AIR PA_AC0003M_RN102524600_27935_PA_20141020_SITE ASSESSMENT

Texas Commission on Environmental Quality
Investigation Report

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Customer: Momentive Specialty Chemicals Inc.
Customer Number: CN602870511

Regulated Entity Name: MOMENTIVE SPECIALTY CHEMICALS DIBOLL
Regulated Entity Number: RN102524600

Investigation # 1204334
Investigator: SAM MARSH
Conducted: 10/20/2014 -- 10/20/2014
Program(s): AIR NEW SOURCE PERMITS

Incident Numbers
Site Classification MINOR SOURCE
SIC Code: 2821
NAIC Code: 325211

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NOV 18 2014
TCEQ
CENTRAL FILE ROOM

Investigation Type: Site Assessment File Review
Location: 100 W Borden Dr, Diboll, TX
Additional ID(s): AC0003M
27935

Address: 100 W BORDEN ST, DIBOLL, TX , 75941

Local Unit: REGION 10 - BEAUMONT
Activity Type(s): PMPRCH116 - AIR PMPR - CHAPTER 116 PERMIT PROVISION REVIEW

Principal(s):

Role	Name
RESPONDENT	MOMENTIVE SPECIALTY CHEMICALS INC

Contact(s):

Role	Title	Name	Phone	
Regulated Entity Contact	REGIONAL ENVIRONMENTAL MANAGER	MRS ANDREA PEREZ	Work	(541) 741-6708

Other Staff Member(s):

Role	Name
QA Reviewer	GARRY TIDWELL
Supervisor	PAUL BLANTON

Associated Check List

Checklist Name	Unit Name
AIR PERMITS REQUEST FOR COMMENTS AND NSR PERMIT CONDITION	Momentive PMPR

Investigation Comments:

INTRODUCTION

On October 20, 2014 Mr. Sam Marsh, Investigator for the Texas Commission on Environmental Quality, conducted an in-house Request for Comments (Attachment 1) for Momentive Specialty Chemicals Diboll (Momentive,) of Diboll, Texas. On September 30, 2014 the facility submitted a permit application to amend New

Source Review (NSR) Permit 27935.

GENERAL FACILITY AND PROCESS INFORMATION

Momentive is a specialty chemical processing plant, producing formaldehyde and resins. The primary Standard Industrial Classification (SIC) code for Momentive is 2821. Momentive is considered a minor source for both the Prevention of Significant Deterioration (PSD) program and the federal operating permits program. A detailed process description can be found in the regulated entity's public files.

BACKGROUND

Current Enforcement Actions

No violations were documented during the investigation.

Agreed Orders, Court Orders, and Other Compliance Agreements

There have been no Air section compliance agreements with the Regulated Entity in the last 5 years.

Complaints

There have been no Air section complaints in the past 5 years pertaining to the Regulated Entity. A complete complaint history and details about these actions can be found in the associated regulated entity's public files.

Prior Enforcement Issues

A complete enforcement history and details can be found in the associated regulated entity public files.

ADDITIONAL INFORMATION

On October 17, 2014 the investigator received a Request for Comments for NSR Permit 27935 via email.

On October 20, 2014 the investigator telephoned Ms. Andrea Perez, Regional Environmental Manager for Momentive Specialty Chemicals to discuss the amendment. A copy of the permit application was not sent to the Region 10 office, but was sent to the TCEQ Central office and received on November 12, 2012. Ms. Perez explained that a previous permit amendment had run out of time, and that this was a resubmittal of the same amendment. As the investigator had conducted an on-site Request for Comments on April 5, 2012, a second on-site inspection was deemed not necessary.

The permit amendment consists of removing a formaldehyde production unit from operation, and installing a charge pump and pipeline to supply formaldehyde to a triazine production reactor. The investigator has no objection to the amendment of the permit at the present time.

On October 20, 2014, the completed Request for Comments form was faxed to the permitting division in Austin.

ATTACHMENTS

Attachment 1 - Request for Comments

No Violations Associated to this Investigation

Signed _____ Date 10/28/14
Environmental Investigator

Signed Paul D. Clanton Date 10/29/14
Supervisor

Attachments: (in order of final report submittal)

____Enforcement Action Request (EAR)
____Letter to Facility (specify type) : _____
Investigation Report
____Sample Analysis Results
____Manifests
____Notice of Registration
____Maps, Plans, Sketches
____Photographs
____Correspondence from the facility
____Other (specify) :

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Attachment 1

Momentive Specialty Chemicals Diboll

RN102524600

Investigation 1204334

Investigation Date: October 20, 2014

SWM

Christy Hollier Monantive Specialty Chemicals, Inc. Project # 199074

From: Chase Perry
To: Christy Hollier
Sent: Monday, October 20, 2014 4:45 PM
Subject: Read: RFC Project number 199074

Your message

To: Chase Perry
Subject: RFC Project number 199074
Sent: Monday, October 20, 2014 4:24:54 PM (UTC-06:00) Central Time (US & Canada)

was read on Monday, October 20, 2014 4:44:47 PM (UTC-06:00) Central Time (US & Canada).

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Christy Hollier

From: Christy Hollier
Sent: Monday, October 20, 2014 4:25 PM
To: Chase Perry
Cc: Sam Marsh; Matthew Armstrong
Subject: RFC Project number 199074
Attachments: 0080_001.pdf

Tracking:

Recipient	Delivery
Chase Perry	Delivered: 10/20/2014 4:25 PM
Sam Marsh	Delivered: 10/20/2014 4:25 PM
Matthew Armstrong	Delivered: 10/20/2014 4:25 PM

Hi Chase,

Attached is the RFC for Momentive Specialty Chemicals, Inc. in Diboll – project number 199074 and permit number 27935. If you have any questions please contact me.

Thank you,

Christy Hollier
Environmental Investigator
Texas Commission on Environmental Quality
Office: (409) 898-3838
Fax: (409) 892-2119
e-mail: Christy.hollier@tceq.texas.gov

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TCEQ
Protecting Texas by Reducing and Preventing Pollution

FAX TRANSMITTAL

DATE: **10/20/14** NUMBER OF PAGES *(including this cover sheet):* 3

TO:
Name: **Mr. Chase Perry**
Organization: **TCEQ Air Permits Division**
FAX Number: **512-239-1300**

FROM: TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Name: **Christy Hollier for Sam Marsh**
Division/Region: **TCEQ Region 10**
Telephone Number: **409-898-3838**
FAX Number: **409-892-2101**

NOTES:

Project #
199074

Permit #:
27935

Name of Company
Momentive Specialty Chemicals, Inc.

Account #
AC0003M

RN 102524600

CN 602870511

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Request for Comments -- Draft Conditions
TCEQ -- Air Permits Division
Phone: (512)239-1250
Fax: (512)239-1300
Mailing Address: TCEQ, Air Permits, P.O. Box 13087, Austin, TX 78711-3087

TO: Region: **10** City: **Diboll** County: **Angelina** Account No.: **AC-0003-M**

Submitted by: **Mr. Chase Perry** E-Mail ID: **Chase.Perry** Phone: **(512) 239-1347**

Date Request Submitted: **October 17, 2014**

Comments Deadline: **November 7, 2014**

For deadlines less than 21 days Section Manager approval is required.

Date Application Received by TCEQ in Austin: **September 30, 2013**

REGIONAL OFFICES: Please return comments ASAP, but no later than the comments deadline which is 21 days from the submittal date. Permit disposition will proceed after comments are received or after the comments deadline has passed.

LOCAL PROGRAMS: The company below has submitted an application for the project referenced below in accordance with regulations of the TCEQ. Please return comments ASAP, but no later than the comments deadline which is 21 days from the submittal date. Permit disposition will proceed after comments are received or after the comments deadline has passed. Permit Reviewer may request faster response if needed. If no comments are received within this time frame, we will assume you have no comments or objections to the project as proposed. Please return a complete copy of the form (both sides) with your comments.

PROJECT TYPE: **Amendment**

NEWLY AUTHORIZED MSS? ____YES ✓ NO

PROJECT NO.: **199074**

REGULATED ENTITY NO.: **RN102524600**

PERMIT NO.: **27935**

COMPANY NAME: **Momentive Specialty Chemicals Inc**

CUSTOMER REFERENCE NO.: **CN602870511**

PLANT NAME: **Momentive Specialty Chemicals Diboll**

LOCATION: **100 W Borden St**

UNIT NAME: **Diboll Plant**

COUNTY: **Angelina**

TECHNICAL CONTACT: **Andrea Perez**

PHONE: **(541) 505-1967**

OPERATING SCHEDULE: Continuous? ✓

Hours/Day ____ Days/Week ____ Weeks/Year ____ Night Operation? ____

Engineer's Comments: Momentive has submitted this amendment application to correct representations found to be deficient during voluntary audit. Additionally, Momentive requests an increase in production of Triazine solutions.

Attachments: **MAERT, Draft Conditions**

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Request for Comments -- Draft Permit
RESPONSE

TO: **Mr. Chase Perry, Austin**

FROM: Region: **10** City: **Diboll** County: **Angelina** Account No.: **AC-0003-M**

Copy of Application Received by your Office: ✓ YES ___ NO Date Received: 10-3-13

COMPANY NAME: Momentive Specialty Chemicals Inc

PERMIT NO.: 27935

REGULATED ENTITY NO: RN102524600 **PROJECT NO.: 199074**

Investigator's/Compliance Officer's Name (Please Print): Samuel Mark

Phone: 409-899-8759

Comments Deadline (from pg. 1): **November 7, 2014**

Date of Last Site Visit: 10-16-13

COMMENTS ON CONDITIONS: (Please mark up draft special conditions with your comments. Please address applicability and enforceability. List any additional conditions below):

Please note that the scope of the review is typically limited to the affected sources within the project, although suggestions to improve the enforceability of conditions not related to the specific permit action may be provided with justification. Please also note that changes in permit stringency during a renewal process must meet the criteria of Texas Health and Safety Code 382.055(e) and should be submitted with justification.

Compliance Determination Conditions: No Comment

Operational Limitations: No Comment

GENERAL COMMENTS: : Proceed with permit

PERMIT ISSUANCE:

If you have any objections to issuance, please note them here:

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SWM
11/1/14

Christy Hollier

From:	Chase Perry
Sent:	Friday, October 17, 2014 10:58 AM
To:	RFCAIR10
Cc:	Latha Kambham (LKambham@trinityconsultants.com)
Subject:	Draft RFC- Permit No. 27935
Attachments:	CND- 27935 Momentive (amend, 199074).docx; MRT- 27935 Momentive (amend, 199074).doc; RFC- 27935 Momentive (amend, 199074).docx

Please review the attached draft and respond with comments. I understand that you are allowed 21 days to review the draft. However, this is a capital project in which the applicant is waiting to construct. If possible, please provide comments within 15 days. Thank you.

Chase Perry
Team Leader, Chemical Section
Air Permits Division
(512) 239-1347
Chase.Perry@tceq.texas.gov

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SPECIAL CONDITIONS

Permit Number 27935

1. This permit covers only those sources of emissions listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and those sources are limited to the emission limits and other conditions specified in that attached table.

   Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing volatile organic compounds (VOC) at a concentration of greater than 1 percent are not authorized by this permit unless authorized on the maximum allowable emission rates table (MAERT). Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions. **(01/11)**

Piping, Valves, Flanges, Pumps, Agitators and Compressors in Contact with VOC - Intensive Directed Maintenance - 28 MID **(01/11)**

2. Except as may be provided for in the special conditions of this permit, the following requirements apply to the above-referenced equipment.

   A. The requirements of paragraphs F and G shall not apply (1) where the VOC has an aggregate partial pressure or vapor pressure of less than 0.044 pound per square inch, absolute (psia) at 68°F or (2) operating pressure is at least 5 kilopascals (0.725 psi) below ambient pressure. Equipment excluded from this condition shall be identified in a list or by one of the methods described below to be made available upon request.

      The exempted components may be identified by one or more of the following methods:

      (1) Piping and instrumentation diagram (PID);

      (2) A written or electronic database or electronic file;

      (3) Color coding;

      (4) A form of weatherproof identification; or

      (5) Designation of exempted process unit boundaries.

   B. Construction of new and reworked piping, valves, pump systems, agitators, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.

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C. New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical. New and reworked buried connectors shall be welded.

D. To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Difficult-to-monitor and unsafe-to-monitor valves, as defined by Title 30 Texas Administrative Code Chapter 115 (30 TAC Chapter 115), shall be identified in a list to be made available upon request. The difficult-to-monitor and unsafe-to-monitor valves may be identified by one or more of the methods described in subparagraph A above.

E. New and reworked piping connections shall be welded or flanged. Screwed connections are permissible only on piping smaller than two-inch diameter. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas analyzer within 15 days of the components being returned to service. Adjustments shall be made as necessary to obtain leak-free performance. Connectors shall be inspected by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

Each open-ended valve or line shall be equipped with an appropriately sized cap, blind flange, plug, or a second valve to seal the line. Except during sampling, both valves shall be closed. If the removal of a component for repair or replacement results in an open ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 72 hours. If the repair or replacement is not completed within 72 hours, the permit holder must complete either of the following actions within that time period:

(1) A cap, blind flange, plug, or second valve must be installed on the line or valve; or

(2) The open-ended valve or line shall be monitored once for leaks above background for a plant or unit turnaround lasting up to 45 days with an approved gas analyzer and the results recorded. For all other situations, the open-ended valve or line shall be monitored once at the end of the 72 hour period following the creation of the open ended line and monthly thereafter with an approved gas analyzer and the results recorded. For turnarounds and all other

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situations, leaks are indicated by readings 20 ppmv above background and must be repaired within 24 hours or a cap, blind flange, plug, or second valve must be installed on the line or valve.

F. Accessible valves shall be monitored by leak-checking for fugitive emissions at least quarterly using an approved gas analyzer with a directed maintenance program. Sealless/leakless valves (including, but not limited to, welded bonnet bellows and diaphragm valves) and relief valves equipped with a rupture disc upstream or venting to a control device are not required to be monitored. For valves equipped with rupture discs, a pressure-sensing device shall be installed between the relief valve and rupture disc to monitor disc integrity. All leaking discs shall be replaced at the earliest opportunity but no later than the next process shutdown.

A check of the reading of the pressure-sensing device to verify disc integrity shall be performed weekly and recorded in the unit log or equivalent. Pressure-sensing devices that are continuously monitored with alarms are exempt from recordkeeping requirements specified in this paragraph.

An approved gas analyzer shall conform to requirements listed in Method 21 of 40 CFR Part 60, Appendix A. The gas analyzer shall be calibrated with methane. In addition, the response factor of the instrument for a specific VOC of interest shall be determined and meet the requirements of Section 8 of Method 21. If a mixture of VOCs are being monitored, the response factor shall be calculated for the average composition of the process fluid. A calculated average is not required when all of the compounds in the mixture have a response factor less than 10 using methane. If a response factor less than 10 cannot be achieved using methane, then the instrument may be calibrated with one of the VOC to be measured or any other VOC so long as the instrument has a response factor of less than 10 for each of the VOC to be measured.

A directed maintenance program shall consist of the repair and maintenance of components assisted simultaneously by the use of an approved gas analyzer such that a minimum concentration of leaking VOC is obtained for each component being maintained. A first attempt to repair the leak must be made within 5 days. Records of the first attempt to repair shall be maintained. Replaced components shall be re-monitored within 15 days of being placed back into VOC service.

G. All new and replacement pumps, compressors, and agitators shall be equipped with a shaft sealing system that prevents or detects emissions of VOC from the seal. These seal systems need not be monitored and may

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include (but are not limited to) dual pump seals with barrier fluid at higher pressure than process pressure, seals degassing to vent control systems kept in good working order, or seals equipped with an automatic seal failure detection and alarm system. Submerged pumps or sealless pumps (including, but not limited to, diaphragm, canned, or magnetic-driven pumps) may be used to satisfy the requirements of this condition and need not be monitored.

All other pump, compressor, and agitator seals shall be monitored with an approved gas analyzer at least quarterly.

H. Damaged or leaking valves, connectors, compressor seals, pump seals, and agitator seals found to be emitting VOC in excess of 500 parts per million by volume (ppmv) or found by visual inspection to be leaking (e.g., dripping process fluids) shall be tagged and replaced or repaired. A leaking component shall be repaired as soon as practicable, but no later than 15 days after the leak is found. If the repair of a component would require a unit shutdown that would create more emissions than the repair would eliminate, the repair may be delayed until the next scheduled shutdown. All leaking components which cannot be repaired until a scheduled shutdown shall be identified for such repair by tagging. A listing of all components that qualify for delay of repair shall be maintained on a delay of repair list. The cumulative daily emissions from all components on the delay of repair list shall be estimated by multiplying by 24 the mass emission rate for each component calculated in accordance with the instructions in 30 TAC § 115.782(c)(1)(B)(i)(II). The calculations of the cumulative daily emissions from all components on the delay of repair list shall be updated within ten days of when the latest leaking component is added to the delay of repair list. When the cumulative daily emission rate of all components on the delay of repair list times the number of days until the next scheduled unit shutdown is equal to or exceeds the total emissions from a unit shutdown as calculated in accordance with 30 TAC § 115.782(c)(1)(B)(i)(I), the TCEQ Regional Manager and any local programs shall be notified and may require early unit shutdown or other appropriate action based on the number and severity of tagged leaks awaiting shutdown. This notification shall be made within 15 days of making this determination.

I. In lieu of the monitoring frequency specified in paragraph F, valves in gas and light liquid service may be monitored on a semiannual basis if the percent of valves leaking for two consecutive quarterly monitoring periods is less than 0.5 percent.

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Valves in gas and light liquid service may be monitored on an annual basis if the percent of valves leaking for two consecutive semiannual monitoring periods is less than 0.5 percent.

If the percent of valves leaking for any semiannual or annual monitoring period is 0.5 percent or greater, the facility shall revert to quarterly monitoring until the facility again qualifies for the alternative monitoring schedules previously outlined in this paragraph.

J. The percent of valves leaking used in paragraph I shall be determined using the following formula:

$$(Vl + Vs) \times 100/Vt = Vp$$

Where:

Vl	=the number of valves found leaking by the end of the monitoring period, either by Method 21 or sight, sound, and smell.
Vs	=the number of valves for which repair has been delayed and are listed on the facility shutdown log.
Vt	=the total number of valves in the facility subject to the monitoring requirements, as of the last day of the monitoring period, not including nonaccessible and unsafe-to-monitor valves.
Vp	=the percentage of leaking valves for the monitoring period.

K. Records of repairs shall include date of repairs, repair results, justification for delay of repairs, and corrective actions taken for all components. Records of instrument monitoring shall indicate dates and times , test methods, and instrument readings. The instrument monitoring record shall include the time that monitoring took place for no less than 95% of the instrument readings recorded. Records of physical inspections shall be noted in the operator=s log or equivalent.

L. Compliance with the requirements of this condition does not assure compliance with requirements of 30 TAC Chapter 115, an applicable New Source Performance Standards (NSPS), or an applicable National Emission Standard for Hazardous Air Pollutants and does not constitute approval of alternative standards for these regulations.

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Storage and Loading of VOC **(01/11)**

3. Storage tanks are subject to the following requirements: The control requirements specified in paragraphs A-D of this condition shall not apply (1) where the VOC has an aggregate partial pressure of less than 0.50 psia at the maximum feed temperature or 95°F, whichever is greater, or (2) to storage tanks smaller than 25,000 gallons.

   A. An internal floating deck or "roof" or equivalent control shall be installed in all tanks. The floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof: (1) a liquid-mounted seal, (2) two continuous seals mounted one above the other, or (3) a mechanical shoe seal.

   B. An open-top tank containing a floating roof (external floating roof tank) which uses double seal or secondary seal technology shall be an approved control alternative to an internal floating roof tank provided the primary seal consists of either a mechanical shoe seal or a liquid-mounted seal and the secondary seal is rim-mounted. A weathershield is not approvable as a secondary seal unless specifically reviewed and determined to be vapor-tight.

   C. For any tank equipped with a floating roof, the permit holder shall perform the visual inspections and seal gap measurements as specified in Title 40 Code of Federal Regulations § 60.113b (40 CFR § 60.113b) Testing and Procedures (as amended at 54 FR 32973, Aug. 11, 1989) to verify fitting and seal integrity. Records shall be maintained of the dates seals were inspected and seal gap measurements made, results of inspections and measurements made (including raw data), and actions taken to correct any deficiencies noted.

   D. The floating roof design shall incorporate sufficient flotation to conform to the requirements of API Code 650 dated November 1, 1998 except that an internal floating cover need not be designed to meet rainfall support requirements and the materials of construction may be steel or other materials.

   E. Uninsulated tank exterior surfaces exposed to the sun shall be white. Storage tanks must be equipped with permanent submerged fill pipes.

   F. The permit holder shall maintain an emissions record which includes calculated emissions of VOC from all storage tanks during the previous calendar month and the past consecutive 12-month period. The record

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shall include tank identification number, control method used, tank capacity in gallons, name of the material stored, VOC molecular weight, VOC monthly average temperature in degrees Fahrenheit, VOC vapor pressure at the monthly average material temperature in psia, VOC throughput for the previous month and year-to-date. Records of VOC monthly average temperature are not required to be kept for unheated tanks which receive liquids that are at or below ambient temperatures.

G. For purposes of assuring compliance with VOC emission limitations, the holder of this permit shall maintain a monthly throughput record that will allow calculation of the emissions of VOC from storage tank operations. The record shall include the name of the material stored and VOC throughput in gallons for the previous month and year-to-date. This record shall be maintained at the plant site for at least two years and be made available to TCEQ representatives upon request.

H. Emissions for tank operations and loading operations shall be calculated, when required, using: (a) AP-42 "Compilation of Air Pollutant Emission Factors," Fifth Edition, January 1995, Chapter 7.1 - Organic Liquid Storage Tanks, (b) the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Storage Tanks," February 1995, and (c) the TCEQ publication titled "Technical Guidance Package for Chemical Sources - Loading Operations," January 1995. Equivalent alternate methods may be used.

I. Controlled and uncontrolled emissions of VOC shall be calculated for storage tanks using meteorological data for the city of Houston.

4. The existing Fixed-Roof Methanol Storage Tank identified as Emission Point No. (EPN) 9 is authorized to operate with vapor balance during filling as long as the throughput and filling rate is not increased above the representation on the amendment application dated February 7, 2010. **(01/11)**

For the five existing fixed-roof formaldehyde storage tanks, Oil Well Resin (OWR) storage tank, and Triazine Blend Tanks routing the waste gas streams to the TG Boiler, identified as EPN 4 TG Boiler, complies with the requirements of Special Condition No. 3B and shall be considered to be equivalent to an internal floating roof. These emissions shall be routed to EPN 5 Cleaver Brooks when the Boiler (EPN 4) is not operational. **(Date)**

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Emission Limitations and Operational Considerations

5. Fuel for the tail gas boiler shall be sweet pipeline quality natural gas. Use of any other fuel will require prior authorization by the Executive Director of the TCEQ. **(02/13)**

6. The fueling rate for each of the Cleaver Brooks 700 and the Superior 700 Boilers shall not exceed 29,000 standard cubic feet per hour (scfh) each or 60,000 scfh combined. Fuel for the Cleaver Brooks 700 and the Superior 700 Boilers shall be sweet natural gas as defined in the 30 TAC Chapter 101 adopted by the TCEQ. Use of any other fuel will require prior authorization by the Executive Director of the TCEQ.

7. The following shall apply to Urea Silo Vent 1 and 2 baghouses, and the Melamine Addition System baghouse: **(DATE)**

   A. Particulate matter grain loading shall not exceed 0.01 grain per dscf of air from any vent. There shall be no visible emissions exceeding 30 seconds in any six-minute period as determined using U.S. Environmental Protection Agency (EPA) Test Method 22.

   B. The vents covered by this permit shall not operate unless control devices and associated equipment are maintained in good working order and operating. All vents will be inspected for visible emissions once per day when in operation and a spare-parts filter inventory will be maintained on site. Records shall be maintained of all inspections and maintenance performed.

   C. The differential pressure across each baghouse shall be continuously monitored and be recorded at least once an hour, when in operation. The pressure drop shall be greater than 0 inches of water, and shall not exceed 15 inches of water, on an hourly average basis for Urea Silo Baghouse System. The pressure drop shall be greater than 0 inches of water, and shall not exceed 6 inches of water, on an hourly average basis for the Melamine Addition System Baghouse System.

   D. Each monitoring device shall be calibrated at a frequency in accordance with the manufacturer's specifications or at least annually, whichever is more frequent, and shall be accurate to within 0.5 inches water gauge pressure or 0.5 percent of span.

   E. Quality assured (or valid) data must be generated when emission streams are sent to the baghouses, except during the performance of a daily zero

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check. Loss of valid data due to periods of monitor breakdown, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in hours) that the emission streams are routed to the baghouses, over the previous rolling 12 month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded.

F. In the event of visible emissions exceeding the limit specified in A of this condition, the process served by that baghouse shall be shutdown, and the devices shall be inspected and repaired, as necessary. The process served by that baghouse shall remain shut down until the repairs are complete.

G. Monitoring and recordkeeping requirements shall apply no later than 90 days after issuance of the permit amendment, PI-1 dated September 26, 2013.

8. Loading formaldehyde solutions into tank trucks and/or railcars at this facility shall be subject to the following conditions:

A. Vapors from the tank truck or railcar being loaded shall be routed back to the storage tank being unloaded. Loading shall not commence unless the vapor collection system is properly connected and the entire vapor collection and recovery system is working as designed. All liquid lines used for loading shall be connected from above the tank truck or railcar being loaded so that the lines may empty into the tank truck or railcar. Immediately after loading ceases, all liquid and vapor lines used for loading shall be capped.

B. All lines, connectors, and vapor recovery systems shall be visually inspected for any defects prior to hookup. Lines, connectors, and vapor recovery systems that are visibly damaged shall be removed from service until they are repaired to a leak-free state. Records of the inspection and repairs shall be maintained.

C. Unloading and loading of formaldehyde shall not commence until plant personnel has verified that the Tail Gas Boiler, identified as EPN 4 TG Boiler, is operating. These emissions shall be routed to EPN 5 Clever Brooks when the Boiler (EPN 4) is not operational. Records of this inspection shall be maintained. **(01/11)**

D. Loading operations shall cease immediately upon detection, by sight, sound, or smell, of any liquid leaking from the lines or connections.

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Operations shall not be continued until the lines and connections are repaired to a leak-free state. Records of the inspection and repairs shall be maintained.

E. Each tank truck being loaded at this facility shall pass leak-tight testing once a year using the methods described in 40 CFR Part 60, Subparts A and XX, or other applicable method as approved by the TCEQ Executive Director. Annual testing using the leakage test method described in 49 CFR § 180.407(h) for specification cargo tanks is an acceptable alternative to the methods described in 40 CFR Part 60, Subparts A and XX. The operator shall not allow a tank truck to be filled unless the tank being filled has passed a leak-tight test within the last 12 months as evidenced by a prominently displayed certification affixed near the Department of Transportation certification plate which:

(1) Shows the date the tank truck last passed the leak-tight test required by this condition, and

(2) Shows the identification number of the tank truck.

F. Records shall be kept at the plant site to demonstrate compliance with the requirements of Special Condition No. 8.E concerning tank trucks being loaded at this facility. All records shall be maintained for at least two years and be made immediately available at the request of TCEQ personnel or any local air pollution program having jurisdiction. The records shall include as a minimum:

(1) Date of loading.

(2) Name of the product loaded.

(3) Date the tank truck last passed the leak-tight test.

(4) Identification number of the tank truck.

G. Records of formaldehyde loading operations shall be kept at the plant site and shall contain, at least, the date and time that each loading event started, the time that it ended, the amount and kind of solution loaded, the receiving tank truck or railcar identification number, and the identification number of the storage tank that the solution was loaded from.

H. The uncontrolled loading of MMA and MEA Triazine based solutions in EPN LOADING is authorized as long as the throughput and loading rate is

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not increased above the representation on the amendment application dated February 7, 2010. **(01/11)**

Comment [M1]: These are low emittors, and the varied types of Triazine make vapor-balancing impossible. Flammable triazines are controlled.

9. This facility is limited to the maximum yearly rates listed below. In order to insure compliance, records shall be kept of the cumulative rates (pounds per year [lb/yr]) of the products listed on a rolling 12-month basis. Production records prior to the date on which this permit is issued may be maintained on a calendar year basis. **(DATE)**

   A. Formaldehyde (50 percent basis) purchase rate: 255.4 million lb/yr.

   B. Triazine solutions: 230 million lb/yr.

Comment [M2]: Updated Increased through amendment and PBR 109819

   C. Urea-formaldehyde production rate: 175 million lb/yr.

   D. Melamine methanol-formaldehyde resin production rate: 60 million lb/yr.

   E. Wax Solutions: 60 Million lb/yr.

   F. Phenol-formaldehyde resin production rate: 250 million lb/yr.

10. The waste gas streams from the following equipment may be directed to the Boiler identified as EPN 4 TG Boiler: Reactors A, B and C, the five existing formaldehyde storage tanks and the Oilw Wel Resin (OWR) storage tank, and Triazine Blend Tanks. These emissions may be routed to EPN 5 Cleaver Brooks Hp Boiler in the event that EPN 4 is not operational. **(DATE)**

11. The following requirements apply to the cooling tower: **(DATE)**

   A. The VOC associated with cooling tower water shall be monitored monthly with an air stripping system meeting the requirements of the TCEQ Sampling Procedures Manual, Appendix P (dated January 2003 or a later edition) or an approved equivalent sampling method. The results of the monitoring, cooling water flow rate, and maintenance activities on the cooling water system shall be recorded. The monitoring results and cooling water hourly mass flow rate shall be used to determine cooling tower hourly VOC emissions. The rolling 12-month cooling water emission rate shall be recorded on a monthly basis and be determined by summing the VOC emissions between VOC monitoring periods over the rolling 12-month period. The emissions between VOC monitoring periods shall be obtained by multiplying the total cooling water mass flow between

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cooling water monitoring periods by the higher of the 2 VOC monitored results.

B. Cooling towers shall each be equipped with drift eliminators having manufacturer's design assurance of 0.008% drift or less. Drift eliminators shall be maintained and inspected at least annually. The permit holder shall maintain records of all inspections and repairs.

Comment [M3]: This is an existing cooling tower that is not being modified. Therfore current BACT does not apply.

C. Total dissolved solids (TDS) shall not exceed 3,000 parts per million by weight (ppmw). Dissolved solids in the cooling water drift are considered to be emitted as PM, PM_{10}, and $PM_{2.5}$ as represented in the permit application calculations.

Comment [M4]: Condition 11C-F was added from current boilerplate for PM emissions from cooling towers.

D. Cooling towers shall be analyzed for particulate emissions using one of the following methods:

(1) Cooling water shall be sampled at least once per day for total dissolved solids (TDS); or

(2) TDS monitoring may be reduced to weekly if conductivity is monitored daily and TDS is calculated using a ratio of TDS-to-conductivity (in ppmw per µmho/cm or ppmw/siemens). The ratio of TDS-to-conductivity shall be determined by concurrently monitoring TDS and conductivity on a weekly basis. The permit holder may use the average of two consecutive TDS-to-conductivity ratios to calculate daily TDS; or

(3) TDS monitoring may be reduced to quarterly if conductivity is monitored daily and TDS is calculated using a correlation factor established for each cooling tower. The correlation factor shall be the average of nine consecutive weekly TDS-to-conductivity ratios determined using C(2) above provided the highest ratio is not more than 10% larger than the smallest ratio.

(4) The permit holder shall validate the TDS-to-conductivity correlation factor once each calendar quarter. If the ratio of concurrently sampled TDS and conductivity is more than 10% higher or lower than the established factor, the permit holder shall increase TDS monitoring to weekly until a new correlation factor can be established.

E. Cooling water sampling shall be representative of the cooling tower feed water and shall be conducted using approved methods.

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(1) The analysis method for TDS shall be EPA Method 160.1, ASTM D5907, or SM 2540 C [SM - 19th edition of Standard Methods for Examination of Water]. Water samples should be capped upon collection, and transferred to a laboratory area for analysis.

(2) The analysis method for conductivity shall be either ASTM D1125-95A (field or routine laboratory testing) or ASTM D1125-95B (continuous monitor). The analysis may be conducted at the sample site or with a calibrated process conductivity meter. If a conductivity meter is used, it shall be calibrated at least annually. Documentation of the method and any associated calibration records shall be maintained.

(3) Alternate sampling and analysis methods may be used to comply with D(1) and D(2) with written approval from the TCEQ Regional Director.

(4) Records of all instrument calibrations and test results and process measurements used for the emission calculations shall be retained.

F. Emission rates of PM, PM_{10} and $PM_{2.5}$ shall be calculated using the measured TDS and the ratio or correlation of TDS to conductivity measurements, the design drift rate and the daily maximum and average actual cooling water circulation rate for the short term and annual average rates. Alternately, the design maximum circulation rate may be used for all calculations. Emission records shall be updated monthly.

G. The requirements of Special Condition No. 11.A do not apply as long as the pressure of the cooling tower water supply is greater than the process pressure. The permit holder shall keep records of any changes to the operating pressure of the cooling tower.

H. Monitoring and recordkeeping requirements shall apply no later than 90 days after issuance of the permit amendment, PI-1 dated September 26, 2013.

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12. The holder of this permit shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the TG Boiler (EPN 4). The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. Sampling shall be conducted in accordance with the appropriate procedures of the TCEQ Sampling Procedures Manual and in accordance with the appropriate U.S. Environmental Protection Agency (EPA) Reference Methods.

A. The TCEQ Beaumont Regional Office shall be contacted as soon as testing is scheduled, but not less than 45 days prior to sampling to schedule a pretest meeting.

The notice shall include:

(1) Date for pretest meeting.

(2) Date sampling will occur.

(3) Name of firm conducting sampling.

(4) Type of sampling equipment to be used.

(5) Method or procedure to be used in sampling.

(6) Procedure used to determine vent loads during and after the sampling period.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test reports. A written proposed description of any deviation from sampling procedures specified in permit conditions, TCEQ, or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Director shall approve or disapprove of any deviation from specified sampling procedures. Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate/equivalent procedure proposals for NSPS testing which must have EPA approval shall be submitted to the TCEQ Regional Office

B. Air contaminants emitted from the TG Boiler to be tested for include (but are not limited to) phenol, formaldehyde, total VOC, and nitrogen oxides.

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C. Sampling shall occur within 60 days after initial start-up of the facilities and at such other times as may be required by the Executive Director of the TCEQ. Requests for additional time to perform sampling shall be submitted to the TCEQ Beaumont Regional Office. Additional time to comply with the applicable requirements of 40 CFR Part 60 and 40 CFR Part 61 requires EPA approval, and requests shall be submitted to the TCEQ Regional Office.

D. The plant shall operate at maximum production rates during stack emission testing. Primary operating parameters that enable determination of production rate shall be monitored and recorded during the stack test. These parameters shall be determined at the pretest meeting and shall be stated in the sampling report. If the plant is unable to operate at maximum rates during testing, then future production rates may be limited to the rates established during testing. Additional stack testing may be required when higher production rates are achieved.

E. Three copies of the final sampling report shall be forwarded to the TCEQ within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:

(1) One copy to the TCEQ Beaumont Regional Office.

(2) One copy to the each appropriate local air pollution control program.

13. The TG Boiler (EPN 4) shall achieve 98 percent destruction efficiency of VOC.

Federal Requirements

14. These facilities shall comply with all applicable requirements of the EPA regulations in 40 CFR Part 60 promulgated for on Standards of Performance for New Stationary Sources: **(02/13)**

A. General Provisions, Subpart A;

B. Volatile Organic Liquid Storage Vessels, Subpart Kb;

C. Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, Subpart Dc;

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This facility may elect to be regulated under the equivalent sections of the Consolidated Federal Air Rules, 40 CFR Subpart 65. If so, the facility will notify the EPA as required and copy the appropriate TCEQ regional and state offices.

Compliance Determination

15. Records demonstrating compliance with Special Condition Nos. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, and 15 shall be maintained for a minimum of two years at the facility site and be made available upon request to representatives of the TCEQ or of other air pollution control agencies having jurisdiction over the facility. **(3/02)**

Dated: DATE

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Emission Sources - Maximum Allowable Emission Rates

Permit Number 27935

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission ®rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
4	TG Boiler (5) (6)	VOC	1.59	6.2
		NOx	0.86	3.77
		CO	1.72	7.53
		PM	0.16	0.7
		PM10	0.16	0.7
		PM2.5	0.16	0.7
		SO2	0.01	0.05
		NH3	0.04	0.19
5	Cleaver Brooks (6)	VOC	2.04	7.8
		NOx	3.46	15.14
		SO2	0.03	0.13
		PM	0.29	1.28
		PM10	0.29	1.28
		PM2.5	0.29	1.28
		CO	4.39	19.24
		NH3	0.04	0.19

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Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
6	Superior Boiler	VOC	0.16	0.71
		NOx	2.94	12.9
		PM	0.22	0.98
		PM10	0.22	0.98
		PM2.5	0.22	0.98
		CO	2.47	10.83
		SO2	0.02	0.08
7	Phenol Storage Tanks	VOC	0.75	0.09
9	Methanol Storage Tank	VOC	0.42	1.28
14	Urea Silo Vent 1 (Reactor A Baghouse)	PM	0.30	1.31
		PM10	0.30	1.31
		PM2.5	0.30	1.31
15	Urea Silo Vent 2 (Reactor C Baghouse)	PM	0.30	1.31
		PM10	0.30	1.31
		PM2.5	0.30	1.31
21	Resin Storage Tanks Vents	VOC	2.90	0.88
PM_FUG	Fugitive Particulate Matter (7)	PM	3.25	1.75
		PM10	3.25	1.75
		PM2.5	0.23	0.13
FORM_FUG	Formaldehyde Plant Fugitives (7)	VOC	0.07	0.01
FM_CT	Formaldehyde Cooling Tower Vent	PM	[illegible]	0.38
		PM10	1.69	3.09
		PM2.5	0.01	0.02

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Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
RES_FUG	Fugitive Emissions from Resin Loading and Equipment Components (7)	VOC	1.60	1.25
		Formaldehyde	1.43	1.02
		Methanol	0.03	0.05
22	MEA Storage Tank	VOC	0.11	0.01
23	TEA Storage Tank (Wax)	VOC	0.01	0.01
25	Distillate Tank #2 (Green Tank)	VOC	0.01	0.01
26	Wash Water Tank (Reactor A)	VOC	0.13	0.02
27	MEA-Based Triazine Storage Tanks	VOC	0.22	0.02
TT-1	MEA-Based Triazine Storage Tanks	VOC	0.22	0.02
LOADING	Triazine Loading	VOC	1.24	0.31
TRIAZ-FUG	Fugitive emissions from Triazines (7)	VOC	0.07	0.32
SURF-FUG	Surfynol Fugitives (7)	VOC	0.13	0.06
WW-LOAD	Loading of Products to Tank Trucks	VOC	0.21	0.02
FUG	Scale Inhibitor and MEA Tank Fugutives (7)	VOC	0.01	0.03
MF_LOAD_FUG	MF Resin Loading Fugitives	VOC	0.01	0.01
28	MEA Storage Tank	VOC	0.03	0.02
31	Scale Inhibitor Tank	VOC	0.01	0.01
32	PF Boilout Tank	VOC	0.01	0.01
33	Wax Wash Water Tank	VOC	0.01	0.01

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Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
34	Intermediate H197 Tank	VOC	0.12	0.03
35	Melamine Addition System Baghouse	PM	1.65	0.91
		PM10	1.65	0.91
		PM2.5	1.65	0.91
TDIST	Triazine Distillate Tank	VOC	0.10	0.01
T-102	Seal Water Tank (Rx-A)	VOC	0.07	0.01
T-201	Seal Water Tank (Rx-C)	VOC	0.07	0.01
DRUM TOTES	Fugitive VOCs from Drums and Totes	VOC	0.01	0.01
BLTK-1	Triazine Blend Tank 1	VOC	0.43	0.01
BLTK-2	Triazine Blend Tank 2	VOC	0.43	0.01

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.
(2) Specific point source name. For fugitive sources, use area name or fugitive source name.
(3) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
NO_x - total oxides of nitrogen
SO_2 - sulfur dioxide
PM - total particulate matter, suspended in the atmosphere, including PM_{10} and $PM_{2.5}$, as represented
PM_{10} - total particulate matter equal to or less than 10 microns in diameter, including $PM_{2.5}$, as represented
$PM_{2.5}$ - particulate matter equal to or less than 2.5 microns in diameter
CO - carbon monoxide
NH_3 - ammonia
(4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
(5) Emissions resulting from waste stream routed to EPN-5 for control in the event that EPN-4 is not operational.
(6) VOC emissions include routine VOC emissions resulting from combustion of fuel and from waste stream routed to boiler.
(7) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

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Emission Sources - Maximum Allowable Emission Rates

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