NOTICE OF 30-DAY PERIOD FOR PUBLIC COMMENT

Preliminary Findings Regarding a Minor Source Operating Permit (MSOP) for Dow Silicones Corporation in Noble County

MSOP No.: M113-42487-00055

The Indiana Department of Environmental Management (IDEM) has received an application from Dow Silicones Corporation, located at 111 South Progress Drive East, Kendallville, Indiana 46755, for a MSOP. If approved by IDEM’s Office of Air Quality (OAQ), this proposed permit would allow Dow Silicones Corporation to make certain changes at its existing source and to continue to operate its existing source.

The applicant intends to construct and operate new equipment that will emit air pollutants; therefore, the permit contains new or different permit conditions. In addition, some conditions from previously issued permits/approvals have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes (e.g., changes that add or modify synthetic minor emission limits). IDEM has reviewed this application and has developed preliminary findings, consisting of a draft permit and several supporting documents, which would allow the applicant to make this change.

A copy of the permit application and IDEM's preliminary findings have been sent to:

Kendallville Public Library
221 S. Park Ave.
Kendallville, IN 46755

and

IDEM Northern Regional Office
300 North Dr. Martin Luther King Jr. Boulevard, Suite 450
South Bend, IN 46601-1295

A copy of the preliminary findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/.

A copy of the application and preliminary findings is also available via IDEM’s Virtual File Cabinet (VFC). To access VFC, please go to: http://www.in.gov/idem/ and enter VFC in the search box. You will then have the option to search for permit documents using a variety of criteria.

How can you participate in this process?

The date that this notice is posted on IDEM’s website (https://www.in.gov/idem/5474.htm) marks the beginning of a 30-day public comment period. If the 30th day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the air pollution impact of this draft permit are received, with a request for a public hearing, IDEM will decide whether or not to hold a public hearing. IDEM could also decide to hold a public hearing.
meeting instead of, or in addition to, a public hearing. If a public hearing or meeting is held, IDEM will make a separate announcement of the date, time, and location of that hearing or meeting. At a hearing, you would have an opportunity to submit written comments and make verbal comments. At a meeting, you would have an opportunity to submit written comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM’s mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit number M113-42487-00055 in all correspondence.

Comments should be sent to:

Paul Jump  
IDEM, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
(800) 451-6027, ask for Paul Jump or (317) 234-6555  
Or dial directly: (317) 234-6555  
Fax: (317) 232-6749 attn: Paul Jump  
E-mail: pjump@idem.IN.gov

All comments will be considered by IDEM when we make a decision to issue or deny the permit. Comments that are most likely to affect final permit decisions are those based on the rules and laws governing this permitting process (326 IAC 2), air quality issues, and technical issues. IDEM does not have legal authority to regulate zoning, odor, or noise. For such issues, please contact your local officials.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Air Permits page on the Internet at: http://www.in.gov/idem/airquality/2356.htm; and the Citizens’ Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

What will happen after IDEM makes a decision?

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM’s response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM’s decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above and will also be sent to the local library indicated above, the IDEM Regional Office indicated above, and the IDEM public file room on the 12th floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions, please contact Paul Jump of my staff at the above address.

Ghassan Shalabi, Section Chief  
Permits Branch  
Office of Air Quality
New Source Review and Minor Source Operating Permit

OFFICE OF AIR QUALITY

Dow Silicones Corporation
111 South Progress Drive East
Kendallville, Indiana 46755

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a MSOP under 326 IAC 2-6.1.

<table>
<thead>
<tr>
<th>Operation Permit No.: M113-42487-00055</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master Agency Interest ID: 14555</td>
</tr>
</tbody>
</table>

Issued by: Ghassan Shalabi, Section Chief
Permits Branch
Office of Air Quality

Issuance Date: Expiration Date:
# TABLE OF CONTENTS

## SECTION A  SOURCE SUMMARY ......................................................................................................... 4

- A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]
- A.2 Emission Units and Pollution Control Equipment Summary

## SECTION B  GENERAL CONDITIONS ................................................................................................... 7

- B.1 Definitions [326 IAC 2-1.1-1]
- B.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]
- B.3 Term of Conditions [326 IAC 2-1.1-9.5]
- B.4 Enforceability
- B.5 Severability
- B.6 Property Rights or Exclusive Privilege
- B.7 Duty to Provide Information
- B.8 Annual Notification [326 IAC 2-6.1-5(a)(5)]
- B.9 Preventive Maintenance Plan [326 IAC 1-6-3]
- B.10 Prior Permits Superseded [326 IAC 2-1.1-9.5]
- B.11 Termination of Right to Operate [326 IAC 2-6.1-7(a)]
- B.12 Permit Renewal [326 IAC 2-6.1-7]
- B.13 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]
- B.14 Source Modification Requirement
- B.15 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-3 0-3-1]
- B.16 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]
- B.17 Annual Fee Payment [326 IAC 2-1.1-7]
- B.18 Credible Evidence [326 IAC 1-1-6]

## SECTION C  SOURCE OPERATION CONDITIONS ............................................................................. 12

### Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)] .......................................................... 12

- C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]
- C.2 Permit Revocation [326 IAC 2-1.1-9]
- C.3 Opacity [326 IAC 5-1]
- C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]
- C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]
- C.6 Fugitive Dust Emissions [326 IAC 6-4]
- C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

### Testing Requirements [326 IAC 2-6.1-5(a)(2)] ............................................................................. 14

- C.8 Performance Testing [326 IAC 3-6]

### Compliance Requirements [326 IAC 2-1.1-11] ............................................................................. 14

- C.9 Compliance Requirements [326 IAC 2-1.1-11]

### Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)] .................................................... 14

- C.10 Compliance Monitoring [326 IAC 2-1.1-11]
- C.11 Instrument Specifications [326 IAC 2-1.1-11]

### Corrective Actions and Response Steps ......................................................................................... 15

- C.12 Response to Excursions or Exceedances
- C.13 Actions Related to Noncompliance Demonstrated by a Stack Test

### Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)] ............................................ 16

- C.14 Malfunctions Report [326 IAC 1-6-2]
- C.15 General Record Keeping Requirements [326 IAC 2-6.1-5]
C.16 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]  

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS .............................................................. 18  

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)] ................................................... 18  
D.1.1 Particulate Emission Limitations [326 IAC 6-3-2]  
D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]  

Compliance Determination Requirements [326 IAC 2-6.1-5(a)(2)] ............................................ 19  
D.1.3 Particulate Control  
D.1.4 Visible Emissions Notations  
D.1.5 Broken or Failed Bag Detection  

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)] ....................................... 20  
D.1.6 Record Keeping Requirement  

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS .............................................................. 22  

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)] ................................................... 22  
D.2.1 Particulate Emissions [326 IAC 6-2-4]  
D.2.2 Preventive Maintenance Plan [326 IAC 1-6-3]  

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS .............................................................. 23  

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)] ................................................... 23  
D.3.1 Cold Cleaner Degreaser Control Equipment and Operating Requirements [326 IAC 8-3-2]  
D.3.2 Material Requirements for Cold Cleaner Degreasers [326 IAC 8-3-8]  
D.3.3 Preventive Maintenance Plan [326 IAC 1-6-3]  

Record Keeping and Reporting Requirement [326 IAC 2-6.1-5(a)(2)] ....................................... 24  
D.3.4 Record Keeping Requirements  

SECTION E.1 NESHAP ........................................................................................................................... 25  

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-6.1-5(a)(1)] ................................................... 25  
E.1.2 Chemical Manufacturing Area Sources NESHAP [40 CFR Part 63, Subpart VVVVV]  

ANNUAL NOTIFICATION .......................................................................................................................... 27  

MALFUNCTION REPORT .......................................................................................................................... 28  

Attachment A 40 CFR 63, Subpart VVVVVV - National Emissions Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources
SECTION A  SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 and A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1  General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary silicone rubber manufacturing facility.

<table>
<thead>
<tr>
<th>Source Address:</th>
<th>111 South Progress Drive East, Kendallville, Indiana 46755</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Source Phone Number:</td>
<td>260-343-2330</td>
</tr>
<tr>
<td>SIC Code:</td>
<td>2822</td>
</tr>
<tr>
<td>County Location:</td>
<td>Noble</td>
</tr>
<tr>
<td>Source Location Status:</td>
<td>Attainment for all criteria pollutants</td>
</tr>
<tr>
<td>Source Status:</td>
<td>Minor Source Operating Permit Program</td>
</tr>
<tr>
<td></td>
<td>Minor Source, under PSD and Emission Offset Rules</td>
</tr>
<tr>
<td></td>
<td>Minor Source, Section 112 of the Clean Air Act</td>
</tr>
<tr>
<td></td>
<td>1 of 28 Source Categories</td>
</tr>
</tbody>
</table>

A.2  Emission Units and Pollution Control Equipment Summary

This stationary source consists of the following emission units and pollution control devices:

(a) Six (6) sigma blade style mixers, each with a continuous nitrogen purge:

(1) Two (2) hot mixers, identified as M-101 and M-102, approved for modification in 2012, each with a nitrogen purge, controlled by a condenser, each with a maximum process rate of 200 pounds per hour, venting through individual dump station baghouse filter systems and then exhausting at ambient temperatures to Stacks M-101 and M-102, respectively, the condenser system vents at ambient temperatures to Stacks S-M-101B and S-M-102B, respectively.

(2) Four (4) compound mixers with a combined maximum process rate of 451.2 pounds per hour, venting through individual bag filters and then exhausting at ambient temperature: M-103 to Stack M-103; M-104 to Stack M-104; M-105 to Stack M-105, and M-108 to Stack M-108; each with a maximum design flow rate of 5 dscm.

[Pursuant to 40 CFR 63, Subpart VVVVVV, these units are considered affected sources.]

(b) One (1) MS-75 silo for storage of fumed silica products, identified as MH-127, with a capacity of 50,700 pounds, including one (1) diaphragm pump with a dilute phase transfer loading rate of 7,200 lb/hr, with PM emissions controlled by an integral baghouse 11 and exhausted to a bin vent stack identified as Stack MH-127.

(c) One (1) PRISM silicone rubber manufacturing operation, identified as PRISM, with emissions controlled by a vent condenser, identified as HX-103, and an integral baghouse, identified as DC-103, with emissions exhausting to stack DC-103.
(d) One (1) 5 micron silica storage silo (MH-140) with capacity of 157,000 lbs including one (1) pneumatic transporter with a maximum rate of 3,000 lbs/hr with PM emissions controlled with an integral bin vent and exhausting to stack MH-140.

(e) One (1) 10 micron silica storage silo (MH-142) with a capacity of 177,000 lbs including one (1) pneumatic transporter with a maximum rate of 3,000 lbs/hr, with PM emission controlled with an integral bin vent and exhausting to stack MH-142.

(f) Four (4) weigh hoppers, identified as MH-103, MH-104, MH-105 and MH-106, equipped with integral bin vents that vent to the atmosphere.

(g) Two (2) compounding mixers (M-106 and M-107) equipped with bin vents that emit into the atmosphere through Stack M-106 and M-107.

[Pursuant to 40 CFR 63, Subpart VVVVVV, these units are considered affected sources.]

(h) One (1) rubber compound manufacturing process, consisting of the following emission units:

(1) Two (2) bag dump stations, each with a maximum capacity of 0.165 tons of rubber per hour; consisting of one (1) automated bag dump, identified as MH-422 and one (1) manual bag dump, identified as MH-402; with particulate controlled by a bin vent for each, and exhausting to the atmosphere through Stack MH-422 for MH-422 and through Stack MH-402 for MH-402.

(2) One (1) weigh hopper, identified as MH-403, with a maximum capacity of 0.165 tons of rubber per hour, with particulate controlled by a bin vent, and exhausting to the atmosphere through Stack MH-403.

(3) One (1) 110L mixer, identified as M-405, with a maximum capacity of 0.165 tons of rubber per hour, with particulate controlled by a bin vent, and exhausting to the atmosphere through Stack MH-405.

(i) One (1) natural gas-fired boiler, identified as UT-106, with a maximum capacity of 5.2 MMBtu/hr, and exhausting to stack UT-106.

(j) One (1) natural gas fired steam boiler, identified as UT-126, with a maximum capacity of 4.19 MMBtu/hr, exhausting through Stack UT-126.

(k) One (1) Model 34 Parts Washer, identified as PW1, constructed in 2019, with a maximum capacity of one hundred forty-seven (147) gallons of solvent per year, using no control, and exhausting indoors.

[l] One (1) compound mixer, identified as M-111, constructed in 1989, consisting of a 100-gallon Sigma Blade-style mixer, with a maximum process weight of 112.8 pounds per hour, using bag filters as control, and exhausting to Stack S-M-111.

[Pursuant to 40 CFR 63, Subpart VVVVVV, this unit is considered affected sources.]

(m) One (1) compound mixer, identified as M-112, constructed in 1989, consisting of a 25-gallon Sigma Blade-style mixer, with a maximum process weight of 28.2 pounds per hour, using bag filters as control, and exhausting Stack S-M-112.
(n) One (1) ATH storage silo, identified as MH-134, constructed in 1999, with a maximum capacity of 3,000 pounds per hour and a load capacity of 185,186 pounds, using bin vent as control, and exhausting Stack MH-134.

(o) Paved Roads.
SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-1.1-1) shall prevail.

B.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, M113-42487-00055, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U.S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.
B.8 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(c) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

B.9 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee’s control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The Permittee shall implement the PMPs.

(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions.

(c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.
B.10 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to M113-42487-00055 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted.

(b) All previous registrations and permits are superseded by this permit.

B.11 Termination of Right to Operate [326 IAC 2-6.1-7(a)]

The Permittee’s right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least one hundred twenty (120) days prior to the date of expiration of the source’s existing permit, consistent with 326 IAC 2-6.1-7.

B.12 Permit Renewal [326 IAC 2-6.1-7]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

(1) Submitted at least one hundred twenty (120) days prior to the date of the expiration of this permit; and

(2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source’s failure to have a permit is not a violation of 326 IAC 2-6.1 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-6.1-4(b), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.13 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.
Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The Permittee shall notify the OAQ no later than thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

## B.14 Source Modification Requirement

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

## B.15 Inspection and Entry

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

## B.16 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:
Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

B.17 Annual Fee Payment [326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees due no later than thirty (30) calendar days of receipt of a bill from IDEM, OAQ.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-8590 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.18 Credible Evidence [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.
SECTION C  SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.
C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

1. When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
2. If there is a change in the following:
   A. Asbestos removal or demolition start date;
   B. Removal or demolition contractor; or
   C. Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(c).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(d).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project.

(e) Procedures for Asbestos Emission Control

The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-6.1-5(a)(2)]

C.8 Performance Testing [326 IAC 3-6]

(a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date.

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date.

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

C.10 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.11 Instrument Specifications [326 IAC 2-1.1-11]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale. The analog instrument shall be capable of measuring values outside of the normal range.
(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps

C.12 Response to Excursions or Exceedances

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

(a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

1. initial inspection and evaluation;
2. recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
3. any necessary follow-up actions to return operation to normal or usual manner of operation.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

1. monitoring results;
2. review of operation and maintenance procedures and records; and/or
3. inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall record the reasonable response steps taken.

C.13 Actions Related to Noncompliance Demonstrated by a Stack Test

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.
IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

C.14 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, startups or shutdowns of any emission unit or emission control equipment, that results in violations of applicable air pollution control regulations or applicable emission limitations must be kept and retained for a period of three (3) years and be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

(b) When a malfunction of any emission unit or emission control equipment occurs that lasts more than one (1) hour, the condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification must be made by telephone or other electronic means, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of the occurrence.

(c) Failure to report a malfunction of any emission unit or emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information on the scope and expected duration of the malfunction must be provided, including the items specified in 326 IAC 1-6-2(c)(3)(A) through (E).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.15 General Record Keeping Requirements [326 IAC 2-6.1-5]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.16 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or
certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.
**Emissions Unit Operation Conditions**

**Emissions Unit Description:**

(a) Six (6) sigma blade style mixers, each with a continuous nitrogen purge:

   (1) Two (2) hot mixers, identified as M-101 and M-102, approved for modification in 2012, each with a nitrogen purge, controlled by a condenser, each with a maximum process rate of 200 pounds per hour, venting through individual dump station baghouse filter systems and then exhausting at ambient temperatures to Stacks M-101 and M-102, respectively, the condenser system vents at ambient temperatures to Stacks S-M-101B and S-M-102B, respectively.

(b) One (1) MS-75 silo for storage of fumed silica products, identified as MH-127, with a capacity of 50,700 pounds, including one (1) diaphragm pump with a dilute phase transfer loading rate of 7,200 lb/hr, with PM emissions controlled by an integral baghouse and exhausted to a bin vent stack identified as Stack MH-127.

(c) One (1) PRISM silicone rubber manufacturing operation, identified as PRISM, with emissions controlled by a vent condenser, identified as HX-103, and an integral baghouse, identified as DC-103, with emissions exhausting to stack DC-103.

(d) One (1) 5 micron silica storage silo (MH-140) with capacity of 157,000 lbs including one (1) pneumatic transporter with a maximum rate of 3,000 lbs/hr with PM emissions controlled with an integral bin vent and exhausting to stack MH-140.

(e) One (1) 10 micron silica storage silo (MH-142) with a capacity of 177,000 lbs including one (1) pneumatic transporter with a maximum rate of 3,000 lbs/hr, with PM emission controlled with an integral bin vent and exhausting to stack MH-142.

(f) Four (4) weigh hoppers, identified as MH-103, MH-104, MH-105 and MH-106, equipped with integral bin vents that vent to the atmosphere.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

**Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]**

D.1.1 Particulate Emission Limitations [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the two (2) mixers, identified as Mixer 101 and 102, shall not exceed 0.88 pounds per hour, each, when operating at a process weight rate of 200 pounds per hour, each.

The pounds per hour limitation was calculated with the following equation:

\[ E = 4.10 P^{0.67} \]

Where

- \( E \) = rate of emission in pounds per hour; and
- \( P \) = process weight rate in tons per hour
D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for this facility and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements [326 IAC 2-6.1-5(a)(2)]

D.1.3 Particulate Control

(a) In order to assure that the requirements of 326 IAC 2-2 (PSD) do not apply, the integral control devices in the table provided for PM, PM10, and PM2.5 control shall be in operation and control emissions from the emission units in the table provided at all times the emission units are in operation.

<table>
<thead>
<tr>
<th>Emission Unit ID</th>
<th>Control Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>MH-103 Weigh Hopper</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-104 Weigh Hopper</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-105 Weigh Hopper</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-106 Weigh Hopper</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-127 Outdoor Silo</td>
<td>Baghouse 11</td>
</tr>
<tr>
<td>MH-140 5 micron silica silo</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-142 10 micron silica silo</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>PRISM</td>
<td>Baghouse DC-103</td>
</tr>
</tbody>
</table>

Compliance with this condition, combined with the potential to emit PM, PM10, and PM2.5 from all other emission units at the source, shall assure the PM, PM10, and PM2.5 emissions from the entire source are less than 250 tons per twelve (12) consecutive month period and shall render the requirements of 326 IAC 2-2 (PSD) not applicable.

(b) In order to assure the emission units in the table provided are not subject to the requirements of 326 IAC 6-3-2, the integral control devices for particulate control shall be in operation and control emissions from the emission units at all times the emission units are in operation.

<table>
<thead>
<tr>
<th>Emission Unit ID</th>
<th>Control Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>MH-103 Weigh Hopper</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-104 Weigh Hopper</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-105 Weigh Hopper</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-106 Weigh Hopper</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-127 Outdoor Silo</td>
<td>Baghouse 11</td>
</tr>
<tr>
<td>MH-140 5 micron silica silo</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-142 10 micron silica silo</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>PRISM</td>
<td>Baghouse DC-103</td>
</tr>
</tbody>
</table>

(c) In order to assure that the source maintains its MSOP status under 326 IAC 2-6.1, the integral control devices in the table provided for PM, PM10, and PM2.5 control shall be in operation and control emissions from the emission units at all times the emission units are in operation.

<table>
<thead>
<tr>
<th>Emission Unit ID</th>
<th>Control Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>MH-103 Weigh Hopper</td>
<td>Bin Vent</td>
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<tr>
<td>MH-104 Weigh Hopper</td>
<td>Bin Vent</td>
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<td>MH-105 Weigh Hopper</td>
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<td>MH-127 Outdoor Silo</td>
<td>Baghouse 11</td>
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<td>Emission Unit ID</td>
<td>Control Device</td>
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<tr>
<td>MH-140 5 micron silica silo</td>
<td>Bin Vent</td>
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<tr>
<td>MH-142 10 micron silica silo</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>PRISM Baghouse DC-103</td>
<td></td>
</tr>
</tbody>
</table>

Compliance with these condition, combined with the potential to emit PM, PM10, and PM2.5 from all other emission units at the source, shall assure the PM, PM10, and PM2.5 emissions from the entire source are less than 100 tons per twelve (12) consecutive month period.

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

D.1.4 Visible Emissions Notations

(a) Visible emission notations are required for the following:

(1) The outdoor silo (MH-127), 5 micron silica silo (MH-140), 10 micron silica silo (MH-142), stack exhausts, identified as MH-127, MH-140, MH-142, shall be performed during silo loading operations during normal daylight operations.

(2) The Base Mixers, identified as M-101 and M-102, and the Prism silicone rubber manufacturing operation (DC-103) stack exhausts, identified as M-101, M-102 and DC-103, shall be performed once per day during normal daylight operations.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Registrant shall take reasonable response. Section C- Response to Excursions or Exceedances contains the Registrant’s obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.1.5 Broken or Failed Bag Detection

(a) For a single compartment baghouses controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section C - Response to Excursions or Exceedances).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line or emission unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section C - Response to Excursions or Exceedances).
Bag failure can be indicated by a significant drop in the baghouse’s pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

Record Keeping and Reporting Requirements [326 IAC 2-6.1-5(a)(2)]

D.1.6 Record Keeping Requirement

(a) To document the compliance status with Condition D.1.5, the Permittee shall maintain records of daily visible emission notations of the baghouse(s) stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(b) Section C - General Record Keeping Requirements contains the Permittee’s obligation with regard to the records required by this condition.
## SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

**Emissions Unit Description:**

(i) One (1) natural gas-fired boiler, identified as UT-106, with a maximum capacity of 5.2 MMBtu/hr, and exhausting to stack UT-106.

(j) One (1) natural gas fired steam boiler, identified as UT-126, with a maximum capacity of 4.19 MMBtu/hr, exhausting through Stack UT-126.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

**Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]**

D.2.1 Particulate Emissions [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), PM emissions from Boiler UT-106 and UT-126 shall be limited to 0.6 pounds per MMBtu heat input, each.

D.2.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for this facility. Section B - Preventive Maintenance Plan contains the Permittee’s obligation with regard to the preventive maintenance plan required by this condition.
SECTION D.3  EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(k) One Model 34 Parts Washer, identified as PW1, constructed in 2019, with a maximum capacity of one hundred forty-seven (147) gallons of solvent per year, using no control, and exhausting indoors.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.3.1 Cold Cleaner Degreaser Control Equipment and Operating Requirements [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements), the Permittee shall:

(a) Ensure the following control equipment and operating requirements are met:

(1) Equip the degreaser with a cover.

(2) Equip the degreaser with a device for draining cleaned parts.

(3) Close the degreaser cover whenever parts are not being handled in the degreaser.

(4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7).

(6) Store waste solvent only in closed containers.

(7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

(b) Ensure the following additional control equipment and operating requirements are met:

(1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):

   (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

   (B) A water cover when solvent used is insoluble in, and heavier than, water.

   (C) A refrigerated chiller.

   (D) Carbon adsorption.

   (E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.

(2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.
(3) If used, solvent spray:
   (A) must be a solid, fluid stream; and
   (B) shall be applied at a pressure that does not cause excessive splashing.

D.3.2 Material Requirements for Cold Cleaner Degreasers [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreasers), the Permittee shall not operate a cold cleaning degreaser with a solvent that has a VOC composite partial vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

D.3.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for these facilities and associated control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Record Keeping and Reporting Requirement [326 IAC 2-6.1-5(a)(2)]

D.3.4 Record Keeping Requirements

(a) To document the compliance status with Condition D.3.1, the Permittee shall maintain the following records for each purchase of solvent used in the cold cleaner degreasing operations. These records shall be retained on-site or accessible electronically for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.

   (1) The name and address of the solvent supplier.

   (2) The date of purchase (or invoice/bill dates of contract servicer indicating service date).

   (3) The type of solvent purchased.

   (4) The total volume of the solvent purchased.

   (5) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(b) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.
SECTION E.1  NESHAP

Emissions Unit Description:

(a) Six (6) sigma blade style mixers, each with a continuous nitrogen purge:

   (2) Four (4) compound mixers with a combined maximum process rate of 451.2 pounds per hour, venting through individual bag filters and then exhausting at ambient temperature: M-103 to Stack M-103; M-104 to Stack M-104; M-105 to Stack M-105, and M-108 to Stack M-108; each with a maximum design flow rate of 5 dscm.

   [Pursuant to 40 CFR 63, Subpart VVVVVV, these units are considered affected sources.]

(g) Two (2) compounding mixers (M-106 and M-107) equipped with bin vents that emit into the atmosphere through Stack M-106 and M-107.

   [Pursuant to 40 CFR 63, Subpart VVVVVV, these units are considered affected sources.]

(l) One (1) compound mixer, identified as M-111, approved in 2020 for construction, consisting of a 100-gallon Sigma Blade-style mixer, with a maximum process weight of 112.8 pounds per hour, using bag filters as control, and exhausting to Stack S-M-111.

   [Pursuant to 40 CFR 63, Subpart VVVVVV, this unit is considered affected sources.]

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements
[326 IAC 2-6.1-5(a)(1)]


(a) Pursuant to 40 CFR 63.1 the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, for the emission unit(s) listed above, except as otherwise specified in 40 CFR Part 63, Subpart VVVVVV.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

   Indiana Department of Environmental Management
   Compliance and Enforcement Branch, Office of Air Quality
   100 North Senate Avenue
   MC 61-53 IGCN 1003
   Indianapolis, Indiana 46204-2251

   and

   United States Environmental Protection Agency, Region 5
   Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
   77 West Jackson Boulevard
   Chicago, Illinois 60604-3590
E.1.2 Chemical Manufacturing Area Sources NESHAP [40 CFR Part 63, Subpart VVVVVV]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart VVVVVV (included as Attachment A to the operating permit), for the emission unit(s) listed above:

1. 40 CFR 63.11494 (a), (a)(1), (a)(2)(i), (b), (d)(1), (f)
2. 40 CFR 63.11495 (a)(1)
3. 40 CFR 63.11495 (a)(3), (a)(4), (a)(5), (c), (d)
4. 40 CFR 63.11496 (f), (f)(1), (i)
5. 40 CFR 63.11501 (a), (b), (c)(1)(i) & (v), (d)(1)(3)(4)
6. 40 CFR 63.11502
7. Table 1
8. Table 9
INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH  
MINOR SOURCE OPERATING PERMIT  
ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

<table>
<thead>
<tr>
<th>Company Name:</th>
<th>Dow Silicones Corporation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source Address:</td>
<td>111 South Progress Drive East</td>
</tr>
<tr>
<td>City:</td>
<td>Kendallville, Indiana  46755</td>
</tr>
<tr>
<td>Phone #:</td>
<td>260-343-2330</td>
</tr>
<tr>
<td>MSOP #:</td>
<td>M113-42487-00055</td>
</tr>
</tbody>
</table>

I hereby certify that Dow Silicones Corporation is:  
☐ still in operation.  
☐ no longer in operation.  

I hereby certify that Dow Silicones Corporation is:  
☐ in compliance with the requirements of MSOP M113-42487-00055.  
☐ not in compliance with the requirements of MSOP M113-42487-00055.  

Authorized Individual (typed):

Title:

Signature:

Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
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<tr>
<td></td>
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<tr>
<td></td>
</tr>
</tbody>
</table>
This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ___, 25 TONS/YEAR SULFUR DIOXIDE ___, 25 TONS/YEAR NITROGEN OXIDES ___, 25 TONS/YEAR HYDROGEN SULFIDE ___, 25 TONS/YEAR TOTAL REDUCED SULFUR ___, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ___, 25 TONS/YEAR FLUORIDES ___, 100 TONS/YEAR CARBON MONOXIDE ___, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ___, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ___, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ___, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ___. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _______________.

THIS INCIDENT MEETS THE DEFINITION OF "MALFUNCTION" AS LISTED ON REVERSE SIDE Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT Y N

COMPANY: ___________________________________________________ PHONE NO. (     )__________________
LOCATION: (CITY AND COUNTY) ________________________________________________________________
PERMIT NO. ____________________ AFS PLANT ID: ________________ AFS POINT ID: ________________ INSPECTION: ______
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: ____________________________________________

DATE/TIME MALFUNCTION STARTED: _______ / _____ / 20_____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: ________________________________

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE _______ / _____ / 20_____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: ________________________________

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: ____________________________

MEASURES TAKEN TO MINIMIZE EMISSIONS: ____________________________________________________

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:
CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: ________________________________
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: ________________________________
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: ____________________
INTERIM CONTROL MEASURES: (IF APPLICABLE) ____________________________________________________

MALFUNCTION REPORTED BY: ________________________ TITLE: ________________________
(SIGNATURE IF FAXED)
MALFUNCTION RECORDED BY: ________________________ DATE: __________________ TIME: ________________

*SEE PAGE 2
Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 “Malfunction” definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

*Essential services are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

________________________________________________________________________
________________________________________________________________________
§ 63.11494 What are the applicability requirements and compliance dates?

(a) Except as specified in paragraph (c) of this section, you are subject to this subpart if you own or operate a chemical manufacturing process unit (CMPU) that meets the conditions specified in paragraphs (a)(1) and (2) of this section.

(1) The CMPU is located at an area source of hazardous air pollutant (HAP) emissions.

(2) HAP listed in Table 1 to this subpart (Table 1 HAP) are present in the CMPU, as specified in paragraph (a)(2)(i), (ii), (iii), or (iv) of this section.

(i) The CMPU uses as feedstock, any material that contains quinoline, manganese, and/or trivalent chromium at an individual concentration greater than 1.0 percent by weight, or any other Table 1 HAP at an individual concentration greater than 0.1 percent by weight. To determine the Table 1 HAP content of feedstocks, you may rely on formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet (MSDS) for the material. If the concentration in an MSDS is presented as a range, use the upper bound of the range.

(ii) Quinoline is generated as byproduct and is present in the CMPU in any liquid stream (process or waste) at a concentration greater than 1.0 percent by weight.

(iii) Hydrazine and/or Table 1 organic HAP other than quinoline are generated as byproduct and are present in the CMPU in any liquid stream (process or waste), continuous process vent, or batch process vent at an individual concentration greater than 0.1 percent by weight.

(iv) Hydrazine or any Table 1 HAP is produced as a product of the CMPU.

(b) A CMPU includes all process vessels, equipment, and activities necessary to operate a chemical manufacturing process that produces a material or a family of materials described by North American Industry Classification System (NAICS) code 325. A CMPU consists of one or more unit operations and any associated recovery devices. A CMPU also includes each storage tank, transfer operation, surge control vessel, and bottoms receiver associated with the production of such NAICS code 325 materials.

(c) This subpart does not apply to the operations specified in paragraphs (c)(1) through (6) of this section.
(1) Affected sources under the following chemical manufacturing area source categories listed pursuant to Clean Air Act (CAA) section 112(c)(3) and 112(k)(3)(B)(ii) that are subject to area source standards under this part:

(i) Manufacture of Paint and Allied Products, subject to subpart CCCCCC of this part.

(ii) Mercury Emissions from Mercury Cell Chlor-Alkali Plants, subject to subpart IIIIII of this part.

(iii) Polyvinyl Chloride and Copolymers Production, subject to subpart DDDDDD of this part.

(iv) Acrylic and Modacrylic Fibers Production, subject to subpart LLLLLL of this part.

(v) Carbon Black Production, subject to subpart MMMMMM of this part.

(vi) Chemical Manufacturing Area Sources: Chromium Compounds, subject to subpart NNNNNN of this part.

(vii) Lead oxide production at Lead Acid Battery Manufacturing Facilities, subject to subpart PPPPPP of this part.

(2) Production of the following chemical manufacturing materials described in NAICS code 325:

(i) Manufacture of radioactive elements or isotopes, radium chloride, radium luminous compounds, strontium, uranium.

(ii) Manufacture of photographic film, paper, and plate where the material is coated with or contains chemicals. This subpart does apply to the manufacture of photographic chemicals.

(iii) Fabricating operations (such as spinning or compressing a solid polymer into its end use); compounding operations (in which blending, melting, and resolidification of a solid polymer product occurs for the purpose of incorporating additives, colorants, or stabilizers); and extrusion and drawing operations (converting an already produced solid polymer into a different shape by melting or mixing the polymer and then forcing it or pulling it through an orifice to create an extruded product). An operation is subject if it involves processing with Table 1 HAP solvent or if an intended purpose of the operation is to remove residual Table 1 HAP monomer.

(iv) Manufacture of chemicals classified in NAICS code 325222, 325314, 325413, or 325998.

(3) Research and development facilities, as defined in CAA section 112(c)(7).

(4) Quality assurance/quality control laboratories.

(5) Ancillary activities, as defined in § 63.11502(b).

(6) Metal HAP in structures or existing as articles as defined in 40 CFR 372.3.

(d) This subpart applies to each new or existing affected source. The affected source is the facility-wide collection of CMPUs and each heat exchange system and wastewater system associated with a MPU that meets the criteria specified in paragraphs (a) and (b) of this section. A MPU using only Table 1 organic HAP is required to control only total CAA section 112(b) organic HAP. A MPU using only Table 1 metal HAP is required to control only total CAA section 112(b) metal HAP in accordance with § 63.11495 and, if applicable, § 63.11496(f).

(1) An affected source is an existing source if you commenced construction or reconstruction of the affected source before October 6, 2008.

(2) An affected source is a new source if you commenced construction or reconstruction of the affected source on or after October 6, 2008.
(e) Any area source that installed a federally-enforceable control device on an affected CMPU is required to obtain a permit under 40 CFR part 70 or 40 CFR part 71 if the control device on the affected CMPU is necessary to maintain the source's emissions at area source levels. For new and existing sources subject to this rule on December 21, 2012 and subject to title V as a result of this rule, a complete title V permit application must be submitted no later than December 21, 2013. New and existing sources that become subject to this rule after December 21, 2012 must submit a complete title V permit application no later than 12 months after becoming subject to this rule if the source is subject to title V as a result of this rule. Otherwise, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not otherwise required by law to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a). Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart.

(f) If you own or operate an existing affected source, you must achieve compliance with the applicable provisions in this subpart no later than March 21, 2013.

(g) If you start up a new affected source on or before October 29, 2009, you must achieve compliance with the applicable provisions of this subpart no later than October 29, 2009.

(h) If you start up a new affected source after October 29, 2009, you must achieve compliance with the provisions in this subpart upon startup of your affected source.


Standards and Compliance Requirements

§ 63.11495 What are the management practices and other requirements?

(a) Management practices. If you have a CMPU subject to this subpart, you must comply with paragraphs (a)(1) through (5) of this section.

(1) Each process vessel must be equipped with a cover or lid that must be closed at all times when it is in organic HAP service or metal HAP service, except for manual operations that require access, such as material addition and removal, inspection, sampling and cleaning. This requirement does not apply to process vessels containing only metal HAP that are in a liquid solution or other form that will not result in particulate emissions of metal HAP (e.g., metal HAP that is in ingot, paste, slurry, or moist pellet form or other form).

(2) You must use any of the methods listed in paragraphs (a)(2)(i) through (iv) of this section to control total organic HAP emissions from transfer of liquids containing Table 1 organic HAP to tank trucks or railcars. You are not required to comply with this paragraph (a)(2) if you have notified the Administrator in your initial notification that a material is reactive or resinous, and you will not be able to comply with any of the methods in paragraphs (a)(2)(i) through (iv) of this section for the transfer of such material.

(i) Use submerged loading or bottom loading.

(ii) Route emissions to a fuel gas system or process in accordance with § 63.982(d) of subpart SS.

(iii) Vapor balance back to the storage tank or another storage tank connected by a common header.

(iv) Vent through a closed-vent system to a control device.

(3) You must conduct inspections of process vessels and equipment for each CMPU in organic HAP service or metal HAP service, as specified in paragraphs (a)(3)(i) through (v) of this section, to demonstrate compliance with paragraph (a)(2) of this section and to determine that the process vessels and equipment are sound and free of leaks. Alternatively, except when the subject CMPU contains metal HAP as particulate, inspections may be conducted while the subject process vessels and equipment are in VOC service, provided that leaks can be detected when in VOC service.

(i) Inspections must be conducted at least quarterly.
(ii) For these inspections, detection methods incorporating sight, sound, or smell are acceptable. Indications of a leak identified using such methods constitute a leak unless you demonstrate that the indications of a leak are due to a condition other than loss of HAP. If indications of a leak are determined not to be HAP in one quarterly monitoring period, you must still perform the inspection and demonstration in the next quarterly monitoring period.

(iii) As an alternative to conducting inspections, as specified in paragraph (a)(3)(ii) of this section, you may use Method 21 of 40 CFR part 60, appendix A-7, with a leak definition of 500 ppmv to detect leaks. You may also use Method 21 with a leak definition of 500 ppmv to determine if indications of a leak identified during an inspection conducted in accordance with paragraph (a)(3)(ii) of this section are due to a condition other than loss of HAP. The procedures in this paragraph (a)(3)(iii) may not be used as an alternative to the inspection required by paragraph (a)(3)(ii) of this section for process vessels that contain metal HAP as particulate.

(iv) Inspections must be conducted while the subject CMPU is operating.

(v) No inspection is required in a calendar quarter during which the subject CMPU does not operate for the entire calendar quarter and is not in organic HAP service or metal HAP service. If the CMPU operates at all during a calendar quarter, an inspection is required.

(4) You must repair any leak within 15 calendar days after detection of the leak, or document the reason for any delay in repair. For the purposes of this paragraph (a)(4), a leak will be considered “repaired” if a condition specified in paragraph (a)(4)(i), (ii), or (iii) of this section is met.

(i) The visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated, or

(ii) No bubbles are observed at potential leak sites during a leak check using soap solution, or

(iii) The system will hold a test pressure.

(5) You must keep records of the dates and results of each inspection event, the dates of equipment repairs, and, if applicable, the reasons for any delay in repair.

(b) Small heat exchange systems. For each heat exchange system subject to this subpart with a cooling water flow rate less than 8,000 gallons per minute (gal/min) and not meeting one or more of the conditions in §63.104(a), you must comply with paragraphs (b)(1) through (3) of this section, or as an alternative, you may comply with any one of the requirements in Item 1.a or 1.b of Table 8 to this subpart.

(1) You must develop and operate in accordance with a heat exchange system inspection plan. The plan must describe the inspections to be performed that will provide evidence of hydrocarbons in the cooling water. Among other things, inspections may include checks for visible floating hydrocarbon on the water, hydrocarbon odor, discolored water, and/or chemical addition rates. You must conduct inspections at least once per quarter, even if the previous inspection determined that the indications of a leak did not constitute a leak as defined by §63.104(b)(6).

(2) You must perform repairs to eliminate the leak and any indications of a leak or demonstrate that the HAP concentration in the cooling water does not constitute a leak, as defined by §63.104(b)(6), within 45 calendar days after indications of the leak are identified, or you must document the reason for any delay of repair in your next semiannual compliance report.

(3) You must keep records of the dates and results of each inspection, documentation of any demonstrations that indications of a leak do not constitute a leak, the dates of leak repairs, and, if applicable, the reasons for any delay in repair.

(c) Startup, shutdown and malfunction. Startup, shutdown, and malfunction (SSM) provisions in subparts that are referenced in paragraphs (a) and (b) of this section do not apply.

(d) General duty. At all times, you must operate and maintain any affected CMPU, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being
used will be based on information available to the Administrator, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the CMPU.


§ 63.11496 What are the standards and compliance requirements for process vents?

(a) Organic HAP emissions from batch process vents. You must comply with the requirements in paragraphs (a)(1) through (4) of this section for organic HAP emissions from your batch process vents for each CMPU using Table 1 organic HAP. If uncontrolled organic HAP emissions from all batch process vents from a CMPU subject to this subpart are equal to or greater than 10,000 pounds per year (lb/yr), you must also comply with the emission limits and other requirements in Table 2 to this subpart.

(1) You must determine the sum of actual organic HAP emissions from all of your batch process vents within a CMPU subject to this subpart using process knowledge, engineering assessment, or test data. Emissions for a standard batch in a process may be used to represent actual emissions from each batch in that process. You must maintain records of the calculations. Calculations of annual emissions are not required if you meet the emission standards for batch process vents in Table 2 to this subpart.

(2) As an alternative to calculating actual emissions for each affected CMPU at your facility, you may elect to estimate emissions for each CMPU based on the emissions for the worst-case CMPU. The worst-case CMPU means the CMPU at the affected source with the highest organic HAP emissions per batch. The worst-case emissions per batch are used with the number of batches run for other affected CMPU. Process knowledge, engineering assessment, or test data may be used to identify the worst-case process. You must keep records of the information and procedures used to identify the worst-case process.

(3) If your current estimate is that emissions from batch process vents from a CMPU are less than 10,000 pounds per year (lb/yr), then you must keep a record of the number of batches of each process operated per month. Also, you must reevaluate your total emissions from batch process vents prior to making any process changes that affect emission calculations in paragraphs (a)(1) and (2) of this section. If projected emissions increase to 10,000 lb/yr or more, you must be in compliance options for batch process vents in Table 2 to this subpart upon initiating operation under the new operating conditions. You must maintain records documenting the results of all updated emissions calculations.

(4) As an alternative to determining the HAP emissions, you may elect to demonstrate that the amount of organic HAP used in the process is less than 10,000 lb/yr. You must keep monthly records of the organic HAP usage.

(b) Organic HAP emissions from continuous process vents. You must comply with the requirements in paragraphs (b)(1) through (3) of this section for organic HAP emissions from your continuous process vents for each CMPU subject to this subpart using Table 1 organic HAP. If the total resource-effectiveness (TRE) index value for a continuous process vent is less than or equal to 1.0, you must also comply with the emission limits and other requirements in Table 3 to this subpart.

(1) You must determine the TRE index value according to the procedures in § 63.115(d), except as specified in paragraphs (b)(1)(i) through (iii) of this section.

(i) You are not required to calculate the TRE index value if you control emissions in accordance with Table 3 to this subpart.

(ii) Sections 63.115(d)(1)(i) and (ii) are not applicable for the purposes of this paragraph (b)(1)(ii).

(iii) You may assume the TRE for a vent stream is > 1.0 if the amount of organic HAP emitted in the vent stream is less than 0.1 pound per hour.

(2) If the current TRE index value is greater than 1, you must recalculate the TRE index value before you make any process or operational change that affects parameters in the calculation. If the recalculated TRE is less than or equal
to 1.0, then you must comply with one of the compliance options for continuous process vents in Table 3 to this subpart before operating under the new operating conditions. You must maintain records of all TRE calculations.

(3) If a recovery device as defined in § 63.11502 is used to maintain the TRE index value at a level greater than 1.0 and less than or equal to 4.0, you must comply with § 63.982(e) and the requirements specified therein.

c) Combined streams. If you combine organic HAP emissions from batch process vents and continuous process vents, you must comply with the more stringent standard in Table 2 or Table 3 to this subpart that applies to any portion of the combined stream, or you must comply with Table 2 for the batch process vents and Table 3 for the continuous process vents. The TRE index value for continuous process vents and the annual emissions from batch process vents shall be determined for the individual streams before they are combined, and prior to any control (e.g., by subtracting any emission contributions from storage tanks, continuous process vents or batch process vents, as applicable), in order to determine the most stringent applicable requirements.

d) Halogenated streams. You must determine if an emission stream is a halogenated vent stream by calculating the mass emission rate of halogen atoms in accordance with § 63.115(d)(2)(v). Alternatively, you may elect to designate the emission stream as halogenated. If you use a combustion device to comply with the emission limits for organic HAP from a halogenated batch process vent or a halogenated continuous process vent, you must use a halogen reduction device to meet the emission limit in either paragraph (d)(1) or (d)(2) of this section and in accordance with § 63.994 and the requirements referenced therein.

(1) Reduce overall emissions of hydrogen halide and halogen HAP after the combustion device by greater than or equal to 95 percent, to less than or equal to 0.45 kilograms per hour (kg/hr), or to a concentration less than or equal to 20 parts per million by volume (ppmv).

(2) Reduce the halogen atom mass emission rate before the combustion device to less than or equal to 0.45 kg/hr or to a concentration less than or equal to 20 ppmv.

(e) Alternative standard for organic HAP. Exceptions to the requirements for the alternative standard requirements specified in Tables 2 and 3 to this subpart and § 63.2505 are specified in paragraphs (e)(1) through (6) of this section.

(1) When § 63.2505 of subpart FFFF refers to Tables 1 and 2 to subpart FFFF and §§ 63.2455 and 63.2460, it means Tables 2 and 3 to this subpart and § 63.11496(a) and (b).

(2) Sections 63.2505(a)(2) and (b)(9) do not apply.

(3) When § 63.2505(b) references § 63.2445 it means § 63.11494(f) through (h).

(4) The requirements for hydrogen halide and halogen HAP apply only to hydrogen halide and halogen HAP generated in a combustion device that is used to comply with the alternative standard.

(5) When § 63.1258(b)(5)(ii)(B)(2) refers to a "notification of process change" report, it means the semi-annual compliance report required by § 63.11501(d) for the purposes of this subpart.

(6) CEMS requirements and data reduction requirements for CEMS specified in § 63.2450(j) apply.

(f) Emissions from metal HAP process vents. You must comply with the requirements in paragraphs (f)(1) and (2) of this section for metal HAP emissions from each CMPU using Table 1 metal HAP. If the collective uncontrolled metal HAP emissions from all metal HAP process vents from a CMPU are equal to or greater than 400 lb/yr, then you must also comply with the emission limits and other requirements in Table 4 to this subpart and in paragraph (f)(3), (4), or (5) of this section. The requirements of this paragraph (f) do not apply to metal HAP process vents from CMPU containing only metal HAP that are in a liquid solution or other form that will not result in particulate emissions of metal HAP (e.g., metal HAP that is in ingot, paste, slurry, or moist pellet form or other form).

(1) You must determine the sum of metal HAP emissions from all metal HAP process vents within a CMPU subject to this subpart, except you are not required to determine the annual emissions if you control the metal HAP process
vents within a CMPU in accordance with Table 4 to this subpart or if you determine your total metal HAP usage in the process unit is less than 400 lb/yr. To determine the mass emission rate you may use process knowledge, engineering assessment, or test data. You must keep records of the emissions calculations.

(2) If your current estimate is that total uncontrolled metal HAP emissions from a CMPU subject to this subpart are less than 400 lb/yr, then you must keep records of either the number of batches operated per month (batch vents) or the process operating hours (continuous vents). Also, you must reevaluate your total emissions before you make any process or operational change that affects emissions of metal HAP. If projected emissions increase to 400 lb/yr or more, then you must be in compliance with one of the options for metal HAP process vents in Table 4 to this subpart upon initiating operation under the new operating conditions. You must keep records of all recalculated emissions determinations.

(3) If you have an existing source subject to the HAP metals emission limits specified in Table 4 to this subpart, you must comply with the initial compliance and monitoring requirements in paragraphs (f)(3)(i) through (iii) of this section. You must keep records of monitoring results to demonstrate continuous compliance.

(i) You must prepare a monitoring plan containing the information in paragraphs (f)(3)(i)(A) through (E) of this section. The plan must be maintained on-site and be available on request. You must operate and maintain the control device according to a site-specific monitoring plan at all times.

(A) A description of the device;

(B) Results of a performance test or engineering assessment conducted in accordance with paragraph (f)(3)(ii) of this section verifying the performance of the device for reducing HAP metals or particulate matter (PM) to the levels required by this subpart;

(C) Operation and maintenance plan for the control device (including a preventative maintenance schedule consistent with the manufacturer's instructions for routine and long-term maintenance) and continuous monitoring system (CMS).

(D) A list of operating parameters that will be monitored to maintain continuous compliance with the applicable emissions limits; and

(E) Operating parameter limits based on either monitoring data collected during the performance test or established in the engineering assessment.

(ii) You must conduct a performance test or an engineering assessment for each CMPU subject to a HAP metals emissions limit in Table 4 to this subpart and report the results in your Notification of Compliance Status (NOCS). Each performance test or engineering assessment must be conducted under representative operating conditions, and sampling for each performance test must be conducted at both the inlet and outlet of the control device. Upon request, you shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. If you own or operate an existing affected source, you are not required to conduct a performance test if a prior performance test was conducted within the 5 years prior to the effective date using the same methods specified in paragraph (f)(3)(iii) of this section, and, either no process changes have been made since the test, or, if you can demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process changes.

(iii) If you elect to conduct a performance test, it must be conducted according to requirements in § 63.11410(j)(1). As an alternative to conducting a performance test using Method 5 or 5D to determine the concentration of PM, you may use Method 29 in 40 CFR part 60, appendix A-8 to determine the concentration of HAP metals. You have demonstrated initial compliance if the overall reduction of either HAP metals or total PM is equal to or greater than 95 percent.

(4) If you have a new source using a baghouse as a control device, you must install, operate, and maintain a bag leak detection system on all baghouses used to comply with the HAP metals emissions limit in Table 4 to this subpart. You must comply with the testing, monitoring, and recordkeeping requirements in § 63.11410(g), (i), and (j)(1), except you are not required to submit the monitoring plan required by § 63.11410(g)(2) for approval.
(5) If you have a new source using a control device other than a baghouse to comply with the HAP metals emission limits in Table 4 to this subpart, you must comply with the initial compliance and monitoring requirements in paragraphs (f)(3)(i) through (iii) of this section.

(g) Exceptions and alternatives to 40 CFR part 63, subpart SS. If you are complying with the emission limits and other requirements for continuous process vents in Table 3 to this subpart, the provisions in paragraphs (g)(1) through (7) and (9) of this section apply in addition to the provisions in 40 CFR part 63, subpart SS. If you are complying with the emission limits and other requirements for batch process vents in Table 2 to this subpart, the provisions in paragraphs (g)(1) through (8) of this section apply in addition to the provisions in subpart SS.

(1) Requirements for performance tests. (i) The requirements specified in §63.2450(g)(1) through (4) apply instead of, or in addition to, the requirements specified in 40 CFR part 63, subpart SS.

(ii) Upon request, you shall make available to the Administrator, such records as may be necessary to determine the conditions of performance tests.

(2) Design evaluation. To determine initial compliance with a percent reduction or outlet concentration emission limit, you may elect to conduct a design evaluation as specified in §63.1257(a)(1) instead of a performance test as specified in subpart SS of this part 63. You must establish the value(s) and basis for the operating limits as part of the design evaluation. For continuous process vents, the design evaluation must be conducted at maximum representative operating conditions for the process, unless the Administrator specifies or approves alternate operating conditions. For batch process vents, the design evaluation must be conducted under worst-case conditions, as specified in §63.2460(c)(2).

(3) Outlet concentration correction for combustion devices. When §63.997(e)(2)(iii)(C) requires you to correct the measured concentration at the outlet of a combustion device to 3 percent oxygen if you add supplemental combustion air, the requirements in either paragraph (g)(3)(i) or (g)(3)(ii) of this section apply for the purposes of this subpart.

(i) You must correct the concentration in the gas stream at the outlet of the combustion device to 3 percent oxygen if you add supplemental gases, as defined in §63.2550, to the vent stream, or;

(ii) You must correct the measured concentration for supplemental gases using Equation 1 of §63.2460; you may use process knowledge and representative operating data to determine the fraction of the total flow due to supplemental gas.

(4) Continuous parameter monitoring. The provisions in §63.2450(k)(1) through (6) apply in addition to the requirements for continuous parameter monitoring systems (CPMS) in subpart SS of this part 63, except as specified in paragraphs (g)(4)(i) and (ii) of this section.

(i) You may measure pH or caustic strength of the scrubber effluent at least once per day for any halogen scrubber within a CMPU subject to this rule.

(ii) The requirements in §63.2450(k)(6) to request approval of a procedure to monitor operating parameters does not apply for the purposes of this subpart. You must provide the required information in your NOCS report required by §63.11501(b).

(5) Startup, shutdown, malfunction (SSM). Sections 63.996(c)(2)(ii) and 63.998(b)(2)(iii), (b)(6)(i)(A), (c)(1)(ii)(E) and (d)(3) do not apply for the purposes of this subpart.

(6) Excused excursions. Excused excursions, as defined in subpart SS of this part 63, are not allowed.

(7) Energetics and organic peroxides. If an emission stream contains energetics or organic peroxides that, for safety reasons, cannot meet an applicable emission limit specified in this subpart, then you must submit an application to the Administrator explaining why an undue safety hazard would be created if the air emission controls were installed, and you must describe the procedures that you will implement to minimize HAP emissions from these vent streams in lieu of the emission limitations in this section.
(8) Additional requirements for batch process vents. The provisions specified in § 63.2460(c) apply in addition to the provisions in subpart SS of this part 63, except as specified in paragraphs (g)(8)(i) through (iii) of this section.

(i) References to emission limits in Table 2 to subpart FFFF mean the emission limits in Table 2 to this subpart.

(ii) References to MCPU mean CMPU for purposes of this subpart.

(iii) Section 63.2460(c)(8) does not apply for the purposes of this subpart.

(9) Parameter monitoring averaging periods. Daily averages required in § 63.998(b)(3) apply at all times except during startup and shutdown. Separate averages shall be determined for each period of startup and period of shutdown.

(h) Surge control vessels and bottoms receivers. For each surge control vessel and bottoms receiver that meets the applicability criteria for storage tanks specified in Table 5 to this subpart, you must meet the emission limits and control requirements specified in Table 5 to this subpart.

(i) Startup, shutdown, and malfunction (SSM). References to SSM provisions in subparts that are referenced in paragraphs (a) through (h) of this section or Tables 2 through 5 to this subpart do not apply.


§ 63.11497 What are the standards and compliance requirements for storage tanks?

(a) You must comply with the emission limits and other requirements in Table 5 to this subpart and in paragraph (b) of this section for organic HAP emissions from each of your storage tanks that meet the applicability criteria in Table 5 to this subpart.

(b) Planned routine maintenance for a control device. Operate in accordance with paragraphs (b)(1) through (3) of this section for periods of planned routine maintenance of a control device for storage tanks.

(1) Add no material to the storage tank during periods of planned routine maintenance.

(2) Limit periods of planned routine maintenance for each control device (or series of control devices) to no more than 240 hours per year (hr/yr), or submit an application to the Administrator requesting an extension of this time limit to a total of 360 hr/yr. The application must explain why the extension is needed and it must be submitted at least 60 days before the 240-hour limit will be exceeded.

(3) Keep records of the day and time at which planned routine maintenance periods begin and end, and keep a record of the type of maintenance performed.

(c) References to SSM provisions in subparts that are referenced in paragraphs (a) or (b) of this section or Table 5 to this subpart do not apply.

(d) Combustion of halogenated streams. If you use a combustion device to comply with the emission limits for organic HAP from a halogenated vent stream from a storage tank, you must reduce emissions in accordance with § 63.11496(d) and the requirements referenced therein.


§ 63.11498 What are the standards and compliance requirements for wastewater systems?

(a) You must comply with the requirements in paragraph (a)(1) and (2) of this section and in Table 6, Item 1 to this subpart for all wastewater streams from a CMPU subject to this subpart. If the partially soluble HAP concentration in a wastewater stream is equal to or greater than 10,000 parts per million by weight (ppmw) and the wastewater stream
contains a separate organic phase, then you must also comply with Table 6, Item 2 to this subpart for that wastewater stream. Partially soluble HAP are listed in Table 7 to this subpart.

(1) Except as specified in paragraph (a)(2) of this section, you must determine the total concentration of partially soluble HAP in each wastewater stream using process knowledge, engineering assessment, or test data. Also, you must reevaluate the concentration of partially soluble HAP if you make any process or operational change that affects the concentration of partially soluble HAP in a wastewater stream.

(2) You are not required to determine the partially soluble concentration in wastewater that is hard piped to a combustion unit or hazardous waste treatment unit, as specified in Table 6, Item 2.b to this subpart.

(3) Separated organic material that is recycled to a process is no longer wastewater and no longer subject to the wastewater requirements after it has been recycled.

(b) The requirements in Item 2 of Table 6 to this subpart do not apply during periods of startup or shutdown. References to SSM provisions in subparts that are referenced in paragraph (a) of this section or Table 6 to this subpart do not apply.


§ 63.11499 What are the standards and compliance requirements for heat exchange systems?

(a) If the cooling water flow rate in your heat exchange system is equal to or greater than 8,000 gal/min and is not meeting one or more of the conditions in § 63.104(a), then you must comply with one of the requirements specified in Table 8 to this subpart.

(b) For equipment that meets Current Good Manufacturing Practice (CGMP) requirements of 21 CFR part 211, you may use the physical integrity of the reactor as the surrogate indicator of heat exchanger system leaks when complying with Item 1.a in Table 8 to this subpart.

(c) Any reference to SSM provisions in other subparts that are referenced in paragraphs (a) and (b) of this section or Table 8 to this subpart do not apply.

§ 63.11500 What compliance options do I have if part of my plant is subject to both this subpart and another Federal standard?

For any CMPU, heat exchange system, or wastewater system subject to the provisions of both this subpart and another rule, you may elect to comply only with the more stringent provisions as specified in paragraphs (a) through (d) of this section. You must consider all provisions of the rules, including monitoring, recordkeeping, and reporting. You must identify the subject CMPU, heat exchange system, and/or wastewater system, and the provisions with which you will comply in your NOCS report required by § 63.11501(b). You also must demonstrate in your NOCS report that each provision with which you will comply is at least as stringent as the otherwise applicable requirement in this subpart VVVVV. You are responsible for making accurate determinations concerning the more stringent standards and noncompliance with this rule is not excused if it is later determined that your determination was in error and, as a result, you are violating this subpart. Compliance with this rule is your responsibility and the NOCS report does not alter or affect that responsibility.

(a) Compliance with other subparts of this part 63. (1) If any part of a CMPU that is subject to the provisions of this subpart is also subject to the provisions of another subpart of 40 CFR part 63, then compliance with any of the requirements in the other subpart of this part 63 that are at least as stringent as the corresponding requirements in this subpart VVVVV constitutes compliance with this subpart VVVVV.

(2) After the compliance dates specified in § 63.11494, at an offsite reloading or cleaning facility subject to § 63.1253(f), as referenced from § 63.2470(e) and Table 4 to subpart VVVVV, compliance with the monitoring, recordkeeping, and reporting provisions of any other subpart of this part 63 constitutes compliance with the monitoring, recordkeeping, and reporting provisions of § 63.1253(f)(7)(ii) or (iii). You must identify in your notification of compliance status report required by § 63.11501(b) the subpart of this part 63 with which the owner or operator of the offsite reloading or cleaning facility complies.
(b) **Compliance with subparts of 40 CFR part 60.** If any part of a CMPU that is subject to the provisions of this subpart is also subject to the provisions of subpart VV, DDD, III, NNN, RRR, or YYY in 40 CFR part 60, then compliance with any of the requirements in 40 CFR part 60, subpart VV, DDD, III, NNN, RRR, or YYY that are at least as stringent as the corresponding requirements in this subpart VVVVVV constitutes compliance with this subpart VVVVVV.

(c) **Compliance with subparts of 40 CFR part 61.** If any part of a CMPU that is subject to the provisions of this subpart is also subject to the provisions of subpart V, Y, BB, or FF of 40 CFR part 61, then compliance with any of the requirements in 40 CFR part 61, subpart V, Y, BB, or FF that are at least as stringent as the corresponding requirements in this subpart VVVVVV constitutes compliance with this subpart VVVVVV.

(d) **Compliance with 40 CFR parts 260 through 272.** If any part of a CMPU that is subject to the provisions of this subpart is also subject to the provisions of 40 CFR parts 260 through 272, then compliance with any of the requirements in 40 CFR part 260 through 272 rule that are at least as stringent as the corresponding requirements in this subpart VVVVVV constitutes compliance with this subpart VVVVVV.


§ 63.11501 What are the notification, recordkeeping, and reporting requirements, and how may I assert an affirmative defense for violation of emission standards during malfunction?

(a) **General provisions.** You must meet the requirements of the General Provisions in 40 CFR part 63, subpart A, as shown in Table 9 to this subpart. The General Provisions in other parts do not apply except when a requirement in an overlapping standard, which you determined is at least as stringent as subpart VVVVVV and with which you have opted to comply, requires compliance with general provisions in another part.

(b) **Notification of compliance status (NOCS).** Your NOCS required by § 63.9(h) must include the following additional information as applicable:

1. This certification of compliance, signed by a responsible official:
   
   i. "This facility complies with the management practices in § 63.11495."
   
   ii. "This facility complies with the requirements in § 63.11496 for HAP emissions from process vents."

   iii. "This facility complies with the requirements in § 63.11496 and § 63.11497 for surge control vessels, bottoms receivers, and storage tanks."

   iv. "This facility complies with the requirements in § 63.11498 to treat wastewater streams."

   v. "This facility complies with the requirements in § 63.11499 for heat exchange systems."

2. If you comply with the alternative standard as specified in Table 2 to this subpart or Table 3 to this subpart, include the information specified in § 63.1258(b)(5), as applicable.

3. If you establish an operating limit for a parameter that will not be monitored continuously in accordance with §§ 63.11496(g)(4) and 63.2450(k)(6), provide the information as specified in §§ 63.11496(g)(4) and 63.2450(k)(6).

4. A list of all transferred liquids that are reactive or resinous materials, as defined in § 63.11502(b).

5. If you comply with provisions in an overlapping rule in accordance with § 63.11500, identify the affected CMPU, heat exchange system, and/or wastewater system; provide a list of the specific provisions with which you will comply; and demonstrate that the provisions with which you will comply are at least as stringent as the otherwise applicable requirements, including monitoring, recordkeeping, and reporting requirements, in this subpart VVVVVV.

(c) **Recordkeeping.** You must maintain files of all information required by this subpart for at least 5 years following the date of each occurrence according to the requirements in § 63.10(b)(1). If you are subject, you must comply with the
recordkeeping and reporting requirements of § 63.10(b)(2)(iii) and (vi) through (xiv), and the applicable requirements specified in paragraphs (c)(1) through (8) of this section.

(1) For each CMPU subject to this subpart, you must keep the records specified in paragraphs (c)(1)(i) through (viii) of this section.

(i) Records of management practice inspections, repairs, and reasons for any delay of repair, as specified in § 63.11495(a)(5).

(ii) Records of small heat exchange system inspections, demonstrations of indications of leaks that do not constitute leaks, repairs, and reasons for any delay in repair as specified in § 63.11495(b).

(iii) If batch process vent emissions are less than 10,000 lb/yr for a CMPU, records of batch process vent emission calculations, as specified in § 63.11496(a)(1), the number of batches operated each month, as specified in § 63.11496(a)(3), and any updated emissions calculations, as specified in § 63.11496(a)(3). Alternatively, keep records of the worst-case processes or organic HAP usage, as specified in § 63.11496(a)(2) and (4), respectively.

(iv) Records of all TRE calculations for continuous process vents as specified in § 63.11496(b)(2).

(v) Records of metal HAP emission calculations as specified in § 63.11496(f)(1) and (2). If total uncontrolled metal HAP process vent emissions from a CMPU subject to this subpart are estimated to be less than 400 lb/yr, also keep records of either the number of batches per month or operating hours, as specified in § 63.11496(f)(2).

(vi) Records identifying wastewater streams and the type of treatment they receive, as specified in Table 6 to this subpart.

(vii) Records of the date, time, and duration of each malfunction of operation of process equipment, control devices, recovery devices, or continuous monitoring systems used to comply with this subpart that causes a failure to meet a standard. The record must include a list of the affected sources or equipment, an estimate of the volume of each regulated pollutant emitted over the standard, and a description of the method used to estimate the emissions.

(viii) Records of actions taken during periods of malfunction to minimize emissions in accordance with § 63.11495(d), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(2) For batch process vents subject to Table 2 to this subpart and continuous process vents subject to Table 3 to this subpart, you must keep records specified in paragraphs (c)(2)(i) or (ii) of this section, as applicable.

(i) If you route emissions to a control device other than a flare, keep records of performance tests, if applicable, as specified in § 63.998(a)(2)(ii) and (4), keep records of the monitoring system and the monitored parameters, as specified in § 63.998(b) and (c), and keep records of the closed-vent system, as specified in § 63.998(d)(1). If you use a recovery device to maintain the TRE above 1.0 for a continuous process vent, keep records of monitoring parameters during the TRE index value determination, as specified in § 63.998(a)(3).

(ii) If you route emissions to a flare, keep records of the flare compliance assessment, as specified in § 63.998(a)(1)(i), keep records of the pilot flame monitoring, as specified in § 63.998(a)(1)(ii) and (iii), and keep records of the closed-vent system, as specified in § 63.998(d)(1).

(3) For metal HAP process vents subject to Table 4 to this subpart, you must keep records specified in paragraphs (c)(3)(i) or (ii) of this section, as applicable.

(i) For a new source using a control device other than a baghouse and for any existing source, maintain a monitoring plan, as specified in § 63.11496(f)(3)(i), and keep records of monitoring results, as specified in § 63.11496(f)(3).

(ii) For a new source using a baghouse to control metal HAP emissions, keep a site-specific monitoring plan, as specified in §§ 63.11496(f)(4) and 63.11410(g), and keep records of bag leak detection systems, as specified in §§ 63.11496(f)(4) and 63.11410(g)(4).
(4) For each storage tank subject to Table 5 to this subpart, you must keep records specified in paragraphs (c)(4)(i) through (vi) of this section, as applicable.

(i) Keep records of the vessel dimensions, capacity, and liquid stored, as specified in § 63.1065(a).

(ii) Keep records of each inspection of an internal floating roof, as specified in § 63.1065(b)(1).

(iii) Keep records of each seal gap measurement for external floating roofs, as specified in § 63.1065(b)(2), and keep records of inspections of external floating roofs, as specified in § 63.1065(b)(1).

(iv) If you vent emissions to a control device other than a flare, keep records of the operating plan and measured parameter values, as specified in §§ 63.985(c) and 63.998(d)(2).

(v) If you vent emissions to a flare, keep records of all periods of operation during which the flare pilot flame is absent, as specified in §§ 63.987(c) and 63.998(a)(1), and keep records of closed-vent systems, as specified in § 63.998(d)(1).

(vi) For periods of planned routine maintenance of a control device, keep records of the day and time at which each maintenance period begins and ends, and keep records of the type of maintenance performed, as specified in § 63.11497(b)(3).

(5) For each wastewater stream subject to Item 2 in Table 6 to this subpart, keep records of the wastewater stream identification and the disposition of the organic phase(s), as specified in Item 2 to Table 6 to this subpart.

(6) For each large heat exchange system subject to Table 8 to this subpart, you must keep records of detected leaks; the date the leak was detected; if demonstrated not to be a leak, the basis for that determination; the date of efforts to repair the leak; and the date the leak is repaired, as specified in Table 8 to this subpart.

(7) You must keep a record of all transferred liquids that are reactive or resinous materials, as defined in § 63.11502(b), and not included in the NOCS.

(8) For continuous process vents subject to Table 3 to this subpart, keep records of the occurrence and duration of each startup and shutdown of operation of process equipment, or of air pollution control and monitoring equipment.

(d) Semiannual Compliance Reports. You must submit semiannual compliance reports that contain the information specified in paragraphs (d)(1) through (7) of this section, as applicable. Reports are required only for semiannual periods during which you experienced any of the events described in paragraphs (d)(1) through (8) of this section.

(1) Deviations. You must clearly identify any deviation from the requirements of this subpart.

(2) Delay of repair for a large heat exchange system. You must include the information specified in § 63.104(f)(2) each time you invoke the delay of repair provisions for a heat exchange system with a cooling water flow rate equal to or greater than 8,000 gal/min.

(3) Delay of leak repair. You must provide the following information for each delay of leak repair beyond 15 days for any process equipment, storage tank, surge control vessel, bottoms receiver, and each delay of leak repair beyond 45 days for any heat exchange system with a cooling water flow rate less than 8,000 gal/min: information on the date the leak was identified, the reason for the delay in repair, and the date the leak was repaired.

(4) Process change. You must report each process change that affects a compliance determination and submit a new certification of compliance with the applicable requirements in accordance with the procedures specified in paragraph (b) of this section.

(5) Data for the alternative standard. If you comply with the alternative standard, as specified in Table 2 to this subpart or Table 3 to this subpart, report the information required in § 63.1258(b)(5).
(6) **Overlapping rule requirements.** Report any changes in the overlapping provisions with which you comply.

(7) **Reactive and resinous materials.** Report any transfer of liquids that are reactive or resinous materials, as defined in §63.11502(b), and not included in the NOCS.

(8) **Malfunctions.** If a malfunction occurred during the reporting period, the report must include the number of instances of malfunctions that caused emissions in excess of a standard. For each malfunction that caused emissions in excess of a standard, the report must include a list of the affected sources or equipment, an estimate of the volume of each regulated pollutant emitted over the standard, and a description of the method used to estimate the emissions. The report must also include a description of actions you took during a malfunction of an affected source to minimize emissions in accordance with §63.11495(d), including actions taken to correct a malfunction.

(e) **Affirmative defense for violation of emission standards during malfunction.** In response to an action to enforce the standards set forth in §§63.11495 through 63.11499, you may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at 40 CFR 63.2. Appropriate penalties may be assessed if you fail to meet your burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(1) To establish the affirmative defense in any action to enforce such a standard, you must timely meet the notification requirements in paragraph (e)(2) of this section, and must prove by a preponderance of evidence that:

(i) The violation:

(A) Was caused by a sudden, infrequent, and unavoidable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner; and

(B) Could not have been prevented through careful planning, proper design, or better operation and maintenance practices; and

(C) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(D) Was not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(ii) Repairs were made as expeditiously as possible when a violation occurred. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

(iii) The frequency, amount, and duration of the violation (including any bypass) were minimized to the maximum extent practicable; and

(iv) If the violation resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(v) All possible steps were taken to minimize the impact of the violation on ambient air quality, the environment and human health; and

(vi) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(vii) All of the actions in response to the violation were documented by properly signed, contemporaneous operating logs; and

(viii) At all times, the affected CMPU was operated in a manner consistent with good practices for minimizing emissions; and

(ix) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the violation resulting from the malfunction event at issue. The analysis must
also specify, using best monitoring methods and engineering judgment, the amount of any emissions that were the result of the malfunction.

(2) Report. If you seek to assert an affirmative defense, you must submit a written report to the Administrator, with all necessary supporting documentation, that you have met the requirements set forth in paragraph (e)(1) of this section. This affirmative defense report must be included in the first periodic compliance report, deviation report, or excess emission report otherwise required after the initial occurrence of the violation of the relevant standard (which may be the end of any applicable averaging period). If such compliance report, deviation report, or excess emission report is due less than 45 days after the initial occurrence of the violation, the affirmative defense report may be included in the second compliance report, deviation report, or excess emission report due after the initial occurrence of the violation of the relevant standard.


Other Requirements and Information

§ 63.11502 What definitions apply to this subpart?

(a) The following terms used in this subpart have the meaning given them in the CAA, § 63.2, subpart SS (§ 63.981), subpart WW (§ 63.1061), 40 CFR 60.111b, subpart F (§ 63.101), subpart G (§ 63.111), subpart FFFF (§ 63.2550), as specified after each term:

Administrator (§ 63.2)

Article (40 CFR 372.3)

Batch operation (§ 63.2550)

Boiler (§ 63.111)

Bottoms receiver (§ 63.2550)

CAA (§ 63.2)

Closed-vent system (§ 63.981)

Combustion device (§ 63.111)

Commenced (§ 63.2)

Compliance date (§ 63.2)

Container (§ 63.111)

Continuous monitoring system (§ 63.2)

Continuous operation (§ 63.2550)

Control device (§ 63.111)

Distillation unit (§ 63.111)

Emission standard (§ 63.2)
EPA (§ 63.2)
Fill or filling (§ 63.111)
Floating roof (§ 63.1061)
Fuel gas system (§ 63.981)
Halogen atoms (§ 63.2550)
Halogenated vent stream (§ 63.2550)
Halogens and hydrogen halides (§ 63.2550)
Hazardous air pollutant (§ 63.2)
Heat exchange system (§ 63.101)
Incinerator (§ 63.111)
Isolated intermediate (§ 63.2550)
Maintenance wastewater (§ 63.2550)
Major source (§ 63.2)
Maximum true vapor pressure (§ 63.111)
Oil-water separator or organic-water separator (§ 63.111)
Operating permit (§ 63.101)
Owner or operator (§ 63.2)
Performance test (§ 63.2)
Permitting authority (§ 63.2)
Process condenser (§ 63.2550)
Process heater (§ 63.111)
Process tank (§ 63.2550)
Process wastewater (§ 63.101)
Reactor (§ 63.111)
Responsible official (§ 63.2)
State (§ 63.2)
Supplemental gases (§ 63.2550)
Surge control vessel (§ 63.2550)

Test method (§ 63.2)

Unit operation (§ 63.101)

(b) All other terms used in this subpart shall have the meaning given them in this section. If a term is defined in the CAA, § 63.2, subpart SS (§ 63.981), subpart WW (§ 63.1061), 40 CFR 60.111b, subpart F (§ 63.101), subpart G (§ 63.111), or subpart FFFF (§ 63.2550), and in this section, it shall have the meaning given in this section for purposes of this subpart.

Affirmative defense means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

Ancillary activities means boilers, incinerators, and process heaters not used to comply with the emission standards in §§ 63.11495 through 63.11500, chillers and other refrigeration systems, and other equipment and activities that are not directly involved (i.e., they operate within a closed system and materials are not combined with process fluids) in the processing of raw materials or the manufacturing of a product or intermediates used in the production of the product.

Batch process vent means a vent from a CMPU or vents from multiple CMPUs within a process that are manifolded together into a common header, through which a HAP-containing gas stream is, or has the potential to be, released to the atmosphere. Batch process vents include vents from batch operations and vents with intermittent flow from continuous operations that are not combined with any stream that originated as a continuous gas stream from the same continuous process. Examples of batch process vents include, but are not limited to, vents on condensers used for product recovery, reactors, filters, centrifuges, and process tanks. The following are not batch process vents for the purposes of this subpart:

1. Continuous process vents;
2. Bottoms receivers;
3. Surge control vessels;
4. Gaseous streams routed to a fuel gas system(s);
5. A gas stream routed to other processes for reaction or other use in another process (i.e., for chemical value as a product, isolated intermediate, byproduct, or coproduct, or for heat value);
6. Vents on storage tanks or wastewater systems;
7. Drums, pails, and totes; and
8. Emission streams from emission episodes that are undiluted and uncontrolled containing less than 50 ppmv HAP are not part of any batch process vent. The HAP concentration may be determined using any of the following: process knowledge, an engineering assessment, or test data.

Byproduct means a chemical (liquid, gas, or solid) that is produced coincidentally during the production of the product.

Chemical manufacturing process means all equipment which collectively functions to produce a product or isolated intermediate. A process includes, but is not limited to any, all, or a combination of reaction, recovery, separation, purification, or other activity, operation, manufacture, or treatment which are used to produce a product or isolated intermediate. A process is also defined by the following:
(1) All cleaning operations;

(2) Each nondedicated solvent recovery operation is considered a single process;

(3) Each nondedicated formulation operation is considered a single process;

(4) Quality assurance/quality control laboratories are not considered part of any process;

(5) Ancillary activities are not considered a process or part of any process; and

(6) The end of a process that produces a solid material is either up to and including the dryer or extruder, or for a polymer production process without a dryer or extruder, it is up to and including the die plate or solid-state reactor, except in two cases. If the dryer, extruder, die plate, or solid-state reactor is followed by an operation that is designed and operated to remove HAP solvent or residual monomer from the solid, then the solvent removal operation is the last step in the process. If the dried solid is diluted or mixed with a HAP-based solvent, then the solvent removal operation is the last step in the process.

Continuous process vent means a “process vent” as defined in § 63.101 in subpart F of this part, except:

(1) The reference in § 63.107(e) to a chemical manufacturing process unit that meets the criteria of § 63.100(b) means a CMPU that meets the criteria of § 63.11494(a) and (b);

(2) The reference in § 63.107(h)(2) to subpart H means § 63.11495(a) for the purposes of this subpart;

(3) The reference in § 63.107(h)(4) to § 63.113 means Tables 2 and 3 to this subpart;

(4) The reference in § 63.107(h)(7) to § 63.119 means Table 5 to this subpart, and the reference to § 63.126 does not apply for the purposes of this subpart;

(5) The second sentence in the definition of “process vent” in § 63.101 does not apply for the purposes of this subpart;

(6) The references to an “air oxidation reactor, distillation unit, or reactor” in § 63.107 means any continuous operation for the purposes of this subpart;

(7) Section § 63.107(h)(8) does not apply for the purposes of this subpart; and

(8) A separate determination is required for the emissions from each CMPU, even if emission streams from two or more CMPU are combined prior to discharge to the atmosphere or to a control device.

Co-Product means a chemical that is produced during the production of another chemical, both for their intended production.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source fails to meet any requirement or obligation established by this subpart, including, but not limited to any emissions limitation or management practice; or fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit.

Engineering assessment means, but is not limited to, the following:

(1) Previous test results provided the tests are representative of current operating practices at the process unit.

(2) Bench-scale or pilot-scale test data representative of the process under representative operating conditions.
(3) Maximum flow rate, TOC emission rate, organic HAP emission rate, metal HAP emission rate, or net heating value limit specified or implied within a permit limit applicable to the process vent.

(4) Design analysis based on accepted chemical engineering principles, measurable process parameters, or physical or chemical laws or properties. Examples of analytical methods include, but are not limited to:

(i) Use of material balances based on process stoichiometry to estimate maximum organic HAP or metal HAP concentrations;

(ii) Estimation of maximum flow rate based on physical equipment design such as pump or blower capacities;

(iii) Estimation of TOC, organic HAP, or metal HAP concentrations based on saturation conditions; or

(iv) Estimation of maximum expected net heating value based on the vent stream concentration of each organic compound or, alternatively, as if all TOC in the vent stream were the compound with the highest heating value.

(5) All data, assumptions, and procedures used in the engineering assessment shall be documented.

*Equipment* means each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system in or associated with a CMPU.

*Family of materials* means a grouping of materials that have the same basic composition or the same basic end use or functionality; are produced using the same basic feedstocks, the same manufacturing equipment configuration and in the same sequence of steps; and whose production results in emissions of the same Table 1 HAP at approximately the same rate per pound of product produced. Examples of families of materials include multiple grades of same product or different variations of a product (e.g., blue, black and red resins).

*Feedstock* means any raw material, reactant, solvent, additive, or other material introduced to a CMPU.

*Hazardous waste treatment*, as used in the wastewater requirements, means treatment in any of the following units:

(1) A hazardous waste incinerator for which you have been issued a final permit under 40 CFR part 270 and comply with the requirements of 40 CFR part 264, subpart O, for which you have certified compliance with the interim status requirements of 40 CFR part 265, subpart O, or for which you have submitted a Notification of Compliance under 40 CFR 63.1207(j) and comply with the requirements of 40 CFR part 63, subpart EEE at all times (including times when non-hazardous waste is being burned);

(2) A process heater or boiler for which you have been issued a final permit under 40 CFR part 270 and comply with the requirements of 40 CFR part 266, subpart H, for which you have certified compliance with the interim status requirements of 40 CFR part 266, subpart H, or for which you have submitted a Notification of Compliance under 40 CFR 63.1207(j) and comply with the requirements of 40 CFR part 63, subpart EEE at all times (including times when non-hazardous waste is being burned); or

(3) An underground injection well for which you have been issued a final permit under 40 CFR part 270 or 40 CFR part 144 and comply with the requirements of 40 CFR part 122.

*In metal HAP service* means that a process vessel or piece of equipment either contains or contacts a feedstock, byproduct, or product that contains metal HAP. A process vessel is no longer in metal HAP service after the vessel has been emptied to the extent practicable (i.e., a vessel with liquid left on process vessel walls or as bottom clingage, but not in pools, due to floor irregularity, is considered completely empty) and any cleaning has been completed.

*In organic HAP service* means that a process vessel or piece of equipment either contains or contacts a feedstock, byproduct, or product that contains an organic HAP, excluding any organic HAP used in manual cleaning activities. A process vessel is no longer in organic HAP service after the vessel has been emptied to the extent practicable (i.e., a vessel with liquid left on process vessel walls or as bottom clingage, but not in pools, due to floor irregularity, is considered completely empty) and any cleaning has been completed.
**In VOC service** means that a process vessel or piece of equipment either contains or contacts a fluid that contains VOC.

**Metal HAP** means the compounds containing metals listed as HAP in section 112(b) of the CAA.

**Metal HAP process vent** means the point of discharge to the atmosphere (or inlet to a control device, if any) of a metal HAP-containing gas stream from any CMPU at an affected source containing at least 50 ppmv metal HAP. The metal HAP concentration may be determined using any of the following: process knowledge, an engineering assessment, or test data.

**Organic HAP** means any organic HAP listed in section 112(b) of the CAA. For the purposes of requirements in this subpart VVVVV, hydrazine is to be considered an organic HAP.

**Point of determination** means "point of determination" as defined in § 63.111 in subpart G of this part, except:

1. The reference to Table 8 or Table 9 compounds means Table 9 (subpart G) or Table 7 (subpart VVVVV) compounds;

2. The reference to "as determined in § 63.144 of this subpart" does not apply for the purposes of this subpart; and

3. The point of determination is made at the point where the stream exits the CMPU. If a recovery device is used, the point of determination is after the last recovery device.

**Process vessel** means each vessel, except hand-held containers, used in the processing of raw materials to chemical products. Examples include, but are not limited to reactors, distillation units, centrifuges, mixing vessels, and process tanks.

**Product** means a compound or chemical which is manufactured as the intended product of the CMPU. Products include co-products. By-products, impurities, wastes, and trace contaminants are not considered products.

**Reactive material** means energetics, organic peroxides, and unstable chemicals such as chemicals that react violently with water and chemicals that vigorously polymerize, decompose, or become self-reactive under conditions of pressure or temperature.

**Recovery device** means an individual unit of equipment capable of and normally used for the purpose of recovering organic chemicals or metal-containing chemicals for fuel value (i.e., net positive heating value), use, reuse, or for sale for fuel value, use, or reuse. Examples of equipment that may be recovery devices include absorbers, carbon adsorbers, condensers, oil-water separators or organic-water separators, or organic removal devices such as decanters, strippers, or thin-film evaporation units.

**Resinous material** means a viscous, high-boiling point material resembling pitch or tar, such as plastic resin, that sticks to or hardens in the fill pipe under normal transfer conditions.

**Shutdown**, for a unit operation with a continuous process vent, means the cessation of the unit operation for any purpose. Shutdown begins with the initiation of steps as described in a written standard operating procedures (SOP) or shutdown plan to cease normal/stable operation (e.g., reducing or immediately stopping feed).

**Startup**, for a unit operation with a continuous process vent, means the setting in operation of the unit for any purpose. The period of startup ends upon completion of the transient, non-equilibrium step at the time operating conditions reach steady state for operating parameters such as temperature, pressure, composition, feed rate, and production rate. Periods of startup described by SOP manuals at the affected source may be used to determine the period of startup.

**Storage tank** means a tank or other vessel that is used to store liquids that contain organic HAP and that are part of a CMPU subject to this subpart VVVVV. The following are not considered storage tanks for the purposes of this subpart:
(1) Vessels permanently attached to motor vehicles such as trucks, railcars, barges, or ships;

(2) Pressure vessels designed to operate in excess of 204.9 kilopascals (kPa) and without emissions to the atmosphere;

(3) Process tanks;

(4) Tanks storing organic liquids containing HAP only as impurities;

(5) Surge control vessels;

(6) Bottoms receivers; and

(7) Wastewater storage tanks.

Transfer operations means all product loading into tank trucks and railcars of liquid containing organic HAP from a transfer rack. Transfer operations do not include the loading to other types of containers such as cans, drums, and totes.

Transfer rack means the system used to load organic liquids into tank trucks and railcars at a single geographic site. It includes all loading arms, pumps, meters, shutoff valves, relief valves, and other piping and equipment necessary for the transfer operation. Transfer equipment that are physically separate (i.e., do not share common piping, valves, and other equipment) are considered to be separate transfer racks.

Uncontrolled emissions means organic HAP process vent emissions or metal HAP process vent emissions, as applicable, at the outlet of the last recovery device, if any, and prior to any control device. In the absence of both recovery devices and control devices, uncontrolled emissions are the emissions discharged to the atmosphere.

Wastewater means water that is discarded from a CMPU or control device and that contains at least 5 ppmw of any HAP listed in Table 9 to 40 CFR part 63, subpart G and has an annual average flow rate of 0.02 liters per minute. Wastewater means both process wastewater and maintenance wastewater that is discarded from a CMPU or control device. The following are not considered wastewater for the purposes of this subpart:

(1) Stormwater from segregated sewers;

(2) Water from fire-fighting and deluge systems, including testing of such systems;

(3) Spills;

(4) Water from safety showers;

(5) Samples of a size not greater than reasonably necessary for the method of analysis that is used;

(6) Equipment leaks;

(7) Wastewater drips from procedures such as disconnecting hoses after cleaning lines; and

(8) Noncontact cooling water.

Wastewater stream means a single point discharge of wastewater from a CMPU or control device.

Wastewater treatment means chemical, biological, and mechanical procedures applied to wastewater to remove or reduce HAP or other chemical constituents.

§ 63.11503 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. EPA or a delegated authority such as a State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or tribal agency pursuant to 40 CFR part 63, subpart E, then that Agency has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to a State, local, or tribal agency within your State.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the approval authorities contained in paragraphs (b)(1) through (4) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(1) Approval of an alternative non-opacity emissions standard under § 63.6(g).

(2) Approval of a major change to a test method. A "major change to test method" is defined in § 63.90.

(3) Approval of a major change to monitoring under § 63.8(f). A “major change to monitoring” is defined in § 63.90.

(4) Approval of a major change to recordkeeping/reporting under § 63.10(f). A “major change to recordkeeping/reporting” is defined in § 63.90.

Table 1 to Subpart VVVVV of Part 63—Hazardous Air Pollutants Used To Determine Applicability of Chemical Manufacturing Operations

As required in § 63.11494(a), chemical manufacturing operations that process, use, or produce the HAP shown in the following table are subject to subpart VVVVV.

<table>
<thead>
<tr>
<th>Type of HAP</th>
<th>Chemical name</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Organic compounds</td>
<td>a. 1,3-butadiene</td>
<td>106990</td>
</tr>
<tr>
<td></td>
<td>b. 1,3-dichloropropene</td>
<td>542756</td>
</tr>
<tr>
<td></td>
<td>c. Acetaldehyde</td>
<td>75070</td>
</tr>
<tr>
<td></td>
<td>d. Chloroform</td>
<td>67663</td>
</tr>
<tr>
<td></td>
<td>e. Ethylene dichloride</td>
<td>107062</td>
</tr>
<tr>
<td></td>
<td>f. Hexachlorobenzene</td>
<td>118741</td>
</tr>
<tr>
<td></td>
<td>g. Methylene chloride</td>
<td>75092</td>
</tr>
<tr>
<td></td>
<td>h. Quinoline</td>
<td>91225</td>
</tr>
<tr>
<td>2. Metal compounds</td>
<td>a. Arsenic compounds</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Cadmium compounds</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Chromium compounds</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. Lead compounds</td>
<td></td>
</tr>
<tr>
<td></td>
<td>e. Manganese compounds</td>
<td></td>
</tr>
<tr>
<td></td>
<td>f. Nickel compounds</td>
<td></td>
</tr>
<tr>
<td>3. Others</td>
<td>a. Hydrazine</td>
<td>302012</td>
</tr>
</tbody>
</table>
Table 2 to Subpart VVVVV of Part 63—Emission Limits and Compliance Requirements for Batch Process Vents

As required in § 63.11496, you must comply with the requirements for batch process vents as shown in the following table.

<table>
<thead>
<tr>
<th>For * * *</th>
<th>You must * * *</th>
<th>Except * * *</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Batch process vents in a CMPU at an existing source for which the total organic HAP emissions are equal to or greater than 10,000 lb/yr</td>
<td>a. Reduce collective uncontrolled total organic HAP emissions from the sum of all batch process vents by ≥85 percent by weight or to ≤20 ppmv by routing emissions from a sufficient number of the batch process vents through a closed vent system to any combination of control devices (except a flare) in accordance with the requirements of § 63.982(c) and the requirements referenced therein; or</td>
<td>i. Compliance may be based on either total organic HAP or total organic carbon (TOC); and ii. As specified in § 63.11496(g).</td>
</tr>
<tr>
<td></td>
<td>b. Route emissions from batch process vents containing at least 85 percent of the uncontrolled total organic HAP through a closed-vent system to a flare (except that a flare may not be used to control halogenated vent streams) in accordance with the requirements of § 63.982(b) and the requirements referenced therein; or</td>
<td>i. Not applicable.</td>
</tr>
<tr>
<td></td>
<td>c. Comply with the alternative standard specified in § 63.2505 and the requirements referenced therein; or</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. Comply with combinations of the requirements in Items a., b., and c. of this Table for different groups of batch process vents</td>
<td>i. The information specified above for Items a., b., and c, as applicable.</td>
</tr>
<tr>
<td>2. Batch process vents in a CMPU at a new source for which the total organic HAP emissions are equal to or greater than 10,000 lb/yr</td>
<td>a. Comply with any of the emission limits in Items 1.a through 1.d of this Table, except 90 percent reduction applies instead of 85 percent reduction in Item 1.a, and 90 percent of the emissions must be routed to a flare instead of 85 percent in Item 1.b</td>
<td>i. The information specified above for Items 1.a., 1.b., 1.c., and 1.d, as applicable.</td>
</tr>
<tr>
<td>3. Halogenated batch process vent stream at a new or existing source that is controlled through combustion</td>
<td>a. Comply with the requirements for halogen scrubbers in § 63.11496(d).</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 to Subpart VVVVV of Part 63—Emission Limits and Compliance Requirements for Continuous Process Vents

[As required in § 63.11496, you must comply with the requirements for continuous process vents as shown in the following table]

<table>
<thead>
<tr>
<th>For . . .</th>
<th>You must . . .</th>
<th>Except . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Each continuous process vent with a TRE ≤1.0</td>
<td>a. Reduce emissions of total organic HAP by ≥95 percent by weight (≥85 percent by weight for periods of startup or shutdown) or to ≤20 ppmv by routing emissions through a closed vent system to any combination of control devices (except a flare) in accordance with the requirements of § 63.982(c) and the requirements referenced therein; or</td>
<td>i. Compliance may be based on either total organic HAP or TOC; and ii. As specified in § 63.11496(g).</td>
</tr>
<tr>
<td></td>
<td>b. Reduce emissions of total organic by HAP by routing all emissions through a closed-vent system to a flare (except that a flare may not be used to control halogenated vent streams) in accordance with the requirements of § 63.982(b) and the requirements referenced therein, or</td>
<td>i. Not applicable.</td>
</tr>
</tbody>
</table>
For . . .  | You must . . .  | Except . . .
---|---|---
2. Halogenated vent stream that is controlled through combustion  | a. Comply with the requirements for halogen scrubbers in §63.11496(d).  |  
3. Each continuous process vent with a TRE >1.0 but ≤4.0  | a. Comply with the requirements of §63.982(e) and the requirements specified therein if a recovery device, as defined in §63.11502, is used to maintain a TRE >1.0 but ≤4.0.  |  

[77 FR 75760, Dec. 21, 2012]

**Table 4 to Subpart VVVVV of Part 63—Emission Limits and Compliance Requirements for Metal HAP Process Vents**

As required in §63.11496(f), you must comply with the requirements for metal HAP process vents as shown in the following table.

<table>
<thead>
<tr>
<th>For * * *</th>
<th>You must * * *</th>
<th>Except * * *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each CMPU with total metal HAP emissions ≥400 lb/yr</td>
<td>Reduce collective uncontrolled emissions of total metal HAP emissions by ≥95 percent by weight by routing emissions from a sufficient number of the metal process vents through a closed-vent system to any combination of control devices, according to the requirements of §63.11496(f)(3), (4), or (5)</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

**Table 5 to Subpart VVVVV of Part 63—Emission Limits and Compliance Requirements for Storage Tanks**

As required in §63.11497, you must comply with the requirements for storage tanks as shown in the following table.

<table>
<thead>
<tr>
<th>For each * * *</th>
<th>You must * * *</th>
<th>Except * * *</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Storage tank with a design capacity ≥40,000 gallons, storing liquid that contains organic HAP listed in Table 1 to this subpart, and for which the maximum true vapor pressure (MTVP) of total organic HAP at the storage temperature is ≥5.2 kPa and &lt;76.6 kPa.</td>
<td>a. Comply with the requirements of subpart WW of this part;</td>
<td>i. All required seals must be installed by the compliance date in §63.11494.</td>
</tr>
<tr>
<td></td>
<td>b. Reduce total organic HAP emissions by ≥95 percent by weight by operating and maintaining a closed-vent system and control device (other than a flare) in accordance with §63.982(c); or</td>
<td>i. Compliance may be based on either total organic HAP or TOC; ii. When the term storage vessel is used in subpart SS of this part, the term storage tank, surge control vessel, or bottoms receiver, as defined in §63.11502 of this subpart, applies; and iii. The requirements do not apply during periods of planned routine maintenance of the control device, as specified in §63.11497(b).</td>
</tr>
</tbody>
</table>
For each * * *

You must * * *

Except * * *

c. Reduce total HAP emissions by operating and maintaining a closed-vent system and a flare in accordance with § 63.982(b); or

i. The requirements do not apply during periods of planned routine maintenance of the flare, as specified in § 63.11497(b); and

ii. When the term storage vessel is used in subpart SS of this part, it means storage tank, surge control vessel, or bottoms receiver, as defined in § 63.11502 of this subpart.

d. Vapor balance in accordance with § 63.2470(e); or

i. To comply with § 63.1253(f)(6)(i), the owner or operator of an offsite cleaning or reloading facility must comply with § 63.11494 and § 63.11502 instead of complying with § 63.1253(f)(7)(ii), except as specified in item 1.d.ii and 1.2.iii of this table.

ii. The reporting requirements in § 63.11501 do not apply to the owner or operator of the offsite cleaning or reloading facility.

iii. As an alternative to complying with the monitoring, recordkeeping, and reporting provisions in §§ 63.11494 through 63.11502, the owner or operator of an offsite cleaning or reloading facility may comply as specified in § 63.11500 with any other subpart of this part 63 which has monitoring, recordkeeping, and reporting provisions as specified in § 63.11500.

e. Route emissions to a fuel gas system or process in accordance with the requirements in § 63.982(d) and the requirements referenced therein.

i. When the term storage vessel is used in subpart SS of this part, it means storage tank, surge control vessel, or bottoms receiver, as defined in § 63.11502.

2. Storage tank with a design capacity ≥20,000 gallons and <40,000 gallons, storing liquid that contains organic HAP listed in Table 1 to this subpart, and for which the MTVP of total organic HAP at the storage temperature is ≥27.6 kPa and <76.6 kPa

a. Comply with one of the options in Item 1 of this table

i. The information specified above for Items 1.a., 1.b., 1.c., 1.d, and 1.e, as applicable.

3. Storage tank with a design capacity ≥20,000 gallons, storing liquid that contains organic HAP listed in Table 1 to this subpart, and for which the MTVP of total organic HAP at the storage temperature is ≥76.6 kPa

a. Comply with option b, c, d, or e in Item 1 of this table

i. The information specified above for Items 1.b., 1.c., 1.d, and 1.e, as applicable.

4. Storage tank described by Item 1, 2, or 3 in this table and emitting a halogenated vent stream that is controlled with a combustion device

a. Reduce emissions of hydrogen halide and halogen HAP by ≥95 percent by weight, or to ≤0.45 kg/hr, or to ≤20 ppmv by using a halogen reduction device after the combustion device according to the requirements in § 63.11496(d); or
For each *, You must *, Except *

b. Reduce the halogen atom mass emission rate to ≤0.45 kg/hr or to ≤20 ppmv by using a halogen reduction device before the combustion device according to the requirements in § 63.11496(d).

Table 6 to Subpart VVVVV of Part 63—Emission Limits and Compliance Requirements for Wastewater Systems

As required in § 63.11498, you must comply with the requirements for wastewater systems as shown in the following table.

<table>
<thead>
<tr>
<th>For each . . .</th>
<th>You must . . .</th>
<th>And you must . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Wastewater stream</td>
<td>a. Discharge to onsite or offsite wastewater treatment or hazardous waste treatment</td>
<td>i. Maintain records identifying each wastewater stream and documenting the type of treatment that it receives. Multiple wastewater streams with similar characteristics and from the same type of activity in a CMPU may be grouped together for recordkeeping purposes.</td>
</tr>
<tr>
<td>2. Wastewater stream containing partially soluble HAP at a concentration ≥10,000 ppmw and separate organic and water phases</td>
<td>a. Use a decanter, steam stripper, thin film evaporator, or distillation unit to separate the water phase from the organic phase(s); or</td>
<td>i. For the water phase, comply with the requirements in Item 1 of this table, and ii. For the organic phase(s), recycle to a process, use as fuel, or dispose as hazardous waste either onsite or offsite, and iii. Keep records of the wastewater streams subject to this requirement and the disposition of the organic phase(s).</td>
</tr>
<tr>
<td></td>
<td>b. Hard pipe the entire wastewater stream to onsite treatment as a hazardous waste, or hard pipe the entire wastewater stream to a point of transfer to onsite or offsite hazardous waste treatment.</td>
<td>i. Keep records of the wastewater streams subject to this requirement and the disposition of the wastewater streams.</td>
</tr>
</tbody>
</table>

Table 7 to Subpart VVVVV of Part 63—Partially Soluble HAP

As required in § 63.11498(a), you must comply with emission limits for wastewater streams that contain the partially soluble HAP listed in the following table.

<table>
<thead>
<tr>
<th>Partially soluble HAP name</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 1,1,1-Trichloroethane (methyl chloroform)</td>
<td>71556</td>
</tr>
<tr>
<td>2. 1,1,2,2-Tetrachloroethane</td>
<td>79345</td>
</tr>
<tr>
<td>3. 1,1,2-Trichloroethane</td>
<td>79005</td>
</tr>
<tr>
<td>4. 1,1-Dichloroethylene (vinylidene chloride)</td>
<td>75354</td>
</tr>
<tr>
<td>5. 1,2-Dibromoethane</td>
<td>106934</td>
</tr>
<tr>
<td>6. 1,2-Dichloroethane (ethylene dichloride)</td>
<td>107062</td>
</tr>
<tr>
<td>7. 1,2-Dichloropropane</td>
<td>78875</td>
</tr>
<tr>
<td>Partially soluble HAP name</td>
<td>CAS No.</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>8. 1,3-Dichloropropene</td>
<td>542756</td>
</tr>
<tr>
<td>9. 2,4,5-Trichlorophenol</td>
<td>95954</td>
</tr>
<tr>
<td>10. 1,4-Dichlorobenzene</td>
<td>106467</td>
</tr>
<tr>
<td>11. 2-Nitropropane</td>
<td>79469</td>
</tr>
<tr>
<td>12. 4-Methyl-2-pentanone (MIBK)</td>
<td>108101</td>
</tr>
<tr>
<td>13. Acetaldehyde</td>
<td>75070</td>
</tr>
<tr>
<td>14. Acrolein</td>
<td>107028</td>
</tr>
<tr>
<td>15. Acrylonitrile</td>
<td>107131</td>
</tr>
<tr>
<td>16. Allyl chloride</td>
<td>107051</td>
</tr>
<tr>
<td>17. Benzene</td>
<td>71432</td>
</tr>
<tr>
<td>18. Benzyl chloride</td>
<td>100447</td>
</tr>
<tr>
<td>19. Biphenyl</td>
<td>92524</td>
</tr>
<tr>
<td>20. Bromoform (tribromomethane)</td>
<td>75252</td>
</tr>
<tr>
<td>21. Bromomethane</td>
<td>74839</td>
</tr>
<tr>
<td>22. Butadiene</td>
<td>106990</td>
</tr>
<tr>
<td>23. Carbon disulfide</td>
<td>75150</td>
</tr>
<tr>
<td>24. Chlorobenzene</td>
<td>108907</td>
</tr>
<tr>
<td>25. Chloroethane (ethyl chloride)</td>
<td>75003</td>
</tr>
<tr>
<td>26. Chloroform</td>
<td>67663</td>
</tr>
<tr>
<td>27. Chloromethane</td>
<td>74873</td>
</tr>
<tr>
<td>28. Chloroprene</td>
<td>126998</td>
</tr>
<tr>
<td>29. Cumene</td>
<td>98828</td>
</tr>
<tr>
<td>30. Dichloroethyl ether</td>
<td>111444</td>
</tr>
<tr>
<td>31. Dinitrophenol</td>
<td>51285</td>
</tr>
<tr>
<td>32. Epichlorohydrin</td>
<td>106898</td>
</tr>
<tr>
<td>33. Ethyl acrylate</td>
<td>140885</td>
</tr>
<tr>
<td>34. Ethylbenzene</td>
<td>100414</td>
</tr>
<tr>
<td>35. Ethylene oxide</td>
<td>75218</td>
</tr>
<tr>
<td>36. Ethylenedichloride</td>
<td>75343</td>
</tr>
<tr>
<td>37. Hexachlorobenzene</td>
<td>118741</td>
</tr>
<tr>
<td>38. Hexachlorobutadiene</td>
<td>87683</td>
</tr>
<tr>
<td>39. Hexachloroethane</td>
<td>67721</td>
</tr>
<tr>
<td>40. Methyl methacrylate</td>
<td>80626</td>
</tr>
<tr>
<td>41. Methyl-t-butyl ether</td>
<td>1634044</td>
</tr>
<tr>
<td>42. Methylenepoxide</td>
<td>75092</td>
</tr>
<tr>
<td>43. N-hexane</td>
<td>110543</td>
</tr>
<tr>
<td>44. N,N-dimethylaniline</td>
<td>121697</td>
</tr>
<tr>
<td>45. Naphthalene</td>
<td>91203</td>
</tr>
<tr>
<td>46. Phosgene</td>
<td>75445</td>
</tr>
<tr>
<td>47. Propionaldehyde</td>
<td>123386</td>
</tr>
<tr>
<td>48. Propylene oxide</td>
<td>75569</td>
</tr>
<tr>
<td>49. Styrene</td>
<td>100425</td>
</tr>
<tr>
<td>50. Tetrachloroethylene (per- chloroethylene)</td>
<td>127184</td>
</tr>
<tr>
<td>51. Tetrachloromethane (carbon tetrachloride)</td>
<td>56235</td>
</tr>
</tbody>
</table>
### Partially soluble HAP name

<table>
<thead>
<tr>
<th>Partially soluble HAP name</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>52. Toluene</td>
<td>108883</td>
</tr>
<tr>
<td>53. Trichlorobenzene (1,2,4-)</td>
<td>120821</td>
</tr>
<tr>
<td>54. Trichloroethylene</td>
<td>79016</td>
</tr>
<tr>
<td>55. Trimethylpentane</td>
<td>540841</td>
</tr>
<tr>
<td>56. Vinyl acetate</td>
<td>108054</td>
</tr>
<tr>
<td>57. Vinyl chloride</td>
<td>75014</td>
</tr>
<tr>
<td>58. Xylene (m)</td>
<td>108383</td>
</tr>
<tr>
<td>59. Xylene (o)</td>
<td>95476</td>
</tr>
<tr>
<td>60. Xylene (p)</td>
<td>106423</td>
</tr>
</tbody>
</table>

### Table 8 to Subpart VVVVVV of Part 63—Emission Limits and Compliance Requirements for Heat Exchange Systems

[As required in § 63.11499, you must comply with the requirements for heat exchange systems as shown in the following table]

<table>
<thead>
<tr>
<th>For . . .</th>
<th>You must . . .</th>
<th>Except . . .</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Each heat exchange system with a cooling water flow rate ≥8,000 gal/min and not meeting one or more of the conditions in § 63.104(a)</td>
<td>a. Comply with the monitoring requirements in § 63.104(c), the leak repair requirements in § 63.104(d) and (e), and the recordkeeping and reporting requirements in § 63.104(f); or</td>
<td>i. The reference to monthly monitoring for the first 6 months in § 63.104(b)(1) and (c)(1)(iii) does not apply. Monitoring shall be no less frequent than quarterly; ii. The reference in § 63.104(f)(1) to record retention requirements in § 63.103(c)(1) does not apply. Records must be retained as specified in §§ 63.10(b)(1) and 63.11501(c); and iii. The reference in § 63.104(f)(2) to “the next semi-annual periodic report required by § 63.152(c)” means the next semi-annual compliance report required by § 63.11501(f).</td>
</tr>
<tr>
<td></td>
<td>b. Comply with the heat exchange system requirements in § 63.104(b) and the requirements referenced therein.</td>
<td>i. Not applicable.</td>
</tr>
</tbody>
</table>

[77 FR 75762, Dec. 21, 2012]

### Table 9 to Subpart VVVVVV of Part 63—Applicability of General Provisions to Subpart VVVVVV

As required in § 63.11501(a), you must comply with the requirements of the NESHAP General Provisions (40 CFR part 63, subpart A) as shown in the following table.

<table>
<thead>
<tr>
<th>Citation</th>
<th>Subject</th>
<th>Applies to Subpart VVVVVV?</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>63.1(a)(1), (a)(2), (a)(3), (a)(4), (a)(6), (a)(10)-(a)(12) (b)(1), (b)(3), (c)(1), (c)(2), (c)(5), (e)</td>
<td>Applicability</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Citation</td>
<td>Subject</td>
<td>Applies to Subpart VVVVVV?</td>
<td>Explanation</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------------------------------</td>
<td>-----------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>63.1(a)(5), (a)(7)- (a)(9), (b)(2), (c)(3), (c)(4), (d)</td>
<td>Reserved</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>63.2</td>
<td>Definitions</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.3</td>
<td>Units and Abbreviations</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.4</td>
<td>Prohibited Activities and Circumvention</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.5</td>
<td>Preconstruction Review and Notification Requirements</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.6(a), (b)(1)-(b)(5), (b)(7), (c)(1), (c)(2), (c)(5), (e)(1)(iii), (g), (i), (j)</td>
<td>Compliance with Standards and Maintenance Requirements</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.6(b)(6), (c)(3), (c)(4), (d), (h)(3), (h)(5)(iv)</td>
<td>Reserved</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>63.6(e)(1)(i) and (ii), (e)(3), and (f)(1)</td>
<td>SSM Requirements</td>
<td>No</td>
<td>See § 63.11495(d) for general duty requirement.</td>
</tr>
<tr>
<td>63.6(h)(1)-(h)(4), (h)(5)(i)-(h)(5)(iii), (h)(6)-(h)(9)</td>
<td>No</td>
<td>Subpart VVVVVV does not include opacity or visible emissions (VE) standards or require a continuous opacity monitoring system (COMS).</td>
<td></td>
</tr>
<tr>
<td>63.7(a)(1), (a)(3), (a)(4), (c), (e)(4), and (f)-(h)</td>
<td>Performance Testing Requirements</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.7(a)(2), (b), (d), (e)(2)-(e)(3)</td>
<td>Performance Testing Schedule, Notification of Performance Test, Performance Testing Facilities, and Conduct of Performance Tests</td>
<td>Yes/No</td>
<td>Requirements apply if conducting test for metal HAP control; requirements in §§ 63.997(c)(1), (d), (e), and 63.999(a)(1) apply, as referenced in § 63.11496(g), if conducting test for organic HAP or hydrogen halide and halogen HAP control device.</td>
</tr>
<tr>
<td>63.7(e)(1)</td>
<td>Performance Testing</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>63.8(a)(1), (a)(4), (b), (c)(1)(ii), (c)(2)-(c)(3), (f)(1)-(5)</td>
<td>Monitoring Requirements</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.8(a)(2)</td>
<td>Monitoring Requirements</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>63.8(a)(3)</td>
<td>Reserved</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>63.8(c)(1)(i)</td>
<td>General Duty to Minimize Emissions and CMS Operation</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>63.8(c)(1)(iii)</td>
<td>Requirement to Develop SSM Plan for CMS</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>63.8(c)(4)</td>
<td></td>
<td>Yes</td>
<td>Only for CEMS. CPMS requirements in 40 CFR part 63, subpart SS are referenced from § 63.11496. Requirements for COMS do not apply because subpart VVVVVV does not require COMS.</td>
</tr>
<tr>
<td>Citation</td>
<td>Subject</td>
<td>Applies to Subpart VVVVV?</td>
<td>Explanation</td>
</tr>
<tr>
<td>------------------</td>
<td>------------------------------</td>
<td>---------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>63.8(c)(5)</td>
<td></td>
<td>No</td>
<td>Subpart VVVVV does not require COMS.</td>
</tr>
<tr>
<td>63.8(c)(6)-(c)(8), (d)(1)-(d)(2), (e), (f)(6)</td>
<td></td>
<td>Yes</td>
<td>Requirements apply only if you use a continuous emission monitoring system (CEMS) to demonstrate compliance with the alternative standard in § 63.11496(e).</td>
</tr>
<tr>
<td>63.8(d)(3)</td>
<td>Written Procedures for CMS</td>
<td>Yes</td>
<td>Requirement applies except for last sentence, which refers to an SSM plan. SSM plans are not required.</td>
</tr>
<tr>
<td>63.8(g)(1)-(g)(4)</td>
<td></td>
<td>Yes</td>
<td>Data reduction requirements apply only if you use CEMS to demonstrate compliance with alternative standard in § 63.11496(e). COMS requirements do not apply. Requirement in § 63.8(g)(2) does not apply because data reduction for CEMS are specified in 40 CFR part 63, subpart FFFF.</td>
</tr>
<tr>
<td>63.8(g)(5)</td>
<td></td>
<td>No</td>
<td>Data reduction requirements for CEMS are specified in § 63.2450(j)(4), as referenced from § 63.11496. CPMS requirements are specified in 40 CFR part 63, subpart SS, as referenced from § 63.11496.</td>
</tr>
<tr>
<td>63.9(a), (b)(1), (b)(2), (b)(4), (b)(5), (c), (d), (e), (i)</td>
<td>Notification Requirements</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.9(b)(3), (h)(4)</td>
<td>Reserved</td>
<td>No</td>
<td>Subpart VVVVV does not contain opacity or VE limits.</td>
</tr>
<tr>
<td>63.9(f)</td>
<td></td>
<td>No</td>
<td>Additional notification requirement applies only if you use CEMS to demonstrate compliance with alternative standard in § 63.11496(e).</td>
</tr>
<tr>
<td>63.9(g)</td>
<td></td>
<td>Yes</td>
<td>Except subpart VVVVV does not contain opacity or VE limits.</td>
</tr>
<tr>
<td>63.9(h)(1)-(h)(3), (h)(5)-(h)(6)</td>
<td></td>
<td>Yes</td>
<td>Notification of process changes that affect a compliance determination are required in § 63.11501(d)(4).</td>
</tr>
<tr>
<td>63.9(i)</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.9(j)</td>
<td>Change in Information Already Provided</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>63.10(a)</td>
<td>Recordkeeping Requirements</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.10(b)(1)</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.10(b)(2)(i)</td>
<td>Recordkeeping of Occurrence and Duration of Startups andShutdowns</td>
<td>No</td>
<td>See § 63.11501(c)(8) for recordkeeping of occurrence and duration of each startup and shutdown for continuous process vents that are subpart to Table 3 to this subpart.</td>
</tr>
<tr>
<td>63.10(b)(2)(ii)</td>
<td>Recordkeeping of Malfunctions</td>
<td>No</td>
<td>See § 63.11501(c)(1)(vii) and (viii) for recordkeeping of (1) date, time, duration, and volume of excess emissions and (2) actions taken during malfunction.</td>
</tr>
<tr>
<td>63.10(b)(2)(iii)</td>
<td>Maintenance Records</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.10(b)(2)(iv)</td>
<td>Actions Taken to Minimize Emissions During SSM</td>
<td>No</td>
<td>Apply only if you use CEMS to demonstrate compliance with alternative standard in § 63.11496(e).</td>
</tr>
<tr>
<td>63.10(b)(2)(vi), (x), (xi), (xiii)</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Citation</td>
<td>Subject</td>
<td>Applies to Subpart VVVVV?</td>
<td>Explanation</td>
</tr>
<tr>
<td>----------</td>
<td>---------</td>
<td>--------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>63.10(b)(2)(vii)-(b)(2)(ix), (b)(2)(xii), (b)(2)(xiv)</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.10(b)(3)</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.10(c)(1), (c)(5)-(c)(6), (c)(13)-(c)(14)</td>
<td></td>
<td>Yes</td>
<td>Apply only if you use CEMS to demonstrate compliance with alternative standard in § 63.11496(e).</td>
</tr>
<tr>
<td>63.10(c)(7)-(8)</td>
<td>Additional Recordkeeping Requirements for CMS—Identifying Exceedances and Excess Emissions</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.10(c)(10)</td>
<td>Recordkeeping Nature and Cause of Malfunctions</td>
<td>No</td>
<td>See § 63.11501(c)(1)(vii) and (viii) for malfunctions recordkeeping requirements.</td>
</tr>
<tr>
<td>63.10(c)(11)</td>
<td>Recording Corrective Actions</td>
<td>No</td>
<td>See § 63.11501(c)(1)(vii) and (viii) for malfunctions recordkeeping requirements.</td>
</tr>
<tr>
<td>63.10(c)(12)</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.10(c)(15)</td>
<td>Use of SSM Plan</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>63.10(c)(2)-(c)(4), (c)(9)</td>
<td>Reserved</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>63.10(d)(1), (d)(2), (d)(4), (e)(1), (e)(2), (f)</td>
<td>Reporting Requirements</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.10(d)(3)</td>
<td></td>
<td>No</td>
<td>Subpart VVVVVV does not include opacity or VE limits.</td>
</tr>
<tr>
<td>63.10(d)(5)</td>
<td>SSM Reports</td>
<td>No</td>
<td>See § 63.11501(d)(8) for reporting requirements for malfunctions.</td>
</tr>
<tr>
<td>63.10(e)(1)-(e)(2)</td>
<td></td>
<td>Yes</td>
<td>Apply only if you use CEMS to demonstrate compliance with alternative standard in § 63.11496(e).</td>
</tr>
<tr>
<td>63.10(e)(3)</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.10(e)(4)</td>
<td>Control Device Requirements</td>
<td>No</td>
<td>Subpart VVVVVV does not include opacity or VE limits.</td>
</tr>
<tr>
<td>63.11</td>
<td></td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.12</td>
<td>State Authorities and Delegations</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.13</td>
<td>Addresses</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.14</td>
<td>Incorporations by Reference</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.15</td>
<td>Availability of Information and Confidentiality</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>63.16</td>
<td>Performance Track Provisions</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Registration Transitioning to a New Source Review and Minor Source Operating Permit (MSOP)

Source Description and Location

| Source Name: | Dow Silicones Corporation |
| Source Location: | 111 South Progress Drive East, Kendallville, Indiana 46755 |
| County: | Noble |
| SIC Code: | 2822 Synthetic Rubber (Vulcanized Elastomers) |
| Operation Permit No.: | M 113-42487-00055 |
| Permit Reviewer: | Paul Jump |

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

<table>
<thead>
<tr>
<th>Permit Type</th>
<th>Permit Number</th>
<th>Issuance Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration</td>
<td>113-10553-00055</td>
<td>March 8, 1999</td>
</tr>
<tr>
<td>Registration Revision</td>
<td>113-12767-00055</td>
<td>December 1, 2000</td>
</tr>
<tr>
<td>Registration Notice-Only Change</td>
<td>113-25781-00055</td>
<td>January 30, 2008</td>
</tr>
<tr>
<td>Registration Notice-Only Change</td>
<td>113-27277-00055</td>
<td>January 7, 2009</td>
</tr>
<tr>
<td>Registration Revision</td>
<td>113-31193-00055</td>
<td>April 2, 2012</td>
</tr>
<tr>
<td>Registration Administrative Amendment</td>
<td>113-41151-00055</td>
<td>March 25, 2019</td>
</tr>
</tbody>
</table>

Due to this application, the source is transitioning from a Registration to a MSOP.

County Attainment Status

The source is located in Noble County.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO\textsubscript{2}</td>
<td>Better than national standards.</td>
</tr>
<tr>
<td>CO</td>
<td>Unclassifiable or attainment effective November 15, 1990.</td>
</tr>
<tr>
<td>O\textsubscript{3}</td>
<td>Unclassifiable or attainment effective January 16, 2018, for the 2015 8-hour ozone standard.</td>
</tr>
<tr>
<td>PM\textsubscript{2.5}</td>
<td>Unclassifiable or attainment effective April 15, 2015, for the 2012 annual PM\textsubscript{2.5} standard.</td>
</tr>
<tr>
<td>PM\textsubscript{2.5}</td>
<td>Unclassifiable or attainment effective December 13, 2009, for the 2006 24-hour PM\textsubscript{2.5} standard.</td>
</tr>
<tr>
<td>PM\textsubscript{10}</td>
<td>Unclassifiable effective November 15, 1990.</td>
</tr>
<tr>
<td>NO\textsubscript{2}</td>
<td>Unclassifiable or attainment effective January 29, 2012, for the 2010 NO\textsubscript{2} standard.</td>
</tr>
<tr>
<td>Pb</td>
<td>Unclassifiable or attainment effective December 31, 2011, for the 2008 lead standard.</td>
</tr>
</tbody>
</table>

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NO\textsubscript{x}) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO\textsubscript{x} emissions are considered when evaluating the rule applicability relating to ozone. Noble County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO\textsubscript{x} emissions were reviewed
pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) PM$_{2.5}$
Noble County has been classified as attainment for PM$_{2.5}$. Therefore, direct PM$_{2.5}$, SO$_2$, and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) Other Criteria Pollutants
Noble County has been classified as attainment or unclassifiable in Indiana for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

Since this source is classified as a Chemical process plants, it is considered one (1) of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1), 326 IAC 2-3-2(g), or 326 IAC 2-7-1(22)(B). Therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

The fugitive emissions of hazardous air pollutants (HAP) are counted toward the determination of Part 70 Permit (326 IAC 2-7) and MSOP (326 IAC 2-6.1) applicability and source status under Section 112 of the Clean Air Act (CAA).

Greenhouse Gas (GHG) Emissions

On June 23, 2014, in the case of Utility Air Regulatory Group v. EPA, cause no. 12-1146, (available at http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court’s decision. U.S. EPA’s guidance states that U.S. EPA will no longer require PSD or Title V permits for sources “previously classified as ‘Major’ based solely on greenhouse gas emissions.”

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHG emissions to determine operating permit applicability or PSD applicability to a source or modification.

Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

(a) Six (6) sigma blade style mixers, each with a continuous nitrogen purge:

(1) Two (2) hot mixers, identified as M-101 and M-102, approved for modification in 2012, each with a nitrogen purge, controlled by a condenser, with a maximum process rate of 200 pounds per hour, venting through individual dump station baghouse filter systems and then exhausting at ambient temperatures to Stacks M-101 and M-102, respectively, the condenser system vents at ambient temperatures to Stacks S-M-101B and S-M-102B, respectively.

(2) Four (4) compound mixers with a combined maximum process rate of 451.2 pounds per hour, venting through individual bag filters and then exhausting at ambient temperature: M-103 to Stack M-103; M-104 to Stack M-104; M-105 to Stack M-105, and M-108 to Stack M-108; each with a maximum design flow rate of 5 dscm.
[Pursuant to 40 CFR 63, Subpart VVVVV, these units are considered affected sources.]

(b) One (1) MS-75 silo for storage of fumed silica products, identified as MH-127, with a capacity of 50,700 pounds, including one (1) diaphragm pump with a dilute phase transfer loading rate of 7,200 lb/hr, with PM emissions controlled by an integral baghouse 11 and exhausted to a bin vent stack identified as Stack MH-127.

(c) One (1) PRISM silicone rubber manufacturing operation, identified as PRISM, with emissions controlled by a vent condenser, identified as HX-103, and an integral baghouse, identified as DC-103, with emissions exhausting to stack DC-103.

(d) One (1) 5 micron silica storage silo (MH-140) with capacity of 157,000 lbs including one (1) pneumatic transporter with a maximum rate of 3,000 lbs/hr with PM emissions controlled with an integral bin vent and exhausting to stack MH-140.

(e) One (1) 10 micron silica storage silo (MH-142) with a capacity of 177,000 lbs including one (1) pneumatic transporter with a maximum rate of 3,000 lbs/hr, with PM emission controlled with an integral bin vent and exhausting to stack MH-142.

(f) Four (4) weigh hoppers, identified as MH-103, MH-104, MH-105 and MH-106, equipped with integral bin vents that vent to the atmosphere.

(g) Two (2) compounding mixers (M-106 and M-107) equipped with bin vents that emit into the atmosphere through Stack M-106 and M-107.

[h) One (1) rubber compound manufacturing process, consisting of the following emission units:

(1) Two (2) bag dump stations, each with a maximum capacity of 0.165 tons of rubber per hour; consisting of one (1) automated bag dump, identified as MH-422 and one (1) manual bag dump, identified as MH-402; with particulate controlled by a bin vent for each, and exhausting to the atmosphere through Stack MH-422 for MH-422 and through Stack MH-402 for MH-402.

(2) One (1) weigh hopper, identified as MH-403, with a maximum capacity of 0.165 tons of rubber per hour, with particulate controlled by a bin vent, and exhausting to the atmosphere through Stack MH-403.

(3) One (1) 110L mixer, identified as M-405, with a maximum capacity of 0.165 tons of rubber per hour, with particulate controlled by a bin vent, and exhausting to the atmosphere through Stack MH-405.

(i) One (1) natural gas-fired boiler, identified as UT-106, with a maximum capacity of 5.2 MMBtu/hr, and exhausting to stack UT-106.

(j) One (1) natural gas fired steam boiler, identified as UT-126, with a maximum capacity of 4.19 MMBtu/hr, exhausting through Stack UT-126.

(k) One (1) Model 34 Parts Washer, identified as PW1, constructed in 2019, with a maximum capacity of one hundred forty-seven (147) gallons of solvent per year, using no control, and exhausting indoors.

(l) Paved Roads.
### Emission Units and Pollution Control Equipment Removed From the Source

The source has removed the following emission units:

(a) One (1) rubber compound manufacturing process, consisting of the following emission units:

(3) One (1) 600L mixer, identified as M-404, with a maximum capacity of 0.086 tons of rubber per hour, with particulate controlled by a pulse filter, and exhausting to the atmosphere through Stack MH-404.

### Emission Units and Pollution Control Equipment Constructed Under the Provisions of 326 IAC 2-1.1-3 (Exemptions)

As part of this permitting action, the source requested to add the following existing emission unit(s) constructed under the provisions of 326 IAC 2-1.1-3 (Exemptions):

(a) One (1) compound mixer, identified as M-111, constructed in 1989, consisting of a 100-gallon Sigma Blade-style mixer, with a maximum process rate of 112.8 pounds per hour, using bag filters as control, and exhausting to Stack S-M-111.

[Pursuant to 40 CFR 63, Subpart VVVVV, these units are considered affected sources.]

(b) One (1) compound mixer, identified as M-112, constructed in 1989, consisting of a 25-gallon Sigma Blade-style mixer, with a maximum process rate of 28.2 pounds per hour, using bag filters as control, and exhausting Stack S-M-112.

(c) One (1) ATH storage silo, identified as MH-134, constructed in 1999, with a maximum capacity of 3,000 pounds per hour and a load capacity of 185,186 pounds, using bin vent as control, and exhausting Stack MH-134.

The total potential to emit of the emission unit(s) is less than levels specified at 326 IAC 2-1.1-3(e)(1)(A) through (G) and the addition of the emission unit(s) did not require the source to transition to a higher operation permit level. Therefore, pursuant to 326 IAC 2-1.1-3(e), the permit revision requirements under 326 IAC 2-6.1-6, including the requirement to submit an application, do not apply to the emission unit(s). See Appendix A of this Technical Support Document for detailed emission calculations.

### Description of Proposed Modification to an Existing Source

The Office of Air Quality (OAQ) has reviewed an application, submitted by Dow Silicones Corporation on January 28, 2020 requesting to include the existing two (2) cold mixers, identified as M-111 and M-112, and one (1) ATH storage silo, identified as MH-134 to the permit.

In addition, the calculations have been updated to reflect the correction of the maximum process weight for the two (2) sigma blade style mixers, identified as M-101 and M-102, that was done in the Registration Administrative Amendment 113-41151-00055, issued on March 25, 2019, but was not done in the calculations. Also, when the Compound Mixer M-107 was installed, weigh hopper MH-107 was not installed and there are no plans of having it installed, therefore it was removed from the permit.

### “Integral Part of the Process” Determination

As part of Registration No. 113-10553-00055, issued on March 8, 1999, IDEM, OAQ previously determined that the pneumatic additives conveying operation are an integral part of the silicone rubber manufacturing operation.

IDEM, OAQ is not reevaluating this integral justification at this time. Therefore, the potential to emit PM, PM10 and PM2.5 from the weigh hoppers, silos and PRISM silicone rubber manufacturing operation will continue to be calculated after the control equipment for purposes of determining permitting level and applicability of 326 IAC 2-2 and 326 IAC 6-3 for purposes of determining permitting level and applicability
of 326 IAC 2-2 and 326 IAC 6-3. Operating conditions in the proposed permit will specify that the bin vents and vent condensers shall operate at all times when the weigh hoppers, silos and PRISM silicone rubber manufacturing are in operation.

**Enforcement Issues**

There are no pending enforcement actions related to this source.

**Emission Calculations**

See Appendix A of this Technical Support Document for detailed emission calculations.

**PTE of the Entire Source After Issuance of the MSOP**

The table below summarizes the uncontrolled/unlimited potential to emit of the entire source. If the control equipment has been determined to be integral, the table reflects the potential to emit (PTE) after consideration of the integral control device.

<table>
<thead>
<tr>
<th>Source-Wide Emissions after Issuance (ton/year)</th>
<th>PM¹</th>
<th>PM₁₀¹</th>
<th>PM₂.₅¹,²</th>
<th>SO₂</th>
<th>NOₓ</th>
<th>VOC</th>
<th>CO</th>
<th>Total HAPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total PTE of Entire Source Including Fugitives*</td>
<td>28.41</td>
<td>21.41</td>
<td>20.78</td>
<td>0.02</td>
<td>4.03</td>
<td>8.84</td>
<td>3.39</td>
<td>8.12</td>
</tr>
<tr>
<td>Title V Major Source Thresholds</td>
<td>--</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>MSOP Thresholds</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>100</td>
<td>25</td>
<td>--</td>
</tr>
<tr>
<td>PSD Major Source Thresholds</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>--</td>
</tr>
</tbody>
</table>

¹Under the Part 70 Permit program (40 CFR 70), PM₁₀ and PM₂.₅, not particulate matter (PM), are each considered as a "regulated air pollutant."
²PM₂.₅ listed is direct PM₂.₅.

*Fugitive HAP emissions are always included in the source-wide emissions.

Appendix A of this TSD reflects the detailed unrestricted potential emissions of the source.

(a) The potential to emit (as defined in 326 IAC 2-1.1-1) of PM is less than one hundred (100) tons per year, but equal to or greater than twenty-five (25) tons per year. The potential to emit of all other regulated air pollutants is less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-6.1. The source will be issued an Minor Source Operating Permit (MSOP).

(b) The potential to emit (as defined in 326 IAC 2-1.1-1) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-1.1-1) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7. The source will be issued an Minor Source Operating Permit (MSOP).

**Federal Rule Applicability Determination**

Federal rule applicability for this source has been reviewed as follows:

**New Source Performance Standards (NSPS):**
The requirements of the New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc and 326 IAC 12, are not included in the permit for the two (2) natural-gas fired boilers, identified as UT-106 and UT-126, because the two (2) natural-gas fired boilers, identified as UT-106 and UT-126, have a maximum design heat input capacity less than 2.9 megawatts (MW) (10 MMBtu/h).

There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP):

(a) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD and 326 IAC 20-95 are not included in the permit for the two (2) natural-gas fired boilers, identified as UT-106 and UT-126, since the source is not a major source of HAPs.

(b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Halogenated Solvent Cleaning, 40 CFR 63, Subpart T, and 326 IAC 20-6-1, are not included in the permit for the one (1) parts washer, identified as PW1, since the parts washer does not use any solvent containing methylene chloride (CAS No. 75-09-2), perchloroethylene (CAS No. 127-18-4), trichloroethylene (CAS No. 79-01-6), 1,1,1-trichloroethane (CAS No. 71-55-6), carbon tetrachloride (CAS No. 56-23-5) or chloroform (CAS No. 67-66-3), or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent.

(c) This source is subject to the National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources, 40 CFR 63, Subpart VVVVV, because this source owns and operates chemical manufacturing process units (CMPU) that are located at an area source of hazardous air pollutants, and trivalent chromium and manganese are present in the raw materials at concentrations greater than 1.0 percent by weight, and are present in the feedstock for the manufacturing of uncured silicone compounds. The CMPU's include seven (7) compound mixers, identified as M-103 through M-108, and M-111.

The seven (7) compound mixers, identified as M-103 through M-108, and M-111, are subject to the following portions of Subpart VVVVV:

1. 40 CFR 63.11494 (a), (a)(1), (a)(2)(i), (b), (d)(1), (f)
2. 40 CFR 63.11495 (a)(1)
3. 40 CFR 63.11495 (a)(3), (a)(4), (a)(5), (c), (d)
4. 40 CFR 63.11496 (f), (f)(1), (i)
5. 40 CFR 63.11501 (a), (b), (c)(1)(i) & (v), (d)(1)(3)(4)
6. 40 CFR 63.11502
7. Table 1
8. Table 9

The requirements of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1, apply to the source except as otherwise specified in 40 CFR 63, Subpart VVVVV.

(d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (40 CFR Part 63, 326 IAC 14, and 326 IAC 20) included in the permit.

Compliance Assurance Monitoring (CAM):
Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

### State Rule Applicability - Entire Source

State rule applicability for this source has been reviewed as follows:

**326 IAC 2-6.1 (Minor Source Operating Permits (MSOP))**
MSOP applicability is discussed under the PTE of the Entire Source After Issuance of the MSOP section of this document.

**326 IAC 2-2 (PSD)**
PSD applicability is discussed under the PTE of the Entire Source After Issuance of the MSOP section of this document.

**326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))**
The operation of this source will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

**326 IAC 2-6 (Emission Reporting)**
This source is not subject to 326 IAC 2-6 (Emission Reporting), because it is not required to have an operating permit pursuant to 326 IAC 2-7 (Part 70); it is not located in Lake, Porter, Clark, or Floyd County, and its potential to emit lead is less than 5 tons per year. Therefore, this rule does not apply.

**326 IAC 5-1 (Opacity Limitations)**
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

1. Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

2. Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**326 IAC 6-4 (Fugitive Dust Emissions Limitations)**
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.

**326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)**
This source is not subject to the requirements of 326 IAC 6-5, because the source has potential fugitive particulate emissions of less than twenty-five (25) tons per year.

**326 IAC 6.5 (Particulate Matter Limitations Except Lake County)**
Pursuant to 326 IAC 6.5-1-1(a), this source (located in Noble County) is not subject to the requirements of 326 IAC 6.5 because it is not located in one of the following counties: Clark, Dearborn, Dubois, Howard, Marion, St. Joseph, Vanderburgh, Vigo or Wayne.

**326 IAC 6.8 (Particulate Matter Limitations for Lake County)**
Pursuant to 326 IAC 6.8-1-1(a), this source (located in Noble County) is not subject to the requirements of 326 IAC 6.8 because it is not located in Lake County.
State Rule Applicability – Individual Facilities

Mixers, Dump Stations, Silos (Non-Integral), and Hoppers (Non-Integral)

Pursuant to 326 IAC 6-3-2, nine (9) mixers, identified as M-103, M-104, M-105, M-106, M-107, M-108, M-111, M-112, and M-405, two (2) dump stations, identified as MH-402 and MH-422, one (1) ATH silo, identified as MH-134, and two (2) weigh hoppers, identified as MH-403 and MH-405, are exempt from the requirements of 326 IAC 6-3, because they have a potential particulate emissions of less than five hundred fifty one thousandths (0.551) pound per hour, each.

Pursuant to 326 IAC 6-3-1(a), the requirements of 326 IAC 6-3-2 are applicable to the mixers, identified as M-101 and M-102, since they are a manufacturing process not exempted from this rule under 326 IAC 6-3-1(b) and are not subject to a particulate matter limitation that is as stringent as or more stringent than the particulate limitation established in this rule as specified in 326 IAC 6-3-1(c).

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the process shall not exceed the pounds per hour, when operating at a process weight rate in tons per hour, listed in the table provided. The pound per hour limitation was calculated with the following equation:

\[ E = 4.10 P^{0.67} \]

where \( E \) = rate of emission in pounds per hour and \( P \) = process weight rate in tons per hour

<table>
<thead>
<tr>
<th>Summary of Process Weight Rate Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process / Emission Unit</td>
</tr>
<tr>
<td>Mixer 101</td>
</tr>
<tr>
<td>Mixer 102</td>
</tr>
</tbody>
</table>

Based on calculations, the bag houses are not needed to comply with this limit.

PRISM, Hoppers, and Silos (Integral)

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the process shall not exceed the pounds per hour, when operating at a process weight rate in tons per hour, listed in the table provided. The pound per hour limitation was calculated with the following equation:

\[ E = 4.10 P^{0.67} \]

where \( E \) = rate of emission in pounds per hour and \( P \) = process weight rate in tons per hour

<table>
<thead>
<tr>
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<tbody>
<tr>
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</tr>
<tr>
<td>Mixer 101</td>
</tr>
<tr>
<td>Mixer 102</td>
</tr>
</tbody>
</table>

Based on calculations, the bag houses are not needed to comply with this limit.
Process(s) are in operation.

<table>
<thead>
<tr>
<th>Facility or Process Description</th>
<th>Emission Unit ID</th>
<th>PTE Prior to Integral Device</th>
<th>PTE After Integral Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weigh Hopper</td>
<td>MH-103</td>
<td>112.63</td>
<td>0.11</td>
</tr>
<tr>
<td>Weigh Hopper</td>
<td>MH-104</td>
<td>112.63</td>
<td>0.11</td>
</tr>
<tr>
<td>Weigh Hopper</td>
<td>MH-105</td>
<td>112.63</td>
<td>0.11</td>
</tr>
<tr>
<td>Weigh Hopper</td>
<td>MH-106</td>
<td>112.63</td>
<td>0.11</td>
</tr>
<tr>
<td>MS-75 Silo</td>
<td>MH-127</td>
<td>157.68</td>
<td>0.16</td>
</tr>
<tr>
<td>5 Micron Silica Storage Silo</td>
<td>MH-140</td>
<td>45.05</td>
<td>0.05</td>
</tr>
<tr>
<td>10 Micron Silica Storage Silo</td>
<td>MH-142</td>
<td>45.05</td>
<td>0.05</td>
</tr>
<tr>
<td>PRISM</td>
<td>HX-103</td>
<td>78.09</td>
<td>0.08</td>
</tr>
</tbody>
</table>

### 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)

Even though, these facilities were constructed after January 1, 1980, they are not subject to the requirements of 326 IAC 8-1-6 because the unlimited VOC potential emissions are less than twenty-five (25) tons per year.

### Natural Gas Combustion

#### 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating)

Pursuant to 326 IAC 6-2-1(d), indirect heating water heaters which received permit to construct after September 21, 1983 are subject to the requirements of 326 IAC 6-2-4.

The particulate matter emissions (Pt) shall be limited by the following equation:

\[
Pt = \frac{1.09}{Q^{0.26}}
\]

Where:

- \(Pt\) = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu).
- \(Q\) = Total source maximum operating capacity rating in MMBtu/hr heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility’s permit application, except when some lower capacity is contained in the facility’s operation permit; in which case, the capacity specified in the operation.

Pursuant to 326 IAC 6-2-4(a), for \(Q\) less than 10 MMBtu/hr, \(Pt\) shall not exceed 0.6 lb/MMBtu.

<table>
<thead>
<tr>
<th>Indirect Heating Units Which Began Operation After September 21, 1983</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility</td>
</tr>
<tr>
<td>NG-Fired Boiler UT-106</td>
</tr>
<tr>
<td>NG-Fired Boiler UT-106</td>
</tr>
</tbody>
</table>
Indirect Heating Units Which Begun Operation After September 21, 1983

<table>
<thead>
<tr>
<th>Facility</th>
<th>Construction Date</th>
<th>Operating Capacity (MMBtu/hr)</th>
<th>Q (MMBtu/hr)</th>
<th>Calculated Pt (lb/MMBtu)</th>
<th>Particulate Limitation, (Pt) (lb/MMBtu)</th>
<th>PM PTE based on AP-42 (lb/MMBtu)</th>
</tr>
</thead>
</table>

Where: \( Q = \) Includes the capacity (MMBtu/hr) of the new unit(s) and the capacities for those unit(s) which were in operation at the source at the time the new unit(s) was constructed.

Note: Emission units shown in strikethrough were subsequently removed from the source. The effect of removing these units on "Q" is shown in the year the boiler was removed.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Each natural gas-fired boilers are exempt from the requirements of 326 IAC 6-3, because pursuant to 326 IAC 1-2-59. Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

326 IAC 7-1.1 Sulfur Dioxide Emission Limitations
These emission units are not subject to 326 IAC 326 IAC 7-1.1 because it has a potential to emit (or limited potential to emit) sulfur dioxide (SO2) of less than 25 tons per year or 10 pounds per hour.

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
Even though, these natural gas-fired boilers were constructed after January 1, 1980, they are not subject to the requirements of 326 IAC 8-1-6 because its unlimited VOC potential emissions are less than twenty-five (25) tons per year.

326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Categories)
The requirements of 326 IAC 10-3 do not apply to the units, since these units are not a blast furnace gas-fired boiler, a Portland cement kiln, or a facility specifically listed under 326 IAC 10-3-1(a)(2).

Parts Washer

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
Even though, the one (1) Model 34 parts washer, identified as PW1, was constructed after January 1, 1980, it is not subject to the requirements of 326 IAC 8-1-6 because its unlimited VOC potential emissions is less than twenty-five (25) tons per year.

326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements)
Pursuant to 326 IAC 8-3-1, the one (1) Model 34 parts washer, identified as PW1, is subject to the requirements of 326 IAC 8-3-2, because it is a cold cleaner degreaser that was constructed after July 1, 1990.

326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreasers)
Pursuant to 326 IAC 8-3-1(c)(3), the one (1) Model 34 parts washer, identified as PW1, is subject to the requirements of 326 IAC 8-3-8(b), since the source uses solvent in the cold cleaner degreasers. The Permittee shall not operate a cold cleaning degreaser with a solvent that has a VOC composite partial vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

Compliance Determination and Monitoring Requirements

(a) The compliance determination requirements applicable to this source as follows:

(1) In order to assure that the requirements of 326 IAC 2-2 (PSD) do not apply, the integral control devices in the table provided for PM, PM10, and PM2.5 control shall be in
operation and control emissions from the emission units in the table provided at all times the emission units are in operation.

<table>
<thead>
<tr>
<th>Emission Unit ID</th>
<th>Control Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>MH-103 Weigh Hopper</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-104 Weigh Hopper</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-105 Weigh Hopper</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-106 Weigh Hopper</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-127 Outdoor Silo</td>
<td>Baghouse 11</td>
</tr>
<tr>
<td>MH-140 5 micron silica silo</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-142 10 micron silica silo</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>PRISM</td>
<td>Baghouse DC-103</td>
</tr>
</tbody>
</table>

Compliance with this requirement, combined with the potential to emit PM, PM10, and PM2.5 from all other emission units at the source, shall assure the PM, PM10, and PM2.5 emissions from the entire source are less than 250 tons per twelve (12) consecutive month period and shall render the requirements of 326 IAC 2-2 (PSD) not applicable.

(2) In order to assure the emission units in the table provided are not subject to the requirements of 326 IAC 6-3-2, the integral control devices for particulate control shall be in operation and control emissions from the emission units at all times the emission units are in operation.

<table>
<thead>
<tr>
<th>Emission Unit ID</th>
<th>Control Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>MH-103 Weigh Hopper</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-104 Weigh Hopper</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-105 Weigh Hopper</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-106 Weigh Hopper</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-127 Outdoor Silo</td>
<td>Baghouse 11</td>
</tr>
<tr>
<td>MH-140 5 micron silica silo</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-142 10 micron silica silo</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>PRISM</td>
<td>Baghouse DC-103</td>
</tr>
</tbody>
</table>

Compliance with this requirement, combined with the potential to emit PM, PM10, and PM2.5 from all other emission units at the source, shall assure the PM, PM10, and PM2.5 emissions from the entire source are less than 100 tons per twelve (12) consecutive month period.

(3) In order to assure that the source maintains its MSOP status under 326 IAC 2-6.1, the integral control devices in the table provided for PM, PM10, and PM2.5 control shall be in operation and control emissions from the emission units at all times the emission units are in operation.

<table>
<thead>
<tr>
<th>Emission Unit ID</th>
<th>Control Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>MH-103 Weigh Hopper</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-104 Weigh Hopper</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-105 Weigh Hopper</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-106 Weigh Hopper</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-127 Outdoor Silo</td>
<td>Baghouse 11</td>
</tr>
<tr>
<td>MH-140 5 micron silica silo</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>MH-142 10 micron silica silo</td>
<td>Bin Vent</td>
</tr>
<tr>
<td>PRISM</td>
<td>Baghouse DC-103</td>
</tr>
</tbody>
</table>

Compliance with this requirement, combined with the potential to emit PM, PM10, and PM2.5 from all other emission units at the source, shall assure the PM, PM10, and PM2.5 emissions from the entire source are less than 100 tons per twelve (12) consecutive month period.
(b) The Compliance Monitoring Requirements applicable to this source are as follows:

<table>
<thead>
<tr>
<th>Emission Unit/Control</th>
<th>Type of Parametric Monitoring</th>
<th>Frequency</th>
<th>Range or Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silos/MH-127, MH-140, MH-142¹</td>
<td>Visible notation</td>
<td>when silo is loading</td>
<td>Verify whether emissions are normal or abnormal</td>
</tr>
<tr>
<td>Prism/DC-103</td>
<td>Visible notation</td>
<td>daily</td>
<td>Verify whether emissions are normal or abnormal</td>
</tr>
<tr>
<td>Base Mixers/M-101, M-102</td>
<td>Visible notation</td>
<td>daily</td>
<td>Verify whether emissions are normal or abnormal</td>
</tr>
</tbody>
</table>

(1) The Silos (MH-127, MH-140 and MH-142) only produce possible particulate emissions when the silos are being loaded. When the silos are feeding the other operations material of the process, material is transferred from the bottom and particulate emissions are not created.

(2) There is no compliance monitoring requirements for the weigh hoppers (MH-103, MH-104, MH-105, and MH-106) because they operate only a few minutes per day. Therefore, it is impractical for daily visible notation.

(c) There are no testing requirements applicable to this proposed revision.

**Conclusion and Recommendation**

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on January 28, 2020.

The construction of the proposed new emission units and the operation of this source shall be subject to the conditions of the attached proposed MSOP No. 113-42487-00055. The staff recommends to the Commissioner that the MSOP be approved.

**IDEM Contact**

(a) If you have any questions regarding this permit, please contact Paul Jump, Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251, or by telephone at (317) 234-6555 or (800) 451-6027, and ask for Paul Jump or (317) 234-6555.

(b) A copy of the findings is available on the Internet at: [http://www.in.gov/ai/appfiles/idem-caats/](http://www.in.gov/ai/appfiles/idem-caats/)

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Air Permits page on the Internet at: [http://www.in.gov/idem/airquality/2356.htm](http://www.in.gov/idem/airquality/2356.htm); and the Citizens’ Guide to IDEM on the Internet at: [http://www.in.gov/idem/6900.htm](http://www.in.gov/idem/6900.htm).
## Summary of Emissions

**Company Name:** Dow Silicones Corporation  
**Source Address:** 111 S Progress Drive East, Kendallville, IN 46755  
**Permit Number:** M113-42487-00055  
**Reviewer:** Paul Jump

### Potential to Emit of Entire Source Before Integral Controls (tons/yr)

<table>
<thead>
<tr>
<th>Process</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
<th>SO₂</th>
<th>NOₓ</th>
<th>VOC</th>
<th>CO</th>
<th>Total HAPs</th>
<th>Single HAP (Methanol)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-103 Compound Mixer</td>
<td>0.29</td>
<td>0.29</td>
<td>0.29</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>M-104 Compound Mixer</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>M-105 Compound Mixer</td>
<td>0.29</td>
<td>0.29</td>
<td>0.29</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>M-106 Compound Mixer</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>-</td>
<td>-</td>
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<tr>
<td>M-107 Compound Mixer</td>
<td>0.88</td>
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<td>0.88</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>M-111 Compound Mixer</td>
<td>0.07</td>
<td>0.07</td>
<td>0.29</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>M-112 Compound Mixer</td>
<td>0.02</td>
<td>0.02</td>
<td>0.07</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MH-103 Weigh Hopper</td>
<td>112.63</td>
<td>112.63</td>
<td>112.63</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MH-104 Weigh Hopper</td>
<td>112.63</td>
<td>112.63</td>
<td>112.63</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MH-105 Weigh Hopper</td>
<td>112.63</td>
<td>112.63</td>
<td>112.63</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>MH-106 Weigh Hopper</td>
<td>112.63</td>
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<td>112.63</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Outside Silo (MH-127)</td>
<td>157.68</td>
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<td>157.68</td>
<td>-</td>
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<td>-</td>
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</tr>
<tr>
<td>5 micron silica silo (MH-140)</td>
<td>45.05</td>
<td>45.05</td>
<td>45.05</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>10 micron silica silo (MH-142)</td>
<td>45.05</td>
<td>45.05</td>
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<td>-</td>
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</tr>
<tr>
<td>Prism</td>
<td>78.09</td>
<td>78.09</td>
<td>78.09</td>
<td>-</td>
<td>-</td>
<td>1.3</td>
<td>-</td>
<td>1.2</td>
<td>1.1</td>
</tr>
<tr>
<td>Natural Gas Combustion</td>
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<td>0.31</td>
<td>0.31</td>
<td>0.02</td>
<td>4.03</td>
<td>0.22</td>
<td>3.39</td>
<td>0.08</td>
<td>0.07</td>
</tr>
<tr>
<td>Plant Atmosphere</td>
<td>0.79</td>
<td>0.75</td>
<td>0.75</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MH-402 Bag Dump Station</td>
<td>0.0072</td>
<td>0.0029</td>
<td>0.0029</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MH-422 Bag Dump Station</td>
<td>0.0072</td>
<td>0.0029</td>
<td>0.0029</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MH-403 Weigh Hopper</td>
<td>0.0072</td>
<td>0.0029</td>
<td>0.0029</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>M-405 110L Mixer</td>
<td>0.0072</td>
<td>0.0029</td>
<td>0.0029</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Model 34 Parts Washer (PW1)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.49</td>
<td>-</td>
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<td>4.92E-04</td>
</tr>
<tr>
<td>ATH Silo (MH-134)</td>
<td>2.227</td>
<td>2.227</td>
<td>2.227</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>797.37</td>
<td>793.68</td>
<td>793.96</td>
<td>0.02</td>
<td>4.03</td>
<td>8.84</td>
<td>3.39</td>
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</tr>
<tr>
<td>Roads</td>
<td>4.16</td>
<td>0.83</td>
<td>0.20</td>
<td>-</td>
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<td>-</td>
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<td>-</td>
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</tr>
<tr>
<td>Total w/ fugitives</td>
<td>801.52</td>
<td>794.52</td>
<td>794.17</td>
<td>0.02</td>
<td>4.03</td>
<td>8.84</td>
<td>3.39</td>
<td>8.12</td>
<td>7.88</td>
</tr>
</tbody>
</table>
## Appendix A: Emissions Calculations

### Summary of Emissions

**Company Name:** Dow Silicones Corporation  
**Source Address:** 111 S Progress Drive East, Kendallville, IN 46755  
**Permit Number:** M113-42487-00055  
**Reviewer:** Paul Jump

<table>
<thead>
<tr>
<th>Process</th>
<th>PM</th>
<th>PM10</th>
<th>PM2.5</th>
<th>SO₂</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
<th>Total HAPs</th>
<th>Single HAP (Toulene)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-101 Hot Mixer</td>
<td>8.76</td>
<td>6.83</td>
<td>6.83</td>
<td>-</td>
<td>-</td>
<td>3.4</td>
<td>0.0</td>
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<td>3.4</td>
</tr>
<tr>
<td>M-102 Hot Mixer</td>
<td>8.76</td>
<td>6.83</td>
<td>6.83</td>
<td>-</td>
<td>-</td>
<td>3.4</td>
<td>0.0</td>
<td>3.4</td>
<td>3.4</td>
</tr>
<tr>
<td>M-103 Compound Mixer</td>
<td>0.29</td>
<td>0.29</td>
<td>0.29</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>M-104 Compound Mixer</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>M-105 Compound Mixer</td>
<td>0.29</td>
<td>0.29</td>
<td>0.29</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>M-106 Compound Mixer</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>-</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>M-107 Compound Mixer</td>
<td>0.88</td>
<td>0.88</td>
<td>0.88</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>M-111 Compound Mixer</td>
<td>0.29</td>
<td>0.29</td>
<td>0.29</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>M-112 Compound Mixer</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MH-103 Weigh Hopper*</td>
<td>0.11</td>
<td>0.11</td>
<td>0.11</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>MH-104 Weigh Hopper*</td>
<td>0.11</td>
<td>0.11</td>
<td>0.11</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>MH-105 Weigh Hopper*</td>
<td>0.11</td>
<td>0.11</td>
<td>0.11</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<td>-</td>
</tr>
<tr>
<td>MH-106 Weigh Hopper*</td>
<td>0.11</td>
<td>0.11</td>
<td>0.11</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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</tr>
<tr>
<td>MS-75 Silo (MH-127)*</td>
<td>0.16</td>
<td>0.16</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5 micron silica silo (MH-140)*</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>10 micron silica silo (MH-142)*</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Prism*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.3</td>
<td></td>
<td>1.2</td>
<td>1.1</td>
</tr>
<tr>
<td>Natural Gas Combustion</td>
<td>0.08</td>
<td>0.31</td>
<td>0.31</td>
<td>0.02</td>
<td>4.03</td>
<td>0.22</td>
<td>3.39</td>
<td>0.08</td>
<td>0.07</td>
</tr>
<tr>
<td>Plant Atmosphere</td>
<td>0.79</td>
<td>0.75</td>
<td>0.75</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MH-402 Bag Dump Station</td>
<td>0.0072</td>
<td>0.0029</td>
<td>0.0029</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MH-422 Bag Dump Station</td>
<td>0.0072</td>
<td>0.0029</td>
<td>0.0029</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MH-403 Weigh Hopper</td>
<td>0.0072</td>
<td>0.0029</td>
<td>0.0029</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>M-405 110L Mixer</td>
<td>0.0072</td>
<td>0.0029</td>
<td>0.0029</td>
<td></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Model 34 Parts Washer (PW1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.49</td>
<td></td>
<td>4.92E-04</td>
<td>4.92E-04</td>
</tr>
<tr>
<td>ATH Silo (MH-134)</td>
<td>2.23</td>
<td>2.23</td>
<td>2.23</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total excluding fugitives</td>
<td>24.26</td>
<td>20.58</td>
<td>20.58</td>
<td>0.02</td>
<td>4.03</td>
<td>8.84</td>
<td>3.39</td>
<td>8.12</td>
<td>7.88</td>
</tr>
<tr>
<td>Roads</td>
<td>4.15</td>
<td>0.83</td>
<td>0.20</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total including fugitives</td>
<td>28.41</td>
<td>21.41</td>
<td>20.78</td>
<td>0.02</td>
<td>4.03</td>
<td>8.84</td>
<td>3.39</td>
<td>8.12</td>
<td>7.88</td>
</tr>
</tbody>
</table>

* These baghouses are considered integral to the process, therefore PTE after controls is used for permit level determination.
## Modification Summary

**Company Name:** Dow Silicones Corporation  
**Source Address:** 111 S Progress Drive East, Kendallville, IN 46755  
**Permit Number:** M113-42487-00055  
**Reviewer:** Paul Jump

### Exempt units added to Permit

<table>
<thead>
<tr>
<th>Process</th>
<th>PM</th>
<th>PM2.5</th>
<th>PM10</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
<th>TPH</th>
<th>HAP</th>
<th>Single HAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>MH-134 (ATH Silo)</td>
<td>2.23</td>
<td>2.23</td>
<td>2.23</td>
<td>0.29</td>
<td>0.29</td>
<td>0.29</td>
<td>0.29</td>
<td>2.59</td>
<td>0.07</td>
<td>2.59</td>
</tr>
<tr>
<td>M-111</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
</tr>
<tr>
<td>M-112</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
</tr>
<tr>
<td>Total</td>
<td>2.37</td>
<td>2.37</td>
<td>2.37</td>
<td>0.36</td>
<td>0.36</td>
<td>0.36</td>
<td>0.36</td>
<td>3.05</td>
<td>0.14</td>
<td>3.05</td>
</tr>
</tbody>
</table>

### Potential to Emit of Entire Source Before Integral Controls (tons/yr)

<table>
<thead>
<tr>
<th>Process</th>
<th>PM</th>
<th>PM2.5</th>
<th>PM10</th>
<th>SO2</th>
<th>NOx</th>
<th>VOC</th>
<th>CO</th>
<th>TPH</th>
<th>HAP</th>
<th>Single HAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>MH-134 (ATH Silo)</td>
<td>2.23</td>
<td>2.23</td>
<td>2.23</td>
<td>0.29</td>
<td>0.29</td>
<td>0.29</td>
<td>0.29</td>
<td>2.59</td>
<td>0.07</td>
<td>2.59</td>
</tr>
<tr>
<td>M-111</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
</tr>
<tr>
<td>M-112</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
</tr>
<tr>
<td>Total</td>
<td>2.37</td>
<td>2.37</td>
<td>2.37</td>
<td>0.36</td>
<td>0.36</td>
<td>0.36</td>
<td>0.36</td>
<td>3.05</td>
<td>0.14</td>
<td>3.05</td>
</tr>
</tbody>
</table>
### Existing Mixers

#### PM/PM10 Emissions

- **Company Name:** Dow Silicones Corporation
- **Source Address:** 111 S Progress Drive East, Kendallville, IN 46755
- **Permit Number:** M113-42487-00055
- **Reviewer:** Paul Jump

<table>
<thead>
<tr>
<th>Process</th>
<th>Material Usage (lbs/hr)</th>
<th>PM Emission Factor (lb PM/lb)</th>
<th>PM10 Emission Factor (lb PM/lb)</th>
<th>Uncontrolled PM Emissions (lb/hr)</th>
<th>Uncontrolled PM10 Emissions (lb/yr)</th>
<th>Control Efficiency %</th>
<th>Controlled PM Emissions (lb/hr)</th>
<th>Controlled PM10 Emissions (lb/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-101 Hot Mixer</td>
<td>200</td>
<td>0.01</td>
<td>0.0078</td>
<td>2.000</td>
<td>8.76</td>
<td>6.83</td>
<td>0.00%</td>
<td>2.00000</td>
</tr>
<tr>
<td>M-102 Hot Mixer</td>
<td>200</td>
<td>0.01</td>
<td>0.0078</td>
<td>2.000</td>
<td>8.76</td>
<td>6.83</td>
<td>0.00%</td>
<td>2.00000</td>
</tr>
<tr>
<td>M-103 Compound Mixer</td>
<td>112.8</td>
<td>0.006</td>
<td>0.006</td>
<td>0.29</td>
<td>0.29</td>
<td>99.50%</td>
<td>3.31E-04</td>
<td>3.31E-04</td>
</tr>
<tr>
<td>M-104 Compound Mixer</td>
<td>112.8</td>
<td>0.006</td>
<td>0.006</td>
<td>0.29</td>
<td>0.29</td>
<td>99.50%</td>
<td>3.31E-04</td>
<td>3.31E-04</td>
</tr>
<tr>
<td>M-105 Compound Mixer</td>
<td>112.8</td>
<td>0.006</td>
<td>0.006</td>
<td>0.29</td>
<td>0.29</td>
<td>99.50%</td>
<td>3.31E-04</td>
<td>3.31E-04</td>
</tr>
<tr>
<td>M-106 Compound Mixer</td>
<td>112.8</td>
<td>0.006</td>
<td>0.006</td>
<td>0.29</td>
<td>0.29</td>
<td>99.50%</td>
<td>3.31E-04</td>
<td>3.31E-04</td>
</tr>
<tr>
<td>M-107 Compound Mixer</td>
<td>112.8</td>
<td>0.006</td>
<td>0.006</td>
<td>0.29</td>
<td>0.29</td>
<td>99.50%</td>
<td>3.31E-04</td>
<td>3.31E-04</td>
</tr>
<tr>
<td>M-108 Compound Mixer</td>
<td>112.8</td>
<td>0.006</td>
<td>0.006</td>
<td>0.29</td>
<td>0.29</td>
<td>99.50%</td>
<td>3.31E-04</td>
<td>3.31E-04</td>
</tr>
<tr>
<td>M-109 Compound Mixer</td>
<td>112.8</td>
<td>0.006</td>
<td>0.006</td>
<td>0.29</td>
<td>0.29</td>
<td>99.50%</td>
<td>3.31E-04</td>
<td>3.31E-04</td>
</tr>
<tr>
<td>M-110 Compound Mixer</td>
<td>112.8</td>
<td>0.006</td>
<td>0.006</td>
<td>0.29</td>
<td>0.29</td>
<td>99.50%</td>
<td>3.31E-04</td>
<td>3.31E-04</td>
</tr>
<tr>
<td>M-111 Compound Mixer</td>
<td>112.8</td>
<td>0.006</td>
<td>0.006</td>
<td>0.29</td>
<td>0.29</td>
<td>99.50%</td>
<td>3.31E-04</td>
<td>3.31E-04</td>
</tr>
<tr>
<td>M-112 Compound Mixer</td>
<td>112.8</td>
<td>0.006</td>
<td>0.006</td>
<td>0.29</td>
<td>0.29</td>
<td>99.50%</td>
<td>3.31E-04</td>
<td>3.31E-04</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>100.00%</td>
<td>20.36E-03</td>
<td>20.36E-03</td>
</tr>
</tbody>
</table>

#### Methodology

PM/PM10 Emissions Factors from Dow Corning Revision to the Registration TSD Permit No: 113-12767-00055, issued on December 1, 2000

Uncontrolled PM/PM10 Emissions (lb/hr) = material usage (tons/hr) * PM/PM10 Emission Factor (lb/ton)

Uncontrolled PM/PM10 Emissions (tons/yr) = material usage (tons/hr) * PM/PM10 Emission Factor (lb/ton) * 1/2000 (ton/lbs) * 8760 (hrs/yr)

Controlled PM/PM10 Emissions (lb/hr) = Uncontrolled PM/PM10 emissions (lb/hr) * (1 - % Control Efficiency)

Controlled PM/PM10 Emissions (tons/yr) = Uncontrolled PM/PM10 emissions (tons/yr) * (1 - % Control Efficiency)
## Appendix A: Emissions Calculations

### Mixers 101 & 102

#### VOC/HAP Emissions

**Company Name:** Dow Silicones Corporation  
**Source Address:** 111 S Progress Drive East, Kendallville, IN 46755  
**Permit Number:** M113-42467-00055  
**Reviewer:** Paul Jump

<table>
<thead>
<tr>
<th>Material</th>
<th>Form</th>
<th>% Loss of Organics</th>
<th>Maximum Usage (lbs/batch)</th>
<th>PM Loss (lbs/batch)</th>
<th>PM10 Loss (lbs/batch)</th>
<th>VOC Loss (lbs/batch)</th>
<th>Max HAP (toluene) Loss (lbs/batch)</th>
<th>Used in Production Phase #</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Additions/Mixing/Heating/Reaction/Stripping/Cool Down/Drum Off</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Product for Max HAP/VOCs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquids/ Solids</td>
<td></td>
<td>1.633%</td>
<td>3,929.2</td>
<td>15.200</td>
<td>11.856</td>
<td>5.915</td>
<td>5.915</td>
<td>1-11</td>
</tr>
<tr>
<td><strong>Cleaning of Mixing Vessels</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquid</td>
<td></td>
<td>0.00%</td>
<td>3,929.2</td>
<td>15.200</td>
<td>11.856</td>
<td>5.915</td>
<td>5.915</td>
<td></td>
</tr>
</tbody>
</table>

### 1. Organic/VOC/HAP Emission Factors:

Based on output from Emissions Master 8.4 Program modeled around each physical step in the process, the theoretical loss of organics (i.e., the sum of chemicals defined as volatile organic compounds (VOCs) plus exempt VOCs) per batch was calculated. Based on our review of the product mix manufactured at the Kendallville site, one family of CBI products generates the highest VOC and HAP profile. In fact, the 99.999% of the VOC losses are a single HAP (i.e., toluene) and the remainder are non-exempt siloxanes.

### 2. PM Emission Factors:

No emissions of particulate matter are generated from the mixing, heating, reaction, stripping, cool down, or drum off of the final product(s). The solid additions of fillers and additives are assumed to have a loss rate of 0.01 lbs of PM/lb and 0.0078 lbs of PM10/PM2.5/lb.

### 3. The maximum HAP emitted from the hot mixers is toluene. The second-highest potential for indirectly emitting a HAP is methanol, which can be formed when methoxy terminated treating agents are exposed to atmospheric moisture. The third highest HAP that can be present is a glycol ether. Whereas acetonitrile and xylene can be present can also be present in raw materials; however, they exist as a small fraction of the raw material at 0.30 and 0.23%, respectively. Lastly, the following HAPs are only present as contaminants in raw materials below the reporting thresholds: benzene, cumene, xylene, methylene chloride, ethyl benzene, formaldehyde, and hexane.

### Uncontrolled vs. Controlled Emissions

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>5.91</td>
<td>7.80</td>
<td>0.778</td>
<td>3.41</td>
<td>0%</td>
<td>0.778</td>
<td>3.41</td>
<td></td>
</tr>
<tr>
<td>Single HAP (toluene)</td>
<td>5.91</td>
<td>7.80</td>
<td>0.778</td>
<td>3.41</td>
<td>0%</td>
<td>0.778</td>
<td>3.41</td>
<td></td>
</tr>
<tr>
<td>Total HAP</td>
<td>5.91</td>
<td>7.80</td>
<td>0.778</td>
<td>3.41</td>
<td>0%</td>
<td>0.778</td>
<td>3.41</td>
<td></td>
</tr>
<tr>
<td>PM</td>
<td>19.20</td>
<td>7.80</td>
<td>2.000</td>
<td>8.76</td>
<td>0%</td>
<td>2.000</td>
<td>8.76</td>
<td></td>
</tr>
<tr>
<td>PM10</td>
<td>11.86</td>
<td>7.80</td>
<td>1.560</td>
<td>6.83</td>
<td>0%</td>
<td>1.560</td>
<td>6.83</td>
<td></td>
</tr>
<tr>
<td>PM2.5</td>
<td>11.86</td>
<td>7.80</td>
<td>1.560</td>
<td>6.83</td>
<td>0%</td>
<td>1.560</td>
<td>6.83</td>
<td></td>
</tr>
</tbody>
</table>
Appendix A: Emissions Calculations
PM/PM10/PM2.5 for Silos

Company Name: Dow Silicones Corporation
Source Address: 111 S Progress Drive East, Kendallville, IN 46755
Permit Number: M113-42487-00055
Reviewer: Paul Jump

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Grain Loading (gr/scf)</th>
<th>Flow Rate (acfm)</th>
<th>Control Efficiency %</th>
<th>PTE before Controls (tons/year)</th>
<th>PTE After Controls (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MH-103 Weigh Hopper</td>
<td>0.02</td>
<td>150</td>
<td>99.90%</td>
<td>112.63</td>
<td>0.11</td>
</tr>
<tr>
<td>MH-104 Weigh Hopper</td>
<td>0.02</td>
<td>150</td>
<td>99.90%</td>
<td>112.63</td>
<td>0.11</td>
</tr>
<tr>
<td>MH-105 Weigh Hopper</td>
<td>0.02</td>
<td>150</td>
<td>99.90%</td>
<td>112.63</td>
<td>0.11</td>
</tr>
<tr>
<td>MH-106 Weigh Hopper</td>
<td>0.02</td>
<td>150</td>
<td>99.90%</td>
<td>112.63</td>
<td>0.11</td>
</tr>
<tr>
<td>Total Particulate</td>
<td></td>
<td></td>
<td></td>
<td>450.51</td>
<td>0.11</td>
</tr>
</tbody>
</table>

Assume PM = PM10 and PM2.5

The determination for the weigh hopper (MH-103 through MH-107) baghouses as integral was made pursuant to Registration 113-12767-00055, issued on December 1, 2000.
Therefore, the permitting level was determined using the potential to emit after the baghouse.

Methodology:

PM/PM10/PM2.5 after control = (gr/scf) \* (dscfm) *(1 lb/7000 grains) * (60 minute/ 1 hour) * (8760 hours/1 year) * (1 ton/2000 lbs)
PM/PM10/PM2.5 before control = (((gr/scf) \* (dscfm) *(1 lb/7000 grains) * (60 minute/ 1 hour) * (8760 hours/1 year) * (1 ton/2000 lbs)) / (1 - Control efficiency %)
### Appendix A: Emissions Calculations

**PM/PM10/PM2.5 for Silos**

**Company Name:** Dow Silicones Corporation  
**Source Address:** 111 S Progress Drive East, Kendallville, IN 46755  
**Permit Number:** M113-42687-00055  
**Reviewer:** Paul Jump

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Grain Loading (gr/scf)</th>
<th>Flow Rate (dscfm)</th>
<th>Control Efficiency %</th>
<th>PTE before Controls (tons/year)</th>
<th>PTE after Controls (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS-75 Silo (MH-127)</td>
<td>0.07</td>
<td>60</td>
<td>99.90%</td>
<td>157.68</td>
<td>0.16</td>
</tr>
<tr>
<td>5 micron silica Silo (MH-140)</td>
<td>0.02</td>
<td>60</td>
<td>99.90%</td>
<td>45.05</td>
<td>0.05</td>
</tr>
<tr>
<td>10 micron silica Silo (MH-142)</td>
<td>0.02</td>
<td>60</td>
<td>99.90%</td>
<td>45.05</td>
<td>0.05</td>
</tr>
<tr>
<td><strong>Total Particulates</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>247.78</strong></td>
<td><strong>0.16</strong></td>
</tr>
</tbody>
</table>

Assume PM = PM10 and PM2.5

1. The determination for the MH-130 baghouse as integral was made pursuant to Exemption 113-9700-00055, issued on May 20, 1998.
2. The determination for the MH-140 and MH-142 baghouses as integral was made pursuant to Registration 113-12767-00055, issued on December 1, 2000.

Therefore, the permitting level was determined using the potential to emit after the baghouse.

**Methodology:**

For PM10/PM2.5 after control:

\[
PM_{PM10/PM2.5} = \left( \frac{gr}{scf} \right) \times \left( \frac{dscfm}{60\text{ min}} \times 8760\text{ hours/year} \right) \times \left( \frac{1\text{ ton}}{2000\text{ lbs}} \right)
\]

For PM10/PM2.5 before control:

\[
PM_{PM10/PM2.5} = \left( \frac{gr}{scf} \right) \times \left( \frac{dscfm}{60\text{ min}} \times 8760\text{ hours/year} \right) \times \left( \frac{1\text{ ton}}{2000\text{ lbs}} \right) \times \left( \frac{1}{1 - \text{Control effciency %}} \right)
\]
<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Capacity of material feeding PRISM Process</td>
<td></td>
</tr>
<tr>
<td>Mass of fillers to PRISM for a typical batch</td>
<td>705.53 lbs/hr of fillers</td>
</tr>
<tr>
<td>Amount of ATH to PRISM for a typical batch</td>
<td>588.0 lbs/hr of ATH</td>
</tr>
<tr>
<td>Permitted usage of ATH, which is fed by ATH Silo</td>
<td>63.3% % of mass is ATH</td>
</tr>
<tr>
<td>Calculated worst-case usage of ATH, which is fed by ATH Silo</td>
<td>3,000 lbs/hr of ATH</td>
</tr>
<tr>
<td>Calculated worst-case usage of ATH, which is fed by ATH Silo</td>
<td>3,000 lbs/hr of ATH</td>
</tr>
<tr>
<td>Mass capacity of silo</td>
<td>183.86 lbs/silo</td>
</tr>
<tr>
<td>Number of times the silo can be turned to satisfy PRISM process</td>
<td>145.9 turnovers/yr</td>
</tr>
<tr>
<td>Venting at Silo (PTE)</td>
<td></td>
</tr>
<tr>
<td>Mass of ATH per truck load</td>
<td>48,718 lbs ATH/load</td>
</tr>
<tr>
<td>Maximum number of truck loads per year</td>
<td>3,094 Truckloads/yr</td>
</tr>
<tr>
<td>Truck unloading rate to silo</td>
<td>22.652 lbs ATH/hr</td>
</tr>
<tr>
<td>Site-specific data</td>
<td>2.25 hrs/load</td>
</tr>
<tr>
<td>Maximum number of truck loads per year</td>
<td>2.25 hrs/load</td>
</tr>
<tr>
<td>Number of times the silo can be turned to satisfy PRISM process</td>
<td>1,213.79 hrs of venting/yr</td>
</tr>
<tr>
<td>Average particle size per technical data sheet per method FQA 3055</td>
<td>2.2 μm</td>
</tr>
<tr>
<td>Conversion</td>
<td>0.3390 lbs/ton</td>
</tr>
<tr>
<td>Permitted usage of ATH, which is fed by ATH Silo</td>
<td>0.027% % Loss</td>
</tr>
<tr>
<td>Calculated worst-case usage of ATH, which is fed by ATH Silo</td>
<td>3.7 lbs/hr of PM</td>
</tr>
<tr>
<td>Calculated worst-case usage of ATH, which is fed by ATH Silo</td>
<td>4,454 lbs/yr of PM</td>
</tr>
<tr>
<td>Calculated worst-case usage of ATH, which is fed by ATH Silo</td>
<td>2.23 tpy of PM</td>
</tr>
<tr>
<td>Calculated worst-case usage of ATH, which is fed by ATH Silo</td>
<td>4,454.35 lbs/yr of PM</td>
</tr>
<tr>
<td>Conversion</td>
<td>3.78 tpy of PM</td>
</tr>
<tr>
<td>Control for Bin Vent System</td>
<td>99.0%</td>
</tr>
<tr>
<td>Calculated worst-case usage of ATH, which is fed by ATH Silo</td>
<td>0.04 lbs/hr of PM</td>
</tr>
<tr>
<td>Conversion</td>
<td>0.04 lbs/hr of PM</td>
</tr>
<tr>
<td>3.0% Balance of Total</td>
<td>45 lbs/yr of PM</td>
</tr>
<tr>
<td>3.0% Balance of Total</td>
<td>0.02 tpy of PM</td>
</tr>
<tr>
<td>3.0% Balance of Total</td>
<td>4,420 lbs/yr of PM</td>
</tr>
<tr>
<td>3.0% Balance of Total</td>
<td>0.7058 S/ft</td>
</tr>
<tr>
<td>3.0% Balance of Total</td>
<td>3,501 S/yr</td>
</tr>
</tbody>
</table>
### Emission Unit Calculations

**Company Name:** Dow Silicones Corporation  
**Source Address:** 311 S Progress Drive East, Kendallville, IN 46755  
**Permit Number:** M113-42487-00055  
**Reviewer:** Paul Jump

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Grain Loading (gr/scf)</th>
<th>Flow Rate (acfm)</th>
<th>Control Efficiency %</th>
<th>PTE before Controls (tons/year)</th>
<th>PTE after Controls (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRISM (HX-103)</td>
<td>0.001</td>
<td>2080</td>
<td>99.90%</td>
<td>78.09</td>
<td>0.08</td>
</tr>
</tbody>
</table>

Assume PM = PM10 and PM2.5

1. The determination for the PRISM baghouse as integral was made pursuant to Registration 113-10553-00055, issued on March 8, 1999.

Therefore, the permitting level was determined using the potential to emit after the baghouse.

**Methodology:**

\[
\text{PM/PM10/PM2.5 after control} = (\text{gr/scf}) \times (\text{acfm}) \times (\text{1 lb/7000 grains}) \times (\text{60 minute/1 hour}) \times (\text{8760 hours/1 year}) \times (\text{1 ton/2000 lbs}) \\
\text{PM/PM10/PM2.5 before control} = \frac{(\text{gr/scf}) \times (\text{acfm}) \times (\text{1 lb/7000 grains}) \times (\text{60 minute/1 hour}) \times (\text{8760 hours/1 year}) \times (\text{1 ton/2000 lbs})}{(1 - \text{Control efficiency %})}
\]
Appendix A: Emissions Calculations
Prism VOC/HAPs

Company Name: Dow Silicones Corporation
Source Address: 111 S Progress Drive East, Kendallville, IN 46755
Permit Number: M113-42487-00055
Reviewer: Paul Jump

Production Materials and Quantities
> During the hot mixing process, gum matrix, additives, treating agents, extenders, fillers, pigments, etc. are blended to manufacture a general purpose, catalyzed or uncatalyzed silicone rubber base. Mixing takes place in a slow shear mixing vessel, where a steam-jacketed plus frictional forces increases the temperature to drive off excess solvent and volatiles. The raw materials contain various high molecular weight materials, as well as residual solvent (i.e., toluene). During the stripping phase, the vacuum system directs the vent stream to a condenser system to collect condensate. It is an integral part of the manufacturing process because it would render the final product unusable if excess solvent (i.e., toluene) was remaining in the silicone rubber base.

Raw Materials
- Organic VOC/HAP Emission Factors: Based on output from Emissions Master 8.4 Program modeled around each physical step in the process, the theoretical loss of organics (i.e., the sum of chemicals defined as volatile organic compounds (VOCs) plus exempt VOCs) per batch was calculated. Based on our review of the product mix manufactured at the Kendallville site, one family of CBI products generates the highest VOC and HAP profile.
- PM Emission Factors: No emissions of particulate matter are generated from the mixing, heating, reaction, stripping, cool down, of transfer of the intermediate to the super charger. The solid additions of fillers and additives are assumed to have a loss rate of 0.001%, which matches the expected emissions from an integral process control.
- The maximum HAP emitted from the hot mixers is toluene. The second-highest potential for indirectly emitting a HAP is methanol, which can be formed when methoxy terminated treating agents are exposed to atmospheric moisture. The third highest HAP that can be present is a glycol ether. Whereas acetonitrile and xylene can be present can also be present in raw materials; however, they exist as a small fraction of the raw material at 0.30 and 0.23%, respectively. Lastly, the following HAPs are only present as contaminants in raw materials below the reporting thresholds: benzene, cumene, xylene, methylene chloride, ethyl benzene, formaldehyde, and hexane.

Potential Emissions
> The total potential emissions for this process unit are calculated below.

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor (lb/batch)</th>
<th>Max Cycle Time (hrs/batch)</th>
<th>Uncontrolled Potential Emissions (lb/hr)</th>
<th>Potential Emissions (tpy)</th>
<th>Control Efficiency (%)</th>
<th>Controlled Potential Emissions (lb/hr)</th>
<th>Potential Emissions (tpy)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOC</td>
<td>0.190</td>
<td>0.63</td>
<td>0.300</td>
<td>1.31</td>
<td>0%</td>
<td>0.300</td>
<td>1.31</td>
</tr>
<tr>
<td>Single HAP (toluene)</td>
<td>0.153</td>
<td>0.63</td>
<td>0.242</td>
<td>1.08</td>
<td>0%</td>
<td>0.242</td>
<td>1.08</td>
</tr>
<tr>
<td>Total HAP</td>
<td>0.177</td>
<td>0.63</td>
<td>0.280</td>
<td>1.23</td>
<td>0%</td>
<td>0.280</td>
<td>1.23</td>
</tr>
<tr>
<td>PM</td>
<td>0.011</td>
<td>0.63</td>
<td>0.018</td>
<td>0.08</td>
<td>0%</td>
<td>0.018</td>
<td>0.08</td>
</tr>
<tr>
<td>PM_{10}</td>
<td>0.011</td>
<td>0.63</td>
<td>0.018</td>
<td>0.08</td>
<td>0%</td>
<td>0.018</td>
<td>0.08</td>
</tr>
<tr>
<td>PM_{2.5}</td>
<td>0.011</td>
<td>0.63</td>
<td>0.018</td>
<td>0.08</td>
<td>0%</td>
<td>0.018</td>
<td>0.08</td>
</tr>
</tbody>
</table>

* While operators use a condenser system during the stripping phase, Dow is not taking any credit for VOC/HAP emissions reductions.

* The determination for the PRISM baghouse as integral was made pursuant to Registration 113-10553-00055, issued on March 8, 1999. Therefore, the permitting level was determined using the potential to emit after the baghouse.

Trinity Consultants Inc.
Appendix A: Emissions Calculations
PM/PM10/PM2.5 for Plant

**Company Name:** Dow Silicones Corporation  
**Source Address:** 111 S Progress Drive East, Kendallville, IN 46755  
**Permit Number:** M113-42487-00055  
**Reviewer:** Paul Jump

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Particulate (lbs/day)</th>
<th>PM10 (lbs/day)</th>
<th>PM (tons/year)</th>
<th>PM10 (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant</td>
<td>4.338</td>
<td>4.12</td>
<td>0.79</td>
<td>0.75</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>0.79</strong></td>
<td><strong>0.75</strong></td>
</tr>
</tbody>
</table>

Assume PM10 = PM2.5

Particulate was determined by the source in Registration 113-5755-00055 issued October 9, 1996.

313 pounds of particulate was collected in 116 days by the two plant atmosphere filter units. Each unit has a 99.9% efficiency.

The normal production rate of silicone is 2333 lb/hr with a 5 day week, 24 hours per day. The maximum production rate for a 7 day week is 2678 lb/hr.

\[
lbs \text{ PM/days} = lbs \text{ PM per day}  
\]

PM Before Control = \( \text{lb/day collected} \times (1 + (1 - \text{collection efficiency}) \)

Maximum Capacity Factor = \( \frac{\text{max. prod. rate}}{\text{avg. production rate}} \)

Maximum Plant Atmosphere Particulate = particulate before controls \( \times \text{max. capacity factor} \)

Maximum Plant Atmosphere PM10 = PM lbs/day \( \times 95\% \) (PM10)

**Methodology:**

313 lbs PM/116 days = 2.698 lbs PM per day

PM Before Control = 2.698 lbs/day \( \times (1 + (1-0.995)) = 2.711 \)

Maximum Capacity Factor = \( \frac{2678 \text{ lbs/7 days}}{2333 \text{ lbs/5 day}} = 1.6 \)

Maximum Plant Atmosphere Particulate = 2.711 lbs/day \( \times 1.6 = 4.338 \text{ lbs/day} \)

Maximum Plant Atmosphere PM10 = 4.338 lbs/day PM \( \times 0.95 = 4.12 \)
## Appendix A: Emissions Calculations
### Natural Gas Combustion Only

**Company Name:** Dow Silicones Corporation  
**Source Address:** 111 S Progress Drive East, Kendallville, IN 46755  
**Permit Number:** M113-24447-00055  
**Reviewer:** Paul Jump

### Heat Input Capacity

<table>
<thead>
<tr>
<th>Unit</th>
<th>MMBtu/hr</th>
<th>UT-106</th>
<th>UT-126</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>5.2</td>
<td>4.19</td>
<td>9.39</td>
</tr>
</tbody>
</table>

### HHV, Heat Input Capacity, Potential Throughput

<table>
<thead>
<tr>
<th>Pollutants</th>
<th>MMBtu/hr</th>
<th>mmScf</th>
<th>MMCF/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>UT-106</td>
<td>9.4</td>
<td>1020</td>
<td>80.6</td>
</tr>
<tr>
<td>UT-126</td>
<td>9.4</td>
<td>1020</td>
<td>80.6</td>
</tr>
</tbody>
</table>

**PM** emission factor is filterable PM only. **PM10** emission factor is filterable and condensable PM10 combined. **PM2.5** emission factor is filterable and condensable PM2.5 combined.

**NOx** emission factors for **Uncontrolled** = 100, Low **NOx Burner** = 50, Low **NOx Burner/Fue gas recirculation** = 32

### Methodology

All emission factors are based on normal firing.

- **MMBtu** = 1,000,000 Btu
- **MMCF** = 1,000,000 Cubic Feet of Gas

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

### Hazardous Air Pollutants (HAPs)

#### HAPs - Organics

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor in lb/MMCF</th>
<th>Potential Emission in tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene</td>
<td>2.1E-03</td>
<td>8.5E-05</td>
</tr>
<tr>
<td>Dichlorobenzene</td>
<td>1.2E-03</td>
<td>4.8E-05</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>7.5E-02</td>
<td>3.0E-03</td>
</tr>
<tr>
<td>Hexane</td>
<td>1.8E+00</td>
<td>0.07</td>
</tr>
<tr>
<td>Toluene</td>
<td>3.4E-03</td>
<td>1.4E-04</td>
</tr>
<tr>
<td>Total - Organics</td>
<td>5.4E-03</td>
<td>0.08</td>
</tr>
</tbody>
</table>

#### HAPs - Metals

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Emission Factor in lb/MMCF</th>
<th>Potential Emission in tons/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead</td>
<td>5.0E-04</td>
<td>2.0E-05</td>
</tr>
<tr>
<td>Cadmium</td>
<td>1.1E-03</td>
<td>4.4E-05</td>
</tr>
<tr>
<td>Chromium</td>
<td>1.4E-03</td>
<td>5.0E-05</td>
</tr>
<tr>
<td>Nickel</td>
<td>3.8E-04</td>
<td>1.5E-05</td>
</tr>
<tr>
<td>Total - Metals</td>
<td>6.8E-05</td>
<td>2.2E-04</td>
</tr>
</tbody>
</table>

**Methodology is the same as above.**

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP 42, Chapter 1.4.
Appendix A: Emissions Calculations
Pilot Process
PM/PM10/PM2.5 Emissions

Company Name: Dow Silicones Corporation
Source Address: 111 S Progress Drive East, Kendallville, IN 46755
Permit Number: M113-42487-00055
Reviewer: Paul Jump

<table>
<thead>
<tr>
<th>Process</th>
<th>Material Usage (tons/hr)</th>
<th>PM Emission Factor (lb/ton)</th>
<th>PM10 Emission Factor (lb/ton)</th>
<th>Uncontrolled PM Emissions (lb/hr)</th>
<th>Uncontrolled PM Emissions (tons/yr)</th>
<th>Control Efficiency %</th>
<th>Controlled PM Emissions (lb/hr)</th>
<th>Controlled PM Emissions (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MH-402 Bag Dump Station</td>
<td>0.165</td>
<td>0.01</td>
<td>0.004</td>
<td>0.002</td>
<td>0.001</td>
<td>0.01</td>
<td>2.89E-03</td>
<td>99.50%</td>
</tr>
<tr>
<td>MH-422 Bag Dump Station</td>
<td>0.165</td>
<td>0.01</td>
<td>0.004</td>
<td>0.002</td>
<td>0.001</td>
<td>0.01</td>
<td>2.89E-03</td>
<td>99.50%</td>
</tr>
<tr>
<td>MH-403 Weigh Hopper</td>
<td>0.165</td>
<td>0.01</td>
<td>0.004</td>
<td>0.002</td>
<td>0.001</td>
<td>0.01</td>
<td>2.89E-03</td>
<td>99.50%</td>
</tr>
<tr>
<td>M-405 110L Mixer</td>
<td>0.165</td>
<td>0.01</td>
<td>0.004</td>
<td>0.002</td>
<td>0.001</td>
<td>0.007</td>
<td>2.89E-03</td>
<td>99.50%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>0.03</strong></td>
<td></td>
<td></td>
<td><strong>1.16E-02</strong></td>
<td></td>
<td></td>
<td><strong>1.45E-04</strong></td>
<td><strong>5.78E-05</strong></td>
</tr>
</tbody>
</table>

Assume PM10 = PM2.5
2. PM/PM10 Emission Factor from AP 42, Chapter 11.23 (Taconite Ore Processing), Table 11.23.3, SCC 3-03-023-45 (3.2 lb/ton)

Methodology
2. PM/PM10 Emission Factor = 3.2 (lb/ton) * 0.08 (tons of powder/batch) * 1/0.143 (tons of rubber/batch) = 1.79 (lb/ton)
   Uncontrolled PM/PM10 Emissions (lb/hr) = material usage (tons/hr) * PM/PM10 Emission Factor (lb/ton)
   Uncontrolled PM/PM10 Emissions (tons/yr) = material usage (tons/hr) * PM/PM10 Emission Factor (lb/ton) * 1/2000 (ton/lbs) * 8760 (hrs/yr)
   Controlled PM/PM10 Emissions (lb/hr) = Uncontrolled PM/PM10 emissions (lb/hr) * (1 - % Control Efficiency)
   Controlled PM/PM10 Emissions (tons/yr) = Uncontrolled PM/PM10 emissions (tons/yr) * (1 - % Control Efficiency)
Appendix A: Emission Calculations

Degreaser

Company Name: Dow Silicones Corporation
Source Address: 111 S Progress Drive East, Kendallville, IN 46755
Permit Number: M113-42487-00055
Reviewer: Paul Jump

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety Kleen Parts Washer (PW1)</td>
<td>Mineral Spirits</td>
<td>147</td>
<td>6.70</td>
<td>100%</td>
<td>0.49</td>
<td>0.10%</td>
<td>4.92E-04</td>
</tr>
</tbody>
</table>

Methodology

VOC Emissions (tons/yr) = [Maximum Usage (gallons/yr)] * [Density (lbs/gallon)] * [Weight % VOC] / [2000 lbs/ton]

HAP Emissions (ton/yr) = [Maximum Usage (gallons/yr)] * [Density (lbs/gallon)] * [Weight % Toluene] / [2000 lbs/ton]
Paved Roads at Industrial Site

The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Information (provided by source)

<table>
<thead>
<tr>
<th>Type</th>
<th>Maximum number of vehicles per day</th>
<th>Number of one-way trips per day per vehicle</th>
<th>Maximum trips per year (trip/day)</th>
<th>Total Weight driven per day (ton/day)</th>
<th>Maximum one-way distance (feet/trip)</th>
<th>Maximum one-way distance (miles/trip)</th>
<th>Maximum one-way distance (miles/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trucks (entering) (one-way trip)</td>
<td>16.0</td>
<td>1.0</td>
<td>16.0</td>
<td>344.0</td>
<td>1300</td>
<td>0.246</td>
<td>3.9</td>
</tr>
<tr>
<td>Trucks (leaving) (one-way trip)</td>
<td>16.0</td>
<td>1.0</td>
<td>16.0</td>
<td>46.2</td>
<td>739.2</td>
<td>0.246</td>
<td>3.9</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>32.0</strong></td>
<td><strong>1083.2</strong></td>
<td><strong>7.9</strong></td>
<td><strong>2875.8</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Average Vehicle Weight Per Trip = 33.9 tons/trip
Average Miles Per Trip = 0.25 miles/trip

Unmitigated Emission Factor, $\text{E}_f = k \times (sL)^{0.91} \times (W)^{1.02}$  (Equation 1 from AP-42 13.2.1)

- $k = 0.011$ PM, 0.0022 PM$_{10}$, 0.00054 PM$_{2.5}$
- $W = 33.9$ tons
- $sL = 9.7$ g/m$^2$

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, $\text{E}_{ext} = \text{E} \times [1 - (p/4N)]$  (Equation 2 from AP-42 13.2.1)

- $p = 125$ days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
- $N = 365$ days per year

Mitigated Emission Factor, $\text{E}_{ext} = k \times (sL)^{0.91} \times (W)^{1.02} \times [1 - (p/4N)]$

<table>
<thead>
<tr>
<th>Process</th>
<th>Mitigated PTE of PM (Before Control) (tons/yr)</th>
<th>Mitigated PTE of PM$_{10}$ (Before Control) (tons/yr)</th>
<th>Mitigated PTE of PM$_{2.5}$ (Before Control) (tons/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trucks (entering) (one-way trip)</td>
<td>2.08</td>
<td>0.42</td>
<td>0.10</td>
</tr>
<tr>
<td>Trucks (leaving) (one-way trip)</td>
<td>2.08</td>
<td>0.42</td>
<td>0.10</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>4.15</strong></td>
<td><strong>0.83</strong></td>
<td><strong>0.20</strong></td>
</tr>
</tbody>
</table>

Methodology

- Total Weight driven per day (ton/day) = [Maximum Weight of Loaded Vehicle (tons/trip)] \times [Maximum trips per day (trip/day)]
- Maximum one-way distance (miles/day) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]
- Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
- Maximum one-way miles (miles/day) = SUM[Maximum one-way distance (miles/trip)] / SUM[Maximum trips per day (trip/day)]
- Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] \times [Unmitigated Emission Factor (lb/mile)] \times (ton/2000 lbs)
- Mitigated PTE (Before Control) (tons/yr) = Mitigated PTE (Before Control) (tons/yr) \times [1 - Dust Control Efficiency]

Abbreviations

- PM = Particulate Matter
- PM$_{10}$ = Particulate Matter (<10 um)
- PM$_{2.5}$ = Particulate Matter (<2.5 um)
- PTE = Potential to Emit
- PM = Particle Matter
- PM$_{10}$ = Particle Matter (<10 um)
- PM$_{2.5}$ = Particle Matter (<2.5 um)
- PTE = Potential to Emit

Company Name: Dow Silicones Corporation
Source Address: 111 S Progress Drive East, Kendallville, IN 46755
Permit Number: M113-42487-00055
Reviewer: Paul Jump
January 14, 2021

Steve Mynhier  
Dow Silicones Corporation  
111 S Progress Dr E  
Kendallville, IN 46755

Re: Public Notice  
Dow Silicones Corporation  
Permit Level: MSOP with New Source Review  
Permit Number: 113-42487-00055

Dear Mr. Mynhier:

Enclosed is the Notice of 30-Day Period for Public Comment for your draft air permit.

Our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

The Notice of 30-Day Period for Public Comment has also been sent to the OAQ Permits Branch Interested Parties List and, if applicable, your Consultant/Agent and/or Responsible Official/Authorized Individual.

The preliminary findings, including the draft permit, technical support document, emission calculations, and other supporting documents, are available electronically at:

IDEM's online searchable database: [http://www.in.gov/apps/idem/caats/](http://www.in.gov/apps/idem/caats/) . Choose Search Option by Permit Number, then enter permit 42487

and

IDEM's Virtual File Cabinet (VFC): [http://www.IN.gov/idem](http://www.IN.gov/idem). Enter VFC in the search box, then search for permit documents using a variety of criteria, such as Program area, date range, permit #, Agency Interest Number, or Source ID.

The Public Notice period will begin the date the Notice is published on the IDEM Official Public Notice website. Publication has been requested and is expected within 2-3 business days. You may check the exact Public Notice begins and ends date here: [https://www.in.gov/idem/5474.htm](https://www.in.gov/idem/5474.htm)

Please note that as of April 17, 2019, IDEM is no longer required to publish the notice in a newspaper.

OAQ has submitted the draft permit package to the Kendallville Public Library, 221 South Park Avenue in Kendallville, IN. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.
Please review the draft permit documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to Paul Jump, Indiana Department of Environmental Management, Office of Air Quality, 100 N. Senate Avenue, Indianapolis, Indiana, 46204 or call (800) 451-6027, and ask for extension 4-6555 or dial (317) 234-6555.

Sincerely,

Theresa Weaver

Theresa Weaver
Permits Branch
Office of Air Quality

Enclosures
PN Applicant Cover Letter access via website 8/10/2020
January 14, 2021

To: Kendallville Public Library

From: Jenny Acker, Branch Chief
Permits Branch
Office of Air Quality

Subject: Important Information to Display Regarding a Public Notice for an Air Permit

Applicant Name: Dow Silicones Corporation
Permit Number: 113-42487-00055

Enclosed is a copy of important information to make available to the public. This proposed project is regarding a source that may have the potential to significantly impact air quality. Librarians are encouraged to educate the public to make them aware of the availability of this information. The following information is enclosed for public reference at your library:

- Notice of a 30-day Period for Public Comment
- Draft Permit and Technical Support Document

You will not be responsible for collecting any comments from the citizens. Please refer all questions and request for the copies of any pertinent information to the person named below.

Members of your community could be very concerned in how these projects might affect them and their families. Please make this information readily available until you receive a copy of the final package.

If you have any questions concerning this public review process, please contact Joanne Smiddle-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185. Questions pertaining to the permit itself should be directed to the contact listed on the notice.

Enclosures
PN Library updated 4/2019
Notice of Public Comment

January 14, 2021
Dow Silicones Corporation
113-42487-00055

Dear Concerned Citizen(s):

You have been identified as someone who could potentially be affected by this proposed air permit. The Indiana Department of Environmental Management, in our ongoing efforts to better communicate with concerned citizens, invites your comment on the draft permit.

Enclosed is a Notice of Public Comment, which has posted on IDEM’s Public Notice website at https://www.in.gov/idem/5474.htm.

The application and supporting documentation for this proposed permit have been placed at the library indicated in the Notice. These documents more fully describe the project, the applicable air pollution control requirements and how the applicant will comply with these requirements.

If you would like to comment on this draft permit, please contact the person named in the enclosed Public Notice. Thank you for your interest in the Indiana’s Air Permitting Program.

Please Note: If you feel you have received this Notice in error, or would like to be removed from the Air Permits mailing list, please contact Joanne Smiddie-Brush with the Air Permits Administration Section at 1-800-451-6027, ext. 3-0185 or via e-mail at JBRUSH@IDEM.IN.GOV. If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.

Enclosure
PN AAA Cover Letter 2/28/2020
**Mail Code 61-53**

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<td>Name and address of Sender</td>
<td>IDEM Staff</td>
<td>Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204</td>
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Type of Mail: **CERTIFICATE OF MAILING ONLY**

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<td>Mike Zimmer Trinity Consultants, Inc. 1717 Dixie Highway, Suite 900 Covington KY 41011 (Consultant)</td>
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The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50,000 per occurrence. The maximum indemnity payable on Express mail merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See **Domestic Mail Manual R900, S913, and S921** for limitations of coverage on insured and COD mail. See **International Mail Manual** for limitations of coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.