



INTERMEDIATE STATE 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.

Intermediate Operating Permit Number: OP2009-005
Expiration Date: 02 - 08 - 2014
Installation ID: 065-0038
Project Number: 2007-01-030

Installation Name and Address

Royal Oak Enterprises, Inc. - Salem Briquet Plant
Highway JJ, 3/4 mile north of Hwy 19
Salem, MO 65560
Dent County

Parent Company's Name and Address

Royal Oak Enterprises
P.O. Box 549
Salem, MO 65560

Installation Description:

This plant located near Salem, Missouri takes wood char, pulverizes and blends it with other raw materials to produce charcoal briquets.

FEB - 9 2009

Effective Date



Director or Designee
Department of Natural Resources

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

This plant, located near Salem, Missouri, takes wood char, pulverizes and blends it with other raw materials to produce charcoal briquets.

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)
2006	44.98	1.62	31.74	4.41	38.87	---	1.59
2005	51.13	1.94	38.78	5.67	46.58	--	1.90
2004	48.02	1.65	32.20	4.67	39.37	---	1.61
2003	56.10	2.10	39.07	7.42	47.02	---	1.92
2002	57.27	1.72	34.43	6.46	41.23	---	1.68

EMISSION UNITS WITH LIMITATIONS

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

Emission Unit #	Description of Emission Unit	Emission Point #
EU0010	Load Raw Charcoal Hopper	EP-04
EU0020	Load Sawdust Hopper	EP-05
EU0030	Load Coal/Coke Hopper	EP-06
EU0040	Transfer Mixture to Hammermill, Conveyor #1	EP-07
EU0050	Hammermill	EP-08
EU0060	Lime Transfer - Lime Hopper	EP-09
EU0070	Lime Transfer - Conveyor #2	EP-09
EU0080	Lime Transfer - Conveyor #3	EP-09
EU0090	Transfer Material Mixture - Bucket Elevator	EP-10
EU0100	Transfer Material Mixture - Screw Conveyor	EP-10
EU0110	Transfer Material Mixture - Holding Hopper	EP-10
EU0120	Transfer Mixture - Line #1, Conveyor #5	EP-12
EU0130	Transfer Mixture - Line #1, Conveyor #6	EP-12
EU0140	Load Starch Mixing Tank	EP-13
EU0150	Load Materials Mixer #3	EP-14
EU0160	Transfer Mixture to Mixer #1 or #2, Conveyor #11 or #12	EP-19
EU0170	Load Materials Mixer #1 or #2	EP-20
EU0180	Briquet Dryer Line #2 - (Sawdust) Combustion Emissions	EP-24
EU0190	Conveying/Handling of Briquets - Conveyor #9	EP-25
EU0200	Conveying/Handling of Briquets - Conveyor #18	EP-25
EU0210	Conveying/Handling of Briquets - Conveyor #17	EP-25
EU0220	Conveying/Handling of Briquets - Conveyor #20	EP-25
EU0230	Bagging - Charcoal Briquets	EP-25

<u>Emission Unit #</u>	<u>Description of Emission Unit</u>	<u>Emission Point #</u>
EU0240	Conveying/Handling of Briquets - Briquet Silo Loadout	EP-25
EU0250	Briquet Roll Press	EP-32
EU0260	Briquet Roll Press	EP-32
EU0270	Load Sawdust Hopper	EP-37
EU0280	Belt Conveyor	EP-38
EU0290	Belt Conveyor	EP-38
EU0300	Hammermill	EP-39
EU0310	Pneumatic Transfer to Silo	EP-40
EU0320	Silo Loadout	EP-41
EU0330	Screw Conveyor	EP-42

EMISSION UNITS WITHOUT LIMITATIONS

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

<u>Description of Emission Source</u>	<u>Emission Point</u>
Raw Charcoal Storage	EP-01
Sawdust Storage Pile	EP-02
Anthracite Coal & Coke Storage	EP-03
Convey Captured Fines from Cyclone - Conveyor #4	EP-11
Transfer Wet Briquet Material - Conveyor #7	EP-15
Transfer Wet Briquet Material - Conveyor #8	EP-15
Transfer Wet Briquet Material - Conveyor #21	EP-15
Briquet Screening - Fines	EP-16
Transfer Fines - Bucket Elevator	EP-17
Cooler #1 - Process Emissions	EP-18
Briquet Dryer Line #1(Aeroglide) – Propane Combustion Emissions	EP-18
Transfer Wet Briquet Material - Conveyor #13	EP-21
Transfer Wet Briquet Material - Conveyor #14	EP-21
Transfer Wet Briquet Material - Conveyor #15	EP-21
Transfer Wet Briquet Material - Conveyor #16	EP-21
Briquet Screening - Fines	EP-22
Transfer Fines - Bucket Elevator	EP-23
Briquet Dryer Line #2 - Cooler #2 - Process Emissions	EP-24
Briquet Dryer Line #2 (Propane) – Combustion Emissions	EP-24
Boiler - Superior #6971 - 1 MMBtu LPG Starch Tank Heater (1974)	EP-26
Boiler - Ajax #77-29646 – (Fuel Oil) 0.84 MMBtu Water Tower (1984)	EP-27
Dip Tank	EP-34
Haul Road	EP-36

DOCUMENTS INCORPORATED BY REFERENCE

This permit incorporates the following documents by reference:

- 1) Air Pollution Control Program Construction Permit 12002-010

II. Plant Wide Emission Limitations

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

PERMIT CONDITION PW001

10 CSR 10-6.065(2)(C) and 10 CSR 10-6.065(5)(A) Voluntary Limitation(s)

Emission Limitation:

Royal Oak Enterprises, Inc.-Salem shall emit less than one hundred tons per year of particulate matter less than ten microns in diameter (PM₁₀).

Monitoring/Recordkeeping:

1. The permittee shall maintain an accurate record of the emission of PM₁₀ from this installation. The permittee shall record the monthly and running twelve-month total of the PM₁₀ emissions from this facility. The permittee shall use Attachments A1 and A2 or an equivalent form for this purpose.
2. The permittee shall maintain these records for the most recent sixty months.
3. The permittee shall immediately make such records 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 annual compliance certification to the department's Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, as required by 10 CSR 10-6.065(5)(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. All citations, unless otherwise noted, are to the regulations in effect on the date of permit issuance.

EU0010 Through EU0260 – Process Equipment		
Emission Unit	Description	2006 EIQ Reference #
EU0010	Load Raw Charcoal Hopper	EP-04
EU0020	Load Sawdust Hopper	EP-05
EU0030	Load Coal/Coke Hopper	EP-06
EU0040	Transfer Mixture to Hammermill, Conveyor #1	EP-07
EU0050	Hammermill	EP-08
EU0060	Lime Transfer - Lime Hopper	EP-09
EU0070	Lime Transfer - Conveyor #2	EP-09
EU0080	Lime Transfer - Conveyor #3	EP-09
EU0090	Transfer Material Mixture - Bucket Elevator	EP-10
EU0100	Transfer Material Mixture - Screw Conveyor	EP-10
EU0110	Transfer Material Mixture - Holding Hopper	EP-10
EU0120	Transfer Mixture - Line #1, Conveyor #5	EP-12
EU0130	Transfer Mixture - Line #1, Conveyor #6	EP-12
EU0140	Load Starch Mixing Tank	EP-13
EU0150	Load Materials Mixer #3	EP-14
EU0160	Transfer Mixture to Mixer #1 or #2, Conveyor #11 or #12	EP-19
EU0170	Load Materials Mixer #1 or #2	EP-20
EU0180	Briquet Dryer Line #2 - (Sawdust) Combustion Emissions	EP-24
EU0190	Conveying/Handling of Briquets - Conveyor #9	EP-25
EU0200	Conveying/Handling of Briquets - Conveyor #18	EP-25
EU0210	Conveying/Handling of Briquets - Conveyor #17	EP-25
EU0220	Conveying/Handling of Briquets - Conveyor #20	EP-25
EU0230	Bagging - Charcoal Briquets	EP-25
EU0240	Conveying/Handling of Briquets - Briquet Silo Loadout	EP-25
EU0250	Briquet Roll Press	EP-32
EU0260	Briquet Roll Press	EP-32

PERMIT CONDITION (EU0010 through EU0260)-001
 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 **new** source any visible emissions with an opacity greater than twenty percent.
New source: any equipment, machine, device, article, contrivance or installation installed in the outstate Missouri area after February 24, 1971, or in the Springfield metropolitan area after September 24, 1971.

- 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 sixty minutes air contaminants with an opacity up to sixty percent.

Monitoring:

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

Record Keeping:

- 1) The permittee shall maintain records of all observation results (see Attachment C1 or C2), 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 D)
- 3) The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition. (see Attachment E)
- 4) Attachments C1 or C2, D and E contain logs including these record keeping 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's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 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) The permittee shall report any deviations/exceedances of this permit condition using the annual compliance certification to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, as required by 10 CSR 10 CSR 10-6.065(5)(A).

EU0270 Through EU330 – Process Equipment		
Emission Unit	Description	2006 EIQ Reference #
EU0270	Load Sawdust Hopper	EP-37
EU0280	Belt Conveyor	EP-38a
EU0290	Belt Conveyor	EP-38b
EU0300	Hammermill	EP-39
EU0310	Pneumatic Transfer to Silo	EP-40
EU0320	Silo Loadout	EP-41
EU0330	Screw Conveyor	EP-42

PERMIT CONDITIONS (EU0270 through EU0330) - 001
 10 CSR 10-6.060 Construction Permits Required
 Construction Permit 12002-010, Issued January 7, 2002

Emission Limitation:

- 1) Royal Oak Enterprises Incorporated - Salem Briquette Facility shall not discharge into the atmosphere PM₁₀ in excess of fifteen tons in any consecutive twelve-month period from the following emission points: load sawdust hopper (EP37), two (2) belt conveyors (EP38a, EP38b), hammermill (EP39), pneumatic transfer to silo (EP-40), silo loadout (EP41) and screw conveyor (EP42).
- 2) Royal Oak Enterprises Incorporated - Salem Briquette Facility shall control emissions from the pneumatic transfer units (Emission Point, EP40) using a baghouse (low temperature fabric filter) as specified in the permit application. The baghouse shall be operated and maintained in accordance with the manufacturer’s specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that the Department of Natural Resources’ employees may easily observe them. Replacement filters for the baghouse and drum filters shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance and abrasion resistance).

Monitoring:

- 1) Attachment B or an equivalent form approved by the Air Pollution Control Program (APCP) shall be used for demonstrating compliance with the fifteen ton PM₁₀ emission limitation.
- 2) Royal Oak Enterprises Incorporated shall monitor and record the operating pressure drop across the baghouse and drum filters at least once every twenty-four hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer’s performance warranty.
- 3) Royal Oak Enterprises, Inc. shall maintain an operating and maintenance log for the baghouse and drum filters which shall include the following:
 - a) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
 - b) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.

Reporting/Recordkeeping:

- 1) Royal Oak Enterprises Incorporated - Salem Briquette Facility shall report to the Air Pollution Control Program’s Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of the month during which the records indicate that the source exceeds the fifteen ton limitation.

- 2) Royal Oak Enterprises Incorporated - Salem Briquette Facility shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.

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), Code of State Regulations (CSR), and local ordinances for the full text of the applicable requirements. All citations, unless otherwise noted, are to the regulations in effect on the date of permit issuance.

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 Section 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(5)(B)1.A(III)] The permittee shall retain the most current operating permit issued to this installation on-site. [10 CSR 10-6.065, §(5)(C)(1) and §(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, §(5)(C)(1) and §(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.
- 3) 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 10-6.045 Open Burning Requirements

- 1) General Provisions. The open burning of tires, petroleum-based products, asbestos containing materials, and trade waste is prohibited, except as allowed below. Nothing in this rule may be construed as to allow open burning which causes or constitutes a public health hazard, nuisance, a hazard to vehicular or air traffic, nor which violates any other rule or statute.
- 2) Refer to the regulation for a complete list of allowances. The following is a listing of exceptions to the allowances:
 - a) Burning of household or domestic refuse. Burning of household or domestic refuse is limited to open burning on a residential premises having not more than four dwelling units, provided that the refuse originates on the same premises, with the following exceptions:
 - i) Kansas City metropolitan area. The open burning of household refuse must take place in an area zoned for agricultural purposes and outside that portion of the metropolitan area surrounded by the corporate limits of Kansas City and every contiguous municipality;
 - ii) Springfield-Greene County area. The open burning of household refuse must take place outside the corporate limits of Springfield and only within areas zoned A-1, Agricultural District;
 - iii) St. Joseph area. The open burning of household refuse must take place within an area zoned for agricultural purposes and outside that portion of the metropolitan area surrounded by the corporate limits of St. Joseph; and
 - iv) St. Louis metropolitan area. The open burning of household refuse is prohibited;
 - b) Yard waste, with the following exceptions:
 - i) Kansas City metropolitan area. The open burning of trees, tree leaves, brush or any other type of vegetation shall require an open burning permit;

- ii) Springfield-Greene County area. The City of Springfield requires an open burning permit for the open burning of trees, brush or any other type of vegetation. The City of Springfield prohibits the open burning of tree leaves;
 - iii) St. Joseph area. Within the corporate limits of St. Joseph, the open burning of trees, tree leaves, brush or any other type of vegetation grown on a residential property is allowed during the following calendar periods and time-of-day restrictions:
 - (1) A three (3)-week period within the period commencing the first day of March through April 30 and continuing for twenty-one (21) consecutive calendar days;
 - (2) A three (3)-week period within the period commencing the first day of October through November 30 and continuing for twenty-one (21) consecutive calendar days;
 - (3) The burning shall take place only between the daytime hours of 10:00 a.m. and 3:30 p.m.; and
 - (4) In each instance, the twenty-one (21)-day burning period shall be determined by the director of Public Health and Welfare of the City of St. Joseph for the region in which the City of St. Joseph is located provided, however, the burning period first shall receive the approval of the department director; and
 - iv) St. Louis metropolitan area. The open burning of trees, tree leaves, brush or any other type of vegetation is limited to the period beginning September 16 and ending April 14 of each calendar year and limited to a total base area not to exceed sixteen (16) square feet. Any open burning shall be conducted only between the hours of 10:00 a.m. and 4:00 p.m. and is limited to areas outside of incorporated municipalities;
- 3) Certain types of materials may be open burned provided an open burning permit is obtained from the director. The permit will specify the conditions and provisions of all open burning. The permit may be revoked if the owner or operator fails to comply with the conditions or any provisions of the permit.
- 4) Royal Oak Enterprises, Inc. - Salem Briquet Plant may be issued an annually renewable open burning permit for open burning provided that an air curtain destructor or incinerator is utilized and only tree trunks, tree limbs, vegetation or untreated wood waste are burned. Open burning shall occur at least two hundred (200) yards from the nearest occupied structure unless the owner or operator of the occupied structure provides a written waiver of this requirement. Any waiver shall accompany the open burning permit application. The permit may be revoked if Royal Oak Enterprises, Inc. - Salem Briquet Plant fails to comply with the provisions or any condition of the open burning permit.
- a) In a nonattainment area, as defined in 10 CSR 10-6.020, paragraph (2)(N)5., the director shall not issue a permit under this section unless the owner or operator can demonstrate to the satisfaction of the director that the emissions from the open burning of the specified material would be less than the emissions from any other waste management or disposal method.
- 5) Reporting and Record Keeping. New Source Performance Standard (NSPS) 40 CFR Part 60 Subpart CCCC establishes certain requirements for air curtain destructors or incinerators that burn wood trade waste. These requirements are established in 40 CFR 60.2245-60.2260. The provisions of 40 CFR Part 60 Subpart CCCC promulgated as of September 22, 2005 shall apply and are hereby incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol Street NW, Washington, DC 20401. To comply with NSPS 40 CFR 60.2245-60.2260, sources must conduct an annual Method 9 test. A copy of the annual Method 9 test results shall be submitted to the director.

- 6) Test Methods. The visible emissions from air pollution sources shall be evaluated as specified by 40 CFR Part 60, Appendix A–Test Methods, Method 9–Visual Determination of the Opacity of Emissions from Stationary Sources. The provisions of 40 CFR Part 60, Appendix A, Method 9 promulgated as of December 23, 1971, is incorporated by reference in this rule, as published by the U.S. Government Printing Office, 732 N Capitol Street NW, Washington, DC 20401.

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 fifteen minutes apart within the period of one hour.

This requirement is not federally enforceable.

**10 CSR 10-6.080 Emission Standards for Hazardous Air Pollutants and 40 CFR Part 61
Subpart M National Emission Standard for Asbestos**

- 1) The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.
- 2) The permittee shall conduct monitoring to demonstrate compliance with registration, certification, notification, and Abatement Procedures and Practices standards as specified in 40 CFR Part 61, Subpart M.

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

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

Title VI – 40 CFR Part 82 Protection of Stratospheric Ozone

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - b) The placement of the required warning statement must comply with the requirements pursuant to §82.108.

- c) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
- d) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
 - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping 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 fifty 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, §(5)(C)1 and §(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, §(5)(C)1 and §(6)(C)1.C General Record Keeping and Reporting Requirements

- 1) Record Keeping
 - a) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
 - b) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.
- 2) Reporting
 - a) All reports shall be submitted to the Air Pollution Control Program's Enforcement Section, P. O. Box 176, Jefferson City, Missouri 65102.
 - b) The permittee shall submit a report of all required monitoring by:
 - i) April 1st for monitoring which covers the January through December time period.
 - ii) Exception. Monitoring requirements which require reporting more frequently than annually shall report no later than thirty 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, record keeping, reporting, or any other requirements of the permit.
 - 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 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 annual 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 §(5)(C)1 and §(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(5)(C)1.A 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 under this rule.
- 6) Failure to comply with the limitations and conditions that qualify the installation for an Intermediate permit make the installation subject to the provisions of 10 CSR 10-6.065(6) and enforcement action for operating without a valid part 70 operating permit.

10 CSR 10-6.065(5)(C)1.C Reasonably Anticipated Operating Scenarios

None

10 CSR 10-6.065, §(5)(B)4; §(5)(C)1, §(6)(C)3.B; and §(6)(C)3.D; and §(5)(C)3 and §(6)(C)3.E.(I) – (III) and (V) – (VI) 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 June 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102. All deviations and exceedances must be included in the compliance certifications. The compliance certification shall include the following:
 - a) The identification of each term or condition of the permit that is the basis of the certification;
 - b) The current compliance status, as shown by monitoring data and other information reasonably available to the installation;
 - c) Whether compliance was continuous or intermittent;
 - d) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period; and
 - e) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

10 CSR 10-6.065, §(5)(C)1 and §(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(5)(C)5 Off-Permit Changes

- 1) Except as noted below, the permittee may make any change in its permitted installation's operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. 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 a Title I modification; Please Note: Changes at the installation which affect the emission limitation(s) classifying the installation as an intermediate source (add additional equipment to the record keeping requirements, increase the emissions above major source level) do not qualify for off-permit changes.
 - b) The permittee must provide written notice of the change to the Air Pollution Control Program's Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, as well as EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, no later than the next annual emissions report. 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; and
 - 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.

10 CSR 10-6.020(2)(R)12 Responsible Official

The application utilized in the preparation of this permit was signed by Jim Hayes, Area Vice President. 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 thirty 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 §(5)(E)4 and §(6)(E)6.A(III)(a)-(c) Reopening-Permit for Cause

This permit may be reopened for cause if:

- 1) The Missouri Department of Natural Resources (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,
- 2) 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,
- 3) The Missouri Department of Natural Resources or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

10 CSR 10-6.065 §(5)(E)1.A and §(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.

VI. Attachments

Attachments follow.

Attachment A2
Rolling 12-month PM₁₀ Emissions

Month	PM₁₀ Emissions (tons)	12-month Rolling Average Emissions of PM₁₀
January		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		

Note: In order to demonstrate compliance with Permit Condition PW001 the 12-month Rolling Average Emissions of PM₁₀ must be less than 100 tons.

Attachment E

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

Hour	Min.	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 _____

STATEMENT OF BASIS

Voluntary Limitations

In order to qualify for this Intermediate State Operating Permit, the permittee has accepted voluntary, federally enforceable emission limitations. Per 10 CSR 10-6.065(5)(C)1.A.(VI), if these limitations are exceeded, the installation immediately becomes subject to 10 CSR 10-6.065(6) and enforcement action for operating without a valid part 70 operating permit. It is the permittee's responsibility to monitor emission levels and apply for a part 70 operating permit far enough in advance to avoid this situation. This may mean applying more than eighteen months in advance of the exceedance, since it can take that long or longer to obtain a part 70 operating permit.

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) Intermediate Operating Permit Application, received January 11, 2007;
- 2) 2006 Emissions Inventory Questionnaire, received March 28, 2007; and
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.
- 4) Air Pollution Control Program Construction Permit 082001-026

Applicable Requirements Included in the Operating Permit but Not in the Application or Previous Operating Permits

In the operating permit application, the installation indicated they were not subject to the following regulation(s). However, in the review of the application, the agency has determined that the installation is subject to the following regulation(s) for the reasons stated.

None.

Other Air Regulations Determined Not to Apply to the Operating Permit

The Air Pollution Control Program (APCP) has determined that the following requirements are not 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.

Construction Permit Revisions

None.

New Source Performance Standards (NSPS) Applicability

Although installed in 2001, the three Webb burner units (5.0, 12.0, & 3.0 MMBtu) are direct fired units and not subject to 40 CFR 60 Subpart Dc. These units are listed under emission point EP-24 in the 2006 EIQ.

Maximum Available Control Technology (MACT) Applicability

None.

Other Regulatory Determinations

10 CSR 10-3.060, *Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating*

Indirect Heat Source Units		
Emission Point #	Unit Description	Heat Input
EP-26	Boiler - Superior #6971 - Starch Tank Heater (LPG 1974)	1 MMBtu
EP-27	Boiler - Ajax #77-29646 - Water Tower (Fuel Oil -1984)	0.84 MMBtu
	Total Indirect Heat Sources	1.84 MMBtu

LPG Particulate Matter Emission Factors :

$$\text{Propane (lbs/MMBtu)} = \left(\frac{0.4 \text{ lbs PM}}{1000 \text{ Gallon}} \right) \times \left(\frac{1000 \text{ Gallon}}{90.5 \text{ MMBtu}} \right) = 4.42 \times 10^{-03} \text{ lb/MMBtu}$$

$$\text{Butane (lbs/MMBtu)} = \left(\frac{0.5 \text{ lbs PM}}{1000 \text{ Gallon}} \right) \times \left(\frac{1000 \text{ Gallon}}{97.4 \text{ MMBtu}} \right) = 5.13 \times 10^{-03} \text{ lb/MMBtu}$$

(AP - 42 Table 1.5 - 1(10/96))

$$\text{Distillate Oil PM emission factor (lbs/MMBtu)} = \frac{2 \text{ lbs}/10^3 \text{ gal}}{140 \text{ MMBtu} / 10^3 \text{ gal}} = 0.014 \text{ lb/MMBtu}$$

(AP - 42 Table 1.3 - 1(9/98))

The applicable emission limit of §3.060(5)(A)1 is 0.6 pounds per MMBtu, and as demonstrated above, the expected emission rate from the units are several orders of magnitude lower than the limit. Therefore no provisions of §3.060 were placed in this permit for these units.

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

Facility-Wide Heat Source Units		
Emission Point #	Unit Description	Heat Input
EP-18	Briquet Dryer Line #1 (Aeroglidge) - Propane Emissions (1981)	10.5 MMBtu
EP-24	Briquet Dryer Line #2 - (Sawdust) Combustion Emissions (2001)	20 MMBtu
EP-26	Boiler - Superior #6971 - Starch Tank Heater (LPG 1974)	1 MMBtu
EP-27	Boiler - Ajax #77-29646 - Water Tower (Fuel Oil-1984)	0.84 MMBtu
	Total Indirect Heat Sources	1.84 MMBtu
	Total Direct Heat Sources	30.5 MMBtu

Emission Units EP-18 and EP-26 utilize Propane/LPG, and are exempt from this rule per §6.260(1)(A)(2).

For new sources (post 1971), §6.260(3)(A)(2) limits the emission into the atmosphere gases containing more than 500 ppmv of sulfur dioxide or more than 35 mg/m³ of sulfuric acid or sulfur trioxide or any combination of those gases.

- Briquet Dryer Line #2 - (Sawdust) Combustion Emissions (EP-24)

The SO₂ emission factor for wood residue combustion is 0.025 lb/MMBtu. (Source: US EPA document AP-42 Table 1.6-2)

$$\text{ppmv SO}_2 = \left(\frac{0.025 \text{ lb SO}_2}{\text{MMBtu}} \right) \times \left(\frac{\text{MMBtu}}{9,240 \text{ wscf}} \right) \times \left(\frac{\text{ppmw}}{1.660\text{E}^{-7} \text{ lb/scf}} \right) \times \left(\frac{0.45 \text{ ppmv}}{\text{ppmw}} \right) = 7.304 \text{ ppmv}$$

(40 CFR Part 60 Appendix A Method 19 Table 19 - 1)

As demonstrated above, it is highly unlikely that the SO₂ emissions resulting from sawdust combustion will exceed the 500 ppmv limit; therefore no provisions of §6.260 were placed in this permit for this unit. *(There are no emission factor(s) for SO₃/H₂SO₄ for wood residue combustion, as it is assumed that all sulfur oxides are converted into SO₂.)*

- Boiler - Ajax #77-29646 - Water Tower, Distillate oil (Fuel Oil #2) fired unit (EP-27);

$$\text{Distillate Oil SO}_2 \text{ emission factor (lbs / MMBtu)} = \frac{142(0.5) \text{ lbs}/10^3 \text{ gal}}{140 \text{ MMBtu} / 10^3 \text{ gal}} = 0.507 \text{ lb/MMBtu}$$

(AP - 42 Table 1.3 - 1(9/98))

$$\text{ppmv SO}_2 = \left(\frac{0.507 \text{ lb}}{\text{MMBtu}} \right) \times \left(\frac{\text{MMBtu}}{10,320 \text{ wscf}} \right) \times \left(\frac{\text{ppmw}}{1.660\text{E}^{-7} \text{ lb/scf}} \right) \times \left(\frac{0.45 \text{ ppmv}}{\text{ppmw}} \right) = 133.22 \text{ ppmv}$$

(Appendix A – 7 to Part 60)

$$\text{ppmv SO}_3 = \left(\frac{0.007 \text{ lb}}{\text{MMBtu}} \right) \times \left(\frac{\text{MMBtu}}{10,320 \text{ wscf}} \right) \times \left(\frac{1.602 \times 10^7 \text{ mg ft}^3}{\text{lb m}^3} \right) = 11.088 \text{ ppmv}$$

(Appendix A – 7 to Part 60)

As demonstrated above, it is highly unlikely that the SO₂ emissions resulting from fuel oil combustion will exceed the 500 ppmv limit, or the 35 mg/m³ limit of SO₃. Indirect sources greater than three hundred fifty thousand British thermal units (350,000 Btus) per hour are subject to an 8 lb/MMBtu limit per §6.260(3)(C)(2)(A). As demonstrated above using AP-42 emission factors, the SO₂ emissions resulting from fuel oil combustion is 0.507 pounds per MMBtu which is much lower than the limit. For these reasons, no provisions of §6.260 were placed in this permit for this unit.

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

The units listed in table SB-1 (below), have a PM emissions rate such that an exceedance of the opacity standard is highly unlikely. The units listed in the table labeled SB-2 have control device requirements placed on them from Construction Permit 12002-010. This requirement allows the consideration of controlled emissions in respect to this rule. Therefore no provisions of §6.220 were placed in this permit for these units.

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

Table SB-1: Emission Units With an PM Emission Rate of Less than 0.5 pounds per hour				
Emission Point #	Description	MHDR (tons/hr)	Emission Factor (lb/ton)	¹ Controlled Emissions (lb/hr)
EP-11	Convey Captured Fines from Cyclone - Conveyor #4	0.002	0.18	0.000
EP-15	Transfer Wet Briquet Material - Conveyor #7	6.5	0.1	0.163
EP-15	Transfer Wet Briquet Material - Conveyor #8	5.5	0.1	0.138
EP-15	Transfer Wet Briquet Material - Conveyor #21	5	0.1	0.125
EP-16	Briquet Screening – Fines	5.5	0.08	0.110
EP-17	Transfer Fines - Bucket Elevator	0.5	0.18	0.023
EP-18	Briquet Dryer Line #1(Aeroglide) - Process Emissions	5	0.02	0.100
EP-21	Transfer Wet Briquet Material - Conveyor #13	9	0.1	0.225
EP-21	Transfer Wet Briquet Material - Conveyor #14	10	0.1	0.250
EP-21	Transfer Wet Briquet Material - Conveyor #15	9	0.1	0.225
EP-21	Transfer Wet Briquet Material - Conveyor #16	9	0.1	0.225
EP-22	Briquet Screening – Fines	10	0.08	0.200
EP-23	Transfer Fines - Bucket Elevator	1	0.18	0.045
EP-24	Briquet Dryer Line #2 - Process Emissions	9	0.02	0.180

¹50% “Inherent” Control given for the moisture content in the process mixture.

Table SB-2: Emission Units with Control Devices						
Emission Point #	Description	MHDR (tons/hr)	Emission Factor (lb/ton)	Uncontrolled Emissions (lb/hr)	Controlled Emissions (lb/hr)	§6.400 Limit (lb/hr)
EP-24	Briquet Dryer Line #2 - Process Emissions	9	0.02	0.180	0.045	17.87
EP-37	Load Sawdust Hopper	2.5	1	2.500	0.025	7.58
EP-38	Belt Conveyor	2.5	0.36	0.900	0.009	7.58
EP-38	Belt Conveyor	2.5	0.36	0.900	0.009	7.58
EP-39	Hammermill	2.5	0.2	0.500	0.005	7.58
EP-40	Pneumatic Transfer to Silo	2.5	0.36	0.900	0.009	7.58
EP-41	Silo Loadout	1.25	0.36	0.450	0.005	4.76
EP-42	Screw Conveyor	1.25	0.36	0.450	0.005	4.76

The table labeled “SB-2” lists the units that have emissions flow through a control device. The Briquet Dryer Line #2 (EP-24), Silo Loadout (EP-41) and Screw Conveyor (EP-42) have an uncontrolled PM emissions rate less than 0.5 pounds per hour and are exempt from this rule per §6.400(1)(B)11.

All of the remaining units in table SB-2 have uncontrolled emissions rates above 0.5 pounds per hour and are subject to the provisions of this rule. Because of the conditions imposed by Construction Permit 12002-010 that ensure proper operation and maintenance of the control device (*See PERMIT CONDITIONS (EU0260 through EU0320) – 001*), the provisions of §6.400 are satisfied. Therefore no unit specific conditions were placed on these units regarding this rule.

All other PM sources are considered fugitive and are exempt from this rule by §6.400(1)(B)7.

The following unit was included in the application but is no longer in use by the facility.

Emission Point No.#	Description	MHDR
EP-31	Paper incinerator	0.02 tons/hr.

Future use of this unit will require a Construction Permit application submittal to the Air Pollution Control Program.

Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis

Any regulation which is not specifically listed in either the Operating Permit or in the above Statement of Basis does not appear, based on this review, to be an applicable requirement for this installation for one or more of the following reasons.

- 1) The specific pollutant regulated by that rule is not emitted by the installation.
- 2) The installation is not in the source category regulated by that rule.
- 3) The installation is not in the county or specific area that is regulated under the authority of that rule.
- 4) The installation does not contain the type of emission unit which is regulated by that rule.
- 5) The rule is only for administrative purposes.

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

Prepared by:

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