

Public Notice

DEQ Requests Comments on Arclin Surfaces, LLC Proposed Air Quality Permit Renewal

DEQ invites the public to submit written comments on the conditions of Arclin Surfaces, LLC proposed air quality permit, known officially as a Title V permit.

Summary

The proposed permit is a renewal of an existing Title V air quality permit that was issued on Feb. 12, 2010. The permit was scheduled to expire on July 1, 2014 and was administratively extended. The renewed permit adds greenhouse gases as a regulated pollutant, and simplifies emission calculations to make it easier to track compliance with permit limits.

How do I participate?

To submit your comments for the public record, send them by mail, fax or email:

Air Quality Permit Coordinator
700 NE Multnomah St., Suite 600
Portland, OR 97232

Phone: 503-229-5582

Fax: 503-229-6945

Email: nwraqpermits@deq.state.or.us

Written comments are due by 5 p.m. Friday
Oct. 13, 2017,

About the facility

Arclin Surfaces, LLC facility is located at 2301 N. Columbia Blvd., Portland, OR 97217. Arclin Surfaces LLC manufactures resin coated paper (overlays) for use in value added products for various substrates. These overlays are produced from various grades of paper which are saturated and/or coated with different resins to produce sheets or rolls of overlay for shipment to industrial customers. Arclin manufactures numerous types and grades of products, each of which emit different levels of Volatile Organic Compounds and Hazardous Air Pollutants.

What air pollutants would the permit regulate?

This permit regulates emissions of pollutants listed in the table at the end of this document.

How does DEQ determine permit requirements?

DEQ evaluates types and amounts of pollutants and the facility's location, and determines permit requirements according to state and federal regulations.

How does DEQ monitor compliance with the permit requirements?

This permit would require the facility to monitor pollutants using federally-approved monitoring practices and standards.

Arclin is required to submit annual and semiannual reports to DEQ for review. DEQ conducts periodic inspections of the facility to ensure compliance with the permit is maintained.

What happens after the public comment period ends?

DEQ will schedule a public hearing if one is requested by 10 or more people, or by an authorized person representing an organization of at least 10 people. - An additional public notice will be published to advertise the public hearing.

DEQ will consider and respond to all comments received by the close of the comment period. DEQ may modify provisions in the proposed permit, but the permit writers can only modify conditions of the permit in accordance with the rules and statutes under the authority of DEQ. Participation in the rulemaking or the legislative process is the only way to change the rules or statutes. Ultimately, if a facility meets all legal requirements, DEQ will issue the facility's air quality permit following EPA review.

After the public comment period, DEQ will send the proposed permit to EPA. EPA will have 45 days to review the proposed permit and submit any objections to DEQ in writing. If EPA has no formal objections, any person may petition EPA with an objection during the following 60 days.

A petition may only be based on objections already raised during the public comment period unless the person submitting the petition can demonstrate it was impossible or impractical to do so, or that new information is now available to justify a new objection.



State of Oregon
Department of
Environmental
Quality

Northwest Region
Air Quality Program
700 NE Multnomah St.,
Suite 600
Portland, OR 97232

Phone: 503-229-5053

800-452-4011

Fax: 503-229-6945

Contact: Permit Writer
David Kauth

www.oregon.gov/DEQ

*Search for Public Notice,
TV Permits*

*DEQ is a leader in
restoring, maintaining and
enhancing the quality of
Oregon's air, land and
water.*

DEQ provides documents electronically whenever possible in order to conserve resources and reduce costs.

If you received a hard copy of this notice, please consider receiving updates via e-mail instead. Send your request to: subscriptions@deq.state.or.us

Please include your full name and mailing address so that we can remove you from our print mailing list.

Where can I get more information?

Find out more and view the application at or contact: <http://www.oregon.gov/deq/Get-Involved/Pages/Public-Notices.aspx>

Air Quality Permit Coordinator

Phone: 503-229-5582 or toll free
800-452-4011

Fax: 503-229-6945

Email: nwraqpermits@deq.state.or.us

View the application and related documents in person at the DEQ office in Portland.
For a review appointment, call 503-229-5582.

Accessibility information

Documents can be provided upon request in an alternate format for individuals with disabilities or in a language other than English for people with limited English skills. To request a document in another format or language, call DEQ in Portland at 503-229-5696, or toll-free in Oregon at 1-800-452-4011, ext. 5696; or email deqinfo@deq.state.or.us.

People with hearing impairments may call 711.

Emissions limits

Criteria Pollutants: Table 1 below presents maximum allowable emissions of criteria pollutants for the facility. The current emission limit reflects maximum emissions the facility can emit under the existing permit. The proposed emission limit reflects maximum emissions the facility would be able to emit under the proposed permit. Typically, a facility's actual emissions are less than maximum limits established in a permit; however, actual emissions can increase up to the permitted limit.

Table 1

Criteria Pollutant	Current Limit (tons/yr)	Proposed Limit (tons/yr)
Particulate matter	10	9
Small particulate matter	10	9
Fine particulate matter	10	9
Nitrogen Oxide	45	45
Sulfur dioxide	40	39
Carbon monoxide	101	99
Volatile organic compounds	1401	400

For more information about criteria pollutants, go to: www.epa.gov/criteria-air-pollutants

Hazardous air pollutants:

Arclin Surfaces, LLC is a major source of hazardous air pollutants. As a major source, it is subject to the following National Emission Standards for Hazardous Air Pollutants: Subpart OOO for manufacture of amino/phenolic resins; Subpart JJJJ for paper and other web coating ; Subpart ZZZZ for reciprocating internal combustion engines; and Subpart DDDDD for commercial and industrial boilers and process heaters. Table 2 summarizes significant hazardous air pollutants which the source emits. More detailed information can be found in the review report.

Table 2

Hazardous Air Pollutants	Potential Emissions (tons/yr)	2013 Actual Emissions (tons/yr)
Formaldehyde	12	4.3
Methanol	386	138
Phenol	2	0.7
Triethylamine	2	0.7

For more information about hazardous air pollutants, go to: <https://www.epa.gov/haps/health-effects-notebook-hazardous-air-pollutants>





State of Oregon
Department of
Environmental
Quality

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

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

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

ISSUED TO:

Arclin Surfaces, LLC
P.O. Box 17307
Portland, OR 97217

INFORMATION RELIED UPON:

Application No.: 027394
Received: 06/24/2013

PLANT SITE LOCATION:

Arclin, Portland Division
2301 N Columbia Boulevard
Portland, OR 97217

LAND USE COMPATIBILITY STATEMENT:

Issued by: City of Portland
Dated: 07/18/1990

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

Michael R Orman, E.I.T., Northwest Region AQ Manager

Date

Nature of Business:
Paper Coating

SIC
2641

NAICS
235211, 221330

RESPONSIBLE OFFICIAL

Name: Martin Constien
Title: Plant Manager

FACILITY CONTACT PERSON

Title: Health Safety and Environmental Coordinator
Phone: 541-228-5093

TABLE OF CONTENTS

LIST OF ABBREVIATIONS USED IN THIS PERMIT3

PERMITTED ACTIVITIES.....4

EMISSIONS UNIT (EU) AND POLLUTION CONTROL DEVICE (PCD) IDENTIFICATION4

EMISSION LIMITS & STANDARDS4

NESHAP SUBPART JJJJ10

PLANT SITE EMISSION LIMITS16

RACT FOR SURFACE COATING IN MANUFACTURING19

STARTUP, SHUTDOWN AND MALFUNCTION PLAN19

MONITORING REQUIREMENTS21

RECORDKEEPING REQUIREMENTS23

NESHAP SUBPART OOO29

RECIPROCATING INTERNAL COMBUSTION ENGINE NESHAP SUBPART ZZZZ36

BOILER AND PROCESS HEATER NESHAP (40CFR63 SUBPART DDDDD)37

NON-APPLICABLE REQUIREMENTS.....38

GENERAL CONDITIONS.....39

LIST OF ABBREVIATIONS USED IN THIS PERMIT

ACDP	Air Contaminant Discharge Permit	ppd	Pounds per day
AIA	Aggregate Insignificant Activities	ppm	Parts per million
AIE	Aggregate insignificant Emissions	ppmv	Parts per million by volume
Act	Federal Clean Air Act	PSEL	Plant Site Emission Limit
ASTM	American Society of Testing and Materials	psia	pounds per square inch, absolute
Btu	British thermal unit	RACT	Reasonably Available Control Technology
cf	Cubic foot/cubic feet	RMP	Risk management plan
CFR	Code of Federal Regulations	RTO	Regenerative Thermal Oxidizer
CO	Carbon Monoxide	scf	Standard cubic feet
CPMS	Continuous parameter monitoring system	SERP	Source emissions reduction plan
DEQ	Department of Environmental Quality	SIP	State Implementation Plan
dscf	Dry standard cubic feet	SO ₂	Sulfur dioxide
EF	Emission factor	ST	Source test
EPA	US Environmental Protection Agency	VE	Visible emissions
EU	Emissions Unit	VOC	Volatile organic compounds
FCAA	Federal Clean Air Act	year	Any 12 consecutive calendar month period
FSA	Fuel sampling and analysis		
GAL(gal)	Gallons		
gr/dscf	Grain per dry standard cubic feet (1 pound = 7000 grains)		
HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040		
HCFC	Halogenated Chloro-Fluoro-Carbons		
ID	Identification number		
I&M	Inspection and maintenance		
Lb(lb)	Pounds		
MACT	Maximum Achievable Control Technology		
MB	Material balance		
MM	Million		
MMBtu	Million British Thermal Units		
MSF	1,000 Square Feet		
NESHAPS	National Emission Standards for Hazardous Air Pollutants		
NA	Not applicable		
NO _x	Nitrogen oxides		
O ₂	Oxygen		
OAR	Oregon Administrative Rules		
ODEQ	Oregon Department of Environmental Quality		
ORS	Oregon Revised Statutes		
O&M	Operation and maintenance		
Pb	Lead		
PCD	Pollution Control Device		
PM	Particulate matter		
PM ₁₀	Particulate matter less than 10 microns in size		

PERMITTED ACTIVITIES

1. Until such time as this permit expires or is modified or revoked, the permittee is allowed to discharge air contaminants from those processes and activities directly related to or associated with air contaminant source(s) in accordance with the requirements, limitations, and conditions of this permit. [OAR 340-218-0010 and 340-218-0120(2)]

This is a permit renewal for an existing Title V permit.

2. All conditions in this permit are federally enforceable except as specified below:

Conditions 8, 9, 43 and 44 are only enforceable by the state. [OAR 340-218-0060]

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

3. Emissions units regulated by this permit are the following: [OAR 340-028-2120(3)]

Emissions Unit	EU ID	Pollution Control Device	PCD ID
Methanol Storage Tank, ST-23	EU-1	Floating Roof	NA
Coating Line 3	EU-2	RTO	R1
Evaporator Slab, coating line component	EU-3esc	None	NA
Evaporator Slab, non-coating line component – <i>Being replaced in 2014 by mechanical evaporator under NC 27484</i>	EU-3esnc	None	NA
Cleanup	EU-3cu	None	NA
Storage tanks excluding EU-1	EU-3t	None	NA
Resin manufacturing, handling and transfer	EU-3r	RTO	R2
Main Boiler, B1	EU-4B1	None	NA
Standby Boiler, B2	EU-4B2	None	NA
Aggregate Insignificant Activities	IEU	None	NA
Emergency Generator	EU-5	None	NA

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

The following tables contain summaries of applicable requirements other than the Plant Site Emission Limits (PSEL) along with the monitoring methods for the emissions units to which those requirements apply.

Facility Wide Emission Limits and Standards**Table 1:**

Applicable Requirement	Condition Number	Pollutant/Parameter	Limit/Standard	Monitoring Method	Monitoring Condition
340-208-0110(2)	4	Visible emissions	20% opacity	VE periodic monitoring	5
340-208-0210(2)	6	Fugitive emissions	Minimize	I & M Recordkeeping	7
340-208-0300	8.a	Odors	no nuisance	Recordkeeping	9
340-208-0450	8.b	PM >250 μ	no fallout	Recordkeeping	9
340-206-0050	10	Ozone	Implementation of SERP	Recordkeeping	11
40 CFR Part 68	12	Risk management	Risk management plan	Recordkeeping	12

4. **Applicable Requirement:** The permittee must not cause or allow the emissions of any air contaminant into the atmosphere from any emission unit which is equal to or greater than 20% opacity, excluding uncombined water. Visible emissions must be measured using the test methods identified in Condition 5. [OAR 340-208-0110(2)].
5. **Monitoring for Condition 4:** The permittee must monitor visible emissions from all emissions units, except EU-4B1 and EU-4B2, in accordance with the following procedures, test methods, and frequencies: The permittee must conduct a six-minute visible emissions survey of each monitoring point following the general procedures outlined in EPA Method 22. Condensed water vapor is not considered an emission for the purposes of this survey method. The visible emissions surveys will be performed by employees or contractors of the permittee who have been trained in the general procedures for determining the presence of visible emissions. [OAR 340-214-0114]
- 5.a. The permittee must conduct a facility wide 30 minute visible emissions survey a minimum of once per semiannual monitoring period.
- 5.b. All visible emissions surveys must be conducted during periods when the subject emission point is in operation. If the emission point has not been in operation during the monitoring period, the required visible emission reading can be waived.
- 5.c. If visible emissions from emissions unit EU-1, EU-3cu, EU-3r, and EU-3t are identified for more than 5% of the survey time (18 seconds), the permittee must initiate corrective repair and maintenance actions right away (i.e., as soon as possible but in no case more than 24 hours). A visible emissions survey, as described in this condition must be conducted on the day following completion of the corrective repair and maintenance to confirm that the cause of the visible emissions has been corrected.

- 5.d. If visible emissions from emissions unit EU-2, EU-3esc, and EU-3esnc are identified for more than 5% of the survey time (18 seconds), modified EPA Method 9 must be used to determine opacity in accordance with DEQ's Source Sampling Manual. The modified Method 9 opacity must be conducted on the affected monitoring point within 24 hours. Each modified Method 9 observation period must be for a minimum of six minutes unless any one reading is greater than 20% opacity, in which case the observation period must be for a minimum of 60 minutes or until a violation of the emissions standards identified in Condition 4 is documented, whichever is a shorter period.
- 5.e. Prior notification and a pre-test plan are not required to be submitted to DEQ for each visible emissions survey or modified Method 9 test.
- 5.f. If the observer is unable to conduct the survey and/or modified Method 9 tests due to visual interference caused by other visible emissions sources (e.g., fugitive emissions during high wind conditions) or due to weather conditions such as fog, heavy rain, or snow which impair visibility, the observer must note such conditions on the data observation sheet and make at least three attempts to conduct the surveys and/or tests at approximately 2 hour intervals throughout the day. If the visible emissions survey and/or test could not be conducted on the regularly scheduled day due to interference, the observer must conduct the test on the following day.
6. Applicable Requirement: The permittee must not cause or permit any materials to be handled, transported, or stored; or a building, its appurtenances, or a road to be used, constructed, altered, repaired or demolished; or any equipment to be operated, without taking reasonable precautions to prevent particulate matter from becoming airborne. Permittee must take corrective action if visible emissions are observed. [OAR 340-208-0210(2)]
7. Monitoring for Condition 6: At least once every six months, for a minimum of 30 minutes in accordance with EPA Method 22 while the plant is in full operation, the permittee must tour the facility and record the sources of visible emissions, excluding emissions units EU-2, EU-3esc, EU-3esnc, EU-3cu, EU-3r, EU-3t, EU-4B1, and EU-4B2. Where visible emissions are noted, the permittee must take actions necessary to minimize the visible emissions. The person conducting the survey does not have to be EPA Method 9 certified. However, the individual should be familiar with the procedures of EPA Method 9 including using the proper location to observe visible emissions. The permittee must record in a log the sources of visible emissions, dates and times of visual surveys conducted, and corrective action(s) taken, if any.
- The fact that the visible emissions occurred, by itself, does not constitute a violation of Condition 6. A failure to take preventive measures necessary to eliminate or minimize the visible emissions from reoccurring is a violation of Condition 6. [OAR 340-214-0114]
8. Applicable Requirement: Nuisance Conditions:
- 8.a. The permittee must not cause or permit the emission of odorous matter in such a manner as to cause or contribute to a nuisance condition in accordance with OAR 340-208-0300. This condition is enforceable only by the State.
- 8.b. The permittee must not cause or permit the emission of any particulate matter larger than 250 microns in size at sufficient duration or quantity as to create an observable deposition upon real property of another person. [OAR 340-208-0450] This condition is enforceable only by the State.
9. Monitoring Requirement for Conditions 8.a and 8.b: The permittee must maintain a log recording all written complaints, complaints in person, or complaints received via telephone, by the responsible official or a designated appointee that specifically refer to a complaint of odor, or fugitive dust emissions and/or particulate matter fallout >250 microns from the permitted facility deposited upon the real property of another. The log must include date of contact, time of observed nuisance condition, description of nuisance condition, location of receptor, status of plant operation during the observed period, and time of response to complaint. The complaint must be addressed within five working days, or within such longer time as is reasonable necessary. A plant representative must provide a response to the complainant within two

working days. The permittee must notify DEQ in writing if the problem cannot be resolved within 7 days of receiving the complaint. This condition is only enforceable by the state. [OAR 340-214-0114]

10. **Applicable Requirement:** In the event an Air Pollution Alert, Warning, or Emergency Episode is declared in the Portland area by DEQ, the permittee must take the action appropriate to the episode condition as required by OAR 340-206-0050(1). The permittee must take such action when the permittee first becomes aware of such a declaration whether through news media, direct contact with DEQ, or from other sources. The Source Emission Reduction Plan (SERP) must be available on the source premises for inspection by DEQ personnel and must be filed with DEQ. [OAR 340-206-0050]
11. **Monitoring Requirement for Condition 10:** The permittee must maintain a log summarizing actions taken during an applicable air pollution episode, pursuant to Condition 10. This log may be part of the coating use record. [OAR 340-214-0114]
12. **Applicable Requirement:** The permittee is subject to 40 CFR Part 68, the accidental release prevention regulations, as a stationary source as defined in 40 CFR 68.3. The permittee must comply with your plan and all other applicable Part 68 requirements. The permittee must certify compliance with the requirements of Part 68 as part of the annual compliance certification. [40 CFR Part 68]

Emissions Unit Specific Emissions Limits and Standards Monitoring

Table-II. Emission Unit Specific Emission Limit and Standards:

EU ID	Applicable Requirement	Condition Number	Pollutant/Parameter	Limit/Standards	Monitoring Requirements	
					Method	Condition Number
EU-1	340-232-0150	13	VOC	Liquid Storage RACT	Certification, Recordkeeping	14
EU-2	340-226-0210(1)(b)	15	PM/PM ₁₀	0.14 gr/dscf for new sources	VE periodic monitoring or recordkeeping test	16
	340-232-0050	17	VOC	Operation of RTOs	Recordkeeping	18
	340-226-0120	19	VOC	Control Equipment O&M	I&M, Recordkeeping	20 and 21
	340-232-0160	52, 53, and 54	VOC	Surface RACT, coating 2.9 lb/gal	Recordkeeping, Source test	59, 64, & 65
	340-212-0210 40 CFR Part 64	22	CAM	NA	Recordkeeping	23
EU-3esc 3esnc 3cu 3t	340-226-0120	32	VOC	Control Equipment O&M	I&M, Recordkeeping	33
EU-3r	340-226-0120	32	VOC	Control Equipment O&M	I&M, Recordkeeping	33
	40 CFR Part 63 Subpart OOO	91, 92, 94, 96, 98, 100, 102, 103, & 104	HAPs	83% control Leak detection	I & M Recordkeeping	93,95, 97, 99, 101, 105, & 106
EU-4B1, EU-4B2	340-208-0110	34	PM	20% opacity	VE periodic monitoring	35
	340-228-	36	PM	0.1 gr/dscf	Source Test	37

EU ID	Applicable Requirement	Condition Number	Pollutant/Parameter	Limit/Standards	Monitoring Requirements	
	0210(1)(b)					
	340-228-0100	38	residual fuel oil	1.75% sulfur	Recordkeeping	40
	340-228-0110	39	distillate fuel oil	0.3% sulfur for ASTM #1, 0.5% sulfur for ASTM #2	Recordkeeping	40
	340-226-0120	41	Control Equipment O&M	NA	I&M, Recordkeeping	42
	340-208-0610, Main Boiler only, B1	43	PM	0.23 lb/10 ⁶ BTU heat input	Recordkeeping Source Test	45
	340-208-0610, Standby Boiler only, B2	44	PM	0.26 lb/10 ⁶ BTU heat input	Recordkeeping Source Test	45
EU-5	40 CFR Part 63 Subpart ZZZZ	46	HAP	Maintenance	Recordkeeping	46

13. **Applicable Requirement:** The permittee must meet the following conditions for EU-1, the Methanol Storage Tank, ST-23, [OAR 340-232-0150]:
- 13.a. The storage tank must be equipped with an internal floating cover using at least a non-metallic resilient seal as the primary seal which meets the equipment specifications in the Federal Standard 40 CFR Part 60 Subpart Ka. [40 CFR 60.112a(2)]
- 13.b. All openings, except stub drains and those related to safety (such as slotted gauge wells), are to be sealed with suitable closures. All tank gauging and sampling devices must be gas-tight except when gauging or sampling is taking place, except for slotted gauge wells which must have floating seals with one half inch edge gaps or less. [OAR 340-232-0150(3)]
14. **Monitoring for Condition 13:** The permittee must inspect the Methanol Storage Tank ST23, EU-1, annually for the presence of free liquid. The annual inspection must include, but not be limited to the rim seal, access hatch, and other deck penetrations. Once every five years, the tank must be drained, cleaned and methanol vapor evacuated. The tank must be inspected internally and the rim seal integrity, gaskets, deck condition and penetration seal integrity evaluated. The inspection results and maintenance must be recorded in a log. [OAR 340-232-0150(4)(c)(G)] [OAR 340-214-0114]
15. **Applicable Requirement:** Particulate emissions from EU-2 must not exceed 0.14 grains per standard cubic foot. Monitoring must be performed in accordance with Condition 16. Particulate emissions must be measured using the test methods identified in Condition 61. [340-226-0210(2)(b)(B)]
16. **Monitoring for Condition 15:** The permittee must monitor particulate matter emissions from emission units EU-2L3 as follows [OAR 340-226-0210]:
- 16.a. The permittee must maintain a log of the natural gas and any other fuel burned in the above emission units.
- 16.b. When the above emission units are fired on natural gas, source testing requirements set forth in Condition 61 for Condition 15 are waived unless specifically required by DEQ.
17. **Applicable Requirement:** The permittee must operate the Regenerative Thermal Oxidizer (RTO) R1, at all times during the months May, June, July, August and September when using coatings with VOC content in

excess of 2.9 pounds per gallon of coating. RTO operation must be monitored in accordance with Condition 18. [340-232-0050]

18. Monitoring for Condition 17: The permittee must monitor on a continuous basis and log the operating status of the RTO R1 and the operating status of coating line 3. The log must indicate the specific product type being run by line by time. This log may consist of plant operating records.[OAR 340-214-0114]
19. Applicable Requirement: The permittee must equip the RTO R1, with temperature alarms which will activate when the RTO temperature drops below the established set point (currently 1575° F) for a period exceeding ten (10) minutes. Periods exceeding three (3) hours must be reported to DEQ and must be considered excess emissions in accordance with Condition 78. The permittee must take corrective action if inspection of the RTO R1, indicates wear, pluggage, or other failure(s) that impair efficient operation. The RTO must be monitored in accordance with Conditions 20, and 21. [OAR 340-226-0120]
20. Monitoring for Condition 19: The permittee must inspect the coating line and associated controls EU-2, at least once per semi-annual reporting period and record in a log any maintenance performed. Maintenance must be recorded at each occurrence. [OAR 340-226-0120]
21. Monitoring for Condition 19: The permittee must monitor and record the RTO R1, operating temperature when operated. [OAR 340-226-0120]
 - 21.a. Record the temperature on a strip/circular chart or in electronic files, and monthly check and compare the temperature readings to the temperature limits set forth in Conditions 19. Record in a log any exceedance noted longer than 10 minutes and corresponding dates, if any.
 - 21.b. Investigate any activated alarm and take corrective action as needed to return the RTO to the minimum operating temperature.
 - 21.b.i. Notify DEQ if corrective action cannot be done within 3 hours or if corrective action is ineffective after 3 hours (e.g. return to within the accepted parameter operating ranges.
 - 21.b.ii. Report the number of action level excursions in the semi-annual monitoring report.
 - 21.b.iii. The exceedance of an action level would not necessarily be used by itself to identify excess emissions periods.
 - 21.c. The permittee must keep a log of any maintenance and/or service performed that would affect the system performance. [OAR 340-214-0114]
22. Applicable Requirement: The permittee must comply with the following Compliance Assurance Monitoring Plan (CAM) for VOC emissions from R1. [340-212-0210]

Emission Unit	Control Device	Pollutant	PTE without controls	Applicable Requirements
EU-2	RTO R1	VOC	>100 tpy	RACT

23. Monitoring for Condition 22:

Control Process/Device	Identification Number	Indicator	Indicator Range	Basis
Combustion efficiency	EU-2	Temperature	1575° F	Source Test. If the temperature drops below 1575° F for more than one minute an alarm sounds. If the under temperature condition is not corrected within 8 minutes of alarming, an interface interrupts the coating process, stopping emissions of VOC from the process line. Under temperature periods longer than

Control Process/Device	Identification Number	Indicator	Indicator Range	Basis
				three hours are considered excess emissions and must be reported to DEQ. RTO temperature must be recorded on a chart or electronic file.

Emission Limits and Standards, Testing, and Monitoring Requirements for NESHAP Subpart JJJJ (Paper and other web coating)

24. The following table contains a summary of applicable requirements along with the monitoring methods for 40 CFR Part 63 Subpart JJJJ

Applicable Requirements	Condition Number	Pollutant Parameter	Limit/Standard	Condition Number		
				Compliance determination	Monitoring	Reporting
Emission Standard 40 CFR 63.3320(b)(3)	25	HAP	HAP emissions 20% of mass of coating solids applied on a monthly basis	26, 28	27	73
40 CFR 63.6350(e)	29	Temperature	CPMS		31	
40 CFR 63.6(e)(3)	54	Upsets, deviations	SSM plan	54	55	56, 73

25. Applicable Requirement: The permittee must limit HAP emission from Emission Unit EU-2 to no more than 20% of the mass of coating solids applied for each month in accordance with the compliance determination calculations set forth in Condition 26. [40 CFR 63.3320(b)(3)]
26. Procedures for demonstrating compliance with the emission limits set forth in Condition 25 are detailed below. [40 CFR 63.3370]

26.a. Definitions

HAP = Volatile organic hazardous air pollutants

E = Emissions

ES₃* = Coating Line 3 VOC emissions emitted from the evaporator slab. These emissions originate from evaporation of excess Line 3 saturant or coating that cannot be recycled and is not directly disposed of off-site (such as hazardous waste). ES₃ is developed from excess mix volume data recorded in the plant's evaporator report and analytical or process formulation data which establishes the VOC content of the excess mix.

EF_{voc#} = VOC Emission Factor, by product number (#) expressed in lbs of VOC emitted per thousand Square feet (MSF) of gross production (U).

* VOCs are equal to 100% HAP

U_i = Gross production of product number i, in thousand square feet (MSF)

CE = RTO capture efficiency of solvent volatile organic compounds, expressed as a decimal.

DE = RTO destruction efficiency of solvent volatile organic compounds, expressed as a decimal.

R_j = HAP reduction per total mass of solids applied

H = Volatile HAP content, in pounds per gallon, as applied.

When measuring mass of solids, the mass of volatilized formaldehyde [EF_{NCS}U_{NCS}] and [EF_{NCS/CS}U_{NCS/CS}] should be considered.

- 26.b. Mass of HAPs emitted from coating line 3 = $E_{\text{HAP Line 3}} = E_{\text{VOC Line 3}}$
- $$E_{\text{HAP Line 3}} = \sum ((EF_1 \text{VOC} \times U_1) + (EF_2 \text{VOC} \times U_2) \dots (EF_n \text{VOC} \times U_n))$$
- 26.c. Mass of solids applied on coating line 3.
- Mass of solids applied per MSF or product are shown, by product number, in Condition 112
- 26.d. Compliance formula for Subpart JJJJ emission limit: HAP emissions must not exceed 20% of the total mass of solids applied. [40 CFR 63.3320(b)(3)]
- HAP emissions, in percent per pound of solids, are shown by product in Condition 112
- 26.e. Solvent VOC destruction efficiency (DE) for each RTO, expressed as a decimal, as determined by the initial performance test. [40 CFR 63.3370(j)(1)]
- 26.f. Solvent VOC capture efficiency (CE) for each coating line, expressed as a decimal, must be determined by the initial performance test. [40 CFR 63.3370(j)(2)]
27. Applicable Requirement: The permittee must determine the as-purchased volatile organic HAP content and coating solids content of each coating material applied by one of the following procedures [40 CFR 63.3360(d)]:
- 27.a. Method 24 (40 CFR part 60 appendix A.); or
- 27.b. The permittee may determine the volatile organic HAP content and coating solids content of a coating material based on formulation data and may rely on volatile organic content data provided by the manufacturer of the material. In the event of any inconsistency between the formulation data and the results of Method 24, and the Method 24 results are higher, the results of Method 24 will govern.
28. Applicable Requirement: The permittee may choose to take into account the mass of volatile matter retained in the coated web after cutting or drying or otherwise not emitted to the atmosphere when determining compliance with Condition 27. If this option is chosen, the permittee must develop a testing protocol to determine the mass of volatile matter retained in the coated web or otherwise not emitted to the atmosphere and submit this protocol to DEQ as part of the site specific test plan under 40 CFR 63.7(f). [40 CFR 63.3360(g)]
29. Applicable Requirement: The permittee must install, calibrate, maintain, and operate temperature monitoring equipment according to manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator must be verified every 3 months or the chart recorder, data logger, or temperature indicator must be replaced. The equipment must be replaced whether you choose not to perform the calibration or the equipment cannot be calibrated. The temperature monitoring device must have an accuracy of ± 1 percent of the temperature being monitored. The thermocouple or temperature sensor must be installed in the combustion chamber at a location in the combustion zone. For each CPMS the permittee must: [40 CFR 63.3350(e)(9)]

- 29.a. complete a minimum of one cycle of operation for each successive 15-minute period. There must be a minimum of four equally spaced successive cycles of CPMS operation to have a valid hour of data; [40 CFR 63.3350(e)(1)]
 - 29.b. have valid data from at least 90 percent of the hours during which the process operated; [40 CFR 63.3350(e)(2)]
 - 29.c. average all recorded readings according to the following: [40 CFR 63.3350(e)(3)]
 - 29.c.i. To calculate a valid hourly value, you must have at least three of four equally spaced data values from that hour from a continuous monitoring system (CMS) that is not out-of-control; and
 - 29.c.ii. Provided all of the readings recorded clearly demonstrate continuous compliance with the standard that applies, then you are not required to determine the hourly average of all recorded readings;
 - 29.d. determine the rolling 3-hour average of all recorded readings for each operating period. To calculate the average for each 3-hour averaging period, the permittee must have at least two of three of the hourly averages for that period using only average values that are based on valid data (i.e., not from out-of-control periods); [40 CFR 63.3350(e)(4)]
 - 29.e. record the results of each inspection, calibration, and validation check of the CPMS; [40 CFR 63.3350(e)(5)]
 - 29.f. at all times maintain the monitoring system in proper working order including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment; [40 CFR 63.3350(e)(6)]
 - 29.g. except for monitoring malfunctions, associated repairs, or required quality assurance or control activities (including calibration checks or required zero and span adjustments), conduct all monitoring at all times that the unit is operating. Data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities shall not be used for purposes of calculating the emissions concentrations, and percent reductions. The permittee must use all the valid data collected during all other periods in assessing compliance of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions; and [40 CFR 63.3350(e)(7)]
 - 29.h. notify DEQ, in accordance with Condition 74, of any averaging period for which the permittee does not have valid monitoring data and such data are required. [40 CFR 63.3350(e)(8)]
30. Applicable Requirement: All capture system monitoring must be in accordance with the plan. Any deviation from the operating parameter value or range of values which are monitored according to the plan will be considered a deviation from the operating limit. The plan must be reviewed and updated at least annually. [OAR 340-214-0114]

Compliance Determination

31. Applicable Requirement: The permittee must demonstrate continuing compliance through continuous monitoring of capture system and control device operating parameters as follows: [40 CFR 63.3370(j) and (k)]

- 31.a. Whenever a web coating line is operated, continuously monitor the operating parameters established. [40 CFR 63.3370(j)(3)]
 - 31.b. The permittee is operating in compliance with the emission limit set forth in Condition 27 if the oxidizer is operated such that the averaging operating temperature is greater than the operating value established for each 3 hour period and the capture system operating parameter is operated at an average value greater than or less than (as appropriate) the operating value established; and [40 CFR 63.3370(j)(4)]
 - 31.c. The organic HAP emission rate based on coating solids applied is no more than 0.20 pound organic HAP per pound coating solids applied on a monthly basis. (see Condition 112) [40 CFR 63.3370(j)(4)(ii)]
32. Applicable Requirement: The permittee must take corrective action if inspection of EU-3esc, EU-3esnc, EU-3cu, EU-3r, and EU-3t indicates wear, pluggage, or other failure(s) that may increase emissions. The permittee must conduct an annual evaluation to determine if it is practicable to reduce VOC emissions from the evaporator slab through product substitution or capture and recovery of waste solvents. These emission units must be monitored in accordance with Condition 33. [OAR 340-226-0120]
33. Monitoring for Condition 32: The permittee must inspect the evaporator slab, cleanup processes, resin manufacturing, storage tanks and associated controls, EU-3esc, EU-3esnc, EU-3cu, EU-3r, EU-3t at least once per semi-annual monitoring period and record in a log any maintenance performed. Maintenance must be recorded at each occurrence. The permittee must conduct an annual evaluation to determine the practicability of reducing the VOC emissions from the evaporator slab through product substitution or through capture and recovery of waste solvents. [OAR 340-226-0120]
34. Applicable Requirement: The permittee must not cause or allow the emissions of any air contaminant into the atmosphere from EU-4B1 and EU-4B2 which is equal to or greater than 20% opacity, excluding uncombined water. Visible emissions must be measured using the test methods identified in Condition 35. [340-208-0110(2)]
35. Monitoring for Condition 34: The permittee must monitor visible emissions from EU-4B1 and EU-4B2 in accordance with the following procedures, test methods, and frequencies: [OAR 340-208-0110(2)]
- 35.a. The permittee must conduct a six-minute visible emissions survey of each monitoring point following the general procedures outlined in EPA Method 22. Condensed water vapor is not considered an emission for the purposes of this survey method. The visible emissions surveys will be performed by employees or contractors of the permittee who have been trained in the general procedures for determining the presence of visible emissions.
 - 35.b. The permittee must use the following monitoring schedule for conducting the visible emissions surveys:
 - 35.b.i. Visible emission monitoring is not required when the boilers are fired on natural gas.
 - 35.b.ii. An initial visible emission survey must be performed within 24 hours of initial startup firing on oil in any given calendar month. The monitoring frequency must be once each calendar month when the boilers are continuously fired on oil.
 - 35.c. All visible emissions surveys must be conducted during periods when the subject emission point is in operation.
 - 35.d. If visible emissions from emissions unit EU-4B1 or EU-4B2 are identified for more than 5% of the survey time (18 seconds), the permittee must initiate corrective repair and maintenance actions right away (i.e., as soon as possible but in no case more than 24 hours). A visible emissions survey, as described in this condition must be conducted on the day following completion of the corrective repair and maintenance to confirm that the cause of visible emissions has been corrected.
 - 35.e. If visible emissions from emissions are identified for more than 5% of the survey time (18 seconds) on the following day (Condition "35.d"), the permittee must measure visible emissions using modified EPA Method 9 to determine opacity in accordance with DEQ's Source Sampling Manual. The modified Method 9 opacity must be conducted on the affected monitoring point

- within 24 hours. Each modified Method 9 observation period must be for a minimum of six minutes unless any one reading is greater than 20% opacity, in which case the observation period must be for a minimum of 60 minutes or until a violation of the emissions standards identified in Condition 12 is documented, whichever is a shorter period.
- 35.f. Prior notification and a pre-test plan are not required to be submitted to DEQ for each visible emissions survey or modified Method 9 test.
- 35.g. If the observer is unable to conduct the survey and/or modified Method 9 tests due to visual interference caused by other visible emissions sources (e.g., fugitive emissions during high wind conditions) or due to weather conditions such as fog, heavy rain, or snow which impair visibility, the observer must note such conditions on the data observation sheet and make at least three attempts to conduct the surveys and/or tests at approximately 2 hour intervals throughout the day. If the visible emissions survey and/or test could not be conducted on the regularly scheduled day due to interference, the observer must conduct the test on the following day.
36. Applicable Requirement: Particulate emissions from boilers EU-4B1 and EU-4B2 must not exceed 0.10 or 0.14 grains per standard cubic foot, corrected to 12% CO₂, or 50% excess air. Particulate matter emission must be measured in accordance with Condition 37. [OAR 340-228-0210(2)(b)(A) or (B)]
37. Monitoring for Condition 36: The permittee must monitor particulate matter emissions from emission units EU-4B1, and EU-4B2 as follows: [OAR 340-228-0210(3)]
- 37.a. When EU-4B1 and EU-4B2 are fired on distillate fuel oil ASTM #1 or distillate fuel oil ASTM #2 for 18 days per year or less, or when EU-4B1 and EU-4B2 are fired on natural gas, source testing requirements set forth in Condition 37.b are waived unless specifically required by DEQ.
- 37.b. If the permittee uses any other fuel than natural gas in either EU-4B1 or EU-4B2 for more than 18 days per year, the permittee must source test to determine particulate matter concentrations in the exhaust gases.
- 37.b.i. The source test must determine particulate matter concentration (grains per dry standard cubic foot) and mass (lb/hr) using ODEQ Method 5 in accordance with DEQ's Source Sampling Manual. Test results (concentrations) must be corrected to 12% carbon dioxide or 50% excess air. Opacity must be measured concurrently with the Method 5 testing using modified EPA Method 9.
- 37.b.ii. The source testing must be performed during a time when the emission unit is continuously firing on oil at normal firing rates and within 30 calendar days of reaching the 18th day of using fuels other than natural gas.
38. Applicable Requirement: The permittee must not use any residual fuel oil containing more than 1.75 percent sulfur by weight. [OAR 340-228-0100] Sulfur content must be monitored in accordance with Condition 40.
39. Applicable Requirement: The permittee must not use any distillate fuel oil containing more than 0.3 percent sulfur by weight for ASTM grade 1, or 0.5 percent sulfur by weight for ASTM grade 2. [OAR 340-228-0110] Sulfur content must be monitored in accordance with Condition 40.
40. Monitoring for Condition 38 and 39: The permittee must monitor the sulfur content of each batch of ASTM #1, ASTM #2, and residual fuel oil received, by: [OAR 340-214-0114]
- 40.a. obtaining a sulfur analysis certificate from the vendor for each shipment; or
- 40.b. analyzing or having analyzed by a contract laboratory a monthly composite of representative samples taken by the permittee from each batch of fuel received. Liquid fuels must be analyzed using ASTM D129-64, D1552-83, or D4057-81.

41. Applicable Requirement: The permittee must take corrective action if inspection of boilers EU-4B1 and EU-4B2 indicates wear, pluggage, or other failure(s) that impair efficient operation. The boilers must be monitored in accordance with Condition 42. [OAR 340-226-0120]
42. Monitoring for Condition 41: The permittee must inspect the Main Boiler, EU-4B1 and the Standby Boiler EU-4B2, at least once per semi-annual monitoring period and record in a log any maintenance performed. Maintenance must be recorded at each occurrence. [OAR 340-226-0120]
43. Applicable Requirement: The permittee must not cause or allow the emissions of particulate matter from emissions unit EU-4B1 (Main Boiler) in excess of 0.23 pounds per million BTU heat input. Particulate matter emissions must be measured using the test methods identified in Condition 45. [OAR 340-208-0610] [State-only enforceable]
44. Applicable Requirement: The permittee must not cause or allow the emissions of particulate matter from emissions unit EU-4B2, Standby Boiler, B2 in excess of 0.26 pounds per million BTU heat input. Particulate matter emissions must be measured using the test methods identified in Condition 45 [OAR 340-208-0610] [State-only enforceable]
45. Monitoring for Condition 43 and 44: The permittee must monitor fuel consumption by recording in an operations log: [OAR 340-226-0120]
- 45.a. The amount of natural gas, distillate fuel oil ASTM #1, distillate fuel oil ASTM #2, and any other fuel used monthly in emission unit EU-4B1.
- 45.b. The amount of natural gas, distillate fuel oil ASTM #1, distillate fuel oil ASTM #2, and any other fuel used monthly in emission unit EU-4B2.
- 45.c. When EU-4B1 and EU-4B2 are fired on distillate fuel oil ASTM #1 or distillate fuel oil ASTM #2 for 18 days per year or less, or when EU-4B1 and EU-4B2 are fired on natural gas, source testing requirements set forth in Condition 45.d are waived unless specifically required by DEQ.
- 45.d. If the permittee uses any other fuel than natural gas in either EU-4B1 or EU-4B2 for more than 18 days per year, the permittee must source test to determine particulate matter emission rates.
- 45.d.i. The source test must determine particulate matter emission rates (pounds per million BTU heat input using ODEQ Method 5 in accordance with DEQ's Source Sampling Manual. Opacity must be measured concurrently with the Method 5 testing using modified EPA Method 9.
- 45.d.ii. The source testing must be performed during a time when the emission unit is continuously firing on oil at the normal firing rate.
46. Applicable Requirement: The permittee must comply with the applicable requirements of 40 CFR Part 63 Subpart ZZZZ as they pertain to emissions unit EU-5. [40 CFR 63.6580 to 63.6675]

Insignificant Activities Emission Limits and Standards

47. Applicable Requirement: DEQ acknowledges that insignificant emissions units (IEUs) identified by rule as either categorically insignificant activities or aggregate insignificant emissions [OAR 340-200-0020] exist at facilities required to obtain an Oregon Title V Operating Permit. IEUs must comply with all applicable requirements. In general, the requirements that could apply to IEUs are incorporated as follows:
OAR 340-208-0110 (20% opacity)
OAR 340-228-0210 (0.10 or 0.14 gr/dscf corrected to 12% CO₂ or 50% excess air for fuel burning equipment)
OAR 340-226-0210 (0.10 or 0.14 gr/dscf for non-fugitive, non-fuel burning equipment)
OAR 340-226-0310 (process weight limit for non-fugitive, non-fuel burning process equipment)

48. Testing, Monitoring, and Recordkeeping Requirements: Unless otherwise specified in this permit or an applicable requirement, DEQ is not requiring any testing, monitoring, recordkeeping, or reporting for the applicable emissions limits and standards that apply to IEUs. However, if testing were performed for compliance purposes, the permittee would be required to use the test methods identified in the definitions of “opacity” and “particulate matter” in OAR 340-208-0010 and perform the testing in accordance with DEQ’s Source Sampling Manual.

PLANT SITE EMISSION LIMITS

49. Applicable Requirement: Plant site emissions for any 12 consecutive calendar month period (tons/year), including emissions from insignificant activities, must not exceed the following: [OAR 340-222-0020, 340-222-0040]

Emission Units	Pollutant	Annual PSEL, in tons per year	Plant Site Emission Calculation condition	Banked emissions, in tons per year	Unassigned Emissions	Monitoring Condition Number
Plant wide	PM/PM ₁₀ /PM _{2.5}	9	51	0	0	60
	CO	99	51	0	0	60
	NO _x	45	51	0	0	60
	SO ₂	39	51	0	0	60
	VOC	400	51	0	1001	60 & 65
	GHG	74,000	73.c.vi	0	0	73.c.vi

Unassigned emissions are being established in this permit and are the difference between the netting basis and the current potential to emit. Unassigned emissions may be used for internal netting actions during the current permit cycle. Unused unassigned emissions will be reduced to the significant emission rate in the next permit cycle.

50. If emissions, including insignificant activities, of any pollutant listed in the table below exceed the listed levels and if the emission fee for that pollutant is based on the PSEL, then emission fees must be based on the entire PSEL for that pollutant in lieu of the listed levels.

Pollutant	Tons/year
PM ₁₀	3

51. Procedures for demonstrating compliance with the PSELs set forth in Conditions 49 are detailed below:[OAR 340-214-0114]

51.a. Definitions

- S = Saturant. Saturant is the resin/solvent mix used to saturate the paper used in overlay manufacturing
- C = Coating. Coating is the resin mix used to coat one side of the saturated paper.
- P = Prime coating. Prime coating is used to coat the other side of the saturated paper.
- X = Product Number. Four major product types have been established for purposes of emission calculations. These include Medium Density Overlay (MDO), Primed MDO (PMDO), and Industrial.
- VOC = Volatile organic compounds.
- E = Emissions

- E_C = Fugitive VOC emissions from coating/primer mixing and application area not captured in drying oven. For permitting purposes this has been established as a fixed amount of 2 tons per year and 11 lbs/day. This has been calculated using VOC usage at capacity and a capture efficiency of 95% based on recent modification of the capture hood and ducting the exhaust to the RTO.
- ES_c = Coating Line VOC emissions emitted from the evaporator slab. These emissions originate from evaporation of excess saturant or coating that cannot be recycled and is not directly disposed of off-site. ES_c is developed from excess mix volume data recorded in the plant's evaporator report and analytical or process formulation data which establishes the VOC content of the excess mix.
- ES_{NC} = Evaporator slab emissions not associated with cleanup or coating lines. These emissions arise from the treatment of resin manufacturing distillate at the evaporator slab. ES_{NC} is calculated from resin production data indicating the volume of distillate generated, volume recycled on-site and the content of VOC in distillate, by analysis.
- E_T = Total VOC processed in the evaporator slab including cleanup, but excluding emissions associated with paper coating process.
- ES_{CU} = $\{[(\text{Total solvent used for cleanup}) - (\text{Total solvent recycled})] * DE * CE\}$ The DE and CE are for applicable coater and/or saturator hood. ES_{CU} is solvent used to clean coaters and saturators. Solvent is drained to resin run tanks and mixed with the next batch of resin to be used. No out of process recycling occurs.
- E_{Tk} = VOC emissions from tanks. For permitting purposes this has been established as a fixed amount of 8000 ppy and 20 ppd. These amounts have been determined using EPA's "Tanks 2" program and estimated usage of VOCs, at capacity.
- E_{Comb} = Emissions from combustion sources excluding emissions included with the coating lines. This is the VOC emission calculated from the amounts of natural gas and fuel oil combusted at the site, using published DEQ emission factors.
- E_R = VOC emissions from the resin plant. Maximum resin plant VOC emissions, before controls, are estimated at 3.64 tons per year. Maximum resin plant VOC emissions, after controls, are estimated at 0.99 tons per year. ER is entered into the compliance calculation as a constant 1 ton per any year.
- SO_2 = Sulfur dioxide.
- NO_x = Nitrogen oxides.
- CO = Carbon monoxide
- EF#VOC = Emissions of VOC from product number (#) in lbs/MSF. This factor includes all VOC attributable to paper coating formulations but excludes emissions due to fuel combustion.
- EF#CO = Emissions of CO from product number (#) in lbs/MSF. This factor includes all CO attributable to paper coating formulations but excludes emissions due to fuel combustion.
- D = Calendar days of line operation. D = 1 for the RACT
- U = Gross production of product, by product number, in MSF.
- Q_1 = Quantity of ASTM #1 oil burned, in thousands of gallons.
- Q_2 = Quantity of ASTM #2 oil burned, in thousands of gallons.
- Q_{NG} = Quantity of natural gas burned in millions of cubic feet (meter reading).
- CE = RTO capture efficiency of solvent volatile organic compounds, expressed as a decimal. A CE of 1.00 is assumed for PSEL and RACT compliance determination.
- DE = RTO destruction efficiency of solvent volatile organic compounds, expressed as a decimal.
- EF#NOx = Emissions of NOx from product number (#) in lbs/MSF. This factor includes all NOx attributable to paper coating formulations but excludes emissions due to fuel combustion.

- 51.b. Solvent VOC destruction efficiency (DE), expressed as a decimal, is assumed to be 0.97 for R1. If VOC destruction efficiency verification source testing required by Condition 65 finds a DE of less than 97% (0.97), the permittee must take corrective action to return the DE to greater than 97% and retest to confirm that the DE has been returned to greater than 97% within 120 days of the date of the initial verification test.

- 51.c. Pounds of VOC emitted from the evaporator slab associated with the coating line.

$$ES_3 = 8 \text{ lbs/day of operation}$$

- 51.d. Pounds of VOC emitted from the coating line

$$E_{VOC3} = \sum ((EF_1 \text{ VOC} \times U_1) + (EF_2 \text{ VOC} \times U_2) \dots (EF_n \text{ VOC} \times U_n)) + (5.3 \times NG_3) + ES_3$$

- 51.e. Emission of VOC from cleanup and evaporator slab, excluding coating process emissions.

$$E_T = ES_{CU} + ES_{NC}$$

- 51.f. Emissions of VOC from tanks.

$$E_{TK} = 8000 \text{ ppy}$$

- 51.g. Emissions of VOC from combustion sources not included with coating line emissions.

$$E_{Comb} = 0.34(Q_1 + Q_2) + 5.3Q_{NG}$$

- 51.h. Emissions of VOC on a plant site basis, including AIE, must not exceed 1400 tons per year.

$$E_{VOC \text{ annual}} = \frac{E_{VOC3} + E_T + E_{TK} + E_{Comb} + E_R + E_c + 1}{2000 \text{ lbs/ton}}$$

- 51.i. Emissions of PM₁₀ on a plant site basis, including AIE, must not exceed 15 tons per year.

$$E_{PM10} = \frac{2(Q_1 + Q_2) + 2.5Q_{NG} + 1}{2000 \text{ lbs/ton}}$$

- 51.j. Emissions of sulfur dioxide (SO₂) on a plant site basis, including AIE, must not exceed 40 tons per year. The permittee may replace any component in the following equation with emissions calculated by mass balance if supported by appropriate documentation.

$$E_{SO2} = \frac{42.6Q_1 + 71Q_2 + 2.6Q_{NG} + 1}{2000 \text{ lbs/ton}}$$

- 51.k. Emissions of nitrogen oxides (NO_x) on a plant site basis, including AIE, must not exceed 45 tons per year.

$$E_{NOX} = \sum ((EF_1 \text{ NO}_x \times U_1) + (EF_2 \text{ NO}_x \times U_2) \dots (EF_n \text{ NO}_x \times U_n)) + (140 \times NG)$$

- 51.l. Emissions of carbon monoxide (CO) on a plant site basis, including AIE, must not exceed 101 tons per year.

$$E_{CO} = \frac{5Q_1 + 5Q_2 + 35Q_{NG} + \sum ((EF_1 \text{ CO} \times U_1) + (EF_2 \text{ CO} \times U_2) \dots (EF_n \text{ CO} \times U_n))}{2000 \text{ lbs/ton}} + 1$$

- 51.m. Emissions of Greenhouse Gases (GHG) on a plant site basis must not exceed 74,000 tons per year. Rolling annual calculations must be conducted on a monthly basis using the protocols referenced in OAR 340 division 215.

REASONABLE AVAILABLE CONTROL TECHNOLOGY (RACT) FOR SURFACE COATING IN MANUFACTURING FOR PAPER COATING [OAR 340-232-0160]

52. In addition to the definitions set forth in Condition 51, the following definitions are applicable to RACT compliance calculations:
- α = Reasonably Available Control Technology for Surface Coating in Manufacturing, paper coating, based on pounds of VOC per gallon of solvent, excluding water and exempt solvents.
- RACT = Reasonably Available Control Technology.
- W = Water and exempt solvent content of saturant, coating or prime coating, by volume fraction, expressed as a decimal.
- NV = Solids content of saturant, coating or prime coating, by volume fraction, expressed as a decimal.
53. The permittee must limit Volatile Organic Compound (VOC) emissions from paper coating and saturating to 2.9 pounds per gallon of coating/saturant (less water and exempt solvents) as delivered to the coating applicators, based on a daily average of all coatings/saturants used on the coating line. [OAR 340-232-0160(5)(d)]
54. The permittee must maintain a minimum RTO VOC destruction efficiency (DE) of 97% when using the RTOs for compliance with RACT limitations set forth in Condition 53. This condition is not applicable when using compliant coatings. This condition must be monitored in accordance with Condition 65. [OAR 340-232-0160(7)(b)]

STARTUP, SHUTDOWN, AND MALFUNCTION PLAN

55. Applicable Requirement: Startup, shutdown, and malfunction plan (SSM Plan): [40 CFR 63.6(e)(3)]
- The permittee must develop, implement and submit to DEQ a written startup, shutdown and malfunction plan that describes, in detail, procedures for operating and maintaining RTO R1 and the capture system for Line 3 during periods of startup, shutdown, and malfunction; a program of corrective action for malfunctioning process; and identify air pollution control and monitoring equipment used to comply with the relevant standard. [40 CFR 63.6(e)(3)(i)]
56. SSM Plan Revisions [40 CFR 63.6(e)(3)(viii)]
- 56.a. The permittee may periodically revise the startup, shutdown, and malfunction plan for the affected source as necessary to satisfy the requirements of this part or to reflect changes in equipment or procedures at the affected source.
- 56.b. If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the permittee developed the plan, the permittee must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment.
57. Monitoring for Conditions 55 and 56: The permittee must maintain records of the occurrence and duration of each applicable startup, shutdown, or malfunction episode (including actions taken to correct a malfunction) when actions taken by the permittee are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan.

The permittee must maintain records reflecting whether the procedures set forth in the SSM Plan were followed for each startup, shutdown or malfunction where excess emissions occur. In addition, the permittee must keep records of these events as specified in 40 CFR 63.10(b), including records of the occurrence and duration of each startup or shutdown (if the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, the permittee must confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in 40 CFR 63.10(d)(5). [40 CFR 63.6(e)(3)(iii)]

58. Reporting for Conditions 55 and 56: The permittee must provide reporting, as specified in this condition any time an action is taken during a startup, shutdown or malfunction that results in excess emissions. [40 CFR 63.10(d)(5)(ii) and 63.6(g)]
- 58.a. This Condition pertains to all aspects of the SSM Plan (e.g., processes, emission controls, and CMSs);
 - 58.b. For actions inconsistent with the SSM Plan, the report must be submitted by phone or fax within 2 working days after commencing actions inconsistent with the plan. For the purpose of this condition, working days are Monday through Friday, excluding holidays observed by DEQ.
 - 58.c. For actions inconsistent with the plan, if requested by DEQ, the permittee must report the actions taken in a letter within 7 working days after receiving DEQ's request.
 - 58.d. The semiannual SSM Reports must contain the following information: [40 CFR 63.10(d)(5)(i)]
 - 58.d.i. If no startups, shutdowns or malfunctions occurred during the reporting period that resulted in excess emissions, the report must so state.
 - 58.d.ii. If any startups, shutdowns or malfunctions occurred during the reporting period that resulted in excess emissions, and actions taken are consistent with the SSM plan, the report must so state. In this case, the report must include:
 - 58.d.ii.(A) The number of startups, shutdowns or malfunctions resulting in excess emissions;
 - 58.d.ii.(B) The duration of each startup, shutdown or malfunction resulting in excess emissions;
 - 58.d.ii.(C) A brief description of each startup, shutdown and malfunction resulting in excess emissions.
 - 58.d.iii. If any startups, shutdowns or malfunctions occurred during the reporting period that resulted in excess emissions, and actions taken are inconsistent with the SSM plan, the report must so state. In this case, the report must include:
 - 58.d.iii.(A) The name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy;
 - 58.d.iii.(B) An explanation of the circumstances of the event;
 - 58.d.iii.(C) The reasons for not following the startup, shutdown, and malfunction plan;
 - 58.d.iii.(D) A description of all excess emissions and/or parameter monitoring exceedances which are believed to have occurred (or could have occurred in the case of malfunctions); and
 - 58.d.iii.(E) Actions taken to minimize emissions in conformance with 40 CFR 63.6(e)(1)(i).

MONITORING REQUIREMENTS FOR PLANT SITE EMISSIONS AND REASONABLE AVAILABLE CONTROL TECHNOLOGY FOR SURFACE COATING IN MANUFACTURING [OAR 340-222-0080]

59. Monitoring for Conditions 49, 0, 53, and 54: The permittee must maintain daily and monthly records of the following PSEL and RACT process parameters:

Material or process parameter	Symbol *	Measurement technique	Frequency
Gross production of product in MSF, by product number	U_X	Recordkeeping	Daily Monthly Annually
Quantity of ASTM #1 oil burned in thousands of gallons	Q_1	Meter reading	Daily Monthly Annually
Quantity of ASTM #2 oil burned in thousands of gallons	Q_2	Meter reading	Daily Monthly Annually
Quantity of any other type of fuel	--	Meter reading	Daily Monthly Annually
Quantity of natural gas burned in millions of cubic feet	Q_{NG}	Meter reading	Daily Monthly Annually
Total VOC processed in the evaporator slabs, excluding emissions associated with the paper coating process	E_T	Recordkeeping (Evaporator report)	Daily Monthly Annually
Total VOC cleanup solvent losses	E_{cu}	Meter reading, recordkeeping, calculation	Daily Monthly Annually
Total VOC sent to the evaporator slab excluding cleanup solvent and VOC associated with the paper coating process	E_{SNC}	Calculation	Daily Monthly Annually
VOC emissions from tanks	E_{tk}	Calculation	Annually
Plant site emissions	$E_{PM10}, E_{SO2}, E_{NOx}, E_{CO}, E_{VOC}$	Calculation	Monthly Annually
Daily RACT	RACT	Previously demonstrated	Monthly

* "X" represents product number.

TEST METHODS AND PROCEDURES [OAR 340-212-0120]

- 60. Unless otherwise specified in this permit, the permittee must conduct all testing in accordance with DEQ’s Source Sampling Manual. [OAR 340-212-0120]
 - 60.a. Unless otherwise specified by a state or federal regulation, the permittee must submit a source test plan to DEQ at least 15 days prior to the date of the test. The test plan must be prepared in accordance with the Source Sampling Manual and address any planned variations or alternatives to prescribed test methods. The permit should be aware that if significant variations are requested, it may require more than 15 days for DEQ to grant approval and may require EPA approval in addition to approval by DEQ.
 - 60.b. Only regular operating staff may adjust the process or emission control device parameters during a compliance source test and within two (2) hours prior to the tests. Any operating adjustments made during a compliance source test, which are a result of consultation during the test with source testing personnel, equipment vendors, or consultants, may render the source test invalid.
 - 60.c. Unless otherwise specified by permit condition or Department approved source test plan, all compliance source tests must be performed as follows:
 - 60.c.i. at 90 to 110% of the maximum design capacity for initial performance tests on new or modified equipment; or
 - 60.c.ii. at 90 to 110% of the normal maximum operating rate for existing equipment. For purposes of this permit, the normal maximum operating rate is defined as the 90th percentile of the average hourly operating rates during a 12 month period immediately preceding the source test. Data supporting the normal maximum operating rate must be included with the source test report.
 - 60.d. Each source test must consist of at least three (3) test runs and the emissions results must be reported as the arithmetic average of all valid test runs. If for reasons beyond the control of the permittee a test run is invalid, DEQ may accept two (2) test runs for demonstrating compliance with the emission limit or standard.
 - 60.e. Source test reports prepared in accordance with DEQ’s Source Sampling Manual must be submitted to DEQ within 60 days of completing any required source test, unless a different time period is approved in the source test plan submitted prior to the source test.

- 61. Although source testing is not required by this permit for the permit conditions listed below, if testing is conducted in addition to the monitoring specified in this permit, the permittee must use the following test methods and averaging times to measure the pollutant emissions:

Permit Condition	Test Method	Averaging Time	Special Conditions
15	ODEQ Methods 5, 7, or 8	Average of three one-hour test runs	ODEQ Method 8 is for sources with exhaust gases at essentially ambient conditions (e.g. material handling cyclones); ODEQ Method 7 is for direct contact combustion sources (e.g. particle and veneer dryers); ODEQ Method 5 is for indirect contact fuel burning equipment (e.g. boilers) and any other source.
47	EPA Method 9	Six minute average	

Emission Factors and Destruction Efficiency Verification Testing

- 62. Emission Factors are not enforceable as Emission Limitations or Standards unless otherwise cited within this permit.

- 63. Plant Site Emissions must be determined by the calculation methods contained in Condition 51 of this permit using the monitored parameters recorded during the reporting period in accordance with Condition 59 and the emission factors contained in Condition 112 [OAR 340-214-0114]
- 64. VOC emission rate per unit of surface coating must be determined by the calculation methods contained in Conditions 53 and 112 of this permit using the monitored parameters recorded during the reporting period in accordance with Condition 59 and the emission factors contained in Condition 112. [OAR 340-214-0114]
- 65. At least once during the term of this permit, the permittee must conduct an emission source test on each RTO for verification of VOC destruction efficiency (DE) and emissions of VOC, NO_x, and CO. The tests must be conducted in conformance with the following test methods unless an alternative method is approved in writing by DEQ. [OAR 340-214-0114]
 - 65.a. The following test methods and frequencies must be used:

Pollutant	Test Method	Minimum Testing Frequency
NO _x	EPA Method 7E	One time per permit cycle
CO	EPA Method 10 meeting quality control requirements set forth in EPA Method 6C	One time per permit cycle
VOC	EPA Method 25A	One time per permit cycle (inlet and outlet testing)

- 65.b. The permittee must notify DEQ at least 15 days prior to conducting any tests by submitting a source test plan in accordance with DEQ's Source Sampling Manual.
- 65.c. The permittee must submit the test data and results to the Source Test Coordinator within 60 days after testing, unless approved otherwise by DEQ in writing. The report must include the following information:
 - 65.c.i. emission results for CO, NO_x, and VOC in pounds per hour and pounds per unit of fuel use.
 - 65.c.ii. VOC destruction efficiency
 - 65.c.iii. process parameters during the test (e.g., production units, product type, RTO temperatures; and any other relevant parameter)

MONITORING AND RECORDKEEPING REQUIREMENTS [OAR 340-218-0050(3)(a) and (b)]

- 66. Monitoring Requirements:
 - 66.a. The permittee must not knowingly render inaccurate any required monitoring device or method. [OAR 340-218-0050(3)(a)(E)]
 - 66.b. Methods used to determine actual emissions for fee purposes must also be used for compliance determination and can be no less rigorous than the requirements of OAR 340-218-0080. [OAR 340-218-0050(3)(a)(F)]
 - 66.c. Monitoring requirements must commence on the date of permit issuance unless otherwise specified in the permit. [OAR 340-218-0050(3)(a)(G)]

67. The permittee must maintain the following general records of testing and monitoring required by this permit: [OAR 340-218-0050(3)(b)(A)]
- 67.a. the date, place as defined in the permit, and time of sampling or measurements;
 - 67.b. the date(s) analyses were performed;
 - 67.c. the company or entity that performed the analyses;
 - 67.d. the analytical techniques or methods used;
 - 67.e. the results of such analyses;
 - 67.f. the operating conditions as existing at the time of sampling or measurement; and
 - 67.g. the records of quality assurance for continuous monitoring systems (including but not limited to quality control activities, audits, calibration drift checks).
68. The permittee must maintain the following specific records of required monitoring information: [OAR 340-214-0114]
- 68.a. daily, monthly and annual records of production;
 - 68.b. Production records used for emission factor development, including raw materials used;
 - 68.c. water and exempt solvent content of saturants, coatings and prime coats;
 - 68.d. solids content of saturants, coatings and prime coats;
 - 68.e. daily surface coating RACT expressed in pounds of VOC per gallon of coating or pounds of VOC per gallon of solids;
 - 68.f. volatile nitrogen fraction in each component;
 - 68.g. monthly records of the type and annual records of the amount of fuels used;
 - 68.h. total weight of materials processed, per batch, in the evaporator slab and hours to process each batch;
 - 68.i. fuel oil consumption records;
 - 68.j. monthly, and annual PSEL compliance summary;
 - 68.k. RTO operating status, by day by time;
 - 68.l. Coating line operating status, by day by time, including specific product type being run;
 - 68.m. fuel sulfur analyses certificates;
 - 68.n. complaint log and investigation reports;
 - 68.o. fugitive dust inspection and maintenance activities;
 - 68.p. visible emissions observation reports;
 - 68.q. maintenance log;
 - 68.r. occurrence and length of downtime for all pollution control devices;
 - 68.s. architectural coating and spray paint certifications; and
 - 68.t. air pollution episodes and emissions reduction actions.
69. Unless otherwise specified, the permittee must retain records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings (or other original data) for continuous monitoring instrumentation, and copies of all reports required by the permit. All existing records required by the previous Air Contaminant Discharge Permit or Oregon Title V Operating Permit must be retained for five (5) years from the date of the monitoring sample, measurement, report, or application. [OAR 340-218-0050(3)(b)(B)]

70. Unless otherwise specified by permit condition, the permittee must make every effort to maintain 100 percent of the records required by the permit. If information is not obtained or recorded for legitimate reasons (e.g., the monitor or data acquisition system malfunctions due to a power outage), the missing record(s) will not be considered a permit deviation provided the amount of data lost does not exceed 10% of the averaging periods in a reporting period or 10% of the total operating hours in a reporting period, if no averaging time is specified. Upon discovering that a required record is missing, the permittee must document the reason for the missing record. In addition, any missing record that can be recovered from other available information will not be considered a missing record. [OAR 340-214-0110 and 340-218-0050(3)(b)]
71. Recordkeeping requirements must commence on the date of permit issuance unless otherwise specified in the permit or an applicable requirement. [OAR 340-218-0050(3)(b)(C)]
72. The permittee must maintain the following records on a monthly basis for at least 5 years. At a minimum, the most recent 2 years of data must be retained on site. [40 CFR 63.3410]
- 72.a. Records of all measurements needed to demonstrate compliance with Subpart JJJJ;
 - 72.b. Continuous emission monitoring data, if applicable;
 - 72.c. Control device and capture system operating parameter data;
 - 72.d. Organic HAP content data for the purpose of demonstrating compliance (Note: volatile organic HAP equals VOC);
 - 72.e. Volatile matter and coating solids content data for the purposes of demonstrating compliance;
 - 72.f. Overall control efficiency determination using capture efficiency and control device destruction or removal efficiency test results;
 - 72.g. Production and formulation data, including: organic HAP content, volatile matter content, and coating solids content and compliance demonstrations using these data; and
 - 72.h. All other records used to determine compliance with emission limits and operational limitations.
73. The permittee must submit three (3) copies of reports of any required monitoring at least every 6 months, completed on forms approved by DEQ. Six month periods are January 1 to June 30, and July 1 to December 31. Three copies of the report must be submitted to the regional office, and one copy to the EPA. All instances of deviations from permit requirements must be clearly identified in such reports. The reports must include the following: [OAR 340-218-0050(3)(c)(A) and 340-218-0080(6)(d)]
- 73.a. The semi-annual report must consist of the following:
 - 73.a.i. the semi-annual compliance certification [OAR 340-218-0080];
 - 73.a.ii. periodic NESHAP (Amino/Phenolic Resin Manufacture) semiannual report as required by Condition 108;

- 73.b. The annual report is due on February 15 and must consist of the following: [OAR 340-214-0114]
- 73.b.i. the emission fee report; [OAR 340-220-0100]
 - 73.b.ii. the NO_x and VOC emission statement, if applicable; [OAR 340-214-0220]
 - 73.b.iii. the excess emissions upset log; [OAR 340-214-0340]
 - 73.b.iv. the second semi-annual compliance certification; and [OAR 340-218-0080]
 - 73.b.v. the annual certification that the risk management plan is being properly implemented; OAR 340-244-0230. [OAR 340-218-0080(7)]
 - 73.b.vi. annual records of production;
 - 73.b.vii. annual records raw materials used
 - 73.b.viii. annual records of the amount of fuels used;
 - 73.b.ix. hours of operation;
 - 73.b.x. annual totals for the following components:
 - 73.b.x.(A) ES₃
 - 73.b.x.(B) E_T
 - 73.b.x.(C) E_{TK}
 - 73.b.x.(D) Q_{NG}
 - 73.b.x.(E) U_x
- 73.c. PSEL and RACT emission summaries for each month;
- 73.c.i. PSEL emission summary for each consecutive 12 calendar month period ending in the calendar year,
 - 73.c.ii. a summary of the annual evaluation of the practicability of reducing VOC emissions from the evaporator slab, unless waived in writing by DEQ; and
 - 73.c.iii. periodic NESHAP (Amino/Phenolic Resin Manufacture) semiannual report as required by Condition 108.
 - 73.c.iv. RTO R1 action level excursions as required by Condition 21.b.
 - 73.c.v. Emissions for each pollutant with a PSEL for each consecutive 12 month period ending in the calendar year.
 - 73.c.vi. Greenhouse gas emissions must be reported with the annual report using the calculation protocols referenced in OAR 340 division 215.
74. The permittee must submit to DEQ a semiannual compliance report. The report for the first half semiannual period must be submitted with the semiannual report for the facility which is due by no later than July 30 of each year. The report for the second half semiannual period must be submitted with the annual report which is due by February 15 of the following year. [OAR 340-214-0114]
75. The semiannual compliance report for Subpart JJJJ must include the following: [40 CFR 63.3400(c)]
- 75.a. Company name and address;
 - 75.b. Statement by a responsible official with that official's name, title, and signature certifying the accuracy of the content of the report;
 - 75.c. Date of report and beginning and ending dates of the reporting period;
 - 75.d. If there are no deviations from any emission limitations, a statement that there were no deviations during the reporting period, and that no CMS was inoperative, inactive, malfunctioning, out-of-control, repaired, or adjusted;
 - 75.e. For each deviation from an emission limitation that occurs at an affected source not using a CEMS to comply, the compliance report must contain:
 - 75.e.i. the total operating time of each affected source during the reporting period;
 - 75.e.ii. information on the number, duration, and cause of deviations (including unknown cause), if applicable, and the corrective action taken; and
 - 75.e.iii. information on the number, duration and cause for CPMS downtime incidents, if applicable, other than downtime associated with zero and span and other calibration checks.

- 75.f. For each deviation from an emission limitation that occurs at an affected source using a CEMS to comply, the compliance report must contain:
- 75.f.i. the date and time that each malfunction started and stopped;
 - 75.f.ii. the date and time that each CEMS and CPMS, if applicable, was inoperative except for zero (low-level) and high level checks;
 - 75.f.iii. the date and time that each CEMS and CPMS, if applicable, was out-of-control, including the corrective action taken;
 - 75.f.iv. the date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period;
 - 75.f.v. a summary of the total duration (in hours) of each deviation during the reporting period and the total duration of each deviation as a percent of the total source operating time during that reporting period;
 - 75.f.vi. a breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes;
 - 75.f.vii. a summary of the total duration (in hours) of CEMS and CPMS downtime as percent of the total source operating time during that reporting period;
 - 75.f.viii. a breakdown of the total duration of CEMS and CPMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes;
 - 75.f.ix. the date of the latest CEMS and CPMS certification or audit; and
 - 75.f.x. a description of any changes in CEMS, CPMS, or controls since the last reporting period.
- 75.g. Startup, shutdown and malfunction report including the information required by Condition 58.d. [40 CFR 63.3400(g)]
- 75.h. Summary of changes to the capture system monitoring plan. [OAR 340-214-0114]
76. The semi-annual compliance certification must include the following (provided that the identification of applicable information may cross-reference the permit or previous reports, as applicable): [OAR 340-218-0080(6)(c)]
- 76.a. The identification of each term or condition of the permit that is the basis of the certification;
 - 76.b. The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period, and whether such method or other means provide continuous or intermittent data. Such methods and other means must include, at a minimum, the methods and means required under OAR 340-218-0050(3).
 - 76.c. If necessary, the owner or operator also must identify any other material information that must be included in the certification to comply with section 113(c)(2) of the FCAA, which prohibits knowingly making a false certification or omitting material information;
 - 76.d. The status of compliance with terms and conditions of the permit for the period covered by the certification, based on the method or means designated in OAR 340-218-0040(6)(c)(B). The certification must identify each deviation and take it into account in the compliance certification. The certification must also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance, as defined under OAR 340-200-0020, occurred; and
 - 76.e. Such other facts as DEQ may require to determine the compliance status of the source.
 - 76.f. Notwithstanding any other provision contained in any applicable requirement, the owner or operator may use monitoring as required under OAR 340-218-0050(3) and incorporated into the permit, in addition to any specified compliance methods, for the purpose of submitting compliance certifications. [OAR 340-218-0080(6)(e)]
77. The permittee must submit the results of all required source tests within 60 days of the tests, unless approved otherwise by DEQ in writing. [OAR 340-214-0114]

78. Excess Emissions Reporting The permittee must report all excess emissions as follows: [OAR 340-214-0300 through 340-214-0360]
- 78.a. Immediately (within 1 hour of the event) notify DEQ of an excess emission event by phone, e-mail, or facsimile; and
 - 78.b. Within 15 days of the excess emissions event, submit a written report that contains the following information: [OAR 340-214-0340(1)]
 - 78.b.i. The date and time of the beginning of the excess emissions event and the duration or best estimate of the time until return to normal operation;
 - 78.b.ii. The date and time the owner or operator notified DEQ of the event;
 - 78.b.iii. The equipment involved;
 - 78.b.iv. Whether the event occurred during planned startup, planned shutdown, scheduled maintenance, or as a result of a breakdown, malfunction, or emergency;
 - 78.b.v. Steps taken to mitigate emissions and corrective action taken, including whether the approved procedures for a planned startup, shutdown, or maintenance activity were followed;
 - 78.b.vi. The magnitude and duration of each occurrence of excess emissions during the course of an event and the increase over normal rates or concentrations as determined by continuous monitoring or best estimate (supported by operating data and calculations);
 - 78.b.vii. The final resolution of the cause of the excess emissions; and
 - 78.b.viii. Where applicable, evidence supporting any claim that emissions in excess of technology-based limits were due to any emergency pursuant to OAR 340-214-0360.
 - 78.c. In the event of any excess emissions which are of a nature that could endanger public health and occur during non-business hours, weekends, or holidays, the permittee must immediately notify DEQ by calling the Oregon Accident Response System (OARS). The current number is 1-800-452-0311.
 - 78.d. If startups, shutdowns, or scheduled maintenance may result in excess emissions, the permittee must submit startup, shutdown, or scheduled maintenance procedures used to minimize excess emissions to DEQ for prior authorization, as required in OAR 340-214-0310 and 340-214-0320. New or modified procedures must be received by DEQ in writing at least 72 hours prior to the first occurrence of the excess emission event. The permittee must abide by the approved procedures and have a copy available at all times.
 - 78.e. The permittee must notify DEQ of planned startup/shutdown or scheduled maintenance events only if required by permit condition or if the source is located in a nonattainment area for a pollutant which may be emitted in excess of applicable standards.
 - 78.f. The permittee must continue to maintain a log of all excess emissions in accordance with OAR 340-214-0340(3). However, the permittee is not required to submit the detailed log with the semi-annual and annual monitoring reports. The permittee is only required to submit a brief summary listing the date, time, and the affected emissions units for each excess emission that occurred during the reporting period. [OAR 340-218-0050(3)(c)]
79. The permittee must promptly report deviations from permit requirements that do not cause excess emissions, including those attributable to upset conditions, as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. "Prompt" means within seven (7) days of the deviation. Deviations that cause excess emissions, as specified in OAR 340-214-0300 through 340-214-0360 must be reported in accordance with OAR 340-214-0340. [OAR 340-218-0050(3)(c)(B)]
80. All required reports must be certified by a responsible official consistent with OAR 340-218-0040(5); [OAR 340-218-0050(3)(c)(D)]
81. Reporting requirements must commence on the date of permit issuance unless otherwise specified in the permit. [OAR 340-218-0050(3)(c)(E)]

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

DEQ – Northwest Region 700 NE Multnomah St., Suite 600 Portland, OR 97232 (503) 229-5263	DEQ – Air Quality Division 700 NE Multnomah St., Suite 600 Portland, OR 97232 (503) 229-5256	Air Operating Permits US Environmental Protection Agency Mail Stop AT-084 1200 Sixth Avenue Seattle, WA 98101-3188
--	--	--

**NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS:
MANUFACTURE OF AMINO/PHENOLIC RESINS (40 CFR 63 Subpart OOO)**

Definitions-Subpart OOO NESHP

- 83. The terms used in the section(s) of this permit that are specifically intended to implement Subpart OOO – National Emission Standards for Hazardous Air Pollutants for Manufacture of Amino/Phenolic Resin, 40 CFR 63.1400 through 63.1419, have the meaning given them in 40 CFR 63.1402, Definitions. [40 CFR 63.1402]
- 84. The terms used in the section(s) of this permit that are specifically intended to implement the NESHP General Provisions, 40 CFR 63 Subpart A, have the meaning given them in 40 CFR 63.2, Definitions. [40 CFR 63.2]

Permit Reopening

85. DEQ may reopen this permit to insert new conditions or modify existing conditions when such reopening is necessary to revise conditions in this permit that are affected by any revisions to 40 CFR Part 63 Subparts A, SS, UU, JJJ, and OOO. [OAR 340-218-0200]

Emissions Unit (EU) and Pollution Control Device (PCD) Identification

86. Reactor Batch Process Vents originate from the reactors and are identified as follows:

Equipment Name	Equipment ID	Emission Unit ID	Pollution Control Device	PCD ID
Reactor No. 1 atmospheric vent	EU-3r01	EU-3r	RTO	R2
Reactor No. 2 atmospheric vent	EU-3r02			
Reactor No. 4 atmospheric vent	EU-3r04			
Reactor No. 5 atmospheric vent	EU-3r05			
Vacuum Pump No. 1 vent	EU-3r06			
Vacuum Pump No. 2 vent	EU-3r07			
Vacuum Pump No. 3 vent	EU-3r08			
Atmospheric diversion vent	EU-3r17	EU-3r	None	None

87. Non-reactor batch process vents do not originate from the reactor, and include vents from filter presses, surge control vessels, bottoms receivers, weight tanks, and distillation systems. The non-reactor batch process vents are identified as follows:

Equipment Name	Equipment ID	Emission Unit ID	Pollution Control Device	PCD ID
Reactor No. 4 distillation tank vacuum vent	EU-3r10	EU-3r	RTO	R2
Reactor No. 5 distillation tank vacuum vent	EU-3r11			
Reactors Nos. 1 & 2 staging tank atmospheric vent	EU-3r12			
Reactor No 4 staging tank vent	EU-3r14			
Reactor No 5 staging tank vent	EU-3r15			
Reactor No 5 cooling tank vent	EU-3r16			

88. The reactor and non-reactor batch process vents are combined and are subject to the aggregate vent system provisions of Subpart OOO. Aggregate uncontrolled organic HAP emissions from non-reactor process vents exceed 0.25 tons/year and are subject to the NESHAP collection and control requirements. [40 CFR 63.1408]
89. The permittee is not subject to the storage tank vent collection and treatment standards in Subpart OOO because the facility is an existing facility does not have a capacity of greater than or equal to 20,000 gallons, but less than 40,000 gallons, and vapor pressure of 1.9 pounds per square inch absolute (psia) or greater; a capacity of greater than or equal to 40,000 gallons, but less than 90,000 gallons, and vapor pressure of 0.75 psia or greater; or a capacity of 90,000 gallons or greater and vapor pressure of 0.15 psia or greater. [40 CFR 63.1404]

Emission Limits and Standards, Testing, Monitoring, and Recordkeeping Requirements for Subpart OOO

90. The following tables contain summaries of applicable requirements along with the monitoring methods for Subpart OOO:

Applicable Requirement	Condition Number	Pollutant Parameter	Limit/Standard	Monitoring/Reporting	
				Requirement Frequency	Condition Number
Aggregate Batch Vent System [40 CFR 63.1408]	91	HAP	83% HAP reduction	Recordkeeping	95
Small Control Device [40 CFR 63.1413(a)(1)]	92	Uncontrolled HAP emissions	Less than 10 tpy	Monitoring, Recordkeeping	93 and 95
Compliance Demonstration for the Aggregate Batch Vent System [40 CFR 63.1413]	94	HAP	Minimum RTO temperature	Monitoring, Recordkeeping	95
Vent System Bypass Lines [40 CFR 63.1415(d)]	96	Bypass	Visual inspections	Monthly	97
Closed Vent Collection System [40 CFR 63.1403(a)]	98	HAP	Visual, audible, or olfactory methods	Monitoring	99
Heat Exchanger Provisions [40 CFR 63.1409(a)]	100	HAP	Minimum 5.1 psig delta pressure	Annual Design Evaluation	101
Equipment Leak Provisions [40 CFR	102, 103 &	HAP Leaks	Leak detection	Visual, audible, olfactory,	105 and

Applicable Requirement	Condition Number	Pollutant Parameter	Limit/Standard	Monitoring/Reporting	
				Requirement Frequency	Condition Number
63.1410]	104			instruments	106

Emission Limitation and Associated Monitoring

- 91. Applicable Requirement: Aggregate batch process vents must be collected and conveyed in a closed vent system to a RTO that maintains a minimum 83% organic HAP reduction by weight, or a maximum 20 ppmv organic HAP measured at the outlet [40 CFR 63.1408(a)(2)] at all times when the resin plant is in operation. Compliance is determined in accordance with Condition 95.
- 92. Applicable Requirement: The permittee must limit HAP emissions before controls from all resin plant emission points to less than 10 tons per year for a control device to be considered a Small Control Device. [40 CFR 63.1413(a)(1)] Monitoring for this condition is set forth in Conditions 93, and 95.
- 93. Monitoring for Condition 92: The permittee will maintain resin production records of pounds of resin per year. If the production level used in the DEQ approved calculation plan is exceeded by 100 pounds of resin per year, the permittee must calculate actual annual calendar year emissions from the resin plant before controls or worst case annual calendar year emissions before controls in accordance with the approved emission calculation plan submitted to and approved by DEQ. The plan was submitted on January 21, 2003 as required. An annual calculation indicating actual emissions or worst case emissions must be submitted with the annual report
- 94. Applicable Requirement: The permittee submitted a design evaluation as part of a Supplemental Pre-compliance Report for demonstration of the performance of the RTO [40 CFR 63.1413(a)(1)(ii)]. The report demonstrates a residence time of greater than 0.5 second and a minimum combustion chamber temperature of 1400° F. This meets the requirements for the RTO to have an assumed minimum control efficiency of 83% [40 CFR 63.1413(a)(3) and 63.1413(a)(3)(v)].
 - 94.a. An 83% HAP reduction (PR) across the RTO satisfies the emission limitations for Aggregate batch vents if all emissions are collected and routed to the RTO [40 CFR 63.1408(a) and 63.1408(a)(2)(ii)].
 - 94.b. When there are uncontrolled emissions, the HAP percent reduction must be calculated using the following formula and methods approved by DEQ [40 CFR 63.1413(e)(1)(iii)]:

$$PR = \frac{\sum E_{unc} + \sum E_{inlet.com} - \sum (1 - R)E_{inlet.com}}{\sum E_{unc} + \sum E_{inlet.com}}$$

Where
 PR = Percent reduction
 E_{unc} = Mass rate of total organic HAP for uncontrolled batch emission episodes
 E_{inlet.com} = Mass rate of total organic HAP for controlled batch emission episodes at the inlet to the control device.
 R = Control efficiency of the control device [40 CFR 63.1413(e)(1)(iii)(D)]

RTO monitoring for this condition is set forth in Condition 95.

- 95. Monitoring for Conditions 91, 92 and 94: The permittee must monitor the operation of RTO-R2 as follows:

- 95.a. The permittee must conduct and log daily inspections of R2 to verify that the RTO is properly operating in accordance to the following procedures [40 CFR 63.1415(a)(2)].
 - 95.a.i. Confirm that the FD fan is in operation,
 - 95.a.ii. Confirm that the automatic switching valves are operating,
 - 95.a.iii. Confirm that local temperature indicator(s) on the combustion chamber are greater than 1400° F, and
 - 95.a.iv. Confirm that there are no “warning” or “malfunction” indicators on the RTO control panel.
- 95.b. The permittee must continuously monitor RTO-R2 combustion chamber temperature and maintain the temperature above 1400° F when the resin plant is in operation. Monitoring equipment failure is not considered a violation for control devices when uncontrolled emissions are less than 1 tpy HAPs if repairs are promptly instigated [40 CFR 63.1413(a)(4) and 63.1515(b)(5)(i)].
- 95.c. The temperature records of RTO-R2 combustion chamber must be maintained for a period of 5 years [40 CFR 63.1416(a)]. Hourly and daily average temperatures of the combustion chamber must be determined and recorded [40 CFR 63.1416(c)].
- 95.d. The permittee must notify DEQ and must satisfy the RTO requirements for a large control device prior to aggregate batch HAP emissions, before controls, exceeding 10 tons per calendar year [40 CFR 63.1413].
- 95.e. While source testing of RTO-R2 is not required at the time of issuance of this renewal, should testing be required in the future such tests must use the following methods, unless approved otherwise in writing by DEQ. A pretest plan must be submitted to DEQ at least 30 days prior to conducting the test [40 CFR 63.1414(a)].

Test Methods	
Parameter	Test Method Citation
Flow	40 CFR Part 60, Appendix Methods 1, 1A, 2A, 2C or 2D to determine gas velocity and/or volumetric flow rate.
Gas analysis	40 CFR Part 60, Appendix A, Method 3 for the determination of dry molecular weight.
Moisture	40 CFR Part 60, Appendix A, Method 4 for determining stack gas moisture.
Formaldehyde	40 CFR Part 60, Appendix A, Method 316 or 320 to measure formaldehyde concentrations.
Organic HAP	40 CFR Part 60, Appendix A, Method 18 to measure other organic HAP concentrations for all constituents other than formaldehyde.
Methanol	40 CFR Part 60, Appendix A, Method 308, as an alternative to Method 18 for the measurement of methanol concentrations.

- 95.f. The percent HAP reduction across the control device, when based on source test results, must be calculated using the following formula: [40 CFR 63.997(e)(2)(iv)(C)]

$$R = (E_i - E_o) \div E_i \times 100$$

Where

R = Control efficiency of control device, percent.

E_i = Mass rate of organic HAP per hour at the inlet to the control device as calculated under 40 CFR 63.997(e)(2)(iv)(B)

E_o = Mass rate of organic HAP per hour at the outlet to the control device as calculated under 40 CFR 63.997(e)(2)(iv)(B)

- 95.g. Deviations from the requirements set forth in Condition 91 are determined in accordance to 40 CFR 63.1413(h).
96. Applicable Requirement: All vent systems that contain bypass lines that could divert emissions away from a control device used to comply with provisions of the NESHAP must have the line damper or valve secured in the non-diverting position with a car-seal or lock-and-key type configuration [40 CFR 63.1415(d)]. Monitoring for this condition is set forth in Condition 97.
97. Monitoring for Condition 96: The permittee must conduct visual inspections of the seal or closure mechanism at least once every month to ensure that the damper or valve is maintained in the non-diverting position and emissions are not diverted through the bypass line. The inspection results must be maintained in a log.

Closed Vent Collection System

98. Applicable Requirement: Aggregate batch process vent emissions must be collected and conveyed in a "closed vent system" [40 CFR 63.1403(a)] to an emission control device (RTO-R2). For equipment and ducting systems under pressure, the system must be designed and operated to collect the emissions from each emission point and convey the emissions to the control device at all times that the emissions are vented to or collected by the system. Bypass valves that could vent the emissions to atmosphere rather than to the control device must be either sealed or a flow monitor installed such that flow in the bypass line is monitored at least once every 15 minutes [40 CFR 63.983(a)]. Records documenting a monthly visual inspection of the closure seal on bypass lines are required [40 CFR 63.998(d)(1)]. Monitoring for the Closed Vent Collection System is set forth in Condition 99.
99. Monitoring for Condition 98: The permittee must conduct the following monitoring of the Closed Vent Collection System:
- 99.a. The permittee must conduct initial and annual inspections of the closed vent system by visible, audible or olfactory methods to assess the operation [40 CFR 63.983(b)]. If a leak is detected in the system, as indicated by an instrument reading of greater than 500 ppm VOC (as methane) [40 CFR 63.983(c)], the leak is to be repaired as soon as practical, with a first attempt at repair no later than 5 days after its detection repairs and repairs completed no later than 15 days after the leak is detected or at the beginning of the next introduction of vapors to the system, whichever is later [40 CFR 63.983(d)]. All inspections, inspection results, and repairs must be logged.
- 99.b. For equipment and ducting systems operating continuously under a vacuum, no special requirements for operation are required (the equipment is exempt from Condition 99.a.) [40 CFR 63.983(a)]. The permittee must clearly label the pipelines and devices in vacuum service.

Heat Exchange System Provisions

100. **Applicable Requirement:** The permittee must maintain a minimum pressure on the heat exchange system cooling water side at least 5.1 psig (35 kilopascals) greater than the maximum pressure on the process side. No further monitoring of the heat exchanger system for leaks is required [40 CFR 63.1409(a) and (a)(1)].
101. **Monitoring Requirement:** The permittee must perform a design evaluation that shows that the cooling water pressure is at least 5.1 psig (35 kilopascals) greater than the maximum pressure on the reactor vessel. The initial evaluation was submitted with the Supplemental Precompliance Report. The design evaluation must be reviewed and updated annually, if necessary. [OAR 340-214-0114]

Equipment Leak Provisions

102. **Applicable Requirement:** The National Emission Standards for Equipment Leaks—Control Level 2 Standards, 40 CFR Part 63 Subpart UU (63.1019 through 63.1039), are referenced in the resin plant NESHAP and apply to equipment* that contains or contacts 5% by weight HAP or greater and operates 300 hour per year or more [40 CFR 63.1410]. Equipment in vacuum service is excluded from the leak provisions of the MACT [40 CFR 63.1019(c)]. Vacuum service is defined as at least 5 kilopascals (approximately 20 in. W.C.) below ambient pressure. Lines and equipment not containing process fluids are also excluded from the leak provisions of the NESHAP. Utilities, and other non-process lines, such as heating and cooling systems that do not combine their materials with those in the processes they serve, are not considered to be part of a process unit or affected facility [40 CFR 63.1019(e)].

* “Equipment” is defined in 63.1402 as each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrument system in organic HAP service, and control devices or systems.

See Conditions 105 and 106 for Monitoring Requirements.

103. **Applicable Requirement:** The leak provisions apply to equipment within the confines of the resin plant and only pertain to the users of phenol, formaldehyde, methanol and triethylamine. By no later than January 21, 2003, the permittee must identify the equipment covered by this standard, 40 CFR 63.1022(a). At a minimum, the leak detection program requires monthly visual, audible or sensory monitoring. (The equipment identification requirements set forth in this conditions were satisfied with the submittal of the Leak Detection and Repair Plan, received January 21, 2003). NOTE: The LDAR plan is under revision and will be submitted prior to February 15, 2014.

See Conditions 105 and 106 for Monitoring Requirements.

104. **Applicable Requirement:** The emission limitations set forth in 40 CFR 63 Subpart UU apply at all times except during periods of non-operation of the affected source (or specific portion thereof).

See Conditions 105 and 106 for Monitoring Requirements.

105. **Monitoring for Conditions 102, 103, and 104:** The permittee must identify all applicable equipment, routinely monitor for leaks, and repair any leaks within 15 days of detection unless qualifying for an extension of repair under Subpart UU. The permittee must prepare and submit to DEQ by January 21, 2003, a Leak Detection and Repair Plan that identifies the applicable equipment and monitoring, repair, recordkeeping and reporting requirements, in compliance with 40 CFR 63 Subpart UU. The Leak Detection and Repair Plan must be annually updated beginning on February 15, 2004.

106. Monitoring for Conditions 102, 103, and 104: The permittee must prepare a written program that describes any unsafe or difficult-to-monitor device, 40 CFR 63.1022(c)(4). Records must be maintained for all monitoring schedules, inspections, leak detection results, repair delays and information evidencing leak repair, 40 CFR 63.1038(c). Records demonstrating that the inspections, leak detection and repairs have been completed must be maintained for a period of 5 years. 40 CFR 63.998(d)(1).

Subpart OOO Reporting Requirements

107. The permittee must submit four (4) copies of the reports required by Condition 108. Three copies of each report must be submitted to the regional office, and one copy to the EPA. All instances of deviations from permit requirements must be clearly identified in such reports: [OAR 340-218-0050(3)(c)(A) and 340-218-0080(6)(d)]
108. The permittee must submit Periodic Reports (semiannual reports due on February 15 and July 31 of each year). These reports must include the following: [OAR 340-214-0114]
- 108.a. a certification of the compliance status with the resin plant NESHAP;
 - 108.b. a certification of the compliance status with the closed vent system NESHAP, 40 CFR Part 63 Subpart SS;
 - 108.c. a certification of the compliance status with the equipment leak MACT, 40 CFR Part 63 Subpart UU;
 - 108.d. If noncompliance issues are noted, a description of the noncompliance and corrective action must be attached;
 - 108.e. The February 15 report must also include a statement of annual controlled and uncontrolled VOC emissions from the resin plant. A worst case analysis has been substituted to DEQ. Uncontrolled emissions are 3.6 tpy at plant capacity of 1×10^8 lbs/yr. If plant capacity is increased, a new analysis must be performed. If uncontrolled VOC emissions exceed 10 tpy, the permittee must include data to show compliance with the requirements associated with a large control device.

RECIPROCATING INTERNAL COMBUSTION ENGINE (RICE) NESHAP (40 CFR PART 63 SUBPART ZZZZ)

109. A compression ignition generator is used to provide emergency power to the resin plant. The 380 BHp generator operates on diesel fuel. The unit was installed in 1980 but its use has not been required. It is serviced annually and tested quarterly, typically with 1 hour test runs. The unit is equipped with an hour meter. The following AP-42 emission factors are available for this equipment: Aggregated TOC: 0.0025 lbs/hp-hr, NO_x: 0.031 lbs/hp-hr, CO: 0.00668 lbs/hp-hr, SO₂: 0.00205 lbs/hp-hr, PM₁₀: 0.00220 lbs/hp-hr. Based on 50 hours of use per year emissions are: TOC = 48 lbs/yr, NO_x = 127 lbs/yr, SO₂ = 39 lbs/yr and PM₁₀ = 42 lbs/yr.
110. The permittee must comply with the applicable provisions of 40 CFR Part 63 Subpart ZZZZ.

BOILER AND PROCESS HEATER

111. The permittee must comply with the applicable provisions of 40 CFR Part 63 Subpart DDDDD.

Production-Related Emission Factors

112. This table includes the factors to be used to calculate emissions from the production line.

Product Number	VOC (lbs/MSF)	NOx (lbs/MSF)	CO (lbs/MSF)	VOC* Applied (lbs/gal-H ₂ O)	Solids Applied (lbs/MSF)	HAPs *Applied (lbs/lb solids)	HAPs Emitted (wt % of solids)
3303	0.514	0.085	0.050	3.61	24	0.70	2.1
3304	0.423	0.068	0.050	3.30	23	0.59	1.8
3307	0.2263	0.042	0.050	3.87	10	0.82	2.5
3313	0.562	0.093	0.050	3.69	25	0.74	2.2
3323	0.544	0.114	0.050	3.36	29	0.60	1.8
3324	0.480	0.100	0.050	3.39	25	0.62	1.8
3328	0.257	0.254	0.050	3.36	14	0.60	1.8
3329	0.299	0.061	0.050	3.14	18	0.53	1.6
3333	0.504	0.016	0.050	3.29	28	0.58	1.7
3336	0.66	0.022	0.050	3.45	34	0.63	1.9
3339	0.335	0.009	0.050	3.57	16	0.68	2.0
3340	0.442	0.096	0.050	3.33	24	0.59	1.8
3348	0.436	0.063	0.050	3.97	16	0.88	2.6
3349	0.370	0.054	0.050	3.68	16	0.74	2.2
3350	0.256	0.041	0.050	3.53	12	0.67	2.0
3355	0.050	0.007	0.050	1.19	10	0.13	0.4
3369	0.585	0.121	0.050	3.44	30	0.63	1.9
3398	0.371	0.081	0.050	2.83	27	0.44	1.3
3533	0.193	0.031	0.080	4.18	6	0.99	3.0
3534	0.415	0.067	0.050	4.68	10	1.38	4.1
4001	0.540	0.086	0.050	3.39	31	0.57	1.7
4002	1.109	0.179	0.050	3.57	61	0.60	1.8
4003	0.430	0.068	0.050	3.64	21	0.66	2.0
4004	0.972	0.158	0.050	3.75	49	0.65	2.0
4007	0.532	0.085	0.050	3.47	30	0.58	1.7
4050	0.076	0.040	0.050	2.26	8	0.26	0.8
4072	0.531	0.086	0.050	3.99	22	0.77	2.3
4074	0.137	0.021	0.050	3.45	7	0.56	1.7
4077	0.015	0.000	0.050	0.53	4	0.03	0.1
4098	0.605	0.121	0.050	3.07	40	0.50	1.5
4312	0.243	0.006	0.050	3.34	14	0.54	1.6

*Uncontrolled rates, RTO is assumed to have a DRE of 97%

The factors in this table are based material balance calculations with the amount and type of coating used for each product produced. Background information was submitted to support these numbers through material balance calculations and is considered Confidential Business Information by the permittee. If any product formulation changes or a new product is introduced, the permittee must submit calculations, with background data to support proposed factors, for department approval.

NON-APPLICABLE REQUIREMENTS

113. State and Federal air quality requirements (e.g., rules and regulations) currently determined not applicable to the permittee are listed below along with the reason for the non-applicability: [OAR 340-218-0110]

<u>Applicable Requirement</u>	<u>Reason Code</u>	<u>Applicable Requirement</u>	<u>Reason Code</u>	<u>Applicable Requirement</u>	<u>Reason Code</u>	<u>Applicable Requirement</u>	<u>Reason Code</u>
Division 202		0100	B	0500-0520	E	Division 264:	
all rules	I	Division 228:		0600-0630	B	0100-0120	D
Division 206		0100	F	Division 244:		0140-0170	D
0040	I	0120	F	0100	H	Division 266:	
0060	I	0200	F	0200	B	All rules	B
0070	I	Division 230:		Division 256:		40 CFR	
Division 208		All rules	E	0130	B	Part 55	B
		Division 232:		0140	B	Part 57	B
		0040	B	0200	B	Part 60, except subparts A, and appendixes	B
0570	E	0080-0140	B	0210	B	Part 61, except subpart A, M, and appendixes	B
		0170-0230	B	0300	B	Part 62 except subparts A, and MM	L
Division 210:		Division 234:		0310	B	Part 63, except subpart A, SS, UU, OOO, JJJJ and DDDDD	B
0100-0120	B	All rules	E	0440	B	Part 72 through 78	B
Division 216:		Division 236:		Division 258:		Part 82, except subpart F	B
0056	B	All rules	B	0110-0130	B	Part 85 through 89	B
0060	B	Division 238:		0160-0300	B	Section 129 of the FCAA, Solid Waste	B
0064	B	0060-0080	B or E	0400	B	Section 183(e) of the FCAA, Consumer and Commercial Products	B
0070	B	Division 240:		Division 260:		Section 183(f) of the FCAA, Tank Vessels	B
		All rules	C	All rules	B		
Division 218:		Division 242:		Division 262:			
0090	B	0010-0290	L	All rules	B		

Reason code definitions:

- A this pollutant is not emitted by the facility
- B the facility is not in this source category
- C the facility is not in a special control/nonattainment area
- D the facility is not in this county
- E the facility does not have this emissions unit
- F the facility does not use this fuel type
- G the rule does not apply because no changes have been made at the facility that would trigger these procedural requirements
- H this method/procedure is not used by the facility
- I this rule applies only to DEQ and regional authorities
- J. there are no emissions units with add-on control devices or the pre-controlled potential emissions are less than 100 tons per year or the emissions units with add-on control devices and pre-controlled emissions greater than 100 tons per year are subject to emissions standards promulgated after November of 1990
- K the source entered into a Mutual Agreement and Order, which in part exempted the facility from the Employee commute Option rules in exchange for a VOC baseline reduction
- L the facility does not meet size and geographical requirements to be applicable to this requirement

GENERAL CONDITIONSG1. General Provision

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

G2. Reference materials

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

- a. Source Sampling Manual; April 16, 2015 - State Implementation Plan Volume 3, Appendix A4;
- b. Continuous Monitoring Manual; April 16, 2015 - State Implementation Plan Volume 3, Appendix A6; and
- c. All state and federal regulations as in effect on the date of issuance of this permit.

G3. Applicable Requirements [OAR 340-218-0010(3)(b)]

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

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

- a. The permittee must comply with all conditions of this permit. Any permit condition noncompliance constitutes a violation of the Federal Clean Air Act and/or state rules and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application. Any noncompliance with a permit condition specifically designated as enforceable only by the state constitutes a violation of state rules only and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application.
- b. Any schedule of compliance for applicable requirements with which the source is not in compliance at the time of permit issuance is supplemental to, and must not sanction noncompliance with the applicable requirements on which it is based.

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

G5. Masking Emissions:

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

G6. Credible Evidence:

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

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

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

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

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

G9. Asbestos [40 CFR Part 61, Subpart M (federally enforceable), OAR Chapter 340-248-0004 through 340-248-0180 (state-only enforceable) and 340-248-0205 through 340-248-0280]

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

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

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

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

- a. Compliance with the conditions of the permit is deemed compliance with any applicable requirements as of the date of permit issuance provided that:
 - i. Such applicable requirements are included and are specifically identified in the permit, or
 - ii. DEQ, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

- b. Nothing in this rule or in any federal operating permit alters or affect the following:
- i. The provisions of ORS 468.115 (enforcement in cases of emergency) and ORS 468.035 (function of department);
 - ii. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
 - iii. The applicable requirements of the national acid rain program, consistent with section 408(a) of the FCAA; or
 - iv. The ability of DEQ to obtain information from a source pursuant to ORS 468.095 (investigatory authority, entry on premises, status of records).
- c. Sources are not shielded from applicable requirements that are enacted during the permit term, unless such applicable requirements are incorporated into the permit by administrative amendment, as provided in OAR 340-218-0150(1)(h), significant permit modification, or reopening for cause by DEQ.

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

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

- a. Enter upon the permittee's premises where an Oregon Title V Operating Permit program source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under conditions of the permit;
- c. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- d. As authorized by the FCAA or state rules, sample or monitor, at reasonable times, substances or parameters, for the purposes of assuring compliance with the permit or applicable requirements.

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

The permittee must pay an annual base fee and an annual emission fee for particulates, sulfur dioxide, nitrogen oxides, and volatile organic compounds. The permittee must submit payment to the Department of Environmental Quality, Financial Services-Revenue Section, 700 NE Multnomah St., Suite 600, Portland, OR 97232, within 30 days of the date DEQ mails the fee invoice or August 1 of the year following the calendar year for which emission fees are paid, whichever is later. Disputes must be submitted in writing to DEQ. Payment must be made regardless of the dispute. User-based fees will be charged for specific activities (e.g., computer modeling review, ambient monitoring review, etc.) requested by the permittee.

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

- a. The permittee must monitor for, and record, any off-permit change to the source that:
 - i. Is not addressed or prohibited by the permit;
 - ii. Is not a Title I modification;
 - iii. Is not subject to any requirements under Title IV of the FCAA;
 - iv. Meets all applicable requirements;
 - v. Does not violate any existing permit term or condition; and

- vi. May result in emissions of regulated air pollutants subject to an applicable requirement but not otherwise regulated under this permit or may result in insignificant changes as defined in OAR 340-200-0020.
 - b. A contemporaneous notification, if required under OAR 340-218-0140(2)(b), must be submitted to DEQ and the EPA.
 - c. The permittee must keep a record describing off-permit changes made at the facility that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those off-permit changes.
 - d. The permit shield of Condition G11 does not extend to off-permit changes.
- G15. Section 502(b)(10) Changes to the Source [OAR 340-218-0140(3)]
- a. The permittee must monitor for, and record, any section 502(b)(10) change to the source, which is defined as a change that would contravene an express permit term but would not:
 - i. Violate an applicable requirement;
 - ii. Contravene a federally enforceable permit term or condition that is a monitoring, recordkeeping, reporting, or compliance certification requirement; or
 - iii. Be a Title I modification.
 - b. A minimum 7-day advance notification must be submitted to DEQ and the EPA in accordance with OAR 340-218-0140(3)(b).
 - c. The permit shield of Condition G11 does not extend to section 502(b)(10) changes.
- G16. Administrative Amendment [OAR 340-218-0150]
- Administrative amendments to this permit shall be requested and granted in accordance with OAR 340-218-0150. The permittee must promptly submit an application for the following types of administrative amendments upon becoming aware of the need for one, but no later than 60 days of such event:
- a. Legal change of the registered name of the company with the Corporations Division of the State of Oregon, or
 - b. Sale or exchange of the activity or facility.
- G17. Minor Permit Modification [OAR 340-218-0170]
- The permittee must submit an application for a minor permit modification in accordance with OAR 340-218-0170.
- G18. Significant Permit Modification [OAR 340-218-0180]
- The permittee must submit an application for a significant permit modification in accordance with OAR 340-218-0180
- G19. Staying Permit Conditions [OAR 340-218-0050(6)(c)]
- Notwithstanding Condition G16 and G17, the filing of a request by the permittee for a permit modification, revocation and re-issuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

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

The permittee must obtain approval from DEQ prior to construction or modification of any stationary source or air pollution control equipment in accordance with OAR 340-210-0200 through OAR 340-210-0250.

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

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

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

The need to halt or reduce activity shall not be a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

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

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

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

- a. The permit may be modified, revoked, reopened and reissued, or terminated for cause as determined by DEQ.
- b. A permit shall be reopened and revised under any of the circumstances listed in OAR 340-218-0200(1)(a).
- c. Proceedings to reopen and reissue a permit must 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.

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

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

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

- a. This permit expires at the end of its term, unless a timely and complete renewal application is submitted as described below. Permit expiration terminates the permittee's right to operate.
- b. Applications for renewal must be submitted at least 12 months before the expiration of this permit, unless DEQ requests an earlier submittal. If more than 12 months is required to process a permit renewal application, DEQ must provide no less than six (6) months for the owner or operator to prepare an application.
- c. Provided the permittee submits a timely and complete renewal application, this permit will remain in effect until final action has been taken on the renewal application to issue or deny the permit.

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

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

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

The permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations, except as provided in OAR 340-218-0110.

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

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

ALL INQUIRIES SHOULD BE DIRECTED TO:

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

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

Arclin Surfaces, Portland Division
2301 N. Columbia Blvd.
Portland, OR 97217

Source Information:

SIC	2641
NAICS	235211 221330

Source Categories (Part and code)	
-----------------------------------	--

Compliance and Emissions Monitoring Requirements:

Unassigned emissions	
Emission credits	
Compliance schedule	
Source test [date(s)]	Once per permit cycle

COMS	
CEMS	
Ambient monitoring	

Reporting Requirements

Annual report (due date)	2/15
Emission fee report (due date)	2/15
SACC (due date)	8/30
Quarterly report (due dates)	

Monthly report (due dates)	
Excess emissions report	Y
Other reports	

Air Programs

NSPS (list subparts)	
NESHAP (list subparts)	OOO, JJJJ, ZZZZ, DDDDD
CAM	Y
Regional Haze (RH)	
Synthetic Minor (SM)	
Part 68 Risk Management	Y
CFC	
RACT	Y
TACT	

Title V	Y
ACDP (SIP)	
Major HAP source	
Federal major source	
NSR	
PSD	
Acid Rain	
Clean Air Mercury Rule (CAMR)	

TABLE OF CONTENTS

PERMITTEE IDENTIFICATION3

MAJOR APPLICABLE REQUIREMENTS3

FACILITY DESCRIPTION3

PRIOR APPROVED CONSTRUCTION.....5

EMISSION UNIT AND POLLUTION CONTROL DEVICE IDENTIFICATION5

EMISSION LIMITS AND STANDARDS8

PSEL AND RACT10

HAZARDOUS AIR POLLUTANTS15

NESHAP SUBPART OOO16

NESHAP SUBPART JJJJ34

NESHAP SUBPART DDDDD34

MONITORING REQUIREMENTS34

TEST METHODS AND PROCEDURES.....36

RECORDKEEPING REQUIREMENTS36

REPORTING REQUIREMENTS37

GENERAL BACKGROUND INFORMATION.....37

This permit review report supplements the Title V Administrative Amendment by including pertinent background information such as facility description, source's compliance history, emissions data, applicable rules and policies, and theories and engineering assumptions used to construct the permit. While the permit and not the review report is the legal document used by the permittee and DEQ for compliance determination, this review report contains the permit background information which directly came from the application submitted and certified by the permittee to be true, accurate, and complete. If information supplied by the permittee, contained in this review report or in the application, are later determined to be false, it is the permittee's duty to supplement or correct the information upon becoming aware of any such false information.

PERMITTEE IDENTIFICATION

1. Arclin Surfaces, LLC, Portland Division owns and operates an overlay manufacturing facility in an industrial area located at 2301 N. Columbia Blvd., Portland Oregon.

MAJOR APPLICABLE REQUIREMENTS

2. This Title V permit renewal addresses the following major applicable requirements:
 - a. Visible emission limitations
 - b. Fugitive emission limitations
 - c. Source emission reduction plan
 - d. Risk management plan
 - e. Liquid storage Reasonable Available Control Technology (RACT)
 - f. Grain loading limitations
 - g. Process weight limitations
 - h. NESHAPS: Maximum Achievable Control Technology for Manufacture of Amino/Phenolic Resin
 - i. NESHAPS: Maximum Achievable Control Technology for Paper and other Web Coating
 - j. NESHAPS: Maximum Achievable Control Technology for Reciprocating Internal Combustion Engines
 - k. NESHAPS: Maximum Achievable Control Technology for Boilers and Process Heaters
 - l. Fuel oil sulfur limitations
 - m. Plant Site Emission Limits
 - n. Paper coating RACT
 - o. Compliance Assurance Monitoring
 - p. Monitoring and reporting requirements

FACILITY DESCRIPTION

3. Arclin Surfaces LLC manufactures resin coated paper (overlays) for use in value added products for various substrates. These overlays are produced from various grades of paper which are saturated and/or coated with different resins to produce sheets or rolls of overlay for shipment to industrial customers. Types of overlay can include: High Density Overlay (HDO), Medium Density Overlay (MDO), Oriented Strandboard (OSB) overlay, Industrial overlay, Phenolic Surface Film (PSF) and Corestock (CS). Each of these types can be manufactured in a variety of grades. Currently, Arclin manufactures numerous types and grades of products, each of which emit different levels of volatile organic compounds (VOCs) and hazardous air pollutants (HAPs).

There is one production line at the site. Lines 1 and 2 have been permanently shut down and equipment removed from site. The one coating line, formerly known as Line 3, produces highly engineered overlays.

The facility is subject to Reasonably Available Control Technology (RACT) and has installed a REECO regenerative thermal oxidizing unit (RTO) on the process line. The unit is fitted with an energy recovery system. The system provides both primary energy recovery (i.e. preheating of RTO inlet air) and secondary energy recovery (i.e. return of RTO exhaust to process). The RTO controls all exhaust stacks from the coating process.

Arclin also manufactures resins and glues used in the overlay process. Resin and glue manufacturing includes liquid and dry chemical storage and transfer and mixing operations. There are several storage tanks at the facility containing materials with VOC and HAP constituents. The raw materials are stored in bulk and tanks. Raw materials are transferred to resin and glue preparation areas, where the materials are mixed and cooked. The final resin products are then stored again before use in the overlay operations. All storage, transfer, and mixing operations are potential points of VOC and HAP emissions. The resin specifications and mix chemicals added to resins are proprietary. Records of total raw material use are available; however, usage levels are confidential business information and specific mixes for each tank are not disclosed. There are also dry pigments used in some of the resin mixtures. The dry material mixing area includes a small dust collector for particulate control.

The phenolic resin manufacturing unit is subject to the National Emission Standard for Hazardous Air Pollutants, Manufacture of Amino/Phenolic Resins, 40 CFR Part 63 Subpart OOO. All VOC and HAP emissions from the resin plant, with the exception of emissions from some SSM episodes, are collected and routed to a regenerative thermal oxidizer, which has an overall destruction efficiency in excess of 83% as required by 40 CFR Part 63 Subpart OOO.

The "affected source" regulated by 40 CFR Part 63 Subpart JJJJ is the collection of all coating lines at the facility. [40 CFR 63.3300]. Arclin is considered an existing source and has chosen to comply with Subpart JJJJ on and after December 5, 2005, by limiting HAP emissions to no more than 20 percent of the mass of coating solids applied for each month [40 CFR 63.3320(b)(3)]. This limit is applicable at all times when in operation other than during Startup, Shutdown, and Malfunction (SSM) episodes. During an SSM episode Arclin must follow the SSM plan. An SSM episode only applies to the specific equipment impacted by the episode.

The RTOs must be tested to establish a destruction efficiency (DE). The source test must be conducted in accordance to 40 CFR 63.3360(e). During the source test Arclin must monitor and record the combustion temperature in the firebox of the RTO. The monitored temperatures will be averaged to establish a minimum operating temperature for the RTO. Arclin must install, calibrate, maintain, and operate temperature monitoring equipment on the RTOs to ensure that the unit maintains the DE measured during the test. The temperature indicator must be verified every 3 months or the indicator must be replaced. The equipment must have an accuracy of ± 1 percent of the temperature being monitored.

Arclin may determine VOC/HAP capture efficiency for the Coating Line using Section 6 of EPA Method 204 part 51, appendix M for permanent total enclosure. Methods 204 and 204 through F of 40 CFR Part 51, appendix M may be used for temporary total enclosures. Never controlled work stations do not need to be included in the test. Capture efficiency protocol and test methods that satisfy the criteria of either the Data Quality Objective or the Lower Confidence Limit approach as described in appendix A of 40 CFR Part 63 Subpart KK may be used to determine capture efficiency. Arclin must develop a site specific monitoring plan for each capture system.

Compliance with the emission limitation of Subpart JJJJ is determined through source testing of RTO R1 for destruction efficiency, testing the capture efficiency for the coating line, computing monthly percentage of HAP emissions per unit of solids applied, and continuously monitoring RTO operating temperatures and capture efficiency operating parameters

Unused resins and mixes from the facility process (resin manufacturing and paper coating operations) are transferred to the facility evaporation area. Most of the excess material is generated at the coating lines when the lines are flushed and excess coating is transferred to drums. Most of the excess coating is recycled through blending and reuse in other resin formulations. Material that cannot be recycled is evaluated and that which is considered hazardous is disposed of as hazardous waste. Non-hazardous materials are sent to the evaporator area for processing. Drums are then placed in the evaporator vats. Some waste is also generated during the resin manufacturing process, although this is minimal due to closed systems. Water and volatiles are evaporated from the resins to solidify the material. The final solidified resin is transferred off-site for disposal as non-hazardous industrial waste. Arclin is continuously investigating the possibility of using these materials.

The evaporator slab is a concrete containment area where non-hazardous wastes from the resin manufacturing and paper treating processes are reduced in volume and solidified in accordance with waste minimization procedures. The evaporators consist of plate and frame, steam-heated cells that are manually charged with liquid wastes from drums or bulk holding tanks. Resin distillate, non-recyclable resin mixes and storm water are sent to the evaporators for processing. These materials are transferred to the cells and steam is applied to the plates. Heating continues until a solid residue remains. The heating volatilizes water and VOCs and polymerizes phenolic resin into an inert solid. The solids are manually scraped from the cells and transferred to drop boxes for off-site disposal. Due to the design of the evaporators, the low concentrations of VOC in the vapor phase, and the high moisture content of the vapor it is impractical to recover the VOCs from the evaporate. Hazardous wastes, or liquids that are not compatible with the evaporator process, are segregated and disposed of at approved facilities. ***Arclin submitted a notice of intent to construct (NC #27484 received 9/16/2013) a replacement for the evaporator slab with a more efficient mechanical evaporator unit. The replacement will be an Encon N33V1-96 Evaporator.***

A reciprocating internal combustion engine on the emergency generator is subject to 40 CFR Part 63 Subpart ZZZZ.

PRIOR APPROVED CONSTRUCTION

4. Under a previously issued Construction ACDP (issued 8/4/2011 and incorporated into the Title V permit as an administrative amendment on 2/22/2012), Arclin installed new equipment to replace existing driers and coating heads that no longer met the safety and fire codes, were failing and were no longer supported by the manufacturer. This construction included:
 - a. Replace both the upper and lower dryers with new units built to code, with all shortcomings of existing equipment rectified. The new dryers will have low-NOx burners mounted exterior to, but ducted into the dryers, and have all air entering the dryers heated prior to mixing with internal fumes. This will alleviate condensation of fumes inside the dryers and reduce the risk of fire or explosion due to lame contact with solvent vapors. The replacement will also have explosion vents for the bottom dryers. Exhaust air from the Reeco oxidizer will be returned to the process at a higher rate to reduce fuel demand. Other benefits include more uniform drying and better dryer control resulting in improved product quality. The dryer exhaust will continue to discharge to the existing Reeco regenerative thermal oxidizer (RTO). Inlet flows to the RTO will remain unchanged.
 - b. Repair or modify the existing primer coater, located at the in feed to the upper drier, to improve coating uniformity. Improve the coater hood and route exhaust to the RTO via the dryer.
 - c. Replace the existing sheet stacker to eliminate safety hazards with the current design. (Not a source of emissions.)
 - d. Replace the outdated scanners which measure paper and coating weights and control coating application. The new controls are intended to improve coating uniformity. (Not a source of emissions)
5. Actual emissions of all criteria pollutants did not increase due to the construction. No increase in emissions was allowed. A construction permit was required because of the significant netting action taking place regarding VOC emissions. The total cost associated with the equipment replacement was calculated to be about 30% of the replacement cost, so the facility is still subject to the existing-source NESHAP requirements.
6. This is a renewal for the existing Title V permit that was last renewed on 2/12/2010, amended on 2/22/2012 to incorporate the Construction ACDP, and scheduled to expire on 7/1/2014. The Title V renewal application was received on 6/23/2013, so the existing Title V permit will remain in force until final action is taken on the renewal application.

EMISSION UNIT AND POLLUTION CONTROL DEVICE IDENTIFICATION

7. Emission units identified in this permit are grouped with respect to the common applicable requirements and the associated monitoring protocols. Emission units identified in this permit do not necessarily represent physical structures; but rather they represent similar operations and/or activities conducted at the Arclin facility that share common applicable requirements and monitoring.

The emission units are broken into five basic groups, two of which are broken into sub groups. The first group consists of Methanol Storage Tank (ST-23), EU-1. This emission unit is subject to RACT for Liquid Storage.

Group two, EU-2, currently consists of one coating line. The coating line (EU-2) has a wet end exhaust, dry end exhaust and two oven exhausts all of which are routed to RTO, R1.

Group three, EU-3 consists of miscellaneous emission points. EU-3 is broken into the following emission groups: evaporator slab coating line component (EU-3esc), evaporator slab noncoating line component (EU-3esnc), cleanup (EU-3cu), and tanks other than Methanol Storage Tank, ST-23, (EU-3t). EU-3r consists of the resin plant. RTO (R4) has been installed on the resin plant to satisfy the Amino/Phenolic Resin MACT (40 CFR Part 63, Subpart 000).

Group four, EU-4, consists of two sub groups: The main boiler, B1, (EU-4B1), and the standby boiler, B2, (EU-4B2).

Group five, EU-AIA, consists of Aggregate Insignificant Activities.

In summary, the emissions units regulated by this permit are grouped as follows:

Emissions Unit	EU ID	Pollution Control Device	PCD ID
Methanol Storage Tank, ST-23	EU-1	Floating roof	NA
Coating Line (1)	EU-2	RTO	R1
Evaporator Slab, coating line component (2)	EU-3esc	None	NA
Evaporator Slab, noncoating line component (2)	EU-3esnc	None	NA
Cleanup (3)	EU-3cu	None	NA
Storage tanks excluding EU-1 (4)	EU-3t	None	NA
Resin manufacturing, handling and transfer (5)	EU-3r	RTO	R2
Main Boiler, B1 (6)	EU-4B1	None	NA
Standby Boiler, B2 (7)	EU-4B2	None	NA
Aggregate Insignificant Activities	EU-AIA	None	NA
Emergency Generator	EU-5	None	NA

- (1) The Coating Line includes wet end, ovens and dry end emissions. PCD designation changed from R3 to R1 in this permit renewal for simplification.
- (2) The evaporator slab is used to evaporate water and solvent from coating/saturant/prime coat waste, cleanup waste, and waste from the resin production plant. The coating line component is considered a separate emission unit from the cleanup component so the coating line component can be added to the Emission Unit 2 RACT compliance calculation.
- (3) Cleanup includes use of solvent to clean equipment, filters, etc. Cleanup solvents are reclaimed, sent for disposal, or sent to the evaporator slab, but emissions are accounted for separately because they are not subject to RACT.
- (4) All storage tanks excluding Methanol Storage Tank (ST-23). All resin plant reactor vessels and associated staging and dilution tanks and distillate receivers are included in the collection system to RTO (R4) and are considered part of EU-3r.

<u>Tank ID</u>	<u>Contents</u>	<u>Installed</u>
ST-5	NaOH	
ST-14	Not in Service	1956
ST-15	Not in Service	1956
ST-18	Glycol Ether PM	1956
ST-19	Containment Tank	1956
ST-31	Removed	1974
ST-32	Phenol	1974
ST-35	Removed	1956
ST-36	Removed	1956
ST-37	Removed	1978
ST-38	Phenol backup	1978
ST-40	Formaldehyde	2011
ST-44	PF Resin (Staging for shipment)	1984
ST-45	Triethylamine	1984

Resin storage tanks

Mix room tanks

- (5) Resin manufacturing includes liquid chemical storage, staging and dilution tanks, distillate receivers, and the manufacturing process. Resin manufacturing process converts volatile formaldehyde and phenol to non-volatile high molecular weight phenolic resin molecules. PCD designation changed from R4 to R2 in this permit renewal for simplification.
 - (6) Main Boiler: Natural gas fired (diesel backup) Combustion Engineering boiler, installed in 1974, with a rated capacity of 25 million Btu/hr, used for manufacturing purposes.
 - (7) Stand By Boiler: Natural gas fired Cleaver Brooks boiler, installed in 1989, with a rated capacity of 5.9 million Btu/hr, used for manufacturing purposes.
8. Arclin has identified the following categorically insignificant activities:
- Constituents of a chemical mixture present at less than 1% by weight of any chemical or compound regulated under Divisions 20 through 32 of this chapter, or less than 0.1% by weight of any carcinogen listed in the U.S. Department of Health and Human Service's Annual Report on Carcinogens when usage of the chemical mixture is less than 100,000 pounds/year
 - Evaporative and tail pipe emissions from on-site motor vehicle operation
 - Distillate oil, kerosene, and gasoline fuel burning equipment rated at less than or equal to 0.4 million Btu/hr natural gas and propane burning equipment rated at less than or equal to 2.0 million Btu/hr
 - Natural gas and propane burning equipment rated at less than or equal to 2.0 million Btu/hr
 - Office activities
 - Food service activities
 - Janitorial activities
 - Personal care activities
 - Groundskeeping activities including, but not limited to building painting and road and parking lot maintenance
 - Instrument calibration
 - Maintenance and repair shop
 - Automotive repair shops or storage garages
 - Air cooling or ventilating equipment not designed to remove air contaminants generated by or released from associated equipment
 - Refrigeration systems with less than 50 pounds of charge of ozone depleting substances regulated under Title VI, including pressure tanks used in refrigeration systems but excluding any combustion equipment associated with such systems
 - Bench scale laboratory equipment and laboratory equipment used exclusively for chemical and physical analysis, including associated vacuum producing devices but excluding research and development facilities
 - Temporary construction activities
 - Warehouse activities
 - Accidental fires
 - Air vents from air compressors
 - Air purification systems
 - Continuous emission monitoring vent lines
 - Electrical charging stations
 - Instrument air dryers and distribution
 - Process raw water filtration systems
 - Routine maintenance, repair, and replacement such as anticipated activities most often associated with and performed during regularly scheduled equipment outages to maintain a plant and its equipment in good operating condition, including but not limited to steam cleaning, abrasive use, and woodworking electric motors
 - Storage tanks, reservoirs, transfer and lubricating equipment used for ASTM grade distillate or residual fuels, lubricants, and hydraulic fluids
 - On-site storage tanks not subject to any New Source Performance Standards (NSPS), including underground storage tanks (UST), storing gasoline or diesel used exclusively for fueling of the facility's fleet of vehicles
 - Natural gas, propane, and liquefied petroleum gas (LPG) storage tanks and transfer equipment

- Pressurized tanks containing gaseous compounds
 - Fire suppression and training
 - Emissions from wastewater discharges to publicly owned treatment works (POTW) provided the source is authorized to discharge to the POTW, not including on-site wastewater treatment and/or holding facilities
 - Storm water settling basins
 - Paved roads and paved parking lots within an urban growth boundary
 - Hazardous air pollutant emissions of fugitive dust from paved and unpaved roads except for those sources that have processes or activities that contribute to the deposition and entrainment of hazardous air pollutants from surface soils
 - Health, safety, and emergency response activities
 - Non-contact steam vents and leaks and safety and relief valves for boiler steam distribution systems
 - Non-contact steam condensate flash tanks
 - Non-contact steam vents on condensate receivers, deaerators and similar equipment
 - Boiler blowdown tanks
 - Industrial cooling towers that do not use chromium-based water treatment chemicals
 - Oil/water separators in effluent treatment systems
 - Combustion source flame safety purging on startup
9. The steam press previously located east of line 2 and identified as an Aggregate Insignificant Activity for VOC emissions has been permanently shut down and removed.
10. The facility does not have any significant active cyclones.
11. The facility currently does have a small parts degreaser that is rarely used and included in EU-AIA. Permit Conditions applicable to Insignificant Activities includes a limit on parts/tool cleaning equipment in accordance with OAR 340-232-0180. This condition may allow for the addition of a small parts/tool cleaning device if needed.
12. Potential VOC emissions from the resin plant are estimated to be below 4 tons per year before controls and below 0.9 tons per year after controls. VOC emissions from the resin plant are included in the PSEL emission calculations as a one ton per year constant.
13. This permit does not limit "aggregate insignificant activities" to only those currently identified in the permit application. Instead, the permit aggregate limits reflect the rule limits, as defined in OAR 340-200-0020. The rules allow the permittee to add more categorically insignificant activities to their existing list, and similarly, the permittee may add more insignificant activities to their existing aggregate source list, provided the aggregate emissions of any individual (regulated) pollutant do not exceed the aggregate insignificant limit.

EMISSION LIMITS AND STANDARDS

Comments on Specific Rules

14. OAR 340-208-0110 and 340-208-0600 set opacity limits for particulate sources. While it is theoretically possible for the permitted facility to have visible emissions, historically, it has not been a visible emission source. All combustion sources are normally fired on natural gas (NG). The boilers, as currently equipped, can be fired on ASTM #1 or #2 oil as a backup fuel in case of NG curtailment. In normal years oil will be used less than 18 days per year. Source tests are required if oil is used more than 18 days per year. The facility is assumed to be in compliance with opacity limitations when fired on NG. A visible emission survey, EPA Method 22, is required a minimum of once per semiannual monitoring period for all sources. If visible emissions are detected for more than 5% of the survey time, corrective repair and/or Method 9 observations are required dependent upon the specific emission unit.
15. OAR 340-232-0040 requires sources with potential to emit greater than 100 tons of VOC from noncategorical Reasonably Available Control Technology (RACT) emission units to develop source specific RACT limits.

The potential to emit VOC from all noncategorical RACT emission units is less than 100 tons as currently constructed. Therefore, Arclin is not subject to the noncategorical RACT requirement.

16. OAR 340-208-0610 set particulate concentration and mass per process weight limitations. The facility does not have significant particulate emissions from any process other than combustion. Combustion sources are normally fired on NG, but the boilers have the capacity to be fired on ASTM #1 or #2 fuel oil. The ovens and RTOs can only be fired on NG. The use of fuel oil in the boilers is limited to backup fuel for periods of NG curtailment, normally less than 18 days per year. The facility is assumed to be in compliance with these particulate limitations as long as NG is used as a fuel and oil use is limited to 18 or less days per year. Source tests are required to quantify particulate emissions if oil is used as a fuel for more than 18 days in a year.
17. OAR 340-226-0130 requires existing emission units to meet Typically Achievable Control Technology (TACT) if the emission unit is not subject to a specific emission standard, the emission unit has emissions of criteria pollutants equal to or greater than 5 tons of particulate per year or 10 tons of gaseous pollutants per year, and DEQ determines that pollution controls and emission reduction processes do not represent TACT. Emission Units 1 and 2 are subject to source specific standards. Emission Unit 4 consists of boilers which are believed to be operating at TACT.

The evaporator slabs (EU-3esc and EU-3esnc) are open plate and frame pan evaporators. This design is optimal for the removal of polymerized adhesive solids that collect in the evaporators. However, the design makes capture of VOC emissions difficult. In 2007, 314,650 gallons (1,311 tons) of storm water and distillate were reduced in the evaporators. VOC emissions from the slab for 2007 were estimated to be 7.3 tons. The large excess of water makes VOC control difficult and costly. The slab is considered to be operating at TACT. The permittee is required to conduct an annual evaluation to determine if it is practicable to further reduce VOC emissions from the evaporator slab through product substitution or capture and recovery of waste solvents.

ES₃ represents Coating Line 3 VOC emissions from the evaporator slab. These emissions originate from evaporation of excess saturant or coating that cannot be recycled and is not directly disposed of off-site. The values for ES₃ are set by prorating 5 pounds per day based on the daily hours of operation. The 5 pounds per day is based on excess mix volume data recorded in the plant's evaporator report and analytical or process formulation data from the past several years. Emissions from this source are have been zero for the past 7 years, but the 5 pounds per day is maintained to allow for minor use. Prior numbers indicated 53 pounds per day so this is a large improvement.

Cleanup, EU-3cu, procedures have been substantially revised to recapture and reuse cleanup solvents. Storage tanks excluding EU-1 have insignificant VOC emissions. These tanks are considered to be operating at TACT.

The resin plant, EU-3r, is subject to NESHAPS. Emissions from the resin plant are controlled by a RTO, R4. The resin plant is not subject to TACT.

The requirements set forth in the TACT rule are being met.

18. OAR 340-208-0630 limits the concentration of SO₂ from any air contaminant source to less than 1000 ppm. Combustion is the only source of sulfur emission emissions. The rule does not apply when burning NG, and ASTM #1 and ASTM #2 fuel oil meeting the sulfur limitations set forth in permit Condition 41.

PLANT SITE EMISSION LIMITS (PSEL) AND REASONABLE AVAILABLE CONTROL TECHNOLOGY (RACT)Definitions

19. S = Saturant. Saturant is the resin/solvent mix used to saturate the paper used in overlay manufacturing
 C = Coating. Coating is the resin mix used to coat one side of the saturated paper.
 P = Prime coating. Prime coating is the resin mix used to coat the other side of the saturated paper
 X = Product Number. Four major product types have been established for purposes of emission calculations. These include Medium Density Overlay (MDO), Primed MDO (PMDO), Oriented Strand Board (OSB), and Industrial Each product type has similar emission characteristics.
- VOC = Volatile organic compounds.
 E = Emissions
 ES_c = Coating Line VOC emissions emitted from the evaporator slab. These emissions originate from evaporation of excess saturant or coating that cannot be recycled and is not directly disposed of off-site (such as hazardous waste). ES is developed from excess mix volume data recorded in the plant's evaporator report and analytical or process formulation data which establishes the VOC content of the excess mix.
 ES_{NC} = Evaporator slab emissions not associated with cleanup or coating lines. These emissions arise from the treatment of resin manufacturing distillate at the evaporator slab. ES_{NC} is calculated from resin production data indicating the volume of distillate generated and the content of VOC in distillate, by analysis.
 E_T = Total VOC processed in the evaporator slab including cleanup, but excluding emissions associated with paper coating process.
 ES_{CU} = VOC from clean up of treaters or other equipment that is emitted at the evaporators, This does not include VOC from resin distillate or clean up solvent that is disposed of as hazardous waste or reused as solvent for saturant or coating mixes. This emission is generated from data provided in the evaporator report indicating the volume and VOC content of the cleanup solution. = (Total solvent used for cleanup) - (total solvent recycled) - [(total used - total recycled)(DE)(CE for coater and/or saturator hood)]
 E_{Tk} = VOC emissions from tanks. For permitting purposes this has been established as a fixed amount of 8000 ppy and 200 ppd. These amounts have been determined using EPA's "Tanks 2" program and estimated usage of VOCs, at capacity.
 E_{Comb} = Emissions from combustion sources excluding emissions included with the coating line. This is the VOC emission calculated from the amounts of natural gas and fuel oil combusted at the site, using published DEQ emission factors.
 E_R = VOC emissions from the resin plant, EU-3r. These emissions are included in the VOC emission calculation as a constant 1 ton per year.
 SO₂ = Sulfur dioxide.
 NO_x = Nitrogen oxides.
 CO = Carbon monoxide
 EF#VOC = Emissions of VOC from product number (#) in lbs/MSF. This factor includes all VOC attributable to paper coating formulations but excludes emissions due to fuel combustion.
 EF#CO = Emissions of CO from product number (#) in lbs/MSF. This factor includes all CO attributable to paper coating formulations but excludes emissions due to fuel combustion.
 EF#NO_x = Emissions of NO_x from product number (#) in lbs/MSF. This factor includes all NO_x attributable to paper coating formulations but excludes emissions due to fuel combustion.
 V = Volume of saturant, coating or prime coating applied, in gallons.
 K = Volatile organic compound content, in pounds per gallon, as applied.
 EF_{CS} = Corestock non-solvent VOC emission factor = 0.7 pounds of VOC per unit of production. This emission factor was determined by stack sampling and analysis. It estimates non-solvent VOC emissions from corestock production only.
 EF_{NCS} = Non-corestock non-solvent VOC emission factor = 0.2 pounds of VOC per unit of production. This emission factor was determined by stack sampling and analysis. It estimates non-corestock VOC emissions from all overlay production other than corestock.
 EF_{NCS/CS} = Appropriate emission factor, EF_{NCS} or EF_{CS}
 EF_{MDO-CO} = CO emission factor per unit of production of MDO = 1.0 lbs CO/unit of production

- D = Calendar days of line operation. D = 1 for the RACT and daily PSEL calculation
- H_M = Total monthly hours of operation for Line 3
- U = Gross production of product, by product class, in proprietary units.
- U_{NCS2} = Units of production of non-corestock on line 3
- $U_{NCS/CS}$ = Units of production of non-corestock or corestock for Line 3
- U_{MDO} = Units of production of MDO
- Q_1 = Quantity of ASTM #1 oil burned, in thousands of gallons.
- Q_2 = Quantity of ASTM #2 oil burned, in thousands of gallons.
- Q_{NG} = Quantity of natural gas burned in millions of cubic feet (meter reading).
- CE = RTO capture efficiency of solvent volatile organic compounds, expressed as a decimal. The following CE assumed for PSEL and RACT compliance determination.
- $CE_3 = 1.00$
- DE = RTO destruction efficiency of solvent volatile organic compounds, expressed as a decimal.
- “ α ” = Reasonably Available Control Technology for Surface Coating in Manufacturing, paper coating, based on pounds of VOC per gallon of solvent, excluding water and exempt solvents.
- “ β ” = Reasonably Available Control Technology for Surface Coating in Manufacturing, paper coating, based on pounds of VOC per gallon of solids.
- GAL = gallons
- RACT=Reasonably Available Control Technology.
- W = Water and exempt solvent content of saturant, coating or prime coating, by volume fraction, expressed as a decimal.
- NV = Solids content of saturant, coating or prime coating, by volume fraction, expressed as a decimal.
- New Factor = natural gas equivalent for VOC combustion $((\text{VOC destroyed in RTO} \times \text{HHV of Methanol}) / (1.05 \times 10^9 \text{ BTU/MMCuFt NG})) \times 140 \text{ lbs NO}_x / \text{MMCuFt NG}$

The number in the subscript, with the exception of numbers in italics, in the PSEL and RACT compliance formula refer to the coating line.

Emission Assumptions

20. The only significant source of emissions of PM, and SO₂ is the combustion of natural gas, and the combustion of backup fuel, diesel. CO and NO_x are emitted from fuel combustion and from MDO production using H82 resin (via oxidation of solvents in the RTO). The other products do not contain significant amounts of nitrogen.
21. Coating line VOC emissions from solvents are based on a mass balance using the following capture efficiencies (CE): All exhausts from line 3 are controlled by a RTO, R3. The capture efficiency for Line 3 is assumed to be 100%. This is based on a review of the design of the treater (all exhausts are directed to the RTO and the wet end hood is shrouded to improve capture). Additionally, the 1994 EHM stack test detected 100+% of the methanol delivered to the line during the test $((1676.7/1611) \times 100)$.
22. The RTO Line 3 was source tested in October 2005 and April 2009. Test results indicated the following VOC destruction efficiencies (DE):

<u>Line</u>	<u>Test Date</u>	<u>VOC DE</u>
Line 3, RTO, R3	June 2005	91.5
Line 3, RTO, R3	April 2009	99.6
Line 3, RTO, R3	April 2014	98.8

97 percent DE is used in the compliance calculations. OAR 340-232-0160 requires a minimum of 90% DE when using incineration as a RACT compliance method. The proposed permit requires that the RTO be source tested a minimum of once per permit period. NOTE: Since there is only one coating line, “Line 3” is now being referred to as “the coating line” and “RTO R3” has been redesignated “RTO R1”, in the Permit and other portions of the Review Report.

23. VOC emissions from the coating line are composed of three components. The first and largest component comes from solvents. The second component, VOC emissions from resins, is much smaller, normally 4 to 8 tons per year. The resin and solvent components are calculated based on emission factors per unit of production. The resin component cannot be calculated using mass balance procedures because the majority of the VOC remains in the resins. The VOC solvent and resin emission factors were developed based on source test results and product resin composition for each product type. The emission factors were developed using confidential business information about each product's composition and are expressed in terms of pounds of emission per thousand square feet of each product produced. The emission factors are included in the permit for compliance demonstration calculations.

The third component is VOC emissions from the evaporator slab which originate in the coating process. Waste resin is taken to the evaporator slab for solidification. VOC emissions from the evaporator slab generated by the coating line (Emission Unit EU-3esc, ES_3) are included in the coating line emissions (E_{VOC3}) because they are part of the RACT calculation. ES_3 can be determined from the evaporator report, although indirectly and with difficulty. The compliance equation calculates these emissions by assuming that a daily average of 5 pounds of VOC is emitted from the evaporators. Virtually all of the evaporator feed originates at the resin plant or is potentially contaminated water from the tank farm containment area. The ES_3 have nearly been eliminated. For example, a GC/MS volatile analysis of the secondary sump feed to the evaporators performed by Environmental Services Laboratory in 2000 detected only 35.5 mg/L ethanol. Using ½ the detection limit for all undetected volatiles, the total VOC content was estimated to be <5,046 mg/L (0.0029 lbs VOC/gallon). This suggests that the VOC concentration in the evaporator feed may be lower than the figure cited for Review Report Condition 14.

24. Non-coating line evaporator slab VOC emissions, ET, are generated from the plant's evaporator report using the total gallons of each waste stream evaporated, their average densities and the average percent VOC content of each of the 11 waste streams, based on analysis or formulation data. ET is equal to ESCU plus ESNC. ESCU is the VOC from cleanup of treaters or other equipment that is emitted at the evaporators. ESCU does not include VOC from resin distillate or cleanup solvent that is disposed of as hazardous waste or reused as solvent for saturant or coating mixes. This emission is generated from data provided in the evaporator report indicating the volume and VOC content of the cleanup solution. ESNC is the amount of VOC emitted from the evaporator slab that originates from non-coating operations, excluding cleanup. This consists of distillate from the resin plant and small amounts of rainwater. For purposes of this calculation, rainwater is considered to have no VOC content and is evaporated solely as a protective measure to prevent discharge of storm water to the Columbia Slough. ESNC is calculated by measuring the amount of distillate generated at the Resin Production Department. Since the manufacturing procedures for each resin type specify the volume of distillate, estimation of the total distillate volume consists of multiplying the number of resin batches times the volume of distillate specified.

The evaporator slab is not a significant source of particulate or condensable VOC; therefore, the slab is not considered a likely source of visible emissions.

25. VOC emissions from tanks, E_{TK} , are low. An estimated PTE for all VOC tanks shows emissions of 3.2 tpy. A fixed emission rate for E_{TK} of 4.0 tpy is used for compliance determination.
26. Emissions from combustion of natural gas are determined by multiplying Department emission factors times the quantity of natural gas burned.
27. The RTO uses natural gas for startup and primary fuel. However, natural gas usage can be reduced following startup for some products if the VOC content in the RTO inlet is high enough. The CO and NO_x PSEL equations have incorporated emission factors for MDO plus the contribution of natural gas combustion and therefore overestimate MDO emissions of these two pollutants. This permit allows a new calculation method for NO_x emissions based on the volatile nitrogen content of each coating product. It is expected that they result in an overestimation of these emissions.
28. The NO_x calculation has been revised to include solvent combustion with natural gas combustion using AP42 emission factors for natural gas and equating solvent fuel value to natural gas on a BTU-equivalent basis. Emissions from any fuel oil combustion will continue to be calculated using AP42 factors.

Additionally, NO_x arising from the combustion of volatile nitrogen-containing coating components will be calculated using the mass of each coating component and its fraction of volatile nitrogen.

Furthermore, Arclin now produces several classes of MDO, many of which are made with non-nitrogen-containing resins, making the use of an MDO emission factor inappropriate.

MDO production accounts for most of the VOC combustion at the site. The MDO NO_x and CO emission factors in the PSEL equations included the amount of CO and NO_x formed from alcohol combustion in the RTO as well as natural gas combustion in the drying ovens and RTO. Therefore, most of the CO and NO_x formed in the RTO were already included in the PSEL equation. Since the natural gas emissions for CO and NO_x were added to the amount calculated for MDO using the NG emission factor, the natural gas contribution was “double counted” and resulted in a slight overestimate of CO and NO_x for MDO production. This offset the small amount of CO and NO_x emitted through VOC combustion for other high VOC products.

To correct the PSEL equation, Arclin would have to calculate the CO and NO_x emissions from VOC combustion during MDO production using an assumed emission factor. This would be subtracted from the emissions in the existing PSEL equation. Similarly, we would have to calculate the CO and NO_x emissions from VOC combustion from non-MDO products and add the results to the equation.

Line 3 and the main boiler, B1, are fired at a rate greater than 10×10^6 Btu/hr. The stand by boiler, B2, is fired at less than 10×10^6 Btu/hr. For simplification of compliance determination the NO_x PSEL calculation assumes that all of the combustion takes place at the higher rate. 140 pounds of NO_x per million cubic feet of natural gas is the assumed emission factor for all natural gas combustion.

29. Potential VOC emissions from the resin plant, EU-3r, are estimated to be approximately 0.9 tons per year and are included as a one ton per year constant in the VOC emission ($E_{\text{VOC annual}}$) calculation.

Previous Corrections Made to Both the Baseline & Current PSEL:

30. The netting basis and PSELs have been changed pursuant to OAR 340-200-0020(71). Changes incorporated into both the baseline and current PSELs include the following:
- a. Baseline and PSELs have been established for PM, CO, NO_x and SO₂ based on NG usage in the baseline year, projected maximum fuel (both NG and diesel) use over the term of the Title V permit, and MDO production. The VOC baseline and PSEL in the ACDP were reduced by 605 tons to 2019 tons in accordance with the Reasonably Available Control Technology (RACT) limits specified in OAR 340-022-0170 in the previous rule numbering. In theory the reduction should have only been applied to the PSEL with an additional correction computed when calculating any Net Emission Increase over baseline. However, the end result is the same. The corrected baseline has been adjusted to include insignificant activities. The corrected baseline in the original Title V permit is now the netting basis.
 - b. The VOC baseline and PSEL in the ACDP were reduced by 619 tons to 1400 tons under the Plant Site Emission Limit Donation Program Agreement signed by the permittee (Simpson Timber Company now Arclin Surfaces) and DEQ that became effective November 3, 1996. This permanent donation of VOC baseline was made by Simpson to assist DEQ in development of the VOC Maintenance Plan.
 - c. One ton per year per pollutant is allocated to aggregate insignificant activities. It is assumed that current and baseline aggregate insignificant activities are equal.
 - d. Simpson Timber Company requested a VOC Emission Reduction Credit (ERC) on July 27, 1999 to bank 78.5 tons of VOC emissions from changes to operation of the evaporator slab. The request was never processed. On October 30, 2003, Dynea Overlays (a successor of Simpson Timber Company and predecessor of Arclin) formally withdrew the request to bank the emission reductions.

- e. A summary of the above corrections to baseline are as follows:

Pollutant	Original Baseline, excluding combustion emissions, (tons/yr)	Emissions in baseline year due to combustion (tons/yr)	Aggregate insignificant activities, (tons/yr)	Baseline, (tons/yr)	Adjustment to netting basis in accordance to RACT, (tons/yr)	Reductions to netting basis under the PSEL donation agreement, (tons/yr)	Netting basis, (tons/yr)
PM/PM ₁₀ /PM _{2.5}	Not quantified	0.1	1.0	1	--	--	1
CO	Not quantified	1.2	1.0	1	--	--	2
NO _x	Not quantified	4.9	1.0	1	--	--	6
SO ₂	Not quantified	0.1	1.0	1	--	--	1
VOC	2624	0.1	1.0	2625	-605	-619	1401

The Proposed PSEL

31. The proposed PSELs are set for any for any 12 consecutive calendar month period. PSELs for PM₁₀, CO, NO_x and SO₂ are set at the netting basis plus the SER minus one ton. The VOC PSEL is set at the netting basis. The Title V PSELs include a one ton allotment for aggregate insignificant emissions for each pollutant. The capacity to emit has been recalculated to be less than the netting basis, so the PSEL has been adjusted to the capacity to emit and the remaining Netting Basis has been moved to unassigned emissions.

Pollutant	Netting Basis	Proposed PSEL (tons/yr)	2013 calendar year emissions (tons/year)	Potential to Emit (tons/year)	Unassigned emissions (tons/year)
PM/PM ₁₀ /PM _{2.5}	1	9	1	1	0
CO	2	99	16	24	0
NO _x	6	45	29	135	0
SO ₂	1	39	1	1	0
VOC	1401	400	138	400	1001

PTE for VOC was recalculated for this permit renewal using worst case production capacity and currently existing equipment.

Significant Emission Rate

32. The cumulative PSEL increases since the baseline year is less than the Significant Emission Rate (SER) as defined in OAR 340-028-0110 for all criteria pollutants.

Pollutant	Netting basis (tons/yr)	Proposed PSEL (tons/yr)	Increase over netting basis (tons/yr)	SER (tons/yr)
PM/PM ₁₀ /PM _{2.5} *	1	9	8	10
CO	2	99	97	100
NO _x	6	45	39	40
SO ₂	1	39	38	40
VOC	1401	400	-1001	40
GHG (CO ₂ e)	7900**	74,000	0	75,000

*All PM is assumed to be PM_{2.5}, so the SER for PM_{2.5} is used as the limiting factor for setting the PM PSEL

** GHG Netting basis is based on emissions reported to DEQ for 2009. This number may be revisited in the future if more accurate data is available.

33. The prior permit allowed NOx emissions to exceed the SER over the Netting Basis by using an exemption in the rules that allowed an Environmentally Beneficial Pollution Control Device (RTO R3) to not trigger New Source Review. That exemption has been reevaluated and is no longer usable, so the NOx PSEL has been reduced to below the Netting Basis plus the SER. The actual emissions from the source has never exceeded the proposed PSEL level and the permittee has proposed a new method of calculating NOx emissions that will more closely represent actual emissions from the source. The new NOx calculation method takes into account the volatile nitrogen content of each paper coating component and uses that to calculate NOx emissions from the process.

Short-Term PSEL

34. Short-term PSELs are no longer required by rule and have been dropped from the permit.

RACT

35. Emission Unit EU-1, the floating roof Methanol Storage Tank, ST-23, is subject to RACT for Liquid Storage. These limitations are procedural limitations. There are no specific emission limitations. The bulk of non-withdrawal emissions from a floating roof tank normally arise from evaporation of contents that have adhered to walls and supports. There should be no liquid product in the space above the floating roof. The upper surface of the roof is required to be inspected annually for the presence of free liquid, especially around the rim seal, access hatch, or other deck penetrations. Once every 5 years, the tank must be drained, cleaned and methanol vapors evacuated. The tank must then be inspected internally and the rim seal integrity, gaskets, deck condition and penetration seal integrity evaluated. The tank was last inspected internally in November 2004 and is scheduled to be inspected again in November 2009.
36. Emission Unit EU-2L3, and EU-3esc are subject to Surface Coating in Manufacturing RACT for paper coating, OAR 340-232-0160. This rule limits the VOC content of paper coating to less than 2.9 pounds per gallon of coating excluding water and exempt solvents, calculated on a daily basis. The rule allows for the coating lines to be combined and to consider emission controls when calculating compliance. The rule also allows for an alternative limit to be computed on pounds of VOC per gallon of solids basis, 4.79 pounds VOC per gallon of solids.

HAZARDOUS AIR POLLUTANTS

37. HAPs PTE are presented in the table below. The HAP PTE are close to the VOC PTE. Differences are due to assumptions and inclusions of non-VOC HAPs. The VOC emission calculations in the permit include solvent and non-solvent VOCs and calculate tank and evaporator emissions based on fixed amounts defined by the permit. The VOC PTE scenario is based on full-time manufacturing of the worst case VOC-emitting product and, as such, may not include all of the HAPs used at Arclin. Conversely, VOC emissions are not chemically speciated and may include non-HAP VOC.

The assumptions used for calculating HAPs emissions include approximation (where data is sparse or absent), published emission factors (for combustion sources), historical test data developed by Simpson Timber and vapor pressure-based calculations (such as tank emissions). The bulk of the HAPs PTE (~98%) consists of methanol which is also responsible for the majority of the VOC emissions.

HAP	Potential to Emit (tons/yr)	% of Total HAP
Formaldehyde	12	3
Methanol	386	96
Phenol	2	0.5

HAP	Potential to Emit (tons/yr)	% of Total HAP
Triethylamine (TEA)	2	0.5

38. Toxic and Flammable Substance Usage for Accidental Release Prevention:
Other than the compounds included in the Table below, the individual amount of all toxic and flammable substances used at the Simpson Arclin facility is below Threshold Quantities for Accidental Release Prevention, OAR 340-244-0230, Table 3:

CAS Number	Chemical Name	ESTIMATED ANNUAL USAGE (lbs)	
		20,001 - 50,000	> 50,000
50-00-0	Formaldehyde		X
74-82-8	Methane		X

Natural gas (methane) is delivered by pipeline and is not stored on site. Arclin uses the flammable substances methane and propane for on-site fuel purposes only, therefore exempted from all parts of RMP.

39. Stratospheric Ozone-Depleting Substances:
The permittee does not use any stratospheric ozone-depleting substances:

NESHAPS: MANUFACTURE OF AMINO/PHENOLIC RESINS (40 CFR 63 Subpart OOO)

Background

40. The Arclin facility in Portland, Oregon is subject to the NESHAP standards for amino/phenolic resins production. [65 Fed. Reg. No. 13, 20 January 2000, pp. 3276-3330, "National Emission Standards for Hazardous Air Pollutants for Amino/Phenolic Resins Production; Final Rule". Codified as 40 CFR Part 63, Subpart OOO (40 CFR 63.1400 through 1419)] The provisions of Subpart OOO apply to those facilities that produce amino/phenolic resins and that are located at a plant site that is a major source of HAP (See OAR 340-200-0020(b)(A) for definition of "major source"). Arclin is a major source. The NESHAP is a combination of numerical limits, operational practices, and system monitoring to minimize the emissions of hazardous air pollutants (HAP). The resin plant NESHAP applies to those HAP listed as "organic HAP" in 40 CFR Part 63 Subpart F, Table 2". Initial compliance with the NESHAP was required by January 20, 2003.
41. Arclin operates a batch-type resin-making process, 40 CFR 63.1402, producing; phenol/formaldehyde (PF) resin using four separate reactor vessels. The resins are then applied to paper and dried in a continuous coating operation. The finished coated paper products are sold for use in the wood products industry as overlays on plywood and waferwood substrates. Excess resin produced on-site is distributed to other Arclin facilities or sold.

Applicability and Affected Source

42. Applicable vent emissions from the resin plant include named reactor and non-reactor batch vent emissions from the amino/phenolic resin process unit (APPU), 40 CFR 63.1402. The APPU is the collection of equipment assembled and connected by hardpiping or ductwork used to process raw materials and to manufacture an amino/phenolic resin as its primary product. Utilities, lines and equipment not containing process fluids, and other non-process lines, such as heating and cooling systems, that do not combine their materials with those in the process they serve, are not part of the amino/phenolic resin process unit.
43. Subpart OOO does not apply to storage vessels at existing facilities and no control requirements are imposed by this MACT on existing storage vessels. Moreover, the storage tank provisions in Subpart OOO only apply to new affected sources, not new vessels at existing sources, 40 CFR 63.1402 and 63.1004.
44. The "affected source" regulated by Subpart OOO includes all APPU's, heat exchange systems, control devices, and other named equipment and process, 40 CFR 63.1400(b).

Definitions-Subpart OOO NESHAPS

45. The terms used in the section(s) of the permit that are specifically intended to implement Subpart OOO – National Emission Standards for Hazardous Air Pollutants for Manufacture of Amino/Phenolic Resin, 40 CFR 63.1400 through 63.1419, have the meaning given them in 40 CFR 63.1402, Definitions. [40 CFR 63.1402]
46. The terms used in the section(s) of the permit that are specifically intended to implement the NESHAP General Provisions, 40 CFR 63 Subpart A, have the meaning given them in 40 CFR 63.2, Definitions. [40 CFR 63.2]

Subpart OOO Emissions Unit and Pollution Control Device Identification

47. Reactor Batch Process Vents originate from the reactors and are identified as follows:

Equipment Name	Equipment ID	Emission Unit ID	Pollution Control Device	PCD ID
Reactor No. 1 atmospheric vent	EU-3r01	EU-3r	RTO	R2
Reactor No. 2 atmospheric vent	EU-3r02			
Reactor No. 4 atmospheric vent	EU-3r04			
Reactor No. 5 atmospheric vent	EU-3r05			
Vacuum Pump No. 1 vent	EU-3r06			
Vacuum Pump No. 2 vent	EU-3r07			
Vacuum Pump No. 3 vent	EU-3r08			
Atmospheric diversion vent	EU-3r17	EU-3r	None	None

48. Non-reactor batch process vents do not originate from the reactor, and include vents from filter presses, surge control vessels, bottoms receivers, weight tanks, and distillation systems. Aggregate uncontrolled organic HAP emissions from non-reactor process vents exceed 0.25 tons/year and are subject to the NESHAP collection and control requirements. The non-reactor batch process vents are identified as follows:

Equipment Name	Equipment ID	Emission Unit ID	Pollution Control Device	PCD ID
Reactor No. 4 distillation tank vacuum vent	EU-3r10	EU-3r	RTO	R2
Reactor No. 5 distillation tank vacuum vent	EU-3r11			
Reactors Nos. 1 & 2 staging tank atmospheric vent	EU-3r12			
Reactor No 4 staging tank vent	EU-3r14			
Reactor No 5 staging tank vent	EU-3r15			
Reactor No 5 cooling tank vent	EU-3r16			

49. The reactor and non-reactor batch process vents are combined and are subject to the aggregate vent system provisions of Subpart OOO [40 CFR 63.1408]. All emissions from the resin plant, except for emissions from the storage tanks and some emissions from malfunctions, are collected and routed to a Regenerative Thermal Oxidizer, R4.
50. The permittee is not subject to the storage tank vent collection and treatment standards in Subpart OOO because the facility is an existing facility. [40 CFR 63.1404]

Subpart OOO Operational Requirements

51. Arclin has chosen to comply with the 83% percent reduction limitation for an RTO set forth in 40 CFR 63.1408(a)(2). This limit is applicable at all times when in operation other than during Startup, Shutdown, and Malfunction (SSM) episodes. During an SSM episode Arclin must follow the SSM plan. An SSM episode only applies to the specific equipment impacted by the episode.
52. The RTO is assumed to have a minimum percent reduction of 83% as long as it has a minimum combustion chamber temperature of 1400° F with a residence time of at least 0.5 seconds. Arclin submitted an engineering evaluation demonstrating that the unit will have a residence time of 1 second and a design minimum temperature of 1500° F to 1600° F. The RTO will be continuously monitored for temperature to ensure the temperature requirements are being met.
53. Arclin submitted an engineering assessment demonstrating that precontrolled HAP emissions are less than 10 tons per year, which qualifies the RTO as a small control device, 40 CFR 63.1413(a)(1). Small control devices can use a design evaluation and engineering assessment to determine the percent reduction rather than a source test. As long as there are no uncontrolled emissions (other than excess emission episodes under the SSM plan) and as long as the RTO design criteria are maintained, the facility is assumed to be in compliance with the 83% reduction requirement. If there are uncontrolled emissions, compliance must be calculated in accordance with the following formula, 40 CFR 63.1413(e)(1)(iii):

$$PR = \frac{\sum E_{unc} + \sum E_{inlet.com} - \sum (1-R)E_{inlet.com}}{\sum E_{unc} + \sum E_{inlet.com}}$$

Where

PR = Percent reduction

E_{unc} = Mass rate of total organic HAP for uncontrolled batch emission episodes

$E_{inlet.com}$ = Mass rate of total organic HAP for controlled batch emission episodes at the inlet to the control device.

R = Control

54. Startup, Shutdown, and Malfunction Plan (SSM Plan). [40 CFR 63.6(e)(3), 63.866(a), and 63.1416(b)]:
- Arclin is required to develop and implement a written startup, shutdown and malfunction plan [40 CFR 63.1416(b)] that describes, in detail, procedures for operating and maintaining the applicable equipment during periods of startup, shutdown, and malfunction; a program of corrective action for malfunctioning process; and air pollution control and monitoring equipment used to comply with the relevant standard. The purpose of the SSM Plan is described in 40 CFR 63.6(e)(3)(i).
 - During periods of startup, shutdown, and malfunction, Arclin must operate and maintain source (including associated air pollution control and monitoring equipment) in accordance with the procedures specified in the SSM Plan. [40 CFR 63.6(e)(3)(ii)]
 - Arclin submitted the required SSM plan on January 21, 2003.
55. All aggregate batch process vents will be collected and conveyed in a “closed vent system” [40 CFR 63.1403(a)] to an emission control device (RTO-R4). For equipment and ducting systems under pressure, the system will be designed to collect the emissions from each emission point and convey the emissions to the control device at all times that the emissions are vented to or collected by the system. Bypass valves that could vent the emissions to atmosphere rather than to the control device will be either sealed or a flow monitor installed such that flow in the bypass line is monitored at least once every 15 minutes [40 CFR 63.938(a)]. Records documenting a monthly visual inspection of the closure seal on bypass lines are required [40 CFR 63.998(d)].

For equipment and ducting systems operating continuously under a vacuum, no special requirements for operation are required [40 CFR 63.983(a)]. All vacuum lines have been clearly labeled.

56. Arclin will maintain a minimum pressure on the heat exchange cooling water of at least 5.1 psig (35 kilopascals) greater than the maximum pressure on the reactor vessel. No further monitoring of the heat exchanger system for leaks is required [40 CFR 63.1409(a) and (a)(1)]. Arclin has performed a design evaluation that shows that the cooling water pressure is at least 5.1 psig (35 kilopascals) greater than the maximum pressure on the reactor vessel. The design evaluation must be reviewed and updated annually, if necessary (log evaluation review and why update was/wasn't needed).
57. The National Emission Standards for Equipment Leaks—Control Level 2 Standards, 40 CFR Part 63, Subpart UU (63.1019 through 63.1039), are referenced in the resin plant NESHAP and apply to equipment* that contains or contacts 5% by weight HAP or greater and operates 300 hour per year or more, 40 CFR 63.1410. Equipment in vacuum service is excluded from the leak provisions of the NESHAP, 40 CFR 63.1019(c). Vacuum service is defined as at least 5 kilopascals (approximately 20 in. W.C. below ambient pressure). Lines and equipment not containing process fluids are also excluded from the leak provisions of the NESHAP. Utilities, and other non-process lines, such as heating and cooling systems that do not combine their materials with those in the processes they serve, are not considered to be part of a process unit or affected facility, 40 CFR 63.1019(e).

* "Equipment" is defined in 63.1402 as each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector and instrument system that contains or contacts a fluid (liquid or gas) that is at least 5% by weight of total organic HAP and operates 300 hours per year or more.

The leak provisions apply to equipment within the confines of the resin plant and only pertain to the users of phenol, formaldehyde, methanol and triethylamine. At a minimum, the leak detection program requires monthly visual, audible or sensory monitoring. The permittee was required to identify the equipment covered by this standard, 40 CFR 63.1022(a), by no later than January 21, 2003,. This equipment identification requirement was satisfied with the submittal of the Leak Detection and Repair Plan, received January 21, 2003. The NESHAP required the plan to be submitted by January 20, 2003. The date was extended to January 21, 2003 because January 20 was a holiday for DEQ.

The emission limitations set forth in 40 CFR Part 63 Subpart UU apply at all times except during periods of non-operation of the affected source (or specific portion thereof) and startup, shutdown, malfunction or process unit shutdown.

Subpart OOO Test Methods and Procedures

58. While source testing of RTO-R4 is not required at the time of issuance of this addendum, should testing be required in the future such tests must use the following methods, unless approved otherwise in writing by DEQ. A pretest plan must be submitted to DEQ at least 30 days prior to the test [40 CFR 63.1414(a)].

Test Methods	
Parameter	Test Method Citation
Flow	40 CFR Part 60, Appendix Methods 1, 1A2, 2A, 2C or 2D to determine gas velocity and/or volumetric flow rate.
Gas analysis	40 CFR Part 60, Appendix A, Method 3 for the determination of dry molecular weight.
Moisture	40 CFR Part 60, Appendix A, Method 4 for determining stack gas moisture.
Formaldehyde	40 CFR Part 60, Appendix A, Method 316 or 320 to measure formaldehyde concentration in stack gases.
Organic HAP	40 CFR Part 60, Appendix A, Method 18 to measure other organic HAP concentrations in stack gases for all constituents other than formaldehyde.
Methanol	40 CFR Part 60, Appendix A, Method 308, as an alternative to Method 18 for the measurement of methanol concentrations in stack gases.

Subpart OOO Reporting Requirements

59. Arclin submitted Supplemental Precompliance Report which included a design evaluation of the RTO and engineering assessment of estimated emissions in accordance with 40 CFR 63.1417(d).
60. A Notification of Compliance Status Report is required by June 19, 2003 in accordance with 40 CFR 63.1417(e).
61. The following reports were submitted to DEQ on January 21, 2003:
- a. Leak Detection and Repair Plan.
 - b. Startup, Shutdown and Malfunction Plan.
 - c. Engineering assessment of the resin plant emissions.
 - d. Certification that all emissions from the resin plant are routed to the RPD oxidizer, and certification that DEQ will be informed prior to changing this configuration.
62. Periodic Reports are required on a semiannual basis. The reports will be due on February 15 and July 31 of each year beginning in 2004. The reports must include the following information:
- a. A certification of the compliance status with the resin plant NESHAP.
 - b. A certification of the compliance status with the closed vent system MACT, 40 CFR Part 63 Subpart SS.
 - c. A certification of the compliance status with the equipment leak MACT, 40 CFR Part 63 Subpart UU.
 - d. Startup, Shutdown, and Malfunction reports.
 - e. If noncompliance issues are noted, a description of the noncompliance and corrective action must be attached.
 - f. The February 15 report must also include a statement of annual controlled and uncontrolled VOC emissions from the resin plant with supporting calculations. A worst case analysis can be substituted for actual emissions. If uncontrolled VOC emissions exceed 10 tpy, the permittee must include data to show compliance with the requirements associated with a large control device.

Summary of Subpart OOO Applicability

TABLE 1
40 CFR 63 Subpart OOO Applicability
to Arclin Surfaces/Portland, Oregon

Reference	Applies to Arclin Surfaces Resin Plant in Portland	Explanation
63.1400(a)	Yes	The resin plant is co-located with a major source of HAP
63.1400(b)	Yes	Describes "affected sources"
63.1400(c)	Yes	The Arclin facility is an existing source
63.1400(d)	No	Not a new source
63.1400(e)	No	Arclin Surfaces uses organic HAP, thus the exemption does not apply
63.1400(f)	No	The exemption from leak provisions applies to facilities with production less than 800 megagrams per year. The Arclin Surfaces facility normally produces about 11,000 megagrams per year.
63.1400(g)	No	Arclin Surfaces exclusively produces phenol formaldehyde resins.
63.1400(h)(1)	No	The storage tank provisions of Subpart OOO do not apply.
63.1400(h)(2)	No	
63.1400(h)(3)	No	
63.1400(h)(4)	No	
63.1400(h)(5)		
63.1400(h)(6)	No	The storage vessels do not change function from HAP to non-HAP service.
63.1400(h)(7)	No	Existing storage vessels are not included in the NESHAP.
63.1400(h)(8)	No	This paragraph deals with potential future storage tanks or modified functionality for an existing tank.
63.1400(i)(1)	No	Applicable to 40 CFR part 60 subpart Kb sources.
63.1400(i)(2)	No	If 40 CFR part 63 subpart Q applies, then the source is required to comply with subpart OOO and subpart Q.
63.1400(i)(3)	Yes	Arclin Surfaces will not be subject to 40 CFR part 60 subpart VV or 40 CFR part 63 subpart H after compliance with 40 CFR part 63 subpart OOO.
63.1400(i)(4)	No	Compliance with 40 CFR part 63 subparts F or U is deemed compliance with the heat exchanger requirements in subpart OOO.
63.1400(i)(5)	No	
63.1400(j)	Yes	See Table 2.
63.1400(k)	Yes	A startup, shutdown and malfunction plan as described in 63.6(e) is required.

Reference	Applies to Arclin Surfaces Resin Plant in Portland	Explanation
63.1401(a)	No	Arclin Surfaces is an existing source, not a new source.
63.1401(b)	Yes	Arclin Surfaces is an existing source.
63.1401(c)	No	Arclin Surfaces production of PF resin exceeds 800 Mg/yr.
63.1401(d)	Yes	Arclin Surfaces can request a 1-year compliance extension.
63.1401(e)	Yes	
63.1402(a)	Yes	
63.1402(b)	Yes	
63.1403(a)	Yes	The "closed vent" requirements of 40 CFR part 63 subpart SS apply.
63.1403(b)	No	Applies to new sources.
63.1403(c)	Yes	
63.1404(a)	No	Applies to new sources.
63.1404(b)	No	Applies to new sources.
63.1405(a) through (b)	No	Applies to new sources.
63.1406(a)	Yes	
63.1406(a)(1)(i)	No	Applies to new sources.
63.1406(a)(1)(ii)	No	Applies to new sources.
63.1406(a)(1)(iii)	No	Applies to new sources.
63.1406(a)(2)	Yes	
63.1406(a)(2)(i)	No	Arclin will not use a flare.
63.1406(a)(2)(ii)	Yes	However, aggregate batch vent stream standards in 63.1408 apply.
63.1406(a)(2)(iii)	No	Arclin will not use the mass-based standards for compliance.
63.1406(b)	No	Arclin will not use the alternate standards for compliance.
63.1406(c)	No	Arclin will not use a boiler or process heater for compliance.
63.1407(a)(1)	Yes	Non-reactor batch vents exceed 0.25 tons/year.
63.1407(a)(2)	No	Applies to new sources.
63.1407(a)(3)(i)	No	Arclin will not use a flare.
63.1407(a)(3)(ii)	Yes	However, aggregate batch vent stream standards in 63.1408 apply.
63.1407(b)(1)	No	Arclin will not use the alternate standards for compliance.
63.1407(b)(2)	No	Arclin will not use the alternate standards for compliance.
63.1407(c)	No	Arclin will not use a boiler or process heater for compliance.
63.1407(d)	Yes	Uncontrolled HAP emissions are estimated in the Precompliance Report per 63.1414(d)(6)(ii).
63.1408(a)(1)(i)	No	Applies to new sources.
63.1408(a)(1)(ii)	No	Applies to new sources.

Reference	Applies to Arclin Surfaces Resin Plant in Portland	Explanation
63.1408(a)(2)(i)	No	Arclin will not use a flare.
63.1408(a)(2)(ii)	Yes	
63.1408(b)(1)	Yes	Arclin will not use the alternate standards for compliance.
63.1408(b)(2)	Yes	Arclin will not use the alternate standards for compliance.
63.1409(a), (1) through (6)	Yes	Arclin Surfaces must determine if one of the 6 allowable exemptions exist or can be accommodated.
63.1409(a)(1)	Yes	Arclin will maintain a pressure on the heat exchanger cooling water side at least 35 kilopascals greater than on the process side.
63.1409(b)	Yes	
63.1409(b)(1)	Yes	The monitoring requirements for HAP constituents in heat exchanger cooling water apply. The heat exchanger and reactor vessel pressures will be monitored once monthly and quarterly thereafter to indicate the presence of leaks.
63.1409(b)(2)(i)	No	Arclin Surfaces does not operate a recirculating heat exchange system. Rather, a single-pass system is in-place.
63.1409(b)(2)(ii)	No	Exemption 63.1409(a)(1) applies.
63.1409(b)(3)	No	Exemption 63.1409(a)(1) applies.
63.1409(b)(4), (i) through (iii)	No	Exemption 63.1409(a)(1) applies.
63.1409(b)(5)	No	Exemption 63.1409(a)(1) applies.
63.1409(b)(6)	No	Exemption 63.1409(a)(1) applies.
63.1409(c), (1) through (3)	No	Exemption 63.1409(a)(1) applies.
63.1409(d), (1) through (2)	No	Exemption 63.1409(a)(1) applies.
63.1409(e), (1) through (2)	No	Exemption 63.1409(a)(1) applies.
63.1410	Yes	Applicable equipment described in § 63.1402 that contains or contacts 5% (by weight) or greater of HAP and operates more than 300 hours per year must comply with the requirements of 40 CFR 63 subpart UU for equipment leaks.
63.1410(a)	Yes	Design evaluations are allowed for small control devices (treating < 10 TPY of HAP).
63.1410(b)	Yes	
63.1410(c)	Yes	However, total TOC or total VOC will be used to monitor for leaks. Compliance testing for the RTO destruction efficiency will be per required methods in 63.1403(b).
63.1410(d)	Yes	
63.1410(e)	Yes	The provisions in 63.982(f) do not apply.
63.1410(f)	No	Arclin will not use a scrubber as a control device.

Reference	Applies to Arclin Surfaces Resin Plant in Portland	Explanation
63.1410(g)	Yes	The report submission dates referred to in 40 CFR part 63 subpart OOO are to be followed if there are conflicts with those dates in 40 CFR part 63 subpart SS.
63.1410(h)	Yes	Reporting and recordkeeping relative to equipment leaks can follow either 40 CFR part 63 subpart SS or OOO, or both, at the owner's choice.
63.1411		[Reserved]
63.1412(a) through (k)	No	Applies to continuous process vents at new sources.
63.1413(a)	Yes	A three stage compliance is described, including: <ul style="list-style-type: none"> • Performance test/ design evaluation; • Demonstrate initial compliance; • Demonstrate continuous compliance through parametric monitoring.
63.1413(a)(1)	Yes	Arclin Surfaces will install a small control device of <10 TPY HAP.
63.1413(a)(1)(i)	No	Arclin does not have a large control device.
63.1413(a)(1)(ii)	Yes	A design evaluation or performance test is allowed for small control devices.
63.1413(a)(2)	Yes	Performance test requirements from the General Provisions in 40 CFR 63.7 are described.
63.1413(a)(2)(i), (A) through (E)	No	Arclin Surfaces will use a stand-alone RTO for compliance and not the alternative control devices described in these sections.
63.1413(a)(2)(ii), (A) through (C)	Yes	The schedule of performance testing is described in these sections.
63.1413(a)(3)	Yes	
63.1413(a)(3)(i), (A) through (B)	No	Arclin Surfaces will not use a scrubber as a control device.
63.1413(a)(3)(ii)	No	Arclin Surfaces will not use a condenser as a control device.
63.1413(a)(3)(iii)	No	Arclin Surfaces will not use a carbon absorption system, with regeneration, as a control device.
63.1413(a)(3)(iv)	No	Arclin Surfaces will not use a carbon absorption system, without regeneration, as a control device.
63.1413(a)(3)(v)	Yes	The RTO will have a minimum residence time of 0.5 sec. and a minimum temperature of 760 °F or better at design conditions.
63.1413(a)(3)(vi)	No	The RTO will comply with § 63.1413(a)(3)(v).
63.1413(a)(3)(vi)(A)	No	The RTO will comply with § 63.1413(a)(3)(v).
63.1413(a)(3)(vi)(B)	No	The RTO will comply with § 63.1413(a)(3)(v) and is not a catalytic vapor incinerator.
63.1413(a)(3)(vi)(C)	No	The RTO will comply with § 63.1413(a)(3)(v) and is not a boiler or process heater.

Reference	Applies to Arclin Surfaces Resin Plant in Portland	Explanation
63.1413(a)(4)	Yes	Parametric monitoring of the RTO is required. Arclin will monitor combustion chamber temperature continuously.
63.1413(a)(4)(i)(A)	No	Applies to non-batch process vents.
63.1413(a)(4)(i)(B)	Yes	Aggregate batch vent streams as anticipated in the Arclin Surfaces project must establish parametric monitoring described in 63.1413(a)(4)(i)(A).
63.1413(a)(4)(i)(C)	Yes	
63.1413(a)(4)(i)(C)(1), (i) through (v)	Yes	
63.1413(a)(4)(ii)	Yes	Arclin will operate the RTO with a residence time greater than 0.5 seconds at a temperature greater than 1400 °F. The parametric monitoring will consist of continuously monitoring the RTO combustion chamber temperature and maintaining the temperature greater than 1400 °F.
63.1413(b), (1) through (5)	No	Applies to storage vessels at new facilities.
63.1413(c), (1) through (5)	No	Applies to continuous process vents at new facilities.
63.1413(d)(1)	Yes	Percent HAP reduction for aggregate batch vent streams will comply with 63.1408(a)(1)(ii) and (2)(i).
63.1413(d)(2)	No	Arclin Surfaces will not use a flare.
63.1413(d)(3)	Yes	Arclin will continuously monitor RTO combustion chamber temperature.
63.1413(d)(4)	No	Arclin Surfaces will not use a flare.
63.1413(d)(5)	No	Arclin will not use the alternate standards for compliance.
63.1413(d)(6)	No	Arclin will not use the mass-based standards for compliance.
63.1413(e)(1), (i) through (ii)	Yes	These sections describe the design evaluation or performance test requirements for initial and continuous compliance applicable to the HAP percent reduction standards for batch systems. However, the engineering assessment described in 63.1414(d)(6)(ii) that shows the RTO to control less than 1 ton/year of HAP, along with the RTO design evaluation of 63.1413(a)(3)(v) may obviate testing requirements.
63.1413(e)(1)(iii)	Yes	The calculation methods for percent HAP reduction are described in this section, if testing is required.
63.1413(e)(1)(iv)	Yes	
63.1413(e)(1)(v)	Yes	Arclin will continuously monitor RTO combustion chamber temperature.

Reference	Applies to Arclin Surfaces Resin Plant in Portland	Explanation
63.1413(e)(2), (i) through (ii)	No	Applies to compliance with the mass emission standards. Arclin Surfaces will comply with the percent HAP reduction standards. Thus, these sections do not apply.
63.1413(e)(3)	No	Arclin Surfaces will not use a flare as a control device.
63.1413(e)(4)	No	Arclin Surfaces will not use the alternative concentration-based RTO emission standards for compliance.
63.1413(f)	No	Arclin Surfaces will not use the alternative concentration-based RTO emission standards for compliance.
63.1413(g), (1) through (3)	No	Arclin Surfaces will not use a flare as a control device.
63.1413(h); (1) through (6)	Yes	Deviations and exceedances are described.
63.1414(a)	Yes	Test methods are described. Note that VOC measurement by Method 25 is not allowed for compliance. However, total TOC or total VOC will be used to monitor for leaks.
63.1414(b)	Yes	The batch process vent performance testing procedures are described for flow, concentration and control device efficiency.
63.1414(c)	Yes	Oxygen correction to 3% oxygen are described.
63.1414(d)(1) through (4)	Yes	Procedures for performing calculations of HAP emissions are described and formulae presented for purging empty vessels, purging full vessels, vapor displacement, heating. However, the engineering assessment described in 63.1414(d)(6)(ii) that shows the RTO to control less than 1 ton/year of HAP will be submitted in a Precompliance Report, obviating the need to perform these calculations.
63.1414(d)(5)	Yes	Direct measurement of HAP emissions is described.
63.1414(d)(6)	Yes	Describes the procedures to be followed for determining uncontrolled HAP emissions based on engineering assessments and the comparison to actual test data. Arclin will submit a Precompliance Report.
63.1414(d)(7)	No	Describes procedures and provides a formula for calculating uncontrolled HAP emissions associated with a single batch cycle.
63.1414(d)(8)	No	Describes the calculation of annual uncontrolled HAP emissions associated with batch processing.

Reference	Applies to Arclin Surfaces Resin Plant in Portland	Explanation
63.1414(d)(9)	Yes	Individual partial pressures in multiple component systems can be calculated from Raolt's Law, Henry's Law or from experimentally determined activity coefficients.
63.1415(a) and (a)(1)	Yes	Parametric monitoring is required whenever organic HAPs are emitted.
63.1415(a)(2)	Yes	For control devices treating less than 1 ton/year of HAP (similar to the Arclin situation) Monitoring shall consist of verification that the RTO is operating properly. The request for this provision is to be included in the Precompliance Report.
63.1415(a)(3)	Yes	
63.1415(b)(1)	No	Arclin Surfaces will not use a scrubber as a control device.
63.1415(b)(2)	No	Arclin Surfaces will not use an absorber as a control device.
63.1415(b)(3)	No	Arclin Surfaces will not use a condenser as a control device.
63.1415(b)(4)	No	Arclin Surfaces will not use carbon absorption as a control device.
63.1415(b)(5)	Yes	Temperature monitoring in the RTO firebox, with a continuous recorder is required.
63.1415(b)(6)	No	Arclin Surfaces will not use a flare as a control device.
63.1415(b)(7)	No	Arclin Surfaces will not use a boiler or process heater as a control device.
63.1415(b)(8)	No	Arclin Surfaces will not use an organic monitoring device following the RTO.
63.1415(c)	No	No alternative monitoring parameters are anticipated.
63.1415(d)	Yes	
63.1415(d)(1)	No	
63.1415(d)(2)	Yes	The bypass line from the railroad containment pit will be manually closed and secured. Provisions to have a breakable car-seal or chain-and-lock will be installed.
63.1415(e)	No	Arclin Surfaces will not monitor for the alternative standards, since compliance will be based on the applicable percent HAP reduction across the RTO.
63.1416(a)	Yes	Arclin will maintain data for 5 years.
63.1416(b)	Yes	An SSM Plan will be prepared.
63.1416(c)	Yes	Applicable monitoring records will be maintained.

Reference	Applies to Arclin Surfaces Resin Plant in Portland	Explanation
63.1416(d)(1)(ii) and (iv)(A)	No	The aggregate batch vent stream records of 63.1416(e) apply, not the batch process vent records of 63.1416(d).
63.1416(d)(2)	No	The aggregate batch vent stream records of 63.1416(e) apply, not the batch process vent records of 63.1416(d).
63.1416(d)(3)	No	The aggregate batch vent stream records of 63.1416(e) apply, not the batch process vent records of 63.1416(d).
63.1416(e)(1)	Yes	The applicable and appropriate aggregate batch vent emission records will be maintained.
63.1416(e)(2)	Yes	The applicable parametric monitoring records for the aggregate batch vent stream will be maintained.
63.1416(e)(3)	Yes	The applicable continuous compliance records for the aggregate batch vent stream will be maintained.
63.1416(f)	No	Not applicable. Arclin Surfaces does not operate a continuous process.
63.1416(g)	Yes	The applicable recordkeeping standards must be followed.
63.1416(h)	Yes	The reduced recordkeeping program allows the retention of daily average values rather than individual values. Records must be maintained for 5 years.
63.1417(a)	Yes	
63.1417(b)	Yes	
63.1417(c)	Yes	
63.1417(d)	Yes	A Supplemental Precompliance Report was submitted.
63.1417(e)	Yes	A Notification of Compliance Status report must be submitted within 150 days after the compliance date or by June 19, 2003. This paragraph describes the content of the Compliance Status Report.
63.1417(f)	Yes	Periodic reports are required to document the compliance with the NESHAP, including the leak detection and repair requirements of subpart UU, heat exchange systems and control devices. The reports are on February 15 and July 31 beginning in 2004. The content of the periodic reports is described in this paragraph.
63.1417(g)	Yes	The reports required by the Startup, Shutdown and Malfunction Plan are to be submitted with the periodic reports.
63.1417(h)(1)	No	There are no applicable storage tanks at Arclin Surfaces.

Reference	Applies to Arclin Surfaces Resin Plant in Portland	Explanation
63.1417(h)(2)	Yes	Testing plans are required 90 days prior to conducting performance tests.
63.1417(h)(3)	Yes	A 30-day notice is required prior to conducting a performance test.
63.1417(h)(4)	Yes	Notification of basic changes in production is required.
63.1417(h)(5)	Yes	Notification that new applicable sources have been added to the facility is required.
63.1417(i)	Yes	Arclin has submitted an operating permit application and will also submit a Precompliance Report.
63.1417(j)	No	Alternative monitoring parameters are not expected at Arclin Surfaces.
63.1417(k)	No	Alternative continuous monitoring parameters are not expected at Arclin Surfaces.
63.1418	No	[Reserved]
63.1419(a) through (c)	Yes	Delegation of authority provisions apply.

TABLE 2
APPLICABILITY OF GENERAL PROVISIONS IN 40 CFR 63 SUBPART A
TO
SUBPART OOO AFFECTED SOURCES

Reference	Applies to 40 CFR Part 63 Subpart OOO	Explanation
63.1(a)(1)	Yes	§ 63.1402 specifies definitions in addition to or that supersede definitions in § 63.2.
63.1(a)(2)	Yes	
63.1(a)(3)	Yes	§ 63.1401(i) identifies those standards which overlap with the requirements of subpart OOO 40 CFR part 63 and specify how compliance shall be achieved.
63.1(a)(4)	Yes	Subpart OOO (this table) specifies the applicability of each paragraph in subpart A of 40 CFR part 63.
63.1(a)(5)	No	[Reserved]
63.1(a)(6)–63.1(a)(8)	Yes	
63.1(a)(9)	No	[Reserved]
63.1(a)(10)	Yes	
63.1(a)(11)	Yes	
63.1(a)(12)–63.1(a)(14)	Yes	
63.1(b)(1)	No	
63.1(b)(2)	Yes	
63.1(b)(3)	No	§ 63.1400(e) provides documentation requirements for APPUs not considered affected sources.
63.1(c)(1)	Yes	Subpart OOO (this table) specifies the applicability of each paragraph in subpart A of 40 CFR part 63.
63.1(c)(2)	No	Area sources are not subject to this subpart.

Reference	Applies to 40 CFR Part 63 Subpart OOO	Explanation
63.1(c)(3)	No	[Reserved]
63.1(c)(4)	Yes	
63.1(c)(5)	Yes	Except that affected sources are not required to submit notifications overridden by this table.
63.1(d)	No	[Reserved]
63.1(e)	Yes	
63.2	Yes	§ 63.1402 specifies the definitions from subpart A of 40 CFR part 63 that apply to this subpart.
63.3	Yes	
63.4(a)(1)-63.4(a)(3)	Yes	
63.4(a)(4)	No	[Reserved]
63.4(a)(5)	Yes	
63.4(b)	Yes	
63.4(c)	Yes	
63.5(a)(1)	Yes	Except the terms "source" and "stationary source" should be interpreted as having the same meaning as "affected source."
63.5(a)(2)	Yes	
63.5(b)(1)	Yes	Except § 63.1400(d) specifies when construction or reconstruction is subject to new source standards.
63.5(b)(2)	No	[Reserved]
63.5(b)(3)	Yes	
63.5(b)(4)	Yes	Except that the Initial Notification and § 63.9(b) requirements do not apply.
63.5(b)(5)	Yes	
63.5(b)(6)	Yes	Except that § 63.1400(d) specifies when construction or reconstruction is subject to new source standards.
63.5(c)	No	[Reserved]
63.5(d)(1)(i)	Yes	Except that the references to the Initial Notification and § 63.9(b)(5) do not apply.
63.5(d)(1)(ii)	Yes	Except that § 63.5(d)(1)(ii)(H) does not apply.
63.5(d)(1)(iii)	No	§ 63.1417(e) specifies Notification of Compliance Status requirements.
63.5(d)(2)	No	
63.5(d)(3)	Yes	Except § 63.5(d)(3)(ii) does not apply, and equipment leaks subject to § 63.1410 are exempt.
63.5(d)(4)	Yes	
63.5(e)	Yes	
63.5(f)(1)	Yes	
63.5(f)(2)	Yes	Except that where § 63.9(b)(2) is referred to, the owner or operator need not comply.
63.6(a)	Yes	
63.6(b)(1)	No	Arclin is not a new or reconstructed source
63.6(b)(2)	No	
63.6(b)(3)	No	
63.6(b)(4)	No	
63.6(b)(5)	No	

Reference	Applies to 40 CFR Part 63 Subpart OOO	Explanation
63.6(b)(6)	No	[Reserved]
63.6(b)(7)	No	Arclin is not a new or reconstructed source
63.6(c)(1)	Yes	Except that § 63.1401 specifies the compliance date.
63.6(c)(2)	No	
63.6(c)(3)	No	[Reserved]
63.6(c)(4)	No	[Reserved]
63.6(c)(5)	Yes.	
63.6(d)	No	[Reserved]
63.6(e)	Yes	Except as otherwise specified in this table, § 63.6(e) does not apply to emission points that do not require control under this subpart. ¹
63.6(e)(1)(i)	No	This is addressed by § 63.1400(k)(4).
63.6(e)(1)(ii)	Yes	
63.6(e)(1)(iii)	Yes.	
63.6(e)(2)	Yes.	
63.6(e)(3)(i)	Yes	For equipment leaks (subject to § 63.1410), the start-up, shutdown, and malfunction plan requirement of § 63.6(e)(3)(i) is limited to control devices and is optional for other equipment. The start-up, shutdown, malfunction plan may include written procedures that identify conditions that justify a delay of repair.
63.6(e)(3)(i)(A)	No	This is addressed by § 63.1400(k)(4).
63.6(e)(3)(i)(B)	Yes.	
63.6(e)(3)(i)(C)	Yes.	
63.6(e)(3)(ii)	Yes.	
63.6(e)(3)(iii)	No	Recordkeeping and reporting are specified in §§ 63.1416 and 63.1417.
63.6(e)(3)(iv)	No	Recordkeeping and reporting are specified in §§ 63.1416 and 63.1417.
63.6(e)(3)(v)	Yes.	
63.6(e)(3)(vi)	Yes.	
63.6(e)(3)(vii)	Yes.	
63.6(e)(3)(vii) (A)	Yes.	
63.6(e)(3)(vii) (B)	Yes	Except the plan shall provide for operation in compliance with § 63.1400(k)(4).
63.6(e)(3)(vii) (C)	Yes.	
63.6(e)(3)(viii)	Yes.	
63.6(f)(1)	Yes.	
63.6(f)(2)	Yes	Except § 63.7(c), as referred to in § 63.6(f)(2)(iii)(D), does not apply, and except that § 63.6(f)(2)(ii) does not apply to equipment leaks subject to § 63.1410.
63.6(f)(3)	Yes.	
63.6(g)	Yes.	

¹ The plan and any records or reports of start-up, shutdown, and malfunction do not apply to emission points that do not require control under this subpart.

Reference	Applies to 40 CFR Part 63 Subpart OOO	Explanation
63.6(h)	No	This subpart OOO does not require opacity and visible emission standards.
63.6(i)(1)	Yes.	
63.6(i)(2)	Yes.	
63.6(i)(3)	Yes.	
63.6(i)(4)(i)(A)	Yes.	
63.6(i)(4)(i)(B)	No	Dates are specified in §§ 63.1401(e) and 63.1417(d)(1).
63.6(i)(4)(ii)	No.	
63.6(i)(5)-(14)	Yes.	
63.6(i)(15)	No	[Reserved]
63.6(i)(16)	Yes.	
63.6(j)	Yes.	
63.7(a)(1)	Yes.	
63.7(a)(2)	No	§ 63.1417(e) specifies the submittal dates of performance test results for all emission points except equipment leaks; for equipment leaks, compliance demonstration results are reported in the Periodic Reports.
63.7(a)(3)	Yes.	
63.7(b)	No	§ 63.1417 specifies notification requirements.
63.7(c)	No.	
63.7(d)	Yes.	
63.7(e)(1)	Yes	Except that all performance tests shall be conducted at maximum representative operating conditions achievable at the time without disruption of operations or damage to equipment.
63.7(e)(2)	Yes.	
63.7(e)(3)	No	Subpart OOO specifies requirements.
63.7(e)(4)	Yes.	
63.7(f)	Yes	Except that if a site specific test plan is not required, the notification deadline in § 63.7(f)(2)(i) shall be 60 days prior to the performance test, and in § 63.7(f)(3), approval or disapproval of the alternative test method shall not be tied to the site specific test plan.
63.7(g)	Yes	Except that the requirements in § 63.1417(e) shall apply instead of the references to the Notification of Compliance Status report in § 63.9(h). In addition, equipment leaks subject to § 63.1410 are not required to conduct performance tests.
63.7(h)	Yes	Except § 63.7(h)(4)(ii) may not be applicable, if the site-specific test plan in § 63.7(c)(2) is not required.
63.8(a)(1)	Yes.	
63.8(a)(2)	No.	
63.8(a)(3)	No	[Reserved]
63.8(a)(4)	Yes.	
63.8(b)(1)	Yes.	
63.8(b)(2)	No	Subpart OOO specifies locations to conduct monitoring.

Reference	Applies to 40 CFR Part 63 Subpart OOO	Explanation
63.8(b)(3)	Yes.	
63.8(c)(1)	Yes.	
63.8(c)(1)(i)	Yes.	
63.8(c)(1)(ii)	No	For all emission points except equipment leaks, comply with § 63.1416(b)(2); for equipment leaks, comply with requirements in 40 CFR part 63 subpart UU.
63.8(c)(1)(iii)	Yes.	
63.8(c)(2)	Yes.	
63.8(c)(3)	Yes.	
63.8(c)(4)	No	§ 63.1415 specifies monitoring frequency; not applicable to equipment leaks because § 63.1410 does not require continuous monitoring systems.
63.8(c)(5)–63.8(c)(8)	No.	
63.8(d)	No.	
63.8(e)	No.	
63.8(f)(1)–63.8(f)(3)	Yes.	
63.8(f)(4)(i)	No	Timeframe for submitting request is specified in § 63.1417 (j) or (k); not applicable to equipment leaks because § 63.1410 (through reference to 40 CFR part 63 subpart UU) specifies acceptable alternative methods.
63.8(f)(4)(ii)	No	Contents of request are specified in § 63.1417(j) or (k).
63.8(f)(4)(iii)	No.	
63.8(f)(5)(i)	Yes.	
63.8(f)(5)(ii)	No.	
63.8(f)(5)(iii)	Yes.	
63.8(f)(6)	No	Subpart OOO does not require continuous emission monitors.
63.8(g)	No	Data reduction procedures specified in § 63.1416(a) and (h); not applicable to equipment leaks.
63.9(a)	Yes.	
63.9(b)	No	Subpart OOO does not require an initial notification.
63.9(c)	Yes.	
63.9(d)	Yes.	
63.9(e)	No	§ 63.1417 specifies notification deadlines.
63.9(f)	No	Subpart OOO does not require opacity and visible emission standards.
63.9(g)	No.	
63.9(h)	No	§ 63.1417(e) specifies Notification of Compliance Status requirements.
63.9(i)	Yes.	
63.9(j)	No.	
63.10(a)	Yes.	
63.10(b)(1)	No	§ 63.1416(a) specifies record retention requirements.
63.10(b)(2)	No	Subpart OOO specifies recordkeeping requirements.

Reference	Applies to 40 CFR Part 63 Subpart OOO	Explanation
63.10(b)(3)	No	§ 63.1400(e) requires documentation of sources that are not affected sources.
63.10(c)	No	§ 63.1416 specifies recordkeeping requirements.
63.10(d)(1)	Yes.	
63.10(d)(2)	No	§ 63.1417 specifies performance test reporting requirements; not applicable to equipment leaks.
63.10(d)(3)	No	Subpart OOO does not require opacity and visible emission standards.
63.10(d)(4)	Yes.	
63.10(d)(5)	Yes	Except that reports required by § 63.10(d)(5)(i) may be submitted at the same time as Periodic Reports specified in § 63.1417(f). The start-up, shutdown, and malfunction plan, and any records or reports of start-up, shutdown, and malfunction do not apply to emission points that do not require control under this subpart.
63.10(e)	No	§ 63.1417 specifies reporting requirements.
63.10(f)	Yes.	
63.11	Yes	Except that instead of § 63.11(b), § 63.1413(g) shall apply.
63.12	Yes.	
63.13-63.15	Yes.	

NESHAPS: PAPER and OTHER WEB COATING (40 CFR 63 SUBPART JJJJ)

63. The Paper and Other Web Coating NESHAP was promulgated on December 4, 2002. The NESHAP applies to emission units EU-2o2, EU-2w2, EU-2d2, and EU-2L3. Emissions of the HAPs (phenol, formaldehyde, and methanol) are covered by the NESHAP.

NESHAPS: PROPOSED COMERCIAL and INSTITUTIONAL BOILER AND PROCESS HEATERS

64. Arclin has one large boiler, EU-4B1, rated at 25 MMBtu/hr. This boiler is classified as an existing large liquid fuel boiler as it burns primarily natural gas with occasional use of oil. They also have a small standby boiler, EU-4B2, rated at 3 MMBtu/hr which burns natural gas. Arclin is required to comply with the applicable provisions.

MONITORING REQUIREMENTS

65. 40 CFR 70.6(a)(3)(i) requires that all monitoring and analysis procedures or test methods required under applicable requirements be contained in Title V permits. In addition, where the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit.

The requirement to include in a permit testing, monitoring, recordkeeping, reporting, and compliance certification sufficient to assure compliance does not require the permit to impose the same level of rigor with respect to all emissions units and applicable requirement situations. It does not require extensive testing or monitoring to assure compliance with the applicable requirements for emissions units that do not have significant potential to violate emission limitations or other requirements under normal operating conditions.

Where compliance with the underlying applicable requirement for an insignificant emission unit is not threatened by a lack of a regular program of monitoring and where periodic testing or monitoring is not otherwise required by the applicable requirement, then in this instance, the status quo (i.e., no monitoring) will meet 40 CFR 70.6(a)(3)(i).

The permit monitoring section divides the monitoring requirements into four categories; the monitoring related to facility-wide applicable requirements, emissions unit specific monitoring, PSEL/RACT monitoring, and NESHAPS monitoring. No monitoring is required for insignificant activities.

66. The coating line is controlled by an RTO which is needed for compliance with RACT. The coating line would have uncontrolled emissions in excess of 100 tpy of VOC; therefore is subject to Compliance Assurance Monitoring (CAM). CAM includes an operating indicator temperature. If the operating temperature drops below the indicator temperature and the problem cannot be corrected within 8 minutes, an interface will interrupt the coating process.

Facility-Wide Monitoring

67. The facility-wide monitoring associated with opacity, nuisance, and fugitive dust control requirements includes periodic visual inspections, followed by corrective action(s) and/or preventive maintenance measure(s) necessary to minimize fugitive particulate emissions. The facility-wide monitoring requirements associated with the SERP and nuisance conditions mostly consist of the recordkeeping. The facility-wide monitoring requirements rely heavily on the permittee's self-monitoring and recordkeeping. The permittee is also subject to DEQ and/or EPA inspection, which is another vehicle used for compliance determination and implementation of corrective action.
68. The monitoring protocols for the opacity limit are established in a progressive manner. Periodic monitoring requirements start with extensive periodic opacity readings, and accumulated results are used to establish the next level (frequency) of monitoring for the individual source of emissions. This way, valuable resources are directed at the potential problem sources, rather than being equally distributed toward the sources with historically clean compliance records.

Emissions Unit Specific Monitoring:

69. The 0.10 and 0.14 gr/scf grain loading, and the 20% opacity standards are federally and state enforceable conditions that apply to all fuel burning equipment, regardless of type of fuel burned. Natural gas is one of the cleanest fuels available, and visible/particulate emissions from natural gas combustion are insignificant when compared to combustion of oil, coal, or wood wastes. Visible emissions, other than heat wave (or condensed water) during cold weather, from natural gas combustion are virtually non-detectable to the human eye. It is safe and reasonable to assume that the 20% opacity standard would not be exceeded during natural gas combustion. As for the 0.14 and 0.10 gr/scf limit, the following analysis further supports the assumption made in this permit:

Grain loading from natural gas combustion would generate particulate (all considered to be PM₁₀) at a level below the grain loading standard of 0.10 and 0.14 gr/scf, corrected to 12% CO₂ (stoichiometric feed of air). EPA AP42 indicates 12 lbs of particulate are generated from one million (10⁶) ft³ of natural gas combustion. In reference to 40 CFR Part 60, Appendix-A, Method 19; one million ft³ of natural gas combustion based on stoichiometric feed of air would yield 9.15 x 10⁶ ft³ of dry flue gases, where F_d = 8,710 dscf/10⁶ Btu:

$$(1 \times 10^6 \text{ ft}^3) \times (1050 \text{ btu/ft}^3) \times F_d = 9.15 \times 10^6 \text{ dscf}$$

Twelve pounds (12 lbs) of particulate in 9.15 x 10⁶ dscf of flue gases are equivalent to grain loading of about 0.01 gr/scf. The DEQ factor (2.5 lbs/10⁶ ft³) yields a much lower figure of 0.002 gr/scf.

$$\frac{12 \text{ lbs} \times 7000 \text{ gr/lb}}{9.15 \times 10^6 \text{ dscf}} = 0.009 \text{ gr/scf} < 0.10 \text{ gr/scf}$$

According to the EPA, AP42 figure of 12 lbs/10⁶ ft³ indicates the average grain loading from natural gas combustion is less than 10% of the rule standard of 0.10 gr/scf. In conclusion, as long as the boilers are fueled by natural gas (or LPG) only, the 20% opacity and 0.10 g/scf grain loading standards would be met.

The monitoring requirements for combustion units operating on natural gas, as specified in the permit, include recordkeeping of the type(s) of fuel used (and its consumption rate for the PSEL monitoring). No periodic visible emission survey is required when fuel burning equipment is operated on natural gas.

70. The permittee is required to source test the boilers for particulate emissions if fired on oil for more than 18 days per year. The ovens only fire on natural gas. Visible emission tests are also required when burning oil.

PSEL and RACT Monitoring

71. The PSEL and RACT monitoring in this permit is basically divided into two sections; monitoring protocols for fuel combustion sources and the primary VOC emission source, the coating lines including cleanup.
- a. Total emissions of criteria pollutants (combustion by-products) from the boilers and ovens are simply the product of fuel usage and the assigned emission factor for the pollutant identified.
 - b. Because the fuel oil sulfur content (%S) determines SO₂ emissions, if the boilers operate on fuel oil, recordkeeping and/or sample analysis requirements are necessary to validate that the sulfur content is within allowable limits. To simplify compliance calculations, fixed emission factors have been used for SO₂ PSEL compliance determination. These factors are based on AP-42 factors for combustion of ASTM #2 fuel. As long as the sulfur content of the permittee's fuel oil remains below 0.3% sulfur for ASTM #1 and 0.5% sulfur for ASTM #2, the SO₂ PSEL emission factor is conservative.
 - c. The VOC emissions from paper coating and cleanup are based on the chemical mass balance of materials used plus an emission factor times production to account for VOC emissions from resins. The resin component cannot be calculated based on mass balance because the resin base is composed of VOC which remain in the product. The same mass balance and resin component approach are used to determine compliance with the Surface Coating RACT limits specified in the permit. Monitoring requirements included all of the variables necessary for the mass balance and units of production.

NESHAPS: Amino/Phenolic Resin MACT Monitoring

72. The Amino/Phenolic Resin MACT monitoring includes continuous temperature monitoring on the RTO, leak detection monitoring, and Startup, Shutdown, and Malfunction recordkeeping

TEST METHODS AND PROCEDURES

73. "Test Methods and Procedures" requirements are provided so that the permittee and DEQ will know what test methods should be used to measure pollutant emissions in the event that testing is conducted for any reason. The general testing requirement does not by itself require the permittee to conduct any more testing than is required by the permit in other sections. Although the permit may not require testing because other routine monitoring is used to determine compliance, DEQ and EPA always have the authority to require testing if deemed necessary to determine compliance with an emission limit or standard. In addition, the permittee may elect to voluntary conduct testing to confirm the compliance status.

RECORDKEEPING REQUIREMENTS

74. Recordkeeping requirements in this permit are drafted pursuant to OAR 340-218-0050(3)(b). The records of all monitoring specified in the Oregon Title-V Operating Permit 26-3009 must be kept at the plant site for at least 5 years. All records necessary to determine compliance with any permit condition shall be made available to the DEQ/EPA inspectors upon request.

REPORTING REQUIREMENTS

75. Reporting requirements in this permit are drafted pursuant to OAR 340-218-0050(3)(c). The semi-annual reports are for certifying compliance with the permit requirements. The annual report consists of the second semi-annual compliance certification; in addition to the product throughputs, fuel usage, and other relevant data needed to determine compliance with the annual PSEL and other applicable requirements specified.

GENERAL BACKGROUND INFORMATION

76. The proposed Title V permit renewal will replace an existing permit which was issued on February 12, 2010 and modified by administrative amendments to incorporate an issued Construction ACDP on February 22, 2012. Other permits issued or required by DEQ for this source include a NPDES permit (NPDES OR0000892) for their cooling discharge, and a general NPDES permit (1200H) for their storm water discharge (File No. 81714). The facility is also registered with DEQ as a hazardous waste (HW) generator.
77. The source is located in a maintenance area for carbon monoxide and ozone. The area is in attainment for all pollutants. The permitted facility is a major (> 100 tons/yr) source of Volatile Organic Compounds (ozone precursor).

Compliance History

78. Since the last permit renewal the facility was inspected on September 2, 2010, May 16, 2012, September 5, 2014, and April 6, 2016 and found to be in compliance with applicable requirements.

Public Notice

79. This permit will be put on public notice from Sept 1, 2017 to Friday Oct. 13, 2017 at 5 p.m. Comments may be submitted in writing during the comment period. DEQ will hold a public hearing if requested by 10 or more individuals or one person representing a group of 10 or more individuals. After the comment period and hearing, if requested, DEQ will review the comments and modify the permit as may be appropriate. A proposed permit will be sent to EPA for a 45 day review period. DEQ may request and EPA may agree to an expedited review of 5 days if there were no substantive or adverse comments during the comment period.

If EPA does not object in writing, any person may petition the EPA within 60 days after the expiration of EPA's 45-day review period to make such objection. Any such petition must be based only on objections to the permit that were raised with reasonable specificity during the public comment period provided for in OAR 340-218-0210, unless the petitioner demonstrates it was impracticable to raise such objections within such period, or unless the grounds for such objection arose after such period.