

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: OP2007-010
Expiration Date: MAR - 7 2012
Installation ID: 109-0004
Project Number: 109-0004-023

Installation Name and Address

BCP Ingredients, Inc.
299 Extension Street
Verona, MO 65769-0085
Lawrence County

Parent Company's Name and Address

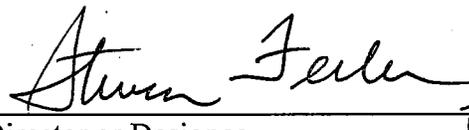
Balchem Corporation
PO Box 175
Slate Hill, NY 10973

Installation Description:

The BCP Ingredients' Verona, Missouri plant manufactures food and feed grade preservatives and nutritional additives including choline salts, ethylene oxide repackaging and specialty chemicals. The facility is a major source of volatile organic compounds (VOC) and the hazardous air pollutant (HAP), methanol. The facility also emits particulate matter, and HAPs; ethylene oxide, hydrogen chloride, and methyl chloride.

MAR - 8 2007

Effective Date

 for JLC

Director or Designee
Department of Natural Resources

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

The BCP Ingredients' Verona, Missouri plant manufactures food and feed grade preservatives and nutritional additives including choline salts, ethylene oxide repackaging and specialty chemicals. The facility is a major source of volatile organic compounds (VOC) and the hazardous air pollutant (HAP), methanol, as well as emits particulate matter, and HAPs; ethylene oxide, hydrogen chloride, and methyl chloride.

Reported Air Pollutant Emissions, tons per year							
Year	Particulate Matter ≤ Ten Microns (PM-10)	Sulfur Oxides (SO _x)	Nitrogen Oxides (NO _x)	Volatile Organic Compounds (VOC)	Carbon Monoxide (CO)	Lead (Pb)	Hazardous Air Pollutants (HAPs)
1999	9.37	0.08	20.25	68.81	5.06	-	0.05
2000	9.37	0.08	20.25	56.69	5.06	-	0.05
2001	9.30	0.08	19.83	54.39	4.95	-	0.04
2002	3.48	0.02	4.26	42.94	1.06	-	0.04
2003	6.87	0.86	3.81	43.80	0.95	-	0.05
2004	4.00	0.02	3.94	1.34	0.97	-	41.84
2005	5.38	0.04	5.71	1.47	1.52	-	32.24

EMISSION UNITS WITH LIMITATIONS

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

Emission Unit #	Description of Emission Unit
EU 0010	Building V-3, Dryer
EU 0020	Building V-3, Silos
EU 0030	Building V-3, Weigh Bin
EU 0040	Building V-5, Two Boilers (#2, #3)
EU 0050	Building V-5, Generator
EU 0060	Building V-9, Weighing/ Charging/ Blending/ Packaging
EU 0070	Building V-10, Heil Scrubber Stack
EU 0080	Building V-10, Vent Header
EU 0090	Building V-11, South Heil Scrubber Stack
EU 0100	Building V-13, Material Process & Handling / Solvent Recovery
EU 0110	Building V-13, Material Process & Handling
EU 0120	Building V-25, Liquid/Gas Repackaging Stations

EMISSION UNITS WITHOUT LIMITATIONS

The following list provides a description of the equipment that does not have unit specific limitations at the time of permit issuance.

Description of Emission Source

Building V-3

Mixer (EP 3-1)

Packaging (EP 3-3)

Bulk Tank (EP 3-7)
Rework Hopper (EP 3-10)
Cooler (EP 3-11)
Hopper (EP 3-12)
Packaging (EP 3-13)
Bulk Loadout (EP 3-14)

Building V-5

Fuel Oil Storage Tank (EP 5-5)
Gasoline Storage Tank (EP 5-8)
Propane Fugitive Emissions (EP 5-9)
Parts Washer (EP 5-10)
Vehicle Refueling – Gasoline (EP 5-11)
Fuel Oil Storage Tanks (EP 5-12)
Vehicle Refueling – Fuel Oil (EP 5-13)

Building V-8

Receiver (EP 8-1)
Reactant Tank (EP 8-2)
Hold Tank (EP 8-3)
Storage Tank (EP 8-4)
Fugitive Emissions (EP 8-5)
Hold Tank (EP 8-6)
Receiver (EP 8-7)

Building V-10

High Methanol Liquor Hold Tank (EP 10-4)
Betaine Liquor Hold Tank (EP 10-5)
Bitartrate Mother Liquor Hold Tank (EP 10-6)

Building V-11

Alcohol Storage Tank (EP 11-1) out of service
Mixer/ Packaging (EP 11-3) out of service
SS-2005 Tank Vent (EP 11-6)
SS-2006 Post Condenser Vent (EP 11-8)
SS-2006 Receiver Vent (EP 11-9)
TAOS Storage Tank #1 (EP 11-10) out of service
TAOS Storage Tank #2 (EP 11-11) out of service
Fugitive Emissions (EP 11-12)
Acetic Anhydride Storage Tank (EP 11-13)
Storage Tanks (EP 11-14 & 11-16)

Building V-14

Solvent Recover (EP 14-1)
Three Solvent Tanks (EP 14-2, 14-3 & 14-4)
Solvent Receivers (EP 14-5, 14-6, & 14-7)

Building V-20

Settling Tank (EP 20-1)
Loadout Tank (EP 20-2)
Storage Tank (EP 20-3)

DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

- 1) MDNR Construction Permit 0692-025
- 2) MDNR Construction Permit 0793-005
- 3) MDNR Construction Permit 0694-007 A
- 4) MDNR Construction Permit 0294-001
- 5) MDNR Construction Permit 0694-025
- 6) MDNR Construction Permit 0894-029
- 7) MDNR Construction Permit 012002-009
- 8) MDNR Construction Permit 1197-005
- 9) MDNR Construction Permit 032002-23

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.

PERMIT CONDITION PW001

40 CFR 63 Subpart FFFF National Emission Standards for Miscellaneous Organic Chemical Production and Processes (MON)

Emission Limitation:

Emission limitations as stated in the regulation, if MON is applicable on effective date of the regulation.

Monitoring:

Monitoring as required by the regulation, if MON is applicable on effective date of the regulation.

Recordkeeping:

Recordkeeping as required by the regulation, if MON is applicable on effective date of the regulation.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

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.

Emission Unit	Description	Building	2004 EIQ Reference #
EU0010	Direct fired natural gas product dryer. Connected to a centrifugal collector with medium efficiency (CD 3-2)	V-3	EP 3-2

PERMIT CONDITION EU 0010-001

10 CSR 10-6.400 Restriction of Emissions of Particulate Matter from Industrial Processes

Emission Limitations:

- 1) The permittee shall not emit in excess of 6.5 lbs/hr particulate matter from this emission unit.
- 2) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf.

Monitoring/Recordkeeping:

- 1) The permittee shall retain the potential to emit calculations in Attachment A which demonstrate that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) All records shall be kept for a period of five years.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION EU 0010-002

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any **existing** source any visible emissions with an opacity greater than 40%.
- 2) Exception: 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 60%.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in USEPA 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) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two (2) weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
- 3) If the source reverts to weekly 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 B or B1), 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. (see Attachment B2)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment B3)
- 4) Attachments B or B1, B2 and B3 contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.
- 6) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program 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 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 IV of this permit.

PERMIT CONDITION EU 0010-003**10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds****Emission Limitation:**

- 1) Emissions from any existing or new source operation shall not contain more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide.
- 2) Stack gasses shall not contain more than thirty-five milligrams (35 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.

Operational Limitation/Equipment Specifications:

The emission unit shall be limited to burning pipeline grade natural gas.

Monitoring/Recordkeeping:

Documentation supporting the fuel used is pipeline grade natural gas.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

Emission Unit	Description	Building	2004 EIQ Reference #
EU0020	Sealed silos for grain type product receiving. Connected to a low temperature dust cartridges	V-3	EP 3-4

PERMIT CONDITION EU 0020-001

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

Emission Limitation:

- 1) Particulate matter shall not be emitted from Silos in excess of 33.0 lb/hr.
- 2) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf.

Monitoring:

- 1) Visible emissions will be used as an indicator of the proper operation of the control device. During proper operation no visible emissions are expected from this emission unit. The existence of visible emissions will indicate a decrease in the efficiency of the control device and corrective actions will be implemented. Observations will be made using a USEPA Method 22 trained observer and USEPA Method 22 like procedures.
 - a) Frequency: - Visible emissions from the exhaust shall be monitored on a weekly basis when the process is in operation.
 - b) Duration: - The duration of the observation shall be for a 2 minute time period.
 - c) Threshold: - The condition of no visible emissions is considered normal for this emission unit. When visible emissions are noted from the emission unit, it shall be documented and corrective actions taken.
 - d) The observation of visible emissions from this emission unit will be considered an excursion and corrective actions shall be implemented within a reasonable period. An excursion does not necessarily indicate a violation of the applicable requirement. When the level of excursions exceed three percent of the of the total number of observations in a six month period and corrective actions fail to return the emission unit to a no visible emission condition, then the permittee shall conduct source testing within 90 days of the last excursion to demonstrate compliance with 10 CSR 10-6.400. If the test demonstrates noncompliance with the above emission limitation the permittee shall propose a schedule to implement further corrective actions to bring the source into compliance and demonstrate that compliance.
- 2) All control equipment shall be maintained and operated according to the manufacturer's specifications.
- 3) The permittee shall monitor the daily throughput of material for this emission unit.

Recordkeeping:

- 1) The permittee shall maintain records of all observations. At a minimum the following observation conditions shall be noted:
 - a) The date and time of the observation and the weather condition;
 - b) Observations of visible emissions from the emission unit. Note: The absence of visible emission may be reported for all like emission units in a statement such as "No visible emissions were observed from any emission unit(s);" and
 - c) The corrective actions taken during excursions.
- 2) Maintenance and inspection records shall also be maintained for the control device on this emission unit. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) All inspections, corrective actions, and instrument calibration shall be recorded.
- 4) All records shall be maintained for five years.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

Emission Unit	Description	Building	2004 EIQ Reference #
EU0030	Weigh bin controlled by baghouse.	V-3	EP 3-8

PERMIT CONDITION EU 0030-001

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

Emission Limitation:

- 1) Particulate matter shall not be emitted from the baghouse in excess of 4.1 lb/hr.
- 2) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf.

Monitoring:

- 1) The dust collector (CD-3-8) shall be maintained such that the pressure drop remains in the normal operating range of two to eight inches of water whenever the emission units are in operation. A pressure drop reading of less than two inches may be observed for a period following the installation of a new bag.
- 2) All instruments and control equipment shall be calibrated, maintained, and operated according to the manufacturer's specifications and recommendations.
- 3) Check and document the dust collector pressure drop daily, whenever the emission unit is in operation. If the pressure drop falls out of the normal operating range, corrective action shall be taken as soon as practicable but within twelve hours to return the pressure drop to normal.
- 4) Check and document the cleaning sequence of the dust collector every six months.
- 5) Inspect bags for leaks and wear every six months.
- 6) Inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods every six months.

Recordkeeping:

- 1) The permittee shall document all pressure drop readings (see Attachment H).
- 2) All inspections, corrective actions, and instrument calibration shall be recorded (see Attachment G).
- 3) Attachments G and H contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement
- 4) All records shall be maintained for five years.
- 5) Records may be kept in either written or electronic form.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION EU 0030-002

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

See *Permit Condition EU 0010-002* for details on the limitations, monitoring, recordkeeping, and reporting requirements associated with 10 CSR 10-6.220.

Emission Unit	Description	Building	2004 EIQ Reference #
EU0040	Boiler #2 – 28 MMBTU/hr (natural gas/ distillate oil) Boiler #3 – 28 MMBTU/hr (natural gas/ distillate oil)	V-5	EP 5-2 (#2) EP 5-3 (#3)

PERMIT CONDITION EU 0040-001

10 CSR 10-3.060 Restriction of Emissions of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating

Emission Limitation:

The permittee shall not emit particulate matter in excess of 0.45 pounds per million BTU of heat input.

Operation Limitation/Equipment Specifications:

This emission unit shall be limited to burning pipeline grade natural gas and fuel oil no. 2.

Monitoring/Recordkeeping:

- 1) The permittee shall maintain on the premises of the installation calculations demonstrating compliance with this rule (See Attachment C).
- 2) The calculation shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION EU 0040-002

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any **existing** source any visible emissions with an opacity greater than 40%.
- 2) Exception: 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 60%.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in USEPA 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) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two (2) weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.

- 3) If the source reverts to weekly 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 B or B1), 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. (see Attachment B2)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment B3)
- 4) Attachments B or B1, B2 and B3 contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.
- 6) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program 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 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 IV of this permit.

PERMIT CONDITION EU 0040-003

10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds

Emission Limitation:

- 1) No person shall cause or allow emissions of sulfur dioxide into the atmosphere from any indirect heating source in excess of eight pounds of sulfur dioxide per million BTUs actual heat input 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.
- 3) 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(4) of August 30, 1996 version, 10 CSR 10-6.260(3)(B) of May 30, 2004 version & 10 CSR 10-6.010 Ambient Air Quality Standards]

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO ₂)	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m ³))	Annual arithmetic mean
	0.14 ppm (365 µg/m ³)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m ³)	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H ₂ S)	0.05 ppm (70 µg/m ³)	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 µg/m ³)	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H ₂ SO ₄)	10 µg/m ³	24-hour average not to be exceeded more than once in any 90 consecutive days

Operational Limitation/Equipment Specifications:

The emission unit shall be limited to burning natural gas or number 2 fuel oil.

Monitoring/Recordkeeping:

- 1) Documentation supporting the fuel used is pipeline grade natural gas.
- 2) The permittee shall maintain an accurate record of the sulfur content of fuel used. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 3) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 4) All records shall be maintained for five years.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

Emission Unit	Description	Building	2004 EIQ Reference #
EU0050	Electric generator rated 211 kW. No control device attached	V-5	EP 5-14

PERMIT CONDITION EU 0050-001

10 CSR 10-6.260 Restriction of Emission of Sulfur Compounds

Emission Limitation:

- 1) Emissions from any existing or new source operation shall not contain more than five hundred parts per million by volume (500 ppmv) of sulfur dioxide.
- 2) Stack gasses shall not contain more than thirty-five milligrams (35 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.
- 3) 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(4) of August 30, 1996 version, 10 CSR 10-6.260(3)(B) of May 30, 2004 version & 10 CSR 10-6.010 Ambient Air Quality Standards]

Pollutant	Concentration by Volume	Remarks
Sulfur Dioxide (SO ₂)	0.03 parts per million (ppm) (80 micrograms per cubic meter (µg/m ³))	Annual arithmetic mean
	0.14 ppm (365 µg/m ³)	24-hour average not to be exceeded more than once per year
	0.5 ppm (1300 µg/m ³)	3-hour average not to be exceeded more than once per year
Hydrogen Sulfide (H ₂ S)	0.05 ppm (70 µg/m ³)	½-hour average not to be exceeded over 2 times per year
	0.03 ppm (42 µg/m ³)	½-hour average not to be exceeded over 2 times in any 5 consecutive days
Sulfuric Acid (H ₂ SO ₄)	10 µg/m ³	24-hour average not to be exceeded more than once in any 90 consecutive days

Operational Limitation/Equipment Specifications:

The emission unit shall be limited to burning number 2 fuel oil.

Monitoring/Recordkeeping:

- 1) The permittee shall maintain an accurate record of the sulfur content of fuel used. Fuel purchase receipts, analyzed samples or certifications that verify the fuel type and sulfur content will be acceptable.
- 2) These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) All records shall be maintained for five years.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

Emission Unit	Description	Building	2004 EIQ Reference #
EU0060	Weighing, charging, blending, encapsulating, and packaging activities attached to a fabric filter (CD 9-1)	V-9	EP 9-1

Permit Condition EU 0060-001

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

Emission Limitation:

- 1) Particulate matter shall not be emitted from Building V-9 Processes in excess of 6.52 lb/hr.
- 2) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf.

Monitoring/Recordkeeping:

- 1) The permittee shall retain the potential to emit calculations in Attachment A which demonstrates that the above emission limitations will not be exceeded.
- 2) The calculation shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- 3) All records shall be kept for a period of five years.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION EU 0060-002

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any **existing** source any visible emissions with an opacity greater than 40%.
- 2) Exception: 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 60%.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in USEPA 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) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two (2) weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
- 3) If the source reverts to weekly 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 B or B1), 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. (see Attachment B2)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment B3)
- 4) Attachments B or B1, B2 and B3 contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.
- 6) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program 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 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 IV of this permit.

PERMIT CONDITION EU 0060-003

10 CSR 10-6.060 Construction Permits Required MDNR Construction Permit #012002-009

Emission and Operation Limitations:

- 1) The permittee shall not emit in excess of 40 tons of volatile organic compounds (VOCs) in any consecutive 12-month period from the encapsulation process.
- 2) The permittee shall control emissions from the encapsulation process using dust collectors. The dust collectors shall be operated and maintained according to the manufacturer's specifications. Replacement filters shall be kept on hand at all times.
- 3) The dust collector shall be equipped with a gauge or meter indicating the pressure drop across the control device.
- 4) The pressure drop gauge shall be located such that the DNR employees may easily observe them.

Monitoring and Recordkeeping:

- 1) The permittee shall maintain a record of VOC emissions using Attachment D or an equivalent form approved by the Air Pollution Control Program.
- 2) The permittee shall monitor and record the pressure drop across the dust collectors at least once every 24 hours.

- 3) A maintenance and operating log for the dust collectors shall be maintained including:
 - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions;
 - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
- 4) The permittee shall maintain all records in either electronic or paper form for a minimum of five (5) years.
- 5) All records shall be made immediately available to any Missouri Department of Natural Resources personnel upon request.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

Emission Unit	Description	Building	2004 EIQ Reference #
EU0070	Heil scrubber stack – used for various processes in building V-10 with alcohol emissions. (CD 10-2)	V-10	EP 10-2
EU0080	V-10 Vent Header has no other control device.	V-10	EP 10-3

PERMIT CONDITION EU 0070 through EU 0080-001

10 CSR 10-6.060 Construction Permits Required MDNR Construction Permit #0894-029

Emission Limitations:

1. The permittee shall not emit in excess of 39 tons of volatile organic compounds (VOCs) per any consecutive twelve (12) month period from operation of the crystallizer, receiver, or heat exchanger system in building V-10.
2. The vacuum system and seals associated with the equipment installed with this construction permit shall be maintained and kept in good working order.

Monitoring and Recordkeeping:

- 1) The permittee shall keep a record of monthly and twelve (12) month rolling totals of VOC emitted, Attachment E contains a log with these recordkeeping requirements. This log or one similar created by the permittee must be used to demonstrate compliance with permit condition EU0070-001 through EU0080-001.
- 2) Records shall be kept in either electronic or paper form for a minimum of two (2) years.
- 3) Updated Material Safety Data Sheets (MSDS) for methanol shall be kept on-site at all times.
- 4) Records and MSDS shall be made available immediately for inspection to any Department of Natural Resources personnel upon request.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

Emission Unit	Description	Building	2004 EIQ Reference #
EU0090	Heil scrubber stack- includes a packed gas absorption column in building V-11 (CD 11-5)	V-11	EP 11-5

PERMIT CONDITION EU 090-001

10 CSR 10-6.060 Construction Permits Required MDNR Construction Permit #0692-025

10 CSR 10-6.060 Construction Permits Required MDNR Construction Permit #0692-025A

Construction Permit Letter dated September 26, 2006. Project Number 2006-07-085

Emission and Operation Limitations:

- 1) The total aggregate production of Tetramethyl Ammonium Chloride (TMAC) shall not exceed 17,000,000 pounds in any consecutive 12-months.
- 2) The primary scrubbing vessel, secondary acid scrubber, secondary caustic scrubber, and Heil Scrubber shall be operated at all times during air contaminant releases from the reaction vessel and scrubbers, and shall be operated and maintained according to the design specifications for each scrubber.
- 3) The scrubbing waters shall be maintained at pH values less than one (1) for the secondary hydrochloric acid scrubber, and greater than 13 for the secondary potassium hydroxide caustic scrubber.
 - a. The scrubbers listed below must be in use at all times during the production of TMAC:

Control Device Number	Emission Point	Control Device Description
11-5a	EP11-5	Heil Scrubber
11-5b	EP11-5	HCL Scrubber
11-5c	EP11-5	KOH Scrubber

- b. Emissions from the primary reactor shall be routed to the Heil Scrubber then the HCL Scrubber and finally to the KOH Scrubber to remove any acid mist and unreacted Tetramethyl Amine (TMA).

Monitoring:

- 1) The permittee shall monitor the pH of the scrubbing waters for the secondary acid scrubber and the secondary caustic scrubber by grab sample at the beginning of TMAC batch production and immediately prior to venting any air contaminants from the reaction vessel.
- 2) The permittee shall monitor and record the quantities of deionized water and TMA for every production batch of TMAC. The quantities shall be maintained within the design conditions specified by the manufacturer; and
- 3) Maintain calculations showing the minimum TMA required in the scrubber solution during every production batch of TMAC. The TMA shall be molar excess to control emissions from the reactor.

Recordkeeping:

- 1) The permittee shall record the monthly and 12-month rolling production totals for TMAC.
- 2) The results of the pH testing shall be recorded for each batch.
- 3) The quantities of deionized water and TMA shall be recorded for each batch.
- 4) All records shall be maintained in either electronic or paper form for a minimum of two (2) years.
- 5) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions;
- 6) Maintenance activities, with inspection schedule, repair actions, and replacements, etc. and
- 7) A written record of regular inspection schedule, the date and results of all inspections including any actions or maintenance activities that result from that inspection.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

Emission Unit	Description	Building	2004 EIQ Reference #
EU0100	Material processing, handling, and solvent recovery for choline salts in the V-13 building. Room exhaust occasionally routed to a fabric filter (CD-13-1)	V-13	EP 13-1

PERMIT CONDITION EU 0100-001

10 CSR 10-6.060 Construction Permits Required MDNR Construction Permit #0694-007A

Emission and Operation Limitations:

- 1) The permittee shall emit no more than 39.9 tons of Volatile Organic Compounds (VOCs) per consecutive 12-month period from the choline salts drying operation.
- 2) The tanks or containers for methanol shall be tightly closed at all times except during filling operations.

Recordkeeping:

- 1) The permittee shall record the monthly and 12-month rolling totals of VOC (in tons) emitted from the Choline Salts drying operations and the dryer throughput.
- 2) An updated MSDS (Material Safety Data Sheet) shall be kept on-site at all times.
- 3) Records shall be kept on-site for at least two (2) years.
- 4) All documents shall be made immediately available to the Department of Natural Resources' personnel upon request.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION EU 0100-002

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

Emission Limitation:

- 1) Particulate matter shall not be emitted from Material Handling in V-13 in excess of 19.8 lb/hr.
- 2) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf.

Monitoring:

- 1) The dust collector (CD-13-1) shall be maintained such that the pressure drop remains in the normal operating range of 0.1 to 6.0 inches of water whenever the emission units are in operation. A pressure drop reading of less than 0.1 inches may be observed for a period following the installation of a new bag.
- 2) All instruments and control equipment shall be calibrated, maintained, and operated according to the manufacturer's specifications and recommendations.
- 3) Check and document the dust collector pressure drop daily, whenever the emission unit is in operation. If the pressure drop falls out of the normal operating range, corrective action shall be taken as soon as practicable but within twelve hours to return the pressure drop to normal.
- 4) Check and document the cleaning sequence of the dust collector every six months.
- 5) Inspect bags for leaks and wear every six months.
- 6) Inspect all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods every six months.

Recordkeeping:

- 1) The permittee shall document all pressure drop readings (see Attachment H).
- 2) All inspections, corrective actions, and instrument calibration shall be recorded (see Attachment G).
- 3) Attachments G and H contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 4) All records shall be maintained for five years.
- 5) Records may be kept in either written or electronic form.

Reporting:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

PERMIT CONDITION EU 0100-003
10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any **existing** source any visible emissions with an opacity greater than 40%.
- 2) Exception: 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 60%.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in USEPA 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) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two (2) weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
- 3) If the source reverts to weekly 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 B or B1), 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. (see Attachment B2)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment B3)
- 4) Attachments B or B1, B2 and B3 contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.
- 6) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program 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 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 IV of this permit.

Emission Unit	Description	Building	2004 EIQ Reference #
EU0110	Material processing and handling for choline salts in the V-13 building. Room exhaust occasionally routed to a packed gas absorption column (CD-13-2)	V-13	EP 13-2

Permit Condition EU 0110-001

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

Emission Limitation:

- 1) Particulate matter shall not be emitted from Material Handling in V-13 in excess of 6.0 lb/hr when the control device is operated.
- 2) The concentration of particulate matter in the exhaust gases shall not exceed 0.30 gr/scf when the control device is operated.

Operational Limitation/Equipment Specifications:

- 1) The permittee shall maintain and operate the scrubber with a pressure drop range of 1 to 7 inches water.
- 2) The permittee shall maintain and operate the instrumentation and scrubber according to the manufacturer's specifications and recommendations.

Monitoring:

Monitor the pressure drop across the scrubber at least once per batch if exhaust is routed to the scrubber.

Recordkeeping:

- 1) The permittee shall maintain records for the pressure drop across the scrubber;
- 2) Maintain a written record of all inspections, maintenance, calibration and any action resulting from these actions.
- 3) Attachments G and H 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:

The permittee shall report any deviations/exceedances of this permit condition using the semi-annual monitoring report and annual compliance certification to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as required by 10 CSR 10-6.065(6)(C)1.C.(III).

Permit Condition EU 0110-002

10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants

Emission Limitation:

- 1) No owner or other person shall cause or permit emissions to be discharged into the atmosphere from any **existing** source any visible emissions with an opacity greater than 40%.
- 2) Exception: 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 60%.

Monitoring:

- 1) The permittee shall conduct opacity readings on this emission unit using the procedures contained in USEPA 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) Weekly observations shall be conducted for a minimum of eight consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
 - b) Observations must be made once every two (2) weeks for a period of eight weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
 - c) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
- 3) If the source reverts to weekly 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 B or B1), 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. (see Attachment B2)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment B3)
- 4) Attachments B or B1, B2 and B3 contain logs including these recordkeeping requirements. These logs, or an equivalent created by the permittee, must be used to certify compliance with this requirement.
- 5) These records shall be made available immediately for inspection to Department of Natural Resources personnel upon request.
- 6) All records shall be maintained for five years.

Reporting:

- 1) The permittee shall report to the Air Pollution Control Program 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 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 IV of this permit.

Emission Unit	Description	Building	2004 EIQ Reference #
EU0120	Liquid / Gas Repackaging Stations including two (2) storage tanks, blending/packaging stations, and vapor/liquid recovery in building V-25.	V-25	EP 25-1

PERMIT CONDITION EU 0120-001

10 CSR 10-6.060 Construction Permits Required MDNR Construction Permit #032002-023

Monitoring:

- 1) Each calendar month, the ethylene oxide system shall be inspected for emission leaks. Should results indicate a leak, the facility shall take necessary actions to remedy the causes of any such leaks and restore the operation of the system to its original performance level.
- 2) Detected leaks shall be clearly marked with a weatherproof and readily visible identification, which includes the equipment identification number. Identification shall remain in place until the leak is repaired.

Recordkeeping:

A record of each monthly inspection shall be kept on file at the site for at least two (2) years. Attachment F or another similar log created by the facility shall be used to comply with this condition.

Reporting:

If the presence of ethylene oxide in the ambient air exists in quantities and durations that directly or proximately cause or contribute to injury to human, plant, or animal life or health, or to property, or that unreasonably interferes with the enjoyment of life or the use of property, the Director may require BCP Ingredients to submit a corrective action plan within ten (10) days adequate to timely and significantly mitigate the emission of ethylene oxide. BCP Ingredients shall implement any such plan immediately upon its approval to the Director. Failure to either submit or implement such a plan shall be a violation of the permit.

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 April 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 10-3.030 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 BCP Ingredients, Inc. 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 DNR inspection reports.

10 CSR 10-3.090 Restriction of Emission of Odors

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour.

This requirement is not federally enforceable.

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.

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, 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.
 - 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)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, Kansas 66101, as well as the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. 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, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 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, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 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 APCP shall place a copy with the permit in the public file. Written notice shall be provided to the EPA and the APCP 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 APCP 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, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 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 Thomas R. Jemison, Vice-President of Operations. 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) MDNR 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; or
- 5) MDNR 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 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.

Attachment A

This attachment may be used to demonstrate compliance with the limitations of 10 CSR 10-6.400 *Restriction of Emission of Particulate Matter From Industrial Processes* for the equipment listed.

PM Emission limit:

$$E = 4.1(P)^{0.67} \quad (P \leq 30)$$

$$E = 55(P)^{0.11} - 40 \quad (P > 30)$$

P is process weight rate in tons/hour and E is emission rate limit in lb/hour

Potential PM Emission Rate:

$$\text{Emission Rate (lb/hr)} = \text{Process Weight Rate (ton/hr)} * \text{PM Emission Factor (lb/ton)}$$

Emission Point #	Associated Equipment	Process Weight Rate (ton/hr)	PM Emission Factor (lb/ton)	Emission Factor Reference	Potential Uncontrolled Emission Rate (lb/hr)	Emission Rate Limit (lb/hr)
EP 3-2	EU 0010 – Product Dryer	0.83	0.9	*AP-42, 5th Ed., 9.9.7 & 1.4 (prorated for natural gas PM10) - controlled EF for Grain Millings Direct Fired Dryer = 0.27 from SCC 3-02-007-63. The uncontrolled factor was estimated using a cyclone CE of 70%. (0.27/(1-0.7) = 0.9) *Process weight is the hourly dryer throughput less the aqueous portion (4957lbs total - 3290lb aqueous choline chloride = 1667lb/hr of crystal & cob)	0.75	3.6
EP 9-1	EU 0060 – V-9 Processes	2	0.57	AP-42, 5 th Ed. 9.9.7 (4x for 4 transfer points) & 9.11.1-1 for encapsulation	1.14	6.52

The following table can be used to verify compliance with the limit of 0.3 grains/dscf:

Emission rate (gr/dscf) = Emission Rate (lb/hr)*7000 (grains/lb)/Stack flow rate (SCFM)/60(min/hr)
 Flow rates converted from actual to standard conditions using the ideal gas law.

Emission Point #	Associated Equipment	Potential Emission Rate (lb/hr)	Stack Temp. (°F)	Stack Flow Rate		Potential Emission Rate (gr/scf)	Emission Rate Limit (gr/scf)
				ACFM	SCFM		
EP 3-2	EU 0010 – Product Dryer	0.75	330	17100	11430	0.008	0.3
EP 9-1	EU 0060 – V-9 Processes	1.14	79	3200	3135	0.04	0.3

Attachment B

10 CSR 10-6.220

This attachment may be used to help meet the recordkeeping requirements of Permit Conditions: EU0010-001, EU0020-001, EU0030-002, EU0040-002, EU0060-001, EU0100-003 and EU0110-002.

Method 22 (Outdoor) Observation Log		
Emission Unit		
Observer	Date	
Sky Conditions		
Precipitation		
Wind Direction	Wind Speed	
Sketch process unit: Indicate the position relative to the source and sun; mark the potential emission points and/or the observing emission points.		
Observation Clock Time	Observation Period Duration (minute:second)	Accumulative Emission Time (minute:second)
Begin Observation		
End Observation		

Attachment B2

10 CSR 10-6.220

This attachment may be used to help meet the recordkeeping requirements of Permit Conditions: EU0010-001, EU0020-001, EU0030-002, EU0040-002, EU0060-001, EU0100-003 and EU0110-002.

Method 9 Opacity Emissions Observations	
Company	Observer
Location	Observer Certification Date
Date	Emission Unit
Time	Control Device

Hour	Minute	Seconds				Steam Plume (check if applicable)		Comments
		0	15	30	45	Attached	Detached	
	0							
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							

SUMMARY OF AVERAGE OPACITY				
Set Number	Time		Opacity	
	Start	End	Sum	Average

Readings ranged from _____ to _____ % opacity.

Was the emission unit in compliance at the time of evaluation? _____
 YES NO Signature of Observer _____

Attachment C

This attachment may be used to demonstrate compliance with 10 CSR 10-3.060 *Maximum Allowable Emission of Particulate Matter from Fuel Burning Equipment Used for Indirect Heating*

Emission Limit for EU0080 (existing, i.e. installed by 02/15/1979):

$$0.90 Q^{-0.174} = 0.90(56)^{-0.174} = 0.45 \text{ lb/mmBtu}$$

where Q is the total heat input of all indirect heating sources at the installation.

The following equipment was used to obtain the total heat input (Q) for the above equation:

Equipment	Heat Input (mmBtu/hr)
Boiler #2 EP 5-2	28.0
Boiler #3 EP 5-3	28.0
TOTAL	56.0

The various natural gas process burners at the installation are considered direct heating sources, and therefore were not included in the calculation of total heat input.

The following table demonstrates compliance with the emission limit:

Emission Rate (lb/mmBtu) = MHDR*Emission Factor/Heat Capacity (mmBtu/hr)

Emission Unit #	Heat Capacity	Maximum Hourly Design Rate ¹	PM Emission Factor	Emission Factor Reference	Potential Emission Rate (lb/mmbtu)	Emission Rate Limit (lb/mmbtu)
EP 5-2 (Natural Gas)	28mmbtu/hr	0.027 mmft ³ /hr	7.6 lb/mmft ³	AP-42 Table 1.4-2	0.01	0.45
EP 5-2 (Fuel Oil)	28mmbtu/hr	0.2 1000gal/hr	1.0 lb/1,000gal	Fire 6.25 for SCC 1-02-005-02	0.01	0.45
EP 5-3 (Natural Gas)	28mmbtu/hr	0.027 mmft ³ /hr	7.6 lb/mmft ³	AP-42 Table 1.4-2	0.01	0.45
EP 5-3 (Fuel Oil)	28mmbtu/hr	0.2 1000gal/hr	1.0 lb/1,000gal	Fire 6.25 for SCC 1-02-005-02	0.01	0.45

¹ Heat capacity divided by heating value of fuel; 1050 mmBtu/mmft³ for natural gas, 140 mmBtu/1000gal for fuel oil (AP-42, Appendix A)

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 Application, received May 13, 1997
- 2) Letter requesting modification of Part 70 Operating Permit Application, received July 12, 2006
- 3) 2000 Emissions Inventory Questionnaire, received March 28, 2001
- 4) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.

Applicable Requirements Included in the Operating Permit but Not in the Application

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.

10 CSR 10-6.180, Measurement of Emissions of Air Contaminants

This rule has been included in the operating permit in order to provide citing for the allowance of requests for emissions data results. On past forms issued by the Air Pollution Control Program, including the application for this permit, it was automatically marked as an administrative rule not required to be listed as an applicable requirement. It is no longer judged to be solely administrative and is, therefore, included in the operating permit.

10 CSR 10-6.220, Restriction of Emission of Visible Air Contaminants

This rule had not been created at the time of application. The rule previously in effect was 10 CSR 10-3.080, *Restriction of Emission of Visible Air Contaminants – Out state*, was indicated as being applicable, however, it was rescinded May 30, 2000. The current rule has, therefore, been included in the operating permit.

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

This rule had not been created at the time of application; however, it has been determined to be applicable to the installation and, therefore, has been included in the operating permit.

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

This rule had not been created at the time of application. The rule previously in effect was 10 CSR 10-3.050, *Restriction of Emission of Particulate Matter from Industrial Processes – Out state*, was indicated as being applicable, however, it was rescinded March 30, 2001. The current rule has, therefore, been included in the operating permit.

10 CSR 10-6.080 Emission Standards for Hazardous Air Pollutants and 40 CFR Part 61 Subpart M National Emission Standard for Asbestos, 10 CSR 10-6.250 Asbestos Abatement Projects – Certification, Accreditation, and Business Exemption Requirements

In the permit application and according to APCP records, there was no indication that any Missouri Air Conservation Law, Asbestos Abatement, 643.225 through 643.250; 10 CSR 10-6.080, Emission Standards for Hazardous Air Pollutants, Subpart M, National Standards for Asbestos; and 10 CSR 10-6.250, Asbestos Abatement Projects - Certification, Accreditation, and Business Exemption Requirements apply to this installation. The installation is subject to these regulations if they undertake any projects that deal with or involve any asbestos containing materials. None of the installation's operating projects underway at the time of

this review deal with or involve asbestos containing material. Therefore, the above regulations were not cited in the operating permit. If the installation should undertake any construction or demolition projects in the future that deal with or involve any asbestos containing materials, the installation must follow all of the applicable requirements of the above rules related to that specific project.

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.

10 CSR 10-6.100, Alternate Emission Limits

This rule is not applicable because the installation is in an ozone attainment area.

10 CSR 10-6.240, Asbestos Abatement Projects – Registration, Notification, and Performance Requirements

This rule has not been included in the operating permit because the rule was struck down in the Cole County circuit court.

NSPS Applicability

40 CFR Part 60 Subpart Dc, Standards of Performance for Small Industrial Commercial Institutional Steam Generating Units

This regulation does not apply to any boilers at this facility because no boiler larger than 10mmbtu/hr was installed after 1984.

40 CFR 60 Subpart Kb Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984

This regulation does apply to tanks any tanks at the facility. The table below includes applicability information for these tanks and those listed in the permit as units without limitations. For tanks greater than 10,600 gallons, records of tank dimensions and capacity analysis must be kept. Tanks greater than 19,800 gallons and less than 39,900 gallons with maximum true vapor pressure (MTVP) of greater than 15.0 kPa but less than 27.6 kPa must also have records showing the volatile organic liquid (VOL) stored, its MTVP, and the period of storage. The MTVP was calculated using TANKS 4.0 or Antoine Equation Parameters according to §60.111b.

Table 1 - 40 CFR 60 Subpart Kb Applicability Checklist and Requirements

Storage Vessel	Liquid Stored	Max True Vapor Pressure (kPa)	Capacity (1000 gal)	Construction /Modification Date	Kb Applicable	Requirement
EP 5-5	fuel oil	0.06	11.3	1974	No	
EP 5-8	gasoline	NA	0.45	1960	No	
EP 5-12	fuel oil	0.06	0.11	1960	No	
EP 8-4	aqueous	NA		1962	No	
EP 10-4	Alcohol (Betaine) Liquor	NA	7.5	2005	No	
EP 10-5	betaine liquor	NA	5	1998	No	
EP 10-6	bitartrate <u>mother liquor</u>	NA	5	1965	No	
EP 10-6	Betaine w/o alcohol		7.5	2001		
EP 11-1	alcohol	5.8	6	1993	No	
EP 11-14	TMAC	NA	6	1993	No	
EP 11-16	MeCl	495	30	1957	No	
EP 14-2	virgin alcohol	16.4	6.34	Not Available	No	
EP 14-3	recovered alcohol	16.4	25	1978	No	
EP 14-4	spent alcohol	16.4	22	1962	No	

Storage Vessel	Liquid Stored	Max True Vapor Pressure (kPa)	Capacity (1000 gal)	Construction /Modification Date	Kb Applicable	Requirement
EP 8-4	Aqueous		21	1992	No	
EP 8-4	Aqueous		22	1977	No	
EP 8-4	Aqueous		21.352	2003	No	
EP 8-4	Aqueous		21.352	2003	No	
EP 8-4	Aqueous		20		No	
EP 8-4	Aqueous		21.352	2004	No	
EP 8-4	Aqueous		20		No	
EP 8-4	Aqueous		1	1951	No	
EP 8-4	Aqueous		5		No	
EP 8-4	Aqueous		16		No	
EP 8-4	Aqueous		20.3	2005	No	
EP 8-4	Aqueous		16		No	
EP 8-4	Aqueous		16		No	

MACT Applicability

40 CFR 63 Subparts F, G, or H, National Emission Standards for Organic Hazardous Air Pollutants

from the Synthetic Organic Chemical Manufacturing Industry

This regulation does not apply because the facility manufactures as a primary product, none of the chemicals listed in Table 1 of subpart F, nor tetrahydrobenzaldehyde, or crotonaldehyde.

40 CFR 63 Subpart FFFF, National Emission Standards for Miscellaneous Organic Chemical Production and Processes (MON)

This regulation does apply to the facility. The compliance date for existing sources is May 10, 2008. BCP will be in compliance with the requirements on the compliance date if the facility is a major HAP source on that date. At this point the regulation is incorporated by reference as the compliance demonstration methods are not available.

NESHAP Applicability

None

Other Regulatory Determinations

10 CSR 10-6.060 Construction Permits Required, MDNR #0894-029

The following calculations demonstrate compliance with the construction permit limitation of #0894-029. The limitation affects the crystallizer, receiver, and heat exchanger system of the V-10 building which includes both the Heil Scrubber (EP 10-2) and the building V-10 vent (EP 10-3). The table below indicates that when producing choline bitartrate, which produces the most emissions/ton, the two emission units will not exceed the limit.

Emission Unit No.	Description	Process Weight Rate (tons/hr)	Emission Factor (lbs/ton)	Emission Factor Reference	Control Efficiency for Methanol (CE) (%)	Uncontrolled & Controlled Emissions (tons/yr) = (lb/hr)*8760/2000	Annual Allowable Emissions (tons/yr)
EU 0140	Heil Scrubber	0.2	16.43	max emissions for both units come from choline bitartrate (facility mass balance - 2000 EIQ)	0	14.4	39.9
EU 0150	V-10 vent	0.2	18.76		0	16.4	39.9

10 CSR 10-6.060 Construction Permits Required, MDNR #0991-012 and 0991-012A

MDNR construction permit #0991-012 and 0991-012A referred to the densification process in building V-2. The process was shutdown in March of 2001. Equipment was sold in 2003. Therefore, no reference to this permit or process is included in the operating permit.

10 CSR 10-6.060 Construction Permits Required, MDNR #0893-013 and 0997-045

MDNR construction permits #0893-013 and 0997-045 refer to equipment in the V-2 and V-19 buildings that conducted densification and sodium propionate/potassium benzoate production. The V-2 process was shut down in March 2001 and V-19 processes were shutdown in January 2002. Therefore, no reference to this permit or process is included in the operating permit.

10 CSR 10-6.060 Construction Permits Required, MDNR #0290-012Modif, 0290-12A, 0297-019 and 0498-

006

MDNR construction permits #0290-012Modif, 0290-12A, 0297-019 and 0498-006 refer to products made in V-19 that were shutdown in January 2002. The equipment was sold in September 2005. Therefore, no reference to this permit or process is included in the operating permit.

10 CSR 10-6.060 Construction Permits Required, MDNR #0990-001

The special conditions of MDNR Construction Permit #0990-001 are not included in the operating permit for the following reasons:

- 1) It is assumed that the stack testing from condition one (1) was completed according to the specifications of the construction permit and the APCP. It is also assumed that the testing did not indicate the presence in the ambient air of one or more air contaminants in the quantities and of duration which directly and approximately cause or contribute to injury to human, plant, or animal life or health, etc., as listed in special condition five (5). [Missouri Air Conservation Law, Ch 643 RSMo.]
- 2) Special conditions two (2) through four (4) are restated in the special conditions of MDNR construction permit 0692-025 and therefore included in the operating permit under permit condition EU 0180-001.

10 CSR 10-6.060 Construction Permits Required, MDNR #012002-29

MDNR construction permit #012002-29 included stack testing requirements which have been fulfilled. The process was tested May 20, 2003 and the results reported in less than 60 days on June 2, 2003. Corrections were supplied to MDNR on October 13, 2003. The report showed an average of 0.256lbVOC/hr was emitted. The average oil throughput during the test was 0.137 tons (or 1504 pounds during 5.5 hours.) The average emission rate was 1.872 lb VOC per ton of oil used. These requirements have been removed from the operating permit.

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 APCP'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 APCP a schedule for achieving compliance for that regulation(s).

Prepared by:

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