



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Southeast Regional Office • 20 Riverside Drive, Lakeville MA 02347 • 508-946-2700

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
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RICHARD K. SULLIVAN JR.
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KENNETH L. KIMMELL
Commissioner

November 23, 2011

Mr. Robert Andersson
General Manager Asphalt/Contracting Divisions
Aggregate Industries NE Region, Inc.
1715 Broadway
Saugus, MA 01906

RE: **CONDITIONAL PLAN APPROVAL**
Application for: BWP AQ 02
Non-Major Comprehensive Plan Approval
Source No.: 0211
Application No.: SE-11-020
Transmittal No.: X237964

AT: Aggregate Industries NE Region, Inc.
230 Great Western Road
South Dennis, MA 02660

Dear Mr. Andersson:

The Department of Environmental Protection (the Department or DEP), Bureau of Waste Prevention, has reviewed Non-Major Comprehensive Plan Application (NMCPA) No. SE-11-020 (Transmittal No. X237964) received on July 14, 2011, including supplemental information received October 6, October 19, and October, 20 2011. NMCPA No. SE-11-020 requests Departmental Approval to modify an existing asphalt batch mix plant and ancillary equipment at Aggregate Industries NE Region, Inc. (herein referenced to as "Facility" or "Aggregate Industries" or "Permittee"), 230 Great Western Road, South Dennis.

The application was submitted in accordance with section 7.02 Plan Approval and Emissions Limitations as contained in 310 CMR 7.00 "Air Pollution Control Regulations," adopted by the Department pursuant to the authority granted by Massachusetts General Laws, Chapter 111, Section 142 A-E and Chapter 21C, Sections 4 and 6.

The Department's review has been limited to air pollution regulation compliance and does not relieve you of the obligation to comply with all other permitting requirements.

The NMCPA was prepared by Engineering Technologies Group, Incorporated, over the seal and signature of David H. Mahoney, Massachusetts Registered Professional Engineer No. 46846.

FACILITY / PROJECT DESCRIPTION

Aggregate Industries operates an existing hot mix asphalt production plant, consisting of a rotary dryer equipped with a fuel burner, a hot oil heater, a pugmill, a fabric filter, and additional ancillary equipment. The rotary dryer burner was approved to burn Specification Used Oil Fuel, No. 2 Fuel Oil, and Natural Gas. The facility is permitted to recycle petroleum contaminated soil.

NMCPA No. SE-11-020 requests approval to modify the existing asphalt batch mix plant, achieve a production rate of 240 tons per hour of asphalt batch mix, and continue recycling petroleum contaminated soil.

Aggregate Industries plans to replace the existing rotary dryer with a newer and larger model, firing a low NOx burner, with natural gas or Ultra Low Sulfur Distillate (ULSD) Oil only. A new 11-foot diameter cyclone will be installed upstream of the existing baghouse to reduce loading to the fabric filter.

The existing hot oil heater may be fired with natural gas or ULSD Oil as the only approved fuel types. The existing pugmill will burn ULSD Oil only.

Upgraded equipment includes a batch tower (including hot screen, hot storage bins, aggregate and asphalt cement weighing, batch mixer), bucket elevator, and control center. New scavenger vent ductwork will be installed to collect fugitive dust emissions from the hot elevator, hot screen, and the weighing and mixing sections of the tower. These collections will be directed to a point between the new cyclone and the existing baghouse.

This approval establishes facility-wide “federally-enforceable” emission limitations for volatile organic compounds (VOCs), oxides of nitrogen (NOx), carbon monoxide (CO), particulate matter (PM/PM10/PM2.5), sulfur dioxide (SO₂), and Hazardous Air Pollutants (HAPs). HAPs are listed in the 1990 Clean Air Act Amendments Section 112(b). Ancillary equipment approved herein includes a hot oil asphalt tank heater, and a pugmill.

Unit No. 1 - Hot mix asphalt batch plant

The Barber-Greene batch plant model DC-65 is capable of producing a maximum of 240 tons per hour of bituminous concrete. The unit is equipped with a Gencor model Ultra II-85 “low-NOx” air atomized burner. The unit burns natural gas as the primary fuel at a maximum rate of 85,000 cubic feet per hour. As a secondary fuel, Ultra Low Sulfur Distillate (ULSD) oil, with a maximum sulfur content of 0.0015%, is burned at a maximum rate of 607 gallons per hour.

Exhaust gases from the batch plant dryer are vented through a cyclone, and then into a fiber filter baghouse. The primary collector is an ETG size 11, eleven-foot diameter cyclone. The secondary collector is a Cedarapids/Standard Havens, Size 23 baghouse with three hundred sixty-eight (368) 16-foot 6-inch high bags. The baghouse contains 9,947 square feet of 14-ounce Aramid fiber filter cloth, resulting in an air to cloth ratio of 5.13 to 1. The exhaust gases flow through the baghouse at a maximum rate of 51,076 actual cubic feet per minute (acfm) at a nominal temperature of 299°F. The cyclone and baghouse outlet particulate concentration shall not exceed 0.01 grains per dry standard cubic feet (dscf) of exhaust gas at the stack, producing an overall collection efficiency of 99.98%. The exhaust gases are vented through a steel stack, the top of which is 56 feet, 4 inches above ground level. The stack has inside exit dimensions of 29 inches by 38 inches, which provides a stack gas exit velocity of 109 feet per second when the plant is operated at 100% rated capacity.

The batch mix plant is subject to 40 CFR 60, Subpart I, "Standards of Performance for Hot Asphalt Facilities."

Unit No. 2 - Hot oil heater

Unit No. 2 is an American Heating Company hot oil heater equipped with a Powerflame Model C2-GO-15 fully automatic, forced draft burner with a maximum energy input rating of 2.1 MMBtu per hour. The unit can combust either natural gas at a maximum firing rate of 2,100 scfh or ULSD oil with a maximum sulfur content of 0.0015% at a firing rate of 15 gallons per hour. The exhaust from Unit No. 2 is vented through an 11-inch diameter steel stack, the top of which is 14 feet above ground level.

Unit No. 3 - Pugmill

Unit No. 3 is a John Deere portable pugmill model 6068gf1503. This unit can combust ULSD oil with a maximum sulfur content of 0.0015 percent at a maximum firing rate of 5.6 gallons per hour as the only approved fuel.

Petroleum Contaminated Soil (PCS) processing

Aggregate Industries will be able to process soil contaminated with gasoline or oil with gasoline in Unit No. 1 or Unit No. 3.

On January 15, 2002, the Department approved Aggregate Industries' request (Transmittal No. W022910) to renew its existing permit (No. S-01-027) to recycle petroleum contaminated soil ("PCS"), pursuant to 310 CMR 30.200, Hazardous Waste Management Regulations, subject to the conditions contained therein.

The Department has reviewed the emissions dispersion modeling report that was included as part of NMCPA No. SE-11-020. The AERMOD emissions dispersion modeling report demonstrates that the emission units, when operated in accordance with this approval, will not cause an exceedance of

the National Ambient Air Quality Standards (NAAQS) as contained in 40 CFR Part 50 et seq, and state air quality standards for SO₂, CO, PM_{2.5}, PM₁₀, and nitrogen dioxide.

The Department is of the opinion that the application submittal is in conformance with current air pollution control engineering practices, and hereby grants Conditional Approval of NMCPA No. SE-11-020 subject to the following provisions:

A. EQUIPMENT DESCRIPTION

The “Equipment and Design Schedule” contained in Attachment No. 1 identifies the approved equipment.

B. OPERATIONAL LIMITS

Unit No. 1 - Hot mix asphalt batch plant.

1. Fuel oil (ULSD Oil) use for the hot mix asphalt batch plant shall not exceed:
 - a. 150,000 gallons per month.
 - b. 1,200,000 gallons per consecutive 12-month period.
2. Natural gas use for the hot mix asphalt batch plant shall not exceed:
 - a. 21.0 MMscf per month.
 - b. 168.0 MMscf per consecutive 12-month period.
3. Combined fuel usage for the hot mix asphalt batch plant shall not exceed:
 - a. 2.1×10^{10} Btu per month.
 - b. 1.68×10^{11} Btu per consecutive 12-month period.

Unit No. 2 - Hot Oil Heater (HOH).

4. Fuel oil (ULSD Oil) use for the hot oil heater shall not exceed:
 - a. 4,688 gallons per month.
 - b. 37,500 gallons per consecutive 12-month period.
5. Natural gas use for the hot oil heater shall not exceed:
 - a. 0.66 MMscf per month.
 - b. 5.25 MMscf per consecutive 12-month period.
6. Combined fuel usage for the hot oil heater shall not exceed:
 - a. 6.56×10^8 Btu per month.
 - b. 5.25×10^9 Btu per consecutive 12-month period.

Unit No. 3 - Pugmill.

7. Fuel oil (ULSD Oil) use for the pugmill shall not exceed:
 - a. 1,600 gallons per month.
 - b. 6,300 gallons per consecutive 12-month period.

Petroleum Contaminates Soil (PCS) Processing.

No operational (fuel) limits.

8. Aggregate Industries shall maintain 99.98% overall particulate control efficiency on the cyclone / baghouse.
9. The sulfur content of ULSD Oil used at this facility shall not exceed 0.0015 percent by weight.

C. PRODUCTION LIMITS

Unit No. 1 - Hot mix asphalt batch plant.

1. Aggregate Industries shall limit the production of hot mix asphalt as follows:
 - a. 240 tons per hour.
 - b. 75,000 tons per month.
 - c. 600,000 tons per consecutive 12-month period.

Unit No. 2 - Hot oil heater.

No production limits.

Unit No. 3 – Pugmill.

No production limits.

Petroleum Contaminated Soil (PCS) Processing.

2. Aggregate Industries shall not exceed the following PCS processing restrictions¹:
 - a. 6,250 tons per month of PCS contaminated with gasoline.
 - b. 50,000 tons per consecutive 12-month period of PCS contaminated with gasoline².
 - c. 12,500 tons per month of PCS contaminated with oil.
 - d. 100,000 tons per consecutive 12-month period of PCS contaminated with oil².

- Notes:
1. Quantity of PCS processed shall be the amount of contaminated soil received at the facility.
 2. Provisos C.2.b. and C.2.d. above are consistent with the existing hazardous waste permit as described in page 3 of this Approval. Also see Special Condition G.2. contained in this Approval.

D. EMISSION LIMITS

1. The Aggregate Industries facility shall not exceed the emission limitations contained in this approval, including the emission limits contained in Attachments Nos. 2 and 3.
2. The PM/PM₁₀ concentration of the exhaust on Unit 1 shall not exceed 0.01 grains per dry standard cubic foot (gr/dscf).
3. The PM_{2.5} concentration of the exhaust on Unit 1 shall not exceed 0.007 grains per dry standard cubic foot (gr/dscf).
4. Unit No. 1 shall be operated so that visible emissions from the stack will be less than or equal to five (5) percent opacity. The only exception to this restriction will be for a period, or an aggregate period of time not to exceed two (2) minutes during any one hour when visible emissions may have opacity of up to twenty (20) percent. At no time shall visible emissions from the plant exceed twenty (20) percent opacity, exclusive of uncombined water vapor.

E. TESTING, MONITORING, AND RECORDKEEPING REQUIREMENTS

1. Aggregate Industries shall conduct emissions compliance testing on the new Unit No. 1 batch plant to demonstrate compliance with the short term emission limits contained in Attachment 2, the opacity limit contained in Provision D.4. of this Conditional Approval, and the applicable limits contained in 40 CFR 60 Subpart I. The ability of the facility to achieve and maintain particulate emissions and opacity at or below the limits stated in this Conditional Approval shall be demonstrated to the Department within sixty (60) days after achieving the maximum production rate but no later than 180 days after initial start-up. Testing shall be conducted in accordance with requirements and procedures set forth by appropriate EPA Reference Test Methods, 40 CFR 60 Subpart A and Subpart I, Air Pollution Control Regulations, 310 CMR 7.00, Section 7.13 and this Conditional Approval. The dates and times for conducting the emission compliance tests shall be coordinated with Department personnel of this Office, for a mutually agreed upon schedule for testing.
2. A written pretest protocol must be submitted to this Office for written Department approval at least 30 days prior to the actual test. The pre-test protocol shall include, but not be limited to, a description of: the emission compliance testing program proposed, applicable emission limits for which testing and demonstration of compliance is required, sampling point locations, sampling equipment, analytical procedures, proposed test methods, the proposed operating conditions for the required testing and identity of the independent third party testing company.
3. A final emission compliance test results report shall be submitted to this Office within 30 days after the completion of required compliance testing. The final emission compliance test report shall include, but not be limited to, a description of: the emission compliance

testing program conducted, applicable emission limits for which testing was required and a summary of test results demonstrating compliance and/or noncompliance with applicable limits, sampling point locations, sampling equipment, analytical procedures, actual test methods used, the actual operating conditions for which the testing was conducted and identity of the independent third party testing company.

4. Prior to the startup of the operational season, Aggregate Industries shall conduct a “Visolite” leak detection test on the Unit No.1 baghouse. Additional tests shall be performed, as needed, to locate leaks, bag failures, or problems with the operation of the baghouse, such as excessive stack gas opacity. Records shall be maintained documenting the results of the “Visolite” test.
5. Aggregate Industries shall maintain baghouse maintenance reports. Each report shall specify the date of the Visolite test, the number and location of filter elements replaced, the overall condition of the bag house, the date the unit was inspected, and the date the work was completed.
6. Aggregate Industries shall maintain detailed records on a monthly and consecutive 12-month period basis. The records and supporting information shall include, but not necessarily be limited to: business sales/purchase receipts, automated and non-automated tracking system(s) reports/logs for operational criteria (e.g. raw materials used/processed, fuel burned etc.), production criteria (e.g. asphalt product made), and related field data measurements (such as fuel tank soundings and/or meter readings, etc.). The above records, in addition to any other credible evidence, shall clearly demonstrate compliance with the operational, production and emission limitations contained in this approval.
7. At a minimum of once per workday, a designated employee familiar with facility operations and air pollution matters relating to this approval, shall conduct an inspection of all air pollution control equipment and related operations and activities (e.g. potential fugitive dust/particulate emissions sources, etc.). The facility shall establish and maintain a recordkeeping log that shall, at a minimum, include a report of conditions noted by the observer and any corrective actions taken. The report shall also note the date, time, equipment, and activities observed. In addition, the plant operator shall routinely observe the discharge stacks during operation of the subject equipment.
8. Aggregate Industries shall keep a repair log of maintenance performed on Units No. 1 and No. 2 and associated air pollution control equipment.
9. Records / logs shall be made available for review by Department and / or USEPA personnel at all times and maintained onsite for at least five (5) years.
10. For purposes of this approval, the heat content of the fuels used shall be as follows:
 - a. ULSD oil: 140,000 Btu per gallon
 - b. Natural gas: 1,000 Btu per cubic foot

F. NOTIFICATIONS AND REPORTING

1. Aggregate Industries shall report the resulting emissions from the facility approved herein on subsequent source registrations as required by 310 CMR 7.12.
2. All notifications and reporting required by this Conditional Approval shall be made to the attention of:

Department of Environmental Protection
Bureau of Waste Prevention
20 Riverside Drive
Lakeville, Massachusetts 02347

Attn: Gregg Hunt, Section Chief
Compliance and Enforcement Section

Telephone: (508) 946-2878
Fax: (508) 947-6557
(508) 946-2865

3. The Department's Compliance and Enforcement Chief for the Bureau of Waste Prevention at this Office must be notified by telephone or fax as soon as possible after the occurrence of any upsets or malfunctions to the facility equipment or monitoring equipment which result in an excess emission to the air and/or a condition of air pollution.

G. SPECIAL CONDITIONS

1. This approval establishes authorization for Aggregate Industries to construct and operate the approved equipment. The facility shall be constructed and operated in strict accordance with this approval. Should there be any differences between the application and this approval, this approval letter shall govern.
2. With regard to Aggregate Industries' intent to continue to process Petroleum Contaminated Soil, Aggregate Industries shall comply with any and all approvals and/or permits, including but not necessarily limited to 310 CMR 30.000 Massachusetts Hazardous Waste Regulations.

3. This approval supersedes the following previous approval in its entirety:
- Conditional Approval 4P95167, Transmittal No. 115845, dated July 31, 1996, issued to Bardon-Trimount, Inc.

The above listed approval shall be deemed null and void.

4. The facility approved herein shall be operated in accordance with all limits and/or restrictions (i.e., fuel usage restrictions, emission limitations, operating and/or production limitations, etc.) contained in this Conditional Approval. In addition, the facility shall be operated in strict accordance with the conditions, provisions and/or descriptions contained in this Conditional Approval, which include, but are not limited to: standard operating and maintenance procedures, preventative/mitigation measures for air pollution, recordkeeping, reporting, notifications, testing requirements, etc.
5. Aggregate Industries shall take any and all measures necessary to ensure the facility operates in accordance with Department Regulation 310 CMR 7.10 "Noise" and Department Policy DAQC 90-001 at all times.
6. Aggregate Industries shall operate the facility in a manner to prevent the occurrence of dust or odor conditions which cause or contribute to a condition of air pollution as defined in 310 CMR 7.01 and 7.09.
7. Aggregate Industries shall minimize dust, odor and / or noise impacts from the facility through standard operating and maintenance procedures. These procedures include preventative and/or mitigation measures, such as but not limited to, construction of earthen berms, sound attenuation devices/measures, periodic sweeping / cleaning / washing / wetting of truck / vehicle traffic and equipment operational areas, including raw material and/or finished product storage and / or transfer areas, etc. with water (or other environmentally acceptable dust suppressant) spray. Trucks, vehicles, and/or equipment used at the facility shall be operated in a manner that minimizes the generation of fugitive emissions. Trucks used for the transport of raw materials and/or asphalt product shall be covered upon entering and exiting the facility, and limit on-site speeds to no more than 10 miles per hour. The Department reserves the future right to require additional dust, odor, and/or noise minimization measures to be implemented, if deemed necessary. Any and all actions necessary (including shutdown) to abate a condition of air pollution due to the emission of odor, dust, or noise from the facility shall be taken if such a condition exists.
8. Aggregate Industries shall operate the subject exhaust stacks in a manner that is consistent with good air pollution control engineering practice and that discharge so as to not cause or contribute to a condition of air pollution. Exhaust stacks shall be configured to discharge the gasses vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted gases, included but not limited to rain protection devices, "shanty caps", and "egg beaters". Any emission impacts of exhaust stacks upon sensitive receptors including, but not limited to, people, windows and doors that open, and buildings

fresh air intakes shall be minimized by employing good air pollution control engineering practices.

9. Aggregate Industries shall have readily accessible on-site as spares, at all times, the minimum number of filter elements, cartridges, or bags for the Unit No. 1's baghouse, as recommended by manufacturer specifications.
10. Aggregate Industries shall provide lighting sufficient to accommodate routine night maintenance of all air pollution control equipment.
11. A copy of this Conditional Approval shall be made available and readily accessible at the facility.

H. GENERAL CONDITIONS

The Permittee is subject to, and shall comply with, the following general conditions:

1. Pursuant to 310 CMR 7.01, 7.02, 7.09 and 7.10, should any nuisance condition(s), including but not limited to smoke, dust, odor or noise, occur as the result of the operation of the Facility, then the Permittee shall immediately take appropriate steps including shutdown, if necessary, to abate said nuisance condition(s).
2. If asbestos remediation/removal should be required as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that all removal/remediation of asbestos shall be done in accordance with 310 CMR 7.15 in its entirety and 310 CMR 4.00. If construction or demolition which is subject to 310 CMR 7.09(2) should also be required, then the Permittee shall comply with the notification requirement contained therein.
3. Pursuant to 310 CMR 7.01(2)(b) and 7.02(7)(b), the Permittee shall allow MassDEP and / or USEPA personnel access to the Facility, buildings, and all pertinent records for the purpose of making inspections and surveys, collecting samples, obtaining data, and reviewing records.
4. This Conditional Plan Approval does not negate the responsibility of the Permittee to comply with any other applicable Federal, State, or local regulations now or in the future.
5. Should there be any differences between the Application and this Conditional Plan Approval, the Conditional Plan Approval shall govern.
6. Failure by the Permittee to comply with any of the above stated conditions will constitute a violation of the 310 CMR 7.00 et seq, and subject the Permittee to enforcement action as provided by law.

7. Pursuant to 310 CMR 7.02(3)(k), MassDEP may revoke this Conditional Plan Approval if the construction work is not commenced within two years from the date of issuance of this Conditional Plan Approval, or if the construction work is suspended for one year or more.
8. This Conditional Plan Approval may be suspended, modified, or revoked by MassDEP if MassDEP determines that any condition or part of this Plan Approval is being violated.
9. This Conditional Plan Approval may be modified or amended when in the opinion of MassDEP such is necessary or appropriate to clarify the Conditional Plan Approval conditions or after consideration of a written request by the Permittee to amend the Conditional Plan Approval conditions.
10. All Conditional Plan Approvals issued under 310 CMR 7.02 prior to the date of this Conditional Plan Approval shall remain in effect unless specifically changed by this Plan Conditional Approval. The Facility shall not exceed the emission limits and comply with approved conditions specified in the applicable Conditional Plan Approval(s) unless specifically altered by this Conditional Plan Approval.
11. The Permittee shall conduct emission testing, if requested by MassDEP, in accordance with USEPA Reference Test Methods and regulation 310 CMR 7.13. If required, a pretest protocol report shall be submitted to MassDEP at least 30 days prior to emission testing and the final test results report shall be submitted within 45 days after emission testing.
12. The Permittee shall comply with all conditions contained in this Conditional Plan Approval. Should there be any differences between provisions contained in the General Conditions and provisions contained elsewhere in the Conditional Plan Approval, the latter shall govern.

The enforceable conditions contained herein, establish the federally enforceable status of this **CONDITIONAL APPROVAL**. The Department reserves the right to require changes in the standard operating and/or maintenance procedures and record keeping systems, and to require additional process monitoring if it is determined necessary by the Department to ensure continuous compliance with the Air Quality Control Regulations contained in 310 CMR 7.00.

This Approval is an action of the Department; you have a limited right to appeal. Please refer to the enclosed "APPEAL" information.

Enclosed is one stamped approved copy of the application submittal.

Should you have any questions pertaining to this **CONDITIONAL APPROVAL**, please contact Dan Kamieniecki at the Regional Office at (508) 946-2717.

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

John K. Winkler, Chief
Permit Section
Bureau of Waste Prevention

Attachments: Attachment No. 1 - Equipment & Design Schedule
Attachments Nos. 2 and 3 - Emission Limitations
Appeal of Approval

ecc: J. Winkler, DEP-SERO
L. Carlson, DEP-SERO
L. Black, DEP-SERO
Y. Tian, DEP-Boston
Dennis Board of Health
Dennis Fire Department
C. Gibbons, ETG (Application Preparer)

ATTACHMENT NO. 1

AGGREGATE INDUSTRIES INC. SOUTH DENNIS

EQUIPMENT & DESIGN SCHEDULE

Unit No. 1 - Hot asphalt batch mix plant.

Manufacturer	<i>Barber Greene (or equivalent)</i>
Model	<i>DC-65</i>
Max Rated Asphalt Production Capacity	<i>240 tons per hour</i>
Max Heat Rate Input (Btu/hr)	<i>85 MMBtu per hour</i>
Primary fuel	<i>Natural gas</i>
Secondary fuel	<i>Ultra Low Sulfur Distillate Oil (0.0015% Sulfur)</i>
Burner Manufacturer	<i>Gencor</i>
Burner Model	<i>Ultra II - 85</i>
Stack Height (feet above ground level)	<i>56' 4"</i>
Stack Inside Exit Dimensions (inches)	<i>29.06 x 38.38</i>
Stack Construction	<i>Steel</i>

Pollution Control Equipment

Cyclone Manufacturer	<i>ETG</i>
Cyclone Model	<i>Size 11</i>
Cyclone Outside Diameter	<i>11 feet</i>
Baghouse Manufacturer	<i>Cedarapids/Standard Havens (or equivalent)</i>
Baghouse Model	<i>Size 23</i>
No. of Baghouse Compartments	<i>1</i>
No. of Baghouse Bags	<i>368</i>
Total Filter Area (ft ²)	<i>9,947</i>
Baghouse Bag Material	<i>Aramid Fiber</i>
Air to Cloth Ratio:	<i>5.13 to 1</i>

Unit No. 2 - Hot Oil Asphalt Tank Heater

Manufacturer	<i>American Heating Company</i>
Burner Manufacturer	<i>Powerflame</i>
Burner Model	<i>C2-GO-15</i>
Max Heat Rate Input	<i>2.1 MMBtu per hour</i>
Primary fuel	<i>Natural gas</i>
Secondary fuel	<i>Ultra Low Sulfur Distillate Oil (0.0015% Sulfur)</i>
Stack Height (feet above ground level)	<i>14</i>
Stack Construction	<i>Steel</i>

Unit No. 3 – Portable Pugmill

Manufacturer	<i>John Deere</i>
Model	<i>6068gf1503</i>
Max Heat Rate Input	<i>786,600 Btu per hour</i>

Fuel

Ultra Low Sulfur Distillate Oil (0.0015% Sulfur)

ATTACHMENT NO. 2

AGGREGATE INDUSTRIES INC. SOUTH DENNIS

EMISSION LIMITATIONS

EMISSION FACTORS ^{1,2}										
Unit No.	Fuel	Emission Units	SO ₂	NO _x	CO	VOC	PM	PM10	PM2.5	Total HAPs ³
1	ULSD Oil	lb/MMBtu	0.0017	0.16	0.30					
		lb/ton of product				0.0082				See Note 3
		gr/dscf		0.122	0.229		0.01	0.01	0.007	
	Natural Gas	lb/MMBtu	0.0006	0.084	0.25					
		lb/ton of product				0.0082				See Note 3
		gr/dscf		0.068	0.201		0.01	0.01	0.007	
2	ULSD Oil	lb/MMBtu	0.0017	0.1429	0.0357	0.0014	0.014	0.0071	0.0018	See Note 3
	Natural Gas	lb/MMBtu	0.0006	0.14	0.035	0.0028	0.0019	0.0019	0.0019	See Note 3
3	ULSD Oil	lb/MMBtu	0.0017	3.15	0.97	0.35	0.10	0.10	0.10	See Note 3
PCS proces-sing ⁴	Gasoline Contam.	Parts per million total				500				
	Oil Contam. ⁵	Parts per million total				50,000				

- Notes:
1. The worst-case value is used to establish monthly and annual potential emissions for the corresponding pollutant.
 2. Sulfur dioxide emissions of 0.0017 lbs per MMBtu based on the use of ULSD oil with a sulfur content not to exceed 0.0015 percent by weight.
 3. HAPs emission factors as specified in the Application.
 4. For PCS processing, the current acceptance criteria contained in the recycling permit is equal to the emission factor. See Facility Description on pages 2 and 3 of this Conditional Approval.
 5. Emission factor for Oil Contaminated PCS is 50,000 parts per million total Petroleum Hydrocarbons (TPH).

ATTACHMENT NO. 3

AGGREGATE INDUSTRIES INC. SOUTH DENNIS

EMISSION LIMITATIONS

Equipment /Process	TONS PER MONTH ¹							
	NOx	SO2	CO	VOC	PM	PM10	PM2.5	HAPs
Unit 1	1.68	0.02	3.15	0.31	0.97	0.97	0.87	0.29
Unit 2	0.05	nominal	0.01	nominal	nominal	nominal	nominal	nominal
Unit 3	0.35	nominal	0.11	0.04	0.01	0.01	0.01	nominal
PCS Processing				1.58				
Total	2.08	0.02	3.27	1.93	0.99	0.98	0.89	0.29

Equipment /Process	TONS PER YEAR ^{1,2}							
	NOx	SO2	CO	VOC	PM	PM10	PM2.5	HAPs
Unit 1	13.44	0.14	25.20	2.46	7.79	7.79	6.99	2.29
Unit 2	0.38	nominal	0.09	0.01	0.04	0.02	nominal	nominal
Unit 3	1.39	nominal	0.43	0.15	0.04	0.04	0.04	nominal
PCS Processing				12.60				
Total	15.21	0.14	25.72	15.22	7.87	7.85	7.04	2.29

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- Notes: 1. Emission limitations are based on the fuel or material that results in “worst-case” emissions.
 2. Tons per year are based on a consecutive 12-month period.

Key: NOx – oxides of nitrogen
 SO2 – sulfur dioxide
 CO – carbon monoxide
 VOC – volatile organic compounds
 PM – total particulate matter
 PM10 – particulate matter 10 microns or less
 PM2.5 – particulate matter 2.5 microns or less
 HAPs – hazardous air pollutants as listed in the 1990 Clean Air Act Amendments Section 112(b)

APPEAL OF APPROVAL

This Approval is an action of the Department. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of this Approval.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts which are the grounds for the request, and the relief sought. Additionally, the request must state why the Approval is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
P.O. Box 4062
Boston, MA 02211

The request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below.

The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

The Department may waive the adjudicatory hearing filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.