PART 70

PERMIT TO OPERATE

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to operate the air contaminant source(s) described below, in accordance with the laws, rules, and conditions set forth here in.

Operating Permit Number: OP2006-069A
Expiration Date: September 21, 2011
Installation ID: 099-0014
Project Number: 2009-12-050

Installation Name and Address
The Dow Chemical Company – Riverside Plant
500 Dow Industrial Drive
Pevely, MO 63070
Jefferson County

Parent Company's Name and Address
The Dow Chemical Company
Willard H. Dow Center 2030 Building
Midland, MI 48674

Installation Description:
The installation produces extruded polystyrene foam products. Polystyrene copolymer is mixed with additives en route to the die and forming process. The copolymer is extruded and the blowing agent is introduced to form Styrofoam. After the foam is created, it is then cooled, trimmed, and cut for wrapping and storage. The installation is a synthetic minor source of Volatile Organic Compounds located in Jefferson County, S18, T41N, R6E.

SEP 22 2010
Effective Date

[Signature]
Director or Designee
Department of Natural Resources
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Effective Date

Director or Designee
Department of Natural Resources
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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

The installation produces extruded polystyrene foam products. Polystyrene copolymer is mixed with additives en route to the die and forming process. The copolymer is extruded and the blowing agent is introduced to form Styrofoam. After the foam is created, it is then cooled, trimmed, and cut for wrapping and storage. The installation is a synthetic minor source of Volatile Organic Compounds located in Jefferson County, S18, T41N, R6E.

<table>
<thead>
<tr>
<th>Year</th>
<th>Particulate Matter ≤ Ten Microns (PM₁₀)</th>
<th>Sulfur Oxides (SOₓ)</th>
<th>Nitrogen Oxides (NOₓ)</th>
<th>Volatile Organic Compounds (VOC)</th>
<th>Carbon Monoxide (CO)</th>
<th>Lead (Pb)</th>
<th>Hazardous Air Pollutants (HAPs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.91</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>0.16</td>
<td>0.008</td>
<td>1.32</td>
<td>1.42</td>
<td>1.11</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td>0.15</td>
<td>0.007</td>
<td>1.22</td>
<td>1.34</td>
<td>1.03</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>0.16</td>
<td>0.008</td>
<td>1.37</td>
<td>3.31</td>
<td>1.15</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>0.16</td>
<td>0.01</td>
<td>1.37</td>
<td>1.36</td>
<td>1.15</td>
<td>0.00</td>
<td>Reported as VOC</td>
</tr>
</tbody>
</table>

EMISSION UNITS WITH LIMITATIONS

The following list provides a description of the equipment at this installation which emits air pollutants and which is identified as having unit-specific emission limitations.

<table>
<thead>
<tr>
<th>Emission Unit #</th>
<th>Description of Emission Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU0100</td>
<td>Polystyrene: Classifier Cyclones, EP-35</td>
</tr>
<tr>
<td>EU0110</td>
<td>Extruded Polystyrene: M/L Baghouse, EP-04</td>
</tr>
<tr>
<td>EU0120</td>
<td>Extruded Polystyrene: 48” Line Baghouse, EP-05</td>
</tr>
<tr>
<td>EU0130</td>
<td>Extruded Polystyrene: Central Vacuum System, EP-10</td>
</tr>
</tbody>
</table>
EMISSION UNITS WITHOUT LIMITATIONS
The following list provides a description of the equipment which does not have unit specific limitations at the time of permit issuance.

<table>
<thead>
<tr>
<th>2008 EIQ Reference No.</th>
<th>Description of Emission Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP-01</td>
<td>Extruded Polystyrene: M/L Additive Feeder</td>
</tr>
<tr>
<td>EP-02</td>
<td>Extruded Polystyrene: M/L Reclaim Feed Vent</td>
</tr>
<tr>
<td>EP-03</td>
<td>Extruded Polystyrene: 48” Line Additive Feeder</td>
</tr>
<tr>
<td>EP-06 and EP-62</td>
<td>Extruded Polystyrene: M/L Polystyrene Feed Hoppers</td>
</tr>
<tr>
<td>EP-13</td>
<td>Extruded Polystyrene: M/L Recycle Feed Hopper</td>
</tr>
<tr>
<td>EP-14</td>
<td>Extruded Polystyrene: 48” Line Reclaim Feed Vent</td>
</tr>
<tr>
<td>EP-16</td>
<td>Extruded Polystyrene: 48” Line Recycle Feed Hopper</td>
</tr>
<tr>
<td>EP-19</td>
<td>Extruded Polystyrene: Polystyrene Storage Silos</td>
</tr>
<tr>
<td>EP-20</td>
<td>Extruded Polystyrene: Recycle Storage Silo</td>
</tr>
<tr>
<td>EP-27D</td>
<td>Site: Natural Gas Fired Boiler No. 2 West, 4.185 MMBtu/hr, Johnston Co. 1997</td>
</tr>
<tr>
<td>EP-33</td>
<td>Polystyrene: Polystyrene Storage Silo</td>
</tr>
<tr>
<td>EP-34</td>
<td>Polystyrene: Silo Fines Removal Baghouse</td>
</tr>
<tr>
<td>EP-36</td>
<td>Polystyrene: Polystyrene Hoppers</td>
</tr>
<tr>
<td>EP-37</td>
<td>Polystyrene: Railcar &amp; Hopper Trucks</td>
</tr>
<tr>
<td>EP-47</td>
<td>Equipment Painting</td>
</tr>
<tr>
<td>EP-58</td>
<td>19 Natural Gas Direct Fired Space Heaters, 22.71 MMBtu/hr total, 1995</td>
</tr>
</tbody>
</table>
II. Plant Wide Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

<table>
<thead>
<tr>
<th>Permit Condition PW001</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 CSR 10-6.220, Restriction of Emission of Visible Air Contaminants</td>
</tr>
</tbody>
</table>

**Emission Limitation:**

1. No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any new source any visible emissions with an opacity greater than 20%.

2. Exception:
   a) Existing sources in the St. Louis metropolitan area that are not incinerators and emit less than twenty-five (25) lbs/hr of particulate matter shall be limited to 40% opacity.
   b) A person may discharge into the atmosphere from any source of emissions for a period(s) aggregating not more than six (6) minutes in any 60 minutes air contaminants with an opacity up to 40%.

**Monitoring:**

1. The permittee shall conduct opacity readings on this emission unit using the procedures contained in U.S. EPA Test Method 22. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. Readings are only required when the emission unit is operating and when the weather conditions allow. If no visible or other significant emissions are observed using these procedures, then no further observations would be required. For emission units with visible emissions perceived or believed to exceed the applicable opacity standard, the source representative would then conduct a Method 9 observation.

2. The following monitoring schedule must be maintained:
   a) Monthly observations shall be conducted for a minimum of eight consecutive months after permit issuance. Should no violation of this regulation be observed during this period then
   b) Observations must be made once every two (2) months for a period of eight months. If a violation is noted, monitoring reverts to monthly. Should no violation of this regulation be observed during this period then
   c) Observations must be made semi-annually (i.e., once per reporting period). Observation shall be conducted during the January-June reporting period and during the July-December reporting period. If a violation is noted, monitoring reverts to monthly.

3. If the source reverts to monthly monitoring at any time, monitoring frequency will progress in an identical manner from the initial monitoring frequency.

**Recordkeeping:**

1. The permittee shall maintain records of all observation results (see Attachment A-1 or A-2), noting:
   a) Whether any air emissions (except for water vapor) were visible from the emission units,
   b) All emission units from which visible emissions occurred, and
   c) Whether the visible emissions were normal for the process.

2. The permittee shall maintain records of any equipment malfunctions.
3. The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment A-3)

4. Attachments A-1, A-2 and A-3 contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.

**Reporting:**

1. The permittee shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the permittee determined using the Method 9 test that the emission unit(s) exceeded the opacity limit.

2. Reports of any deviations from the emission limitation, monitoring, recordkeeping, and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.

<table>
<thead>
<tr>
<th>Permit Condition PW002</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s)</td>
</tr>
</tbody>
</table>

**Emission Limitations:**

1. The permittee shall emit less than 100 tons of VOC per consecutive 12-month period.

2. The permittee shall emit less than 25 tons of any combination of HAPs per consecutive 12-month period.

3. The permittee shall emit less than 10 tons of any individual HAP per consecutive 12-month period.

**Monitoring/Recordkeeping:**

1. The permittee shall determine the VOC and HAPs emissions on a monthly and on a consecutive 12-month basis.

2. The permittee shall retain on-site the records of the monthly and the consecutive 12-month VOC, individual HAP, and combined HAPs emissions and calculation data for the installation. Example forms are attached as Attachments B-1, B-2, and B-3. The permittee may use these forms, or forms of its own, so long as the forms used will accurately demonstrate compliance with the VOC and HAPs emission limitations.

**Reporting:**

1. The permittee shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of the emission limit demonstrated by the appropriate recordkeeping forms.

2. Reports of any deviations from the emission limitations, monitoring/recordkeeping, and reporting requirements of this permit condition shall be submitted semiannually, in the semi-annual monitoring report and annual compliance certification, as required by Section V of this permit.
III. Emission Unit Specific Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

<table>
<thead>
<tr>
<th>EU0100 Polystyrene: Classifier Cyclones, EP-35</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>Polystyrene: Classifier Cyclones</td>
</tr>
</tbody>
</table>

**Permit Condition EU0100-001**

10 CSR 10-6.400, Restriction of Emission of Particulate Matter from Industrial Processes

**Emission Limitations:**

1. The permittee shall not emit particulate matter in excess of 35.40 pounds per hour (lbs/hr) from this emission unit.
2. The concentration of particulate matter in the exhaust gases shall not exceed 0.30 grain per standard cubic foot (gr/scf).

**Monitoring/Recordkeeping:**

1. The permittee shall retain the potential to emit calculations in Attachment D which demonstrate that the above emission limitation will never be exceeded. No further recordkeeping shall be required to demonstrate compliance with the emission limitations.
2. The calculation shall be made available immediately for inspection to the Department of Natural Resources’ personnel upon request.

**Reporting:**

1. The permittee shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
2. Reports of any deviations from the emission limitation, monitoring/recordkeeping, and reporting requirements of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).
**EU0110 Extruded Polystyrene: M/L Baghouse, EP-04**

<table>
<thead>
<tr>
<th>Description</th>
<th>Manufacturer/Model No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extruded Polystyrene: M/L Baghouse</td>
<td>Aerpulse/PR-361-10-W-P-N, Year 1988</td>
</tr>
</tbody>
</table>

**Permit Condition EU0110-001**

10 CSR 10-6.060, Construction Permits Required

Construction Permit No. 092008-009B, Issued July 9, 2009

**Operational Limitations:**

1. **Special Condition 1.A:** The permittee shall control emissions from EP-04 using a baghouse. The baghouse shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. The gauge or meter shall be located such that the Department of Natural Resources’ employees may easily observe it.

2. **Special Condition 1.B:** Replacement filters for the baghouse shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

**Monitoring:**

Special Condition 1.C: The permittee shall monitor and record the operating pressure drop across the baghouse at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.

**Recordkeeping:**

Special Condition 1.D: The permittee shall maintain an operating and maintenance log for the baghouse which shall include the following:

1. Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and

2. Maintenance activities, with inspection schedule, repair actions, and replacements, etc.

**Reporting:**

1. The permittee shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.

2. Reports of any deviations from the emission limitation, monitoring, recordkeeping, and reporting requirements of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).
EU0120 Extruded Polystyrene: 48” Line Baghouse, EP-05

<table>
<thead>
<tr>
<th>Description</th>
<th>Manufacturer/Model No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extruded Polystyrene: 48” Line Baghouse</td>
<td>Flexclean/12-WPWC-350III, Year 1988</td>
</tr>
</tbody>
</table>

Permit Condition EU0120-001
10 CSR 10-6.060, Construction Permits Required
Construction Permit No. 092008-009B, Issued July 9, 2009

**Operational Limitations:**
1. Special Condition 1.A: The permittee shall control emissions from EP-05 using a baghouse. The baghouse shall be operated and maintained in accordance with the manufacturer's specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. The gauge or meter shall be located such that the Department of Natural Resources’ employees may easily observe it.
2. Special Condition 1.B: Replacement filters for the baghouse shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

**Monitoring:**
Special Condition 1.C: The permittee shall monitor and record the operating pressure drop across the baghouse at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.

**Recordkeeping:**
Special Condition 1.D: The permittee shall maintain an operating and maintenance log for the baghouse which shall include the following:
1. Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
2. Maintenance activities, with inspection schedule, repair actions, and replacements, etc.

**Reporting:**
1. The permittee shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
2. Reports of any deviations from the emission limitation, monitoring, recordkeeping, and reporting requirements of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).
EU0130 Extruded Polystyrene: Central Vacuum System, EP-10

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extruded Polystyrene: Central Vacuum System</td>
</tr>
</tbody>
</table>

Permit Condition EU0130-001
10 CSR 10-6.400, Restriction of Emission of Particulate Matter from Industrial Processes

**Emission Limitation:**
1. The permittee shall not emit particulate matter in excess of 7.58 pounds per hour (lbs/hr) from this emission unit.
2. The concentration of particulate matter in the exhaust gases shall not exceed 0.30 grain per standard cubic foot (gr/scf).

**Monitoring/Recordkeeping:**
1. The permittee shall retain the potential to emit calculations in Attachment D which demonstrate that the above emission limitation will never be exceeded. No further recordkeeping shall be required to demonstrate compliance with the emission limitations.
2. The calculation shall be made available immediately for inspection to the Department of Natural Resources’ personnel upon request.

**Reporting:**
1. The permittee shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.
2. Reports of any deviations from the emission limitations, monitoring/recordkeeping, and reporting requirements of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

<table>
<thead>
<tr>
<th>Description</th>
<th>Manufacturer/Model No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>258 HP Emergency Diesel Fire Pump</td>
<td>Cummins, Year 1995</td>
</tr>
</tbody>
</table>

Permit Condition EU0140-001
10 CSR 10-6.260, Restriction of Emissions of Sulfur Compounds

Emission Limitations:
1. Emissions from this source operation shall not contain more than 500 parts per million by volume (ppmv) of sulfur dioxide or more that 35 milligrams per cubic meter (mg/m³) of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.
2. No person shall cause or permit the emission of sulfur compounds from any source which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards [10 CSR 10-6.260(3)(B) & 10 CSR 10-6.010 Ambient Air Quality Standards]:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Concentration by Volume</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfur Dioxide (SO₂)</td>
<td>0.03 ppm (80 micrograms per cubic meter (µg/m³))</td>
<td>Annual arithmetic mean</td>
</tr>
<tr>
<td></td>
<td>0.14 ppm (365 µg/m³)</td>
<td>24-hour average not to be exceeded more than once per year</td>
</tr>
<tr>
<td></td>
<td>0.5 ppm (1300 µg/m³)</td>
<td>3-hour average not to be exceeded more than once per year</td>
</tr>
<tr>
<td></td>
<td>75 ppb</td>
<td>1-hour average; 3-year average of the 99th percentile of the daily maximum 1-hour average at each site monitor within an area</td>
</tr>
<tr>
<td>Hydrogen Sulfide (H₂S)</td>
<td>0.05 ppm (70 µg/m³)</td>
<td>½-hour average not to be exceeded over 2 times per year</td>
</tr>
<tr>
<td></td>
<td>0.03 ppm (42 µg/m³)</td>
<td>½-hour average not to be exceeded over 2 times in any 5 consecutive days</td>
</tr>
<tr>
<td>Sulfuric Acid (H₂SO₄)</td>
<td>10 µg/m³</td>
<td>24-hour average not to be exceeded more than once in any 90 consecutive days</td>
</tr>
<tr>
<td></td>
<td>30 µg/m³</td>
<td>1-hour average not to be exceeded more than once in any 2 consecutive days</td>
</tr>
</tbody>
</table>

Operational Limitations:
1. The permittee shall not operate the emergency fire pump in excess of 500 hours in any consecutive 12-month period.
2. The emergency water pump shall be operated with No. 2 fuel oil with a sulfur content of no more than 0.5% sulfur by weight. The fuel oils known to be less than 0.5% by weight sulfur per Chapter 414 RSMo, Section 414.032, ASTM D396-Table 1 and ASTM D975-Table 1, are fuel oil No. 1 and No. 2 and diesel fuel oil Grade Low Sulfur No. 1-D, Grade Low Sulfur No. 2-D. However, this unit is not limited to the known fuel oils listed above, but is limited to fuel oils based solely on having a percent sulfur by weight content of 0.5% or less.

Monitoring/Recordkeeping:
1. The permittee shall maintain records of the fuel type used verifying a sulfur content less than 0.5% by weight. Purchase receipts, analyzed samples or certifications that verify the fuel type as a grade
level with a sulfur content less than 0.5% by weight will be acceptable. If this can not be accomplished then compliance to the emission limitations shall be determined by source testing and shall be accomplished as specified in 10 CSR 10-6.030(6) for sulfur dioxide emissions and 10 CSR 10-6.040 for measuring ambient sulfur compound concentrations. Other methods approved by the staff Director in advance may be used.

2. Monthly records of hours of operation shall be kept, including calculated total for every consecutive 12-month period. Attachment E, or similar form, shall be used for this purpose.

**Reporting:**

1. The permittee shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten (10) days after any exceedance of any of the terms imposed by this regulation, or any malfunction which could possibly cause an exceedance of this regulation.

2. Reports of any deviations from the emission limitations, monitoring/recordkeeping, and reporting requirements of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).
IV. Core Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

10 CSR 10-6.050 Start-up, Shutdown and Malfunction Conditions

1) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the Director within two business days, in writing, the following information:
   a) Name and location of installation;
   b) Name and telephone number of person responsible for the installation;
   c) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
   d) Identity of the equipment causing the excess emissions;
   e) Time and duration of the period of excess emissions;
   f) Cause of the excess emissions;
   g) Air pollutants involved;
   h) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
   i) Measures taken to mitigate the extent and duration of the excess emissions; and
   j) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.

2) The permittee shall submit the paragraph 1 information list to the Director in writing at least ten days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the Director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten working days.

3) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under Section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph 1 list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the Director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under Section 643.080 or 643.151, RSMo.

4) Nothing in this rule shall be construed to limit the authority of the Director or commission to take appropriate action, under Sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.

5) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.
10 CSR 10-6.060 Construction Permits Required
The permittee shall not commence construction, modification, or major modification of any installation subject to this rule, begin operation after that construction, modification, or major modification, or begin operation of any installation which has been shut down longer than five years without first obtaining a permit from the permitting authority.

10 CSR 10-6.065 Operating Permits
The permittee shall file a complete application for renewal of this operating permit at least six months before the date of permit expiration. In no event shall this time be greater than eighteen months. [10 CSR 10-6.065(6)(B)(1)(A)(V)] The permittee shall retain the most current operating permit issued to this installation on-site. [10 CSR 10-6.065(6)(C)(1)(C)(II)] The permittee shall immediately make such permit available to any Missouri Department of Natural Resources personnel upon request. [10 CSR 10-6.065(6)(C)(3)(B)]

10 CSR 10-6.110 Submission of Emission Data, Emission Fees and Process Information
1) The permittee shall complete and submit an Emission Inventory Questionnaire (EIQ) in accordance with the requirements outlined in this rule.
2) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079 to satisfy the requirements of the Federal Clean Air Act, Title V.
3) The fees shall be due June 1 each year for emissions produced during the previous calendar year. The fees shall be payable to the Department of Natural Resources and shall be accompanied by the Emissions Inventory Questionnaire (EIQ) form or equivalent approved by the Director.

10 CSR 10-6.130 Controlling Emissions During Episodes of High Air Pollution Potential
This rule specifies the conditions that establish an air pollution alert (yellow/orange/red/purple), or emergency (maroon) and the associated procedures and emission reduction objectives for dealing with each. The permittee shall submit an appropriate emergency plan if required by the Director.

10 CSR 10-6.150 Circumvention
The permittee shall not cause or permit the installation or use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

10 CSR 10-6.170 Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin
1) The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line of origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the Director.
2) The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.
3) Should it be determined that noncompliance has occurred, the Director may require reasonable control measures as may be necessary. These measures may include, but are not limited to, the following:
   a) Revision of procedures involving construction, repair, cleaning and demolition of buildings and their appurtenances that produce particulate matter emissions;
   b) Paving or frequent cleaning of roads, driveways and parking lots;
   c) Application of dust-free surfaces;
   d) Application of water; and
   e) Planting and maintenance of vegetative ground cover.

10 CSR 10-6.180 Measurement of Emissions of Air Contaminants
1) The Director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The Director may specify testing methods to be used in accordance with good professional practice. The Director may observe the testing. All tests shall be performed by qualified personnel.
2) The Director may conduct tests of emissions of air contaminants from any source. Upon request of the Director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.
3) The Director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

10 CSR 10-5.040 Use of Fuel in Hand-Fired Equipment Prohibited
It shall be unlawful to operate any hand-fired fuel-burning equipment in the St. Louis, Missouri metropolitan area. This regulation shall apply to all fuel-burning equipment including, but not limited to, furnaces, heating and cooking stoves and hot water furnaces. It shall not apply to wood-burning fireplaces and wood-burning stoves in dwellings, or to fires used for recreational purpose, or to fires used solely for the preparation of food by barbecuing. Hand-fired fuel-burning equipment is any stove, furnace, or other fuel-burning device in which fuel is manually introduced directly into the combustion chamber.

10 CSR 10-5.060 Refuse Not to be Burned in Fuel Burning Installations (Contained in State Implementation Plan)
No person shall burn or cause or permit the burning of refuse in any installation which is designed for the primary purpose of burning fuel.

10 CSR 10-5.070 Open Burning Restrictions
1) The permittee shall not conduct, cause, permit or allow a salvage operation, the disposal of trade wastes or burning of refuse by open burning.
2) Exception - Open burning of trade waste or vegetation may be permitted only when it can be shown that open burning is the only feasible method of disposal or an emergency exists which requires open burning.
3) Any person intending to engage in open burning shall file a request to do so with the Director. The request shall include the following:
a) The name, address and telephone number of the person submitting the application; The type of business or activity involved; A description of the proposed equipment and operating practices, the type, quantity and composition of trade wastes and expected composition and amount of air contaminants to be released to the atmosphere where known;
b) The schedule of burning operations;
c) The exact location where open burning will be used to dispose of the trade wastes;
d) Reasons why no method other than open burning is feasible; and
e) Evidence that the proposed open burning has been approved by the fire control authority which has jurisdiction.

4) Upon approval of the open burning permit application by the Director, the person may proceed with the operation under the terms of the open burning permit. Be aware that such approval shall not exempt The Dow Chemical Company – Riverside Plant from the provisions of any other law, ordinance or regulation.

5) The permittee shall maintain files with letters from the Director approving the open burning operation and previous Department of Natural Resources’ inspection reports.

10 CSR 10-5.160 Control of Odors in the Ambient Air
No person shall emit odorous matter as to cause an objectionable odor on or adjacent to:
1) Residential, recreational, institutional, retail sales, hotel or educational premises.
2) Industrial premises when air containing odorous matter is diluted with 20 or more volumes of odor-free air; or
3) Premises other than those in 1 and 2 above when air containing odorous matter is diluted with four or more volumes of odor-free air.

The previously mentioned requirement shall apply only to objectionable odors. An odor will be deemed objectionable when 30% or more of a sample of the people exposed to it believe it to be objectionable in usual places of occupancy; the sample size to be at least 20 people or 75% of those exposed if fewer than 20 people are exposed.

This requirement is not federally enforceable.

10 CSR 10-5.240 Additional Air Quality Control Measures May be Required When Sources Are Clustered in a Small Land Area
The Air Conservation Commission may prescribe more restrictive air quality control requirements that are more restrictive and more extensive than provided in regulations of general application for:
1) Areas in which there are one or more existing sources and/or proposed new sources of particulate matter in any circular area with a diameter of two miles (including sources outside metropolitan area) from which the sum of particulate emissions allowed from these sources by regulations of general application are or would be greater than 2000 tons per year or 500 pounds per hour.
2) Areas in which there are one or more existing sources and/or proposed new sources of sulfur dioxide in any circular area with a diameter of two miles from which the sum of sulfur dioxide emissions from these sources allowed by regulations of general application are or would be greater than 1000 tons for any consecutive three months or 1000 pounds per hour.

10 CSR 10-6.100 Alternate Emission Limits
Proposals for alternate emission limitations shall be submitted on Alternate Emission Limits Permit forms provided by the Department. An installation owner or operator must obtain an Alternate Emission Limits Permit in accordance with 10 CSR 10-6.100 before alternate emission limits may become effective.
1) The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.

2) The permittee shall conduct monitoring to demonstrate compliance with registration, certification, notification, and Abatement Procedures and Practices standards as specified in 40 CFR Part 61, Subpart M.


1) The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.

2) The permittee shall conduct monitoring to demonstrate compliance with registration, certification, notification, and Abatement Procedures and Practices standards as specified in 40 CFR Part 61, Subpart M.

10 CSR 10-6.250 Asbestos Abatement Projects – Certification, Accreditation, and Business Exemption Requirements

The permittee shall conduct all asbestos abatement projects within the procedures established for certification and accreditation by 10 CSR 10-6.250. This rule requires individuals who work in asbestos abatement projects to be certified by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires training providers who offer training for asbestos abatement occupations to be accredited by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires persons who hold exemption status from certain requirements of this rule to allow the Department to monitor training provided to employees. Each individual who works in asbestos abatement projects must first obtain certification for the appropriate occupation from the Department. Each person who offers training for asbestos abatement occupations must first obtain accreditation from the Department. Certain business entities that meet the requirements for state-approved exemption status must allow the Department to monitor training classes provided to employees who perform asbestos abatement.

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
   a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
   b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.
   c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
   d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.

2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with recordkeeping requirements pursuant to §82.166. (*MVAC-like* appliance as defined at §82.152).
e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A, Production and Consumption Controls.

4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.

The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR Part 82*

10 CSR 10-6.280 Compliance Monitoring Usage

1) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
   a) Monitoring methods outlined in 40 CFR Part 64;
   b) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, “Operating Permits”, and incorporated into an operating permit; and
   c) Any other monitoring methods approved by the Director.

2) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
   a) Monitoring methods outlined in 40 CFR Part 64;
   b) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, “Operating Permits”, and incorporated into an operating permit; and
   c) Compliance test methods specified in the rule cited as the authority for the emission limitations.

3) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
   a) Applicable monitoring or testing methods, cited in:
      i) 10 CSR 10-6.030, “Sampling Methods for Air Pollution Sources”;
ii) 10 CSR 10-6.040, “Reference Methods”;
iii) 10 CSR 10-6.070, “New Source Performance Standards”;
iv) 10 CSR 10-6.080, “Emission Standards for Hazardous Air Pollutants”; or
b) Other testing, monitoring, or information gathering methods, if approved by the Director, that produce information comparable to that produced by any method listed above.
V. General Permit Requirements

The installation shall comply with each of the following requirements. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect as of the date that this permit is issued.

10 CSR 10-6.065(6)(C)1.B Permit Duration
This permit is issued for a term of five years, commencing on the date of issuance. This permit will expire at the end of this period unless renewed.

10 CSR 10-6.065(6)(C)1.C General Recordkeeping and Reporting Requirements
1) Recordkeeping
   a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
   b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources’ personnel upon request.

2) Reporting
   a) All reports shall be submitted to the Air Pollution Control Program’s Enforcement Section, P. O. Box 176, Jefferson City, MO 65102.
   b) The permittee shall submit a report of all required monitoring by:
      i) October 1st for monitoring which covers the January through June time period, and
      ii) April 1st for monitoring which covers the July through December time period.
      iii) Exception. Monitoring requirements which require reporting more frequently than semi-annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
   c) Each report shall identify any deviations from emission limitations, monitoring, recordkeeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
   d) Submit supplemental reports as required or as needed. Supplemental reports are required no later than ten days after any exceedance of any applicable rule, regulation or other restriction. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
      i) Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)(C)7.A of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if the permittee wishes to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and the permittee can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.
ii) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.

iii) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's semiannual report shall be reported on the schedule specified in this permit, and no later than ten days after any exceedance of any applicable rule, regulation, or other restriction.

e) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation.

f) The permittee may request confidential treatment of information submitted in any report of deviation.

10 CSR 10-6.065(6)(C)1.D Risk Management Plan Under Section 112(r)
The permittee shall comply with the requirements of 40 CFR Part 68, Accidental Release Prevention Requirements. If the permittee has more than a threshold quantity of a regulated substance in process, as determined by 40 CFR Section 68.115, the permittee shall submit a Risk Management Plan in accordance with 40 CFR Part 68 no later than the latest of the following dates:
1) June 21, 1999;
2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or
3) The date on which a regulated substance is first present above a threshold quantity in a process.

10 CSR 10-6.065(6)(C)1.F Severability Clause
In the event of a successful challenge to any part of this permit, all uncontested permit conditions shall continue to be in force. All terms and conditions of this permit remain in effect pending any administrative or judicial challenge to any portion of the permit. If any provision of this permit is invalidated, the permittee shall comply with all other provisions of the permit.

10 CSR 10-6.065(6)(C)1.G General Requirements
1) The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.
2) The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
3) The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and reissuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
4) This permit does not convey any property rights of any sort, nor grant any exclusive privilege.
5) The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to
the Air Pollution Control Program copies of records required to be kept by the permittee. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 10 CSR 10-6.065(6)(C)1.

10 CSR 10-6.065(6)(C)1.H Incentive Programs Not Requiring Permit Revisions
No permit revision will be required for any installation changes made under any approved economic incentive, marketable permit, emissions trading, or other similar programs or processes provided for in this permit.

10 CSR 10-6.065(6)(C)1.I Reasonably Anticipated Operating Scenarios
None

The permittee banked 107 tons of VOC emission credits after eliminating the use of methyl chloride as a blowing agent in October 1989, and substituted a mix of ethyl chloride and non-VOC blowing agent. Thirty-six (36) tons of the banked VOC emissions were used in Construction Permit No. 1291-005, leaving 71 tons banked for future trading or credit.

10 CSR 10-6.065(6)(C)3 Compliance Requirements
1) Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official.
2) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation’s right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
   a) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
   b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
   c) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
   d) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
3) All progress reports required under an applicable schedule of compliance shall be submitted semiannually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
   a) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
   b) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
4) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to EPA Region VII, 901 North 5th Street, Kansas City, KS 66101, as well as the Air Pollution Control
Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following:

a) The identification of each term or condition of the permit that is the basis of the certification;
b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;
c) Whether compliance was continuous or intermittent;
d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period; and

e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

10 CSR 10-6.065(6)(C)6 Permit Shield

1) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date that this permit is issued, provided that:
   a) The application requirements are included and specifically identified in this permit, or
   b) The permitting authority, in acting on the permit revision or permit application, determines in writing that other requirements, as specifically identified in the permit, are not applicable to the installation, and this permit expressly includes that determination or a concise summary of it.

2) Be aware that there are exceptions to this permit protection. The permit shield does not affect the following:
   a) The provisions of Section 303 of the Act or Section 643.090, RSMo concerning emergency orders,
   b) Liability for any violation of an applicable requirement which occurred prior to, or was existing at, the time of permit issuance,
   c) The applicable requirements of the acid rain program,
   d) The authority of the Environmental Protection Agency and the Air Pollution Control Program of the Missouri Department of Natural Resources to obtain information, or
   e) Any other permit or extra-permit provisions, terms or conditions expressly excluded from the permit shield provisions.

10 CSR 10-6.065(6)(C)7 Emergency Provisions

1) An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7.A shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:
   a) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
   b) That the installation was being operated properly,
   c) That the permittee took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
   d) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
2) Be aware that an emergency or upset shall not include noncompliance caused by improperly
designed equipment, lack of preventative maintenance, careless or improper operation, or operator
error.

10 CSR 10-6.065(6)(C)8 Operational Flexibility
An installation that has been issued a Part 70 operating permit is not required to apply for or obtain a
permit revision in order to make any of the changes to the permitted installation described below if the
changes are not Title I modifications, the changes do not cause emissions to exceed emissions allowable
under the permit, and the changes do not result in the emission of any air contaminant not previously
emitted. The permittee shall notify the Air Pollution Control Program’s Enforcement Section,
P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street,
Kansas City, KS 66101, at least seven days in advance of these changes, except as allowed for
emergency or upset conditions. Emissions allowable under the permit means a federally enforceable
permit term or condition determined at issuance to be required by an applicable requirement that
establishes an emissions limit (including a work practice standard) or a federally enforceable emissions
cap that the source has assumed to avoid an applicable requirement to which the source would otherwise
be subject.

1) Section 502(b)(10) changes. Changes that, under Section 502(b)(10) of the Act, contravene an
express permit term may be made without a permit revision, except for changes that would violate
applicable requirements of the Act or contravene federally enforceable monitoring (including test
methods), recordkeeping, reporting or compliance requirements of the permit.

a) Before making a change under this provision, The permittee shall provide advance written notice
to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City,
MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, KS 66101, describing
the changes to be made, the date on which the change will occur, and any changes in emission
and any permit terms and conditions that are affected. The permittee shall maintain a copy of the
notice with the permit, and the Air Pollution Control Program shall place a copy with the permit
in the public file. Written notice shall be provided to the EPA and the Air Pollution Control
Program as above at least seven days before the change is to be made. If less than seven days
notice is provided because of a need to respond more quickly to these unanticipated conditions,
the permittee shall provide notice to the EPA and the Air Pollution Control Program as soon as
possible after learning of the need to make the change.

b) The permit shield shall not apply to these changes.

10 CSR 10-6.065(6)(C)9 Off-Permit Changes
1) Except as noted below, the permittee may make any change in its permitted operations, activities or
emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a
permit revision. Insignificant activities listed in the application, but not otherwise addressed in or
prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the
off-permit provisions of this section. Off-permit changes shall be subject to the following
requirements and restrictions:

a) The change must meet all applicable requirements of the Act and may not violate any existing
permit term or condition; the permittee may not change a permitted installation without a permit
revision if this change is subject to any requirements under Title IV of the Act or is a Title I
modification;
b) The permittee must provide written notice of the change to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, KS 66101, no later than the next annual emissions report. This notice shall not be required for changes that are insignificant activities under 10 CSR 10-6.065(6)(B)3. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change.

c) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and

d) The permit shield shall not apply to these changes.

10 CSR 10-6.020(2)(R)12 Responsible Official
The application utilized in the preparation of this permit was signed by William K. Alexander, Site Leader. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

10 CSR 10-6.065(6)(E)6 Reopening-Permit for Cause
This permit may be reopened for cause if:

1) The Missouri Department of Natural Resources (MDNR) receives notice from the Environmental Protection Agency (EPA) that a petition for disapproval of a permit pursuant to 40 CFR § 70.8(d) has been granted, provided that the reopening may be stayed pending judicial review of that determination,

2) The Missouri Department of Natural Resources or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,

3) Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if—:
   a) The permit has a remaining term of less than three years;
   b) The effective date of the requirement is later than the date on which the permit is due to expire;
   or
   c) The additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,

4) The installation is an affected source under the acid rain program and additional requirements (including excess emissions requirements), become applicable to that source, provided that, upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit;

5) The Missouri Department of Natural Resources or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.
10 CSR 10-6.065(6)(E)1.C Statement of Basis
This permit is accompanied by a statement setting forth the legal and factual basis for the draft permit conditions (including references to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

VI. Attachments

Attachments follow.
Attachment A-1
10 CSR 10-6.220 Compliance Demonstration
Opacity Emission Observations

This attachment or an equivalent may be used to help meet the recordkeeping requirements of Permit Condition PW001

<table>
<thead>
<tr>
<th>Method 22 (Outdoor) Observation Log</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Unit</td>
</tr>
<tr>
<td>Observer Date</td>
</tr>
<tr>
<td>Sky Conditions</td>
</tr>
<tr>
<td>Precipitation</td>
</tr>
<tr>
<td>Wind Direction Wind Speed</td>
</tr>
<tr>
<td>Sketch process unit: Indicate the position relative to the source and sun; mark the potential emission points and/or the observing emission points.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Observation Clock Time</th>
<th>Observation Period Duration (minute:second)</th>
<th>Accumulative Emission Time (minute:second)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Begin Observation</td>
<td></td>
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<tr>
<td>End Observation</td>
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</tbody>
</table>
Attachment A-2
10 CSR 10-6.220 Compliance Demonstration
This attachment or an equivalent may be used to help meet the recordkeeping requirements of Permit Condition PW001.

<table>
<thead>
<tr>
<th>Date</th>
<th>Method 22 Test Observer</th>
<th>Visible Emissions (yes/no)</th>
<th>If Visible emissions, was a method 9 done? (yes/no)</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>
**Attachment A-3**

*10 CSR 10-6.220 Compliance Demonstration*

**Method 9 Visual Determination of Opacity**

This attachment or an equivalent may be used to help meet the recordkeeping requirements of Permit Condition PW001.

<table>
<thead>
<tr>
<th>Method 9 Opacity Emissions Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company</td>
</tr>
<tr>
<td>Location</td>
</tr>
<tr>
<td>Date</td>
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<tr>
<td>Time</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Hour</th>
<th>Minute</th>
<th>Seconds</th>
<th>Steam Plum (Check if applicable)</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0 15 30 45</td>
<td>Attached Detached</td>
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</tbody>
</table>

**SUMMARY OF AVERAGE OPACITY**

<table>
<thead>
<tr>
<th>Set Number</th>
<th>Time</th>
<th>Opacity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Start</td>
<td>End</td>
</tr>
</tbody>
</table>

Readings ranged from _____________ to ______________ % opacity.

Was the emission unit in compliance at the time of evaluation?  

YES  NO  Signature of Observer
Attachment B-1

VOC Compliance Worksheet

This form or an equivalent form may be used to record the data required by this permit to demonstrate compliance with Permit Condition PW002 VOC emissions limitation of 100 tons per consecutive 12-month period.

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
<th>Column C</th>
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</thead>
<tbody>
<tr>
<td>Month/Year</td>
<td>Monthly Total (tons)</td>
<td>12-Consecutive Months Total (tons)</td>
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<td>Month/Year</td>
<td>Monthly Total (tons)</td>
<td>12-Consecutive Months Total (tons)</td>
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</table>
Attachment B-2  
**Individual HAPs Compliance Worksheet**

This form or an equivalent form may be used to record the data required by this permit to demonstrate compliance with Permit Condition PW002 individual HAPs emissions limitation of 10 tons per consecutive 12-month period.

<table>
<thead>
<tr>
<th>Column A</th>
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<tbody>
<tr>
<td>Month/Year</td>
<td>Monthly Total (tons)</td>
<td>12-Consecutive Months Total (tons)</td>
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<th>Column A</th>
<th>Column B</th>
<th>Column C</th>
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</thead>
<tbody>
<tr>
<td>Month/Year</td>
<td>Monthly Total (tons)</td>
<td>12-Consecutive Months Total (tons)</td>
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</tbody>
</table>

HAP Name: ___________________________  CAS No.: ___________________________
## Attachment B-3

### Combined HAPs Compliance Worksheet

This form or an equivalent form may be used to record the data required by this permit to demonstrate compliance with Permit Condition PW002 combined HAPs emissions limitation of 25 tons per consecutive 12-month period.

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
<th>Column C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month/Year</td>
<td>Monthly Total (tons)</td>
<td>12-Consecutive Months Total (tons)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
<th>Column C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month/Year</td>
<td>Monthly Total (tons)</td>
<td>12-Consecutive Months Total (tons)</td>
</tr>
</tbody>
</table>
Attachment D
10 CSR 10-6.400 Compliance Demonstration

This attachment may be used to help meet the recordkeeping requirements of Permit Conditions: EU0100-001 and EU0130-001.

Allowable Hourly Emission Rate

Maximum Allowable PM Emissions = E (lb/hr) = 4.1(P)^0.67 if P ≤ 30 tons/hr
= E (lb/hr) = 55(P)^0.11 – 40 if P > 30 tons/hr

P = Process weight rate (tons/hr)
E = Allowable emission rate limit (lb/hr)

Emissions from these units are exhausted through cyclones.

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Maximum Hourly Design Rate</th>
<th>PM Emission Factor</th>
<th>Emission Factor Reference *</th>
<th>Potential PM Emission Rate **</th>
<th>Allowable PM Emission Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU0100</td>
<td>25 ton/hr</td>
<td>0.09 lb/ton</td>
<td>EC</td>
<td>2.25 lb/ton</td>
<td>35.4 lb/hr</td>
</tr>
<tr>
<td>EU0130</td>
<td>2.5 ton/hr</td>
<td>0.276 lb/ton</td>
<td>EC</td>
<td>0.69</td>
<td>7.58 lb/hr</td>
</tr>
</tbody>
</table>

* Engineering Calculation (mass balance)
** Uncontrolled Potential PM Emission Rate = MHDR(lbs/hr) × Emission Factor(lbs/lb)
Attachment E

Emergency Fire Pump Hours Compliance Worksheet

This form or an equivalent form may be used to record the data required by this permit to demonstrate compliance with Permit Condition EU00140-001 emergency engine hours of operation limitation of 500 hours per consecutive 12-month period.

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
<th>Column C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date/Month</td>
<td>Monthly Hours of Operation</td>
<td>12-Month Total Operating Hours</td>
</tr>
</tbody>
</table>
STATEMENT OF BASIS

Permit Reference Documents
These documents were relied upon in the preparation of the operating permit. Because they are not incorporated by reference, they are not an official part of the operating permit.

1) Part 70 Operating Permit Renewal Application, received September 12, 2005;
2) 2004 Emissions Inventory Questionnaire, received April 4, 2005;
3) Part 70 Operating Permit OP2001-026, issued April 11, 2001;
4) Part 70 Amended Permit OP2001-026A, issued December 3, 2004
6) Construction Permit Number: 0992-022;
7) Construction Permit Number: 1291-005;
8) Construction Permit Number: 0688-008A;
9) Construction Permit Number: 0688-007A;
10) Construction Permit Number: 0382-002-A; and
11) Construction Permit Number: 0879-008
12) November 13, 2009 Letter from DOW Chemical Co.

Applicable Requirements Included in the Operating Permit but Not in the Application or Previous Operating Permits
In the operating permit application, the installation indicated they were not subject to the following regulation(s). However, in the review of the application, the agency has determined that the installation is subject to the following regulation(s) for the reasons stated.

None.

Other Air Regulations Determined Not to Apply to the Operating Permit
The Air Pollution Control Program (APCP) has determined the following requirements to not be applicable to this installation at this time for the reasons stated.

The following indirect heating sources listed in the table below are subject to the requirements of this rule. However, the APCP does not consider these units to be capable of exceeding the particulate matter (PM) emission limitation (0.40 pounds of particulate matter per million BTU's of heat input) of this rule.

Therefore, as shown in the following calculations, these units are always expected to be in compliance with the PM limitation, this rule was not included in the applicable requirements section of this operating permit.
<table>
<thead>
<tr>
<th>EIQ Reference. #</th>
<th>Description</th>
<th>Heat Input (MMBtu/hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP-27C</td>
<td>Boiler No. 1 East</td>
<td>4.185</td>
</tr>
<tr>
<td>EP-27D</td>
<td>Boiler No. 2 West</td>
<td>4.185</td>
</tr>
<tr>
<td></td>
<td>Total Heat Input</td>
<td>8.370</td>
</tr>
</tbody>
</table>

Regulatory PM Limit [10 CSR 10-5.030(3)(B)1.]:= 0.40 lb/MMBtu/hr
Conservatively assuming 1050 Btu per standard cubic foot of natural gas, and using the PM emission factor 7.6 lb/MMscf for natural gas combustion (AP-42, Sections 1.4, July 1998); the potential emission is 0.0072 lb/ MMBtu.

10 CSR 10-5.420, *Control of Equipment Leaks From Synthetic Organic Chemical and Polymer Manufacturing Plants*

This rule are is not applicable to this installation as it does not produce, as intermediate or final products, one or more of the chemicals listed in Subpart VV, §60.489.

10 CSR 10-5.500, *Control of Emissions From Volatile Organic Liquid Storage*

The provisions of this rule apply to all storage containers of volatile organic liquid (VOL) with a maximum true vapor pressure of one-half pound per square inch (0.5 psia) or greater in any stationary tank, reservoir or other container of forty thousand (40,000) gallon capacity or greater, except to vessels listed in subparagraphs paragraphs (1)(A)1 through (1)(A)7 of this rule.

10 CSR 10-5.510, *Control of Emissions of Nitrogen Oxides*

This rule applies to all installations located in the counties of Franklin, Jefferson, St. Charles and St. Louis and the City of St. Louis with the potential to emit one hundred (100) tons or greater of nitrogen oxides.

The potential to emit nitrogen oxides from this installation is less than 100 tons, therefore, 10 CSR 10-5.510 is not applicable to this installation.

10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds*

This rule is amended to update emission limits and references to regulations, changes the rule organization, and brings the rule up to date. The amended rule clarifies applicability of sources subject to New Source Performance Standards and this rule. The amended rule also includes an exemption for combustion equipment that uses exclusively pipeline grade natural gas as defined in 40 CFR 72.2 or liquefied petroleum gas as defined by American Society for Testing and Materials (ASTM), or any combination of these fuels.

Combustion equipment listed as units without limitation which uses pipeline grade natural gas are exempt from the requirements of this rule.
Construction Permit Revisions

The following revisions were made to construction permits for this installation:

1) Construction Permit No. 0879-008
   This permit for the construction of expansion to the SAN process, ABS process and polystyrene feedstock plants and dock facilities contained no special conditions. Therefore, construction permit 0879-008 is not included in this operating permit.

2) Construction Permit No. 0382-002A
   This permit for the construction of a 200 horsepower pipeline natural gas fired boiler contained no special conditions. Therefore, construction permit 0382-002A is not included in this operating permit.

3) Construction Permit No. 0688-007A
   This permit for the construction of component additive system for polystyrene production contained no special conditions. Therefore, construction permit 0688-007A is not included in this operating permit.

4) Construction Permit No. 0688-008A
   This permit for the construction of a 30,000-gallon non-emitting storage tank to replace a 6,000-gallon non-emitting storage contained no special conditions. Therefore, construction permit 0688-008A is not included in this operating permit.

5) Construction Permit No. 1291-005
   This permit that limited VOC emissions from the extruded polystyrene production plant to 481 tons in any consecutive 12-month period, is not included in this operating permit and cannot be reactivated for VOC emissions until modified or replaced. The permittee has replaced the VOC/HAP material with a non-VOC/non-HAP material; therefore construction permit 1291-005 is not included in this operating permit as it is not currently applicable. If future needs of the permittee require a VOC blowing agent, the permittee will have to reapply for a construction permit.

6) Construction Permit No. 0992-022
   This permit for the modification of an existing burner to allow combustion of process vapors contained no special conditions. Therefore, construction permit 0992-022 is not included in this operating permit.

7) Construction Permit No. 092008-009B
   This permit modifies the extruded polystyrene (Styrofoam) process by changing the blowing agent from the HCFC 142b to a non-VOC containing blowing agent. This permit contains special conditions for the usage and maintenance of baghouses on EP-04 and EP-05.
NSPS Applicability

This rule is not applicable to this installation as it does not produce, as intermediate or final products, one or more of the chemicals listed in Subpart VV, §60.489.

40 CFR Part 60, Subpart DDD, Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industries
The provisions of this subpart apply to affected facilities involved in the manufacture of polypropylene, polyethylene, polystyrene, or poly (ethylene terephthalate) as defined in §60.561 of Subpart DDD. The applicability date for manufacturing polystyrene is September 30, 1987. As the source was constructed prior to this date, this subpart is not applicable.

The provisions of this subpart apply air oxidation unit processes listed in 40 CFR 60.610(b) for which construction, modification, or reconstruction commenced after October 21, 1983.

This subpart is not applicable to this installation because it does not utilize an air oxidation reaction.

The provisions of this subpart apply to distillation operations designated in 40 CFR 60.660(b) for which construction, modification, or reconstruction commenced after December 30, 1983 and the affected facility is part of a process unit that produces any of the chemicals listed in 40 CFR 60.667 as a product, co-product, by-product, or intermediate, except as provided in 40 CFR 60.660(c)

This subpart is not applicable to this installation because it does not utilize a distillation process.

The provisions of this subpart apply to each affected facility designated in 40 CFR 60.700(b) for which construction, modification, or reconstruction commenced after December 30, 1983 and the affected facility is part of a process unit that produces any of the chemicals listed in §60.707 as a product, co-product, by-product, or intermediate, except as provided in §60.700(c).

This rule is not applicable to this installation because it does not produce as a product, co-product, by-product, or intermediate any chemical listed in §60.707.

The NSPS Subpart Kb only applies to storage tanks with capacities greater than 75 m³ (19,800 gallons) with vapor pressures greater than 15 kPa. The Ethyl Chloride storage tank was constructed
in 1987. This tank operates at a pressure of 405.3 kPa and has no emissions. NSPS Subpart Kb excludes vessels operating in excess of 204.9 kPa and without emissions to the atmosphere. Since the ethyl chloride tank operates at pressures well above this level, Subpart Kb is not applicable.

**MACT Applicability**


The provisions of this subpart apply to chemical manufacturing process units that meet all the criteria specified in §63.100(b)(1), (b)(2) and (b)(3).

This rule is not applicable, as the source does not manufacture any of the hazardous air pollutant chemicals listed in paragraphs §63.100(b)(1)(i) or §63.100(b)(1)(ii).


This subpart applies to all process vents, storage vessels, transfer racks, wastewater streams, and in process equipment subject to 40 CFR 63.149 within a source subject to Part 63, Subpart F.

This subpart is not applicable to this installation, as the installation is not subject to Subpart F of 40 CFR Part 63.


The installation is not a major source of HAPs and is not subject to this subpart.

**NESHAP Applicability**


This regulation has been included in the operating permit because it applies to any demolition or renovation (as outlined in 40 CFR 61.145) of buildings containing asbestos at the installation.

**CAM Applicability**

40 CFR Part 64, *Compliance Assurance Monitoring (CAM)*

The CAM rule applies to each pollutant specific emission unit that meets all of the following:

- Be subject to an emission limitation or standard, and
- Use a control device to achieve compliance, and
- Have pre-control emissions that exceed or are equivalent to the major source threshold.

The Dow Chemical Company – Riverside Plant is not subject to 40 CFR Part 64 because the installation does not have a pre-control potential to emit that exceeds or equals the major source threshold. [§64.2(a)]
Other Regulatory Determinations

1) The Air Pollution Control Program was informed November 13, 2009, that on September 18, 2009, the Polystyrene production plant at the installation was permanently discontinued. The units associated with the Polystyrene Plant that are no longer in service are:

<table>
<thead>
<tr>
<th>Emission Unit</th>
<th>Description</th>
<th>2008 EIQ Reference No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU0010</td>
<td>West Styrene Tank Vent</td>
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<td>-</td>
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<td>EP-29</td>
</tr>
<tr>
<td>-</td>
<td>Polystyrene: Process Fugitive Emissions</td>
<td>EP-63</td>
</tr>
</tbody>
</table>


2) On May 14, 2010, the Air Pollution Control Program was informed via e-mail correspondence that EP-46 Site: Propane Storage, 2,400 Gallons was removed from the installation in March of 2010. EP-45 Extruded Polystyrene: R-142B Tank remains on-site, but is currently out of service.

3) On September 9, 2010, the Air Pollution Control Program was informed via e-mail correspondence that the following emission units no longer emit VOC due to the change in blowing agents (see Construction Permit No. 092008-009B):

<table>
<thead>
<tr>
<th>Description</th>
<th>2008 EIQ Reference No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extruded Polystyrene: Warehouse Building Vent</td>
<td>EP-09</td>
</tr>
<tr>
<td>Extruded Polystyrene: Die Vents</td>
<td>EP-15</td>
</tr>
<tr>
<td>Extruded Polystyrene: Grinder/Cutter Vent</td>
<td>EP-17</td>
</tr>
<tr>
<td>Extruded Polystyrene: Accumulator Vents</td>
<td>EP-28</td>
</tr>
<tr>
<td>Extruded Polystyrene: Paved Storage Area</td>
<td>EP-39</td>
</tr>
<tr>
<td>Extruded Polystyrene: R-134A Tank</td>
<td>EP-44</td>
</tr>
</tbody>
</table>

4) The two (2) 4.185 MMBtu boilers and the nineteen (19) space heaters with a capacity of 22.71 MMBtu/hr only emit combustion products, only burn pipeline natural gas, emit less than 150 pounds per day of any air contaminant and each has less than 10 MMBtu/hr heat input. These units would not be expected to exceed the opacity limits, therefore, they are not listed in the permit as emission units with limitation.
5) 10 CSR 10-6.400, *Restriction of Emission of Particulate Matter From Industrial Process*

Calculation of the PM limits and emission rates for emission units subject to 10 CSR 10-6.400. Process information and data used in these calculations are from the Amended Part 70 Operating Permit (OP2001-026A), 2004 EIQ, AP-42 and FIRE factors.

Also, one of the following equations from 10 CSR 10-6.400 is used to calculate the PM allowable limit:

\[ E = 4.10P^{0.67} \]  for process weight rates up to 30 tons (60,000 lbs) per hour, and
\[ E = 55.0P^{0.11} - 40 \]  for process weight rates greater than 30 tons (60,000 lbs) per hour

Where: \( E \) = rate of emission in lb/hr; and
\( P \) = process weight rate in tons/hr (maximum hourly design rate)

<table>
<thead>
<tr>
<th>Emission Unit # or EIQ Ref #</th>
<th>PM Control Device &amp; Efficiency</th>
<th>Maximum Design Rate (ton/hr)</th>
<th>PM Emission Factor (lb/ton)</th>
<th>PM Uncontrolled Emissions (lb/hr)</th>
<th>PM Controlled Emissions (lb/hr)</th>
<th>PM Allowable Emission Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU0100 Cyclone 95%</td>
<td>25</td>
<td>0.09</td>
<td>2.25</td>
<td>0.113</td>
<td>35.4</td>
<td></td>
</tr>
<tr>
<td>EU0130 Fabric Filter 99%</td>
<td>2.5</td>
<td>0.276</td>
<td>0.69</td>
<td>0.05</td>
<td>7.58</td>
<td></td>
</tr>
<tr>
<td>EP-01 &amp; 03 N/A</td>
<td>0.5</td>
<td>0.0081</td>
<td>0.004</td>
<td>2.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EP-06 Fabric Filter 95%</td>
<td>5</td>
<td>0.0081</td>
<td>0.04</td>
<td>0.002</td>
<td>12.1</td>
<td></td>
</tr>
<tr>
<td>EP-07 Fabric Filter 95%</td>
<td>5</td>
<td>0.0081</td>
<td>0.04</td>
<td>0.002</td>
<td>12.1</td>
<td></td>
</tr>
<tr>
<td>EP-13 &amp; 16 N/A</td>
<td>2.5</td>
<td>0.0081</td>
<td>0.02</td>
<td>-</td>
<td>7.58</td>
<td></td>
</tr>
<tr>
<td>EP-19 N/A</td>
<td>10</td>
<td>0.0081</td>
<td>0.081</td>
<td>-</td>
<td>19.2</td>
<td></td>
</tr>
<tr>
<td>EP-20 N/A</td>
<td>10</td>
<td>0.0081</td>
<td>0.081</td>
<td>-</td>
<td>19.2</td>
<td></td>
</tr>
<tr>
<td>EP-33 N/A</td>
<td>11</td>
<td>0.0081</td>
<td>0.089</td>
<td>-</td>
<td>20.4</td>
<td></td>
</tr>
<tr>
<td>EP-34 Fabric Filter 95%</td>
<td>25</td>
<td>0.003</td>
<td>0.0075</td>
<td>0.0004</td>
<td>35.43</td>
<td></td>
</tr>
<tr>
<td>EP-36 N/A</td>
<td>25</td>
<td>0.0081</td>
<td>0.203</td>
<td>-</td>
<td>35.4</td>
<td></td>
</tr>
</tbody>
</table>

**EU0100 – Two Polystyrene Classifying Cyclones (EP-35)**

At the maximum hourly design rate (25 tons/hr), the uncontrolled emission rate (2.25 lbs/hr) is approximately fifteen and seven tenth (15.7) times less than the allowable emission rate (35.4 lbs/hr). It is highly unlikely that the allowable emission rate will be exceeded. The permittee will retain the potential to emit calculations in Attachment D which demonstrate that the allowable emission rate will never be exceeded. No further recordkeeping or monitoring will be required to demonstrate compliance with the emission limitations.
EU0130 – Central Vacuum System (EP-10)
At the maximum hourly design rate (2.5 tons/hr), the uncontrolled emission rate (0.69 lbs/hr) is approximately eleven (11) times less than the allowable emission rate (7.58 lbs/hr). The process is equipped with a fabric filter (99% control efficiency). It is highly unlikely that the allowable emission rate will be exceeded without the control device operating. The permittee will retain the potential to emit calculations in Attachment D which demonstrate that the allowable emission rate will never be exceeded. No further recordkeeping will be required to demonstrate compliance with the emission limitations.

The potential to emit (PTE) from each unit is less than 0.5 pounds per hour of particulate matter. Per 10 CSR 10-6.400(1)(B)12 emission units with potential to emit less than 0.5 pounds per hour of particulate matter are exempt from the requirements of this rule. Therefore, these units are not subject to the requirements of this rule.

EU0110 (EP-04) and EU0120 (EP-05)
These emission units are exempt from 10 CSR 10-6.400 as they are required by a federally enforceable requirement (Construction Permit No. 092008-009B, Special Condition No. 1) to operate and maintain a particulate matter control device (baghouses) that control at least 90% (the construction permit stated 99%) of particulate matter emissions per 10 CSR 10-6.400(1)(B)15.

Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis
Any regulation which is not specifically listed in either the Operating Permit or in the above Statement of Basis does not appear, based on this review, to be an applicable requirement for this installation for one or more of the following reasons:
1) The specific pollutant regulated by that rule is not emitted by the installation;
2) The installation is not in the source category regulated by that rule;
3) The installation is not in the county or specific area that is regulated under the authority of that rule;
4) The installation does not contain the type of emission unit which is regulated by that rule;
5) The rule is only for administrative purposes.

Should a later determination conclude that the installation is subject to one or more of the regulations cited in this Statement of Basis or other regulations which were not cited, the installation shall determine and demonstrate, to the Air Pollution Control Program's satisfaction, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation which was not previously cited, the installation shall submit to the Air Pollution Control Program a schedule for achieving compliance for that regulation(s).

Prepared by:

Alana L. Rugen
Environmental Engineer
Mr. William K. Alexander, Site Leader  
The Dow Chemical Company – Riverside Plant  
500 Dow Industrial Drive  
Pevel, MO  63070  

Re:    The Dow Chemical Company – Riverside Plant, 099-0014  
       Permit Number: OP2006-069A

Dear Mr. Alexander:

Enclosed with this letter is your amended Part 70 operating permit. In your letter dated November 13, 2009, you notified our program of the permanent shutdown of your Polystyrene (Polymer) Plant and requested all monitoring, recordkeeping, and reporting requirements for the discontinued equipment be removed. The following emission units have been removed from your operating permit:

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Please review this document carefully. Operation of your installation, in accordance with the rules and regulations cited in this document, is necessary for continued compliance. It is very important you read and understand the requirements contained in your permit.

If you have any questions or need additional information regarding this permit, please do not hesitate to contact Alana Rugen at the Department’s Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Michael J. Stansfield, P.E.
Operating Permit Unit Chief

MJS:ark

Enclosures

c: Ms. Tamara Freeman, US EPA Region VII
   St. Louis Regional Office
   PAMS File: 2009-12-05