b) Notwithstanding subsection (a) of this condition, any terms and conditions included in this permit that are not required under the FCAA or under any of its applicable requirements are specifically designated as "state" or "local" only, and are not federally enforceable under the FCAA. Terms and conditions so designated are not subject to the requirements of WAC 173-401-810 and 820.

[Origin: WAC 173-401-625]
[Authority: WAC 173-401-600(1)(b)]

P3. Compliance Maintenance. The Permittee shall maintain compliance with all applicable requirements with which the source was in compliance as of the date of permit issuance. The Permittee shall meet on a timely basis any applicable requirements that become effective during the permit term.
[Origin: WAC 173-401-630(3); WAC 173-401-510(2)(h)(iii)]
[Authority: WAC 173-401-600(1)(b)]

P4. Standard Conditions:

a) **Duty to comply.** The Permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of Chapter 70.94 RCW and, for federally enforceable provisions, a violation of the FCAA. Such violations are grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application. [Origin: WAC 173-401-620(2)(a)]

b) **Need to Halt or Reduce Activity Not a Defense.** It shall not be a defense for the 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. [Origin: WAC 173-401-620(2)(b)]

c) **Permit Actions.** This permit may be modified, revoked, reopened, and reissued, or

terminated for cause. 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. [Origin: WAC 173-401-620(2)(c)]

d) **Property Rights.** This permit does not convey property rights of any sort, or any exclusive privilege. [Origin: WAC 173-401-620(2)(d)]

e) **Duty to Provide Information.** The Permittee shall furnish to ORCAA, within a reasonable time, any information that ORCAA 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 shall also furnish to ORCAA copies of records that the Permittee is required to keep by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to ORCAA along with a claim of confidentiality per condition P15. Permitting authorities shall maintain confidentiality of such information in accordance with RCW 70.94.205. [Origin: WAC 173-401-620(2)(e)]

f) **Annual Fees.** The Permittee shall pay an annual permit fee as a condition of this permit in accordance with ORCAA's fee schedule contained in ORCAA Rule 3.2. Failure to pay fees in a timely fashion shall subject the Permittee to civil and criminal penalties as prescribed in Chapter 70.94 RCW. [Origin: WAC 173-401-620(2)(f); ORCAA Rule 3.2]

g) **Emission Trading.** No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit. [Origin: WAC 173-401-620(2)(g)]

h) **Severability.** If any provision of this permit is to be held invalid, all unaffected provisions of the permit shall remain in effect and enforceable. [Origin: WAC 173-401-620(2)(h)]

i) **Permit Appeals.** This permit or any conditions in it may be appealed only by filing an appeal with the Washington State Pollution Control Hearings Board and serving it on ORCAA within thirty days from receiving the permit pursuant to RCW 43.21B.310. This provision for appeal in this section is separate from and additional to any federal rights to petition and review under §505(b) of the FCAA. [Origin: WAC 173-401-620(2)(i)]

j) **Permit continuation.** This permit and all terms and conditions contained therein, including any permit shield provided under WAC 173-401-640, shall not expire until the renewal permit has been issued or denied if a timely and complete application has been submitted. An application shield granted pursuant to WAC 173-401-705(2) shall remain in effect until the renewal permit has been issued or denied if a timely and complete application has been submitted. This protection shall cease to apply if, subsequent to a completeness determination, the applicant fails to submit by the deadline specified in writing by ORCAA any additional information identified as being needed to process the application. [Origin: WAC 173-401-620(2)(j)]

[Authority: WAC 173-401-620(2)]

P5. Duty to Supplement or Correct Application. The Permittee, upon becoming aware that any relevant facts were omitted, or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information.
[Origin: WAC 173-401-500(6)]
[Authority: WAC 173-401-600(1)(b)]

P6. False or Misleading Statements. No person shall willfully make a false or misleading statement to ORCAA as to any matter within the jurisdiction of ORCAA. No person shall make any false material statement, representation or certification in any form, notice or report required under chapter 70.94 or 70.120 RCW, or any ordinance, resolution, regulation, permit or order in force pursuant thereto.
[Origin: WAC 173-400-105(6) (state/local only) and ORCAA 7.2 (local only)]
[Authority: WAC 173-401-600(1)(b)]

P7. Permit Renewal Application. The Permittee shall submit a complete renewal application to ORCAA at least 6 months, but no more than 18 months, prior to the expiration date of this permit.
[Origin: WAC 173-401-710(1)]
[Authority: WAC 173-401-600(1)(b)]

P8. Permit Expiration – Application Shield. Permit expiration terminates the Permittee's right to operate unless a timely and complete renewal application has been submitted consistent with condition P7. All terms and conditions of the permit shall remain in effect after the permit itself expires if a timely and complete permit application has been submitted.
[Origin: WAC 173-401-710(3)]
[Authority: WAC 173-401-600(1)(b)]

P9. Permit Revocation. The permitting authority may revoke a permit only upon the request of the Permittee or for cause. The permitting authority shall provide at least thirty days written notice to the holder of a current operating permit prior to revocation of the permit or denial of a permit renewal application. Such notice shall include an explanation of the basis for the proposed action and afford the Permittee/applicant an opportunity to meet with the permitting authority prior to the authority's final decision. A revocation issued under this section may be issued conditionally with a future effective date and may specify that the revocation will not take effect if the Permittee satisfies the specified conditions before the effective date.
[Origin: WAC 173-401-710(4)]
[Authority: WAC 173-401-600(1)(b)]

P10. Reopening for Cause - Proceedings to Re-open. The permit shall be re-opened and revised under any of the following circumstances:

a) Additional requirements become applicable to the source with a remaining permit term of three or more years. Such a reopening shall be completed not later than eighteen months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to WAC 173-401-620(2)(j);

b) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit;

c) ORCAA or the Administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or

d) ORCAA or the Administrator determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

Proceedings to reopen and issue this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopening under this section shall not be initiated before a notice of such intent is provided to the Permittee by the permitting authority. Such notice shall be made at least 30 days in advance of the date that the permit is to be reopened, except that the permitting authority may provide a shorter time period in the case of an emergency.
[Origin: WAC 173-401-730]
[Authority: WAC 173-401-600(1)(b)]

P11. Changes not Requiring Permit Revision/Off Permit Changes. The Permittee may make the changes described in WAC 173-401-722 and WAC 173-401-724 without revising this permit, provided that the changes satisfy the criteria set forth in those sections, including the requirements to notify ORCAA and EPA.
[Origin: WAC 173-401-722; and WAC 173-401-724]
[Authority: WAC 173-401-600(1)(b)]

P12. Administrative Permit Amendments. The Permittee may request an "administrative permit amendment" for the following types of permit revisions:

a) Correction of typographical errors;

b) Change the name, address, or phone number of any person identified in the permit, or provide a similar minor administrative change at the source;

c) Require more frequent monitoring or reporting by the Permittee;

d) Allow for a change in ownership or operational control of a source where the permitting authority determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility,

coverage, and liability between the current and new Permittee has been submitted to the permitting authority; and,

e) Incorporate into the chapter 401 permit the terms, conditions, and provisions from orders approving NOC applications processed under an EPA-approved program.

Application and approval of administrative permit amendment applications shall conform to the procedures in WAC 173-401-720.
[Origin: WAC 173-401-720]
[Authority: WAC 173-401-600(1)(b)]

P13. Permit Modifications. Permit revisions that cannot be accomplished using the provisions for administrative permit amendments shall be applied for and approved as a permit modification according to WAC 173-401-725.
[Origin: WAC 173-401-725]
[Authority: WAC 173-401-600(1)(b)]

P14. Greenhouse Gas Reporting Fee. The Permittee must pay a greenhouse gas (GHG) reporting fee for each year they submit a GHG report to Ecology. Fees will be paid according to Ecology's fee schedule. Fees must be paid within sixty days of receipt of Ecology's billing statement.
[Origin: WAC 173-441-110 (state/local only)]
[Authority: WAC 173-401-600(1)(b)]

P15. Confidential Information. The Permittee is responsible for certifying and clearly identifying any information considered proprietary and confidential. In the case where a Permittee has submitted information to ORCAA under a claim of confidentiality, ORCAA may also require the Permittee to submit a copy of such information directly to the administrator. The Permittee is responsible for clearly identifying information that is considered proprietary and confidential prior to submittal to ORCAA. In addition, all confidential information shall be submitted according to ORCAA's Public Records and Confidentiality Procedures.
[Origin: WAC 173-401-500(5); ORCAA Rule 1.6(local only); and, WAC 173-401-630(1)]
[Authority: WAC 173-401-600(1)(b)]

P16. Credible Evidence. For purposes of certifying compliance or establishing whether or not the Permittee has violated or is in violation of this permit, nothing shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with the requirements if the appropriate performance or compliance test or procedure had been performed.
[Origin: 40 CFR 51.212; 40 CFR 52.12; 40 CFR 52.33; and, 40 CFR 61.12]
[Authority: WAC 173-401-600(1)(a)]

P17. Emergency Provision:

a) **Definition.** An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God and force majeure, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the AOP , due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

b) **Effect of an emergency.** An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of (c) are met:

c) **Criteria.** The affirmative defense of emergency is demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that demonstrates:

i) An emergency occurred and that the Permittee can identify the cause(s) of the emergency;

ii) The Facility was at the time being properly operated;

iii) During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the AOP; and

iv) The Permittee submitted notice of the emergency to ORCAA according to condition R6:

(1) Within two working days of the time when emission limitations were exceeded due to the emergency; or,

(2) For excess emissions that are a potential threat to human health or safety, as soon as possible, but in no case later than twelve hours after the excess emissions were discovered.

v) The notice submitted to ORCAA must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

d) **Burden of proof.** In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

e) **Relationship to other rules.** This provision is in addition to any emergency or upset provision contained in any applicable requirement.

[Origin: WAC 173-401-645]
[Authority: WAC 173-401-600(1)(b)]

P18. Unavoidable Excess Emissions (Current SIP). The following conditions apply until the effective date of EPA's removal of the September 20, 1993, version of WAC 173-400-107 from the Washington State Implementation Plan after which they become inapplicable:

a) Excess emissions determined to be unavoidable under the procedures and criteria in this condition shall be excused and not subject to penalty.

b) The Permittee shall have the burden of proving to ORCAA in an enforcement action that excess emissions were unavoidable. This demonstration shall be a condition to obtaining relief (from penalty).

c) Excess emissions due to an upset or malfunction will be considered unavoidable provided the Permittee reports as required by either condition R7 or R8. Excess emissions that represent a potential threat to human health or safety or which the Permittee believes to be unavoidable shall be reported to ORCAA as soon as possible. Other excess emissions shall be reported within thirty days after the end of the month during which the event occurred or as part of the routine emission monitoring reports. Upon request by ORCAA, the Permittee shall submit a full written report including the known causes, the corrective actions taken, and the preventive measures to be taken to minimize or eliminate the chance of recurrence.

d) Excess emissions due to startup or shutdown conditions shall be considered unavoidable provided the Permittee reports as required under subsection (c) of this condition and adequately demonstrates that the excess emissions could not have been prevented through careful planning and design and, if a bypass of control equipment occurs, that such bypass was necessary to prevent loss of life, personal injury, or severe property damage.

e) Excess emissions due to scheduled maintenance shall be considered unavoidable if the Permittee reports as required under subsection (c) of this section and adequately demonstrates that the excess emissions could not have been avoided through reasonable design, better scheduling for maintenance or through better operation and maintenance practices.

f) Excess emissions due to a malfunction or upset shall be considered unavoidable provided the Permittee reports as required under subsection (c) of this section and adequately demonstrates that:

- **i)** The event was not caused by poor or inadequate design, operation, maintenance, or any other reasonably preventable condition;
- **ii)** The event was not of a recurring pattern indicative of inadequate design, operation, or maintenance; and
- **iii)** The Permittee took immediate and appropriate corrective action in a manner consistent with good air pollution control practice for minimizing emissions during the event, taking into account the total emissions impact of the corrective action, including slowing or shutting down the emission unit as necessary to minimize emissions, when the Permittee knew or should have known that an emission standard or permit condition was being exceeded.

[Origin: WAC 173-400-107]
[Authority: WAC 173-401-600(1)(b)]

P19. Unavoidable Excess Emissions. The following conditions apply starting the effective date of EPA's removal of the September 20, 1993, version of WAC 173-400-107 from the Washington State Implementation Plan:

a) Excess emissions determined to be unavoidable under the procedures and criteria in this section are violations of the applicable statute, rule, permit, or regulatory order.
b) ORCAA determines whether excess emissions are unavoidable based on the information supplied by the Permittee and the criteria in subsection (g) of this condition.
c) Excess emissions determined by EFSEC to be unavoidable are:
   i) A violation subject to WAC 173-400-230 (3), (4), and (6); but
   ii) Not subject to civil penalty under WAC 173-400-230(2).
d) The Permittee shall have the burden of proving to ORCAA in an enforcement action that excess emissions were unavoidable. This demonstration shall be a condition to obtaining relief under subsection (g) of this section.
e) This condition (P19) does not apply to an exceedance of an emission standard in 40 C.F.R. Parts 60, 61, 62, 63, or 72, or ORCAA's adoption by reference of these federal standards.
f) Excess emissions that occur due to an upset or malfunction during a startup or shutdown event are treated as an upset or malfunction under subsection (g) of this section.
g) Excess emissions due to an upset or malfunction will be considered unavoidable provided the Permittee reports as required either by condition R7 or R8, as applicable, and adequately demonstrates to ORCAA that:
   i) The event was not caused by poor or inadequate design, operation, maintenance, or any other reasonably preventable condition;
   ii) The event was not of a recurring pattern indicative of inadequate design, operation, or maintenance;
   iii) The Permittee took immediate and appropriate corrective action in a manner consistent with safety and good air pollution control practice for minimizing emissions during the event, taking into account the total emissions impact of the corrective action, when the Permittee knew or should have known that an emission standard or other permit condition was being exceeded (Actions taken could include slowing or shutting down the emission unit as necessary to minimize emissions);
   iv) If the emitting equipment could not be shutdown during the malfunction or upset to prevent the loss of life, prevent personal injury or severe property damage, or to minimize overall emissions, repairs were made in an expeditious fashion;
   v) All emission monitoring systems and pollution control systems were kept operating to the extent possible unless their shutdown was necessary to prevent loss of life, personal injury, or severe property damage;
   vi) The amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent possible; and
   vii) All practicable steps were taken to minimize the impact of the excess emissions on ambient air quality.

[Origin: WAC 173-400-109]
[Authority: WAC 173-401-600(1)(b)]

P20. Certification. All documents required to be submitted by this permit shall contain certification by a responsible official of truth, accuracy, and completeness. Documents include any application form, report, or compliance certification including but not limited to test plans and results, monitoring plans and results, applications, emissions inventory submittals, equipment malfunction reports or annual compliance certification. Such certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Provided, however, where a report is sent more frequently than once every six months, the responsible official's certification need only be submitted once every six months, covering all required reporting since the date of the last certification.
[Origin: WAC 173-401-520; WAC 173-401-615(3)(a); and, WAC 173-401-630(1)]
[Authority: WAC 173-401-600(1)(b)]

[END OF SECTION]

V. GENERAL TERMS AND CONDITIONS (G)

G1. Inspection and Entry. Upon presentation of appropriate credentials, the Permittee shall allow a representative from ORCAA or an authorized representative to perform the following:

- **a)** Enter upon the premises where a Chapter 173-401 WAC source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- **b)** Have access to and copy at reasonable times any records that must be kept under the conditions of this permit;
- **c)** Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
- **d)** Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements.
- **e)** Nothing in this condition or permit shall limit the ability of EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.

[Origin: WAC 173-401-630(2)]
[Authority: WAC 173-401-600(1)(b)]

G2. Access for Inspection. No person shall refuse entry or access to an ORCAA representative who requests entry for the purpose of inspection, and who presents appropriate credentials; nor shall any person obstruct, hamper or interfere with any such inspection.
[Origin: ORCAA 1.5(e)(local only)]
[Authority: WAC 173-401-600(1)(b)]

G3. Insignificant Emission Units. The following applies to emissions units determined insignificant based on actual emissions in accordance with WAC 173-401-530(1)(a):

- **a)** Any emission unit or activity that qualifies as insignificant solely on the basis of provisions in WAC 173-401-530(1)(a) shall not exceed the emission thresholds specified in WAC 173-401-530(4) until this permit is modified pursuant to condition P13.
- **b)** Upon request from the permitting authority the Permittee must provide sufficient documentation to enable the permitting authority to determine that the emission unit or activity has been appropriately listed as insignificant.
- **c)** Upon request from the permitting authority, at any time during the term of the permit, the Permittee shall demonstrate to the permitting authority that the actual emissions of any unit or activity claimed insignificant on the basis of actual emissions are below the emission thresholds listed in WAC 173-401-530(4).

[Origin: WAC 173-401-530]
[Authority: WAC 173-401-600(1)(b)]

G4. New Source Review. Prior to commencing any new installation, replacement, modification or alteration of any stationary source, emission unit, area source or fugitive source, the Permittee shall secure all necessary approvals under Rule 6.1 of ORCAA Regulations.
[Origin: ORCAA 6.1 (local only); WAC 173-400-110 and 40 CFR Part 63, §63.5]
[Authority: WAC 173-401-600(1)(b)]

G5. Replacement or Substantial Alteration of Existing Control Equipment. Notification, review and approval by ORCAA according to Rule 6.1 of ORCAA's regulations is required prior to replacing or substantially altering any approved air pollution control device including

a) The pre-concentrator;
b) Regenerative thermal oxidizer (RTO); or,
c) Any spray booth associated with emissions capture systems.

[Origin: ORCAA 6.1.10 (local only); WAC 173-400-114; 40 CFR §63.5805(h) and §63.997(c)(3)]
[Authority: WAC 173-401-600(1)(b)]

G6. Temporary Sources. The Permittee may operate portable air contaminant sources at temporary locations within the Facility subject to this permit provided that the Permittee has complied with the requirements for temporary portable sources under ORCAA Rule 6.1.1.
[Origin: ORCAA 6.1.1 (local only); WAC 173-401-635]
[Authority: WAC 173-401-600(1)(b)]

G7. Demolition and Asbestos Projects. The Permittee shall comply with the notification and approval requirements in Rule 6.3 of ORCAA Regulations prior to commencing any asbestos, renovation, or demolition project at the Facility as defined in ORCAA Rule 6.3.1. The Permittee shall conduct all renovation, demolition and asbestos projects in accordance with applicable asbestos control standards and requirements in ORCAA Rule 6.3.
[Origin: ORCAA 6.3.2 (local only)]
[Authority: WAC 173-401-600(1)(b)]

G8. Demolition and Renovation Projects. The Permittee shall notify ORCAA prior to commencing any renovation or demolition activities at the Facility as defined in 40 CFR 61.141. The Permittee shall conduct all renovation, demolition and asbestos projects in accordance with applicable asbestos control standards and requirements in Subpart M of 40 CFR Part 61.
[Origin: 40 CFR Part 61, Subpart M]
[Authority: WAC 173-401-600(1)(a)]

G9. Protection of Stratospheric Ozone. The Permittee shall comply with the standards for recycling and emissions reduction as provided in 40 CFR Part 82, Subparts B and F.
[Origin: 40 CFR Part 82, Subparts B & F]
[Authority: WAC 173-401-600(1)(a)]

G10. Prohibition of Emissions Detrimental to Persons or Property. No person shall cause or allow the emission of any air contaminant from any source if it is detrimental to the health, safety, or welfare of any person, or causes damage to property or business.
[Origin: WAC 173-400-040(6) (state/local only); and, ORCAA 7.6 (local only)]
[Authority: WAC 173-401-600(1)(b)]

G11. Concealment and Masking Prohibited:

- **a)** No person shall cause or allow the installation or use of any device or use of any means, which conceals or masks an emission of air contaminant, which would otherwise violate any provisions of ORCAA's Regulations, chapter 173-400 WAC, 40 CFR Part 60, or 40 CFR Part 63.
- **b)** No person shall cause or allow the installation or use of any device or use of any means designed to conceal or mask the emission of an air contaminant, which causes detriment to health, safety, or welfare of any person, or cause damage to property or business.
- **c)** Such concealment includes, but is not limited to:
  - i) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere;
  - ii) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions.

[Origin: WAC 173-400-040(8) (state/local only); and, ORCAA 7.5 (local only)]
[Authority: WAC 173-401-600(1)(b)]

G12. Circumvention Prohibited. Building, erecting, installing, or using any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard is prohibited. Such concealment includes, but is not limited to:

- **a)** The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere; and,
- **b)** The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions.

[Origin: 40 CFR 63.4(b)]
[Authority: WAC 173-401-600(1)(a)]

G13. Fragmentation Prohibited. Fragmentation which divides ownership of an operation, within the same facility among various owners where there is no real change in control, will not affect applicability. The owner and operator must not use fragmentation or phasing of reconstruction activities (i.e., intentionally dividing reconstruction into multiple parts for purposes of avoiding new source requirements) to avoid becoming subject to new source requirements.
[Origin: 40 CFR 63.4(c)]
[Authority: WAC 173-401-600(1)(a)]

[END OF SECTION]

VI. APPLICABLE REQUIREMENTS

TABLE 3: Applicable Requirements.

AR#	Requirements	Applicability	Monitoring
	General Standards and Prohibitions		
1.1	**Odor Control.** Any person who shall cause or allow the generation of any odor from any source which may unreasonably interfere with any other property owner's use and enjoyment of his or her property must use recognized good practice and procedures to reduce these odors to a reasonable minimum. [Origin: WAC 173-400-040(5) (state/local only); and, ORCAA 8.5(a) (local only)] [Authority: WAC 173-401-600(1)(b)]	Applies Facility-wide	M1
1.2	**Odor Prohibition.** No person shall cause or allow the emission or generation of any odor from any source that unreasonably interferes with another person's use and enjoyment of their property. [Origin: ORCAA 8.5(c) (local only)] [Authority: WAC 173-401-600(1)(b)]	Applies Facility-wide	M1
1.3	**General Standards for Maximum Visual Emissions.** a) In equipment or facilities, including boilers using hogged fuel, regardless of their date of installation, no person shall cause or allow the emission to the outdoor atmosphere, for more than three (3) minutes in any one hour, of a gas stream containing air contaminants which are greater than 20% opacity. b) Observations shall be made by trained and certified observers or by LIDAR instrumentation. c) The exceptions to the opacity standard stated in (a) above are as follows: i) Emissions occurring due to soot blowing or grate cleaning may be greater than 20% opacity; providing the operator can demonstrate that soot blowing or grate cleaning will not exceed a total of 15 minutes in any consecutive 8 hours. This practice, except for testing and troubleshooting, is to be scheduled for the same approximate times each day and ORCAA shall be advised of the schedule. ii) When the owner or operator of a source supplies valid data to show that the presence of uncombined water is the only reason for the opacity to exceed 20%. **Reference Test Method:** Ecology Method 9A. [Origin: ORCAA 8.2 (local only); and, WAC 173-400-040(2)(state/local only)]	Applies Facility-wide to emissions from vents, stacks and ducts.	M4

AR#	Requirements	Applicability	Monitoring
	[Authority: WAC 173-401-600(1)(b); and, WAC 173-401-605(1)]		
1.4	**Sulfur Dioxide.** WAC 173-400-040(6) prohibits emission of a gas containing sulfur dioxide from any emission unit in excess of 1,000 ppm of sulfur dioxide on a dry basis, corrected to 7% oxygen for combustion sources, and based on the average of any period of 60 consecutive minutes in accordance with the reference test method. **Reference Test Methods:** EPA Method 6 of 40 CFR Part 60 Appendix A. [Origin: WAC 173-400-040(7)] [Authority: WAC 173-401-600(1)(b); and, WAC 173-401-605(1)]	Applies Facility-wide	Not required
1.5	**General Particulate Standards for Combustion Units.** No person shall cause or allow the emissions of particulate matter in excess of 0.23 gram per dry cubic meter at standard conditions (0.1 grain/dscf). **Reference Test Methods:** EPA Method 5 of 40 CFR Part 60 Appendix A and EPA Method 202 of 40 CFR Part 51 Appendix M. [Origin: WAC 173-400-050(1)(state/local only); and, ORCAA 8.3(a) (local only)] [Authority: WAC 173-401-600(1)(b); and, WAC 173-401-605(1)]	Applies Facility-wide to combustion emissions units including CRTO stack	M4
1.6	**General Emission Standards for Process Units.** No person shall cause or allow the emission of particulate matter from any general process operation in excess of 0.23 grams per dry cubic meter at standard conditions (0.1 grain/dscf) of exhaust gas. **Reference Test Methods:** EPA Method 5 of 40 CFR Part 60 Appendix A and EPA Method 202 of 40 CFR Part 51 Appendix M. [Origin: ORCAA 8.3(a) (local only); and, WAC 173-400-060(state/local only)] [Authority: WAC 173-401-600(1)(b); and, WAC 173-401-605(1)]	Applies Facility-wide to non-combustion emissions units that exhaust to outdoor air	M3 M6 M7
1.7	**Maintenance and Repair of Process and Air Pollution Control Equipment.** All air contaminant sources are required to keep any process and air pollution control equipment in good operating condition and repair [Origin: ORCAA 8.8 (local only)] [Authority: WAC 173-401-600(1)(b)]	Applies to CRTO, spray booths and dust collectors	M3 M6 M7
	Dust Control Requirements		
2.1	**Fallout Prohibition.** No person shall cause or allow the emission of particulate matter from any source to be deposited beyond the property under direct control of the owner(s) or operator(s) of the source in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material is deposited. [Origin: WAC 173-400-040(3); and, ORCAA 8.3(e) (local only)] [Authority: WAC 173-401-600(1)(b)]	Applies Facility-wide	M1

AR#	Requirements	Applicability	Monitoring
2.2	**Fugitive Emissions Control.** The owner or operator of any emission unit engaging in materials handling, construction, demolition or any other operation which is a source of fugitive emissions shall take reasonable precautions to prevent release of air contaminants from the operation. [Origin: WAC 173-400-040(4)(a)] [Authority: WAC 173-401-600(1)(b)]	Applies Facility-wide	No specific ongoing monitoring required.
2.3	**Fugitive Dust Control.** Reasonable and/or appropriate precautions shall be taken to prevent fugitive particulate material from becoming airborne; a) When handling, loading, unloading, transporting, or storing particulate material; or, b) When constructing, altering, repairing or demolishing a building, or its appurtenance, or a road; or, c) From an untreated open area. For the purpose of this requirement, fugitive particulate means particulate material which is generated incidental to an operation, process or procedure and is emitted into the open air from points other than an opening designed for emissions such as a stack or vent. [Origin: WAC 173-400-040(9)(a) (state/local only); and, ORCAA 8.3(c) (local only)] [Authority: WAC 173-401-600(1)(b)]	Applies Facility-wide	No specific ongoing monitoring required.
2.4	**Line 2 Parts Finishing Requirements:** Particulate emissions from grinding and trimming operations that are attributable to Line 2 production shall be controlled with collectors/filter media. Complete capture of air pollutants shall be ensured, and filtering efficiency shall be no less than 99%. Compliance with both requirements shall be documented and made available to ORCAA within the first month of operation. [Origin: 17NOC1256, condition 7] [Authority: WAC 173-401-600(1)(c)]	Applies to Line 2 Parts finishing operations (EU4)	M3 M6
	Production Lines 1 & 2		
3.1	**Facility-wide Emissions Limits:** The following Facility-wide emissions limits apply: a) Styrene: 389.5 lbs/day (daily total) b) Methyl Methacrylate: 52.5 lbs/day (daily total) c) VOC: 249 tpy (rolling 12-month ave) [Origin for (a)&(b): 17NOC1256, condition 10] [Origin for (c): ORCAA Order Pursuant to WAC 173-400-091 (6/20/96)] [Authority: WAC 173-401-600(1)(c)]	Applies Facility-wide	M2
3.2	**Subpart WWWW General Duty to Minimize Emissions:**	Applies to Lines 1 & 2	No specific ongoing

AR#	Requirements	Applicability	Monitoring
	a) At all times the Facility must be operated in compliance with the work practice standards in condition 3.6, as well as the organic HAP emissions limits in condition 3.4. [Origin: 40 CFR §63.5835(a)] b) At all times, including periods of startup, shutdown, and malfunction, the Permittee must operate and maintain the Facility, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. During a period of startup, shutdown, or malfunction, this general duty to minimize emissions requires that the Permittee reduce emissions from the Facility to the greatest extent which is consistent with safety and good air pollution control practices. The general duty to minimize emissions during a period of startup, shutdown, or malfunction does not require the Permittee to achieve emission levels that would be required by the applicable standard at other times if this is not consistent with safety and good air pollution control practices, nor does it require the Permittee to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. [Origin: 40 CFR §63.5835(c), §63.6(e)(1)(i)] [Origins: cited by sub-condition] [Authority: WAC 173-401-600(1)(a)]		monitoring required.
3.3	**Subpart WWWW Startup, Shutdown and Malfunction Requirements:** a) The Permittee must develop and implement a Startup, Shutdown, and Malfunction (SSM) plan in accordance with 40 CFR 63, §63.6(e)(3). [Origin: 40 CFR Part 63: §63.5835(d), §63.6(e)(3)] b) During periods of startup, shutdown, and malfunction, the Permittee must operate and maintain the affected source (including associated air pollution control and monitoring equipment) in accordance with the procedures specified in the SSM plan. [Origin: 40 CFR §63.6(e)(3)(ii)] [Origins: cited by sub-condition] [Authority: WAC 173-401-600(1)(a)]	Applies to Lines 1 & 2	M3
3.4	**Subpart WWWW Emissions Standards.** Operations conducted at the Facility are classified as "Open Molding" and are subject to the following organic HAP standards from Table 3 of Subpart WWWW (Other Table 3 standards do not apply): a) 88 lb/ton for mechanical resin application (excludes gel coat). (Note: the resins used are NOT classified as corrosion-resistant or high strength) b) 267 lb/ton for white/off white pigmented gel coating c) 377 lb/ton for all other pigmented gel coating [Origin: 40 CFR 63, §63.5805(b); and, Table 3 to Subpart WWWW]	Applies to Lines 1 & 2	M2

AR#	Requirements	Applicability	Monitoring
	Compliance Assurance: The Permittee has opted to meet these emissions standards by demonstrating compliance with a weighted average emission limit according to the procedures in §63.5810(c). Compliance is demonstrated if each 12-month rolling average organic HAP emissions factor is less than or equal to the corresponding 12-month rolling average organic HAP emissions limit. [Origin: 40 CFR §63.5810(c)] [Origins: cited by sub-condition] [Authority: WAC 173-401-600(1)(a)]		
3.5	**Organic HAP Emissions Factors:** The Permittee has opted to use the following site-specific organic HAP emissions factor equations to calculate organic HAP emissions factors as allowed under §63.5796: 1. $Styrene_{Resin} = ((0.157*\%Styrene_{Resin})-0.0165)*1.187*(1-DE)$ 2. $Styrene_{Gelcoat} = (0.445*\%Styrene_{Gelcoat})*1.187*(1-DE)$ 3. $MMA_{Gelcoat} = 0.75*\%MMA_{Gelcoat}*(1-DE)$ 4. Where: a. %Styrene is in terms of percent by weight. b. DE is the CRTO destruction efficiency determined based on the most recent CRTO stack test. c. The 1.187 factor used is a site-specific factor based on testing conducted in 2007. [Origin: 40 CFR §63.5796] [Authority: WAC 173-401-600(1)(a)]	Applies to Lines 1 & 2	M2
3.6	**Subpart WWWW Work Practice Standards.** The following work practice standards from Table 4 of Subpart WWWW apply regardless of the quantity of HAP emitted: 1. Not using cleaning solvents that contain HAP, except that styrene may be used as a cleaner in closed systems, and organic HAP containing cleaners may be used to clean cured resin from application equipment. Application equipment includes any equipment that directly contacts resin. 2. Keeping containers that store HAP-containing materials closed or covered except during the addition or removal of materials. Bulk HAP-containing materials storage tanks may be vented as necessary for safety. 3. Using mixer covers with no visible gaps present in the mixer covers, except that gaps of up to 1 inch are permissible around mixer shafts and any required instrumentation. 4. Closing mixer vents when actual mixing is occurring, except that venting is allowed during addition of materials, or as necessary prior to adding materials or opening the cover for safety. Vents routed to a 95 percent efficient control device are exempt from this requirement. 5. Keeping mixer covers closed while actual mixing is occurring except when adding materials or changing covers to the mixing vessels. Containers of 5 gallons or less may be open when active mixing is taking place, or during	Applies to Lines 1 & 2	M6

AR#	Requirements	Applicability	Monitoring
	periods when they are in process (i.e., they are actively being used to apply resin). [Origin: 40 CFR §63.5805(b) and Table 4] [Authority: WAC 173-401-600(1)(a)]		
3.7	**Emission Reduction Credit:** Emissions reductions by CRTO may only be used in calculating emissions when the CRTO is operating and meeting the Appropriate Control Device Operating Ranges established under condition AR3.11. [Origin: 20NOR1432, condition 7] [Authority: WAC 173-401-600(1)(c)]	Applies to Lines 1 & 2	M2 M3
3.8	**Emissions Capture Standard:** All exhaust and emissions from Lines 1 and 2 shall be captured and vented through the CRTO. This requirement applies during resin or gelcoat application, and while parts cure prior to being removed from molds. This condition will be considered met provided the capture and control system are operated and maintained as a "Permanent Total Enclosure" (PE), which is defined in EPA Method 204 of 40 CFR part 51 appendix M. **Reference Test Method:** EPA Method 204 of 40 CFR part 51 appendix M. **Compliance Assurance:** Compliance with this condition shall be demonstrated through periodic testing according to condition M4 using the reference Test Method. Ongoing compliance shall be ensured by operating, monitoring and maintaining the CRTO according to this permit. [Origins: 17NOC1256, condition 2 and 20NOR1432, condition 2] [Authority: WAC 173-401-600(1)(c)]	Applies to Lines 1 & 2	M4
3.9	**CRTO Control Efficiency Standard:** The CRTO shall be operated to maintain an average combined control efficiency of at least 90 percent whenever VOC is generated by Line 2. This condition shall be demonstrated through testing per condition M4 and ensured through required CRTO monitoring according to condition M3. **Reference Test Method** - The following reference test methods shall be used to determine compliance: • Sampling Point Determination – EPA Method 1 • Velocity – EPA Method 2 • Oxygen and Carbon Dioxide - EPA Method 3 • Moisture – EPA Method 4 • Organic HAPs – EPA Method 25A **Compliance Assurance:** Compliance with this condition shall be demonstrated through periodic testing according to condition M4 using the	Applies to Line 2 emissions only	M3 M4

AR#	Requirements	Applicability	Monitoring
	Reference Test Method. Ongoing compliance shall be ensured by operating, monitoring and maintaining the CRTO according to this permit. [Origin: 17NOC1256, condition 3] [Authority: WAC 173-401-600(1)(c)]		
3.10	**Operation and Maintenance Requirements for Control Systems:** a) The pre-concentrator shall undergo a high temperature purge per manufacturer's recommendations. The recommended frequency, temperature, duration and other procedures for conducting high temperature purges shall be documented. [Origin: 20NOR1432, condition 8a; and 17NOC1256 condition 4c] b) Conveyor lines shall be interlocked with the RTO and shall not operate unless temperature in the RTO is greater than 1600 F°. [Origin: 20NOR1432, condition 5; and 17NOC1256 condition 6a] c) Conveyor lines shall be interlocked with the pre-concentrator and shall not operate unless the inlet static pressure and temperature of the inlet gas stream to the desorption/reactivation zone of wheel # 3 meet their respective operating set points. [Origin: 17NOC1256 condition 6b] d) Capture and control systems shall be operated at all times resin or gelcoat are being applied and for a period after lamination has ceased sufficient to capture significant VOC generated from parts curing. The duration of this period shall be determined through testing according to condition M4. [Origin: 17NOC1256 condition 6d] e) Exhaust air shall be adequately filtered at spray booths to remove particulate overspray. All filters shall be properly seated and shall cover all openings of the exhaust air intakes. Filters shall have an overall overspray removal efficiency of 98% or better. Published filter efficiency data provided by filter vendors or laboratories may be used to demonstrate compliance with this requirement. [Origin: 17NOC1256 condition 6e] f) Filters shall be replaced whenever damaged or loaded with particulate build-up to an extent that jeopardizes the effectiveness of the emissions capture system. [Origin: 17NOC1256 condition 6f] g) Visual emissions from the CRTO stack shall not exceed ten (10) percent opacity as determined by EPA Method 9 from 40 CFR Part 60 Appendix A. [Origin: 20NOR1432, condition 3] h) The pre-concentrator/RTO shall exhaust through a vertical stack, with a vertical discharge to the atmosphere. The stack shall be at least 30 feet in height from ground level. [Origin: 20NOR1432, condition 4] [Origins: per sub-condition] [Authority: WAC 173-401-600(1)(c)]	Applies to CRTO and spray booths for Lines 1 & 2	M3 M4 M5
3.11	**Appropriate Control Device Operating Ranges.** The Permittee shall establish appropriate ranges for monitored parameters that indicate proper operation of the CRTO and associated emissions capture systems:	Applies to CRTO and Lines 1 & 2	M4

AR#	Requirements	Applicability	Monitoring
	1. Appropriate operating ranges for the following parameters shall be established or reconfirmed based on monitored performance during the most recent stack testing per condition M4 confirming a control efficiency of at least 90% by the CRTO: a. Minimum vacuum at the inlet to the concentrator. b. The rolling, three-hour average temperature of the inlet gas stream to the desorption/reactivation zone of wheel # 3 in the pre-concentrator. c. RTO hourly average combustion chamber temperature of 1600 F^0 or greater. d. Acceptable range for pressure drop across filters for all spray booths. [Origin (1d only): 17NOC1256 condition 6g] 2. In order to revise or re-establish an operating setpoint, parameter or required operating range for the CRTO, the information required in condition R12 shall be submitted along with the request. 3. An appropriate operating range may only be revised based upon performance testing of the CRTO. [Origin (general): 40 CFR § 63.5805(h) and §63.996(c)(6)] [Authority: WAC 173-401-600(1)(a)]		
3.12	**Operations And Maintenance Plan:** The owner or operator shall devise and implement an Operations and Maintenance (O&M) plan for properly operating and maintaining the pollution control systems for Lines 1 and 2 including the RTO, the pre-concentrator, associated process exhaust system components and associated control system monitoring equipment. The O&M plan shall include manufacturer recommendations for operating and maintaining the system to maintain guaranteed control efficiencies. The O&M plan shall be kept in a manual on site and made available to employees responsible for operating the system. At a minimum, the O&M plan shall include the following measures: a) Schedule and procedures for periodic regeneration of the zeolite using a high temperature purge at a temperature recommended by the manufacturer; b) Plan for measuring and monitoring the following operating variables: i. Temperature of the desorb air at the inlet of the desorption section; ii. RTO combustion/retention chamber temperature; iii. Pressure drop across the desorb section; iv. Pressure drop across filter stages 1 and 2; v. System bypass damper position; and, vi. Concentrator wheel speed. c) Procedures for visual inspection of the condition of critical gaskets and seals at a frequency recommended by the manufacturer; and,	Applies to CRTO	N/A

AR#	Requirements	Applicability	Monitoring
	d) Procedures for inspection of the adsorbent material for cracks and other defects that may degrade efficiency at the manufacturer recommended frequency. [Origins: 20NOR1432, condition 8] [Authority: WAC 173-401-600(1)(c)]		
	Armor Shield Application		
4.1	**Approved Protective Coating:** The protective coating approved is a 2 part polyurea material mixed at a 50/50 ratio of Part A to Part B. Part A, IsoShield®3001 Iso, may contain up to 45% Diphenylmethane Diisocyanate (MDI), but contains no other Toxic Air Pollutants (TAP) regulated under Chapter 173-460 WAC (Air Toxics Rule). Part B, IsoShield®3001 Pol, contains no TAP. [Origin: 19NOC1358, condition 2] [Authority: WAC 173-401-600(1)(c)]	Protective Coating Application	M7
4.2	**Material Use Limits:** Application of the approved protective coating is limited to 42 gallons per day and 11,000 gallons per 12-consecutive month period. [Origin: 19NOC1358, condition 3] [Authority: WAC 173-401-600(1)(c)]	Protective Coating Application	M7
4.3	**Operating Requirements:** The following operating requirements apply: a) Protective coating shall be applied within the approved protective coating spray booth and only when the spray booth doors are closed and the exhaust and filtration system is fully operating. b) Spray guns shall be capable of achieving at least 65% transfer efficiency, which may be demonstrated through written documentation for each spray gun used. c) The mixing and spray systems shall be maintained leak-free. d) Spray booth filters shall be properly seated and shall cover all openings of the exhaust air intakes. e) Filters shall have a combined average filtering efficiency of at least 99.79% or better. Published filter efficiency data provided by filter vendors or laboratories may be used to demonstrate compliance with this requirement. f) Filters shall be replaced whenever damaged or loaded with particulate build-up to an extent that jeopardizes the effectiveness of the spray booth to capture emissions. g) Pressure drop across the spray booth filters shall not exceed the level that jeopardizes effectiveness of the spray booth. The acceptable operating pressure drop range shall be visibly posted on the spray booth. [Origin: 19NOC1358, condition 5] [Authority: WAC 173-401-600(1)(c)]	Protective Coating Application	M7

[END OF SECTION]

VII. MONITORING TERMS AND CONDITIONS (M)

M1. Monitoring Air Impacts That are Detrimental or a Nuisance to Persons or Property.
The Permittee shall monitor all air quality related complaints directed to the Facility as follows:

- **a)** The Permittee shall provide an automatic phone recording system or an onsite contact person available to the general public for filing a complaint whenever the Facility is operating.
- **b)** The Permittee shall maintain a record of air quality related complaints, which shall include a record of the following information:
  - **i)** Description of the complaint;
  - **ii)** Date and time the alleged impact was first noticed;
  - **iii)** Date and time the alleged impact was last noticed;
  - **iv)** Location where the alleged impact was experienced;
  - **v)** Name and phone number of caller;
  - **vi)** The Permittee's assessment of the validity of the complaint; and,
  - **vii)** Description of any investigation or corrective action taken.

[Origin: Gap-filling monitoring]
[Authority: WAC 173-401-615(1)(b)]

M2. Monitoring Compliance with Emissions Limits and Standards:

- **a)** Each month, the Permittee shall determine and document the status of compliance with the Facility-wide emissions limits of condition AR3.1 and the Subpart WWWW emissions standards of condition AR3.4.
- **b)** Compliance shall be determined according to the procedures in §63.5810(c) based on actual material use rates and compositions.
- **c)** Actual emissions shall be determined in terms of the following units:

Standard/Limit	Units	Pollutants
Daily Limits	lbs/day, daily total	Styrene, MMA
Annual Limit	tpy, 12-month rolling average	VOC
Emission Standard	$lbs/ton_{(material\ used)}$, 12-month rolling average	Organic HAP

- **d)** In order to determine the organic HAP content of resins and gel coats, the Permittee may rely on information provided by the material manufacturer, such as manufacturer's formulation data and safety data sheets (SDS), using the following procedures, as applicable:
  - **i)** Include in the organic HAP total each organic HAP that is present at 0.1 percent by mass or more for Occupational Safety and Health Administration-defined carcinogens, as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other organic HAP compounds.

ii) If the organic HAP content is provided by the material supplier or manufacturer as a range, the Permittee must use the upper limit of the range for determining compliance. If a separate measurement of the total organic HAP content, such as an analysis of the material by EPA Method 311 of appendix A to 40 CFR part 63, exceeds the upper limit of the range of the total organic HAP content provided by the material supplier or manufacturer, then the Permittee must use the measured organic HAP content to determine compliance.

iii) If the organic HAP content is provided as a single value, the Permittee may use that value to determine compliance. If a separate measurement of the total organic HAP content is made and is less than 2 percentage points higher than the value for total organic HAP content provided by the material supplier or manufacturer, then the Permittee still may use the provided value to demonstrate compliance. If the measured total organic HAP content exceeds the provided value by 2 percentage points or more, then the Permittee must use the measured organic HAP content to determine compliance.

e) The necessary calculations must be completed within 30 days after the end of each month.

[Origins: 40 CFR §63.5810(b), §63.5810(c), §63.5797; 17NOC1256, condition 8; and, ORCAA Order Pursuant to WAC 173-400-091]
[Authority: WAC 173-401-615(1)(a)]

M3. Production Line Control Device Monitoring Requirements:

a) The following operating parameters shall be continuously monitored whenever Line 1 or Line 2 generate air emissions:

Performance Indicator	Monitoring Frequency	Required Data
Line 1 and Line 2 operating Status	N/A	Data sufficient to confirm The operating status of each production line.
CRTO status: 1. Startup 2. Operating 3. Bypassed	N/A	Data sufficient to confirm the operating status of the CRTO.
Concentrator Inlet pressure	Continuous	Hourly average pressures
Inlet gas stream temperature to the desorption/reactivation zone of wheel # 3 in the pre-Concentrator.	Continuous	Rolling, three-hour average temperatures
RTO Combustion Chamber Temperature	Continuous	Hourly average temperatures

Exhaust air flow in the main exhaust duct serving both Line 1 and Line 2.	Continuous	Recorded once per shift
Pressure drop across filters for all spray booths in Lines 1 and 2	Once per shift recording	N/A

b) Continuous records and monitoring system data handling shall conform to requirements in 40 CFR, §63.998(b).

c) The RTO temperature monitoring device (thermocouple) required by 40 CFR Part 63, Subpart SS shall be installed in the fire box or in the ductwork immediately downstream of the fire box of the RTO in a position before any substantial heat exchange occurs. The thermocouple and temperature monitoring system shall be capable of providing a continuous record of temperature in the RTO combustion chamber whenever it is operating.

d) Temperature monitoring device means a unit of equipment used to monitor temperature and having a minimum accuracy of ±1 percent of the temperature being monitored expressed in degrees Celsius (±3 percent of the temperature being monitored expressed in Fahrenheit) or ±1.2 degrees Celsius (°C) (±34.16 degrees Fahrenheit (°F)), whichever is greater.

e) All required temperature monitoring devices shall be calibrated or replaced annually.

f) Manometers, pressure gages and thermocouples used to monitor operation of the CRTO and associated emissions capture systems shall be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.

g) The Permittee shall ensure the immediate repair or replacement of any manometer, pressure gage or thermocouple to correct "routine" or otherwise predictable malfunctions. Necessary parts for routine repairs of the affected equipment shall be readily available.

h) All thermocouples, manometers, pressure gages and the PLC used to monitor and control operation of the CRTO and associated emissions capture systems shall be installed and operational:

- **i)** Such that representative measurements of parameters are obtained.
- **ii)** Prior to or in conjunction with conducting any performance testing.
- **iii)** Whenever emissions are being routed to the CRTO.

[Origins: 40 CFR §63.5805(h), §63.981, §63.988, and §63.996; 17NOC1256, condition 8; and, 20NOR1432, condition 6]]
[Authority: WAC 173-401-615(1)(a)]

M4. CRTO Efficiency Testing:

a) **Schedule.** The following testing shall be completed every five years and whenever required by ORCAA according to this condition:
   i) Verification that Lines 1&2 qualify as a "Permanent Total Enclosures";
   ii) Opacity of emissions from the CRTO stack; and,
   iii) Overall organic HAP control efficiency of the CRTO.

b) **Required Test Methods.**
   i) EPA Method 204 of appendix M to 40 CFR part 51 shall be used to determine whether Lines 1&2 qualify as Permanent Total Enclosures.
   ii) EPA Method 9 40CFR 60 Appendix A shall be used to determine opacity of emissions from CRTO stack.
   iii) The following test methods shall be used to determine organic HAP concentrations at the inlet to the CRTO and in the RTO stack for purposes of determining the overall CRTO control efficiency:
      (1) Sampling Point Determination – EPA Method 1
      (2) Velocity – EPA Method 2
      (3) Oxygen and Carbon Dioxide - EPA Method 3
      (4) Moisture – EPA Method 4
      (5) Organic HAPs – EPA Method 25A
      (6) Opacity -EPA Method 9

c) **Test Facilities**. The Permittee is required to provide an appropriate source testing platform and sampling ports.

d) **Test Conditions:**
   i) Permanent Total Enclosure status shall be determined when both lines are operating and when one of the lines is operating;
   ii) CRTO efficiency shall be based on the average of three, 3-hour test runs;
   iii) CRTO efficiency shall be determined when both lines are operating;
   iv) Opacity of emissions from the CRTO stack shall be determined during all three test runs.

e) **Test Protocol.** The Permittee shall submit a test protocol to ORCAA for approval. The test protocol shall describe proposed test methods and operating conditions at least 30-days prior to conducting any required testing.

f) **Test Results:** Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the relevant standard. For the purpose of determining compliance with a relevant standard, the arithmetic mean of the results of the three runs shall apply.

[Origins: 40 CFR 63: §63.7, §63.5840; §63.5845, §63.5850, §63.5855, §63.5860; and, 40 CFR 63, Subpart SS]
[Authority: WAC 173-401-615(1)(a)]

M5. Annual Pre-concentrator Performance Testing: On an annual or more frequent basis, the Permittee shall measure the concentration of VOCs in the inlet and exhaust outlet lines of the pre-concentrator using a portable flame ionization detector (FID), photo ionization detector (PID), or another appropriate instrument. The purpose of this testing shall be to evaluate performance of the pre-concentrator. Portable flame ionization detector (FDI), photo ionization detector (PID), or other appropriate instrument used to measure concentrations of organic HAP at inlet and outlet of CRTO calibrated per manufacturer's recommendations prior to conducting annual performance testing of the CRTO.
[Origin: 17NOC1256, condition 9(b)]
[Authority: WAC 173-401-615(1)(a)]

M6. Monitoring Compliance with Work-Practice Standards. The Permittee shall monitor compliance with work practice standards as follows:

- **a)** Filter efficiency specifications for spray booth and dust collector filters shall be reviewed prior to installing for conformance with standards in conditions AR3.10e and AR4.3e.
- **b)** The condition of filters in all spray booths and dust collectors shall be checked prior to each shift and changed if necessary.
- **c)** Reviewing Safety Data Sheets for solvents used to assure cleaning solvents containing HAP are not used, except that styrene may be used as a cleaner in closed systems, and organic HAP containing cleaners may be used to clean cured resin from application equipment. Application equipment includes any equipment that directly contacts resin.
- **d)** Daily inspecting containers that store HAP-containing materials to verify:
  - **i)** They are closed or covered, except during the addition or removal of materials. Bulk HAP-containing materials storage tanks may be vented as necessary for safety.
  - **ii)** There are not visible gaps present in mixer covers, except that gaps of up to 1 inch are permissible around mixer shafts and any required instrumentation.
  - **iii)** Mixer vents are closed when actual mixing is occurring, except that venting is allowed during addition of materials, or as necessary prior to adding materials or opening the cover for safety. Vents routed to a 95 percent efficient control device are exempt from this requirement.
  - **iv)** Mixer covers are closed while actual mixing is occurring except when adding materials or changing covers to the mixing vessels. Containers of 5 gallons or less may be open when active mixing is taking place, or during periods when they are in process (i.e., they are actively being used to apply resin).

[Origin: Gap-filling monitoring for requirements in Table 4 of 40 CFR Part 63, Subpart WWWW]
[Authority: WAC 173-401-615(1)(b)]

M7. Monitoring Emissions from Protective Coating Application. The following shall be monitored at the indicated frequency:

- **a)** Composition of protective coating materials with respect to conforming to the specifications in condition AR4.1 shall be reviewed prior to purchasing the materials by reviewing Safety Data Sheets (SDS) or other written materials from the manufacturer which document material composition.

b) The following shall be verified daily:
  - **i)** Dates and times protective coating is applied;
  - **ii)** The amount of protective coating applied;
  - **iii)** Protective coating is applied within the approved protective coating spray booth and only when the spray booth doors are closed, and the exhaust and filtration system is fully operating;
  - **iv)** Pressure drop across the spray booth filters (The acceptable operating pressure drop range shall be visibly posted on the spray booth);
  - **v)** The mixing and spray systems are leak-free;
  - **vi)** Spray booth filters are properly seated and covering all openings of the exhaust air intakes; and,
  - **vii)** Filter condition.

c) Monthly, determine the prior 12-month cumulative amount of protective coating applied.

[Origin: 19NOC1358, condition 6]
[Authority: WAC 173-401-615(1)(a)]

M8. GHG Monitoring Requirements. The Permittee shall monitor Facility operations, fuel rates and composition of fuels as necessary to report GHG emissions to Ecology in accordance with Chapter 173-441 WAC. The following monitoring provisions apply:

a) Permittee shall develop a written GHG monitoring plan in accordance with WAC 173-441-050(6)(e). The Permittee shall revise the GHG monitoring plan as needed to reflect changes in processes, monitoring instrumentation, and quality assurance procedures; or to improve procedures for the maintenance and repair of monitoring systems to reduce the frequency of monitoring equipment downtime.

b) If needed to monitor fuel consumption, flow meters and other measurement devices used to measure fuel feed rates, process steam flow rates, or feedstock flow rates to provide data to perform the GHG emissions calculations shall be calibrated according to the procedures specified in WAC 173-441-050(8).

[Origin: Chapter 173-441 WAC (State only)]
[Authority: WAC 173-401-615(1)(a)]

[END OF SECTION]

VIII. RECORDKEEPING (RK)

RK1. Retention and Availability of Records: The Permittee shall maintain all records required by this permit. All required records shall be retained for at least 5 years from the origination date and shall be available for inspection by ORCAA upon request.
[Origin: WAC 173-401-615(2)(c)]
[Authority: WAC 173-401-615(2)]

RK2. Record of Changes. The Permittee shall maintain records describing changes made 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 changes.
[Origin: WAC 173-401-615 (2)(b), and WAC 173-401-724(5)]
[Authority: WAC 173-401-615(2)]

RK3. Monitoring Records. The Permittee shall keep the following records:

Equipment/Operation	Required Record	Origin
Application of Protective Coatings (Armor Shield)	a) Daily record of time periods when protective coating was applied. b) Daily record of pressure-drop across the spray booth filter bank for days the Facility operated. c) Daily and 12-month cumulative amount of protective coating applied in gallons. d) Current Safety Data Sheets (SDS) for the protective coating materials used. e) Spray booth design exhaust rate provided by the spray booth manufacturer. f) Published average filtering efficiency ratings for the spray booth filters used. g) Written documents confirming the transfer efficiency of each make and model of spray gun used to apply protective coating.	19NOC1358, condition 7
Production Lines 1 & 2	At least once per shift, the following shall be recorded: a) Exhaust air flow in the main exhaust duct serving the production lines. b) Pressure drop across spray booth filter banks. c) The number of units produced. d) Pressure drop across filter stages 1 and 2 of the Concentrator. e) CRTO bypass damper position. f) Concentrator wheel speed. g) If an interlock is manually bypassed, the date, time and duration of the event must be logged.	17NOC1256, condition 13 20NOR1432, conditions 6, 7 and 8
	On a continuous basis, the following shall be recorded electronically:	17NOC1256, condition 13

	a) RTO combustion chamber temperature. b) Pre-concentrator inlet static pressure. c) Pressure drop across the desorb section. d) Temperature of the inlet gas stream to the desorption/reactivation zone of wheel # 3 of the pre-concentrator.	20NOR1432, conditions 6, 7 and 8
	Daily and 12-month plant-wide emissions totals.	17NOC1256, condition 13
	Natural gas usage for the RTO shall be recorded monthly.	20NOR1432, condition 9
	The following records per Subpart WWWW of 40 CFR Part 63 (clarification added by ORCAA): a) Spreadsheets used to calculate emissions totals showing all supporting information, including, but not limited to, equations, emissions factors, emissions control efficiencies. b) A copy of each notification and report that was submitted to comply with Subpart WWWW. c) Records of performance tests. d) CRTO monitoring records as specified above in this table. e) All data, assumptions, and calculations used to determine organic HAP emissions factors or average organic HAP contents. f) All certifications required by conditions R1 and R2 of this permit.	40 CFR 63: §63.5915 and §63.5920
	Documentation sufficient to demonstrate efficiency of the capture and control systems serving the production lines including: a) Results from annual inlet and outlet testing of CRTO using hand-held monitor; and, b) Results from periodic EPA Reference Method testing.	17NOC1256, condition 13 (clarification added regarding specific records)
	Date and time of zeolite regeneration using a high temperature purge and whether the purge was successful in terms of improving adsorption rate.	17NOC1256, condition 13
	The recommended frequency, temperature, duration and other procedures for conducting high temperature purges shall be documented.	17NOC1256, condition 4
	Record of startup, shutdown and malfunction events per 40 CFR Part 63, §63.6(e)(3).	40 CFR Part 63, §63.6(e)(3)

[Origin: As indicated in Table]
[Authority: WAC 173-401-615(2)]

RK4. Record of Permit Deviations. The Permittee shall maintain a contemporaneous record of all permit deviations.
[Origin: WAC 173-401-615(3)(b)]
[Authority: WAC 173-401-615(2)]

RK5. Availability of Emissions Records. Emission records required by this permit shall be made available to ORCAA upon request.
[Origin: ORCAA 8.11(a) (local only)]
[Authority: WAC 173-401-615(2)]

RK6. Emissions Records. The Permittee shall maintain records of information necessary to substantiate any reported emissions, consistent with the averaging times for the applicable standards.
[Origin: WAC 173-400-105(1); ORCAA 8.11 (local only)]
[Authority: WAC 173-401-615(2)]

RK7. Unlawful Reproduction or Alteration of Documents. No person shall reproduce or alter, or cause to be reproduced or altered, any order, registration certificate or other paper issued by ORCAA if the purpose of such reproduction or alteration is to evade or violate any applicable requirement.
[Origin: ORCAA 7.3 (local only)]
[Authority: WAC 173-401-615(2)]

RK8. Display of Orders, Certificates and Other Notices. Any order required by ORCAA Regulations shall be available on the premises designated on the order. In the event that ORCAA requires a notice to be displayed, it shall be posted.
[Origin: ORCAA 7.4 (local only)]
[Authority: WAC 173-401-615(2)]

RK9. Record of Complaints. In addition to the standard record keeping requirements for monitoring records the Permittee shall keep a record of air quality related complaints received; the assessment of the validity of each complaint; and what, if any, corrective action was taken in response to the complaint.
[Origin: ORCAA 8.5 (local only); ORCAA 8.3(e) (local only); WAC 173-400-040(6) (state/local only); and, ORCAA 7.6 (local only)]
[Authority: WAC 173-401-615(2)]

RK10. Record of Actions Taken to Maintain Air Pollution Control Equipment. In addition to the standard record keeping requirements for monitoring records the Permittee shall keep a record of any actions taken to maintain air pollution control equipment in good operating condition and repair including repairs or routine maintenance actions and actions involving only inspection of the equipment. Such records shall include:

a) Date and time the action commenced;
b) Description of the action;
c) Description of outcome or findings;
d) Date and time the action was completed;
e) Name of person or company performing the maintenance; and,

f) Duration of time the subject equipment was not operational.

[Origin: ORCAA 8.8 (local only)]
[Authority: WAC 173-401-615(2)]

RK11. MACT Applicability Records. For each relevant standard or other applicable requirement under 40 CFR Part 63, which the Permittee determines inapplicable, the Permittee shall keep record of the applicability determination on site for 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. For the purposes of this condition, a relevant standard is defined as any standard for which:

a) The source emits or has the potential to emit (without considering controls) one or more hazardous air pollutants regulated by the standard; and,

b) The source belongs to the source category regulated by the standard.

The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the Permittee believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) shall be sufficiently detailed to allow ORCAA to make a finding about the source's applicability status regarding the relevant standard or other requirement. If required, the analysis shall be performed in accordance with requirements established in the relevant subpart for this purpose, and the analysis should be performed in accordance with EPA guidance materials published to assist sources in making applicability determinations under section 112, if any.

[Origin: 40 CFR 63.1(b)(3); 40 CFR 63.10(b)(3)]
[Authority: WAC 173-401-615(2)]

RK12. Material Use Records: In addition to standard requirements for monitoring records, the Permittee shall maintain the following records with respect to material usage:

a) **SDS.** Certificates of Analysis or Safety Data Sheets (SDS) for all materials used at the Facility containing HAP. Certificates of analysis or SDS shall accompany all incoming loads of resin and gelcoat.

b) **Daily Tank Logs.** The Permittee shall maintain a daily monitoring log for each of the virgin polyester resin storage tanks (virgin tanks) and for each of the tanks used to store ready-to-use polyester resin (day tanks). Each record shall include identification of the material currently stored in the tank, date of the reading or tank filling event, initials of the person performing the monitoring, reading in inches or pounds, and, if applicable, the displacement in inches, computed volume of material used since last reading in gallons, inches to volume conversion factor used, computed mass of material used in pounds, density of the material stored in the tank.

c) **Daily Drum Logs.** The Permittee shall maintain a daily inventory of HAP-containing material used from drums.

d) **Daily Material Use Logs.** The Permittee shall maintain a log of the total daily amount of material used. The log shall contain separate records for daily usage of resin, gelcoat, catalyst, and each resin and gelcoat additive. Each record shall include identification of

the material, date and time of the recording, and the total amount of material used in pounds during the day.

e) Emissions Logs. On a monthly basis, the following Facility-wide emission totals shall be recorded:

i) Total monthly HAP emissions from the previous month.

ii) Daily HAP emissions for each day the Facility operated during the previous month.

iii) Total cumulative emissions from the Facility over the previous 12 consecutive month period.

f) Natural Gas Consumption: Natural gas usage by the RTO shall be recorded monthly.

[Origin: 40 CFR 63: §63.5915 and §63.5920}
[Authority: WAC 173-401-615(2)]

RK13. Records Required for Greenhouse Gas (GHG) Reporting. If the Permittee is required to prepare annual GHG reports to Ecology pursuant to Chapter 173-441 WAC, the Permittee shall maintain records in accordance with WAC 173-441-050, retaining, at a minimum, the following:

a) A list of all units, operations, processes, and activities for which GHG emissions were calculated.

b) The data used to calculate the GHG emissions for each unit, operation, process, and activity, categorized by fuel or material type. These data include, but are not limited to, the following information:

i) The GHG emissions calculations and methods used, as required by WAC 173-441-120.

ii) Analytical results for the development of site-specific emissions factors.

iii) The results of all required analyses for high heat value, carbon content, and other required fuel or feedstock parameters.

iv) Any Facility operating data/process information used for the GHG emission calculations.

c) Copies of the annual GHG reports.

d) Missing data computations. For each missing data event, also retain a record of the cause of the event and the corrective actions taken to restore malfunctioning monitoring equipment.

e) The GHG Emissions Monitoring Plan required by condition M8.

f) The results of all required certification and quality assurance tests of continuous monitoring systems, fuel flow meters, and other instrumentation used to provide data for the GHGs reported under this chapter.

g) Maintenance records for all continuous monitoring systems, flow meters, and other instrumentation used to provide data for the GHGs reported under this chapter.

[Origin: WAC 173-441-050(6)(State only)]
[Authority: WAC 173-401-615(2)]

[END OF SECTION]

IX. REPORTING (R)

R1. Certification of Reports. All reports, including any test results, monitoring results, applications, emissions inventories, equipment malfunction reports or compliance reports, submitted to ORCAA or the U.S. Environmental Protection Agency Region 10 (EPA) under requirements of this permit, shall be certified as being true, accurate, and complete by a responsible official. Such certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete. Provided, however, where a report is sent more frequently than once every six months, the responsible official's certification need only be submitted once every six months, covering all required reporting since the date of the last certification.
[Origin: WAC 173-401-630(1)]
[Authority: WAC 173-401-615(3)]

R2. Annual Compliance Certification. The Permittee shall annually submit to ORCAA and to the U.S. Environmental Protection Agency Administrator, in care of Region 10 of the U.S. Environmental Protection Agency (EPA), an Annual Compliance Certification report which shall certify the status of compliance with respect to all permit conditions during the previous 12-month period. Annual Compliance Certification Reports shall be submitted to ORCAA and EPA no later than 45-days after the end of each continuous 12-month period. The reports shall be certified by a responsible official in accordance with condition R1. Annual Compliance Certification reports shall include:

- **a)** Identification of each term or condition of the permit that is the basis of the certification.
- **b)** Certification of the status of compliance with each term or condition of the permit and whether compliance was continuous or intermittent over the reporting period.
- **c)** Identification of the method(s) or other means used by the Permittee for determining the compliance status, and whether such methods or other means provide continuous or intermittent data.

[Origin: WAC 173-401-630(5) and 40 CFR 63: §63.9(h)(3)]
[Authority: WAC 173-401-615(3)]

R3. Confidential Information. Records or other information submitted to ORCAA, that are considered by the Permittee to be proprietary and confidential, shall be only for the confidential use of ORCAA provided that:

- **a)** The information relates to processes or production unique to the Permittee or are likely to affect adversely the competitive position of the Permittee if released to the public or to a competitor;
- **b)** The Permittee follows ORCAA's policy for submitting confidential information; and,
- **c)** The Permittee certifies the proprietary and/or confidential nature of the records or information.

[Origin: ORCAA 1.6 (local only)]
[Authority: WAC 173-401-615(3)]

R4. Semi-Annual Monitoring Reports. Unless a shorter time period is specified in this permit, a semi-annual monitoring report (SAMR) summarizing results of monitoring conducted during a continuous 6 month period shall be submitted on or before January 30 and July 30 of each year. SAMRs submitted by January 30 shall cover, at a minimum, monitoring operations over the previous July 1 through December 31. SAMRs submitted by July 30 shall cover, at a minimum, monitoring operations over the precious January 1 through June 30. SAMRs shall include a summary of all monitoring conducted in accordance with Section VII of this permit. Semi-annual monitoring reports shall be certified by a responsible official in accordance with condition R1. Semi-annual monitoring reports shall include the following information and statistics as applicable:

- **a)** Statistical summary of the operation of Line 1, Line 2, the CRTO and protective coating spray booth, including:
  - **i)** Total number of hours of operation;
  - **ii)** Amount of unscheduled down time;
  - **iii)** Number of startups and shutdowns;
  - **iv)** Amount of time emissions bypassed the CRTO.
- **b)** Identification and characterization of all instances of deviations from permit requirements;
- **c)** For each operating parameter or indicator required to be monitored:
  - **i)** The date, duration and magnitude of each instance when a target operating range was not met.
  - **ii)** The date and duration of each instance where a required monitor failed or did not operate when required.
  - **iii)** Percentage of missing data.
- **d)** Summary description of any corrective actions taken to maintain air pollution control devices; and,

e) Summary information on the number, duration and cause (including unknown cause, if applicable) of any monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable).

[Origin: WAC 173-401-615(a) and 40 CFR Part 63, §63.5910(c) and (d)]
[Authority: WAC 173-401-615(3)]

R5. Reporting Deviations from Permit Conditions. The Permittee shall promptly report any deviations from permit conditions, including those attributable to upset conditions as defined in this permit. The following conditions shall apply:

a) **Prompt Reporting.** For purposes of this permit, submitting a report "promptly" means the following:
   i) **Potential Threat to Human Health or Safety:** If the deviation presents a potential threat to human health or safety, "promptly" means as soon as possible but no later than 12 hours after discovery of the deviation;
   ii) **Other Deviations:** For other deviations, "promptly" means as soon as possible but no later than 30 days after the end of the month during which the deviation was discovered.

b) **Deviation Report Content.** Permit deviation reports shall describe the probable cause of such deviations, corrective actions taken or planned, and preventive measures taken.

c) **Reporting Unavoidable Excess Emissions.** The deviation report may include demonstration that excess emissions were unavoidable due to start-up, shutdown, upset or malfunction, consistent with the requirements of either condition P18 or P19, as applicable.

d) **Reporting Deviations due to Emergencies.** The deviation report may include demonstration that excess emissions were due to an emergency, consistent with the requirements of condition P17.

[Origins: 40 CFR Part 63, §63.5910; WAC 173-401-615(3)(b)]
[Authority: WAC 173-401-615(3)]

R6. Notification of Emergencies. In order to qualify for affirmative defense as an emergency under condition P17 (WAC 173-401-645), in addition to the reporting requirements under condition R5, the Permittee must submit notice of the emergency to ORCAA as follows:

a) **Potential Threat to Human Health or Safety:** Notice of emergencies resulting in excess emissions that may pose a potential threat to human health or safety must be submitted as soon possible but no later than 12 hours after discovery of the excess emissions [Origin: WAC 173-401-645(3)(d) and 173-401-615(3)(b)]

b) **Other Emergencies:** Notice of emergencies that do not pose a potential threat to human health or safety must be submitted within two working days from the time when emission limitations were exceeded due to the emergency, or shorter periods of time specified in an applicable requirement. [Origin: WAC 173-401-645(3)(d)]

c) **Required Content of Notification:** Emergency notifications must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. [Origin: WAC 173-401-645(3)(d)]

d) Notices conforming to this condition fulfill the requirements of condition R5. [Origin: WAC 173-401-645(3)(d)]

[Origin: listed by sub-condition]
[Authority: WAC 173-401-615(3)]

R7. Washington Requirements for Excess Emissions Reporting (WAC 173-400-107):

a) **Applicability.** This condition remains in effect until the effective date of EPA's removal of the September 20, 1993, version of WAC 173-400-107 from the Washington State Implementation Plan (SIP). This condition is not effective starting on that date.

b) **Reporting Deadlines.** In addition to the reporting requirements under condition R5, excess emissions shall be reported as follows:

i) Excess emissions which represent a potential threat to human health or safety or which the Permittee believes to be unavoidable shall be reported to ORCAA as soon as possible.

ii) Other excess emissions shall be reported within thirty days after the end of the month during which the event occurred or as part of the routine emission monitoring reports.

c) **Detailed Report Required.** Upon request by ORCAA, the Permittee shall submit a full written report including the known causes, the corrective actions taken, and the preventive measures to be taken to minimize or eliminate the chance of recurrence.

[Origin: WAC 173-400-107]
[Authority: WAC 173-401-615(3)]

R8. Washington Requirements for Excess Emissions Reporting (WAC 173-400-108):

a) **Applicability:**

i) Condition R8 is a State-only requirement and not federally enforceable.

ii) Condition R8 takes effect on the effective date of EPA's removal of the September 20, 1993, version of WAC 173-400-107 from the SIP.

b) **Notify ORCAA.** The Permittee shall notify ORCAA of excess emissions as follows:

i) When excess emissions represent a potential threat to human health or safety, the Permittee must notify the ORCAA by phone or electronic means as soon as possible, but not later than **twelve hours** after the excess emissions (deviation) were discovered per condition R5.

ii) For all other excess emissions, the Permittee must notify ORCAA in a report no later than 30 days after the end of the month during which the excess emissions (deviation) was discovered per condition R5.

iii) However, notice of emergencies that do not pose a potential threat to human health or safety must be submitted within two working days from the time when emission limitations were exceeded due to the emergency, or shorter periods of time specified in an applicable requirement.

c) **Excess Emissions Report Required.** The Permittee must report all excess emissions to ORCAA according to condition R5.

d) **Unavoidable Excess Emissions.** To claim emissions as unavoidable under condition P19 [WAC 173-400-109], the report must contain the following in addition to the information required under condition R5:
   i) Properly signed contemporaneous records or other relevant evidence documenting the Permittee's actions in response to the excess emissions event;
   ii) Information on whether installed emission monitoring and pollution control systems were operating at the time of the exceedance. If either or both systems were not operating, information on the cause and duration of the outage; and
   iii) Any additional information requested by ORCAA to support the claim that the excess emissions were unavoidable under condition P19.

[Origin: WAC 173-400-108 (state/local only) and WAC 173-401-645(3)(d)]
[Authority: WAC 173-401-615(3)]

R9. Notification of Complaint Received. The Permittee shall notify ORCAA by phone call, FAX, e-mail or in writing of any complaint received as soon as possible, but no later than one week from the time the complaint was received. The notification shall include a short description of the complaint, time it was received, actions taken, actions planned and preliminary assessment. Any notification made by FAX, email or phone to ORCAA shall be followed-up with a written notification that is certified per condition R1.
[Origin: ORCAA 8.5 (local only); ORCAA 8.3(e) (local only); WAC 173-400-040(6) (state/local only); and, ORCAA 7.6 (local only)]
[Authority: WAC 173-401-615(3)]

R10. Annual Inventory Report. Annual Inventory Report. No later than March 1st of each year, the permittee shall submit an inventory of the actual amount of pollutants emitted during the previous calendar year. The inventory shall be submitted to ORCAA on standard inventory reporting forms and shall be accompanied by associated calculations, data or other information used in calculating the reported emissions. A request for extension may be considered if a request from the Responsible Official is received by ORCAA prior to February 25th. The request must include a statement of the unexpected circumstances that occurred, how this affects your ability to submit the report on time, and the number of additional days needed.
[WAC 173-400-105(1), and ORCAA 8.11 (local only)]
[Authority: WAC 173-401-615(3)]

R11. Source Test Plans. The Permittee shall notify ORCAA and the EPA Administrator in writing at least 60 days prior to any compliance test and provide ORCAA an opportunity to review a test plan and to observe the test. The notification shall be in accordance with 40 CFR 63: §63.7(b). The test plan shall be in accordance with 40 CFR 63: §63.7(c) and describe the proposed source test methods, operational conditions proposed for the test, and provisions for monitoring source operation during the test.
[Origins: 40 CFR 63: §63.7(b), §63.9(e), and §63.5905(a)]
[Authority: WAC 173-401-615(3)]

R12. **Performance Testing Reports.** The Permittee shall submit to ORCAA final test results from periodic performance testing required under this permit within 45-days from conducting such testing. Performance testing reports shall include:

a) A description of the source and sampling location;
b) The time and date of the test;
c) A summary of results, reported in units and for averaging periods consistent with the applicable emission standard;
d) A description of the test methods and quality assurance procedures used;
e) The amount of fuel burned and/or raw material processed by the source during the test;
f) The operating parameters of the source and control equipment during the test; and,
g) Field data and example calculations.

[Origins: 17NOC1256, condition12 and 40 CFR 63: §63.7(b)]
[Authority: WAC 173-401-615(3)]

R13. **Requirement to Submit Performance Test Results to EPA's ERT.** Within 60 days after completing any performance test required under this permit pursuant to 40 CFR part 63, Subpart WWWW, the Permittee must submit the results of the performance test to the EPA according to the following procedures:

a) Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert) at the time of the test shall be submitted to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/). The data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, the Permittee may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website.
b) Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI.
c) **Confidential business information (CBI).** If the Permittee claims some of the information submitted under this condition is CBI, the Permittee must submit a complete file, including information claimed to be CBI, to the EPA. The file must be generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described in paragraph (a)(1) of this section.

[Origins: 40 CFR 63: §63.7(b) and §63.5912(a)]
[Authority: WAC 173-401-615(3)]

R14. State Greenhouse Gas (GHG) Reporting. The Permittee shall be subject to the requirement to report greenhouse gas (GHG) emissions to Ecology in accordance with Chapter 173-441 WAC if annual, Facility-wide emissions of carbon dioxide equivalents (CO2e) are 10,000 metric tons per year or more from all source categories listed in WAC 173-441-120. The following requirements shall apply:

a) Once the Facility emits 10,000 metric tons of GHGs or more per calendar year, the Permittee shall report emissions of GHGs to Ecology annually thereafter unless the Permittee is allowed to discontinue reporting as allowed by WAC 173-441-030(5) and the specified notice is submitted to Ecology.

b) To calculate GHG emissions, the Permittee shall include all GHGs listed in Table A-1 of WAC 173-441-040, including those emitted from the combustion of biomass, using equation A-1 from WAC 173-441-030(1)(b)(iii).

c) Reports must meet the requirements of WAC 173-441-050, and include the annual emissions of the GHGs listed in WAC 173-441-040 from source categories listed in WAC 173-441-120.

d) The annual GHG report shall be submitted electronically in accordance with the requirements of WAC 173-441-050 and 173-441-060 and in a format specified by Ecology.

e) GHG emissions reports are due to Ecology:
   i) No later than March 31 of each calendar year for GHG emissions in the previous calendar year for facilities required to report GHG emissions to the EPA under 40 CFR Part 98;
   ii) No later than October 31st of each calendar year for GHG emissions in the previous calendar year for facilities not required to report GHG emissions to the EPA under 40 CFR Part 98.

f) All requests, notifications, and communications to Ecology pursuant to GHG emissions reporting, other than submittal of the annual GHG report, shall be submitted to the following address:

   Greenhouse Gas Report, Air Quality Program
   Department of Ecology
   P.O. Box 47600
   Olympia, WA 98504-7600

g) The Permittee shall submit a revised annual GHG report within 45 days of discovering that an annual GHG report previously submitted contains one or more substantive errors. A substantive error is an error that impacts the quantity of GHG emissions reported or otherwise prevents the reported data from being validated or verified. The revised report must correct all substantive errors.

h) Ecology may notify the Permittee in writing that an annual GHG report previously submitted contains one or more substantive errors. Such notification will identify each such error. The Permittee shall, within 45 days of receipt of the notification, either resubmit the report that, for each identified substantive error, corrects the identified substantive error (in accordance with the applicable requirements of this permit) or provide information demonstrating that the previously submitted report does not

contain the identified substantive error or that the identified error is not a substantive error.

[Origin: Chapter 173-441 WAC (State only)]
[Authority: WAC 173-401-615(3)]

[END OF SECTION]

X. PERMIT SHIELD CONDITIONS (S)

S1. Permit Shield. Compliance with a permit condition shall be deemed compliance with the applicable requirements upon which that condition is based, as of the date of permit issuance. The permit shield does not apply to any insignificant emissions units or activity designated under WAC 173-401-530.

[Origin: WAC 173-401-640(1)]
[Authority: WAC 173-401-640(1)]

S2. Inapplicable or Exempt Requirements. The requirements shown in Table S.1, as of the date of permit issuance, have been determined not to apply to the corresponding emissions units indicated due to either inapplicability of the requirement or an exemption. Commencing the date of permit issuance, the AOP shield shall cover the requirements specified in Table S.1, as of the date of permit issuance, with respect to the specific emissions units indicated unless applicability of the requirement is triggered by a future action or emissions increase.

[Origin: WAC 173-401-640(2)]
[Authority: WAC 173-401-640(1)]

S3. Exclusions. Nothing in this permit shall alter or affect the following:

- **a)** The provisions of Section 303 of the FCAA (emergency orders), including the authority of the administrator under that section,
- **b)** 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,
- **c)** The applicable requirements of the acid rain program, consistent with section 408(a) of the FCAA,
- **d)** The ability of EPA to obtain information from a source pursuant to section 114 of the FCAA, or
- **e)** The ability of the permitting authority to establish or revise requirements for the use of reasonably available control technology (RACT) as provided in chapter 252, Laws of 1993.

[Origin: WAC 173-401-640(4)]
[Authority: WAC 173-401-640(1)]

[END OF SECTION]

TABLE S.1 RELEVANT REQUIREMENTS DETERMINED INAPPLICABLE OR EXEMPT

Relevant Requirement	Relevant Emissions Unit	Exempt or Inapplicable	Brief Description of Requirement	Basis
WAC 173-400-100	Facility-wide	Inapplicable	Registration required for listed sources, excluding sources subject to the operating permit program.	The Facility is subject to the operating permit program.
WAC 173-400-040(3)(b)	Facility-wide	Inapplicable	Emission unit identified as a significant contributor to non-attainment must use reasonable and available control methods to control emission of contaminants for which the area is designated non-attainment.	No emission units at the Facility have been identified as a significant contributor to non-attainment.
WAC 173-400-040(8)(b)	Facility-wide	Inapplicable	Fugitive dust sources identified as significant contributors to PM10 non-attainment must apply RACT.	The Facility is not located in a PM10 non-attainment area.
Chapter 173-435 WAC	Facility-wide	Inapplicable	Emergency episode plan requirements	The Facility has not been requested to prepare such a plan.
40 CFR Part 68	Facility-wide	Inapplicable	Risk Management Programs	40 CFR Part 68 applies to any Facility that has more than a threshold quantity of a regulated substance in a process, as determined under §68.115. The Permittee does not use or store at the Facility any materials above the threshold quantities listed in 40 CFR Part 68.
WAC 173-401-635	Facility-wide	Inapplicable	No "affected source" as defined in WAC 173-401-200(1) shall be permitted as a temporary source [WAC 173-401-635].	WAC 173-401-635 provides that the permitting authority may issue a single AOP authorizing emissions from similar operations at multiple temporary locations, except for "affected sources." Since this permit is for a single location, this provision does not apply.
40 CFR Part 63, §63.5799	Facility-wide	Exempt	How to calculate organic HAP emissions on a tpy basis for purposes of determining which paragraphs of §63.5805 apply?	The Permittee is exempt from the requirements of this section since operations at the Facility do not include centrifugal casting or continuous lamination/casting operations.
40 CFR Part 63, §63.5805(a)	Facility-wide	Inapplicable	Standards - Existing facilities that emit 100 or more tons of HAP from the combination of all centrifugal casting or continuous lamination/casting.	The Facility does not include centrifugal casting or continuous casting/lamination operations.
40 CFR Part 63, §63.5805(c)&(d)	Facility-wide	Inapplicable	Standards - New facilities that emit HAP.	The Facility is an "existing facility."

TABLE S.1 RELEVANT REQUIREMENTS DETERMINED INAPPLICABLE OR EXEMPT

Relevant Requirement	Relevant Emissions Unit	Exempt or Inapplicable	Brief Description of Requirement	Basis
40 CFR Part 63, §63.508(e)&(f)	Facility-wide	Inapplicable	New and existing facilities that **increase** emissions above 100 tpy after their initial compliance date.	The Facility is already classified as an "existing facility" with organic HAP emissions greater than 100 tpy and includes repair operations that are not routine and are, therefore, subject to these requirements.
40 CFR Part 63, §63.5820	Facility-wide	Inapplicable	**Continuous Lamination/Casting** Standards - Options for meeting the standards for continuous lamination/casting operations.	Operations at the Facility do not include centrifugal casting or continuous casting/lamination operations.
40 CFR Part 63, §63.5830	Facility-wide	Inapplicable	Options for Meeting **Pultrusion** Standards - Options for meeting the standards for pultrusion operations.	Operations at the Facility do not include any pultrusion operations.
40 CFR Part 63, §63.5865 – 5890	Facility-wide	Inapplicable	Emission Factor, Percent Reduction and Capture Efficiency Calculation Procedures for **Continuous Lamination/Casting Operations**	Operations at the Facility do not include centrifugal casting or continuous casting/lamination operations.
40 CFR Part 63, §63.5895 (e)	Facility-wide	Inapplicable	Continuous Compliance Requirements – Monitoring and data collection requirements for demonstrating continuous compliance	Operations at the Facility do not include any pultrusion operations.
40 CFR Part 63, §63.5910 (f)	Facility-wide	Inapplicable	Must report that the 100 tpy organic HAP threshold was exceeded if that exceedance would make the Facility subject to §63.5805(b) or (d	The Facility is already classified as a major source.
40 CFR Part 63, §63.5915 (e)	Facility-wide	Inapplicable	For new or existing **continuous** lamination/casting operations....	Operations at the Facility do not include centrifugal casting or continuous casting/lamination operations.
40 CFR Part 63, Subpart A various subsections: • §63.1(a), (c), (d) & (e) • §63.2 • §63.3 • §63.3(6)(a)&(b) • §63.6(d) • §63.6(e)(2) • §63.6(f)(1)-(3) • §63.6(g)-(j) • §63.7(a)(1)-(2)	Facility-wide	Inapplicable	The indicated subsections from 40 CFR Part 63, Subpart A were determined to be either inapplicable or not containing any ongoing applicable requirements.	Consult associated Technical Support Document for justifications.

TABLE S.1 RELEVANT REQUIREMENTS DETERMINED INAPPLICABLE OR EXEMPT

Relevant Requirement	Relevant Emissions Unit	Exempt or Inapplicable	Brief Description of Requirement	Basis
• §63.7(c)(1) • §63.7(c)(2)(v) • §63.7(e)(4) • §63.8(a)(1)-(4) • §63.8(c)(5) • §63.8(f) • §63.9(c)&(d) • §63.9(f) • §63.9(i) • §63.11				
40 CFR Part 63, Subpart SS Various subsections: • §63.980 -982 • §63.98-987 • §63.988(a)&(b) • §63.990-995	Facility-wide	Inapplicable	The indicated subsections from 40 CFR Part 63, Subpart A were determined to be either inapplicable or not containing any ongoing applicable requirements.	Consult associated Technical Support Document for justifications.
40 CFR Part 98 Mandatory Greenhouse Gas (GHG) Reporting (Federal)			Federal Mandatory Greenhouse Gas Reporting Rule established reporting requirements for effected sources.	These requirements are not pursuant to either the state or federal Clean Air Acts and, therefore, are not "Applicable Requirements" for purposes of Title V.

Permit Attachments

Attachment – Emissions Units

AQUATIC COMPANY INC, located at 801 Northern Pacific in Yelm is a fiberglass reinforced plastics manufacturing facility specializing in manufacture of bathtubs, shower stalls and other bathware products. The Facility includes the emissions units and other pollutant emitting activities identified in Table 2.1 below and insignificant emissions units as defined in Table 2.2 below. More complete technical descriptions of these units and activities are contained in the associated Technical Support Document.

ATTACHMENT 2.1 TABLE: EMISSIONS UNITS

Emission Unit ID#	Description	Control Equipment	Exhaust Point
EU1 (Line 1)	**Line 1:** EU1 is a distinct Fiberglass Reinforced Plastics (FRP) production line which uses gelcoat or a vacuum formed acrylic sheet as the 1st layer followed by polyester resin for subsequent laminates. Air emissions include Volatile Organic Compounds (VOC), Hazardous Air Pollutants (HAP) and particulate.	1. Spray Booths 2. Rotary Concentrator and Regenerative Thermal Oxidizer (CRTO).	CRTO Stack: Height = 30 ft (from ground) Diameter = 88 inches
EU2 (Line 2)	**Line 2:** EU2 is a distinct FRP production line which uses a gelcoat or vacuum-formed acrylic sheet as the 1st layer followed by polyester resin for subsequent laminates. All processes of EU2 are located in Building #2. Emissions include VOC, HAP and particulate.		
EU3 (Mixing)	**Mixing Operations:** EU3 includes all VOC, HAP and particulate emissions from resin and gelcoat mixing operations which support both production lines.	CRTO	
EU4 (Line 2 Tooling)	**Line 2 Parts Finishing:** EU4 includes all mechanical operations on finished parts from Line 2 which generate particulate air emissions.	Dust Collectors	N/A – exhaust within building
EU5 (Armor Coat)	**Protective Coating Application:** EU5 encompasses operations used to apply a flexible plastic coating on finished parts to protect them during shipping. The flexible plastic coating (referred to as Armor Shield) is a two-part polyurea material that is spray applied within a dedicated spray booth.	Armor Shield Spray Booth	Armor Shield Spray Booth stack: Height = 25ft from ground level Diameter = 34" Butterfly rain damper

ATTACHMENT 2.2 TABLE: Insignificant Emission Units (IEU)

IEU	Basis for IEU Designation
Resin Storage Tanks: Four, 6,000 gallon above ground resin storage tanks used to store bulk resin.	WAC 173-401-530 (1)(c) and WAC 173-401-533(c).
Process Dust Emissions: Particulate dust from trimming, drilling, and abrasive forming of finished product.	WAC 173-401-530 (1) (d), activity generates only fugitive emissions.
Heating Units: Natural gas fired, forced air, convection and infrared heaters used for space heating, make-up air heating and to provide heat for product curing.	WAC 173-401-533 (e), all natural gas combustion sources less than 5 MMBtu/hr heat input.
PVC Glue Use: Use of PVC glue in finish plumbing of the whirlpool products.	WAC 173-401-530 (q), surface coating using less than 2 gallons per day.

Olympic Region Clean Air Agency
2940 Limited Lane NW
Olympia, WA 98502

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Technical Support Document

For Air Operating Permit # 18RFC1287

Aquatic Company

AOP - Reopening for Cause
18RFC1287
June 26, 2020

Table of Contents

1.0 DISCLAIMER

Information contained in this Technical Support Document is for purposes of background information only and is not enforceable. Applicable requirements including emission limits and monitoring, recordkeeping and reporting requirements are contained in the associated Air Operating Permit (AOP) for the Facility located at 801 Northern Pacific Road SE in Yelm, permit 18RFC1287, which was issued by Olympic Region Clean Air Agency (ORCAA) on **<enter Date>**.

2.0 PERMIT IMPLEMENTATION

2.1 General

The Aquatic Company located in Yelm (Aquatic), owns and operates a manufacturing facility (Facility) that produces bathroom fixtures including bathtubs, shower stalls and whirlpools in a variety of sizes and styles. The Facility is located at 801 Northern Pacific Road SE, Yelm, Washington, and has operated at this location since 1981. Major structures at Aquatic include two large warehouse buildings, an office building, a small resin mixing/storage building, four large above-ground tanks, a rail spur and outside storage areas for finished product. The two large warehouse buildings contain all of Aquatic's production operations except for bulk mixing of resin, which takes place in a separate mixing building. The Facility has operated under an Air Operating Permit (AOP) since 1997.

Table 1: Administrative Information and Contact Information

Company Name	Aquatic Co
Facility/Source Name	Aquatic, Yelm
AOP Permit No.	<####>
Mailing Address	801 Northern Pacific Road SE Yelm, WA 98589
Site Address	same
Facility/Plant/Environmental Manager	OSCAR MOLINA: Administrative Manager David Clouser: Safety, Health & Environmental Manager
Responsible Official	Ryan Prince Plant Manager
Unified Business Identification #	<342011264>
Standard Industrial Classification (SIC) Code	3088: SIC Code 3088 - Plastics Plumbing Fixtures is a final level code of the "Manufacturing" Division. There are 104 companies classified in this industry in the USA.
Attainment Area Status	Attainment or unclassified for all criteria air pollutants.
Permitting Authority	Olympic Region Clean Air Agency
Permit Engineer	Mark V. Goodin – ORCAA Engineer Manager (360) 539-7610 ext. 108
Compliance Supervisor	Mike Shults – Compliance Supervisor (360) 539-7610

2.2 Permittee

The owner and operator of the facility is the entity responsible for complying with the AOP. The current owner and operator is identified in the permit, but permit conditions refer to the owner and operator as the "Permittee." Currently, Aquatic is the owner and operator of the facility and, therefore, responsible for complying with the AOP. The AOP and its requirements apply to operations at the facility regardless of ownership changes. Therefore, a change in ownership transfers responsibility for complying with the AOP immediately to the new owner and operator even though Aquatic is identified in the permit as the owner and operator.

2.3 Responsible Official

AOP regulations under Chapter 173-401 WAC require a "Responsible Official" certify any submittals regarding compliance with the AOP as being true, accurate and complete based on their belief formed after reasonable inquiry. To form a reasonable belief of the truth, accuracy, and completeness of a compliance certification or other AOP-related submittal, the Responsible Official needs to understand the significance of the submittal with respect to assuring compliance with the AOP. The Responsible Official must have a basic understanding of the Title V permitting program, an understanding of the deviations being reported, how permit deviations are determined and the role of credible evidence in certifying compliance.

AOP compliance-related submittals covers practically every report and submittal associated with an AOP, such as deviation reports, malfunction reports, periodic monitoring reports, test reports, quarterly reports and annual compliance certifications. The AOP as written for the Aquatic facility does allow "batch-wise" certification of routine compliance reports. This is facilitated by condition R1, which states:

"Provided, however, where a report is sent more frequently than once every six months, the responsible official's certification needs only be submitted once every six months, covering all required reporting since the date of the last certification."

This allows the Responsible Official to batch-wise certify retroactively all reports submitted since the last certification.

According to WAC 173-401-200(29), the responsible official means one of the following:

a) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

i. The facilities employ more than two hundred fifty persons or have gross annual sales or expenditures exceeding forty-three million in 1992 dollars; or
ii. The delegation of authority to such representative is approved in advance by the permitting authority;

b) For a partnership or sole proprietorship: A general partner or the proprietor, respectively;

c) For a municipality, state, federal, or other public agency: Either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a regional administrator of EPA); or

d) For affected sources:
i. The designated representative in so far as actions, standards, requirements, or prohibitions under Title IV of the FCAA or the regulations promulgated thereunder and in effect on April 7, 1993 are concerned; and
ii. The designated representative for any other purposes under 40 C.F.R. Part 70.

Because the Aquatic facility is subject to Subpart WWWW of 40 CFR Part 73, it is considered an "Affected Source." Therefore, Aquatic's "Designated Representative" and "Responsible Official" should be the same person.

2.4 AOP Enforcement

Terms and conditions in the AOP apply continuously and are enforceable by ORCAA, Washington State, and, except for state or local only requirements, the U.S. EPA. Each condition in the AOP cites both the regulatory origin and authority for each permit condition. Any disputes regarding the exact language of an applicable requirement listed in the AOP should be settled by consulting the regulation cited in the regulatory origin of the condition.

3.0 Basis for Title V Applicability

Facilities with a potential to emit (PTE) at or above the "major source" thresholds defined in WAC 173-401-200(19) are required to operate under an Air Operating Permit (AOP) issued through an approved Washington State AOP program, according to Title V of the federal Clean Air Act. Aquatic is a major source the compound styrene, which is both a Hazardous Air Pollutant (HAP) under federal air regulations and a Toxic Air Pollutant (TAP) under Washington's regulations. Other air pollutants emitted in minor amounts by Aquatic include the compounds Methyl Methacrylate (MMA) and Diphenylmethane diisocyanate (MDI), which are both a HAP and TAP, and particulate dust. Aquatic also emits criteria air pollutants in minor

amounts from the combustion of natural gas used for space heating and in their regenerative thermal oxidizer (RTO).

4.0 FACILITY DESCRIPTION

Styrene and MMA are components of the resin used in the production process. While the production process relies on the polymerization of styrene monomer in the presence of MMA to make the final product a rigid solid, a certain amount of the styrene and MMA are emitted as a volatile gases. These emissions occur primarily when the resin is spray applied and during the initial stages of curing.

MDI is emitted during application of a two-part polyuria material that forms a protective, flexible plastic coating on surfaces of finished products. The material is applied to certain finished products just prior to shipment in a dedicated spray booth. The material cures into a flexible plastic skin that protects product surfaces and can be peeled off by the customer.

Combustion emissions result from the combustion of natural gas in Aquatic's RTO and in space heating equipment throughout the Facility. The RTO is part of the overall air pollution control system serving the production lines.

Products, including shower stalls, bathtubs and whirlpools, are produced in assembly lines by applying layers of resin on molds. The resin is sprayed in successive layers. Each primary layer is allowed to partially cure before the next layer is applied. After curing of the final layer, the product is separated from the mold. The mold is then cleaned and prepared for the next cycle.

Aquatic operates two independent production lines, Line 1 (EU1) and Line 2 (EU2), which are regulated by ORCAA as separate emissions units. Although Line 1 and Line 2 operate independently, the production process is the same for each. For both lines, resin is applied within semi-enclosed spray booth tunnels. Volatile emissions are captured in the spray booths by a single exhaust system that serves spray booths in both lines.
All exhaust from Line 1 and Line 2 is routed first through a rotary pre-concentrator and then through the RTO. The combined control system is referred to as the CRTO. Exhaust is routed first through the rotary concentrator located outside the production buildings. The Rotary Concentrator cleans the exhaust using an adsorption process where styrene from the exhaust is adsorbed onto a catalyst substrate. The cleaned exhaust from the Rotary Concentrator is then emitted to the atmosphere through the RTO stack. The adsorption process in the Rotary Concentrator is a continual process accomplished using three large, rotating zeolite catalyst wheels. At any given time, Styrene is both being adsorbed and desorbed from a portion of each wheel as it rotates through the housing. Styrene adsorbed onto the catalyst is desorbed to a smaller exhaust air stream that is sent to a Regenerative Thermal Oxidizer, which destroys the majority of the styrene through thermal oxidation. The figure on page 23 provides a diagram of the major components and functions of the CRTO.

For both production lines (lines), the entire production line from mold preparation through final product storage is considered as part of the emissions unit. ORCAA believes that defining the entire production line as an emissions unit is consistent with current permitting practices at ORCAA and with the definition of "emissions unit" contained in WAC 173-400-030. Under WAC 173-400-030(23), emissions unit is defined as, "any part of a stationary source which emits or would have the potential to emit any air pollutant subject to regulation..."

Both Lines contain resin spray areas made up of modular spray booth segments. ORCAA considers individual spray booth segments as capture and control devices associated with these emissions units. Emissions captured from the Lines are ducted to the CRTO to control Styrene, MMA and other VOCs emissions by incineration.

Insignificant emissions units (IEUs) at the facility include gas fired make-up air space heaters, gas fired radiant space heaters, four 6,000 gallon bulk resin storage tanks, minor uses of materials containing VOCs such as PVC glue, cans of spray paint, and minor amounts of cleaning solvents, an above ground propane storage tank, and use of propane powered fork lifts.

The four, 6,000 gallon bulk resin storage tanks are insignificant on the basis of size according to WAC 173-401-533(c), which defines storage tanks less than 10,000 gallons in capacity and storing volatile organic liquids with a vapor pressure of less than 80mm Hg at 21oC as insignificant emissions units. According to Safety Data Sheets (SDS) provided in Aquatic's original AOP application, the vapor pressure of resin is less than 4mm Hg. Natural gas fired space heaters for heating the work areas are insignificant on the basis of size according to WAC 173-401-533(e), which defines combustion sources less than five million Btu/hr exclusively using natural gas, butane, or propane as insignificant. The remainder of IEUs at Aquatic qualify as categorically exempt IEUs according to WAC 173-401-532.

Table 2- Emissions Units (EU) & Insignificant Emissions Units (IEU)

ID	Description:	Specifications	Control Equipment
Line 1 (EU1)	**Production Line 1**: Referred to as the "Line 1" of EU1. For purposes of the AOP, EU1 is an independent production line that may use gelcoat or a vacuum-formed acrylic sheet as the 1st laminate followed by polyester resin for subsequent laminates. The entirety of Line 1 is located in Building #1 except for the product trim and drill booth and parts repair. Emissions include Styrene, MMA, VOC and particulates from spray coating operations.	Spray Booth Modules (9 total): 2 gelcoat booths 1 Specialty gelcoat booth 2 barrier coat booths 4 lamination booths Filters: 4" dry filters Mixing Room: 1 small exhaust fan	Rotary pre-concentrator (Concentrator) followed by regenerative thermal oxidizer (RTO). Referred to as "CRTO." Stack: Height = 30 ft (from ground) Diameter = 88 in
Line 2 (EU2)	**Production Line 2:** Referred to as "Line 2" or EU2. For purposes of the AOP, EU2 is an independent production line that may use gelcoat or a vacuum-formed acrylic sheet as the 1st laminate followed by polyester resin for subsequent laminates. The entirety of Line 2 is located in Building #2 except for the product trim and drill booth and parts repair. Emissions include Styrene, MMA, VOC and particulates from spray coating operations.	Spray Booth Modules (3 total): 1 gelcoat 1st lamination 2nd lamination Filters: 4" dry filters	
Bulk Mixing (EU3)	Bulk Mixing Operations: VOC and particulate emissions from resin mixing operations which support both production lines. Conducted in separate mixing building.	2 batch mixers: 700 cubic feet	Covered except when adding/removing material
Tooling (EU4)	Parts Finishing: EU4 includes all mechanical operations on finished parts which generate particulate air emissions.	6 dust collectors	Dust Collectors that exhaust back into buildings 1 and 2.
Armor Coat (EU5)	Protective Coating Application: EU5 encompasses operations used to apply a flexible plastic coating on finished parts to protect them during shipping. The flexible plastic coating (referred to as Armor Shield) is a two-part polyuria material that is spray applied within a dedicated spray booth.	Armor Shield Spray Booth	Armor Shield Spray Booth stack: Height = 25ft from ground level Diameter = 34" Butterfly rain damper
Day Tanks and Gelcoat Drums (EU6)	Process tanks and drums used for day to day dispensing of material.	Varies	Covered except when adding/removing material
IEU1	Bulk Resin Storage Tanks	Four, 6,000 gallon above ground resin storage tanks used to store bulk resin.	None

ID	Description:	Specifications	Control Equipment
IEU2	Process Dust Emissions	Particulate dust from trimming, drilling, and abrasive forming of finished product.	Dust collection systems
IEU3	Heating Units	Natural gas fired, forced air, convection and infrared heaters used for space heating, make-up air heating and to provide heat for product curing. All less than 5 MMBtu/hr heat input.	None
IEU4	PVC Glue Use:	Use of PVC glue in finish plumbing of the whirlpool products.	None

5.0 REGULATORY BACKGROUND

5.1 Pre-1996

Aquatic's Yelm facility was established by the original owner, HYTEC, in 1981 under NOC #310. NOC #310 was reviewed and approved unconditionally by ORCAA on February 26, 1981. After this date, records indicate one plant expansion occurred in the mid-1980s. However, records of correspondences regarding this expansion indicate ORCAA was aware of the expansion and did not consider it as a modification triggering a NOC. There have been several minor modifications and addition of new emission units and control devices at the facility since 1981 that have triggered new source review. The outcome of ORCAA's approval of these cases follows.

NOC #310 provided unconditional approval to HYTEC to establish a Fiberglass Reinforced Plastics (FRP) plant at the Yelm site. Documentation of the NOC application and ORCAA's review and approval of NOC #310 is sparse. The application consisted of a request letter which generally describes the facility and the company's intent to establish in Yelm. Record of ORCAA's approval of NOC #310 includes NOC Form 1 signed by ORCAA's Control Officer at that time and stamped "APPROVED". ORCAA recognizes these records as proof of compliance with new source review requirements for the facility when it was established in Yelm. However, although records associated with NOC #310 indicate that review and approval of the Yelm facility was consistent with the "standard of care" for new source review that existed at that time, both ORCAA's approval and the associated NOC application are deficient by today's standards in that they did not limit the Facility's potential to emit. ORCAA's approval of NOC #310 did not include any associated Approval Order containing emission limitations and other conditions necessary for assuring compliance. Neither ORCAA's approval nor the NOC application describe emission units or document the facility's maximum potential to emit. Also, there was a no documented determinations with respect to other air permitting programs, specifically, the State's Prevention of Significant Deterioration (PSD) program.

5.2 Post-1996

Prior to issuing the Facility's initial AOP in July of 1997 the New Source Review (NSR) deficiencies described above were rectified through a Regulatory Order issued by ORCAA on June 20, 1996 pursuant to WAC 173-400-091, Voluntary Limits on Emissions. This Regulatory Order established an enforceable limit on plant-wide VOC emissions, as well as monitoring, recordkeeping and reporting requirements.

Between 1996 and 2006, the Facility completed several significant modifications to the facility that required ORCAA's prior approval through a NOC application:

1. In 1998, the Facility increased the height of all exhaust stacks serving the spray booths. Twelve separate stacks were increased to a height of 75' above grade. This action was approved through the special flexibility condition in Aquatic's original Air Operating Permit (AOP).

2. In 2000 under NOC # 00NOC011, the Facility received approval to install a Regenerative Thermal Oxidizer (RTO) to serve the gelcoat booth. In 2020, the Approval Order for NOC # 00NOC011 was superseded by the Approval Order for 20NOR1432, which combines and consolidates permit conditions applying to the CRTO.
3. In 2001 under NOC # 01NOC119, the Facility received approval to route emissions from the Lamination #1 spray booth in the "gelcoat" line to the RTO.
4. In 2002, the Facility received approval to install a polyurethane production line. However, this project has since been abandoned.

In 2006, the Facility significantly improved air pollution control at the facility by installing a Rotary Concentrator. The Rotary Concentrator receives all exhaust from Line 1 and Line 2 and enables incineration of 90% of the styrene and MMA emissions. This is because the Rotary Concentrator concentrates the pollutants into a smaller volume of air flow that can be processed entirely by the RTO. The Rotary Concentrator in tandem with the RTO is referred to as the "CRTO." The CRTO was approved by ORCAA on October 6, 2006, through 06NOC494. In 2020, the Approval Order for NOC # 06NOC494 was superseded by the Approval Order for 20NOR1432, which combines and consolidates permit conditions applying to the CRTO.

In 2018 under 17NOC1256 Aquatic was approved to modify Line 2 (formerly referred to as the "Acrylic Line") to enable using either gelcoat or acrylic as the first material in a product. Line 2 was extended by 170 feet and a new spray booth was added to enable this production flexibility. When in "gelcoat mode," gelcoat is applied in the gelcoat booth followed by two successive laminations in the subsequent lamination booths. In the "acrylic mode," acrylic parts pass through the gelcoat booth without any operations performed and then through the lamination booths for a 1st and 2nd lamination.

In 2019 under 19NOC1358 Aquatic was approved to install a new spray booth for spray applying a two-part polyuria material that forms a flexible plastic coating referred to as Armor Shield. The flexible plastic coating is applied to certain products requiring protection prior to shipping. The Armor Shield spay booth is located in Building 2 and exhausts directly to the atmosphere after passing through the new spray booth filters and exhaust stack. The protective coating material applied, IsoShield 3001 or Armor Shield, is a two-part polyurea material with a 50/50 mix ratio. It cures into a flexible plastic material that protects product surfaces and can be peeled off by the customer. The material contains Diphenylmethane diisocyanate (MDI) which is both a HAP and TAP. Most of the MDI polymerizes when the two-parts of the mixture are mixed. However, a certain percentage of the MDI does not react and is emitted as a gaseous air pollutant. In addition, a small percentage of MDI is emitted as airborne particulate.

In 2020 under 20NOR1432 Aquatic received approval to combine Approval Orders (Orders) from two past Notice of Construction (NOC) approvals that approved air pollution control equipment installed at the facility. In addition to combining the two Orders, Aquatic requested superseded and outdated conditions be eliminated. The resulting Approval Order for NOC # 20NOR1432, supersedes the Order issued in 2001 approving the regenerative thermal oxidizer (# 00NOC011) and the Order issued in 2006 approving the rotary pre-concentrator (#

06NOC494). Combining these Orders and eliminating superseded and outdated conditions simplified the regulation of air emissions from Aquatic.

6.0 EMISSIONS

Title V Air Operating Permits apply to "Major Sources" based on their Potential to Emit (PTE) regulated air pollutants. PTE is defined as the maximum possible emissions given physical and regulatory limitations. Table 3 below shows PTE estimates for the facility based on current emissions limits and equipment design parameters. Table 4 below shows actual, reported emissions from the facility for 2019.

Table 3: Potential to Emit

Pollutant	Hourly Rate (lbs/hr)	Daily Rate (lbs/day)	Annual (tons/year)
PM (Total Particulate)	0.08	1.82	0.3
PM-10 (Total Particulate) (<= 10)	0.08	1.82	0.3
PM 2.5 (Fine Particulate (<=2.5)	0.08	1.82	0.3
VOC as Volatile Organic Compounds	27.68	443.4	80.9
SO2 (Sulfur Dioxide)	5.99	1.4	2.6
NOX (Nitrogen Oxides)	1.00	24.0	4.4
CO (Carbon Monoxide)	0.84	20.1	3.7
Styrene	24.34	389.5	71.1
MMA	3.28	52.5	9.6
MDI	5.00E-3	8.00E-2	8.40E-3
Total HAP	27.63	442.1	80.7

[a]PTE emissions rates for calculated by ORCAA according to permit limits and cumulative plant-wide heat rate for natural gas and propane combustion.

Table 4: Actual Emissions 2019

Pollutant	Annual Emissions	Units
PM (Total Particulate)	0.01	Tons
PM-10 (Total Particulate) (<= 10)	0.01	Tons
PM 2.5 (Fine Particulate (<=2.5)	0.01	Tons
VOC as Volatile Organic Compounds	13.1	Tons
SO2 (Sulfur Dioxide)	0.01	Tons
NOX (Nitrogen Oxides)	1.7	Tons
CO (Carbon Monoxide)	1.4	Tons
Styrene	12.3	Tons
MMA	0.7	Tons
MDI	0	Tons
Total HAP	13.0	Tons

For Styrene and MMA, PTE is limited by daily and annual regulatory limits on facility-wide VOC emissions. These limits were established through the Regulatory Order issued by ORCAA June 20, 1996 under WAC 173-400-091, which provides authority to air regulatory agencies to make voluntary reductions in emissions enforceable via regulatory orders.

The annual VOC limit corrects deficiencies in the initial permitting of the Facility of not establishing emissions limits. The annual VOC limit establishes an annual limit on facility-wide emissions of VOC to no more than 249 tons per consecutive 12-month period. The annual limit keeps the Facility a "minor source" under Washington's Prevention of Significant Deterioration (PSD) program (WAC 173-400-720). The annual VOC limit is included in condition AR3.1 of the AOP.

The daily VOC limit was established as a "plant-wide applicability limit" for purposes of making New Source Review (NSR) applicability determinations. Originally, the daily, plant-wide VOC limit was set at 3,419 pounds per day of VOC. This daily limit has since been superseded by separate limits on Styrene and MMA specifically. These two new daily limits are also in condition AR3.1:

- Styrene limited to 389.5 lbs/day (17NOC1256)
- Methyl Methacrylate limited to 52.5 lbs/day (17NOC1256)

Aquatic's PTE for combustion-related air pollutants is limited by the combined design heat rates of all combustion equipment at the Facility, including the RTO. The design heat rate of the RTO is 7 MMBtu/hr. The combined heat rates of all combustion equipment at the Facility is 5 MMBtu/hr. The plant-wide combined heat rate and emissions factors for combustion of natural gas were used to estimate PTE for combustion-related emissions.

PTE for particulate from cutting, drilling, grinding and sanding finished products is considered negligible. This conclusion is based:

1. Dust collectors emitting back into either building 1 or 2; and,
2. Spray booth filters in Lines 1 and 2 are properly maintained.

7.0 REGULATORY DETERMINATIONS

7.1 Effective Versions of Applicable Requirements

Effective versions of each applicable requirement in the AOP for Aquatic are the versions that were effective on the date the AOP was issued.

7.2 National Emissions Standards for Hazardous Air Pollutants

EPA established National Emission Standards for Hazardous Air Pollutants (NESHAP) under 40 CFR Part 63 to regulate HAP emissions from major sources of HAP. This regulatory program

defines a major source as any facility that has the potential to emit more than 10 tons per year of a single HAP or more than 25 tons per year of all HAPs combined.

On August 16, 2005, EPA signed the NESHAP for Reinforced Plastic Composite Production facilities that are "Major Sources" of hazardous air pollutants. This NESHAP is codified under 40 CFR Part 63, Subpart WWWW, and is referred to as Subpart WWWW in both the AOP and this TSD for convenience. Aquatic has the potential to emit the pollutant Styrene (a HAP) in major quantities and is, therefore, regulated as a "Major Source" and subject to Subpart WWWW. In addition, Subpart WWWW references certain requirements from Subparts A and SS of 40 CFR Part 63.

7.3 Compliance Assurance Monitoring (CAM) Rule

40 CFR Part 64 contains the Compliance Assurance Monitoring (CAM) Rule, which establishes the minimum requirements for compliance assurance monitoring at major sources. The CAM rule applies on a pollutant-by-pollutant and rule by rule basis to emissions units at major sources when:

1. The pollutant is subject to an emissions limit;
2. The emissions unit uses a control device to comply with the emissions limit; and,
3. The uncontrolled emissions rate of the pollutant is equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source.

The pre-control PTE for Styrene of Line 1 and Line 2 are above the major source threshold for Styrene. Pre-control PTE for all other pollutants and emissions units are less than 100 percent of any major source threshold. Therefore, the CAM Rule only needs to be considered for Styrene emissions from Line 1 and Line 2 and can be ruled out as inapplicable for all emissions units.

The CAM Rule specifically exempts emission limitations or standards proposed after November 15, 1990. Subpart WWWW was proposed in 1997, which is later than this CAM landmark date. Therefore, the CAM rule does not apply to Aquatic.

7.4 Federal Mandatory Greenhouse Gas Reporting Rule

The Federal Mandatory Greenhouse Gas Reporting Rules under 40 CFR Part 98 establishes requirements for reporting emissions of GHGs. However, these requirements are not pursuant to either the state or federal Clean Air Acts and, therefore, are not "Applicable Requirements" for purposes of Title V AOPs.

7.5 Risk Management Program Requirements under 40 CFR Part 68

40 CFR Part 68 is pursuant to Section 112(r) of the Federal Clean Air Act, which requires implementation of risk management plans at facilities that use hazardous substances. The requirements under 40 CFR Part 68 apply to facilities that use or store materials in quantities that might pose an immediate danger to human health or safety if there is an accidental release. However, based on their inventory of materials entering or being produced at the facility, Aquatic does not maintain significant quantities or use any of the regulated substances listed in Section 112(r) of the Federal Clean Air Act. Therefore, Aquatic is not subject to 40 CFR Part 68.

7.6 Major Source Permitting Programs under 40 CFR Part 52

Washington's programs implementing federal Major Source Permitting Programs pursuant to 40 CFR part 52, including the Prevention of Significant Deterioration (PSD) program and permitting rules for major sources in non-attainment areas, are contained in Chapters 173-400-700 and 800 of the Washington Administrative code. The term "Major Source" is defined differently under 40 CFR Part 52 as compared to Title V and generally incudes stationary sources with a potential to emit greater than 250 tons per year of a "regulated air pollutant." Aquatic's physical and regulatory limits on PTE maintain the Facility as a "Minor source" with respect to Major Source Permitting Programs under 40 CFR Part 52.

7.7 State Carbon Dioxide Mitigation Program

Carbon dioxide mitigation per Chapters 463-80 and 173-485 WAC are requirements for thermal electric generating facilities and, therefore, does not apply to Aquatic.

7.8 State Greenhouse Gas (GHG) Reporting Rule

According to WAC 173-441-030(1), the State GHG Reporting Rule applies to industrial facilities that emit at least 10,000 metric tons per year of GHG in terms of carbon dioxide equivalents, including carbon dioxide from biofuels. Because Aquatic does not have the potential to emit GHGs of this magnitude, the State GHG Reporting Rule does not apply.

8.0 MONITORING

8.1 Emissions Monitoring

Monitoring compliance with daily and annual emissions limits is accomplished indirectly by monitoring material inputs and outputs, material composition, and production rate. Material flows monitored include resin, gelcoat, and resin and gelcoat additives. Production is monitored in terms of the number of marketable units produced.

In general, daily emissions are computed by multiplying the amount of styrene monomer used per day times the appropriate plant specific emission factor. The plant specific emission factors

are required to be based on the most recent source testing and must be approved by ORCAA. The amount of styrene monomer used is computed by multiplying the amount of resin and gelcoat used, times the percent composition of styrene monomer in those materials respectively. The amount of styrene monomer in the resin and gelcoat used by Aquatic is verified in the Safety Data Sheets (SDS) and "Certificates of Analysis," which accompany shipments of these materials. The amount of resin and gelcoat used is monitored by Aquatic and is used as the basis for computing daily emissions.

Table 5 - Daily Emissions Equation

$$Emissions_{lbs/day} = \Sigma_i(Usage_{i,\ lbs/day})*(\%\ Styrene_i)*(EF_i)$$

Where:

1. Subscript "i" denotes the specific process and material: gelcoat, barrier coat, lamination coats.
2. EF_i denotes the plant specific emission factor for process "i".

On a daily basis, monitoring is conducted, and the data is input into Aquatic's emissions data tracking system. Aquatic's emissions data tracking system stores the data in a database, and, on a monthly basis, computes:

1. Production parameters which are used to evaluate the plant's production and material use efficiency;
2. Styrene and MMA emissions factors in terms of pounds per ton of material used (lbs/ton);
3. Styrene and MMA daily and 12-month cumulative emissions in pounds and tons; and,
4. Whether compliance with Subpart WWWW and daily and annual emissions standards were achieved.

Resin comes to the Yelm plant by either rail cars or tanker trucks and is off-loaded directly into one of the four bulk tanks located outside and to the east of buildings 1 and 2. These tanks are referred to as the "bulk tanks". The amount of resin received during a shipment is determined by measuring tank levels before and after off-loading and converting the difference into gallons using a conversion chart which relates the tank's level with the volume in gallons of material stored. The amount of resin off-loaded in gallons is converted to pounds using a resin density provided in the "Certificate of Analysis" or SDS which accompanies the shipment. Bulk tank levels are measured each day to determine resin used since the last reading. The displacement in tank level is converted to volume in gallons and then pounds. This monitoring accounts for the material outflow from the bulk tanks.

Resin is pumped from the bulk tanks to the mixing building located east of the production buildings, where fillers are added to the resin and mixed in a batch mixers. Fillers are added according to the required material specifications for the particular batch. For example, a barrier coat batch is different compared to a laminate coat batch. The amount of each particular filler

is weighed, and the composition of the batch is verified by comparing the material's measured density to the computed density based on the formula for the mixture.

After a batch is mixed, the resin is pumped to one of three "day tanks" which are located in the mixing room of building 2. The day tanks keep the mixture agitated and at the proper temperature for application. The resin is circulated from each day tank in a continuous loop to a specific spray booth for use. Catalyst is added to the gelcoat and resin just prior to applying the material at each individual spray gun.

The level of material remaining in each day tank at the end of the last shift is measured daily either by measuring the tank level or by taking a reading from the load cell if the tank is equipped with a load cell. If the day tank is equipped with a load cell, the amount of resin in pounds is directly recorded. If tank level is measured, the day tank level in inches is converted to gallons using a tank conversion chart which relates tank level to volume, and then to pounds using the density of the mixture. In either case, the amount of raw resin remaining in the day tank is computed by "backing-out" the amount of fillers added.

The amount of resin usage in pounds on a daily basis can then be computed by the following formula:

Table 6 - Resin Monitoring

$\text{Bulk Tanks}_{\text{daily output}} - \text{Day Tanks}_{\text{pounds remaining}} = \text{Daily Usage}$

where:

1. $\text{Bulk Tanks}_{\text{daily output}}$ is the total daily amount of raw resin output from the bulk resin storage tanks, in units of pounds.
2. $\text{Bulk Tanks}_{\text{daily output}} = \Sigma_{i=1 \text{ to } 4} \text{ Bulk Tank}_{i,\text{ beginning}} - \text{Bulk Tank}_{i,\text{ end}} + \text{Bulk Tank}_{i,\text{ inputs}}$
3. $\text{Day Tanks}_{\text{pounds remaining}}$ is the total remaining amount of raw resin left in the day tanks at the end of the day, in units of pounds.
4. Pounds computed from volume in gallons using known density of the raw resin and known amount of fillers added.
5. Volume in gallons computed using the tank's unique level to volume conversion chart.
6. Tank level measured directly.

Gelcoat is stored in portable drums, primarily 55 gallon drums. The amount of gelcoat used is monitored daily by taking a daily inventory of drums storing gelcoat. Partially used drums are accounted for by measuring the remaining level in the drum and computing the amount of gelcoat used.

Aquatic monitors unit production for purposes of evaluating plant performance. Monitoring unit production provides useful information for purposes of evaluating pollution prevention

status and improvements. The number per day of marketable units produced is monitored and input into Aquatic's computer database along with daily material use data. On a monthly basis, this information is used to compute efficiency indicators such as the amount of material used per unit, the amount of waste per marketable unit, and the amount of material per unit. These parameters are then compared to Aquatic's standard rates, which reflect optimal efficiency and performance.

The pounds of available styrene used per volume of material applied is computed to track the Aquatic's progress towards reducing styrene in the process. The volume of waste per volume of useful product produced is computed to track Aquatic's progress towards improving spray application efficiency. The pounds of styrene emitted per pound of available styrene in the process is computed periodically after source testing to evaluate improvements in the styrene emission factor.

8.2 CRTO Monitoring

Several CRTO operating parameters are required to be monitored continuously:

- Concentrator Inlet pressure;
- Inlet gas stream temperature to the desorption/reactivation zone of wheel # 3 in the pre-Concentrator;
- RTO Combustion Chamber Temperature;
- Exhaust air flow in the main exhaust duct serving both Line 1 and Line 2;
- Pressure drops across filter stages 1 and 2 of the CRTO;
- CRTO bypass damper position; and,
- Concentrator wheel speed.

Appropriate operating ranges for these parameters are established or reconfirmed based on monitored performance during the most recent stack testing per condition M4 in the AOP which confirms a control efficiency of at least 90% by the CRTO. In addition to continuous monitoring, performance of the CRTO catalyst is checked using a portable flame ionization detector (FDI), photo ionization detector (PID), or another appropriate instrument at least annually. In addition, EPA Reference Method 18 is conducted at least once every five years to confirm compliance with the minimum control efficiency standard of 90% and to reconfirm acceptable CRTO operating parameters.

8.3 Spray Booth Monitoring

Conditions of filters in all spray booths and pressure drops across the filter banks in all spray groups are required to be monitored and logged each shift. In addition to this, EPA method 204 testing to confirm Line 1 and Line 2 meet standards for "Permanent Total Enclosures" is required at least once every five years.

9.0 BASIS for AOP TERMS and CONDITIONS

9.1 Origin and Authority of AOP Conditions

Per the Washington Air Operating Permit Program under WAC 173-401-600, the regulatory origin and authority for each condition must be stated in an AOP. For Aquatic's AOP, origin and authority are stated at the end of each permit condition. The "Origin" cites the local, state or federal regulation or NSR permit where the applicable requirement came from. The "Authority" cites the specific section in Chapter 173-401 WAC providing authority to include the requirement in the AOP.

Table 7: Required Permit Content, Washington AOP Program

WAC 173-401 Section:	**Provides authority to include in AOP:**
WAC 173-401-600(1)(a)	Federal emissions limits and standards.
WAC 173-401-600(1)(b)	State emissions limits and standards.
WAC 173-401-600(1)(c)	Requirements from permits issued by a local air pollution control authority (NOC and PSD permits).
WAC 173-401-615(1)(a)	Monitoring required by an applicable requirement.
WAC 173-401-615(1)(b)	Periodic monitoring where the applicable requirement does not require specific monitoring (commonly referred to as "gap-filling monitoring).
WAC 173-401-615(1)(c)	As necessary, requirements concerning the use, maintenance, and, where appropriate, installation of monitoring equipment or methods.
WAC 173-401-615(2)	All applicable recordkeeping requirements and require, where applicable: • Records of required monitoring; • Records of changes made at the facility that result in emissions of a regulated air pollutant, but not otherwise regulated under the permit; • Retention of records of all required monitoring data and support information for a period of five years from the date the record originated; • Monitoring support information including all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation; and, • Copies of all reports required by the permit.

WAC 173-401-615(3)	All applicable reporting requirements and require: • Submittal of reports of any required monitoring at least once every six months; and, • Prompt reporting of deviations from permit requirements, including those attributable to upset conditions.
WAC 173-401-620(2)	Standard Title V provisions from WAC 173-401-620(2).
WAC 173-401-605(1)	Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of permit issuance.
WAC 173-401-640(1)	Upon request, the permitting authority shall include in the permit or in a separate written finding issued with the permit a determination identifying specific requirements that do not apply to the source.

9.2 Permit Administration (P1 – P20)

Permit administrative conditions (conditions P1 – P20) include conditions specifying how the AOP is managed according to the State AOP program under Chapter 173-401 WAC and conditions having implications on assuring compliance with all other conditions in the AOP. Many of the permit administrative conditions are "standard terms and conditions" and required to be in the AOP per either Chapter 173-401 WAC or per federal requirements for AOPs.

The origin of each permit administrative condition is stated at the end of each condition. Authority to include permit administrative conditions comes from primarily from WAC 173-401-600(1)(b), which specifies AOPs contain requirements from the Washington Clean Air Act (Chapter 70.94 RCW) and rules implementing that chapter (Washington's AOP program is pursuant to RCW 70.94.162, which is under the Washington Clean Air Act.).

Permit administrative conditions specify terms of the AOP such as the permit duration, expiration, renewal and revision requirements. They also explain the "Permit Shield," extent of AOP enforceability and how the AOP can be revoked or re-opened for cause. They are essential to the proper functioning of the AOP under the State of Washington Program. Because permit administrative conditions do not include any applicable emissions limitations or operational standards, monitoring is not applicable. However, general recordkeeping and reporting requirements apply. Also, compliance with permit administrative conditions must be certified annually. Several key conditions are discussed in detail below.

9.3 General Terms and Conditions (G1 – G13)

General terms and conditions (G1 – G13) cover general compliance and permitting requirements. These conditions are categorized as General Terms and Conditions in the permit because they either have broad implications on multiple conditions in the AOP, or are entire programs that are applicable if triggered, such as the Stratospheric Ozone Protection program. Authority for each condition varies depending on whether the applicable requirement

originated from a state or federal regulation. Several general terms or conditions are discussed in detail below.

9.4 Applicable Requirements

Applicable requirements (AR1 – AR4) cover applicable emissions limits and operating standards from applicable state and federal regulations and NOC permits issued by ORCAA. Origin and authority are stated at the end of each condition. All applicable requirements are in their original form except for minor reorganization for ease of implementation. All monitoring details are included in the Monitoring section of the permit. The following applicable regulations are included in the Applicable Requirements section of the permit:

- General facility-wide standards and prohibitions primarily from Chapter 173-400 WAC and ORCAA's rules; and,
- CFR Part 63, Subpart WWWW, National Emissions Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production.

9.5 Monitoring Terms and Conditions

Applicable monitoring terms and conditions (M1 – M8) include all required monitoring from applicable federal subparts and NSR permits. Origin and authority are stated at the end of each condition. Although applicable monitoring requirements are included in their original form, additions were required to clarify requirements. This is allowed in Title V AOPs under "gap filling monitoring" provisions in WAC 173-401-615(1)(b) and (1)(c). Regulatory origins are stated at the end of each condition.

9.6 General Recordkeeping Requirements

Applicable recordkeeping terms and conditions (RK1 – RK9) include all required recordkeeping requirements for Title V AOPs as required under WAC 173-401-615(2). Origin and authority are stated at the end of each condition.

9.7 Reporting

Applicable reporting terms and conditions (R1 – R13) include all required reporting requirements for Title V AOPs as required under WAC 173-401-615(32). Origin and authority are stated at the end of each condition.

10.0 OPERATION OF CRTO

Rotary concentrators take large volumes of air containing low concentrations of VOCs and concentrate the VOCs into a smaller air stream that can be more practically treated in an air pollution control device such as a thermal oxidizer. Aquatic's Rotary Concentrator is

manufactured by Dürr Environmental Energy Systems. The adsorbent material in the Dürr Rotary Concentrator is mounted in three identical, continuously rotating "wheels." The adsorbent material is porous, allowing gases to pass through and providing a large amount of surface area for pollutants to be adsorbed. VOC laden air from the plant is cleaned as it passes through the adsorbent material. The cleaned air is then discharged to the atmosphere through the RTO stack. The pollutants are then stripped from the adsorbent material into a smaller air stream that can be treated using a thermal oxidizer or similar air pollution control device.

The type of adsorbent material used in the Dürr rotary concentrator is zeolite. Zeolites are micro porous, crystalline solids that contain aluminum, silicon, and oxygen in their regular framework. Although some zeolites are natural minerals that are mined in many parts of the world, most zeolites used commercially are produced synthetically. Zeolites have cavities or channels that can hold other molecules. Because of their regular and reproducible structure, they behave in a predictable fashion and can be used to adsorb a variety of materials. They can remove volatile organic chemicals from air streams, separate isomers and mixtures of gases. The capacity of zeolite to adsorb pollutants can be regenerated by stripping the pollutants using a heated air stream.

The three separate wheel units in the Dürr concentrator operate in parallel, allowing Aquatic flexibility to treat varying volumes of exhaust air streams from the plant. As a wheel rotates, the zeolite accumulates VOCs. To avoid saturating the zeolite, the rate of the wheel is set such that any segment of the wheel rotates out of the cleaning section before there is a possibility of saturation. Directly after each cleaning section is a desorbing section. The desorbing section is a segregated section of the wheel unit that allows a heated air stream to clean the zeolite material. The heated air stream strips VOCs from the zeolite into a smaller air stream from which it was removed, thus concentrating the VOCs. This process is referred to as "Regeneration." After regeneration, the adsorbent material is cooled to a temperature less than 100° F, and then is ready to rotate back into the active air-cleaning section of the wheel unit again.

The air stream used to remove pollutants from the zeolite is referred to as "desorb air." In a typical concentrator, the desorb air is a tenth or less than the original incoming air stream being cleaned. In the Dürr concentrator, the desorb air is obtained by diverting a small side stream of plant exhaust from just prior to the concentrator. The desorb air is first preheated by using it to cool the zeolite after the zeolite has been regenerated. The preheated desorb air is then heated in the "Desorb Heater" using residual heat extracted from the RTO exhaust gases.

The desorb air containing high concentrations of pollutants is typically routed to an air pollution control device such as an incinerator or an RTO to destroy by oxidation the organic pollutants. Aquatic uses their existing RTO for this purpose. A smaller air stream with a higher concentration of pollutants going to the RTO results in more efficient and cost-effective destruction of air pollutants compared to oxidizing the exhaust air stream directly. This enables Aquatic to treat all exhaust air from the plant including exhaust air with low concentrations of VOCs, which was not possible to treat previously.

Proper operation and maintenance of the CRTO system requires special attention to several key system components and performance monitoring. Aquatic developed an operations and maintenance plan for the CRTO. Critical elements of the plan are incorporated into Aquatic's AOP.

The prefilters are critical to system operation by keeping the adsorbent free of particulate contamination. The Dürr concentrator is equipped with a modular, three-stage filter house. Each stage of filtration provides progressively higher levels of filtration. The first stage is a pad filter capable of 45% removal of 5 micron sized particles. The second stage is 95% effective at removing 2 micron particles. And the third stage is capable of 98% control of 1 micron and 95% removal of ½ micron particles.

Temperatures, pressure drops and other operating parameters within the various sections of the concentrator are monitored to ensure continued control effectiveness. Acceptable operating ranges and set points for all critical parameters are based on performance testing. The concentrator is equipped with devices for measuring the following operating conditions:

1. RTO Combustion chamber temperature
2. Temperature of the desorb air at the inlet of the desorption section;
3. Inlet static pressure;
4. Pressure drop across the adsorb section;
5. Temperature of the cooling air just after passing through the adsorb cooling section;
6. Duct pressure just after the desorb sections but prior to the outlet balance dampers;
7. Pressure drop across stage 1 and 2 combined, and stage 3 of the filtration unit;
8. System bypass damper position; and,
9. Fan speed in hertz.

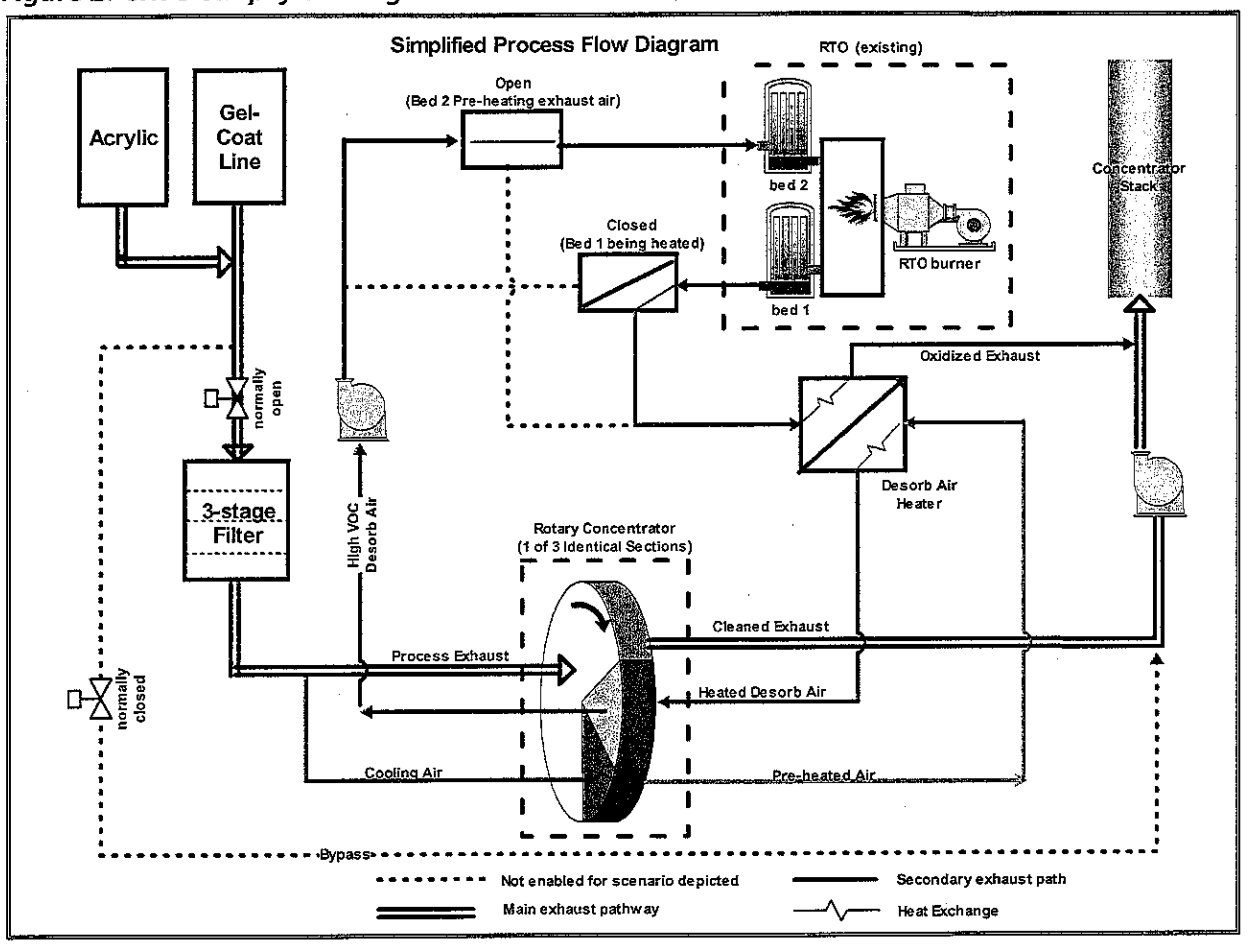
The following table provides design specifications for the CRTO. A simplified process flow diagram of the system is provided in the following figure on page 32.

Table 8. Control Equipment Design Specifications

Parameter	Design Basis
VOC removal efficiency	90%
Process exhaust rate	125,000 scfm @ 90 F°
Maximum relative humidity	60%
Inlet particulate concentrations (prior to the pre-filters)	Less than 0.1 grains per standard cubic foot (gr/scf) of air
Inlet VOC load to concentrator	260 pounds per hour
Design pressure @ inlet to the dry cassette filtration system	-3 inch water column
Maximum turndown	4:1

Concentration ratio	10 times
Concentrator Stack	30 feet tall, 88-inch diameter Equipped with test/monitoring ports
Desorb air to the RTO	12,500 scfm
VOC concentration to the RTO	3,000 ppm_v as propane
Temperature of desorb air to the RTO	180 F^o
The zeolite must be periodically regenerated with a high temperature purge in order to prevent progression of deterioration	

Figure 2: CRTO Simplified Diagram



ATTACHMENTs

Attachment 1: Data Summary

Name: Aquatic Co

Physical address: 801 Northern Pacific, Yelm, WA 98589

County: Thurston

Primary Contact: Oscar Molina

Contact phone number: 800-444-5126

Air Operation Permit #: 18RFC1287

EIS #: 6210911
FRS #: 110000490754
ICIS-AIR #: WAORC0005306700010
Type of ownership: private

Operating status: operating

NAICS code: 326191

SIC code(s): 3088

Air program(s): MACT Part 63, SIP, Title V

Subparts:

- 40 CFR Part 63, Subpart WWWW
- 40 CFR Part 63, Subpart A
- 40 CFR Part 63, Subpart SS

Major for which pollutant(s)? Styrene & VOC

Class: major