LANE REGIONAL AIR PROTECTION AGENCY
1010 Main Street, Springfield, Oregon 97477
Telephone: (541) 736-1056 Toll Free: (877) 285-7272
Fax: (541) 726-1205 Web Page: *www.lrapa.org*

STANDARD AIR CONTAMINANT DISCHARGE PERMIT

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

Issued To:
Hexion Inc.
180 East Broad Street
Columbus, Ohio 43215

Mailing Address:
470 South Second Street
Springfield, Oregon 97477

Information Relied Upon:
Application No.: 64570
Date Received: December 3, 2018

Land Use Compatibility Statement:
Approving Authority: City of Springfield
Approval Date: August 6, 2001

Permit Number: 200510
Permit Type: Standard
SIC: 2821 Synthetic Resin Mfg
2869 Synthetic Formaldehyde Mfg
4961 Combustion Source
Date Renewed: February 24, 2012
Expiration Date: February 24, 2017
Modified Date: January 16, 2019

Permitted Sources:
Resin Manufacturing Operation Including:
Resin Kettles
Storage Tanks
Tail Gas Boilers
Natural Gas-fired Boilers
Miscellaneous VOC Sources

ISSUED BY THE LANE REGIONAL AIR PROTECTION AGENCY

Issued By: _____
Merlyn L. Hough, Director

Effective Date:
JAN 16 2019

ADDENDUM NO. 7
Non-NSR/PSD Simple Technical Permit Modification

In accordance with Section 37-0066(4)(b)(A) of LRAPA's Rules and Regulations, the following changes have been made to the Standard Air Contaminant Discharge Permit (ACDP) No. 200510: The facility is increasing throughput of Durite LV-1259M Loading from 2,250 tons per year to 3,375 tons per year and the Methanol Distillate from 259 tons per year to 777 tons per year. There are no changes in the PSELs. The table in Condition 25 has been amended with the changes highlighted in bold:

Plant-wide Recordkeeping and Reporting Requirements

25. The permittee shall limit annual production and/or operating parameters to the following values for each 12-month rolling period: [LRAPA 42-0060(1)(b)]

Process	Annual Production or Usage	Units
Boiler 2 (Erie) Tail Gas	8,760	hours
Boiler 6 (Johnston) Tail Gas	8,760	hours
Boiler 2 (Erie) Exhaust Bypass	50	hours
Boiler 6 (Johnston) Exhaust Bypass	54	hours
Boiler 2 (Erie) Natural Gas Usage	6	hours
Boiler 6 (Johnston) Natural Gas Usage	6	hours
Boiler 3 (Fulton) Natural Gas Usage	18.4	MMscf
Boiler 4 and 5 (Miura) Natural Gas Usage	181	MMscf
Fugitive Emissions – Plant 2	8,760	hours
Fugitive Emissions – Plant 3	8,760	hours
Fugitive Emissions – Resins	8,760	hours
Formaldehyde Storage	100,000	tons
Formaldehyde Loading	10,000	tons
PF/UF Resin Produced in Reactors	200,000	tons
PF/UF/PRF Resin Storage	200,000	tons
PF/UF Resin Loading	200,000	tons
Triazines Stored	17,250	tons
Triazines Loading	17,250	tons
Durite LV 1259M Loading	**3,375**	**tons**
Durite SC748A Loading	500	tons
MF Resin Produced in Reactors	17,500	tons
MF Resin Storage	17,500	tons
MF Resin Loading	17,500	tons
Methanol Storage	66,000	tons
Phenol/LPE Storage	40,000	tons
Triethylamine Storage	300	tons
Triethanolamine Storage	1,487	tons
Triethanolamine Rx9 Storage	38	tons
10% Formic Acid	4,127	tons
GN8/11 Storage	6,300	tons

Process	Annual Production or Usage	Units
GN8/11 Loading (MeOH Contribution)	63	tons
GN8/11 Tote Transloading	6,600	tons
Sheer Mixer RF-300W	23,652,000	gallons
Sheer Mixer FM-6310L	27,652,609	gallons
Sheer Mixer FM-7400L	75,085,714	gallons
Sheer Mixer Momentive 4720	13,770,000	gallons
Stearic Acid Storage	1,431	tons
Wax Production	71,540	tons
Slack Wax Storage	50,078	tons
Diethylene Glycol Storage	9,588	tons
Resin Drying Pad Throughput	300	tons
Urea Weigh Bin #1 Throughput	50,000	tons
Urea Weigh Bin #2 Throughput	50,000	tons
Dry Catalyst Loading/Production (Blender #1)	3,893	tons
	411	MMscf
Dry Catalyst Blender #2	1,560	hours
	561	MMscf
Dry Catalyst Vacuum Sweeper Usage	15.4	MMscf
Dry Catalyst Exhaust Fan West	18.7	MMscf
Dry Catalyst Exhaust Fan South	18.7	MMscf
RTU Dry Material Loading	750	tons
Unpaved Roads	54	VMT
Melamine Handling	8,760	hours
Adhesive Dump Hopper	1,000	tons
Melamine Conveyor	455	MMscf
Melamine Hopper	263	MMscf
PF Washwater Storage	21,605	tons
Washwater Pits	1,464,540	gallons
UF Seal Water Storage	18,630	tons
Methanol Distillate	**777**	**tons**
PF Distillate Storage	5,839	tons
UF Distillate Storage	2,718	tons

LANE REGIONAL AIR PROTECTION AGENCY
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STANDARD AIR CONTAMINANT DISCHARGE PERMIT

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

Issued To:
Hexion Inc.
180 East Broad Street
Columbus, Ohio 43215

Mailing Address:
470 South Second Street
Springfield, Oregon 97477

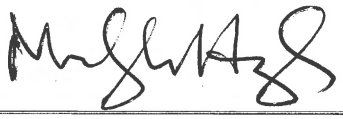
Information Relied Upon:
Application No.: 62877
Date Received: May 9, 2017

Land Use Compatibility Statement:
Approving Authority: City of Springfield
Approval Date: August 6, 2001

Permit Number: 200510
Permit Type: Standard
SIC: 2821 Synthetic Resin Mfg
2869 Synthetic Formaldehyde Mfg
4961 Combustion Source
Date Renewed: February 24, 2012
Expiration Date: February 24, 2017
Modified Date: July 24, 2017

Permitted Sources:
Resin Manufacturing Operation Including:
Resin Kettles
Storage Tanks
Tail Gas Boilers
Natural Gas-fired Boilers
Miscellaneous VOC Sources

ISSUED BY THE LANE REGIONAL AIR PROTECTION AGENCY

Issued By: 
Merlyn L. Hough, Director

Effective Date:
JUL 24 2017

ADDENDUM NO. 6
Non-NSR/PSD Simple Technical Permit Modification

In accordance with Section 37-0066-4.B-1 of LRAPA's Rules and Regulations, the following changes have been made to the Standard Air Contaminant Discharge Permit (ACDP) No. 200510: The facility is increasing of production of the Urea-Formaldehyde (UF) and Phenol-Formaldehyde (PF) resin to 200,000 tons per year. There are no changes in the PSELs. Condition 25 has been amended to change the tables as follows:

- Increasing the UF/PF Resin produced in Reactors, Storage, and Loading from 140,000 to 200,000 tons per year.

- Increasing Formaldehyde Resin Storage from 82,075 to 100,000 tons per year.
- Increasing Methanol Storage from 45,000 to 66,000 tons per year.
- Increasing Phenol/LPE Storage from 27,000 to 40,000 tons per year.
- Increasing Urea Weigh Bins #1 and #2 from 25,000 to 50,000 tons per year, each.
- Removing Methanol Loading.

Plant-wide Recordkeeping and Reporting Requirements

25. The permittee shall limit annual production and/or operating parameters to the following values for each 12-month rolling period: [LRAPA 42-0060-1.B]

Process	Annual Production or Usage	Units
Boiler 2 (Erie) Tail Gas	8,760	hours
Boiler 6 (Johnston) Tail Gas	8,760	hours
Boiler 2 (Erie) Exhaust Bypass	50	hours
Boiler 6 (Johnston) Exhaust Bypass	54	hours
Boiler 6 (Johnston) Natural Gas Usage	6	hours
Boiler 3 (Fulton) Natural Gas Usage	18.4	MMscf
Boiler 4 and 5 (Miura) Natural Gas Usage	181	MMscf
Fugitive Emissions – Plant 2	8,760	hours
Fugitive Emissions – Plant 3	8,760	hours
Fugitive Emissions – Resins	8,760	hours
Formaldehyde Storage	100,000	tons
Formaldehyde Loading	10,000	tons
PF/UF Resin Produced in Reactors	200,000	tons
PF/UF/PRF Resin Storage	200,000	tons
PF/UF Resin Loading	200,000	tons
Triazines Stored	17,250	tons
Triazines Loading	17,250	tons
Durite LV 1259M Loading	2,250	tons
Durite SC748A Loading	500	tons
MF Resin Produced in Reactors	17,500	tons
MF Resin Storage	17,500	tons
MF Resin Loading	17,500	tons
Methanol Storage	66,000	tons
Phenol/LPE Storage	40,000	tons
Triethylamine Storage	300	tons
Triethanolamine Storage	1,487	tons

Process	Annual Production or Usage	Units
Triethanolamine Rx9 Storage	38	tons
10% Formic Acid	4,127	tons
GN8/11 Storage	6,300	tons
GN8/11 Loading (MeOH Contribution)	63	tons
GN8/11 Tote Transloading	6,600	tons
Sheer Mixer RF-300W	23,652,000	gallons
Sheer Mixer FM-6310L	27,652,609	gallons
Sheer Mixer FM-7400L	75,085,714	gallons
Sheer Mixer Momentive 4720	13,770,000	gallons
Stearic Acid Storage	1,431	tons
Wax Production	71,540	tons
Slack Wax Storage	50,078	tons
Diethylene Glycol Storage	9,588	tons
Resin Drying Pad Throughput	300	tons
Urea Weigh Bin #1 Throughput	50,000	tons
Urea Weigh Bin #2 Throughput	50,000	tons
Dry Catalyst Loading/Production (Blender #1)	3,893	tons
	411	MMscf
Dry Catalyst Blender #2	1,560	hours
	561	MMscf
Dry Catalyst Vacuum Sweeper Usage	15.4	MMscf
Dry Catalyst Exhaust Fan West	18.7	MMscf
Dry Catalyst Exhaust Fan South	18.7	MMscf
RTU Dry Material Loading	750	tons
Unpaved Roads	54	VMT
Melamine Handling	8,760	hours
Adhesive Dump Hopper	1,000	tons
Melamine Conveyor	455	MMscf
Melamine Hopper	263	MMscf
PF Washwater Storage	21,605	tons
Washwater Pits	1,464,540	gallons
UF Seal Water Storage	18,630	tons
Methanol Distillate	259	tons

Process	Annual Production or Usage	Units
PF Distillate Storage	5,839	tons
UF Distillate Storage	2,718	tons

BD/cmw
7/19/2017

LANE REGIONAL AIR PROTECTION AGENCY
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STANDARD AIR CONTAMINANT DISCHARGE PERMIT

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

Issued To:
Hexion Inc.
180 East Broad Street
Columbus, Ohio 43215

Mailing Address:
470 South Second Street
Springfield, Oregon 97477

Information Relied Upon:
Application No.: 61274
Date Received: February 11, 2016

Land Use Compatibility Statement:
Approving Authority: City of Springfield
Approval Date: August 6, 2001

Permit Number: 200510
Permit Type: Standard
SIC: 2821 Synthetic Resin Mfg
2869 Synthetic Formaldehyde Mfg
4961 Combustion Source
Date Renewed: February 24, 2012
Expiration Date: February 24, 2017
Modified Date: May 20, 2016

Permitted Sources:
Resin Manufacturing Operation Including:
Resin Kettles
Storage Tanks
Tail Gas Boilers
Natural Gas-fired Boilers
Miscellaneous VOC Sources

ISSUED BY THE LANE REGIONAL AIR PROTECTION AGENCY

Issued By:
Max Hueftle for Merlyn L. Hough, Director

Effective Date:
05/20/16

ADDENDUM NO. 5
Non-NSR/PSD Simple Technical Permit Modification

In accordance with Section 37-0066-4.B-1 of LRAPA's Rules and Regulations, the following changes have been made to the Standard Air Contaminant Discharge Permit (ACDP) No. 200510: The facility is installing a 17.6 MMBtu/hr Johnston Tail Gas boiler (EU: Boiler-6) to replace the Nebraska Tail Gas boiler (EU: Boiler-1). There are no changes in the PSELs. Conditions 2, 5, 8 through 18, 21, 24, 25 and 28 have been updated to reflect the change and now read as follows:

Emission Unit Description

2. The emission units regulated by this permit are the following:

Emission Unit	EU ID
Erie Tail Gas Boiler	Boiler-2
Fulton Boiler/Drier, 50 HP	Boiler-3
Miura Boiler #1	Boiler-4
Miura Boiler #2	Boiler -5
Johnston Tail Gas Boiler (NEW) **	**Boiler-6**
Emergency Generator (Categorically Insignificant)	NA
Plant #2 Waste Gas Bypass Vent	Plant-2 WGBV
Plant #3 Waste Gas Bypass Vent	Plant-3 WGBV
UF Resin Reactor Scrubbers	UF Scrubbers
PF Resin Reactor Scrubbers	PF Scrubbers
MF Resin Reactor Scrubbers	MF Scrubbers
Urea Weigh Bin #1	Urea WB-1
Urea Weigh Bin #2	Urea WB-2
Adhesive Dump Hopper	NA
Melamine Conveyor	NA
Melamine Hopper	NA
Dry Catalyst Operations	NA
Resin Drying Pad	NA
Wax Process (Emulsified and Slack Wax Process, Loading, and Storage)	NA
Haul Road Paved (Categorically Insignificant) and Unpaved Roads Emissions	NA
Storage Tanks, Fugitives, Seal Water, Truck Loading, and other miscellaneous devices	Storage, etc.

**New Emission Unit as of February 2016.

5. The permittee may cause, suffer, allow, or permit particulate matter emissions from any air contaminant source is excess of the following limits: [OAR 340-226-0210(2)(c)]

5.a. For sources installed, constructed, or modified after April 16, 2015, shall demonstrate emissions no greater than 0.10 grains per dry standard cubic foot (EU: Boiler-6).

<u>New Source Performance Standards (NSPS) Subpart III, Standards of Performance for VOC Emissions from the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Process</u>

8. For the Johnston Tail Gas Boiler (EU: Boiler-6), the permittee must reduce emissions of Total

Organic Compounds (TOC) minus methane and ethane as follows: [40 CFR 60.612(a)]

8.a. By 98 weight-percent, or
8.b. 20 ppmv, or less, on a dry basis, corrected to 3 percent oxygen.

9. The permittee shall monitor the temperatures and flow at the Johnston Tail Gas Boiler (EU: Boiler-6). To monitor and record the temperatures and flow, the permittee must install, calibrate, maintain, and operate, according to manufacturer's specifications, the following equipment:

9.a. A temperature monitoring device in the firebox equipped with a continuous recorder and having an accuracy of ± 1 percent of the temperature being measured expressed in degrees Celsius or ± 0.5 °C, whichever is greater, for boilers or process heaters of less than 44 MW (150 million Btu/hr) heat input design capacity; [40 CFR 60.613(c)(2)]

9.a.i In the Johnston Tail Gas Boiler, a temperature-monitoring device may be used in the stack exhaust of the boiler, in lieu of the firebox, in accordance to alternative monitoring request approved by LRAPA of December 31, 2008. [40 CFR 60.13(i)(4) and LRAPA 35-0140(2)]

9.b. A flow indicator that that provides a record of vent stream flow from Formaldehyde Plant #3 to the Johnston Tail Gas Boiler (EU: Boiler-6) at least once every hour. The flow indicator shall be installed in the vent stream from the Tail Gas Boiler at a point closest to the inlet of the Tail Gas Boiler and before being joined with any other vent stream. [40 CFR 60.613(c)(1)]

NSPS Subpart III Testing

10. For the purposes of demonstrating compliance with Condition 8, the permittee shall run the Tail Gas Boiler (EU: Boiler-6) at full operating and flow rates during any performance test. [40 CFR 60.614(a)]

11. The performance test methods of 40 CFR 60.614(b), except as provided by 40 CFR 60.8, shall be used as reference methods to determine compliance with the 20 ppmv (on a dry basis and corrected to three (3) percent oxygen) emission limit or 98 weight-percent reduction efficiency specified in Condition 8. [40 CFR 60.614(b)]

NSPS Subpart III Recordkeeping

12. The permittee shall keep up-to-date, readily accessible records of the following data measured during each performance test and also include the following data in the report of the initial performance test required under 40 CFR 60.8. The same data specified in this section shall be submitted in the reports of all subsequently required performance tests where either the emission control efficiency of a control device, or outlet concentration of TOC of a vent stream from the tail gas boiler is determined. [40 CFR 60.615(b)]

12.a. A description of the location at which the vent stream is introduced into the Tail Gas Boiler (EU: Boiler-6), and [40 CFR 60.615(b)(2)(i)]

12.b. The average combustion temperature of the tail gas boiler measured at least every 15 minutes and averaged over the same time period of the performance testing. [40 CFR 60.615(b)(2)(ii)]

13. The permittee shall keep up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored under Condition 9 as well as up-to-date, readily

accessible records of periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. LRAPA may at any time require a report of these data. Periods of operation during which the parameter boundaries established during the most recent performance tests are exceeded are defined as follows: [40 CFR 60.615(c)]

13.a. All 3-hour periods of operation during which the average stack exhaust temperature (Condition 9.a.i) was more than 28 °C (50 °F) below the average temperature during the most recent performance test at which compliance with Condition 8 was determined and/or, [40 CFR 60.615(c)(3)]

13.b. Whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under Condition 8. [40 CFR 60.615(c)(4)]

14. The permittee shall keep up-to-date, readily accessible continuous records of the flow indication specified under Condition 9.b, as well as up-to-date, readily accessible records of all periods when the vent stream is diverted from the control device or has no flow rate. [40 CFR 60.615(d)]

NSPS Subpart III Reporting

15. For the purposes of the NSPS Subpart III requirements, the permittee is exempt from the quarterly reporting requirements contained in 40 CFR 60.7(c) of the General Provision. [40 CFR 60.615(i)]

16. The permittee shall submit to LRAPA semiannual reports of the following information. [40 CFR 60.615(j)]

16.a. Exceedances of monitored parameters recorded under Condition 13. [40 CFR 60.615(j)(1)[

16.b. All periods recorded under Condition 14 when the vent stream is diverted from the control device or has no flow rate. [40 CFR 60.615(j)(2)]

17. The requirements of Condition 16 remain in force until and unless EPA, in delegating enforcement authority to LRAPA under Section 111(c) of the Clear Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by LRAPA. In that event, the permittee will be relieved of the obligation to comply with Condition 16, provided that they comply with the requirements established by LRAPA. [40 CFR 60.615(k)]

18. LRAPA will specify appropriate reporting and recordkeeping requirements where the permittee seeks to demonstrate compliance with the standards specified under Condition 8 other than as provided by Condition 9. [40 CFR 60.615(l)]

New Source Performance Standards (NSPS) Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units Applicable to Miura Boilers #1 and #2 and Johnston Tail Gas Boiler (EUs: Boiler-4, Boiler-5, and Boiler-6)

21. The permittee shall follow all applicable requirements of the 40 CFR 60 Subpart Dc. [40 CFR 60.40c]

Plant-wide Recordkeeping and Reporting Requirements

Semiannual Report

24. The report required by Condition 23 shall also include the following information. [LRAPA 35-0160]

Emissions Device or Activity	Process or production parameter recorded monthly
Boiler-2 and Boiler-6	Tail gas combusted (hours)
Boiler-2 and Boiler-6	Natural gas combusted (MMcf)
Boiler-2 and Boiler-6 waste tail gas bypass to atmosphere	Hours

**Modified Table to only reference Johnston Tail Gas Boiler (EU: Boiler-6) and remove Nebraska Tail Gas Boiler (EU: Boiler-1)

25. The permittee shall limit annual production and/or operating parameters to the following values for each 12-month rolling period; [LRAPA 42-0060-1.B]

Process	Annual Production or Usage	Units
Boiler-6 (Johnston) Tail Gas	8,760	hours
Boiler-6 (Johnston) Exhaust Bypass	54	hours
Boiler-6 (Johnston) Natural Gas Usage	6	MMscf

**Modified Table to only reference Johnston Tail Gas Boiler (EU: Boiler-6)

General Testing Requirements

28. The permittee shall conduct testing for the following pollutants of the Johnston Tail Gas boiler (EU: Boiler-6) within 12 months of installation to verify the emission factors listed in the detail sheet attached to the review report. The testing shall also verify compliance with the NSPS Subpart III emission limit in Condition 8. The emission points and pollutants required to be tested are listed in the following table. [LRAPA 35-0140]

Monitoring Point	Pollutant
Boiler 6 – Johnston Tail Gas Boiler: Boiler inlet and outlet	Total VOC
	CO
	NO_X
	Formaldehyde
	Methanol

28.c. The following parameters shall be monitored and recorded during the source test and/or field testing:

28.c.i Visible emissions as measured by EPA Method 9 for a period of at least six (6) minutes during or within 30 minutes before or after each test run for each the Johnston Tail Gas Boiler;

28.c.ii The following process parameters will be recorded for the Johnston Tail Gas Boiler:

- Tail gas feed rate (lbs/hr, scfm);
- Firebox temperature (°C);
- Residual oxygen content (%);
- Steaming rate, (1000 lbs steam/hr);
- Total Hydrocarbon in tail gas (ppm as propane);
- Average formaldehyde production rate (tons/hr);
- Emission results in pounds pollutant per hour operation of Tail Gas Boiler (lbs/hr).

BD/cmw
5/19/2016

LANE REGIONAL AIR PROTECTION AGENCY
1010 Main Street, Springfield, Oregon 97477
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STANDARD AIR CONTAMINANT DISCHARGE PERMIT

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

Issued To:
Hexion Inc.
180 East Broad Street
Columbus, Ohio 43215

Plant Site Location:
470 South Second Street
Springfield, Oregon 97477

Permit Number: 200510
Permit Type: Standard
SIC: 2821 Synthetic Resin Mfg
2869 Synthetic Formaldehyde Mfg
4961 Combustion Source
Date Renewed: February 24, 2012
Expiration Date: February 24, 2017
Modified Date: April 30, 3015

Information Relied Upon:
Application No.: 60312
Date Received: February 19, 2015

Land Use Compatibility Finding:
Approving Authority: City of Springfield
Approval Date: August 6, 2001

Permitted Sources:
Resin Manufacturing Operation Including:
Resin Kettles
Storage Tanks
Tail Gas Boilers
Natural Gas-fired Boilers
Miscellaneous VOC Sources

ISSUED BY THE LANE REGIONAL AIR PROTECTION AGENCY

Merlyn L. Hough, Director — Dated APR 30 2015

ADDENDUM NO. 4
Non-Technical Permit Mod

In accordance with Section 37-0066-4.B-1 Air Contaminant Discharge Permit No. 200510 is hereby amended to change of company name and company address of Momentive Specialty Chemicals Inc. to Hexion Inc., 180 East Broad St, Columbus, Ohio 43215.

BD/CMW
4/22/15

LANE REGIONAL AIR PROTECTION AGENCY
1010 Main Street, Springfield, Oregon 97477
Telephone: (541) 736-1056 Toll Free: (877) 285-7272
Fax: (541) 726-1205 Web Page: *www.lrapa.org*

STANDARD AIR CONTAMINANT DISCHARGE PERMIT

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

Issued To:
Momentive Specialty Chemicals Inc.
470 South Second Street
Springfield, Oregon 97477

Plant Site Location:
470 South Second Street
Springfield, Oregon 97477

Permit Number: 200510
Permit Type: Standard
SIC: 2821 Synthetic Resin Mfg
2869 Synthetic Formaldehyde Mfg
4961 Combustion Source
Date Renewed: February 24, 2012
Expiration Date: February 24, 2017
Modified Date: January 6, 2014

Information Relied Upon:
Application No.: 59108
Date Received: December 10, 2013

Land Use Compatibility Finding:
Approving Authority: City of Springfield
Approval Date: August 6, 2001

Permitted Sources:
Resin Manufacturing Operation Including:
Resin Kettles
Storage Tanks
Tail Gas Boilers
Natural Gas-fired Boilers
Miscellaneous VOC Sources

Issued By: _____
Merlyn L. Hough, Director

Effective Date: JAN - 6 2014

Addendum No. 3
Non-NSR/PSD Basic Technical Permit Mod

In accordance with Section 37-0066-4.B-1 Air Contaminant Discharge Permit No. 200510 is hereby amended to revise the annual production and/or operating parameters for the Nebraska Tail Gas boiler (Boiler 1), the "Phenol Formaldehyde (PF) Produced in Reactors", "Urea Formaldehyde (UF) Resins

Produced in Reactors", "PF/PRF Resin Storage", "UF Resin Storage" and the Resin Drying Pad in permit Condition 25 in accordance with Title 37 of LRAPA's Rule and Regulations. Condition 25 now reads as follows:

25. The permittee shall limit annual production and/or operating parameters to the following values for each 12-month rolling period: [LRAPA 42-0060-1.B]

Process	Annual Production or Usage	Units
Boiler 1 (Nebraska) Tail Gas	~~7,946~~ 8,760	hours
Boiler 2 (Erie) Tail Gas	5,950	hours
Boiler 1 (Nebraska) Exhaust Bypass	54	hours
Boiler 2 (Erie) Exhaust Bypass	50	hours
Boiler 1 (Nebraska) Natural Gas Usage	6	MMscf
Boilers 4 and 5 (Miura) Natural Gas Usage	181	MMscf
Boiler 3 (Fulton) Natural Gas Usage	18.4	MMscf
Fugitive Emissions Plant 2	6,000	hours
Fugitive Emissions Plant 3	~~8,000~~ 8,760	hours
Fugitive Emissions - Resins	8,760	hours
Formaldehyde Storage	82,075	tons
Formaldehyde Loading	10,000	tons
PF Resin Produced **OR** UF Resin Produced in Reactors	~~75,000~~ 140,000	tons
PF/PRF Resin **OR** UF Resin Storage	~~70,000~~ 140,000	tons
PF Resin **OR** UF Resin Loading	~~70,000~~ 140,000	tons
~~UF Resin Produced in Reactors~~	~~75,000~~ 0	~~tons~~
~~UF Resin Storage~~	~~70,000~~ 0	~~tons~~
~~UF Resin Loading~~	~~70,000~~ 0	~~tons~~
Triazines Storage	17,250	tons
Triazines Loading	17,250	tons
Durite LV 1259M Loading	2,250	tons
Durite SC748A Loading	500	tons
MF Resin Produced in Reactors	17,500	tons
MF Resin Storage	17,500	tons
MF Resin Loading	17,500	tons
Methanol Storage	42,000	tons
Methanol Loading	250	tons
Phenol Storage	27,000	tons
Triethylamine Storage	300	tons
Triethanolamine Storage	1,487	tons
Triethanolamine Rx9 Storage	38	tons
10% Formic Acid	4,127	tons
GN11 Storage	3,375	tons
Sheer Mixer RF-300W	23,652,000	gallons
Sheer Mixer FM-6310L	27,422,609	gallons
Sheer Mixer FM-7400L	75,085,714	gallons
Sheer Mixer Momentive 4720	13,770,000	gallons
Stearic Acid Storage	1,431	tons
Wax Production	71,540	tons
Slack Wax Storage	50,078	tons
Diethylene Glycol Storage	9,588	tons
Resin Drying Pad Throughput	~~200~~ 300	tons
Urea Weigh Bin #1 Throughput	25,000	tons

Urea Weigh Bin #2 Throughput	25,000	tons
Dry Catalyst Loading/Production (Blender #1)	3,893	tons
Dry Catalyst Loading/Production (Blender #1)	411	MMscf
Dry Catalyst Blender #2	561	MMscf
Dry Catalyst Blender #2	1,560	hours
Dry Catalyst Vacuum Sweeper Usage	15.4	MMscf
Dry Catalyst Exhaust Fan West	18.7	MMscf
Dry Catalyst Exhaust Fan South	18.7	MMscf
RTU Dry Material Loading	750	tons
Unpaved Roads	54	VMT
Melamine Handling	8,760	hours
Adhesive Dump Hopper	1,000	tons
Melamine Conveyor	455	MMscf
Melamine Hopper	263	MMscf
PF Washwater Storage	21,605	tons
Washwater Pits	1,464,540	gallons
UF Sealwater Storage	18,630	tons
Methanol Distillate	259	tons
PF Distillate Storage	5,839	tons
UF Distillate Storage	2,718	tons

BD/CMW
01/06/14

LANE REGIONAL AIR PROTECTION AGENCY
1010 Main Street, Springfield, Oregon 97477
Telephone: (541) 736-1056 Toll Free: (877) 285-7272
Fax: (541) 726-1205 Web Page: *www.lrapa.org*

STANDARD AIR CONTAMINANT DISCHARGE PERMIT

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

Issued To:
Momentive Specialty Chemicals Inc.
470 South Second Street
Springfield, Oregon 97477

Mailing Address:
470 South Second Street
Springfield, Oregon 97477

Land Use Compatibility Statement:
From: City of Springfield
Dated: August 6, 2001

Fee Basis:
Title 37, Table 1: Part B.70
Synthetic Resin Manufacturing
Title 37, Table 1: Part C.6
Potential to Emit more than 10 tons of a single HAP per year

Permit Number: 200510
Permit Type: Standard
SIC: 2821 Synthetic Resin Mfg
2869 Synthetic Formaldehyde Mfg
4961 Combustion Source
Date Renewed: February 24, 2012
Expiration Date: February 24, 2017
Modified Date: April 19, 2013

Permitted Sources:
Resin Manufacturing Operation Including:
Resin Kettles
Storage Tanks
Tail Gas Boilers
Natural Gas-fired Boilers
Miscellaneous VOC Sources

Issued By: _____
Max Hueftle, P.E for Merlyn L. Hough, Director

Effective Date: APR 19 2013

ADDENDUM NO. 2
Non NSR/PSD Basic Technical Permit Mod

In accordance with Section 37-0066-4.B-1 Air Contaminant Discharge Permit No. 200510 is hereby amended to revise the annual production and/or operating parameters for "Triazines Stored", "Triazines Loading" and "Resin Drying Pad Throughput" in permit Condition 23 in accordance with Title 37 of LRAPA's Rules and Regulations. Condition 25 now reads as follows:

25. The permittee shall limit annual production and/or operating parameters to the following values for each 12-month rolling period: [LRAPA 42-0060-1.B]

Process	Annual Production or Usage	Units
Boiler 1 (Nebraska) Tail Gas	7,946	hours
Boiler 2 (Erie) Tail Gas	5,950	hours
Boiler 1 (Nebraska) Exhaust Bypass	54	hours
Boiler 2 (Erie) Exhaust Bypass	50	hours
Boiler 1 (Nebraska) Natural Gas Usage	6	MMscf
Boilers 4 and 5 (Miura) Natural Gas Usage	181	MMscf
Boiler 3 (Fulton) Natural Gas Usage	18.4	MMscf
Fugitive Emissions Plant 2	6,000	hours
Fugitive Emissions Plant 3	8,000	hours
Fugitive Emissions - Resins	8,760	hours
Formaldehyde Storage	82,075	tons
Formaldehyde Loading	10,000	tons
UF Resin Produced in Reactors	75,000	tons
UF Resin Storage	70,000	tons
UF Resin Loading	70,000	tons
Triazines Stored	~~5,000~~ 17,250	tons
Triazines Loading	~~5,000~~ 17,250	tons
PF Resin Produced in Reactors	75,000	tons
PF Resin Storage	75,000	tons
PF Resin Loading	72,250	tons
Durite LV 1259M Loading	2,250	tons
Durite SC748A Loading	500	tons
MF Resin Produced in Reactors	17,500	tons
MF Resin Storage	17,500	tons
MF Resin Loading	17,500	tons
Methanol Storage	42,000	tons
Methanol Loading	250	tons
Phenol Storage	27,000	tons
Triethylamine Storage	300	tons
Triethanolamine Storage	1,487	tons
Triethanolamine Rx9 Storage	38	tons
10% Formic Acid	4,127	tons
GN11 Storage	3,375	tons
Sheer Mixer RF-300W	23,652,000	gallons
Sheer Mixer FM-6310L	27,422,609	gallons
Sheer Mixer FM-7400L	75,085,714	gallons
Sheer Mixer Momentive 4720	13,770,000	gallons
Stearic Acid Storage	1,431	tons
Wax Production	71,540	tons
Slack Wax Storage	50,078	tons
Diethylene Glycol Storage	9,588	tons
Resin Drying Pad Throughput	~~300~~ 200	tons
Urea Weigh Bin #1 Throughput	25,000	tons
Urea Weigh Bin #2 Throughput	25,000	tons

Dry Catalyst Loading/Production (Blender #1)	3,893	tons
Dry Catalyst Loading/Production (Blender #1)	411	MMscf
Dry Catalyst Blender #2	561	MMscf
Dry Catalyst Blender #2	1,560	hours
Dry Catalyst Vacuum Sweeper Usage	15.4	MMscf
Dry Catalyst Exhaust Fan West	18.7	MMscf
Dry Catalyst Exhaust Fan South	18.7	MMscf
RTU Dry Material Loading	750	tons
Unpaved Roads	54	VMT
Melamine Handling	8,760	hours
Adhesive Dump Hopper	1,000	tons
Melamine Conveyor	455	MMscf
Melamine Hopper	263	MMscf
PF Washwater Storage	21,605	tons
Washwater Pits	1,464,540	gallons
UF Sealwater Storage	18,630	tons
Methanol Distillate	259	tons
PF Distillate Storage	5,839	tons
UF Distillate Storage	2,718	tons

Max
04/19/13

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STANDARD AIR CONTAMINANT DISCHARGE PERMIT

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

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Permit Type: Standard
SIC: 2821 Synthetic Resin Mfg
2869 Synthetic Formaldehyde Mfg
4961 Combustion Source
Date Renewed: February 24, 2012
Expiration Date: February 24, 2017

Permitted Sources:
Resin Manufacturing Operation Including:
Resin Kettles
Storage Tanks
Tail Gas Boilers
Natural Gas-fired Boilers
Miscellaneous VOC Sources

Issued By: _____
Merlyn L. Hough, Director

Effective Date: SEP 26 2012

ADDENDUM NO. 1
Non NSR/PSD Simple Technical Permit Mod

In accordance with Section 37-0066-4.B-1 Air Contaminant Discharge Permit No. 200510 is hereby amended to revise the "Emission Factor Attachment" referenced in permit Condition 23 in accordance with Title 37 of LRAPA's Rules and Regulations.

"Emission Factors Attachment"

Emission Unit	Operating Parameter		Pollutant	EF	Units	Ref	Emissions (ton/yr)
Boiler 1 (NE) Tail Gas	7946	hours/yr	NOx	0.05	lb/hr	ST 4/2010	0.20
			CO	1.45	lb/hr	ST 4/2010	5.76
			VOC	2.49	lb/hr	ST 4/2010	9.89
			MeOH	0.5	lb/hr	ST 4/2010	1.99
			HCOH	0.05	lb/hr	ST 4/2010	0.20
Boiler 2 (Erie) Tail Gas	5950	hours/yr	NOX	0.03	lb/hr	ST 4/2010	0.09
			CO	0.62	lb/hr	ST 4/2010	1.84
			VOC	0.43	lb/hr	ST 4/2010	1.28
			MeOH	0.006	lb/hr	ST 4/2010	0.02
			HCOH	0.006	lb/hr	ST 4/2010	0.02
All Boilers Natural Gas	205.4	MMscf	PM/PM10/PM2.5	7.6	lb/MMSCF	AP42	0.78
			NOx	100	lb/MMSCF	AP42	10.27
			CO	84	lb/MMSCF	AP42	8.63
			SO2	0.6	lb/MMSCF	AP42	0.06
			VOC	5.5	lb/MMSCF	AP42	0.56
			Total HAP	1.88	lb/MMSCF	AP42	0.19
			Non HAP VOC	9.4	lb/MMSCF	AP42	0.97
Boiler 1 (NE) Bypass	54	hours/yr	CO	24.2	lb/hr	ST 4/2010	0.65
			VOC	249.37	lb/hr	ST 4/2010	6.73
			HCOH	5.01	lb/hr	ST 4/2010	0.14
			MeOH	49.53	lb/hr	ST 4/2010	1.34
Boiler 2 (Erie) Bypass	50	hours/yr	CO	62.5	lb/hr	ST 4/2010	1.56
			VOC	43	lb/hr	ST 4/2010	1.08
			HCOH	0.61	lb/hr	ST 4/2010	0.02
			MeOH	0.58	lb/hr	ST 4/2010	0.01
PF Resin Reactor Scrubber	75,000	tons/yr	VOC	1.57E-01	lb/ton	R&D	5.89
			HCOH	2.57E-03	lb/ton	R&D	0.10
			MeOH	2.13E-02	lb/ton	R&D	0.80
			Phenol	2.54E-04	lb/ton	R&D	0.01
UF Resin Reactor Scrubber	75,000	tons/yr	VOC	6.56E-02	lb/ton	R&D	2.46
			HCOH	8.97E-04	lb/ton	R&D	0.03
			MeOH	7.42E-03	lb/ton	R&D	0.28
			Triethylamine	1.10E-02	lb/ton	R&D	0.41
MF Resin Reactor Scrubber	17,500	tons/yr	VOC	2.50E-01	lb/ton	R&D	2.19
			HCOH	3.89E-03	lb/ton	R&D	0.03
			MeOH	3.41E-02	lb/ton	R&D	0.30
Formaldehyde Storage	82,075	tons/yr	VOC	4.13E-02	lb/ton	AP42 7.1	1.70
			HCOH	3.55E-02	lb/ton	AP42 7.1	1.46
			MeOH	5.82E-03	lb/ton	AP42 7.1	0.24
Formaldehyde Loading	10,000	tons/yr	VOC	5.01E-05	lb/lb	AP42 5.2	0.50
			HCOH	4.29E-05	lb/lb	AP42 5.2	0.43
			MeOH	7.15E-06	lb/lb	AP42 5.2	0.07
[redacted]	75,000	ton/yr	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
			Ethylene Glycol	1.19E-06	lb/lb	site	8.93E-02
MF Resin Produced in Reactors	17,500	tons/yr	VOC	2.89E-03	lb/ton	site	0.03
			Ethylene Glycol	1.82E-04	lb/ton	site	1.59E-03
UF Resin Loading	70,000	tons/yr	VOC	3.43E-06	lb/lb	AP42 5.2	0.24
			HCOH	1.44E-06	lb/lb	AP42 5.2	0.10
			MeOH	1.98E-06	lb/lb	AP42 5.2	0.14
			Triethylamine	**1.37E-07**	**lb/lb**	**AP42 5.2**	**0.01**
			Ethylene Glycol	2.16E-09	lb/lb	AP42 5.2	1.51E-04
Triazine Loading	7,250	tons/yr	**VOC**	**1.15E-05**	lb/lb	AP42 5.2	**0.08**
			MeOH	**1.10E-05**	lb/lb	AP42 5.2	**0.08**
PF Resin Loading	72,250	tons/yr	VOC	**6.04E-05**	lb/lb	AP42 5.2	**4.37**
			HCOH	1.42E-06	lb/lb	AP42 5.2	0.10
			MeOH	2.40E-06	lb/lb	AP42 5.2	0.17
			Phenol	1.09E-07	lb/lb	AP42 5.2	0.01
			Etyhlene Glycol	**4.84E-09**	lb/lb	AP42 5.2	**3.49E-04**
			Methyl Isobutyl Ketone	**1.88E-07**	lb/lb	AP42 5.2	**0.01**
Durite LV 1259M Loading	2,250	tons/yr	VOC	1.14E-04	lb/lb	AP42 5.2	0.26
			HCOH	1.59E-06	lb/lb	AP42 5.2	0.00
			MeOH	5.93E-05	lb/lb	AP42 5.2	0.13
			Phenol	1.22E-07	lb/lb	AP42 5.2	2.75E-04
			Etyhlene Glycol	2.70E-09	lb/lb	AP42 5.2	6.08E-06
			Methyl Isobutyl Ketone	1.70E-07	lb/lb	AP42 5.2	3.83E-04
Durite SC748A Loading	500	tons/yr	VOC	6.35E-05	lb/lb	AP42 5.2	0.03
			HCOH	1.47E-06	lb/lb	AP42 5.2	7.35E-04
			MeOH	1.29E-05	lb/lb	AP42 5.2	0.01
			Phenol	1.13E-07	lb/lb	AP42 5.2	5.65E-05
			Etyhlene Glycol	2.50E-09	lb/lb	AP42 5.2	1.25E-06
			Methyl Isobutyl Ketone	1.57E-07	lb/lb	AP42 5.2	7.85E-05
MF Resin Loading	17,500	tons/yr	VOC	1.69E-05	lb/lb	AP42 5.2	0.30
			HCOH	9.22E-08	lb/lb	AP42 5.2	1.61E-03
			MeOH	1.54E-05	lb/lb	AP42 5.2	0.27
			Etyhlene Glycol	3.56E-10	lb/lb	AP42 5.2	6.23E-06
Dry Catalyst Loading	3,893	tons/yr	VOC and HCOH	2.90E-07	lb/lb	AP42 5.2	1.13E-03
Methanol Loading	250	tons/yr	VOC and MeOH	1.53E-04	lb/lb	AP42 5.2	3.83E-02
UF Resin Storage	70,000	tons/yr	VOC	6.19E-03	lb/ton	AP42 7.1	0.22
			HCOH	2.34E-03	lb/ton	AP42 7.1	0.08
			Triethylamine	3.34E-04	lb/ton	**AP42 7.1**	**0.01**
			MeOH	3.78E-03	lb/ton	AP42 7.1	0.13
Triazine Storage	7,250	tons/yr	**VOC**	**611.65**	lb/yr	AP42 7.1	**0.31**
			MeOH	151.77	lb/yr	AP42 7.1	**0.08**
PF/PRF Resin Storage	75,000	tons/yr	**VOC**	**8.11E-03**	lb/ton	AP42 7.1	**0.30**
			HCOH	1.81E-04	lb/ton	AP42 7.1	0.01
			MeOH	2.90E-03	lb/ton	AP42 7.1	0.11
			Phenol	4.17E-05	lb/ton	AP42 7.1	1.56E-03
			Ethylene Glycol	8.60E-06	lb/ton	AP42 7.1	3.22E-04

			Methyl Isobutyl Ketone	8.22E-06	lb/ton	AP42 7.1	3.08E-04
MF Resin Storage	17,500	tons/yr	VOC	8.23E-03	lb/ton	AP42 7.1	0.07
			HCOH	1.43E-05	lb/ton	AP42 7.1	1.25E-04
			MeOH	8.18E-03	lb/ton	AP42 7.1	0.07
Methanol Storage	42,000	tons/yr	VOC and MeOH	1.26E-02	lb/ton	TANKS 4.09	0.26
Methanol Distillate	259	tons/yr	VOC	3.33E-01	lb/ton	AP42 7.1	0.043
			HCOH	7.42E-03	lb/ton	AP42 7.1	9.61E-04
			MeOH	3.26E-01	lb/ton	AP42 7.1	4.22E-02
[redacted]	27,000	tons/yr	[redacted]	[redacted]	lb/ton	TANKS 4.09	[redacted]
			[redacted]	[redacted]	lb/ton	TANKS 4.09	[redacted]
			[redacted]	[redacted]	lb/ton	TANKS 4.09	[redacted]
Triethylamine Storage	300	tons/yr	VOC	1.18	lb/ton	TANKS 4.09	0.18
			Triethylamine	1.18	lb/ton	TANKS 4.09	0.18
Triethanolamine Storage	1,487	tons/yr	VOC	6.55E-03	lb/ton	TANKS 4.09	4.87E-03
Triethanolamine Rx9 Storage	38	tons/yr	VOC	3.26E-03	lb/ton	TANKS 4.09	6.19E-05
10% Formic Acid	4,127	tons/yr	VOC	1.24E-03	lb/ton	TANKS 4.09	2.56E-03
Diethylene Glycol Storage	9,588	tons/yr	VOC	3.13E-06	lb/ton	TANKS 4.09	1.50E-05
UF Distillate Storage	2,718	tons/yr	VOC	54.1	lb/yr	AP42 7.1	2.71E-02
			HCOH	6.86	lb/yr	AP42 7.1	3.43E-03
			MeOH	47.2	lb/yr	AP42 7.1	2.36E-02
PF Distillate Storage	5,839	tons/yr	VOC	3.65	lb/yr	AP42 7.1	1.83E-03
			HCOH	3.65	lb/yr	AP42 7.1	1.83E-03
PF Washwater Storage	21,605	tons/yr	VOC	17.8	lb/yr	AP42 7.1	8.90E-03
			HCOH	10.82	lb/yr	AP42 7.1	5.41E-03
			MeOH	6.96	lb/yr	AP42 7.1	3.48E-03
			Phenol	0.01	lb/yr	AP42 7.1	7.43E-06
UF Seal Water	18,630	tons/yr	VOC	4.87	lb/yr	AP42 7.1	2.44E-03
			HCOH	1.35	lb/yr	AP42 7.1	6.75E-04
			MeOH	3.52	lb/yr	AP42 7.1	1.76E-03
			Phenol	3.46E-04	lb/yr	AP42 7.1	1.73E-07
Glycerin Storage	3,375	tons/yr	VOC and Methanol	4.71E-03	lb/ton	AP42 7.1	7.96E-03
Glycerin Loading	3,375	tons/yr	VOC and Methanol	5.66E-06	lb/lb	AP42 7.1	1.91E-02
Sheer Mixer RF-300W	23,652,000	gallons/yr	VOC	277	lb/yr	AP42 7.1	0.14
			HCOH	1.21	lb/yr	AP42 7.1	6.05E-04
			MeOH	27.37	lb/yr	AP42 7.1	0.014
			Methyl Isobutyl Ketone	0.66	lb/yr	AP42 7.1	3.30E-04
			Ethylene Glycol	0.07	lb/yr	AP42 7.1	3.50E-05
			Phenol	2.4	lb/yr	AP42 7.1	1.20E-03
Sheer Mixer FM-6310L	27,422,609	gallons/yr	VOC	1.1	lb/yr	AP42 7.1	5.50E-04
			HCOH	1.1	lb/yr	AP42 7.1	5.50E-04
Sheer Mixer FM-7400L	75,085,714	gallons/yr	VOC	0.05	lb/yr	AP42 7.1	2.50E-05
			HCOH	0.05	lb/yr	AP42 7.1	2.50E-05
Sheer Mixer Momentive 4720	13,770,000	gallons/yr	VOC	288.91	lb/yr	AP42 7.1	0.14
			HCOH	0.91	lb/yr	AP42 7.1	4.55E-04
			MeOH	288	lb/yr	AP42 7.1	0.14
Washwater Pits	1,464,540	gallons/yr	VOC	440.18	lb/yr	WATER9	0.22
			HCOH	3.74	lb/yr	WATER9	1.87E-03
			MeOH	435	lb/yr	WATER9	0.22
			Phenol	1.44	lb/yr	WATER9	7.20E-04
Stearic Acid Storage	1,431	tons/yr	VOC	0.49	lb/yr	TANKS 4.09	2.45E-04
Plant #3 Fugitive Emissions	8,000	hours/yr	VOC and Total HAPs	see applicatio	lb/hr/compo	Modified SOCMI	1.25
			HCHCO	see applicatio	lb/hr/compo	Modified SOCMI	0.43
			MeOH	see applicatio	lb/hr/compo	Modified SOCMI	0.8356
Plant #2 Fugitive Emissions	6,000	hours/yr	VOC and Total HAPs	see applicatio	lb/hr/compo	Modified SOCMI	0.54
			HCHCO	see applicatio	lb/hr/compo	Modified SOCMI	0.26
			MeOH	see applicatio	lb/hr/compo	Modified SOCMI	0.28
Resin Fugitive Emissions	8,760	hours/yr	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
			HCHCO	see applicatio	lb/hr/compo	Modified SOCMI	0.3819
			MeOH	see applicatio	lb/hr/compo	Modified SOCMI	0.5125
			[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
			[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
			Triethylamine	see applicatio	lb/hr/compo	Modified SOCMI	0.14
Urea Weigh Bin #1	25,000	tons/yr	PM/PM10	0.02	lb/ton	Vendor	0.25
Urea Weigh Bin #2	25,000	tons/yr	PM/PM10	0.02	lb/ton	Vendor	0.25
Adhesive Dump Hopper	1,000	tons/yr	PM/PM10	2.00	lb/ton	Vendor	1
Melamine Conveyor	455	MMcf/yr	PM/PM10	2.86	lb/MMcf	Vendor	0.65
Melaimine Hopper	263	MMcf/yr	PM/PM10	2.86	lb/MMcf	Vendor	0.38
RTU Dry Material Loading	750	tons/yr	PM/PM10	0.61	lb/ton	EPA 11.17-4	0.23
Dry Catalyst Blender#1 and Blender #3	411	MMcf/yr	PM/PM10	2.86	lb/MMcf	Vendor	0.59
	3,893	tons/yr	VOC	26.46	lb/yr	Site Estimate	1.32E-02
			HCOH	0.27	lb/yr	Site Estimate	1.35E-04
Dry Catalyst Blender#2	561	MMcf/yr	PM/PM10	2.86	lb/MMcf	Vendor	0.80
	1,560	hours/yr	VOC	611.47	lb/yr	Site Estimate	0.31
			HCOH	611.24	lb/yr	R&D Study	0.31
Dry Catalyst Vacuum Sweeper	15.4	MMcf/yr	PM/PM10	2.86	lb/MMcf	Vendor	0.02
Dry Catalyst Exhaust Fan West	18.7	MMcf/yr	PM/PM10	0.62	lb/MMcf	Site Estimate	0.01
Dry Catalyst Exhaust Fan South	18.7	MMcf/yr	PM/PM10	0.62	lb/MMcf	Site Estimate	0.01
Unpaved Haul Road	54	VMT	PM/PM10	6.90	lb/VMT	Ap42	0.19
Resin Drying Pad	300	tons/yr	VOC	0.00861	lb/lb	Company Study	2.58
			HCOH	0.00606	lb/lb	Company Study	1.82
			MeOH	0.00252	lb/lb	Company Study	0.76
			Phenol	0.00003	lb/lb	Company Study	0.01
Emulsified Wax Process	71,540	tons/yr	MeOH	0.01	lb/yr	Site Estimate	5.00E-06
			VOC	0.05	lb/yr	Site Estimate	2.50E-05
Emulsified Wax Loading	71,540	tons/yr	MeOH	9.07	lb/yr	Site Estimate	0.005
			VOC	137.0	lb/yr	Site Estimate	0.069
Emulsified Wax Storage	71,540	tons/yr	MeOH	2.03	lb/yr	Site Estimate	1.02E-03
			VOC	2.03	lb/yr	Site Estimate	1.02E-03
Wax Process (includes emulsified wax and process slack wax storage)	71,540	tons/yr	Toluene	1302.00	lb/yr	Site Estimate	0.65
			VOC	1302.0	lb/yr	Site Estimate	0.65

	Pollutant							
Emission Unit	PM/PM10	PM2.5	NOx	CO	VOC	HCHO	MeOH	Phenol
Boiler 1 (Erie) Tail Gas			0.20	5.76	9.89	0.20	1.99	
Boiler 2 (NE) Tail Gas			0.09	1.84	1.28	0.02	0.02	
All Boilers Natural Gas	0.78	0.78	10.27	8.63	0.56			
Boiler 1 (Erie) Bypass				0.65	6.73	0.14	1.34	
Boiler 2 (NE) Bypass				1.56	1.08	0.02	0.01	
PF Resin Reacotr Scrubber					5.89	0.10	0.80	0.01
UF Resin Reactor Scrubber					2.46	0.03	0.28	
MF Resin Reactor Scrubber					2.19	0.03	0.30	
Formaldehyde Storage					1.70	1.46	0.24	
Formaldehyde Loading					0.50	0.43	0.07	
PF Resin Produced in Reactors					5.96			0.01
MF Resin Produced in Reactors					0.03			
UF Resin Loading					0.24	0.10	0.14	
Triazine Loading					0.08		0.08	
PF Resin Loading					4.37	0.10	0.17	0.01
Durite LV 1259M Loading					0.26	0.00	0.13	2.75E-04
Durite SC748A Loading					0.03	7.35E-04	0.01	5.65E-05
MF Resin Loading					0.30	1.61E-03	0.27	
Dry Catalyst Loading					1.13E-03	1.13E-03		
Methanol Loading					3.83E-02		0.04	
UF Resin Storage					0.22	0.08	0.13	
Triazine Storage					0.31		0.08	
PF/PRF Resin Storage					0.30	0.01	0.11	1.56E-03
MF Resin Storage					0.07	1.25E-04	0.07	
Methanol Storage					0.26		0.26	
Methanol Distillate					0.04		4.22E-02	
Phenol/LPE Storage					1.18			1.18
Triethylamine Storage					1.77E-01			
Triethanolamine Rx9 Storage					6.19E-05			
10% Formic Acid					2.56E-03			
Diethylene Glycol Storage					1.50E-05			
UF Distillate Storage					2.71E-02	3.43E-03	2.36E-02	
PF Distillate Storage					1.83E-03	1.83E-03		
PF Washwater Storage					8.90E-03	5.41E-03	3.48E-03	7.43E-06
UF Seal Water					2.44E-03	6.75E-04	1.76E-03	1.73E-07
Glycerin Storage					7.96E-03	6.05E-04	7.96E-03	
Glycerin Loading					1.91E-02		1.91E-02	
Sheer Mixer RF-300W					0.14	6.05E-04	0.014	1.20E-03
Sheer Mixer FM-6310L					5.50E-04	5.50E-04		
Sheer Mixer FM-7400L					2.50E-05	2.50E-05		
Sheer Mixer Momentive 4720					0.14	4.55E-04	0.14	
Washwater Pits					0.22	1.87E-03	0.22	7.20E-04
Stearic Acid Storage					1.25			
Plant 3 Fugitives					1.25	0.43	0.835603	
Plant 2 Fugitives					0.54	0.26	0.28	
Resin Fugitives					3.480505	0.3819	0.512488	0.97862
Urea Weigh Bin #1	0.25							
Urea Weigh Bin #2	0.25							
Adhesive Dump Hopper	1							
Melamine Conveyor	0.65							
Melaimine Hopper	0.38							
RTU Dry Material Loading	0.23							
Dry Catalyst Blender#1	0.59					1.35E-04		
Dry Catalyst Blender#2	0.80					0.31		
Dry Catalyst Vacuum Sweeper	0.02							
Dry Catalyst Exhaust Fan West	0.01							
Dry Catalyst Exhaust Fan South	0.01							
Unpaved Haul Road	0.19							
Resin Drying Pad						1.82	0.76	
Emulsified Wax Process							5.00E-06	
Emulsified Wax Loading							0.004535	
Wax Process					0.65			
TOTAL	5.1	1	11	18	54	5.9	9.396	2.2
TOTAL HAPS	19.9 from facility application							

LANE REGIONAL AIR PROTECTION AGENCY
1010 Main Street, Springfield, Oregon 97477
Telephone: (541) 736-1056 Toll Free: (877) 285-7272
Fax: (541) 726-1205 Web Page: *www.lrapa.org*

STANDARD AIR CONTAMINANT DISCHARGE PERMIT

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

Issued To:
Momentive Specialty Chemicals Inc.
470 South Second Street
Springfield, Oregon 97477

Mailing Address:
470 South Second Street
Springfield, Oregon 97477

Land Use Compatibility Statement:
From: City of Springfield
Dated: August 6, 2001

Fee Basis:
Title 37, Table 1: Part B.70
Synthetic Resin Manufacturing
Title 37, Table 1: Part C.70
Potential to Emit more than 10 tons of a single HAP per year

Permit Number: 200510
Permit Type: Standard
SIC: 2821 Synthetic Resin Mfg
2869 Synthetic Formaldehyde Mfg
4961 Combustion Source
Date Renewed: February 24, 2012
Expiration Date: February 24, 2017

Permitted Sources:
Resin Manufacturing Operation Including:
Resin Kettles
Storage Tanks
Tail Gas Boilers
Natural Gas-fired Boilers
Miscellaneous VOC Sources

Issued By: _____
Merlyn L. Hough, Director

Effective Date: FEB 24 2012

LIST OF ABBREVIATIONS THAT MAY BE USED IN THIS PERMIT

ATE	Triethylamine
CO_2	Carbon Dioxide
HCHO	Formaldehyde
CH20	Formaldehyde
FID	Flame Ionization Detector
GC	Gas Chromatograph
GHG	Greenhouse Gas
GSV	Gas Sampling Volume
LDAR	Leak Detection And Repair
MeOH	Methanol
MEK	Methyl Ethyl Ketone
MF	Melamine Formaldehyde Resin
MUF	Melamine Urea Formaldehyde Resin
MMscf	Million standard cubic feet
MS	Mass Spectrometer
NH3	Anhydrous Ammonia or Ammoniated Resins
PF	Phenol Formaldehyde Resin
PM	Particulate Matter
PM_{10}	Particulate Matter less than 10 microns in diameter
$PM_{2.5}$	Particulate Matter less than 2.5 microns in diameter
ppm	parts per million
ppmv	parts per million by volume
PRF	Phenol Resorcinol Formaldehyde Resin
SOCMI	Synthetic Organic Chemical Manufacturing Industry
TEA	Triethanolamine
TOC	Total Organic Compounds
UF	Urea Formaldehyde Resin
VMT	Vehicle Miles Traveled

Permitted Activities

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

Emission Unit Description

2. The emission units regulated by this permit are the following:

Emissions Unit	EU ID
Boiler-1 (Nebraska)	Boiler-1
Boiler-2 (Erie)	Boiler-2
Boiler-3 (50-HP Fulton Boiler/Drier)	Boiler-3
Boiler-4 (Miura #1)	Boiler-4
Boiler-5 (Miura #2)	Boiler-5
Emergency Generator (Categorically Insignificant)	NA
Plant #2 Waste Gas Bypass Vent	Plant-2 WGBV
Plant #3 Waste Gas Bypass Vent	Plant-3 WGBV
UF Resin Reactor Scrubbers	UF Scrubbers
PF Resin Reactor Scrubbers	PF Scrubbers
MF Resin Reactor Scrubber	MF Scrubber
Urea Weigh Bin #1	Urea WB-1
Urea Weigh Bin #2	Urea WB-2
Adhesive Dump Hopper	NA
Melamine Conveyor	NA
Melamine Hopper	NA
Dry Catalyst Operations	NA
Resin Drying Pad	NA

Emissions Unit	EU ID
Wax Process (Emulsified and Slack Wax Process, Loading, and Storage)	NA
Haul Road Paved (categorically insignificant) and Unpaved Emissions	NA
Storage Tanks, Fugitives, Seal Water, Truck Loading, and other miscellaneous devices	Storage, etc.

Performance Standards and Limitations

Plant Site Emission Limits (PSELs)

3. The total emissions from the resin manufacturing operation shall not exceed the limits below for any 12-consecutive calendar month period. [LRAPA 42-0040, 42-0041, 42-0043, 42-0060]

Annual PSEL (tons)

Pollutant	Plant Site Emission Limit (tons/yr)
PM	24
PM_{10}	14
$PM_{2.5}$	9
NO_x	39
CO	99
VOC	68
SO_2	39
GHG	74,000
Total HAP	24
Individual HAP	9

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

Performance Standards and Emission Limits

4. The permittee shall not cause, suffer, allow, or permit the emission of any air contaminant, excluding uncombined water, into the atmosphere from any air contaminant source for a period or periods aggregating more than three (3) minutes in any one (1) hour which is equal or greater than 20 percent opacity. [LRAPA 32-010-1 and 3]

5. The maximum allowable emission of particulate matter from any combustion source installed, constructed, or modified prior to June 1, 1970 (Boilers 1 and 2), shall not exceed 0.2 grains per cubic foot of exhaust gas, adjusted to 50 percent excess air or calculated to 12 percent carbon

dioxide. [LRAPA 32-020]

6. The maximum allowable emission of particulate matter from any combustion source installed, constructed, or modified after June 1, 1970 (Boilers 3,4, and 5), shall not exceed 0.1 grains per cubic foot of exhaust gas, adjusted to 50 percent excess air or calculated to 12 percent carbon dioxide. [LRAPA 32-030]

7. The permittee shall not allow the emissions of particulate matter to exceed 0.1 grains per standard cubic foot (gr/scf) for any air contaminant source constructed or modified after to June 1, 1970. [LRAPA 32-015-2]

New Source Performance Standards (NSPS) Subpart III, Standards of Performance for VOC Emissions from the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Process

8. For the Nebraska Tail Gas Boiler (Tail Gas Boiler), the permittee must reduce emissions of Total Organic Compounds (TOC) minus methane and ethane as follows:

8.a. By 98 weight-percent, or
8.b. 20 ppmv, or less, on a dry basis, corrected to 3 percent oxygen.

as required by the SOCMI NSPS, 40 CFR 60.612(a).

9. The permittee shall monitor the temperatures and flow at the Tail Gas Boiler in Condition 8. To monitor and record the temperatures and flow, the permittee must install, calibrate, maintain, and operate, according to manufacturer's specifications, the following equipment:

9.a. A temperature monitoring device in the firebox equipped with a continuous recorder and having an accuracy of ± 1 percent of the temperature being measured expressed in degrees Celsius or ± 0.5 °C, whichever is greater, for boilers or process heaters of less than 44 MW (150 million Btu/hr) heat input design capacity; [40 CFR 60.613(c)(2)]

9.a.i In the Tail Gas Boiler, a temperature-monitoring device may be used in the stack exhaust of the boiler, in lieu of the firebox, in accordance to alternative monitoring request approved by LRAPA on December 31, 2008. [40 CFR 60.13(i)(4) and LRAPA 35-0140(2)]

9.b. A flow indicator that provides a record of vent stream flow from Formaldehyde Plant #3 to the Tail Gas Boiler at least once every hour. The flow indicator shall be installed in the vent stream from the Tail Gas Boiler at a point closest to the inlet of the Tail Gas Boiler and before being joined with any other vent stream. [40 CFR 60.613(c)(1)]

NSPS Subpart III Testing

10. For the purposes of demonstrating compliance with Condition 8, the permittee shall run the tail gas boiler at full operating conditions and flow rates during any performance test. [40 CFR 60.614(a)]

11. The performance test methods of 40 CFR 60.614(b), except as provided by 40 CFR 60.8, shall be used as reference methods to determine compliance with the 20 ppmv (on a dry basis and corrected to three (3) percent oxygen) emission limit or 98 weight-percent reduction efficiency specified in Condition 8. [40 CFR 60.614(b)]

NSPS Subpart III Recordkeeping

12. The permittee shall keep up-to-date, readily accessible records of the following data measured

during each performance test and also include the following data in the report of the initial performance test required under 40 CFR 60.8. The same data specified in this section shall be submitted in the reports of all subsequently required performance tests where either the emission control efficiency of a control device, or outlet concentration of TOC of a vent stream from the tail gas boiler is determined. [40 CFR 60.615(b)]

12.a. A description of the location at which the vent stream is introduced in to the tail gas boiler, and [40 CFR 60.615(b)(2)(i)]

12.b. The average combustion temperature of the tail gas boiler measured at least every 15 minutes and averaged over the same time period of the performance testing. [40 CFR 60.615(b)(2)(ii)]

13. The permittee shall keep up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored under Condition 9 as well as up-to-date, readily accessible records of periods of operation during which the parameter boundaries established during the most recent performance test are exceeded. LRAPA may at any time require a report of these data. Periods of operation during which the parameter boundaries established during the most recent performance tests are exceeded are defined as follows: [40 CFR 60.615(c)]

13.a. All 3-hour periods of operation during which the average stack exhaust temperature (Condition 9.a.i) was more than 28 degrees C (50 degrees F) below the average temperature during the most recent performance test at which compliance with Condition 8 was determined and/or, [40 CFR 60.615(c)(3)]

13.b. Whenever there is a change in the location at which the vent stream is introduced into the flame zone as required under Condition 8. [40 CFR 60.615(c)(4)]

14. The permittee shall keep up-to-date, readily accessible continuous records of the flow indication specified under Condition 9.b, as well as up-to-date, readily accessible records of all periods when the vent stream is diverted from the control device or has no flow rate. [40 CFR 60.615(d)]

NSPS Subpart III Reporting

15. For the purposes of the NSPS Subpart III requirements, the permittee is exempt from the quarterly reporting requirements contained in 40 CFR 60.7(c) of the General Provision. [40 CFR 60.615(i)]

16. The permittee shall submit to LRAPA semiannual reports of the following information. [40 CFR 60.615(j)]

16.a. Exceedances of monitored parameters recorded under Condition 13. [40 CFR 60.615(j)(1)]

16.b. All periods recorded under Condition 14 when the vent stream is diverted from the control device or has no flow rate. [40 CFR 60.615(j)(2)]

17. The requirements of Condition 16 remain in force until and unless EPA, in delegating enforcement authority to LRAPA under Section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by LRAPA. In that event, the permittee will be relieved of the obligation to comply with Condition 16, provided that they comply with the requirements established by LRAPA. [40 CFR 60.615(k)]

18. LRAPA will specify appropriate reporting and recordkeeping requirements where the permittee seeks to demonstrate compliance with the standards specified under Condition 8 other than as provided by Condition 9. [40 CFR 60.615(l)]

New Source Performance Standards Subpart VV (Subpart VV), Standards of Performance for Equipment Leaks of VOCs in the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Applicable to Plant-3.

19. The permittee shall follow all applicable requirements of the Subpart VV including the requirements for:

    19.a. Pumps in Light Liquid Service, [40 CFR 60.482-2]

    19.b. Standards for Pressure Relief Devices in Gas/Vapor Service, [40 CFR 60.482-4]

    19.c. Standards for Sampling Connection Systems, [40 CFR 60.482-5]

    19.d. Standards for Open-ended Valves or Lines, [40 CFR 60.482-6]

    19.e. Standards for Valves in Gas/Vapor Service and in Light Liquid Service, [40 CFR 60.482-7]

    19.f. Standards for Pumps and Valves in Heavy Liquid Service, Pressure Relief Devices in Light Liquid or Heavy Liquid Service, and Flanges and Other Connectors, [40 CFR 60.482-8]

    19.g. Standards for Delay of Repair, [40 CFR 60.482-9]

    19.h. Standards for Closed Vent Systems and Control Devices, [40 CFR 60.482-10]

    19.i. Test Methods and Procedures, [40 CFR 60.485]

    19.j. Recordkeeping Requirements, and [40 CFR 60.486]

    19.k. Reporting Requirements. [40 CFR 60.487]

40 CFR 63, Subpart H (only applicable sections §§63.162- §63.180), National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks.

Note: The permittee requested that LRAPA add a federally enforceable permit condition (Condition 20) requiring the permittee to meet Leak Detection and Repair (LDAR) monitoring requirements pursuant to 40 CFR §§63.162- §63.180 for Plant #2 and Plant #3 and the recordkeeping and reporting requirements of 40 CFR 60, Subpart VV (Condition 19.jand 19.k) for Plant #3. [40 CFR 63.160(c)]

20. 40 CFR 63, Subpart H (only applicable sections §§63.162- §63.180), National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks shall apply to all equipment used in formaldehyde and methanol service.

    20.a. Standards: General, [40 CFR 63.162]

    20.b. Standards: Pumps In Light Liquid Service, [40 CFR 63.163]

    20.c. Standards: Compressors, [40 CFR 63.164]

    20.d. Standards: Pressure Relief Devices In Gas/Vapor Service, [40 CFR 63.165]

    20.e. Standards: Sampling Connection Systems, [40 CFR 63.166]

    20.f. Standards: Open-Ended Valves Or Lines, [40 CFR 63.167]

    20.g. Standards: Valves In Gas/Vapor Service And In Light Liquid Service, [40 CFR 63.168]

    20.h. Standards: Pumps, Valves, Connectors, And Agitators In Heavy Liquid Service; Instrumentation Systems; And Pressure Relief Devices In Liquid Service, [40 CFR 63.169]

    20.i. Standards: Surge Control Vessels And Bottoms Receivers, [40 CFR 63.170]

20.j. Standards: Delay Of Repair, [40 CFR 63.171]

20.k. Standards: Closed-Vent Systems And Control Devices [40 CFR 63.172]

20.l. Standards: Agitators In Gas/Vapor Service And In Light Liquid Service, [40 CFR 63.173]

20.m. Standards: Connectors In Gas/Vapor Service And In Light Liquid Service, [40 CFR 63.174]

20.n. Quality Improvement Program For Valves, [40 CFR 63.175]

20.o. Quality Improvement Program For Pumps, [40 CFR 63.176]

20.p. Alternative Means Of Emission Limitation: General, [40 CFR 63.177]

20.q. Alternative Means Of Emission Limitation: Batch Processes, [40 CFR 63.178]

20.r. Alternative Means Of Emission Limitation: Enclosed-Vented Process Units, [40 CFR 63.179]

20.s. Test Methods And Procedures, [40 CFR 63.180]

New Source Performance Standards Subpart Dc (Subpart Dc), Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units Applicable to Boilers 4 and 5

21. The permittee shall follow all applicable requirements of the Subpart Dc. [40 CFR 60.40c]

21.a. The permittee shall combust only natural-gas in Boilers 4 and 5. [LRAPA 35-0160]

Operating & Maintenance Requirements (O&M)

22. To ensure that the permittee is operating and maintaining air pollution control equipment and emission reduction processes at the highest reasonable efficiency and effectiveness to minimize emissions, the permittee shall submit and follow an LRAPA-approved O&M plan. The plan shall be submitted within 30 days of any changes or updates to the plan. If no change or update is required, then the existing plan shall be compliant with the requirement. [LRAPA 32-007-1]

Plant-wide Recordkeeping and Reporting Requirements

Semiannual Report

23. The permittee shall submit semi-annual reports by the 45th day after each semi-annual period for every semi-annual period this permit is in effect. The semi-annual periods are January through June and July through December. The report shall include the following information for the preceding semi-annual period (all totals shall be 12-month rolling totals): [LRAPA 42-0080]

23.a. By the 30th working day of each month, the permittee shall calculate and record emission estimations using the following method for total PM, PM_{10}, $PM_{2.5}$, NO_x, CO, VOC, total HAP and individual HAP 12-month rolling emissions:

23.a.i **PSEL Monitoring:** Compliance with the PSEL is determined for each 12-consecutive calendar month period based on the following calculation:

$$E = \Sigma(EF \times P)/2000 \ (+ E_{VOC}, \text{ for VOC component only})$$

where,

E = Pollutant emissions (ton/yr);

EF = Pollutant emission factor (see Condition 23 "Emission Factor Attachment");

P = Process production (see Condition 24)

23.a.ii **HAP PSEL Monitoring:** The combined HAP calculation will include a summation of the individual HAP compound emissions as calculated:

$$E_{HAPcombined} = \Sigma_{HAP\ single}(EF_{HAPsingle} \times P)/2000$$

where,

$E_{HAPcombined}$ = Total HAP pollutant emissions (ton/yr);

$EF_{HAPsingle}$ = Pollutant emission factor (see Condition 23 "Emission Factor Attachment");

P = Process production (see Condition 24)

23.a.iii **GHG PSEL Monitoring:** The permittee shall calculate and report greenhouse gas (GHG) emissions in accordance with OAR 340 Division 215.

The format of the semi-annual report and associated calculations may be required to be modified subject to LRAPA approval.

23. The permittee must use the default emission factors provided in the "Emission Factor Attachment" for calculating pollutant emissions, unless alternative emission factors are approved by LRAPA. The permittee may request or LRAPA may require using alternative emission factors provided they are based on actual test data or other documentation (e.g., AP-42 compilation of emission factors) that has been reviewed and approved by LRAPA. [LRAPA 35-0160 and 42-0080]

24. The report required by Condition 23 shall also include the following information. [LRAPA 35-0160]

Emissions device or activity	**Process or production parameter recorded monthly**
Boiler No. 1 and 2	Waste tail gas combusted (hours)
Boiler Nos. 1, 2, 3, 4, and 5	Natural gas combusted (MMcf)
Boiler No. 1 and 2 waste tail gas bypass to atmosphere	Hours
Urea received and weighed	Tons
Methanol received, loaded and stored	
Formaldehyde Produced	
Formaldehyde weighed and stored	
Formaldehyde loaded	
Phenol stored	
PF resin production	
UF resin production	
MF resin production	
UF Resin stored	
PF/PRF Resin stored	

MF Resin stored	
UF Resin loaded	
PF Resin loaded	
Triazine Loaded and stored	
Durite LV-1259M loaded	
Durite SC-748A loaded	
MF Resin loaded	
Dry Catalyst Loaded	
Distillate stored	
Methanol Distillate Produced	
Triethanoloamine Stored	
Triethanolamine Rx9 Stored	
10% Formic Acid Produced	
Diethylene Glycol Stored	
UF Distillate Stored	
PF Distillate Stored	
PF Washwater Stored	
UF Seal Water stored	
GN11 Stored	
Triethylamine stored	
UF Resin Reactor Scrubber	Tons
PF Resin Reactor Scrubber	Tons
MF Resin Reactor Scrubber	Tons
Sheer Mixer RF-300W produced	Gallons
Sheer Mixer FM-6310L produced	Gallons
Sheer Mixer FM-7400L produced	Gallons
Washwater Pit throughput	Gallons
Stearic Acid Stored	Tons
Plant #3 Fugitive Emissions	Hours
Plant #2 Fugitive Emissions	Hours
Resin Fugitive Emissions	Hours
Urea Weigh Bin #1 Throughput	Tons
Urea Weigh Bin #2 Throughput	Tons
Adhesive Dump Hopper Throughput	Tons
Dry Catalyst Blender #1air throughput	MMcf
Dry Catalyst Blender #1product throughput	Tons

Dry Catalyst Blender #2 air throughput	MMcf
Dry Catalyst Blender #2 product throughput	Tons
Dry Catalyst Vacuum Sweeper	MMcf
Dry Catalyst Exhaust Fan West	MMcf
Dry Catalyst Exhaust Fan South	MMcf
Resin Drying Pad throughput	Tons
Melamine conveyor air volume throughput	MMcf
Melamine hopper air volume throughput	MMcf
Wax Process throughput (process, loaded, stored)	Tons
Unpaved Haul Road VMT	VMT

25. The permittee shall limit annual production and/or operating parameters to the following values for each 12-month rolling period: [LRAPA 42-0060-1.B]

Process	Annual Production or Usage	Units
Boiler 1 (Nebraska) Tail Gas	7,946	hours
Boiler 2 (Erie) Tail Gas	5,950	hours
Boiler 1 (Nebraska) Exhaust Bypass	54	hours
Boiler 2 (Erie) Exhaust Bypass	50	hours
Boiler 1 (Nebraska) Natural Gas Usage	6	MMscf
Boilers 4 and 5 (Miura) Natural Gas Usage	181	MMscf
Boiler 3 (Fulton) Natural Gas Usage	18.4	MMscf
Fugitive Emissions Plant 2	6,000	hours
Fugitive Emissions Plant 3	8,000	hours
Fugitive Emissions - Resins	8,760	hours
Formaldehyde Storage	82,075	tons
Formaldehyde Loading	10,000	tons
UF Resin Produced in Reactors	75,000	tons
UF Resin Storage	70,000	tons
UF Resin Loading	70,000	tons
Triazines Stored	5,000	tons
Triazines Loading	5,000	tons
PF Resin Produced in Reactors	75,000	tons
PF Resin Storage	75,000	tons
PF Resin Loading	72,250	tons
Durite LV 1259M Loading	2,250	tons
Durite SC748A Loading	500	tons
MF Resin Produced in Reactors	17,500	tons
MF Resin Storage	17,500	tons
MF Resin Loading	17,500	tons
Methanol Storage	42,000	tons
Methanol Loading	250	tons
Phenol Storage	27,000	tons
Triethylamine Storage	300	tons
Triethanolamine Storage	1,487	tons
Triethanolamine Rx9 Storage	38	tons
10% Formic Acid	4,127	tons

GN11 Storage	3,375	tons
Sheer Mixer RF-300W	23,652,000	gallons
Sheer Mixer FM-6310L	27,422,609	gallons
Sheer Mixer FM-7400L	75,085,714	gallons
Sheer Mixer Momentive 4720	13,770,000	gallons
Stearic Acid Storage	1,431	tons
Wax Production	71,540	tons
Slack Wax Storage	50,078	tons
Diethylene Glycol Storage	9,588	tons
Resin Drying Pad Throughput	300	tons
Urea Weigh Bin #1 Throughput	25,000	tons
Urea Weigh Bin #2 Throughput	25,000	tons
Dry Catalyst Loading/Production (Blender #1)	3,893	tons
Dry Catalyst Loading/Production (Blender #1)	411	MMscf
Dry Catalyst Blender #2	561	MMscf
Dry Catalyst Blender #2	1,560	hours
Dry Catalyst Vacuum Sweeper Usage	15.4	MMscf
Dry Catalyst Exhaust Fan West	18.7	MMscf
Dry Catalyst Exhaust Fan South	18.7	MMscf
RTU Dry Material Loading	750	tons
Unpaved Roads	54	VMT
Melamine Handling	8,760	hours
Adhesive Dump Hopper	1,000	tons
Melamine Conveyor	455	MMscf
Melamine Hopper	263	MMscf
PF Washwater Storage	21,605	tons
Washwater Pits	1,464,540	gallons
UF Sealwater Storage	18,630	tons
Methanol Distillate	259	tons
PF Distillate Storage	5,839	tons
UF Distillate Storage	2,718	tons

26. Unless otherwise specified, all reports, test results, notifications, etc. required by the above terms and conditions shall be reported to the following office:

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

27. The permittee shall notify LRAPA within two (2) working days of receipt of any air-related public complaint. [LRAPA 34-015]

General Testing Requirements

28. The permittee shall conduct testing for the following points at least once during the permit term but not later than one year prior to expiration of this permit to verify the emission factors listed in the detail sheets attached to the review report. The testing shall also verify compliance with the NSPS Subpart III emission limit in Condition 8. The emission points and pollutants required to be tested are listed in the following table. [LRAPA 35-0140]

Monitoring Point	Pollutant
Nebraska Boiler: Boiler inlet and outlet	Total VOC
	CO
	NO_x
	Formaldehyde
	Methanol
Erie Boiler: Boiler inlet and outlet	Total VOC
	CO
	NO_x
	Formaldehyde
	Methanol

28.a. The following test methods must be used for the corresponding pollutant emissions:
28.a.i. VOC- EPA Method 18 (GC/MS/GSV)
28.a.ii. Formaldehyde – EPA Method 316 (GC/FID)
28.a.iii. Methanol – Method 316 (GC/FID)
28.a.iv. Phenol – Method 316 (GC/FID)
28.a.v. CO – Modified EPA Method 10
28.a.vi. NOx –EPA Method 7
28.a.vii. O2 and CO2 – EPA Method 3A
28.a.viii. Volumetric exhaust flow rate – EPA Method 2
28.a.ix. Exhaust gas moisture content – EPA Method 4

28.b. The permittee may submit a plan for alternative field sampling and analysis for the equipment listed in this Condition. This plan must be approved by LRAPA prior to any testing, and must be submitted within 2 months prior to testing.

28.c. The following parameters shall be monitored and recorded during the source test and/or field testing:

28.c.i. Visible emissions as measured by EPA Method 9 for a period of at least six minutes during or within 30 minutes before or after each test run for each of the two (2) gas boilers;

28.c.ii. The following process parameters will be recorded for the Nebraska Boiler:
- Tail gas feed rate (lbs/hr, scfm);
- Firebox temperature (° C);
- Residual oxygen content (%);
- Steaming rate, (1000 lbs steam/hr)
- Total Hydrocarbon in tail gas (ppm as propane);
- Average formaldehyde production rate (tons/hr);
- Emission results in pounds pollutant per hour of operation of Tail Gas Boiler, (lbs/hr).

28.c.iii. The following process parameters will be recorded for the Erie Boiler:

- Tail gas feed rate (lbs/hr, scfm);
- Firebox temperature (° C);
- Residual oxygen content (%);
- Steaming rate, (1000 lbs steam/hr)
- Total Hydrocarbon in tail gas (ppm as propane);
- Average formaldehyde production rate (tons/hr);
- Emission results in pounds pollutant per hour of operation of Tail Gas Boiler, (lbs/hr).

28.d. All tests must be conducted in accordance with the ODEQ's *Source Sampling Manual* and the approved pretest plan. The pretest plan must be submitted at least 15 days in advance and approved by LRAPA. Test data and results must be submitted for review to LRAPA within 60 days of testing unless otherwise approved in the pretest plan.

28.e. Only regular operating staff may adjust the control device or production processes and emission control parameters during the source test and within two (2) hours prior to the source test. Any operating adjustments made during the source test, which are a result of consultation with source testing personnel, equipment vendors or consultants, may render the source test invalid.

Fee Schedule

29. In accordance with adopted regulations, the annual fee for a Standard ACDP is due by 12/1 each year. [LRAPA 37-0066-3]

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GENERAL PERMIT CONDITIONS

General Conditions and Disclaimers

G1. A copy of the permit application and this Air Contaminant Discharge Permit (ACDP) must be available on site for inspection upon request.

G2. The permittee shall allow the Director or his/her authorized representatives access to the plant site and pertinent records at all reasonable times for the purpose of making inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant discharge records and otherwise conducting necessary functions related to this permit in accordance with ORS 468.095. [LRAPA 13-020(1)(h)]

G3. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

Performance Standards and Emission Limits

G4. No person shall not cause or permit the emissions of any particulate matter which is greater than 250 microns in size if such particulate matter does or will deposit upon the real property of another person when notified by LRAPA that the deposition exists and must be controlled. [LRAPA 32-055]

G5. No person shall discharge from any source whatsoever such quantities of air contamination which cause injury or damage to any persons, the public, business or property. Such determination to be made by LRAPA. [LRAPA 32-090-1]

G6. The permittee shall not cause or permit emission of water vapor if the water vapor causes or tends to cause detriment to the health, safety or welfare of any person or causes, or tends to cause damage to property or business. [LRAPA 32-090-2]

G7. The permittee shall not willfully cause or permit the installation or use of any device or use of any means which, without resulting in a reduction in the total amount of air contaminants emitted, conceals emissions of air contaminants which would otherwise violate LRAPA rules. [LRAPA 33-030-1]

G8. The permittee shall not cause or permit the installation or use of any device or use of any means designed to mask the emissions of an air contaminant which causes or tends to cause detriment to health, safety or welfare of any person. [LRAPA 33-030-2]

G9. The permittee shall not allow any materials to be handled, transported, or stored; or a building, its appurtenances or road(s) to be used, constructed, altered, repaired, or demolished; or any equipment to be operated, without taking reasonable precautions to prevent particulate matter from being airborne. [LRAPA 48-015-2]

G10. No person may cause or allow air contaminants from any source subject to regulation by LRAPA to cause nuisance. [LRAPA 49-010-1]

Excess Emissions: General Policy

G11. Emissions of air contaminants in excess of applicable standards or permit conditions are unauthorized and are subject to enforcement action, pursuant to LRAPA 36-010 and 36-030.

These rules apply to any permittee operating a source which emits air contaminants in violation of any applicable air quality rule or permit condition, including but not limited to excess emissions resulting from the breakdown of air pollution control equipment or operating equipment, process upset, startup, shutdown, or scheduled maintenance. Sources that do not emit air contaminants in excess of any applicable rule or permit condition are not subject to the recordkeeping and reporting requirements in LRAPA Title 36. [LRAPA 36-001-1]

Excess Emissions: Notification and Record-keeping

G12. For all other excess emissions not addressed in LRAPA Sections 36-010, 36-015, or 36-040, the following requirements apply. The owner or operator, of a small source, as defined by Section 36-005-7, need not notify LRAPA of excess emissions events immediately unless otherwise required by permit condition, written notice by LRAPA, or if the excess emission is of a nature that could endanger public health. [LRAPA 36-020-1]

Notification shall be made to the LRAPA office. The current LRAPA telephone number during regular business hours (8 a.m. - 5 p.m., M-F) is (541) 736-1056. During nonbusiness hours, weekends, or holidays, the permittee shall immediately notify LRAPA by calling the LRAPA Upset/Complaint Line. The current number is (541) 726-1930.

Follow-up reporting, if required by LRAPA, shall contain all information required by Condition G15.

G13. At each annual reporting period specified in this permit, or sooner if required by LRAPA, the permittee shall submit a copy of the upset log entries for the reporting period, as required by Condition G15. [LRAPA 36-025-4]

G14. Any excess emissions which could endanger public health or safety shall immediately be reported to the Oregon Emergency Response System (OERS) at 1-800-452-0311.

G15. The permittee shall keep an upset log of all planned and unplanned excess emissions. [LRAPA 36-025-3 and 36-030-1] The upset log shall include the following:

a. date and time each event was reported to LRAPA;
b. whether the process handling equipment and the air pollution control equipment were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
c. whether repairs or corrections were made in an expeditious manner when the permittee knew or should have known that emission limits were being or were likely to be exceeded;
d. whether the event was one in a recurring pattern of incidents which indicate inadequate design, operation, or maintenance; and
e. final resolution of the cause of the excess emissions.

Upset logs shall be kept by the permittee for five (5) calendar years. [LRAPA 36-025-4]

Excess Emissions: Scheduled Maintenance

G16. Where it is anticipated that shutdown, by-pass, or operation at reduced efficiency of production equipment or air pollution control equipment for necessary scheduled maintenance may result in excess emissions, the permittee must obtain prior LRAPA approval of procedures that will be

used to minimize excess emissions. Application for approval of procedures associated with the scheduled maintenance shall be submitted and received by LRAPA in writing at least seventy-two (72) hours prior to the event. [LRAPA 36-015-1] The application shall include the following:

a. reasons explaining the need for maintenance, including why it would be impractical to shut down the source operation during the period, and why the by-pass or reduced efficiency could not be avoided through better scheduling for maintenance or through better operation and maintenance practices;

b. identification of the specific production or emission control equipment or system to be maintained;

c. nature of the air contaminants likely to be emitted during the maintenance period, and the estimated amount and duration of the excess emissions, including measures such as the use of overtime labor and contract services and equipment that will be taken to minimize the length of the maintenance period; and

d. identification of specific procedures to be followed which will minimize excess emissions.

G17. No scheduled maintenance which is likely to result in excess emissions shall occur during any period in which an Air Pollution Alert, Air Pollution Warning, or Air Pollution Emergency has been declared, or during an announced "Stage I Red" woodstove advisory period, in areas determined by LRAPA as PM_{10} Nonattainment Areas. [LRAPA 36-015-6]

G18. In cases where LRAPA has not received notification of scheduled maintenance that is likely to cause excess emissions within the required seventy-two (72) hours prior to the event, or where such approval has not been waived pursuant to LRAPA 36-015-3, the permittee shall immediately notify LRAPA by telephone of the situation, and shall be subject to the requirements of Conditions G12 and G13. [LRAPA 36-015-7]

Air Pollution Emergencies

G19. The permittee shall, upon declaration of an air pollution episode, take all actions specified in Tables 1, 2, and 3 of LRAPA's Title 51 (see Attachment A) and shall particularly put into effect the LRAPA-approved preplanned abatement strategy for such condition, if applicable. [LRAPA 51-015]

Notification of Construction/Modification

G20. The permittee shall notify LRAPA in writing and obtain approval in accordance with LRAPA 34-035 before:

a. constructing or installing any new source of air contaminant emissions, including air pollution control equipment; or

b. modifying or altering an existing source that may significantly affect the emissions of air contaminants, or

c. making any physical change which increases emissions; or

d. changing the method of operation, the process, or the fuel use, or increasing the normal hours of operation to levels above those contained in the permit application and reflected in this permit and which result in increased emissions.

Notification of Name Change

G21. The permittee shall notify LRAPA in writing, using an LRAPA Application for Administrative Amendment to ACDP form, within 60 days after legal change of the registered name of the company with the Corporation Division of the State of Oregon.

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

Permit Renewal

G22. Application for renewal of this permit must be submitted not less than 60 days prior to the permit expiration date. [LRAPA 37-0040]

G23. The procedure for issuance of a permit shall apply to renewal of a permit. If a completed application for a renewal of a permit is filed with LRAPA in a timely manner, prior to the expiration date of the permit, the permit shall not be deemed to expire until final action has been taken on the renewal application to issue or deny a permit. [LRAPA 37-0082-1]

Termination Conditions

G24. This permit shall be automatically terminated upon: [LRAPA 37-0082]

a. Issuance of a renewal or new ACDP for the same activity or operation;

b. Written request of the permittee, if LRAPA determines that a permit is no longer required;

c. Failure to submit a timely application for permit renewal. Termination is effective on the permit expiration date; or;

d. Failure to pay annual fees within 90 days of invoice by LRAPA, unless prior arrangements for payment have been approved in writing by LRAPA.

G25. If LRAPA determines that a permittee is in noncompliance with the terms of the permit, submitted false information in the application or other required documentation, or is in violation of any applicable rule or statute, LRAPA may revoke the permit. Notice of the intent to revoke the permit will be provided to the permittee in accordance with LRAPA Title 14. The notice will include the reasons why the permit will be revoked, and include an opportunity for hearing prior to the revocation. A written request for hearing must be received within 60 days from service of the notice, and must state the grounds of the request. The hearing will be conducted as a contested case hearing in accordance with LRAPA Title 14. The permit will continue in effect until the 60 days expires, or until a final order is issued if an appeal is filed, whichever is later. [LRAPA 37-0082-4]

G26. A permit automatically terminated under 37-0082-2.B. through 2.D. may only be reinstated by the permittee by applying for a new permit, including the applicable new source permit application fees as set forth in Title 37. [LRAPA 37-0082-3]

G27. If LRAPA finds there is a serious danger to the public health, safety or the environment caused by a permittee's activities, LRAPA may immediately revoke or refuse to renew the permit without prior notice or opportunity for a hearing. If no advance notice is provided, notification will be provided to the permittee as soon as possible as provided in LRAPA Title 14. The notification will set forth the specific reasons for the revocation or refusal to renew. For the permittee to contest LRAPA's revocation or refusal to renew LRAPA must receive a written request for a hearing within 90 days of service of the notice and the request must state the grounds for the request.

The hearing will be conducted as a contested case hearing in accordance with LRAPA Title 14. The revocation or refusal to renew becomes final without further action by LRAPA if a request for a hearing is not received within the 90 days. [LRAPA 37-0082-4.B]

G28. Any hearing requested shall be conducted pursuant to the rules of LRAPA. [LRAPA Title 31]

G29. The permittee may be required to submit, by April 20 of each year, the emission inventory form provided by LRAPA. [LRAPA 34-015]

G30. Any owner or operator who fails to submit any relevant facts or who has submitted incorrect information in a permit application must, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information.

Max/DW/bp [revised 10/24/01, 4/18/06, 3/9/09, 5/6/09, 12/11/09, 2/8/11, 9/1/11]

ATTACHMENT B: Air Pollution Emergencies

Table I

AIR POLLUTION EPISODE: ***ALERT CONDITION***

EMISSION REDUCTION PLAN

Part A: Pollution Episode Conditions for Carbon Monoxide or Ozone

For ***Alert Conditions*** due to excessive levels of carbon monoxide or ozone, persons operating motor vehicles shall be requested to voluntarily curtail or eliminate all unnecessary operations within the designated ***Alert Area***, and public transportation systems shall be requested to provide additional services in accordance with a preplanned strategy.

Part B: Pollution Episode Conditions for Particulate Matter

For ***Alert Conditions*** resulting from excessive levels of particulate matter, the following measures shall be taken in the designated area:

1. There shall be no open burning by any person of any material.

2. Persons operating fuel-burning equipment which requires boiler lancing or soot blowing shall perform such operations only between the hours of 12 noon and 4 p.m.

3. Persons responsible for the operation of any source of air contaminants listed below shall take all required actions for the ***Alert Level***, in accordance with the preplanned strategy:

Source of Contamination	Control Actions — ***Alert Level***
A. Coal, oil, or wood-fired facilities.	1) Utilization of electric generating fuels having low ash and sulfur content. 2) Utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing. 3) Diverting electric power generation to facilities outside of ***Alert Area***.
B. Coal, oil, or wood-fired process steam generating facilities.	1) Utilization of fuel having low ash and sulfur content. 2) Utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.

Source of Contamination	Control Actions — ***Alert Level***
	3) Substantial reduction of steam load demands consistent with continuing plant operations.
C. Manufacturing industries of the following classifications: - Primary Metals Industries - Petroleum Refining - Chemical Industries - Mineral Processing Indus. - Grain Industries - Paper and Allied Products - Wood Processing Industry	1) Reduction of air contaminants from manufacturing operations by curtailing postponing, or deferring production and all operations. 2) Reduction by deferring trade waste disposal operations which emit solid particle gas vapors or malodorous substance. 3) Reduction of heat load demands for processing. 4) Utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing.

Table II

AIR POLLUTION EPISODE: ***WARNING CONDITIONS***

EMISSION REDUCTION PLAN

Part A: Pollution Episode Conditions for Carbon Monoxide or Ozone

For ***Warning Conditions***, resulting from excessive levels or carbon monoxide or ozone, the following measures shall be taken:

1. Operation of motor vehicles carrying fewer than three (3) persons shall be prohibited within designated areas during specified hours. Exceptions from this provision are:
    A. Public transportation and emergency vehicles
    B. Commercial vehicles
    C. Through traffic remaining on Interstate or primary highways.
2. At the discretion of the Agency, operations of all private vehicles within designated areas or entry of vehicles into designated areas may be prohibited for specified periods of time.
3. Public transportation operators shall, in accordance with a pre-planned strategy, provide the maximum possible additional service to minimize the public's inconvenience as a result of No. 1 or No. 2. above.
4. For ozone episodes the following additional measures shall be taken:
    A. No bulk transfer of gasoline without vapor recovery from 2:00 a.m. to 2:00 p.m.
    B. No service station pumping of gasoline from 2:00 a.m. to 2:00 p.m.
    C. No operation of paper coating plants from 2:00 a.m. to 2:00 p.m.
    D. No architectural painting or auto finishing;
    E. No venting of dry cleaning solvents from 2:00 a.m. to 2:00 p.m. (except perchloroethylene).
5. Where appropriate for carbon monoxide episodes during the heating season, and where legal authority exists, governmental agencies shall prohibit all use of wood stoves and fireplaces for domestic space heating, except where such devices provide the sole source of heat.

Part B: Pollution Episode Conditions for Particulate Matter

For ***Warning Conditions*** resulting from excessive levels of particulate matter, the following measures shall be taken:

1. There shall be no open burning by any person of any material.
2. The use of incinerators for the disposal of solid or liquid wastes shall be prohibited.
3. Persons operating fuel-burning equipment which requires boiler lancing or soot blowing shall perform such operations only between the hours of 12 noon and 4 p.m.
4. Where legal authority exists, governmental agencies shall prohibit all use of wood stoves and fireplaces for domestic space heating, except where such devices provide the sole source of heat.

5. Persons responsible for the operation of any source of air contaminants listed below shall take all required actions for the ***Warning Level***, in accordance with a preplanned strategy:

Source of Contamination	Control Actions — ***Warning Level***
A. Coal, oil, or wood-fired electric power generating facilities.	1) Maximum utilization of fuels having lowest ash and sulfur content. 2) Utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing. 3) Diverting electric power generation to facilities outside of ***Warning Area***. 4) Prepare to use a plan of action if an ***Emergency Condition*** develops. 5) Cease operation of facilities not related to safety or protection of equipment or delivery of priority power.
B. Coal, oil, or wood-fired process steam generating facilities.	1) Maximum utilization of fuels having the lowest ash and sulfur content. 2) Utilization of mid-day (12: 00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing. 3) Prepare to use a plan of action if an ***Emergency Condition*** develops. 4) Cease operation of facilities not related to safety or protection of equipment or delivery of priority power.
C. Manufacturing industries which require considerable lead time for shut-down including the following classifications: - Petroleum Refining - Chemical Industries - Primary Metals Industries - Glass Industries - Paper and Allied Products	1) Reduction of air contaminants from manufacturing operations by, if necessary, assuming reasonable economic hardships by postponing production and allied operations. 2) Reduction by deferring trade waste disposal operations which emit solid particles, gases, vapors or malodorous substances. 3) Maximum reduction of heat load demands for processing. 4) Utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence of boiler lancing or soot blowing.

Source of Contamination	Control Actions — ***Warning Level***
D. Manufacturing industries which require relatively short time for shut-down.	1) Elimination of air contaminants from manufacturing operations by ceasing, allied operations to the extent possible without causing injury to persons or damage to equipment. 2) Elimination of air contaminants from trade waste disposal processes which emit solid particles, gases, vapors, or malodorous substances. 3) Reduction of heat load demands for processing. 4) Utilization of mid-day (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing or soot blowing.

Table III

AIR POLLUTION EPISODE: ***EMERGENCY CONDITIONS***

EMISSION REDUCTION PLAN

1. There shall be no open burning by any person of any material.
2. The use of incinerators for the disposal of solid or liquid wastes shall be prohibited.
3. All places of employment, commerce, trade, public gatherings, government, industry, business, or manufacture shall immediately cease operation, except the following:
   - A. Police, fire, medical and other emergency services;
   - B. Utility and communication services;
   - C. Governmental functions necessary for civil control and safety;
   - D. Operations necessary to prevent injury to persons or serious damage to equipment or property;
   - E. Food stores, drug stores and operations necessary for their supply;
   - F. Operations necessary for evacuation of persons leaving the area;
   - G. Operations conducted in accordance with an approved preplanned emission reduction plan on file with the Agency.
4. All commercial and manufacturing establishments not included in these rules shall institute such actions as will result in maximum reduction of air contaminants from their operations which emit air contaminants, to the extent possible without causing injury or damage to equipment.
5. The use of motor vehicles is prohibited except for the exempted functions in 3, above.
6. Airports shall be closed to all except emergency air traffic.
7. Where legal authority exists, governmental agencies shall prohibit all use of wood stoves and fireplaces.
8. Any person responsible for the operation of a source of atmospheric contamination listed below shall take all required control actions for this ***Emergency Level***.

Source of Contamination	Control Actions — ***Emergency Level***
A. Coal, oil, or wood-fired electric power generating facilities.	1) Maximum utilization of fuels having lowest ash and sulfur content.
	2) Utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing.

Source of Contamination	Control Actions — ***Emergency Level***
	3) Diverting electric power generation to facilities outside of Emergency area. 4) Cease operation of facilities not related to safety or protection of equipment or delivery of priority power.
B. Coal, oil, or wood-fired steam generating facilities.	1) Reducing heat and steam process demands to absolute necessities consistent with preventing equipment damage. 2) Utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing. 3) Taking the action called for in the emergency plan. 4) Cease operation of facilities not related to safety or protection of equipment or delivery of priority power.
C. Manufacturing industries of the following classifications: - Primary Metals Industry - Petroleum Refining Operations - Chemical Industries - Mineral Processing Industries - Paper and Allied Products - Grain Industry - Wood Processing Industry	1) The elimination of air of contaminants from manufacturing operations by ceasing, curtailing, postponing or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment. 2) Elimination of air contaminants from trade waste disposal processes which emit solid particles, gases, vapors, or malodorous substances. 3) Maximum reduction of heat load demands for processing. 4) Utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing.

DW/bp [3/51/06] ML/cmw [9/15/09]